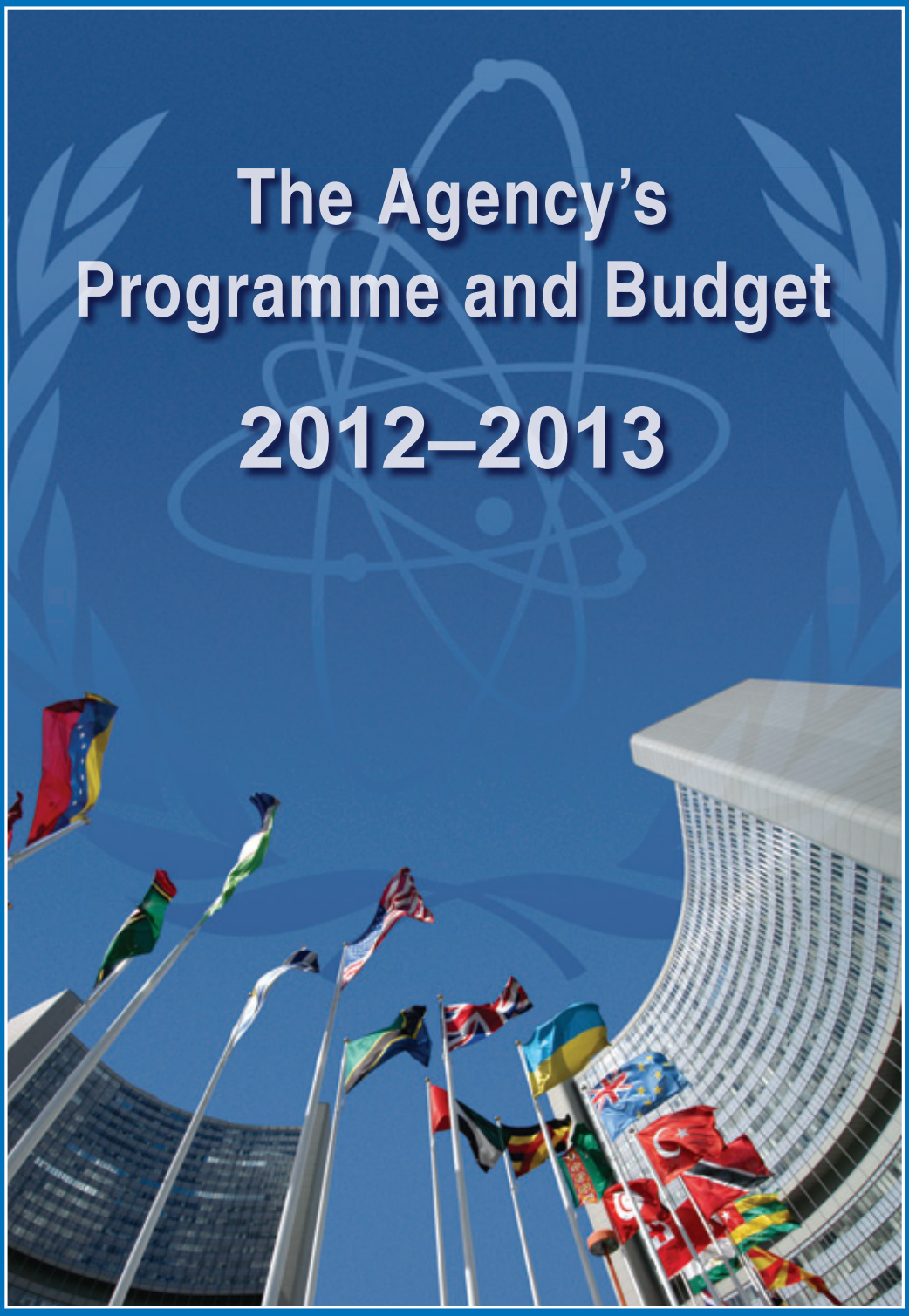
GC(55)/5

The Agency's Programme and Budget 2012–2013

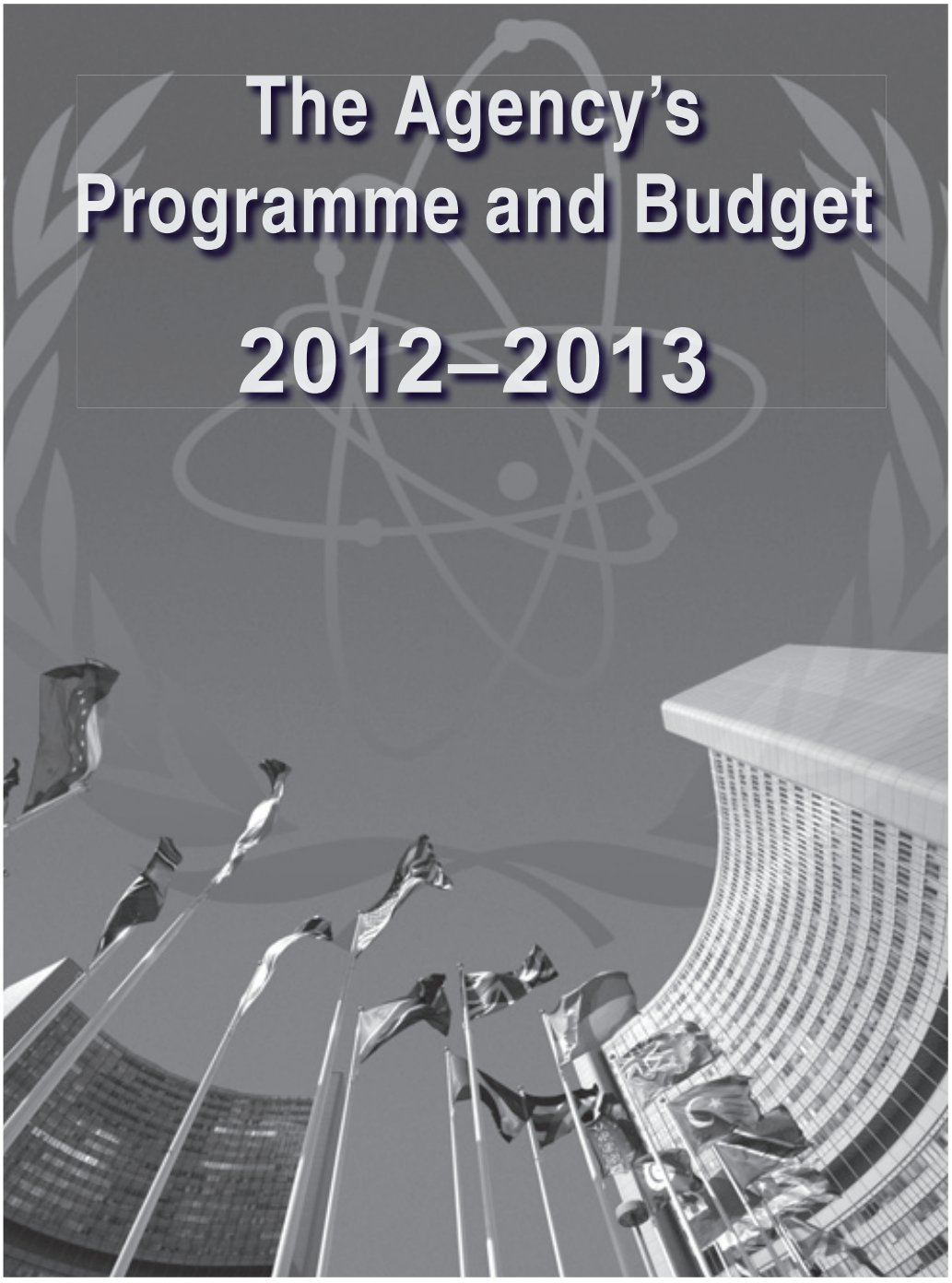


IAEA
International Atomic Energy Agency

The document is accessible electronically on the IAEA's website at:

www.iaea.org

The Agency's Programme and Budget 2012–2013



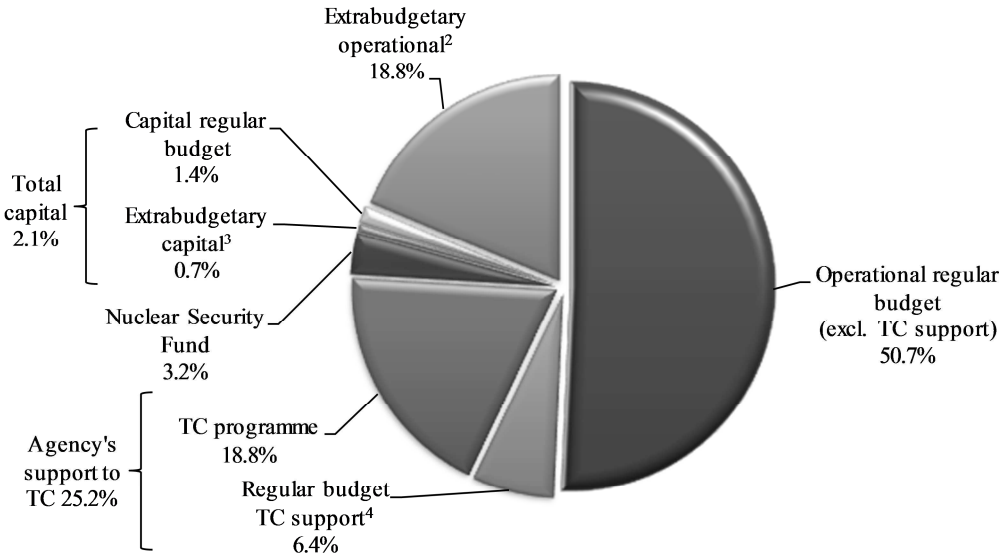
GC(55)/5

Printed by the
International Atomic Energy Agency
August 2011

IAEA
International Atomic Energy Agency

Contents

2012–2013[1] Total Resources at a Glance



- €331 million per year for both 2012 and 2013 for *operational regular budget* activities. This portion of the regular budget represents (before a price adjustment of 1.1%) an increase of 2.2% in 2012 over 2011 and no increase in 2013 over 2012.
- €8 million per year for both 2012 and 2013 for the *capital regular budget,* to fund major infrastructure investments.
- €116 million in 2012 and €110 million in 2013 for *extrabudgetary* activities (operational and capital), including €75 million for low enriched uranium (LEU) bank per year for both 2012 and 2013.
- €19 million per year for both 2012 and 2013 for the *Nuclear Security Fund* (NSF).
- €109 million per year for both 2012 and 2013 for the *technical cooperation programme*.

Operational regular budget by major programme		2012 at 2012 prices	2013 prelim. estimates at 2012 prices	Total for biennium
Major Programmes	1. Nuclear Power, Fuel Cycle and Nuclear Science	33 724 547	33 763 134	67 487 681
	2. Nuclear Techniques for Development and Environmental Protection	38 664 074	38 668 640	77 332 714
	3. Nuclear Safety and Security	33 998 536	33 998 152	67 996 688
	4. Nuclear Verification	128 780 549	128 784 718	257 565 267
	5. Policy, Management and Administration Services	75 354 949	75 314 486	150 669 435
	6. Management of Technical Cooperation for Development	20 389 905	20 389 113	40 779 018
Operational regular budget		330 912 560	330 918 243	661 830 803
Capital regular budget		8 153 455	8 178 556	16 332 011
Total Agency programmes		**339 066 015**	**339 096 799**	**678 162 814**
Extrabudgetary operational [2]		108 449 745	109 315 945	217 765 690
Extrabudgetary capital [3]		7 497 598	243 535	7 741 133
Nuclear Security Fund		18 688 345	18 678 345	37 366 690
Technical cooperation programme		108 610 000	108 610 000	217 220 000
Total resources [5]		**582 311 703**	**575 944 624**	**1 158 256 327**

[1] Figures for 2013 are preliminary estimates.
[2] Includes €75 million per year for both 2012 and 2013 for LEU bank. Excludes Extrabudgetary capital and the Nuclear Security Fund.
[3] Includes pledged resources towards investments reflected in the approved Major Capital Investment Plan (MCIP).
[4] Estimate based on the time earmarked by applicable staff from Major Programmes 1, 2, 3 and 5, and all of MP6 to support the technical cooperation programme (TCP).
[5] Excludes unfunded CAURBs (see para. 32) of €18.5 million and capital unfunded of €48.7 million for the biennium.

PART I

OVERVIEW

INTRODUCTION

1. Demands for the Agency's services are growing at a rate beyond what can realistically be funded through the regular budget. As a result, the Agency is increasingly dependent on extrabudgetary contributions, which are unpredictable, often tied to restrictive conditions and, thus, involve some risk for the programme.

Expanding needs

- An increasing number of States are contemplating the establishment or enhancement of safe nuclear power programmes and look to the Agency for advice and assistance.
- Basic human needs in developing countries regarding health, water and food — areas where nuclear techniques are of proven benefit — increasingly call for Agency support.
- The Agency's nuclear security activities remain extensively reliant on uncertain extrabudgetary contributions.
- With increases in the number of facilities and nuclear material the Agency's verification responsibilities continue to grow.
- The interrelationship between complex global issues and the development needs of Member States, to be addressed by the Agency in a coordinated manner, is increasing.
- The Agency's considerable infrastructure requirements have begun to be addressed, but much remains underfunded. Despite the establishment of a Major Capital Investment mechanism, there is a lack of funding to it that prevents fund accumulation. Meeting capital needs is therefore contingent upon the Agency's receiving adequate extrabudgetary contributions.

Funding constraints

2. Despite its unique mandate Agency funding has been constrained for years by zero or near zero growth budgets. This situation is only compounded by the challenges that Member States face due to the overall economic framework.

Funding envelope[6]

3. In view of the above, the Director General proposed what he referred to as a *reasonable* increase for the coming biennium. Following extensive analysis and consultations with Member States, the Board of Governors agreed to recommend to the General Conference a regular budget for 2012 of €335.4 million (prior to a 1.1% price increase). This represents a real increase of €6.9 million or 2.1% above the 2011 level. The operational regular budget and the capital regular budget are estimated at €327.4 million and €8.0 million, respectively, for each year of the budget biennium. Therefore, the budget for 2013 will be retained at zero real growth compared to 2012.

PROGRAMME AND BUDGET PREPARATION AND STRATEGY

Guiding principles

4. In the formulation of these programme and budget proposals for 2012–2013, the overarching dilemma posed by changing and expanding priorities, on the one hand, and resource limitations, on the other, was fully recognized, as was the need to strike an appropriate *balance* among the Agency's activities. Member States' guidance that the 2011 Budget level would be the reference for budget discussions for the biennium 2012–2013 was also taken into account.[7]

5. To this end, these budget proposals were prepared in the light of the need to limit any budgetary increase to an absolute minimum. The following principles guided budget preparation:

- Prioritization of programme activities;
- Identification and application of efficiencies.

[6] All figures prior to price adjustment.
[7] GC(54)/2, paragraph 53.

6. A two-stage budget preparation process was adopted. The first stage involved the setting of budget ceilings at 95% of the 2011 budget (at 2011 prices) for all major programmes (MPs). The aim was to identify and implement efficiencies, wherever possible, and to identify and discontinue or reduce low priority activities.

7. In the second stage of the process, final budget ceilings were set for each MP to provide funding for new or expanding high priority activities. The Medium Term Strategy (MTS) for 2012–2017[8] prepared by Member States provides the roadmap for these programme and budget proposals.

8. Proposals were carefully reviewed for compliance with the process and to fully assess their programmatic merits.

9. Following the Fukushima Daiichi nuclear power plant accident in Japan in March 2011, the Director General proposed further adjustments to the 2012–2013 programme and budget as follows:[9]

- In Major Programme 3 (Nuclear Safety and Security) resources were increased for "Safety of Nuclear Installations" and "Waste and Environmental Safety". A corresponding reduction was effected in Major Programme 5 by decreasing travel and other items of expenditure.
- Internal re-prioritization was effected within Major Programme 1 (Nuclear Power, Fuel Cycle and Nuclear Science) to increase resources for, inter alia, spent fuel accidents, severe accident management and robust post-accident monitoring.

PRIORITIZATION

10. Section I.2 "Major Programmes at a Glance" highlights the proposed reorientation of funding to priorities at the programme, subprogramme and project levels in 2012 compared to 2011.

11. Regular budget funding for major capital investments is limited to €8.0 million a year (prior to price adjustment) for both years of the biennium — the level of the capital budget approved for 2011.

EFFICIENCIES

Agency-wide Information System for Programme Support (AIPS)

12. As scheduled, in January 2011 Plateau 1 of the Agency's enterprise resource planning system (known as AIPS) went live. This resulted in the retirement of a number of existing legacy information systems and represented a major milestone in terms of the Agency's management reform.

13. With the automation and business process re-engineering induced by AIPS, clerical and secretarial tasks will be reduced, clearances will follow the *workflow* of the software, the Agency will operate in an increasingly paperless environment, and it is envisaged that a broader number of services will be online both in-house and for Member States. Information Technology (IT) support of several decentralized legacy systems will be discontinued.

14. Although the full benefits of AIPS will be realized only after implementation of all plateaus, already in 2012, as highlighted in Section I.2, changes become apparent in the form of a preliminary realignment of the workforce previously assigned to supporting legacy systems and the associated processes.

Planning and budgeting for staffing needs

15. Reform in post management, introduced in the context of the budgets for 2010 and 2011, will continue in 2012–2013.

16. Beginning with the 2012 budget preparation, MPs were required to fully budget for positions expected to be filled throughout the year, and to eliminate any funding for positions unlikely to be filled. In other words, the former system of applying a "lapse" (e.g. a vacancy rate) was abolished. Furthermore, in order to simplify planning and budgeting of staff, and to align the Agency with United Nations system best practices, positions were budgeted at *standard cost*, using average estimates for

[8] GOV/2010/66.
[9] 2011/Note 23 of 28 March 2011.

each grade, instead of estimates based on individual incumbents. In addition, Common Staff Costs (CSC) were estimated using coefficients specific to Professional and General Service staff, in lieu of average coefficients for all staff combined, leading to greater accuracy in budgeting.

17. Also as part of post management reform, from 2012 additional flexibility will be provided to managers to deal with staff requirements resulting from unexpected programme reorientation during the budget cycle. For instance, within established boundaries, managers will be allowed to reallocate staffing allotments to higher priority staffing requirements within the major programme.

18. AIPS functionality will improve budgetary controls for staff costs. These controls, coupled with increased flexibility in managing staff, are expected to lead to leaner and more accurate budgeting of staffing requirements in the future.

Other efficiencies[10]

19. Efficiency gains focused on the area of travel. Compared to 2011, the total travel budget decreases by €1.4 million or 6.7%. In support of this goal allotment managers will be required to strictly observe guidelines aimed, inter alia, at minimizing the number of staff attending outside meetings, combining missions and replacing them with videoconferences, wherever possible.

20. With respect to printing and translation costs, existing limits regarding the length of documents will be strictly enforced.

RISK MANAGEMENT

21. Risk management is a fundamental part of results based management (RBM). It refers to the identification and mitigation of potential events, both internal and external, which might negatively affect the Agency's ability to deliver its outputs, to achieve its outcomes or meet its objectives.

22. Policy and guidelines were developed and adopted for the biennium 2010–2011. A risk register template was designed and incorporated into the Programme and Budget Information System (PROBIS) for electronic registration and subsequent use by programme managers. A comprehensive review of the progress made so far has been conducted and follow-up action taken.

RESOURCES

Regular Budget

23. The regular budget consists of an operational and a capital component, the latter to fund major infrastructure investments.

24. Regular budget estimates, in accordance with the structure of the Agency's programme of work, are presented in six MPs.

MPs 1 through 4 are scientific and technical in nature:

- MP 1. Nuclear Power, Fuel Cycle and Nuclear Science
- MP 2. Nuclear Techniques for Development and Environmental Protection
- MP 3. Nuclear Safety and Security
- MP 4. Nuclear Verification

MPs 5 and 6 provide managerial and administrative services that enable the work of scientific and technical MPs[11]:

- MP 5. Policy, Management and Administration Services
- MP 6. Management of Technical Cooperation for Development

[10] Efficiency highlights are provided in Section I.2, "Major Programmes at a Glance", for each MP.

[11] Because of the different nature of the two types of MPs, different programmatic hierarchies are used. In MPs 1, 2, 3 and 4 the hierarchy is: major programme, programme, subprogramme and project. When activities are repetitive in nature from one cycle to the next, the term *recurrent* is used. In MPs 5 and 6, the hierarchy used is: major programme, function and subfunction. Most activities contained in the subfunctions are continuous from one cycle to the next.

Major Capital Investment Fund

25. The Major Capital Investment Fund (MCIF) is a Reserve Fund established in accordance with Financial Regulation 4.06, to support major infrastructure investments that comply with the Agency's Major Capital Investment Plan (MCIP). Details on the proposals for the MCIF and the MCIP are provided in Section I.3.

Extrabudgetary funds

26. The Agency continues to rely on extrabudgetary funds, mostly from Member States, to carry out some of its activities. For 2012 and 2013, €113.8 million and €107.4 million respectively are expected to be received.[12]

27. Two new extrabugetary initiatives are of significance:

a) Low Enriched Uranium (LEU) Bank

The Board approved in 2010 the establishment of an IAEA low enriched uranium (LEU) bank to provide a supply of LEU for nuclear power generation. This initiative would not in any way affect Member States nuclear fuel cycle options and will be funded exclusively through extrabudgetary contributions. Payments have been received to date in the amount of $54.5 million out of the pledged total of $149.5 million. It is anticipated that the entire $149.5 million will be received and be available for use by early 2012 and will likely be mostly utilized during the 2012–2013 timeframe. For the purposes of this document, Tables 3(a) and 3(b) show half of the total amount as being required for use in 2012 and half in 2013, although actual timing of LEU purchases may vary.[13]

b) Peaceful Uses Initiative (PUI)

The Peaceful Uses Initiative was announced in May 2010 at the NPT Review Conference. The plan is to raise $100 million in extrabudgetary contributions over five years for Agency activities, including, but not limited to, uses of nuclear energy in the areas of nuclear power infrastructure development, food security, water resource management and human health. PUI payments of $10 million have been fully received to date against the 2010 pledge. For 2012–2013, a "soft" pledge of $10 million per year has been received. In Tables 3(a) and 3(b) PUI funds are included in the columns labelled CAURBs and TC Programme.

Funds from United Nations system organizations

28. The Agency cooperates with various United Nations system organizations. Most of the relevant work planned for 2012 and 2013 is carried out under MP2 (Nuclear Techniques for Development and Environmental Protection). For 2012 and 2013, a total of €2.2 million is expected each year from these organizations.

Nuclear Security Fund

29. The objective of the Agency's Nuclear Security Plan for 2010–2013 (GOV/2009/54-GC(53)/18) is to support States in an effort to establish and maintain effective security, wherever nuclear or other radioactive material is used, stored and/or transported.

30. Since the inception of the nuclear security programme, its implementation has depended heavily on extrabudgetary contributions. In both 2012 and 2013, €18.7 million in such contributions will be required to implement all activities planned under the programme. This constitutes approximately 80% of the Agency's total expenditure on nuclear security for the biennium. The proposed increases in the regular budget for 2012 and 2013 for this important area continue the trend that began in the budgets for 2010 and 2011 of reducing the risks of excessive dependence of nuclear security activities on unpredictable and often conditional extrabudgetary contributions.

[12] Excluding expected contributions from UN system organizations and extrabudgetary contributions to the Nuclear Security Fund. These are dealt with in more detail in paras 28–30.
[13] The exact timing of the purchase of LEU will depend on the market. As stated in GOV/2010/67, paragraph 12, "care shall be taken to avoid disrupting the price of uranium on the international market."

Technical cooperation programme

31. For the technical cooperation programme $84.4 million per year is expected to be available for estimated core project funding for both 2012 and 2013. It is estimated that this amount will be supplemented each year by $9.0 million of extrabudgetary activities, $15.0 million of government cost sharing contributions and $0.2 million from the United Nations Development Programme (UNDP).

Unfunded needs

32. *Core activities unfunded in the regular budget* (CAURBs) are activities which should either be part of the Agency's regular budget if funding permitted, or which involve a degree of uncertainty as to whether they will be implemented and have therefore not been included in the regular budget. They comprise both activities expected to be financed from extrabudgetary funds[14] and those for which no funding is currently foreseen.[15] The latter have also been included in these proposals with a view to attracting extrabudgetary funds. CAURBs are identified in the programme for adoption by the Board of Governors so that they may be implemented without further approval should such extrabudgetary funds be received or should adequate regular budget savings materialize in the course of the biennium. Where such activities are not funded by extrabudgetary contributions or from savings, they will not be implemented.[16]

33. *Unfunded capital investments* are the portions of infrastructure investments in the Agency's Major Capital Investment Plan for 2012–2013 that remain unfunded. They are listed in Section I.3 of this document.

TECHNICAL ISSUES

Technical adjustments

34. To permit meaningful comparison of the budget proposals of 2012–2013 with those of 2011, technical adjustments have been made to the approved 2011 regular budget figures. These adjustments are presented in Section I.2, "Major Programmes at a Glance", for each MP. There are two main areas of adjustment:

- Fixed costs for printing and translation services are integral to the delivery of substantive programmatic outputs. These costs will continue to be apportioned to the MPs to which they relate. However, currently, the largest share of fixed costs, namely the costs of translating and printing all PMO documents (i.e. those for the Board of Governors and the General Conference), is charged to MP5. From 2012 onwards, PMO documents costs will be apportioned to all MPs based on their relative share of the regular operational budget. This change reflects the fact that PMO documents are not specific to MP5, but part of the implementation and substantive delivery of all MPs.
- As indicated above in paragraphs 15 through 18, the budgeting of staffing resources has changed, inter alia, through the use of CSC coefficients specific to P and GS staff separately, in lieu of an overall average coefficient that was previously used.

Reimbursable Work for Others

35. Compared to 2011, a net decrease in income of €0.61 million from Reimbursable Work for Others (RWfO) is estimated due to:

- Cessation by the end of 2011 of the agreement with UNIDO regarding the provision of computer mainframe services (–€0.23 million);
- Decrease in estimated printing requirements of other VBOs (–€0.32 million);
- Decrease of the estimated volume of translation for external clients (–€0.19 million);

[14] "Extrabudgetary CAURBs".
[15] "Unfunded CAURBs".
[16] The amounts shown against CAURBs are indicative figures and do not constitute 'ceilings'.

- Increased income, inter alia, from other services and the *Nuclear Fusion* journal, offset by slight decreases in other areas (net €0.13 million).

Price adjustments

36. The overall 2012 average price adjustment of 1.1% is one of the lowest in the last ten years. In calculating price adjustments, the Agency follows the "semi-full budgeting" methodology recognized by the United Nations and its various review bodies, including the Joint Inspection Unit. Trends and expectations for salaries are based on forecasts provided by the International Civil Service Commission (ICSC), while, for all other items of expenditure, the actual increases recorded during the most recent year for which figures are available (in the present document the year 2010) are included. Adjustments, by individual item of expenditure, are applied to the budget proposals for 2012 (which are initially established using 2011 prices). Adjustments for 2013, the second year of the biennium, will be submitted to the Governing Bodies in 2012, in the 2013 Budget Update document.

Staff costs

37. The principal cost elements that contribute to the price adjustments relate to staff costs. Details of this adjustment are given below.

Salaries

38. For **Professional** staff salaries for the year 2012, the price adjustment is based on cost trends over a three year time span. An adjustment of 0.5% is applied to the 2012 budget at 2011 prices, based on the sum of the factors (a) to (c) listed below:

a) The increase that was assumed for year 2010 in the budget for 2010 was 1.7%, based on a forecast of the ICSC. The actual increase for 2010 proved to be 2.9%; consequently, an increase of 1.2% is required in 2012 to reflect what actually occurred in 2010.

b) Based on the Board decision on price adjustments for 2011, an increase of 1.6% was applied in the 2011 budget in respect of 2011. The 2011 increase is now estimated at 0.8% and consequently a decrease of 0.8% is required for this period in the 2012 budget.

c) Based on the most recent information supplied by the ICSC, an upward increase of 0.1% is forecast for 2012.

39. In the case of **General Service** staff salaries, pay developments/projections for the same three years (2010–2012) are also taken into account, but are based on the Austrian Consumer Price Index (CPI) and "Tariflohn" (the Austrian minimum salary scale adjustment factor).

40. An increase of 2.3% is applied to the 2012 budget at 2011 prices for General Services salaries, based on the sum of the factors listed below in (a) to (c).

a) For 2010, an increase of 0.3% was assumed in the 2010 budget. The actual increase was 0.3%. Consequently, no adjustment is required for that year.

b) In the absence of definitive data at the time concerning 2011, an increase of 1.2% in General Service salaries was assumed. Based on present indications, the increase is expected to be 3.0%. Consequently, an increase of 1.8% for that year is applied.

c) For 2012, a projected increase of 0.5% (i.e. 3.0% prorated from 1 November 2012) is assumed.

Other items of expenditure

41. For items of expenditures other than staff costs, the actual increases that occurred in 2010 are applied to 2012. In keeping with the Agency's established practice, the source of information includes internal data or official price indexes relevant to the items of expenditure. The resulting increases are shown in the last column of the following table:

Price adjustments

Items of expenditure	2010 budget adjustment %	2011 budget adjustment* %	2012 budget adjustment %
Travel - staff	0.5	—	4.1
Travel - non-staff	4.6	—	(5.8)
Interpretation	3.4	1.6	0.5
Representation and hospitality	4.3	0.6	0.8
Training	2.2	0.6	2.2
Equipment leased	2.2	0.6	0.3
Equipment purchased	3.8	0.6	0.8
Supplies and materials	4.1	0.6	2.9
General operating costs	2.1	0.6	2.3
Contracts	2.2	0.6	2.3
Short term consultants/experts	3.4	1.6	0.5
Research and technical contracts	2.2	0.6	0.5
Miscellaneous	2.2	0.3	2.0
VIC buildings management	2.0	0.4	2.0
VIC security services	1.7	0.4	2.1

*2011 Price adjustments displayed were prorated to match the 1.1% overall price adjustment decided by the Board. They were not based on the Agency's semi-full budgeting methodology.

Budget currency and exchange rate

42. The Agency's functional currency is the euro. As in the past, regular budget estimates have been prepared in euro, using a budget exchange rate of one euro to one US dollar. All tables and charts in this document are in euro, based on the budget exchange rate.

Report on the Budget to the United Nations General Assembly

43. In accordance with Article XVI of the Agency's relationship agreement with the United Nations (INFCIRC/11, part I), the budget may be reviewed by the Advisory Committee on Administrative and Budgetary Questions (ACABQ), which would report on the administrative aspects thereof to the United Nations General Assembly.

DOCUMENT STRUCTURE AND TABLES

44. For 2012–2013, a major goal was to make the Programme and Budget document leaner, easier to navigate, and less expensive without subtracting from substance.

- An innovative feature of the document is Section I.2 *"Major Programmes at a Glance"*, highlighting the defining features of the budget proposals for each Major Programme for the biennium.
- Limits were applied to the length of various parts of the text.
- Charts and tables that were redundant or inconsistent with results based methodology were eliminated.[17]

45. The present document contains the following main tables:

- Table 1: *The Regular Budget — By Programme and Major Programme* – compares the adjusted 2011 budget to the 2012 and 2013 budgetary proposals. Programme increases or decreases are shown for both years of the biennium, and price adjustments are provided for 2012.

[17] In Part I, Pie chart by item of expenditure (page 9 of the 2010–2011 programme and budget document (GC(53)/5)); the "by item of expenditure" tables (Table 4(a) and 4(b), pages 21 and 22 of the 2010–2011 programme and budget document (GC(53)/5)); the list of conferences and symposia. In Part II, pie charts by MP and resource tables at the programme and subprogramme level.

- Table 2: *The Regular Budget — Summary of Income* – presents a summary of the income expected in 2012 and 2013. It includes assessed contributions from Member States, income from reimbursable work for others and other miscellaneous income.
- Table 3(a)–3(b): *Total Resource Requirements — By Programme and Major Programme* – show all resources required to carry out the activities of the Agency for both years of the biennium, including: the regular budget (operational regular budget and capital regular budget); extrabudgetary funds; unfunded activities; and the technical cooperation (TC) programme.
- Tables 4–9: *Summary of Regular Budget Resources for the Biennium* – compares for each major programme the adjusted operational regular budget for 2011 with the 2012 and 2013 proposals for each of the six MPs.
- Table 10: *Capital Regular Budget Details 2012–2013*
- Table 11: *Unfunded 2012–2013 Capital Needs*
- Table 12: *Major Capital Investment Plan, 2012–2021*

I.1 Budgetary Requirements

by Programme and Major Programme

Table 1. The Regular Budget — By Programme and Major Programme

	Programme / Major Programme	2011 adjusted budget	2012 estimates at 2011 prices	Variance 2012 over 2011 €	Variance 2012 over 2011 %	2013 prelim. estimates at 2011 prices	Variance 2013 over 2012 €	Variance 2013 over 2012 %	Price Adjustment	2012 estimates at 2012 prices	2013 prelim. estimates at 2012 prices
1.	**Nuclear Power, Fuel Cycle and Nuclear Science**										
1.0.0.1	Overall management, coordination and common activities	1 072 909	1 049 724	(23 185)	(2.2%)	1 065 899	16 175	1.5%	0.8%	**1 058 593**	**1 074 317**
1.1	Nuclear Power	6 964 571	7 941 919	977 348	14.0%	7 951 919	10 000	0.1%	0.1%	**7 949 930**	**7 956 138**
1.2	Nuclear Fuel Cycle and Materials Technologies	3 259 703	3 483 815	224 112	6.9%	3 492 815	9 000	0.3%	(0.5%)	**3 465 431**	**3 475 163**
1.3	Capacity Building and Nuclear Knowledge Maintenance for Sustainable Energy Development	11 444 646	10 901 523	(543 123)	(4.7%)	10 903 348	1 825	-	0.9%	**10 999 606**	**11 002 679**
1.4	Nuclear Science	9 993 590	10 190 011	196 421	2.0%	10 190 011	-	-	0.6%	**10 250 987**	**10 254 837**
	Major Programme 1	**32 735 419**	**33 566 992**	**831 573**	**2.5%**	**33 603 992**	**37 000**	**0.1%**	**0.5%**	**33 724 547**	**33 763 134**
2.	**Nuclear Techniques for Development and Environmental Protection**										
2.0.0.1	Overall management, coordination and common activities	4 584 892	4 656 648	71 756	1.6%	4 662 081	5 433	0.1%	1.9%	**4 743 359**	**4 748 842**
2.0.0.2	Management of the coordinated research activities	693 025	703 305	10 280	1.5%	703 305	-	-	1.5%	**713 681**	**713 270**
2.1	Food and Agriculture	11 270 475	11 445 029	174 554	1.5%	11 456 625	11 596	0.1%	0.6%	**11 508 119**	**11 522 142**
2.2	Human Health	9 464 366	9 801 886	337 520	3.6%	9 772 885	(29 001)	(0.3%)	0.2%	**9 817 795**	**9 787 098**
2.3	Water Resources	3 402 766	3 475 815	73 049	2.1%	3 479 341	3 526	0.1%	0.6%	**3 496 437**	**3 503 855**
2.4	Environment	5 919 894	6 066 379	146 485	2.5%	6 072 528	6 149	0.1%	0.9%	**6 122 843**	**6 129 452**
2.5	Radioisotope Production and Radiation Technology	2 178 069	2 270 210	92 141	4.2%	2 272 507	2 297	0.1%	(0.4%)	**2 261 840**	**2 263 981**
	Major Programme 2	**37 513 487**	**38 419 272**	**905 785**	**2.4%**	**38 419 272**	**-**	**-**	**0.6%**	**38 664 074**	**38 668 640**
3.	**Nuclear Safety and Security**										
3.0.0.1	Enhancing the global nuclear safety and security framework	884 404	890 627	6 223	0.7%	887 430	(3 197)	(0.4%)	0.9%	**898 383**	**895 158**
3.0.0.2	Enhancing and strengthening capacity building, communications, knowledge networking, education and training	531 563	515 454	(16 109)	(3.0%)	435 454	(80 000)	(15.5%)	(0.4%)	**513 381**	**438 021**
3.1	Incident and Emergency Preparedness and Response	3 453 376	3 542 488	89 112	2.6%	3 535 085	(7 403)	(0.2%)	0.2%	**3 550 201**	**3 541 901**
3.2	Safety of Nuclear Installations	9 793 343	10 840 290	1 046 947	10.7%	10 852 260	11 970	0.1%	0.6%	**10 900 373**	**10 916 434**
3.3	Radiation and Transport Safety	5 881 624	6 167 763	286 139	4.9%	6 176 285	8 522	0.1%	0.6%	**6 206 638**	**6 211 628**
3.4	Management of Radioactive Waste	6 971 586	7 352 838	381 252	5.5%	7 359 089	6 251	0.1%	0.1%	**7 361 139**	**7 365 551**
3.5	Nuclear Security	4 121 439	4 547 235	425 796	10.3%	4 611 092	63 857	1.4%	0.5%	**4 568 421**	**4 629 459**
	Major Programme 3	**31 637 335**	**33 856 695**	**2 219 360**	**7.0%**	**33 856 695**	**-**	**-**	**0.4%**	**33 998 536**	**33 998 152**
4.	**Nuclear Verification**										
4.0.0.1	Overall management and coordination	2 312 394	2 573 128	260 734	11.3%	2 578 092	4 964	0.2%	0.8%	**2 594 585**	**2 599 596**
4.0.0.2	Quality management	893 350	1 105 486	212 136	23.7%	1 101 686	(3 800)	(0.3%)	1.1%	**1 117 857**	**1 113 945**
4.0.0.3	Resources management	1 254 742	1 246 317	(8 425)	(0.7%)	1 325 444	79 127	6.3%	1.1%	**1 260 260**	**1 341 207**
4.1	Safeguards Implementation	103 640 732	111 157 701	7 516 969	7.3%	110 570 959	(586 742)	(0.5%)	1.3%	**112 587 314**	**111 989 644**
4.2	Other Verification Activities	-	581 980	581 980	-	581 980	-	-	1.0%	**587 780**	**587 780**
4.3	Development	17 358 609	10 523 849	(6 834 760)	(39.4%)	11 030 300	506 451	4.8%	1.0%	**10 632 753**	**11 152 546**
	Major Programme 4	**125 459 827**	**127 188 461**	**1 728 634**	**1.4%**	**127 188 461**	**-**	**-**	**1.3%**	**128 780 549**	**128 784 718**
5.	**Policy, Management and Administration Services**										
	Policy, Management and Administration Services	74 221 514	74 221 514	-	-	74 184 514	(37 000)	-	1.5%	**75 354 949**	**75 314 486**
	Major Programme 5	**74 221 514**	**74 221 514**	**-**	**-**	**74 184 514**	**(37 000)**	**-**	**1.5%**	**75 354 949**	**75 314 486**
6.	**Management of Technical Cooperation for Development**										
	Management of Technical Cooperation for Development	18 833 821	20 147 282	1 313 461	7.0%	20 147 282	-	-	1.2%	**20 389 905**	**20 389 113**
	Major Programme 6	**18 833 821**	**20 147 282**	**1 313 461**	**7.0%**	**20 147 282**	**-**	**-**	**1.2%**	**20 389 905**	**20 389 113**
									-		
	Operational regular budget	**320 401 403**	**327 400 216**	**6 998 813**	**2.2%**	**327 400 216**	**-**	**-**	**1.1%**	**330 912 560**	**330 918 243**
	Major Capital Investment Funding Requirements										
1.	Nuclear Power, Fuel Cycle and Nuclear Science	-	-	-	-	-	-	-	-	-	-
2.	Nuclear Techniques for Development and Environmental Protection	919 219	-	(919 219)	-	-	-	-	-	-	-
3.	Nuclear Safety and Security	-	-	-	-	-	-	-	-	-	-
4.	Nuclear Verification	3 630 629	7 000 000	3 369 371	92.8%	1 650 200	(5 349 800)	(76.4%)	2.0%	**7 137 905**	**1 682 710**
5.	Policy, Management and Administration Services	3 566 518	1 000 000	(2 566 518)	(72.0%)	6 349 800	5 349 800	535.0%	1.6%	**1 015 550**	**6 495 846**
6.	Management of Technical Cooperation for Development	-	-	-	-	-	-	-	-	-	-
	Capital regular budget	**8 116 366**	**8 000 000**	**(116 366)**	**(1.4%)**	**8 000 000**	**-**	**-**	**1.9%**	**8 153 455**	**8 178 556**
	Total Agency programmes	**328 517 769**	**335 400 216**	**6 882 447**	**2.1%**	**335 400 216**	**-**	**-**	**1.1%**	**339 066 015**	**339 096 799**
	Reimbursable work for others	2 998 916	2 352 679	(646 237)	(21.5%)	2 354 943	2 264	0.1%	1.4%	**2 385 239**	**2 387 519**
	Total regular budget	**331 516 685**	**337 752 895**	**6 236 210**	**1.9%**	**337 755 159**	**2 264**	**-**	**1.1%**	**341 451 254**	**341 484 318**
	Less miscellaneous income										
	Reimbursable work for others	2 998 916	2 352 679	(646 237)	(21.5%)	2 354 943	2 264	0.1%	1.4%	**2 385 239**	**2 387 519**
	Other miscellaneous income	2 027 000	1 522 000	(505 000)	(24.9%)	1 517 000	(5 000)	(0.3%)	-	**1 522 000**	**1 517 000**
	Assessment on Member States	**326 490 769**	**333 878 216**	**7 387 447**	**2.3%**	**333 883 216**	**5 000**	**-**	**1.1%**	**337 544 015**	**337 579 799**

Table 2. The Regular Budget — Summary of Income

	2011 budget 2011 prices	2012 estimates at 2012 prices	Variance 2012 over 2011	2013 prelim. estimates at 2012 prices	Variance 2013 over 2012
Operational regular budget	318 374 403	329 390 560	11 016 157	329 401 243	10 683
Capital regular budget	8 116 366	8 153 455	37 089	8 178 556	25 101
Assessed contributions on Member States	**326 490 769**	**337 544 015**	**11 053 246**	**337 579 799**	**35 784**
Miscellaneous income					
Reimbursable work for others					
Data processing services	233 780	-	(233 780)	-	-
Printing services	930 634	610 501	(320 133)	610 476	(25)
Medical services	829 617	863 823	34 206	863 822	(1)
Radiation protection and monitoring services	110 512	115 669	5 157	117 981	2 312
Translation services	344 091	151 211	(192 880)	151 215	4
Nuclear Fusion journal	150 438	187 721	37 283	187 720	(1)
Other financial services	89 844	180 814	90 970	180 814	-
Laboratory services	250 000	250 000	-	250 000	-
Environment Laboratory services	60 000	25 500	(34 500)	25 491	(9)
Subtotal reimbursable work for others	**2 998 916**	**2 385 239**	**(613 677)**	**2 387 519**	**2 280**
Other					
Attributable to specific programmes					
INIS products	20 000	10 000	(10 000)	5 000	(5 000)
Publications of the Agency - other	300 000	300 000	-	300 000	-
Laboratory income	200 000	200 000	-	200 000	-
Amounts recoverable under Safeguards agreements	185 000	185 000	-	185 000	-
Other service income	2 000	2 000	-	2 000	-
Subtotal	707 000	697 000	(10 000)	692 000	(5 000)
Not attributable to specific programmes					
Investment and interest income	800 000	700 000	(100 000)	700 000	-
Gain (Loss) on exchange of currencies	-	-	-	-	-
Other	520 000	125 000	(395 000)	125 000	-
Subtotal	1 320 000	825 000	(495 000)	825 000	-
Subtotal Other	**2 027 000**	**1 522 000**	**(505 000)**	**1 517 000**	**(5 000)**
Total miscellaneous income	**5 025 916**	**3 907 239**	**(1 118 677)**	**3 904 519**	**(2 720)**
Total regular budget income	**331 516 685**	**341 451 254**	**9 934 569**	**341 484 318**	**33 064**

Table 3(a). Total Resource Requirements for 2012 — By Programme and Major Programme

	Programme / Major Programme	Regular budget		Extrabudgetary						Unfunded	
		Operational	Capital	LEU Bank	CAURBs[1,2]	NSF	Capital	TC Programme[1]	Total	Capital	CAURBs
		at 2012 prices									
1	**Nuclear Power, Fuel Cycle and Nuclear Science**										
1.0.0.1	Overall management, coordination and common activities	1 058 593	-	-	-	-	-	-	1 058 593	-	-
1.1	Nuclear Power	7 949 930	-	-	3 945 800	-	-	5 763 374	17 659 104	-	199 580
1.2	Nuclear Fuel Cycle and Materials Technologies	3 465 431	-	74 750 000	408 696	-	-	2 587 785	81 211 912	-	67 000
1.3	Capacity Building and Nuclear Knowledge Maintenance for Sustainable Energy Development	10 999 606	-	-	100 200	-	-	1 792 674	12 892 480	-	145 000
1.4	Nuclear Science	10 250 987	-	-	531 396	-	-	6 099 263	16 881 646	282 268	390 000
	Major Programme 1	33 724 547	-	74 750 000	4 986 092	-	-	16 243 095	129 703 734	282 268	801 580
2	**Nuclear Techniques for Development and Environmental Protection**										
2.0.0.1	Overall management, coordination and common activities	4 743 359	-	-	66 232	-	-	-	4 809 591	-	-
2.0.0.2	Management of the coordinated research activities	713 681	-	-	-	-	-	-	713 681	-	-
2.1	Food and Agriculture	11 508 119	-	-	2 190 757	-	-	14 798 905	28 497 781	926 882	908 000
2.2	Human Health	9 817 795	-	-	1 663 196	-	-	29 602 828	41 083 819	306 900	950 000
2.3	Water Resources	3 496 437	-	-	-	-	-	2 727 284	6 223 721	403 240	100 000
2.4	Environment	6 122 843	-	-	418 520	-	-	4 160 041	10 701 404	303 920	165 000
2.5	Radioisotope Production and Radiation Technology	2 261 840	-	-	-	-	-	11 825 419	14 087 259	-	80 000
	Major Programme 2	38 664 074	-	-	4 338 705	-	-	63 114 477	106 117 256	1 940 942	2 203 000
3	**Nuclear Safety and Security**										
3.0.0.1	Enhancing the global nuclear safety and security framework	898 383	-	-	-	-	-	-	898 383	-	-
3.0.0.2	Enhancing and strengthening capacity building, communications, knowledge networking, education and training	513 381	-	-	597 628	-	-	-	1 111 009	-	-
3.1	Incident and Emergency Preparedness and Response	3 550 201	-	-	1 030 720	-	-	2 696 034	7 276 955	-	-
3.2	Safety of Nuclear Installations	10 900 373	-	-	8 425 584	176 400	-	6 896 642	26 398 999	-	642 420
3.3	Radiation and Transport Safety	6 206 638	-	-	380 000	-	-	9 947 268	16 533 906	-	-
3.4	Management of Radioactive Waste	7 361 139	-	-	575 800	-	-	9 156 840	17 093 779	-	350 000
3.5	Nuclear Security	4 568 421	-	-	-	18 445 713	-	-	23 014 134	-	-
	Major Programme 3	33 998 536	-	-	11 009 732	18 622 113	-	28 696 784	92 327 165	-	992 420
4	**Nuclear Verification**										
4.0.0.1	Overall management and coordination	2 594 585	-	-	66 800	-	-	-	2 661 385	-	-
4.0.0.2	Quality management	1 117 857	-	-	46 880	-	-	-	1 164 737	-	-
4.0.0.3	Resources management	1 260 260	-	-	66 800	-	-	-	1 327 060	-	-
4.1	Safeguards Implementation	112 587 314	-	-	9 053 027	-	-	-	121 640 341	-	4 000 000
4.2	Other Verification Activities	587 780	-	-	-	-	-	-	587 780	-	-
4.3	Development	10 632 753	7 137 905	-	3 504 205	-	7 497 598	-	28 772 461	20 015 543	680 000
	Major Programme 4	128 780 549	7 137 905	-	12 737 712	-	7 497 598	-	156 153 764	20 015 543	4 680 000
5	**Policy, Management and Administration Services**										
	Policy, Management and Administration Services	75 354 949	1 015 550	-	461 072	66 232	-	555 644	77 453 447	6 078 524	269 172
	Major Programme 5	75 354 949	1 015 550	-	461 072	66 232	-	555 644	77 453 447	6 078 524	269 172
6	**Management of Technical Cooperation for Development**										
	Management of Technical Cooperation for Development	20 389 905	-	-	166 432	-	-	-	20 556 337	-	-
	Major Programme 6	20 389 905	-	-	166 432	-	-	-	20 556 337	-	-
	Total resources for Agency programmes	330 912 560	8 153 455	74 750 000	33 699 745	18 688 345	7 497 598	108 610 000	582 311 703	28 317 277	8 946 172
	Reimbursable work for others	2 385 239		-	-	-		-	2 385 239		
	Total	333 297 799	8 153 455	74 750 000	33 699 745	18 688 345	7 497 598	108 610 000	584 696 942		
	Source of Funds										
	Assessment on Member States	329 390 560	8 153 455	-	-	-	-	-	337 544 015		
	Extrabudgetary capital	-	-	-	-	-	7 497 598	-	7 497 598		
	Income from reimbursable work for others	2 385 239	-	-	-	-	-	-	2 385 239		
	Other miscellaneous income	1 522 000	-	-	-	-	-	-	1 522 000		
	UN system organizations	-	-	-	2 190 757	-	-	200 000	2 390 757		
	Technical Cooperation Fund	-	-	-	-	-	-	84 410 000	84 410 000		
	Extrabudgetary programme	-	-	74 750 000	31 508 988	18 688 345	-	24 000 000	148 947 333		
	Total	333 297 799	8 153 455	74 750 000	33 699 745	18 688 345	7 497 598	108 610 000	584 696 942		

[1] Includes $10.0 million for Peaceful Uses Initiatives allocated both to "Extrabudgetary CAURBs" and "TC Programme".

[2] Includes €2.2 million from UN system organizations for "Food and Agriculture".

Table 3(b). Total Resource Requirements for 2013 (preliminary estimates) — By Programme and Major Programme

	Programme / Major Programme	Regular budget		Extrabudgetary						Unfunded	
		Operational	Capital	LEU	CAURBs[1,2]	NSF	Capital	TC	Total	Capital	CAURBs
		at 2012 prices		Bank				Programme[1]			
1	**Nuclear Power, Fuel Cycle and Nuclear Science**										
1.0.0.1	Overall management, coordination and common activities	1 074 317	-	-	-	-	-	-	1 074 317	-	-
1.1	Nuclear Power	7 956 138	-	-	4 033 800	-	-	5 763 374	17 753 312	-	202 580
1.2	Nuclear Fuel Cycle and Materials Technologies	3 475 163	-	74 750 000	408 696	-	-	2 587 785	81 221 644	-	49 000
1.3	Capacity Building and Nuclear Knowledge Maintenance for Sustainable Energy Development	11 002 679	-	-	400 200	-	-	1 792 674	13 195 553	-	145 000
1.4	Nuclear Science	10 254 837	-	-	531 396	-	-	6 099 263	16 885 496	302 430	265 000
	Major Programme 1	33 763 134	-	74 750 000	5 374 092	-	-	16 243 095	130 130 321	302 430	661 580
2	**Nuclear Techniques for Development and Environmental Protection**										
2.0.0.1	Overall management, coordination and common activities	4 748 842	-	-	66 232	-	-	-	4 815 074	-	-
2.0.0.2	Management of the coordinated research activities	713 270	-	-	-	-	-	-	713 270	-	-
2.1	Food and Agriculture	11 522 142	-	-	2 190 757	-	-	14 798 905	28 511 804	1 234 352	1 323 000
2.2	Human Health	9 787 098	-	-	1 808 196	-	-	29 602 828	41 198 122	302 430	1 281 000
2.3	Water Resources	3 503 855	-	-	-	-	-	2 727 284	6 231 139	201 620	100 000
2.4	Environment	6 129 452	-	-	428 520	-	-	4 160 041	10 718 013	909 525	165 000
2.5	Radioisotope Production and Radiation Technology	2 263 981	-	-	-	-	-	11 825 419	14 089 400	-	80 000
	Major Programme 2	38 668 640	-	-	4 493 705	-	-	63 114 477	106 276 822	2 647 927	2 949 000
3	**Nuclear Safety and Security**										
3.0.0.1	Enhancing the global nuclear safety and security framework	895 158	-	-	-	-	-	-	895 158	-	-
3.0.0.2	Enhancing and strengthening capacity building, communications, knowledge networking, education and training	438 021	-	-	597 628	-	-	-	1 035 649	-	-
3.1	Incident and Emergency Preparedness and Response	3 541 901	-	-	990 720	-	-	2 696 034	7 228 655	-	-
3.2	Safety of Nuclear Installations	10 916 434	-	-	8 425 584	176 400	-	6 896 642	26 415 060	-	642 420
3.3	Radiation and Transport Safety	6 211 628	-	-	380 000	-	-	9 947 268	16 538 896	-	-
3.4	Management of Radioactive Waste	7 365 551	-	-	575 800	-	-	9 156 840	17 098 191	-	218 000
3.5	Nuclear Security	4 629 459	-	-	-	18 435 713	-	-	23 065 172	-	-
	Major Programme 3	33 998 152	-	-	10 969 732	18 612 113	-	28 696 784	92 276 781	-	860 420
4	**Nuclear Verification**										
4.0.0.1	Overall management and coordination	2 599 596	-	-	66 800	-	-	-	2 666 396	-	-
4.0.0.2	Quality management	1 113 945	-	-	47 380	-	-	-	1 161 325	-	-
4.0.0.3	Resources management	1 341 207	-	-	66 800	-	-	-	1 408 007	-	-
4.1	Safeguards Implementation	111 989 644	-	-	9 035 387	-	-	-	121 025 031	-	4 300 000
4.2	Other Verification Activities	587 780	-	-	-	-	-	-	587 780	-	-
4.3	Development	11 152 546	1 682 710	-	3 884 545	-	243 535	-	16 963 336	12 868 935	430 000
	Major Programme 4	128 784 718	1 682 710	-	13 100 912	-	243 535	-	143 811 875	12 868 935	4 730 000
5	**Policy, Management and Administration Services**										
	Policy, Management and Administration Services	75 314 486	6 495 846	-	461 072	66 232	-	555 644	82 893 280	4 597 905	344 172
	Major Programme 5	75 314 486	6 495 846	-	461 072	66 232	-	555 644	82 893 280	4 597 905	344 172
6	**Management of Technical Cooperation for Development**										
	Management of Technical Cooperation for Development	20 389 113	-	-	166 432	-	-	-	20 555 545	-	-
	Major Programme 6	20 389 113	-	-	166 432	-	-	-	20 555 545	-	-
	Total resources for Agency programmes	330 918 243	8 178 556	74 750 000	34 565 945	18 678 345	243 535	108 610 000	575 944 624	20 417 197	9 545 172
	Reimbursable work for others	2 387 519		-	-	-		-	2 387 519		
	Total	333 305 762	8 178 556	74 750 000	34 565 945	18 678 345	243 535	108 610 000	578 332 143		
	Source of Funds										
	Assessment on Member States	329 401 243	8 178 556	-	-	-	-	-	337 579 799		
	Extrabudgetary capital	-	-	-	-	-	243 535	-	243 535		
	Income from reimbursable work for others	2 387 519	-	-	-	-	-	-	2 387 519		
	Other miscellaneous income	1 517 000	-	-	-	-	-	-	1 517 000		
	UN system organizations	-	-	-	2 190 757	-	-	200 000	2 390 757		
	Technical Cooperation Fund	-	-	-	-	-	-	84 410 000	84 410 000		
	Extrabudgetary programme	-	-	74 750 000	32 375 188	18 678 345	-	24 000 000	149 803 533		
	Total	333 305 762	8 178 556	74 750 000	34 565 945	18 678 345	243 535	108 610 000	578 332 143		

[1] Includes $10.0 million for Peaceful Uses Initiatives allocated both to "Extrabudgetary CAURBs" and "TC Programme".

[2] Includes €2.2 million from UN system organizations for "Food and Agriculture".

I.2 Major Programmes at a Glance

Major Programme 1 — Nuclear Power, Fuel Cycle and Nuclear Science

Scope

46. Major Programme 1 provides core scientific and technical support to Member States in the fields of nuclear power, nuclear fuel cycle and material technologies, research reactor operation and nuclear science. It builds capacity for energy system analysis and planning as well as for infrastructure development for new power and research reactors. It ensures broad Member State access to nuclear information and publications in these and other areas, and provides Member States with guidance and assistance for managing nuclear knowledge.

Major issues and challenges

- Increased support to Member States operating or considering launching nuclear power programmes, uranium mining or other fuel cycle activities, given continued anticipated growth in nuclear power.
- Improved sharing of good practices in spent fuel management (in cooperation with MP3), waste management and disposal.
- Expanded international cooperation on closed fuel cycles and innovative technologies.
- Increased support, in response to the Fukushima-Daiichi nuclear power plant accident in March 2011, to severe accident management, robust post-accident monitoring, accidents involving spent fuel, and advanced design features to withstand more severe accidents.
- Increased support to Member States to advance research, nuclear science and the production of medical radioisotopes.
- Increased support to human resources development for nuclear power, research reactors and nuclear science.

Prioritization

47. Compared to the previous biennium, it is planned to devote increased emphasis in particular to Programmes 1.1, *Nuclear Power,* and 1.2, *Nuclear Fuel Cycle and Materials Technologies*.

48. *Subprogrammes* associated with the greatest increase or decrease in the funding share are marked with an arrow symbol in Table 4 on page 33. The *projects* associated with the greatest funding increases are highlighted below.

Project	Title	Increase from 2011 Adjusted Budget	
		€	%
1.4.1.2	Nuclear data standards and evaluations	351 484	139.9%
1.1.3.4	Economic studies and considerations for new nuclear power programmes	324 900	New Project
1.1.1.1	Engineering support for operating nuclear power plants including safety aspects	274 427	45.4%
1.2.3.2	Providing technical guidance on good practices for long term management of spent fuel	242 460	75.6%
1.2.3.1	Promoting strategies for spent fuel management for established and newcomer nuclear countries	201 442	79.6%

49. The projects associated with the greatest funding decreases are highlighted overleaf.

Project	Title	Decrease from 2011 Adjusted Budget	
		€	%
1.3.4.1	INIS production, content management, quality assurance and preservation	(505 194)	(23.1%)
1.3.5.2	Provision of library services and information support	(291 375)	(23.0%)
1.2.4.2	Supporting development of proliferation resistant fuel cycles	(233 287)	(81.0%)
1.4.1.5	Nuclear data for emerging issues and advanced nuclear facilities	(204 408)	(51.3%)
1.3.4.2	INIS services, partnerships and capacity building	(173 142)	(15.3%)

50. The table below marks the major programme share of the total operational regular budget.

	2011 Adjusted Budget	2012 Estimates
Major programme's share of the operational regular budget	10.2%	10.3%

Efficiencies

51. Despite the planned expansion of Agency activities, travel and representation will not increase in relative terms.

Travel, Representation and Hospitality	2011 Adjusted Budget		2012 Estimates		Variance in €
	€	% of Total MP Budget	€	% of Total MP Budget	
Travel	3 674 174	11.2%	3 723 128	11.1%	48 954
Representation and Hospitality	44 568	0.1%	37 551	0.1%	(7 017)

52. The following table indicates the items of expenditure with the greatest reduction in funding sought for 2012, compared with 2011.

Other Efficiencies by Item of Expenditure	2011 Adjusted Budget		2012 Estimates		Variance in €
	€	% of Total MP Budget	€	% of Total MP Budget	
Equipment purchased	544 141	1.7%	187 178	0.6%	(356 963)
Supplies and materials	1 052 204	3.2%	884 795	2.6%	(167 409)
Miscellaneous	2 884 906	8.8%	2 784 604	8.3%	(100 302)

53. The following table gauges the ‘post AIPS’ realignment of the Agency’s staffing profile.

Staff	2011 Adjusted Budget		2012 Estimates	
	P	GS	P	GS
Full Time Equivalents (FTEs)	109.2	76.3	110.9	73.4
GS to P ratio	69.9%		66.2%	
Variance from 2011 budget			1.7	(2.9)

54. The following table provides highlights of selected efficiency initiatives. (The corresponding savings are provided for the sake of completeness, despite possible overlap with the efficiencies captured in either of the three previous tables.)

Other efficiencies	Value (€) 2012
Cooperation support for international events and meetings through technical inputs and without financial support	(260 000)
Enhanced use of research agreements instead of research contracts and coordinated research projects	(13 000)

Technical adjustments

		€
2011 budget as per GC(54)/2	a	32 255 470
Printing and translation adjustment	b	425 000
Standard costs (CSC factor) adjustment	c	54 949
2011 Adjusted Budget	d = a+b+c	32 735 419
2012 Budget Proposal	e	33 566 992
Increases	**€**	**%**
Variance 2012 over 2011 adjusted budget	831 573	2.5%
Increase reserved to AIPS Services Unit	221 569	

Major Programme 2 — Nuclear Techniques for Development and Environmental Protection

Scope

55. Major Programme 2 supports the Millennium Development Goals (MDG) by assisting Member States to use nuclear techniques. Priorities are addressed in the following areas:

The *Food and Agriculture* programme includes cooperation with the FAO on related programmatic issues.

The *Human Health* programme promotes maternal and infant nutrition and addresses radiation medicine activities, including radiotherapy to combat disease. Other critical initiatives include the Programme of Action for Cancer Therapy (PACT) and the WHO/IAEA Joint Programme on Cancer Control.

The *Water Resources* programme assists Member States in the use of nuclear and isotope techniques to accurately assess water resources in order to better manage them.

The *Environment* programme uses nuclear techniques to examine the impact of climate change and pollution in marine and terrestrial ecosystems as a basis for building strategies to protect the environment.

The *Radioisotope Production and Radiation Technology* programme strengthens Member State capabilities in the production of radioisotopes and supports the secure supply for various medical, industrial and research applications.

Major issues and challenges

- Continued need to address diseases, water scarcity, and environmental degradation, and enhance food security and economic growth.
- Increased interest in and demands for the use of nuclear sciences and applications for addressing current development challenges.
- Development and use of effective approaches for providing assistance, including via partnerships, networks and modern training approaches.
- Focus on assuring quality of services provided.
- Facilitating new developments in science and technology.
- Support to Member States to increase their capacities to utilize nuclear sciences and technologies safely, effectively and efficiently.

Prioritization

56. Compared to the previous biennium, it is planned that increased emphasis be devoted, in particular, to Programme 2.5, *Radioisotope Production and Radiation Technology,* and Programme 2.2, *Human Health*.

57. *Subprogrammes* associated with the greatest increase or decrease in the funding share are marked with an arrow symbol in Table 5 on page 34. The *projects* associated with the greatest funding increases are highlighted below.

Project	Title	Increase from 2011 Adjusted Budget	
		€	%
2.1.2.2	Reducing risk from transboundary animal diseases (TADs) and those of zoonotic importance	380 642	48.2%
2.4.2.2	Nuclear techniques and isotopes for understanding ocean acidification and related socio-economic impact	333 149	N/A
2.2.3.3	Quality assurance in radiotherapy	278 443	177.8%
2.4.4.3	Radioanalytical method developments for determination of radioactivity in environmental samples	256 461	New Project
2.2.5.1	Cancer control capacity assessment and evaluation	254 683	175.6%

58. The projects associated with the greatest funding decreases are highlighted below.

Project	Title	Increase from 2011 Adjusted Budget	
		€	%
2.2.3.1	Radiation oncology	(551 230)	(38.3%)
2.3.1.2	Synthesis and dissemination of global isotope data and related information	(370 296)	(59.0%)
2.4.2.1	Isotopic tools to study climate and environmental change	(345 228)	(37.2%)
2.1.4.3	Management of transboundary livestock insect pests for sustainable agriculture and rural development	(329 685)	(25.7%)
2.1.2.3	Innovative nuclear based approaches to maintain biodiversity and enhance livestock productivity	(212 987)	(24.7%)

59. The table below marks the major programme share of the total operational regular budget.

	2011 Adjusted Budget	2012 Estimates
Major programme's share of the operational regular budget	11.7%	11.7%

Efficiencies

60. Despite the planned expansion of Agency activities, travel and representation combined will decrease.

Travel, Representation and Hospitality	2011 Adjusted Budget		2012 Estimates		Variance in €
	€	% of Total MP Budget	€	% of Total MP Budget	
Travel	3 439 661	9.2%	3 299 079	8.6%	(140 582)
Representation and hospitality	30 031	0.1%	30 099	0.1%	68

61. The following table indicates the items of expenditure with the greatest reduction in funding sought for 2012, compared with 2011.

Other Efficiencies by Item of Expenditure	2011 Adjusted Budget		2012 Estimates		Variance in €
	€	% of Total MP Budget	€	% of Total MP Budget	
Equipment purchased	688 444	1.8%	216 270	0.6%	(472 174)
Research and technical contracts	4 820 559	12.9%	4 391 800	11.4%	(428 759)
Short-term consultants/experts	1 242 790	3.3%	853 842	2.2%	(388 948)

62. The following table gauges the 'post AIPS' realignment of the Agency's staffing profile.

Staff	2011 Adjusted Budget		2012 Estimates	
	P	GS	P	GS
Full Time Equivalents (FTEs)	105.4	111.4	111.3	110.4
GS to P ratio	105.7%		99.2%	
FTEs Variance			5.9	(1.0)

63. The following table provides highlights of selected efficiency initiatives. (The corresponding savings are provided for the sake of completeness, despite possible overlap with the efficiencies captured in either of the three previous tables.)

Other efficiencies	Value (€) 2012
Consolidation of activities related to reference materials reducing costs of productions	(100 000)
Centralization of education and training activities	(80 000)
Enhanced use of research agreements in CRPs instead of research contracts. Reducing the level of support for meeting participants. Focusing only on technical inputs/support to international conferences/meetings	(50 000)

Technical adjustments

		€
2011 Budget as per GC(54)/2	a	37 088 500
Printing and Translation Adjustment	b	488 000
Standard Costs (CSC factor) Adjustment	c	(63 013)
2011 Adjusted Budget	d = a+b+c	37 513 487
2012 Budget Proposal	e	38 419 272
Increases	**€**	**%**
Variance 2012 over 2011 adjusted budget	905 785	2.4%
Increase reserved to AIPS Services Unit	260 103	

Major Programme 3 — Nuclear Safety and Security

Scope

64. Major Programme 3 establishes and continuously improves Agency safety standards and security guidance. The Agency provides for application of safety standards to its own operations, as well as — upon request — to activities carried out by Member States. This major programme also provides for international preparedness for effectively responding to and mitigating the consequences of a nuclear and radiological incident or emergency, and for supporting global efforts to improve nuclear security.

Major issues and challenges

- Establishment and continuous improvement of safety standards and security guidance, assessment of their application and promotion of related international instruments.
- Ensuring safe and secure development of new or expanding nuclear power programmes.
- Strengthening national infrastructures for safety and security.
- Strengthening control of medical, occupational and public exposure to radiation.
- Decommissioning of nuclear installations and remediation of contaminated sites.
- Addressing the continuous threat of nuclear terrorism and the misuse of nuclear and other radioactive material.
- Improving long term management of radioactive sources, spent fuel and radioactive waste.
- Enhancing emergency preparedness and response capabilities and arrangements.

- Addressing the issues and lessons learned from the accident at the Fukushima Daiichi Nuclear Power Station through the development and implementation of an *action plan*.

Prioritization

65. Compared to the previous biennium, it is planned that increased emphasis will be devoted in particular to Programmes 3.2, *Safety of Nuclear Installations*, especially following the accident at Fukushima[1], and 3.5, *Nuclear Security*.

66. *Subprogrammes* associated with the greatest increase or decrease in the funding share are marked with an arrow symbol in Table 6 on page 35. The *projects* associated with the greatest funding increases are highlighted below.

Project	Title	Increase from 2011 Adjusted Budget	
		€	%
3.5.2.1	Developing guidance documents for global nuclear security	415 926	68.8%
3.2.4.1	Enhancing the operational safety performance	376 367	33.8%
3.2.1.2	Developing safety infrastructure of countries embarking on nuclear power	254 781	89.8%
3.3.2.1	Control of radiation sources	240 648	24.6%
3.1.1.2	Enhancing international emergency management	225 637	92.5%

67. The projects associated with the greatest funding decreases are highlighted below.

Project	Title	Decrease from 2011 Adjusted Budget	
		€	%
3.4.2.3	Managing disused sealed radioactive sources (DSRS)	(395 459)	(60.7%)
3.1.2.1	Responding to incidents and emergencies	(309 863)	(16.9%)
3.2.1.3	Improving the IAEA safety standards, supporting the Convention on Nuclear Safety, the International Nuclear Safety Group (INSAG) and other international organizations	(297 988)	(25.8%)
3.2.3.1	Promoting an integrated approach for site safety and protection against internal and external hazards	(262 398)	(34.4%)
3.5.2.2	Research and development to support the further development of the nuclear security framework	(178 759)	(37.3%)

68. The table below marks the major programme share of the total operational regular budget.

	2011 Adjusted Budget	2012 Estimates
Major programme's share of the operational regular budget	9.9%	10.3%

Efficiencies

69. Despite the planned expansion of Agency activities, travel and representation will not increase.

Travel, Representation and Hospitality	2011 Adjusted Budget		2012 Estimates		Variance in €
	€	% of Total MP Budget	€	% of Total MP Budget	
Travel	3 142 140	9.9%	3 142 140	9.3%	-
Representation and hospitality	54 423	0.2%	34 300	0.1%	(20 123)

[1] Ref.: Para. 9, 1st bullet.

70. The following table indicates the items of expenditure with the greatest reduction in funding sought for 2012, compared to 2011.

Other Efficiencies by Item of Expenditure	2011 Adjusted Budget		2012 Estimates		Variance in €
	€	% of Total MP Budget	€	% of Total MP Budget	
Research and technical contracts	375 505	1.2%	93 000	0.3%	(282 505)
Interpretation services	141 796	0.4%	-	0.0%	(141 796)
Training	94 607	0.3%	20 000	0.1%	(74 607)
Supplies and materials	154 589	0.5%	86 346	0.3%	(68 243)

71. The following table gauges the 'post AIPS' realignment of the Agency's staffing profile.

Staff	2011 Adjusted Budget		2012 Estimates	
	P	GS	P	GS
Full Time Equivalents (FTEs)	123.6	83.4	132.2	84.6
GS to P ratio	67.5%		64.0%	
FTEs Variance			8.6	1.2

72. The following table provides highlights of selected efficiency initiatives. (The corresponding savings are provided for the sake of completeness, despite possible overlap with the efficiencies captured in either of the three previous tables.)

Other efficiencies	Value (€) 2012
Interpretation for the country group meetings associated with the Convention on Nuclear Safety (CNS) will be reduced significantly with Member State agreement	(140 000)
Safety Guides will no longer be translated into other Agency languages. (Safety Fundamentals and Safety Requirements approved by the Board will continue to be translated)	(80 000)
Safety Standards will no longer be printed, but only produced electronically to ensure that users of the standards always have the latest versions	(40 000)

Technical adjustments

		€
2011 Budget as per GC(54)/2	a	31 041 432
Printing and Translation Adjustment	b	395 000
Standard Costs (CSC factor) Adjustment	c	200 903
Adjusted 2011 Budget	d = a+b+c	31 637 335
2012 Budget Proposal	e	33 856 695
Increases	€	%
Variance 2012 over 2011 adjusted budget	2 219 360	7.0%
Increase reserved to AIPS Services Unit	226 386	

Major Programme 4 — Nuclear Verification

Scope

73. Major Programme 4 supports the Agency's statutory mandate to establish and administer safeguards designed to ensure that special fissionable and other materials, services, equipment, facilities and information made available by the Agency or at its request or under its supervision or control are not used in such a way as to further any military purpose. Under this major programme, the Agency carries out information analysis, verification and evaluation activities, and manages safeguards instrumentation and analytical services required for implementing safeguards. Strategic planning and development activities enable the Agency to improve the overall effectiveness and efficiency of the safeguards system.

74. This major programme will continuously strive to strengthen the effectiveness and improve the efficiency of safeguards and other verification activities. The Agency will seek to provide credible assurances that States are fully honouring their safeguards obligations. To this end, it will improve its capability to draw independent and soundly based safeguards conclusions and to detect early possible cases of misuse, particularly undeclared nuclear material and activities.

Major issues and challenges

- Further development of the State-level concept for the planning, implementation and evaluation of safeguards activities, and development and implementation of State-level approaches for additional States.
- Strengthening of technical capabilities and improvement of infrastructure for safeguards analytical services information and communication.
- Outreach activities to assist States putting in place the legal authority required for the implementation of safeguards, and associated assistance and guidance to States, particularly to those introducing nuclear power.
- Improvement of overall management (e.g. strategic planning, quality management, resources management).
- Preparedness to respond to requests to assist with verification tasks under nuclear disarmament or arms control agreements.

Prioritization

75. *Subprogrammes* associated with the greatest increase or decrease in the funding share are marked with an arrow symbol in Table 7 on page 36. The *projects* associated with the greatest funding increases are highlighted below.[2]

Project	Title	Increase from 2011 Adjusted Budget	
		€	%
4.1.3.2	Verification in States with comprehensive safeguards agreements	5 478 633	357.5%
4.1.5.2	ICT operations and security	3 896 737	86.1%
4.1.7.1	Samples analysis	2 796 162	46.3%
4.1.6.3	Equipment logistics and storage	1 357 211	108.3%
4.1.2.3	Verification in States with voluntary offer agreements: China	517 662	200.4%

76. The projects associated with the greatest funding decreases are highlighted below.

Project	Title	Decrease from 2011 Adjusted Budget	
		€	%
4.1.3.1	Verification in States with comprehensive safeguards agreements and additional protocols in force	(5 147 732)	(44.3%)
4.1.7.2	Analytical support	(3 106 540)	(53.4%)
4.3.1.4	ICT infrastructure development and security	(2 937 133)	(75.3%)
4.3.2.2	Unattended safeguards instrumentation development	(1 477 385)	(59.8%)
4.3.1.2	IAEA Safeguards Information System (ISIS) transitioning phase	(1 277 791)	(64.1%)

[2] The 2012 increase of €5.5 million in funding for Project 4.1.3.2, *Verification in States with comprehensive safeguards agreements* is almost fully offset by a decrease in Project 4.1.3.1, *Verification in States with comprehensive safeguards agreements and additional protocols in force*. This trend reflects the historical budget utilization for both projects. The decisions to conclude and bring into force safeguards agreements and additional protocols is a matter of national policy and rests with States. The Secretariat encourages Member States to refer to the Plan of Action to Promote the Conclusion of Safeguards Agreements and Additional Protocols. In addition, with the introduction of the new programme structure, the budget increases in the projects of the Safeguards Implementation programme are largely offset by decreases in the Development programme.

77. The table below marks the major programme share of the total operational regular budget.

	2011 Adjusted Budget	2012 Estimates
Major programme's share of the operational regular budget	39.2%	38.8%

Efficiencies

78. Despite the planned expansion of Agency activities, travel and representation will decrease.

Travel, Representation and Hospitality	2011 Adjusted Budget		2012 Estimates		Variance in €
	€	% of Total MP Budget	€	% of Total MP Budget	
Travel	9 478 697	7.6%	8 481 866	6.7%	(996 831)
Representation and hospitality	39 887	0.0%	29 150	0.0%	(10 737)

79. The following table indicates the items of expenditure with the greatest reduction in funding sought for 2012, compared with 2011.

Other Efficiencies by Item of Expenditure	2011 Adjusted Budget		2012 Estimates		Variance in €
	€	% of Total MP Budget	€	% of Total MP Budget	
Contracts	3 925 985	3.1%	1 776 310	1.4%	(2 149 675)
Equipment purchased	7 471 386	6.0%	6 380 803	5.0%	(1 090 583)
Supplies and materials	3 156 591	2.5%	2 663 182	2.1%	(493 409)
General operating costs	5 151 307	4.1%	4 670 532	3.7%	(480 775)
Direct implementation costs	9 666 120	7.7%	9 242 663	7.3%	(423 457)

80. The following table gauges the 'post AIPS' realignment of the Agency's staffing profile.

Staff	2011 Adjusted Budget		2012 Estimates	
	P	GS	P	GS
Full Time Equivalents (FTEs)	453.6	265.2	485.5	272.1
GS to P ratio	58.5%		56.0%	
FTEs Variance			31.9	6.9

Technical adjustments

		€
2011 budget as per GC(54)/2	a	123 143 928
Printing and translation adjustment	b	1 615 000
Standard costs (CSC factor) adjustment	c	700 899
2011 Adjusted Budget	d = a+b+c	125 459 827
2012 Budget Proposal	e	127 188 461
Increases	**€**	**%**
Variance 2012 over 2011 adjusted budget	1 728 634	1.4%
Increase reserved to AIPS Services Unit	851 357	

Major Programme 5 — Policy, Management and Administration Services

Scope

81. Major Programme 5 will continue to comprise policy, management and administration functions:

First, leadership under the Director General to provide the coordination necessary to maintain a one-house approach, the strategic planning of programmes and the formulation of associated budgets, the setting of priorities, the evaluation and assessment of performance, and the maintenance of physical and information security.

Second, services provided to Member States and the Agency's Policy-making Organs — particularly the General Conference and the Board of Governors, its committees and working groups — to enable them to effectively discharge their statutory responsibilities.

Third, the necessary support in terms of legal, financial, human resources, conference and document services, procurement and general services to the implementation and delivery of the Agency's programmes.

Fourth, the internal audit, investigation, evaluation and management services provided to senior management and, through evaluations, also to the Board of Governors.

Finally, the management and interchange of information within the Secretariat, and between the Secretariat and Member States, the media and the general public.

Major issues and challenges

- Establishment of a dedicated policy and strategic planning function.
- Improvement of performance reporting for the programme.
- Further increase in efficiency, especially through the implementation of AIPS.
- Strengthening investigation and programme evaluation.
- Full compliance with IPSAS, leading to greater transparency in financial reporting.
- Excellence in human resources planning, recruitment and selection, staff development, performance management and continuing improvement of gender balance at the professional level.
- Constant vigilance to ensure maintenance of physical and information security.

Prioritization

82. Compared to the previous budget biennium, it is planned that increased emphasis be devoted to Oversight Services. This is marked with an arrow symbol in Table 8 on page 37.

83. Since activities in this major programme are of a recurrent and ongoing nature, the funding increases that are displayed below highlight significant trends in selected subfunctions.

Subfunction	Title	Increase from 2011 Adjusted Budget	
		€	%
5.0.3.3	Programme evaluation - *Planned increase in programme evaluations*	251 704	34.5%
5.0.6.1	Budgeting, accounting, monitoring and reporting - *Full IPSAS compliance*	184 671	5.9%
5.0.2.1	General legal affairs - *Increased demand for legal services*	158 557	16.9%
5.0.8.3	Facilities management - *Multiple critical facility management projects*	132 794	0.9%
5.0.3.2	Investigation - *Strengthened oversight activities*	128 338	52.1%

84. Since activities in this major programme are of a recurrent and ongoing nature, the funding decreases that are displayed below highlight significant trends in selected subfunctions.

Subfunction	Title	Decrease from 2011 Adjusted Budget	
		€	%
5.0.6.3	Financial policy coordination and reporting support - *Retirement of legacy systems*	(497 749)	(32.5%)
5.0.8.4	Archives and records management - *Storage of official correspondence in the Agency's electronic records*	(386 556)	(10.4%)
5.0.4.2	Press and public outreach - *Expanded use of multimedia tools*	(259 260)	(15.3%)

85. The table below marks the major programme share of the total operational regular budget.

	2011 Adjusted Budget	2012 Estimates
Major programme's share of the operational regular budget	23.2%	22.7%

Efficiencies

86. Despite the planned expansion of Agency activities, travel and representation will decrease.

Travel, Representation and Hospitality	2011 Adjusted Budget		2012 Estimates		Variance in €
	€	% of Total MP Budget	€	% of Total MP Budget	
Travel	975 178	1.3%	737 778	1.0%	(237 400)
Representation and hospitality	83 518	0.1%	54 354	0.1%	(29 164)

87. The following table indicates the items of expenditure with the greatest reduction in funding sought for 2012, compared with 2011.

Other Efficiencies by Item of Expenditure	2011 Adjusted Budget		2012 Estimates		Variance in €
	€	% of Total MP Budget	€	% of Total MP Budget	
Short-term consultants/experts	1 313 522	1.8%	483 028	0.7%	(830 494)
Contracts	2 998 873	4.0%	2 615 257	3.5%	(383 616)
Supplies and materials	1 030 375	1.4%	671 914	0.9%	(358 461)
General operating costs	2 325 159	3.1%	2 015 731	2.7%	(309 428)
Miscellaneous	777 398	1.0%	579 900	0.8%	(197 498)

88. The following table gauges the ‘post AIPS’ realignment of the Agency’s staffing profile which is particularly visible in MP5.

Staff	2011 Adjusted Budget		2012 Estimates	
	P	GS	P	GS
Full Time Equivalents (FTEs)	204.9	351.9	212.6	335.1
GS to P ratio	171.8%		157.6%	
Variance from 2011 budget			7.7	(16.8)

89. The following table provides highlights of selected efficiency initiatives. (The corresponding savings are provided for the sake of completeness, despite possible overlap with the efficiencies captured in either of the three previous tables.)

Other efficiencies	Value (€) 2012
Reduction in the use of short-term consultants in *Financial Management and Services*, *Human Resources Management* and *Conference, Languages and Publishing Services*	(672 000)
Lower budgets for equipment purchases and general operating expenses across all functions	(400 000)
Reduced budget for switchboard assistance through automated processing of long-distance calls and outsourcing in *Information and Communication Technology*	(200 000)
Digitalizing of official records and movement towards a paperless office environment	(180 000)
With the aims of improving coordination, avoiding duplication, and enhancing overall efficiency, the Subfunction *Policy coordination and external relations* has been merged with Subfunction *Executive leadership*	(158 000)
Implementation of more efficient procurement processes for low value purchases	(150 000)

Technical adjustments

		€
2011 budget as per GC(54)/2	a	78 098 252
Printing and translation adjustment	b	(3 171 000)
Standard costs (CSC factor) adjustment	c	(705 738)
2011 Adjusted Budget	d = a+b+c	74 221 514
2012 Budget Proposal	e	74 221 514
Increases	**€**	**%**
Variance 2012 over 2011 adjusted budget	-	0.0%
Reserved for AIPS Services Unit	529 840	

Major Programme 6 — Management of Technical Cooperation for Development

Scope

90. Major Programme 6 covers the management of the technical cooperation programme (TCP), which comprises national, regional and interregional projects funded from the Technical Cooperation Fund (TCF) and extrabudgetary contributions. As of December 2010, 114 countries are participating in the TCP.

Major issues and challenges

- Addressing evolving needs of Member States through the formulation and implementation of the Agency's TCP, in compliance with the principles of shared responsibility.
- Promotion of mechanisms for:
  - strengthening partnerships, including with organizations of the United Nations system, multilateral financial institutions, regional development and other relevant inter-governmental and non-governmental organizations,
  - exchanging and sharing of information and capacity strengthening initiatives, through, inter alia, the InTouch platform, and serving as a hub for nuclear knowledge and technology.
  - facilitating partnerships, networking and cooperation activities among Member States to increase the quality and impact of the TC programme.
- Strengthening the Major Programme's capability to swiftly and effectively respond to unforeseen needs of Member States.
- Adoption of best practices in project formulation, implementation, monitoring and evaluation.
- Strengthening Country Programme Frameworks (CPF) and their linkage to relevant national United Nations Development Assistance Frameworks (UNDAFs) to enhance the effectiveness, visibility and impact of TC activities within the context of the activities of lead organizations in areas such as health, food and the environment.

Prioritization

91. The *subfunctions* associated with the greatest funding increases are highlighted below.

Subfunction	Title	Increase from 2011 Adjusted Budget	
		€	%
6.0.1.3	Management of the TC programme for Africa	236 714	6.8%
6.0.1.4	Management of the TC programme for Asia and the Pacific	171 975	5.5%
6.0.1.7	Procurement services	151 441	9.5%
6.0.1.2	Coordination of and support to the TC programme	137 411	3.5%

92. The subfunctions associated with the greatest funding decreases are highlighted below.

Subfunction	Title	Decrease from 2011 Adjusted Budget	
		€	%
6.0.1.6	Management of the TC programme for Latin America	(98 034)	(3.9%)
6.0.1.1	Overall management and strategic guidance	(62 244)	(5.7%)

93. The table below marks the major programme share of the total operational regular budget.

	2011 Adjusted Budget	2012 Estimates
Major programme's share of the operational regular budget	5.9%	6.2%

Efficiencies

94. Despite the planned expansion of Agency activities, travel and representation will not increase.

Travel, Representation and Hospitality	2011 Adjusted Budget		2012 Estimates		Variance in €
	€	% of Total MP Budget	€	% of Total MP Budget	
Travel	198 582	1.1%	122 251	0.6%	(76 331)
Representation and hospitality	12 546	0.1%	12 546	0.1%	-

95. The following table indicates the items of expenditure with the greatest reduction in funding sought for 2012, compared with 2011.

Other Efficiencies by Item of Expenditure	2011 Adjusted Budget		2012 Estimates		Variance in €
	€	% of Total MP Budget	€	% of Total MP Budget	
Contracts	322 004	1.7%	-	0.0%	(322 004)

96. The following table gauges the 'post AIPS' realignment of the Agency's staffing profile.

Staff	2011 Adjusted Budget		2012 Estimates	
	P	GS	P	GS
Full Time Equivalents (FTEs)	71.6	110.2	75.1	110.1
GS to P ratio	154.0%		146.6%	
Variance from 2011 budget			3.5	(0.1)

97. The following table provides highlights of selected efficiency initiatives. (The corresponding savings are provided for the sake of completeness, despite possible overlap with the efficiencies captured in either of the three previous tables.)

Other efficiencies	Value (€) 2012
Consolidation of administrative functions	(192 000)

Technical adjustments

		€
2011 budget as per GC(54)/2	a	18 773 821
Printing and translation adjustment	b	248 000
Standard costs (CSC factor) adjustment	c	(188 000)
2011 Adjusted Budget	d = a+b+c	18 833 821
2012 Budget Proposal	e	20 147 282
Increases	**€**	**%**
Variance 2012 over 2011 adjusted budget	1 313 461	7.0%
Increase reserved to AIPS Services Unit	214 344	

Major Programme 1 — Nuclear Power, Fuel Cycle and Nuclear Science
Summary of Regular Budget Resources for the Biennium
(excluding Major Capital Investments)

Table 4

	Subprogramme / Programme		2011 adjusted budget	2012 estimates at 2011 prices	Variance 2012 over 2011 €	Variance 2012 over 2011 %	2013 prelim. estimates at 2011 prices	Variance 2013 over 2012 €	Variance 2013 over 2012 %	Price Adjustment	**2012 estimates at 2012 prices**	**2013 prelim. estimates at 2012 prices**
1.0.0.1	Overall management, coordination and common activities		1 072 909	1 049 724	(23 185)	(2.2%)	1 065 899	16 175	1.5%	0.8%	1 058 593	1 074 317
			1 072 909	**1 049 724**	**(23 185)**	**(2.2%)**	**1 065 899**	**16 175**	**1.5%**	**0.8%**	**1 058 593**	**1 074 317**
1.1.1	Integrated Support for Operating Nuclear Facilities	↑	1 607 346	2 124 169	516 823	32.2%	2 137 816	13 647	0.6%	-	2 124 363	2 136 083
1.1.2	Support for Expansion of Nuclear Power Plants		559 164	592 992	33 828	6.0%	594 868	1 876	0.3%	0.6%	596 698	598 562
1.1.3	Infrastructure and Planning for the Introduction of Nuclear Power Programmes	↑	1 668 026	2 073 190	405 164	24.3%	2 083 090	9 900	0.5%	0.2%	2 077 362	2 086 573
1.1.4	International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO)		650 439	659 262	8 823	1.4%	660 262	1 000	0.2%	0.8%	664 268	665 279
1.1.5	Technology Development for Advanced Reactor Lines		1 932 587	1 976 397	43 810	2.3%	1 978 049	1 652	0.1%	(0.1%)	1 974 285	1 975 952
1.1.6	Support for Non-electric Applications of Nuclear Power		547 009	515 909	(31 100)	(5.7%)	497 834	(18 075)	(3.5%)	(0.6%)	512 954	493 689
Programme 1.1 - Nuclear Power			**6 964 571**	**7 941 919**	**977 348**	**14.0%**	**7 951 919**	**10 000**	**0.1%**	**0.1%**	**7 949 930**	**7 956 138**
1.2.1	Uranium Resources and Production and Databases for the Nuclear Fuel Cycle		1 337 165	1 264 304	(72 861)	(5.4%)	1 278 504	14 200	1.1%	(0.1%)	1 263 422	1 277 370
1.2.2	Nuclear Power Reactor Fuel Engineering		653 823	627 183	(26 640)	(4.1%)	661 183	34 000	5.4%	(0.2%)	625 899	657 804
1.2.3	Management of Spent Fuel from Nuclear Power Reactors	↑	573 668	1 047 623	473 955	82.6%	1 049 623	2 000	0.2%	(0.9%)	1 038 191	1 041 032
1.2.4	Topical Issues of Nuclear Fuels and Fuel Cycles for Advanced and Innovative Reactors	↓	695 047	544 705	(150 342)	(21.6%)	503 505	(41 200)	(7.6%)	(1.2%)	537 919	498 957
Programme 1.2 - Nuclear Fuel Cycle and Materials Technologies			**3 259 703**	**3 483 815**	**224 112**	**6.9%**	**3 492 815**	**9 000**	**0.3%**	**(0.5%)**	**3 465 431**	**3 475 163**
1.3.1	Energy Modelling, Data and Capacity Building	↑	1 676 558	1 895 427	218 869	13.1%	1 915 427	20 000	1.1%	0.2%	1 899 013	1 919 275
1.3.2	Energy Economy Environment (3E) Analysis		1 454 272	1 443 438	(10 834)	(0.7%)	1 454 938	11 500	0.8%	0.5%	1 451 276	1 462 657
1.3.3	Nuclear Knowledge Management (NKM)		2 075 292	2 200 592	125 300	6.0%	2 237 092	36 500	1.7%	0.3%	2 208 223	2 241 225
1.3.4	International Nuclear Information System (INIS)	↓	3 321 768	2 740 333	(581 435)	(17.5%)	2 656 658	(83 675)	(3.1%)	1.2%	2 772 480	2 693 064
1.3.5	Library and Information Support	↓	2 916 756	2 621 733	(295 023)	(10.1%)	2 639 233	17 500	0.7%	1.8%	2 668 614	2 686 458
Programme 1.3 - Capacity Building and Nuclear Knowledge Maintenance for Sustainable Energy Development			**11 444 646**	**10 901 523**	**(543 123)**	**(4.7%)**	**10 903 348**	**1 825**	**-**	**0.9%**	**10 999 606**	**11 002 679**
1.4.1	Atomic and Nuclear Data		2 860 650	2 835 711	(24 939)	(0.9%)	2 840 257	4 546	0.2%	0.3%	2 844 254	2 848 590
1.4.2	Research Reactors	↑	1 415 145	1 719 329	304 184	21.5%	1 722 329	3 000	0.2%	(0.4%)	1 713 252	1 717 974
1.4.3	Accelerators and Nuclear Spectrometry for Materials Science and Analytical Applications		2 605 535	2 587 007	(18 528)	(0.7%)	2 579 461	(7 546)	(0.3%)	0.5%	2 600 468	2 593 141
1.4.4	Nuclear Fusion Research		634 489	642 005	7 516	1.2%	642 005	-	-	(0.4%)	639 570	641 700
1.4.5	Support to the Abdus Salam International Centre for Theoretical Physics (ICTP)		2 477 771	2 405 959	(71 812)	(2.9%)	2 405 959	-	-	2.0%	2 453 443	2 453 432
Programme 1.4 - Nuclear Science			**9 993 590**	**10 190 011**	**196 421**	**2.0%**	**10 190 011**	**-**	**-**	**0.6%**	**10 250 987**	**10 254 837**
Major Programme 1 - Nuclear Power, Fuel Cycle and Nuclear Science			**32 735 419**	**33 566 992**	**831 573**	**2.5%**	**33 603 992**	**37 000**	**0.1%**	**0.5%**	**33 724 547**	**33 763 134**

Major Programme 2 — Nuclear Techniques for Development and Environmental Protection
Summary of Regular Budget Resources for the Biennium
(excluding Major Capital Investments)

Table 5

	Subprogramme / Programme	2011 adjusted budget	2012 estimates at 2011 prices	Variance 2012 over 2011 €	Variance 2012 over 2011 %	2013 prelim. estimates at 2011 prices	Variance 2013 over 2012 €	Variance 2013 over 2012 %	Price Adjustment	**2012 estimates at 2012 prices**	**2013 prelim. estimates at 2012 prices**
2.0.0.1	Overall management, coordination and common activities	4 584 892	4 656 648	71 756	1.6%	4 662 081	5 433	0.1%	1.9%	4 743 359	4 748 842
2.0.0.2	Management of the coordinated research activities	693 025	703 305	10 280	1.5%	703 305	-	-	1.5%	713 681	713 270
		5 277 917	**5 359 953**	**82 036**	**1.6%**	**5 365 386**	**5 433**	**0.1%**	**1.8%**	**5 457 040**	**5 462 112**
2.1.1	Sustainable Intensification of Crop Production Systems	4 036 469	4 126 574	90 105	2.2%	4 110 120	(16 454)	(0.4%)	0.5%	4 148 867	4 136 617
2.1.2	Sustainable Intensification of Livestock Production Systems	2 076 384	2 193 533	117 149	5.6%	2 125 186	(68 347)	(3.1%)	0.9%	2 213 491	2 139 700
2.1.3	Improvement of Food Safety and Food Control Systems	1 607 851	1 562 976	(44 875)	(2.8%)	1 620 052	57 076	3.7%	0.3%	1 567 676	1 627 042
2.1.4	Sustainable Control of Major Insect Pests	3 549 771	3 561 946	12 175	0.3%	3 601 267	39 321	1.1%	0.5%	3 578 085	3 618 783
Programme 2.1 - Food and Agriculture		**11 270 475**	**11 445 029**	**174 554**	**1.5%**	**11 456 625**	**11 596**	**0.1%**	**0.6%**	**11 508 119**	**11 522 142**
2.2.1	Nutrition for Improved Health	1 981 365	1 887 896	(93 469)	(4.7%)	1 889 798	1 902	0.1%	(0.1%)	1 886 859	1 890 025
2.2.2	Nuclear Medicine and Diagnostic Imaging	1 987 452	1 984 795	(2 657)	(0.1%)	1 951 113	(33 682)	(1.7%)	(0.2%)	1 980 304	1 947 340
2.2.3	Radiation Oncology and Cancer Treatment	1 862 563	1 832 251	(30 312)	(1.6%)	1 828 448	(3 803)	(0.2%)	-	1 831 696	1 826 001
2.2.4	Quality Assurance and Metrology in Radiation Medicine	2 344 914	2 677 689	332 775	14.2%	2 682 837	5 148	0.2%	0.4%	2 687 451	2 690 819
2.2.5	Programme of Action for Cancer Therapy (PACT)	1 288 072	1 419 255	131 183	10.2%	1 420 689	1 434	0.1%	0.9%	1 431 485	1 432 913
Programme 2.2 - Human Health		**9 464 366**	**9 801 886**	**337 520**	**3.6%**	**9 772 885**	**(29 001)**	**(0.3%)**	**0.2%**	**9 817 795**	**9 787 098**
2.3.1	Isotope Data Networks for Hydrology and Climate Studies	1 024 550	879 408	(145 142)	(14.2%)	904 807	25 399	2.9%	0.9%	887 038	912 658
2.3.2	Isotope Based Assessments of Water Resources	1 324 384	1 437 144	112 760	8.5%	1 414 104	(23 040)	(1.6%)	0.4%	1 443 468	1 421 569
2.3.3	Radioisotope Applications for Hydrology	1 053 832	1 159 263	105 431	10.0%	1 160 430	1 167	0.1%	0.6%	1 165 931	1 169 628
Programme 2.3 - Water Resources		**3 402 766**	**3 475 815**	**73 049**	**2.1%**	**3 479 341**	**3 526**	**0.1%**	**0.6%**	**3 496 437**	**3 503 855**
2.4.1	IAEA Reference Products for Science and Trade	1 663 808	1 613 616	(50 192)	(3.0%)	1 616 622	3 006	0.2%	0.9%	1 628 111	1 631 133
2.4.2	Nuclear Techniques to Understand Climate and Environmental Change	1 362 866	1 313 784	(49 082)	(3.6%)	1 309 855	(3 929)	(0.3%)	1.3%	1 331 200	1 327 104
2.4.3	Nuclear Techniques for the Sustainable Development of Marine and Land-Coastal Ecosystems	2 298 381	2 323 205	24 824	1.1%	2 311 082	(12 123)	(0.5%)	0.9%	2 343 899	2 332 285
2.4.4	Terrestrial, Aquatic and Atmospheric Ecological Processes	594 839	815 774	220 935	37.1%	834 969	19 195	2.4%	0.5%	819 633	838 930
Programme 2.4 - Environment		**5 919 894**	**6 066 379**	**146 485**	**2.5%**	**6 072 528**	**6 149**	**0.1%**	**0.9%**	**6 122 843**	**6 129 452**
2.5.1	Radioisotope Products for Management of Cancer and other Chronic Diseases	1 011 145	1 062 863	51 718	5.1%	1 071 197	8 334	0.8%	(0.2%)	1 060 704	1 065 632
2.5.2	Radiation Technology Applications for Health Care and Cleaner Industrial Processes and Practices	1 166 924	1 207 347	40 423	3.5%	1 201 310	(6 037)	(0.5%)	(0.5%)	1 201 136	1 198 349
Programme 2.5 - Radioisotope Production and Radiation Technology		**2 178 069**	**2 270 210**	**92 141**	**4.2%**	**2 272 507**	**2 297**	**0.1%**	**(0.4%)**	**2 261 840**	**2 263 981**
Major Programme 2 - Nuclear Techniques for Development and Environmental Protection		**37 513 487**	**38 419 272**	**905 785**	**2.4%**	**38 419 272**	**-**	**-**	**0.6%**	**38 664 074**	**38 668 640**

Major Programme 3 — Nuclear Safety and Security
Summary of Regular Budget Resources for the Biennium
(excluding Major Capital Investments)

Table 6

	Subprogramme / Programme	2011 adjusted budget	2012 estimates at 2011 prices	Variance 2012 over 2011 €	Variance 2012 over 2011 %	2013 prelim. estimates at 2011 prices	Variance 2013 over 2012 €	Variance 2013 over 2012 %	Price Adjustment	**2012 estimates at 2012 prices**	**2013 prelim. estimates at 2012 prices**
3.0.0.1	Enhancing the global nuclear safety and security framework	884 404	890 627	6 223	0.7%	887 430	(3 197)	(0.4%)	0.9%	898 383	895 158
3.0.0.2	Enhancing and strengthening capacity building, communications, knowledge networking, education and training	531 563	515 454	(16 109)	(3.0%)	435 454	(80 000)	(15.5%)	(0.4%)	513 381	438 021
		1 415 967	**1 406 081**	**(9 886)**	**(0.7%)**	**1 322 884**	**(83 197)**	**(5.9%)**	**0.4%**	**1 411 764**	**1 333 179**
3.1.1	Strengthening National and International Emergency Preparedness	1 221 127	1 366 819	145 692	11.9%	1 408 686	41 867	3.1%	(0.1%)	1 365 472	1 405 342
3.1.2	IAEA Incident and Emergency System and Operational arrangements with States and International Organizations	2 232 249	2 175 669	(56 580)	(2.5%)	2 126 399	(49 270)	(2.3%)	0.4%	2 184 729	2 136 559
Programme 3.1 - Incident and Emergency Preparedness and Response		**3 453 376**	**3 542 488**	**89 112**	**2.6%**	**3 535 085**	**(7 403)**	**(0.2%)**	**0.2%**	**3 550 201**	**3 541 901**
3.2.1	Governmental and Regulatory Framework, Safety Infrastructure and Capacity Building for Nuclear Installations	2 988 626	3 157 690	169 064	5.7%	3 160 084	2 394	0.1%	0.6%	3 177 818	3 181 805
3.2.2	Safety Assessment of Nuclear Installations	2 018 622	2 383 566	364 944	18.1%	2 385 960	2 394	0.1%	0.5%	2 395 862	2 399 852
3.2.3	Site Safety and Protection Against Internal and External Hazards	991 757	913 491	(78 266)	(7.9%)	915 885	2 394	0.3%	0.6%	918 532	920 948
3.2.4	Safe Operation of Nuclear Power Plants	2 728 365	3 047 250	318 885	11.7%	3 049 644	2 394	0.1%	0.5%	3 061 098	3 064 355
3.2.5	Safety of Research Reactor and Fuel Cycle Facilities	1 065 973	1 338 293	272 320	25.5%	1 340 687	2 394	0.2%	0.7%	1 347 063	1 349 474
Programme 3.2 - Safety of Nuclear Installations		**9 793 343**	**10 840 290**	**1 046 947**	**10.7%**	**10 852 260**	**11 970**	**0.1%**	**0.6%**	**10 900 373**	**10 916 434**
3.3.1	Radiation Safety and Monitoring	2 905 345	2 927 229	21 884	0.8%	2 919 590	(7 639)	(0.3%)	0.6%	2 946 142	2 936 279
3.3.2	Regulatory Infrastructure and Transport Safety	2 976 279	3 240 534	264 255	8.9%	3 256 695	16 161	0.5%	0.6%	3 260 496	3 275 349
Programme 3.3 - Radiation and Transport Safety		**5 881 624**	**6 167 763**	**286 139**	**4.9%**	**6 176 285**	**8 522**	**0.1%**	**0.6%**	**6 206 638**	**6 211 628**
3.4.1	Waste and Environmental Safety	3 315 503	3 625 258	309 755	9.3%	3 627 519	2 261	0.1%	0.4%	3 639 541	3 642 548
3.4.2	Good Practices and Technologies for Radioactive Waste Management, Decommissioning and Environmental Remediation	3 656 083	3 727 580	71 497	2.0%	3 731 570	3 990	0.1%	(0.2%)	3 721 598	3 723 003
Programme 3.4 - Management of Radioactive Waste		**6 971 586**	**7 352 838**	**381 252**	**5.5%**	**7 359 089**	**6 251**	**0.1%**	**0.1%**	**7 361 139**	**7 365 551**
3.5.1	Needs Assessment, Information Collation and Analysis	1 326 502	1 343 706	17 204	1.3%	1 404 770	61 064	4.5%	0.2%	1 345 787	1 403 375
3.5.2	Contributing to the Establishment of a Global Nuclear Security Framework	1 083 072	1 352 384	269 312	24.9%	1 353 315	931	0.1%	0.1%	1 353 470	1 355 040
3.5.3	Providing Nuclear Security Services	1 452 683	1 491 158	38 475	2.6%	1 492 089	931	0.1%	1.0%	1 505 594	1 506 534
3.5.4	Risk Reduction and Security Improvement	259 182	359 987	100 805	38.9%	360 918	931	0.3%	1.0%	363 570	364 510
Programme 3.5 - Nuclear Security		**4 121 439**	**4 547 235**	**425 796**	**10.3%**	**4 611 092**	**63 857**	**1.4%**	**0.5%**	**4 568 421**	**4 629 459**
Major Programme 3 - Nuclear Safety and Security		**31 637 335**	**33 856 695**	**2 219 360**	**7.0%**	**33 856 695**	**-**	**-**	**0.4%**	**33 998 536**	**33 998 152**

Major Programme 4 — Nuclear Verification
Summary of Regular Budget Resources for the Biennium
(excluding Major Capital Investments)

Table 7

	Subprogramme / Programme		2011 adjusted budget	2012 estimates at 2011 prices	Variance 2012 over 2011 €	Variance 2012 over 2011 %	2013 prelim. estimates at 2011 prices	Variance 2013 over 2012 €	Variance 2013 over 2012 %	Price Adjustment	**2012 estimates at 2012 prices**	**2013 prelim. estimates at 2012 prices**
4.0.0.1	Overall management and coordination		2 312 394	2 573 128	260 734	11.3%	2 578 092	4 964	0.2%	0.8%	2 594 585	2 599 596
4.0.0.2	Quality management	↑	893 350	1 105 486	212 136	23.7%	1 101 686	(3 800)	(0.3%)	1.1%	1 117 857	1 113 945
4.0.0.3	Resources management		1 254 742	1 246 317	(8 425)	(0.7%)	1 325 444	79 127	6.3%	1.1%	1 260 260	1 341 207
			4 460 486	**4 924 931**	**464 445**	**10.4%**	**5 005 222**	**80 291**	**1.6%**	**1.0%**	**4 972 702**	**5 054 748**
4.1.1	Concepts and Planning	↑	3 851 705	4 438 017	586 312	15.2%	4 193 847	(244 170)	(5.5%)	1.1%	4 486 972	4 239 004
4.1.2	Safeguards Implementation in States under the Responsibility of the Division of Operations A		19 424 734	19 559 250	134 516	0.7%	19 486 300	(72 950)	(0.4%)	1.2%	19 796 999	19 723 325
4.1.3	Safeguards Implementation in States under the Responsibility of the Division of Operations B		16 626 787	16 429 625	(197 162)	(1.2%)	16 675 379	245 754	1.5%	1.3%	16 637 167	16 888 273
4.1.4	Safeguards Implementation in States under the Responsibility of the Division of Operations C		16 381 431	17 195 582	814 151	5.0%	17 116 004	(79 578)	(0.5%)	1.1%	17 391 311	17 310 537
4.1.5	Information Analysis and Support	↑	19 658 912	24 480 453	4 821 541	24.5%	24 013 480	(466 973)	(1.9%)	1.2%	24 783 883	24 306 061
4.1.6	Provision of Safeguards Instrumentation		14 031 498	15 322 823	1 291 325	9.2%	15 339 866	17 043	0.1%	1.5%	15 554 514	15 571 726
4.1.7	Safeguards Analytical Services		11 854 504	11 807 750	(46 754)	(0.4%)	11 819 814	12 064	0.1%	1.6%	11 994 624	12 006 755
4.1.8	Effectiveness Evaluation		1 811 161	1 924 201	113 040	6.2%	1 926 269	2 068	0.1%	0.9%	1 941 844	1 943 963
Programme 4.1 - Safeguards Implementation			**103 640 732**	**111 157 701**	**7 516 969**	**7.3%**	**110 570 959**	**(586 742)**	**(0.5%)**	**1.3%**	**112 587 314**	**111 989 644**
4.2.1	Verification Activities: Democratic People's Republic of Korea		-	581 980	581 980	-	581 980	-	-	1.0%	587 780	587 780
Programme 4.2 - Other Verification Activities			**-**	**581 980**	**581 980**	**-**	**581 980**	**-**	**-**	**1.0%**	**587 780**	**587 780**
4.3.1	Making the Safeguards System Fully Information Driven	↓	9 604 036	5 270 625	(4 333 411)	(45.1%)	5 718 484	447 859	8.5%	0.8%	5 312 414	5 772 337
4.3.2	Development of Safeguards Instrumentation	↓	4 292 932	2 599 471	(1 693 461)	(39.4%)	2 593 668	(5 803)	(0.2%)	1.2%	2 630 076	2 624 109
4.3.3	Special Projects	↓	3 461 641	2 653 753	(807 888)	(23.3%)	2 718 148	64 395	2.4%	1.4%	2 690 263	2 756 100
Programme 4.3 - Development			**17 358 609**	**10 523 849**	**(6 834 760)**	**(39.4%)**	**11 030 300**	**506 451**	**4.8%**	**1.0%**	**10 632 753**	**11 152 546**
Major Programme 4 - Nuclear Verification			**125 459 827**	**127 188 461**	**1 728 634**	**1.4%**	**127 188 461**	**-**	**-**	**1.3%**	**128 780 549**	**128 784 718**

Major Programme 5 — Policy, Management and Administration Services
Summary of Regular Budget Resources for the Biennium
(excluding Major Capital Investments)

Table 8

	Functions	2011 adjusted budget	2012 estimates at 2011 prices	Variance 2012 over 2011 €	Variance 2012 over 2011 %	2013 prelim. estimates at 2011 prices	Variance 2013 over 2012 €	Variance 2013 over 2012 %	Price Adjustment	**2012 estimates at 2012 prices**	**2013 prelim. estimates at 2012 prices**
5.0.1	Executive Leadership and Policy	7 762 468	7 578 912	(183 556)	(2.4%)	7 574 948	(3 964)	(0.1%)	1.1%	7 658 771	7 654 606
5.0.2	Legal Services	2 405 402	2 611 028	205 626	8.5%	2 609 704	(1 324)	(0.1%)	0.9%	2 634 289	2 632 955
5.0.3	Oversight Services	2 509 583	2 830 917	321 334	12.8%	2 829 507	(1 410)	-	0.5%	2 845 549	2 844 073
5.0.4	Public Information and Communications	3 263 787	3 121 146	(142 641)	(4.4%)	3 119 601	(1 545)	-	1.3%	3 162 397	3 160 767
5.0.5	Information and Communication Technology	9 555 099	9 416 009	(139 090)	(1.5%)	9 411 359	(4 650)	-	1.1%	9 522 966	9 519 249
5.0.6	Financial Management and Services	7 186 256	6 952 427	(233 829)	(3.3%)	6 948 993	(3 434)	-	1.3%	7 046 265	7 042 779
5.0.7	Human Resources Management	6 176 937	6 311 604	134 667	2.2%	6 308 485	(3 119)	-	1.4%	6 402 045	6 398 777
5.0.8	General Services	28 050 612	28 210 836	160 224	0.6%	28 196 835	(14 001)	-	2.0%	28 781 482	28 765 269
5.0.9	Conference, Languages and Publishing Services	5 291 460	5 219 461	(71 999)	(1.4%)	5 216 883	(2 578)	-	1.6%	5 302 120	5 297 966
5.0.10	Procurement Services	2 019 910	1 969 174	(50 736)	(2.5%)	1 968 199	(975)	-	1.5%	1 999 065	1 998 045
	Major Programme 5 - Policy, Management and Administration Services	**74 221 514**	**74 221 514**	**-**	**-**	**74 184 514**	**(37 000)**	**-**	**1.5%**	**75 354 949**	**75 314 486**

Major Programme 6 — Management of Technical Cooperation for Development
Summary of Regular Budget Resources for the Biennium
(excluding Major Capital Investments)

Table 9

	Functions	2011 adjusted budget	2012 estimates at 2011 prices	Variance 2012 over 2011 €	Variance 2012 over 2011 %	2013 prelim. estimates at 2011 prices	Variance 2013 over 2012 €	Variance 2013 over 2012 %	Price Adjustment	**2012 estimates at 2012 prices**	**2013 prelim. estimates at 2012 prices**
6.0.1	Management of the Technical Cooperation Programme	18 833 821	20 147 282	1 313 461	7.0%	20 147 282	-	-	1.2%	20 389 905	20 389 113
	Major Programme 6 - Management of Technical Cooperation for Development	**18 833 821**	**20 147 282**	**1 313 461**	**7.0%**	**20 147 282**	**-**	**-**	**1.2%**	**20 389 905**	**20 389 113**

I.3 Major Capital Investment Plan (MCIP) for 2012–2021 and Major Capital Investment Fund (MCIF) for 2012–2013

Capital regular budget[1]

98. For 2012 major capital investment requirements total €54.7 million.

99. As explained in paragraph 11, Part I, of this document, the Director General has capped regular budget funding for those major capital items at €8.2 million (€8.0 million plus price adjustment), in both 2012 and 2013. It is proposed that the remaining €46.5 million be addressed as follows:

- €10.7 million funded by carry forward from the Major Capital Investment Fund (MCIF) as follows: a) €5.9 million,[2] resulting from the liquidation of the Agency's provision for revaluation of balance sheet, no longer required under IPSAS; b) €1.9 million from a one off adjustment in education grant charges consistent with IPSAS;[3] c) €2.8 million already included in the MCIF for JMOX; d) €0.1 million from 2010 carry-over.
- Extrabudgetary contributions of €7.5 million already assured.
- Requirements remaining unfunded of €28.3 million of which Table 11 provides an itemized list, at 2012 prices, along with the risks associated with lack of funding in the hope that additional extrabudgetary funding might be forthcoming. Unfunded capital needs for 2012 and 2013 are also reported in Tables 3(a) and 3(b).

100. An overview is provided below for those major capital investments that will receive partial funding from either the regular budget, extrabudgetary contributions already pledged or the MCIF.

Major Programme 4 — Nuclear Verification

Enhancing Capabilities of the Safeguards Analytical Services (ECAS)[4]

101. ECAS refers to the comprehensive improvement of the Safeguards Analytical Laboratories (SAL) in Seibersdorf, which includes the Environmental Sample Laboratory and the Nuclear Material Laboratory.

102. The overall needs for the project are €65.9 million, which represents a € 21.7 million increase vs. the estimated total contained in document GOV/INF/2010/7. The increase results from the revised scope of the project and higher cost estimates. The main changes are in the security and safety component, infrastructure needs, transition and licensing, equipment, office/training space, as well as in project management and coordination.

103. For 2012, it is proposed to fund €5.6 million from the regular budget while extrabudgetary contributions of €7.5 million have been assured, including €2.5 million earmarked for the purchase of a multi-collector inductively coupled plasma mass-spectrometer (MC-ICP/MS). The remaining €10.4 million is unfunded.

104. For 2013, it is proposed that €1.3 million be funded from the regular budget while extrabudgetary contributions of €0.2 million have been assured. The remaining €5.4 million will remain unfunded.

---

[1] In this Section, for 2012–2013, 2012 prices are applied. For 2014 and beyond, figures are indicative.
[2] GC(55)/4 *'The Agency's Accounts for 2010',* Statement II.
[3] This accounting change will result in a one-time budget under-spend of €3.1 million in 2010. It is proposed that €1.9 million of the €3.1 million be placed in MCIF to help fund 2012 capital requirements. The balance of €1.2 million is to be used to contribute to ASU funding in 2011.
[4] In addition to the €34.7 million funding needs for 2012–2014 represented in the ECAS table, funding needs for this project include €30.4 million for the period 2009–2011 and €0.8 million in-kind contributions expected to materialize in 2012–2014. This leads to total funding needs for this project of €65.9 million. It should be also noted that from this document henceforth ECAS will be presented as one project which will include both the comprehensive improvement of the SAL and site development in Seibersdorf.

ECAS	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Funding Needs	**23 473**	**6 918**	**4 317**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**34 707**
Funding Source:											
Regular Budget	5 575	1 314	4 067	-	-	-	-	-	-	-	10 957
Extrabudgetary	7 498	244	250	-	-	-	-	-	-	-	7 991
Carry Forward of MCIF	-	-	-	-	-	-	-	-	-	-	-
Capital Unfunded	10 400	5 360	-	-	-	-	-	-	-	-	15 760

Monitoring equipment and software— JMOX

105. Estimated 2012 and 2013 needs are respectively €4.3 million and €4.8 million. The increased funding needs for 2012–2013 result from the revised facility construction and project schedules together with the transfer of software development costs to the MCIF. The total funding needs for JMOX monitoring equipment and software for the project as a whole are unchanged.

106. For 2012, it is planned that needs be fully met by using €2.8 million previously established for this project and carried forward in the MCIF (see para. 99) and €1.6 million from regular budget assessments.

107. In 2013, approximately €4.4 million remains unfunded. This threatens to undermine the Agency's ability to fulfil its statutory functions. The updated funding plan for JMOX is shown in the following table:

JMOX	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Funding Needs	**4 313**	**4 809**	**4 400**	**1 100**	**100**	**-**	**-**	**-**	**-**	**-**	**14 721**
Funding Source:											
Regular Budget	1 563	368	4 400	1 100	100	-	-	-	-	-	7 531
Extrabudgetary	-	-	-	-	-	-	-	-	-	-	-
Carry Forward of MCIF	2 750	-	-	-	-	-	-	-	-	-	2 750
Capital Unfunded	-	4 440	-	-	-	-	-	-	-	-	4 440

Major Programme 5 — Policy, Management and Administration Services

Agency-wide Information System for Programme Support (AIPS)

108. AIPS is the enterprise resource planning system that the Agency is adopting to improve programme support processes.

109. Requirements for 2012 are slightly lower than reported in GC(54)/2 due to the re-ordering of Plateaus 2 and 3. It is planned to fully fund 2012 AIPS needs through MCIF €7.3 million carry forward comprising: i) €5.7 million from the liquidation of the Agency's provision for revaluation of balance sheet; and ii) €1.6 million of the one-off €1.9 million adjustment in education grant charges (see para. 99).

110. Requirements in 2013 total €6.3 million and it is currently envisioned that, due to the strategic importance of this investment, they will be fully funded from regular budget assessments.

111. The table below summarizes the updated funding plan for AIPS:

AIPS	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Funding Needs	**7 311**	**6 255**	**1 400**	**3 100**	**3 100**	**-**	**1 400**	**-**	**-**	**-**	**22 566**
Funding Source:											
Regular Budget	-	6 255	1 400	3 100	3 100	-	1 400	-	-	-	15 255
Extrabudgetary	-	-	-	-	-	-	-	-	-	-	-
Carry Forward of MCIF	7 311	-	-	-	-	-	-	-	-	-	7 311
Capital Unfunded	-	-	-	-	-	-	-	-	-	-	-

Buildings Management Services (BMS)

112. UNIDO's Buildings Management Special Fund (BMSF) finances upgrades to the Vienna International Centre (VIC). Funding requirements have increased due to the asbestos removal and the C Building renovation. UNIDO's concept of the Special Fund is that VBOs should pay for work in advance to ensure funds availability when obligations are made. However, the Agency makes quarterly payments, based on its budget. It also makes one-off payments based on documented

expenditures, subject to availability of MP5 savings at year-end. The amount that the Agency "owes", as measured against UNIDO's BMS budget, is approximately €6.1 million. Based on the MCIF funding cap established by the Director General, only €0.5 million and €0.2 million can be funded from regular budget assessments in 2012 and 2013, respectively. In 2012 there will also be an MCIF carry forward amount of €0.4 million, comprising a small portion of the liquidation of the Agency's provision for revaluation of the balance sheet, and a minor part of the 2010 carry-over (see para. 99). This will leave unfunded needs of €1.1 million in 2012 and €1.2 million in 2013.

113. The following table summarizes the updated funding plan for BMS:

BMS	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Funding Needs	**2 066**	**1 453**	**1 500**	**1 100**	**-**	**-**	**-**	**-**	**-**	**-**	**6 119**
Funding Source:											
Regular Budget	511	241	1 500	1 100	-	-	-	-	-	-	3 352
Extrabudgetary	-	-	-	-	-	-	-	-	-	-	-
Carry Forward of MCIF	414	-	-	-	-	-	-	-	-	-	414
Capital Unfunded	1 141	1 212	-	-	-	-	-	-	-	-	2 353

Provision for IT infrastructure

114. There will continue to be ICT costs associated with maintaining up-to-date IT infrastructure and services in the areas of data storage, security and encryption, as well as for securing business continuity. Because reliable and secure IT infrastructure is essential to programme delivery, this capital investment is of key importance.

115. In the past, an Equipment Replacement Fund (ERF) was established for ICT infrastructure costs (GOV/2005/22). From 2012, the ERF will be incorporated into the MCIF. Because the existing ERF funding will be exhausted in 2011, €2.9 million is required in 2012 and €1.8 million in 2013. €0.5 million is sought from the regular budget in 2012 and €0.3 million is proposed to be funded through carry forward through MCIF of €0.3 million of the one-off €1.9 million adjustment in education grant charges (see para. 99).This will leave unfunded needs of approximately €2.1 million in 2012 and €1.8 million in 2013.

IT INFRASTRUCTURE	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Funding Needs	**2 854**	**1 757**	**2 100**	**1 100**	**1 000**	**1 800**	**4 100**	**2 500**	**1 000**	**1 800**	**20 011**
Funding Source:											
Regular Budget	504	-	2 100	1 100	1 000	1 800	4 100	2 500	1 000	1 800	15 904
Extrabudgetary	-	-	-	-	-	-	-	-	-	-	-
Carry Forward of MCIF	287	-	-	-	-	-	-	-	-	-	287
Capital Unfunded	2 063	1 757	-	-	-	-	-	-	-	-	3 820

116. The following table shows the capital regular budget details for 2012–2013:

Table 10. Capital Regular Budget Details 2012–2013

	Major Capital Item / Major Programme	2011 Adjusted Budget	2012 estimates at 2011 prices	2013 prelim. estimates at 2011 prices	Price Adjustment	2012 estimates at 2012 prices	2013 prelim. estimates at 2012 prices
2.1.1	Replacement of ageing equipment in Seibersdorf and Monaco	919 219	-	-	-	-	-
	Total Major Programme 2	**919 219**	**-**	**-**	**-**	**-**	**-**
4.3.3	Enhancing Capabilities of the Safeguards Analytical Services (ECAS)	3 453 562	5 450 000	1 284 800	2.3%	5 575 350	1 314 350
4.3.3	Share of site development costs in Seibersdorf	177 066	-	-	-	-	-
4.3.3	Monitoring equipment - JMOX	-	1 550 000	365 400	0.8%	1 562 555	368 360
	Total Major Programme 4	**3 630 629**	**7 000 000**	**1 650 200**	**2.0%**	**7 137 905**	**1 682 710**
5.0.1	Agency-wide Information System for Programme Support (AIPS)	1 963 395	-	6 114 000	2.3%	-	6 254 622
5.0.5	Provision for IT infrastructure investment	-	500 000	-	0.8%	504 050	-
5.0.6	International Public Sector Accounting Standards (IPSAS)	103 123	-	-	-	-	-
5.0.8	C Building electronics	1 000 000	-	-	-	-	-
5.0.8	Buildings Management Services (BMS)	-	500 000	235 800	2.3%	511 500	241 224
5.0.8	Agency share of M Building	500 000	-	-	-	-	-
	Total Major Programme 5	**3 566 518**	**1 000 000**	**6 349 800**	**1.6%**	**1 015 550**	**6 495 846**
	Total Agency Programmes	**8 116 366**	**8 000 000**	**8 000 000**	**1.9%**	**8 153 455**	**8 178 556**

Unfunded 2012–2013 Capital Needs

117. The table below lists 2012–2013 capital needs that it will not be possible to fund within the limit set by the Director General. Risks associated with not being able to implement these items are summarized in the last column. It is hoped that these requirements will attract extrabudgetary pledges by Member States.

Table 11. Unfunded 2012–2013 Capital Needs

Major Programme / Capital Project	2012	2013	Risk
1. Nuclear Power, Fuel Cycle and Nuclear Science			
Establishment and major upgrade of facilities and equipment for environmental nuclear monitoring for newcomers and other advanced applications at Seibersdorf	282 268	302 430	Independent analysis compromised/obsolescence
Major Programme 1	**282 268**	**302 430**	
2. Nuclear Techniques for Development and Environmental Protection			
Integrated Microarray Affymetrix System plus Luminex with Realtime LightCycler	367 957		Workload needs not met and obsolescence
Next generation sequencing system		403 240	Obsolescence
Picarro analyser		302 430	Obsolescence
Equipment and items for a greenhouse at the FAO/IAEA Agriculture and Biotechnology Laboratories	252 025		Quality and workload needs not met
Lab expansion for the mosquito research group	306 900		Workload needs not met
Major refurbishment and re-organization of the building for the tsetse research and fruit fly genetic sexing groups		306 900	Quality and workload needs not met
Inductively coupled plasma mass spectrometer (ICP-MS) with associated peripherals, for work on food and contaminants traceability		221 782	Quality and workload needs not met
Laboratory extension to accommodate the new dosimetry system and for training trainers in dosimetry audits	306 900		Quality and workload needs not met
Dosimetry measurement system for quality audits in radiotherapy		302 430	Obsolescence
Replacement of a noble gas mass spectrometer (analysis of water samples for helium and other noble gases)	403 240		Obsolescence
Replacement of the tritium analytical facility consisting of liquid scintillation counting and electrolytic enrichment systems (20 years old)		201 620	Obsolescence
Isotope ratio mass spectrometer		302 430	Obsolescence
Laser light scattering particle size analyser for reference materials production	201 620		Obsolescence
Laboratory refurbishment to class-100 standard, including clean bench fume hood for ultra low analyses of isotopes and trace elements	102 300	153 450	Obsolescence
Electronic microscope		252 025	Obsolescence
Liquid chromatograph - mass spectrometer (LC-MS)		201 620	Obsolescence
Major Programme 2	**1 940 942**	**2 647 927**	
4. Nuclear Verification			
Enhancing Capabilities of the Safeguards Analytical Services (ECAS)	10 399 343	5 359 658	Independent analytical capabilities compromised
Monitoring equipment - JMOX		4 440 277	Delay in implementation of effective safeguards and meeting Agency's legal obligation
Monitoring equipment - Chernobyl	3 222 450	1 023 000	Delay in implementation of effective safeguards and meeting Agency's legal obligation
Integrated analysis	6 393 750	2 046 000	Impaired improvement of efficiency and effectiveness
Major Programme 4	**20 015 543**	**12 868 935**	
5. Policy, Management and Administration Services			
Provision for IT infrastructure investment	2 062 633	1 757 118	Data security, business continuity
Buildings Management Services (BMS)	1 141 255	1 211 437	Loss of Agency credibility
Phase II electronic security upgrade for IAEA-NAEL, Monaco	102 300	102 300	Insufficient security
Furniture for M and C Buildings	524 716		Renovation incomplete
Multimedia and security equipment for M Building		201 620	Obsolescence and insufficient security
Installations for M Building (Agency specific)	201 620	302 430	Delay of upgrades
Agency warehouse	2 046 000	1 023 000	Improper storage resulting in possible damage to materials
Major Programme 5	**6 078 524**	**4 597 905**	
Total	**28 317 277**	**20 417 197**	

Major Capital Investment Plan

118. In compliance with paragraph 140 of GC(53)/5, the Agency's updated Major Capital Investment Plan is provided below.

Table 12. Major Capital Investment Plan, 2012–2021 (in thousands of euro) [a/]

	Needs by Major Programme and Funding Source	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
1	**Nuclear Power, Fuel Cycle and Nuclear Science**	**282**	**302**	**-**	**300**	**-**	**300**	**-**	**-**	**-**	**-**	**1 185**
	Funding Source:											
	Regular Budget	-	-	-	300	-	300	-	-	-	-	600
	Extrabudgetary Capital	-	-	-	-	-	-	-	-	-	-	-
	Carry Forward of MCIF	-	-	-	-	-	-	-	-	-	-	-
	Capital Unfunded	282	302	-	-	-	-	-	-	-	-	585
2	**Nuclear Techniques for Development and Environmental Protection**	**1 941**	**2 648**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4 589**
	Funding Source:											
	Regular Budget	-	-	-	-	-	-	-	-	-	-	-
	Extrabudgetary Capital	-	-	-	-	-	-	-	-	-	-	-
	Carry Forward of MCIF	-	-	-	-	-	-	-	-	-	-	-
	Capital Unfunded	1 941	2 648	-	-	-	-	-	-	-	-	4 589
4	**Nuclear Verification**	**37 401**	**14 795**	**9 517**	**3 900**	**2 900**	**2 400**	**2 000**	**-**	**-**	**-**	**72 913**
	Funding Source:											
	Regular Budget	7 138	1 683	9 267	3 900	2 900	2 400	2 000	-	-	-	29 288
	Extrabudgetary Capital	7 498	244	250	-	-	-	-	-	-	-	7 991
	Carry Forward of MCIF	2 750	-	-	-	-	-	-	-	-	-	2 750
	Capital Unfunded	20 016	12 869	-	-	-	-	-	-	-	-	32 884
5	**Policy, Management and Administration Services**	**15 106**	**11 094**	**5 000**	**5 500**	**4 100**	**2 000**	**5 500**	**2 700**	**1 000**	**2 000**	**54 000**
	Funding Source:											
	Regular Budget	1 016	6 496	5 000	5 500	4 100	2 000	5 500	2 700	1 000	2 000	**35 311**
	Extrabudgetary Capital	-	-	-	-	-	-	-	-	-	-	-
	Carry Forward of MCIF	8 012	-	-	-	-	-	-	-	-	-	8 012
	Capital Unfunded	6 079	4 598	-	-	-	-	-	-	-	-	10 676
	Total needs	**54 731**	**28 839**	**14 517**	**9 700**	**7 000**	**4 700**	**7 500**	**2 700**	**1 000**	**2 000**	**132 687**
	Funding Source:											
	Regular Budget	8 153	8 179	14 267	9 700	7 000	4 700	7 500	2 700	1 000	2 000	65 199
	Extrabudgetary Capital	7 498	244	250	-	-	-	-	-	-	-	7 991
	Carry Forward of MCIF	10 762	-	-	-	-	-	-	-	-	-	10 762
	Capital Unfunded	28 317	20 417	-	-	-	-	-	-	-	-	48 734

[a/] 2012–2013 represented at 2012 prices. For 2014–2021, figures are indicative. Due to rounding, figures do not always reconcile with totals.

I.4 Draft Resolutions for 2012

119. This section presents the Agency's draft resolutions for 2012, including the appropriations for the 2012 regular budget, the allocation for the Technical Cooperation Fund (TCF) in 2012, and the Working Capital Fund (WCF) in 2012.

A. The regular budget

120. Regular budget appropriations for 2012 are presented in two parts: one for the operational regular budget (paragraphs 1 to 2 of Resolution A); and one for the capital regular budget (paragraphs 3 to 4 of Resolution A). The expenditures against these appropriations will be recorded separately, so that funds appropriated for the operational regular budget will not be used for major capital investments and vice versa.

121. The resolution for the regular budget appropriation contains an adjustment formula to take into account the exchange rate variations during the year. Member State contributions will be based on the scale of assessment to be fixed by the General Conference in September 2011.

B. Technical cooperation programme

122. The TC activities of the Agency are financed from the TCF and extrabudgetary contributions. The TCF is mainly comprised of voluntary contributions, for which a target is recommended each year by the Board of Governors, and National Participation Costs paid by recipient Member States. The target for voluntary contributions to the TCF is $88 750 000 for each of 2012 and 2013.[1]

123. The forecast of the resources for the TC programme for 2012 and 2013 amounts to $108 610 000 for each year and comprises: (a) $84 410 000 for estimated core project funding; (b) $9 000 000 for the estimated implementation levels of extrabudgetary activities; (c) $200 000 under UNDP projects; and (d) $15 000 000 for government cost sharing contributions. This amount does not constitute a target for or limitation on funds and does not in any way prejudge the TC programme for 2012.

C. Working Capital Fund

124. In its 54th regular session, the General Conference approved a continuation of the WCF at the €15 210 000 level for 2011. No change in this level is proposed for 2012, although it should be borne in mind that the average monthly requirement of the regular budget exceeds the level of the WCF, which constitutes a significant risk to the Agency.

[1] GOV/2011/37. As approved by the Board of Governors in June 2011, the target for 2012 is being split in euro and US dollar at the United Nations rate of exchange in effect at the time of the Board's recommendation of $1.00 = €0.702 (see Draft Resolution B on page 54).

Draft Resolutions

A. REGULAR BUDGET APPROPRIATIONS FOR 2012

The General Conference,

Accepting the recommendations of the Board of Governors relating to the regular budget of the Agency for 2012[2],

1. Appropriates on the basis of an exchange rate of $1.00 to €1.00, an amount of €333 297 799 for the operational portion of the regular budget expenses of the Agency in 2012 as follows[3]:

		€
1.	Nuclear Power, Fuel Cycle and Nuclear Science	33 724 547
2.	Nuclear Techniques for Development and Environmental Protection	38 664 074
3.	Nuclear Safety and Security	33 998 536
4.	Nuclear Verification	128 780 549
5.	Policy, Management and Administration Services	75 354 949
6.	Management of Technical Cooperation for Development	20 389 905
	Subtotal for Major Programmes	330 912 560
7.	Reimbursable Work for Others	2 385 239
	TOTAL	333 297 799

the amounts in the appropriation sections to be adjusted in accordance with the adjustment formula presented in Attachment A.1 in order to take into account the exchange rate variations during the year;

2. Decides that the foregoing appropriation shall be financed, after the deduction of
   - Revenues deriving from Reimbursable Work for Others (Section 7); and
   - Other Miscellaneous Income of €1 522 000 (representing €1 329 500 plus $192 500);

from contributions by Member States amounting, for an exchange rate of $1.00 to €1.00, to €329 390 560 (€266 079 596 plus $63 310 964), in accordance with the scale of assessment fixed by the General Conference in resolution GC(55)/RES/ ;

[2] GC(55)/5.
[3] Appropriation Sections 1–6 represent the Agency's major programmes.

3. Appropriates on the basis of an exchange rate of $1.00 to €1.00, an amount of €8 153 455 for the capital portion of the regular budget expenses of the Agency in 2012 as follows[4]:

		€
1.	Nuclear Power, Fuel Cycle and Nuclear Science	–
2.	Nuclear Techniques for Development and Environmental Protection	–
3.	Nuclear Safety and Security	–
4.	Nuclear Verification	7 137 905
5.	Policy, Management and Administration Services	1 015 550
6.	Management of Technical Cooperation for Development	–
	TOTAL	8 153 455

the amounts in the appropriation sections to be adjusted in accordance with the adjustment formula presented in Attachment A.2 in order to take into account the exchange rate variations during the year;

4. Decides that the foregoing appropriation shall be financed from contributions by Member States amounting, for an exchange rate of $1.00 to €1.00, to €8 153 455 (€8 153 455 plus $0), in accordance with the scale of assessment fixed by the General Conference in resolution GC(55)/RES/ ; and

5. Authorizes the Director General:

a. To incur expenditures additional to those for which provision is made in the regular budget for 2012, provided that the relevant emoluments of any staff involved and all other costs are entirely financed from revenues arising out of sales, work performed for Member States or international organizations, research grants, special contributions or other sources extraneous to the regular budget for 2012; and

b. With the approval of the Board of Governors, to make transfers between any of the Sections listed in paragraphs 1 and 3 above.

[4] Please refer to footnote 3.

ATTACHMENT

A.1 APPROPRIATIONS FOR THE OPERATIONAL PORTION OF THE REGULAR BUDGET IN 2012

ADJUSTMENT FORMULA IN EURO

		€			US$	
1.	Nuclear Power, Fuel Cycle and Nuclear Science	26 396 123	+	(	7 328 424	/R)
2.	Nuclear Techniques for Development and Environmental Protection	31 285 505	+	(	7 378 569	/R)
3.	Nuclear Safety and Security	26 532 527	+	(	7 466 009	/R)
4.	Nuclear Verification	102 468 881	+	(	26 311 668	/R)
5.	Policy, Management and Administration Services	64 042 712	+	(	11 312 237	/R)
6.	Management of Technical Cooperation for Development	16 683 348	+	(	3 706 557	/R)
	Subtotal for Major Programmes	267 409 096	+	(	63 503 464	/R)
7.	Reimbursable Work for Others	1 761 990	+	(	623 249	/R)
	TOTAL	269 171 086	+	(	64 126 713	/R)

Note: R is the average United Nations dollar-to-euro exchange rate which will be experienced during 2012.

ATTACHMENT

A.2 APPROPRIATIONS FOR THE CAPITAL PORTION OF THE REGULAR BUDGET IN 2012

ADJUSTMENT FORMULA IN EURO

		€		US$	
1.	Nuclear Power, Fuel Cycle and Nuclear Science	–	+	(–	/R)
2.	Nuclear Techniques for Development and Environmental Protection	–	+	(–	/R)
3.	Nuclear Safety and Security	–	+	(–	/R)
4.	Nuclear Verification	7 137 905	+	(–	/R)
5.	Policy, Management and Administration Services	1 015 550	+	(–	/R)
6.	Management of Technical Cooperation for Development	–	+	(–	/R)
	TOTAL	8 153 455	+	(–	/R)

Note: R is the average United Nations dollar-to-euro exchange rate which will be experienced during 2012.

B. TECHNICAL COOPERATION FUND ALLOCATION FOR 2012

The General Conference,

Noting the decision of the Board of Governors of June 2011 to recommend the target figure of $88 750 000 for voluntary contributions to the Agency's Technical Cooperation Fund for 2012, and

Accepting the foregoing recommendation of the Board, and following the language in GOV/2011/37, regarding setting the target for voluntary contributions to the Technical Cooperation Fund (TCF) in euro and US dollars,

1. Decides that for 2012 the target for voluntary contributions to the Technical Cooperation Fund is being split as follows:

– $44 375 000; and
– €31 151 250[5];

2. Notes that funds from other sources, estimated at the euro equivalent of $500 000, are expected to be available for the programme;

3. Allocates, in euro, contributions to the technical cooperation programme split in $44 375 000, €31 151 250 and the euro equivalent of $500 000; and

4. Urges all Member States to make voluntary contributions for 2012 in accordance with Article XIV.F of the Statute, with paragraph 2 of its Resolution GC(V)/RES/100 as amended by Resolution GC(XV)/RES/286 or with paragraph 3 of the former Resolution, as appropriate.

C. THE WORKING CAPITAL FUND FOR 2012

The General Conference,

Accepting the recommendations of the Board of Governors relating to the Agency's Working Capital Fund for 2012,

1. Approves a level of €15 210 000 for the Agency's Working Capital Fund for 2012;

2. Decides that the Fund shall be financed, administered and used in 2012 in accordance with the relevant provisions of the Agency's Financial Regulations[6];

3. Authorizes the Director General to make advances from the Fund not exceeding €500 000 at any time to finance temporarily projects or activities which have been approved by the Board of Governors for which no funds have been provided under the regular budget; and

4. Requests the Director General to submit to the Board statements of advances made from the Fund under the authority given in paragraph 3 above.

[5] Represents the euro equivalent of $44 375 000, based on the United Nations rate of exchange of $1.00 = €0.702 in effect in June 2011 at the time of the Board's decision.

[6] INFCIRC/8/Rev.2.

PART II

Details of the Programme and Budget for 2012–2013 by Major Programme

Major Programme 1
Nuclear Power, Fuel Cycle and Nuclear Science

Introduction

The Fukushima-Daiichi accident has shaken public confidence in nuclear power and prompted reassessments of national plans. The Agency anticipates slower near term growth in nuclear power than previously projected. However, nuclear power will remain important for many countries, and the Agency has an essential role to play in the responsible, sustainable and efficient use of nuclear energy and in assisting Member States that choose to add it to their energy mix. Given continued anticipated growth in nuclear power and anticipated safety adjustments in response to the Fukushima-Daiichi accident, Major Programme 1 anticipates an increased need for:

- support to Member States considering, launching or expanding nuclear power programmes, uranium mining or other fuel cycle services;
- assistance and sharing of best practices in spent fuel management and (in cooperation with Major Programme 3) waste management and disposal; and
- international cooperation on closed fuel cycles and innovative technologies.

In addition, related increased needs are anticipated for research, medical radioisotopes, advances in nuclear sciences, and support for human resources development for nuclear power, research reactors, nuclear sciences and supporting infrastructure.

For Member States operating, exploring, launching or expanding nuclear power programmes, Programme 1.1 provides guidance, training, peer reviews and databases to share experience and best practices. For advanced reactor designs, innovation, non-electric applications and long term development strategies, it strengthens international cooperation and information dissemination.

Programme 1.2 addresses the uranium production cycle, fuel performance, the risks of accidents involving spent fuel as highlighted by the Fukushima-Daiichi accident, lengthening storage periods for spent fuel, and new interest in recycling uranium, plutonium and minor actinides from spent fuel. It offers guidance through documents and peer reviews, provides training and catalyses technology development and innovation through the exchange of experience, information and data.

Programme 1.3 builds capacity for energy system analysis, provides accurate information on nuclear power for international deliberations and studies on climate change and sustainable development, ensures broad access to nuclear information and publications, and provides guidance and assistance for managing nuclear knowledge.

Programme 1.4 helps Member States strengthen their foundations in nuclear sciences. It provides data, guidance and assistance to better utilize research reactors, pool resources, increase the reliable supply of medical radioisotopes and prepare for new research reactors. It expands benefits from particle accelerators, nuclear spectrometry and related instrumentation in materials science and analytical services, and it strengthens international cooperation on fusion.

Printing and translation services are integral to the delivery of substantive programme outputs and thus the estimates for this major programme include its share of fixed costs for the printing and translation of documents published for dissemination.[1] In addition, since AIPS comprises a number of integrated management processes underpinning the delivery of the programme, the estimates also include the share of the funding of the AIPS Services Unit (ASU) tasked to provide ongoing operational support to AIPS systems and related business processes.

Objective	Performance Indicators
• To enhance the contribution of nuclear science and nuclear power to sustainable development by achieving more effective use of current nuclear technologies, advancing nuclear science and technology, catalysing innovation, and sustaining and building up the experience, expertise, knowledge base and capacity needed to support existing and expanded use of nuclear power and nuclear science applications.	• Number of Member States using the Agency's resources, guidance, recommendations, analytical tools, analyses and assistance, and the level of use. • Number of joint initiatives, joint products and other interactions with national and international organizations.

[1] As indicated under para. 34 in Part I of this document.

Outcomes	Performance Indicators
• Increased use of the Agency's knowledge resources, guidance and recommendations in nuclear science, managing nuclear facilities and programmes, addressing urgent issues throughout the fuel cycle and promoting the development of evolutionary and innovative designs and their applications.	• Number of Member States using the Agency's resources, guidance, recommendations, analytical tools, analyses and assistance, and the level of use.
• Increased use of the Agency's knowledge resources, analytical tools, analyses and assistance in energy system assessment, particularly in developing country Member States, and in international deliberations and analyses about sustainable development.	• Number of Member States using the Agency's resources, guidance, recommendations, analytical tools, analyses and assistance, and the level of use.
• Increased international cooperation and national competence in nuclear sciences for technological advancement and better use of resources and facilities.	• The numbers of institutions and Member States participating in the Agency's nuclear science activities and the number of resultant products/documents.
• Availability of nuclear power option for all interested Member States.	• Less (ideally no) discrimination against nuclear power in international agreements.

1.0.0.1 Overall management, coordination and common activities

Description	Main outputs
The overall coordination and advisory activities within the major programme relate to, and interact with, all of the programmes and are crucial for achieving efficiency and effectiveness in programme implementation. Their efficient implementation contributes to an increase in programme transparency and outreach.	Guidance, reports, policy documents, advice and recommendations.

Programme 1.1 Nuclear Power

Rationale: Programme 1.1 has four priorities:

First, to support Member States embarking on new nuclear power programmes to help build sound nuclear infrastructures for the successful introduction of nuclear power plants and their safe, reliable and efficient operation. The programme coordinates services with all other Agency Departments.

Second, to support the operation of nuclear power plants: to enhance safety and performance; for better plant life management and safe long term operation (in cooperation with MP3); for improved performance and power uprates through advanced process control systems; for expanding nuclear programmes including human resource development; and for implementing integrated management systems (in cooperation with MP3).

Third, to catalyse innovations/technical advances and help resolve issues associated with nuclear power reactors and their non-electric applications by coordinating research, promoting information exchange and analysing data and results for various reactor lines; by providing a forum for technology users and holders to jointly consider innovations; and by supporting Member States with their long range planning through the International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO). The objective is continuous improvement in the economic competitiveness, safety levels, proliferation resistance, resource efficiency, and waste minimization of new reactors and fuels.

Finally, to build, manage, preserve and further enhance nuclear expertise, knowledge and competence in support of Member States.

Within Programme 1.1, Subprogrammes 1.1.1 and 1.1.3 have been expanded most, reflecting, in the case of Subprogramme 1.1.1, increased emphasis on severe accident management and robust post-accident monitoring in the wake of the Fukushima-Daiichi accident and, in the case of Subprogramme 1.1.3, both increased priority for support to countries exploring or launching nuclear power programmes and a new 'project approach' by which such activities throughout Major Programme 1 are more effectively coordinated.

Objectives:

— To enhance the capability of interested Member States considering launching nuclear power programmes to plan and build the necessary infrastructure.
— To enhance the capability of interested Member States with existing nuclear power programmes to improve nuclear power plant operating performance, life cycle management including decommissioning, human performance, quality assurance and technical infrastructure, through good practices and innovative approaches consistent with global objectives on non-proliferation, nuclear safety and security.

— To enhance the capacity of Member States to develop evolutionary and innovative nuclear technology for electricity generation, for actinide utilization and transmutation and for non-electric applications, consistent with sustainability goals.

Outcomes	Performance Indicators
• Use of the Agency's databases and recommendations in engineering, technology development and management practices in Member States.	• Number of Member States using the Agency's recommendations in engineering, technology development and management practices, evaluation methodology, guidance, databases and training methods.
• Increased cooperation between Member States for evolutionary and innovative nuclear reactor technology development and applications.	• Number of Member States cooperating in evolutionary and innovative nuclear reactor technology development and applications under Agency coordination.

Follow-up on Programme-wide lessons learned from reviews, assessment, evaluations: Programme 1.1 should:

- Continue dissemination of best practices through the NE Series and other publications;
- Develop review/assistance services through technical cooperation projects;
- Increase the level of inter-Departmental cooperation;
- Increase Agency capabilities to respond to Member States interested in expanding or starting nuclear power programmes;
- Enhance information exchange and collaborative research among Member States;
- Improve the timeliness, quality and user friendliness of Power Reactor Information System data and Country Nuclear Power Profiles;
- Increase cooperation with international organizations and initiatives such as EC/JRC, OECD-NEA, WANO and Generation IV International Forum.

Specific criteria for prioritization:

1. Activities in response to increasing use of nuclear energy and emerging development needs to ensure sharing of best practices in efficient operation and to support launching nuclear programmes.
2. Activities underpinning innovative development of nuclear power for a long term sustainable future.
3. Activities fostering international cooperation, information exchange, knowledge management and education on nuclear power issues.

Subprogramme 1.1.1 Integrated Support for Operating Nuclear Facilities

Objective: To enhance performance and safe lifetime operation of nuclear power plants.

Outcome	Performance Indicator
• Use of Agency expertise and guidance to support performance improvements in operating nuclear power plants and to establish and implement best practices in the areas of engineering support, including safety aspects, and advanced technology application.	• Number of Member States using the Agency's resources, safety standards, guidance, recommendations and databases.

Programmatic changes and trends: This is a continuation of the subprogramme focusing on plant life management to enhance safety, improve performance and extend the service life of nuclear power plants. The increased resources specified below reflect increases in all Subprogramme 1.1.1 activities and increased emphasis, in the wake of the Fukushima-Daiichi accident, on severe accident management and more robust post-accident monitoring and communication systems.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 32.2% (€516 823) in 2012 as compared to 2011 and an increase of 0.6% (€13 647) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
1.1.1.1 Engineering support for operating nuclear power plants including safety aspects ***Duration:*** Recurrent/***Ranking:*** 1	Third Plant Life Management (PLiM) Conference, completed CRPs, NE Series publications on specific aspects of ageing management, information and national experience in the subject area exchanged among Member States.
1.1.1.2 Advanced technology application for process control system ***Duration:*** Recurrent/ ***Ranking:*** 2	I&C design review missions, information and national experience exchange among Member States, NE Series publications on specific aspects of digital I&C systems, cable ageing management and human factor engineering.

Title, duration and ranking	Main outputs
1.1.1.3 Support plant performance improvement by information exchange ***Duration:*** Recurrent/***Ranking:*** 3	Updated information exchange through databases such as Country Nuclear Power Profiles, Power Reactor Information System, and I&C modernization projects; operational/outage information exchange among Members States.
1.1.1.4 Support long term operation safety ***Duration:*** Recurrent/***Ranking:*** 3	SALTO mission reports, expert missions on specific issues related to management of ageing. Establishment of International Generic Ageing Lessons Learned (IGALL) basis to be used for safety assessment of the plants.

Subprogramme 1.1.2 Support for Expansion of Nuclear Power Plants

Objective: To enable effective management for expansion of nuclear power programmes and enhance institutional capabilities in Member States to utilize advanced technologies and management for new NPP projects.

Outcome	Performance Indicator
• Use of Agency documents, materials and expertise, and consideration of international lessons learned in the planning of new nuclear power plants. Use of guidance documents for expansion of nuclear infrastructure.	• Percentage of Member States expanding their nuclear power plant fleets that request materials or services from the Agency.

Programmatic changes and trends: The subprogramme's overall level of activities supported by the regular budget will be stable, although, relative to the previous biennium, resources are shifted from human resources management to strategies for expanding nuclear power programmes.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 6.0% (€33 828) in 2012 as compared to 2011 and a slight increase of 0.3% (€1 876) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
1.1.2.1 Development of strategies for expanding nuclear power programmes ***Duration:*** Recurrent/***Ranking:*** 2	NE Series publications and guidance on utilization of advanced technologies in new nuclear power plant projects.
1.1.2.2 Human resource management including personnel training ***Duration:*** Recurrent/***Ranking:*** 2	NE Series publication and guidance on human resource management including personnel training and work force planning for operating and new nuclear power plants.

Subprogramme 1.1.3 Infrastructure and Planning for the Introduction of Nuclear Power Programmes

Objectives:

— To improve understanding among Member States of the requirements and obligations essential to implement nuclear power programmes;
— To enhance Member States' capabilities associated with inviting bids for, and constructing, their first nuclear power plants;
— To enhance Member States' abilities to develop the necessary infrastructure for introducing nuclear power;
— To expand the use of an internationally recognized approach for the introduction of nuclear power, including a harmonized framework, quantitative data and trends.

Outcomes	Performance Indicators
• Improved clarity of the requirements and obligations of any Member State planning to construct and operate a first nuclear power plant.	• Number of Member States using the Agency's support and guidance for assessment and implementation of nuclear infrastructure and planning a first nuclear power plant.
• Improved capacity of Member States to launch the bidding process and prepare for construction.	• Number of countries launching the bidding process who have received Agency assistance.
• Availability of guidance materials for self-evaluation and conducting of international peer reviews.	• Number of self evaluations prepared and requests for INIR missions.
• Awareness regarding trends, status and main considerations in international community regarding global nuclear power development.	• Agency materials used as references in bilateral assistance programmes and publications; increased requests for "soft coordination" of infrastructure assistance.

Programmatic changes and trends: The increased resources specified below for Subprogramme 1.1.3 reflect both increased priority for support to countries exploring or launching nuclear power programmes and a new 'project approach' by which such activities throughout MP1 are coordinated by the Integrated Nuclear Infrastructure Group (INIG) and reflected in the budget of Subprogramme 1.1.3.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 24.3% (€405 164) in 2012 as compared to 2011 and an increase of 0.5% (€9 900) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
1.1.3.1 Strengthening nuclear power infrastructures ***Duration:*** Recurrent/***Ranking:*** 1	NE Series and other technical documents on topics related to nuclear power infrastructure, development of self-evaluation and review services; workshops and opportunities for sharing of experience and lessons learned.
1.1.3.2 Effective planning for NPP programmes ***Duration:*** Recurrent/***Ranking:*** 2	Review services, training programmes and other assistance to countries planning for nuclear power, in support of TC projects.
1.1.3.3 Coordination of infrastructure activities ***Duration:*** Recurrent/***Ranking:*** 1	Coordination programme among established and newcomer Member States and the Agency; a Country Nuclear Infrastructure Profile database for supporting activities related to nuclear infrastructure.
1.1.3.4 Economic studies and considerations for new nuclear power programmes ***Duration:*** Recurrent/***Ranking:*** 1	Public information seminars; reports, presentations on diverse issues of sustainable development and climate change, especially on the potential contribution of nuclear technologies; case studies and country profiles analysing sustainable energy development strategies.

Subprogramme 1.1.4 International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO)

Objective: To increase international cooperation and dialogue on global nuclear energy sustainability in the 21st century, on formulating long range national, regional and global nuclear energy system strategies and on institutional and technical nuclear energy innovations.

Outcome	Performance Indicator
• Improved understanding of and international cooperation on nuclear energy innovations and global nuclear energy sustainability in the 21st century.	• Number of INPRO members.

Programmatic changes and trends: Regular budget resources available to Subprogramme 1.1.4 will remain stable, as will the level of activities supported by the regular budget.

The two projects of Subprogramme 1.1.4 in 2010–2011 have been expanded to four projects in 2012–2013 for improved efficiency. The subprogramme is implemented in coordination and/or cooperation with the following programmes and subprogrammes: 1.1.3, 1.1.5, 1.1.6, 1.2, 1.3, 2.4, 3.2, 3.4, 3.5 and 4.1.2.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 1.4% (€8 823) in 2012 as compared to 2011 and a small increase of 0.2% (€1 000) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
1.1.4.1 Long-range nuclear energy system strategies ***Duration:*** Recurrent/***Ranking:*** 1	Workshops with Member States to build awareness and understanding in long range nuclear energy system strategies; Nuclear Energy System Assessments using the INPRO methodology; update of the INPRO methodology and associated publications.
1.1.4.2 Analysis of global nuclear energy sustainability in the 21st century ***Duration:*** Recurrent/***Ranking:*** 1	Publications on global nuclear energy system sustainability in the 21st century.
1.1.4.3 Innovations in institutional arrangements and in selected cross-cutting nuclear reactor and fuel cycle technologies ***Duration:*** Recurrent/***Ranking:*** 1	INPRO Collaborative Projects on innovative nuclear technology and institutional arrangements and associated publications.
1.1.4.4 Policy coordination and dialogue ***Duration:*** Recurrent/***Ranking:*** 1	Steering Committee recommendations, including the INPRO Action Plans; INPRO Dialogue Forum; support to TC projects.

Subprogramme 1.1.5 Technology Development for Advanced Reactor Lines

Objective: To achieve progress in the development of advanced nuclear power technologies that have competitive economics and meet stringent safety objectives through international information exchange and coordinated research.

Outcome	Performance Indicator
• Use by Member States of information provided through the Agency on technology development for advanced reactors and International Conference on Fast Reactor FR12.	• Number of Member States using information on technology development provided by the Agency.

Programmatic changes and trends: Regular budget resources available to Subprogramme 1.1.5 will increase slightly, as will the level of activities supported by the regular budget. In the wake of the Fukushima-Daiichi accident, greater emphasis will be given to water cooled reactors, particularly to design features to comply with more severe design basis accidents.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 2.3% (€43 810) in 2012 as compared to 2011 and a small increase of 0.1% (€1 652) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
1.1.5.1 Technology support for near term deployment ***Duration:*** Recurrent/***Ranking:*** 1	Publications in the NE Series and a web based status report on the key technological advances and design features of advanced water cooled reactor designs available for near term deployment.
1.1.5.2 Technology advances in water cooled reactors for improvements in economics and safety ***Duration:*** Recurrent/***Ranking:*** 1	Balanced and objective status report on advanced water cooled reactor (WCR) designs; report of CRP results on technology development; web based databases of thermohydraulic and thermophysical properties; educational material on WCR technology.
1.1.5.3 Support for fast reactor research, technology development and deployment ***Duration:*** Recurrent/***Ranking:*** 1	Conference on Fast Reactors and Closed Fuel Cycles (FR12); publications in the NE Series, plus supporting information on the web and on the status of research and technology development of innovative fast neutron systems.
1.1.5.4 Technology advances for gas cooled reactors (GCRs) ***Duration:*** Recurrent/***Ranking:*** 2	TECDOCs and NE Series documents resulting from collaborative research projects on topical issues related to HTGR; workshops, conferences and training courses.
1.1.5.5 Common technologies and issues for small and medium sized reactors (SMRs) ***Duration:*** Recurrent/***Ranking:*** 1	NE Series publications on: development of key enabling technologies; non-technical factors facilitating SMR deployment; increased support to Member States embarking or expanding nuclear programmes with SMR options.

Subprogramme 1.1.6 Support for Non-electric Applications of Nuclear Power

Objectives:

— To increase the capability of Member States faced with water scarcity problems and interested in deploying nuclear desalination demonstration projects to launch feasibility studies, to perform economic evaluations of integrated nuclear desalination systems, and to establish experience in nuclear desalination.

— To enhance information exchange, cooperative assessments, and collaborative research among Member States interested in non-electric applications mainly on nuclear desalination, nuclear hydrogen production, and industrial applications of nuclear energy, and on planning associated development and demonstration projects.

Outcome	Performance Indicators
• Use by Member States of information provided by the Agency on non-electric applications of nuclear energy, and on means of safely and economically coupling the production systems with nuclear reactors.	• Number of Member States using Agency provided information and expertise on non-electric applications of nuclear energy. • Number of Member States collaborating through the Agency to share information and to conduct collaborative R&D on the use of nuclear energy for non-electric applications.

Programmatic changes and trends: The decreased resources specified below for Subprogramme 1.1.6 partly reflect the higher priority given to water cooled reactors in Subprogramme 1.1.5 in the wake of the Fukushima-Daiichi accident. Because of these reductions, Subprogramme 1.1.6 activities will be moderately reduced in 2012.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 5.7% (€31 100) in 2012 as compared to 2011 and a decrease of 3.5% (€18 075) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
1.1.6.1 Support for demonstration of nuclear seawater desalination ***Duration:*** Recurrent/***Ranking:*** 2	Reports on advances in nuclear desalination including cogeneration options, economics and other technical aspects of nuclear desalination, training workshops, and updated version of DEEP and the toolkit on desalination.
1.1.6.2 Nuclear hydrogen production ***Duration:*** Recurrent/***Ranking:*** 2	Publication on status of hydrogen production, release of updated version of HEEP, a development version of a toolkit on hydrogen production, and a publication on process heat applications.
1.1.6.3 Industrial applications of nuclear power ***Duration:*** Recurrent/***Ranking:*** 1	Technical reports on aspects of industrial applications of nuclear energy; forums for information exchange among Member States.

Programme 1.2 Nuclear Fuel Cycle and Materials Technologies

Rationale: The growth of nuclear power will put increasing demands on the nuclear fuel cycle. Developments are needed to increase uranium production, better utilize uranium resources, improve fuel performance and properly manage spent fuel through long term storage and/or recycling.

Increases in uranium demand and price have led to a dramatic rise in exploration. As new production centres are developed, often in countries with no previous experience, Agency support is needed to disseminate good practices in the uranium production cycle from exploration to closure and decommissioning.

Future fuel cycles will place more rigorous demands on nuclear fuels and materials. Better understanding of fuel behaviour will require cooperation and collaboration, especially for newcomers, and advances in modelling capability. Such developments will include fuels and materials for fast reactors. They could possibly include moving beyond current enrichment limits.

Pending the resolution of the final disposition of their spent fuel, most countries are storing spent fuel for longer periods. Many countries expect storage periods to exceed 100 years. These extended storage periods create new institutional and technical challenges. In the wake of the Fukushima-Daiichi accident, there is also increased concern about risks associated with spent fuel storage facilities.The desire for sustainability has also driven new interest in recycling uranium, plutonium and minor actinides from spent fuel, primarily in fast reactors. Such recycling schemes more efficiently utilize mined uranium and significantly reduce the volume, radiotoxicity and decay heat of high level waste.

The programme will offer guidance in these areas, through documents and peer reviews; provide training; and catalyse technology development and innovation through the exchange of experience, information, and data. It will identify best practices in sustainable nuclear fuel cycle activities, and encourage cooperation among Member States and with other international organizations, such as the OECD/Nuclear Energy Agency and the World Nuclear Association.

A new project will establish an IAEA low enriched uranium (LEU) bank. Its objective is to increase the assurance of fuel supplies and it will be funded exclusively by extrabudgetary funds.

Objective: To advance the development and implementation of an increasingly safe, reliable, economically efficient, proliferation resistant and environmentally sustainable nuclear fuel cycle, providing the maximum benefit to Member States.

Outcome	Performance Indicators
• Use of Agency guidance, reviews, training and technology exchange forums to plan, make policy, undertake research and development and implement safe, economic, proliferation resistant and sustainable nuclear fuel cycle activities.	• Number of Member States and participants making use of Agency guidance, reviews and training. • Number of participants/organizations/Member States participating in Agency technology and information exchange forums.

Follow-up on Programme-wide lessons learned from reviews, assessment, evaluations: In response to feedback from Member States, the Board of Governors and Technical Working Groups, emphases on the various activities within the programme have been adjusted. In the wake of the Fukushima-Daiichi accident, increased emphasis is being placed on the analysis of accidents involving spent fuel, the design basis for managing spent fuel and spent fuel facility stress tests. Some of the effort on current-generation nuclear fuels will be moved to support development of future or advanced nuclear fuels, while maintaining activities that support the nuclear fuel user community. Long term spent fuel management will receive increased emphasis.

Specific criteria for prioritization:

1. First priority is given to the effects of severe, adverse conditions on the management of spent nuclear fuel.
2. Second priority is given to fuel cycle activities in support of the increasing use of nuclear power and ensuring the efficient and safe production of uranium.
3. Third priority is given to activities fostering international cooperation and information exchange on nuclear fuel cycle issues.
4. Fourth priority is given to activities supporting current fuel cycle practices.

Subprogramme 1.2.1 Uranium Resources and Production and Databases for the Nuclear Fuel Cycle

Objective: To improve the capability of Member States to understand, plan and develop activities in the uranium production cycle, through Agency guidance on good practices, publications, peer reviews, training and databases.

Outcomes	Performance Indicators
• Increased use by Member States and other Agency entities of the information provided through databases on nuclear fuel cycle activities, including uranium supply and demand assessment and analysis.	• Increase in use by target groups in Member States of the information and analyses provided by the Agency in the area of the nuclear fuel cycle.
• Continued extensive use by Member States of the Agency's guidance on good practices, publications, training and meeting opportunities.	• Extent of use by the Member States of Agency's information guidance on good practices, publications, training and meeting opportunities in the area of the uranium production cycle.

Programmatic changes and trends: The decreased resources specified below for Subprogramme 1.2.1 reflect the higher priority given to Subprogramme 1.2.3 in the wake of the Fukushima-Daiichi accident. Within Subprogramme 1.2.1, resources will also be shifted to provide additional support to TC projects in this area.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 5.4% (€72 861) in 2012 as compared to 2011 and an increase of 1.1% (€14 200) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
1.2.1.1 Updating uranium resources, production and demand and nuclear fuel cycle databases ***Duration:*** Recurrent/***Ranking:*** 1	In 2012, publication of an updated version of Uranium 2011: Resources, Production and Demand; updated nuclear fuel cycle related databases (e.g. Nuclear Fuel Cycle Information Systems, World Distribution of Uranium Deposits).
1.2.1.2 Supporting good practice in the uranium production cycle ***Duration:*** 2006–2013/***Ranking:*** 1	Training courses; UPSAT missions; updated reports on good practices in the uranium production cycle; support to TC projects.

Subprogramme 1.2.2 Nuclear Power Reactor Fuel Engineering

Objective: To enable Member States to organize adequate R&D programmes to support effective design and manufacturing technologies and to optimize in-pile performance of current and advanced fuels and materials for reliability and efficiency.

Outcome	Performance Indicator
• Use in interested Member States of information provided by the Agency, and the experience exchanged, to improve fuel design, manufacturing and understanding to provide better fuel performance.	• The extent to which Member States make use of information provided by the Agency, and the experience exchanged on fuel design and performance.

Programmatic changes and trends: Because of the decrease in resources as specified below, Subprogramme 1.2.2 publications will be reduced in 2012. Some may be restored if extrabudgetary funds become available.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 4.1% (€26 640) in 2012 as compared to 2011 and an increase of 5.4% (€34 000) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
1.2.2.1 Nuclear power reactor fuel research and development, design and manufacturing ***Duration:*** 2006–2013/***Ranking:*** 2	Publications on advanced materials and fuel designs, fabrication and performance.
1.2.2.2 In-reactor behaviour and operational experience of fuel for nuclear power reactors ***Duration:*** 2006–2012/***Ranking:*** 2	Publications on: fuel rod instrumentation; in-pile and post-irradiation examination; and poolside inspection techniques.

Subprogramme 1.2.3 Management of Spent Fuel from Nuclear Power Reactors

Objective: To improve the capability of Member States to plan, develop and implement safe, environmentally sound and efficient spent fuel management programmes, able to bridge the gap from spent fuel discharge to its eventual disposition.

Outcomes	Performance Indicators
• Increased use by Member States with nuclear power plants of Agency guidance in the planning or implementation of national programmes for power reactor spent fuel management. • Improved implementation of spent fuel management programmes in Member States.	• Number of Member States benefiting from Agency spent fuel management activities and guidance.
• Improved cooperation between Member States in sharing information and collaborating on spent fuel management.	• Number of Member States participating in Agency meetings and coordinated research projects.

Programmatic changes and trends: The increased resources specified below for Subprogramme 1.2.3 mainly reflect increased activities, in the wake of the Fukushima-Daiichi accident, on the analysis of accidents involving spent fuel, the design basis for managing spent fuel and spent fuel facility stress tests. They also reflect expanded activities to promote good strategies for spent fuel management, notably in countries considering or launching new nuclear power programmes.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 82.6% (€473 955) in 2012 as compared to 2011 and a slight increase of 0.2% (€2 000) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
1.2.3.1 Promoting strategies for spent fuel management for established and newcomer nuclear countries ***Duration:*** 2012–2013/***Ranking:*** 1	Publications on regional cooperation in spent fuel management, spent fuel treatment options, and methods and tools for estimating spent fuel management costs.
1.2.3.2 Providing technical guidance on good practices for long term management of spent fuel ***Duration:*** 2012–2013/***Ranking:*** 1	Publications on very long term storage of used nuclear fuel; technical update of spent fuel storage; final report of a CRP on spent fuel performance assessment and research (SPAR III).

Subprogramme 1.2.4 Topical Issues of Nuclear Fuels and Fuel Cycles for Advanced and Innovative Reactors

Objectives:

— To enhance the capability of interested Member States to participate in and benefit from the development of the nuclear fuel cycles of the future.
— To accelerate the development of the materials, fuels and fuel cycle technologies that will be required to deploy future, advanced, innovative reactors.
— To increase the assurance of nuclear fuel supplies.

Outcomes	Performance Indicators
• Development, in interested Member States, of nuclear fuel cycle technologies for sustainable nuclear energy.	• Use made by Member States of the technologies, experience, analysis and information systems provided by the Agency in this subject area.
• Participation by Member States in the development of and planning for future fuel cycles with significant improvements in terms of sustainability and proliferation resistance.	• Participation in Agency activities on the development of advanced nuclear fuel cycles and expanded participation in other international forums.
• Established IAEA LEU bank adding increased assurance of nuclear fuel supplies.	• Existence of an operating, fully stocked IAEA LEU bank.

Programmatic changes and trends: The decreased regular budget resources specified below for Subprogramme 1.2.4 reflect the higher priority given to Subprogramme 1.2.3 in the wake of Fukushima-Daiichi accident. The IAEA LEU bank is a new extrabudgetary project.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 21.6% (€150 342) in 2012 as compared to 2011 and a decrease of 7.6% (€41 200) in 2013 as compared with 2012. The new IAEA LEU bank project will be funded exclusively by extrabudgetary funds. Total contributions and pledges are approximately $150 000 000.

Projects

Title, duration and ranking	Main outputs
1.2.4.1 Supporting emerging nuclear fuel cycle technologies for advanced and innovative reactors ***Duration:*** 2006–2013/***Ranking:*** 2	Publications and CRPs on fuel cycle technologies for advanced and innovative reactors.
1.2.4.2 Supporting development of proliferation resistant fuel cycles ***Duration:*** 2004–2013/***Ranking:*** 2	Publications on proliferation resistance in cooperation with INPRO; country nuclear fuel cycle profiles.
1.2.4.3 IAEA low enriched uranium (LEU) bank ***Duration:*** 2012-continuing/***Ranking:*** 1	Operating IAEA LEU bank serving as a supply of last resort in case a Member State's LEU supply is disrupted due to exceptional circumstances and cannot be restored by the commercial market.

Programme 1.3 Capacity Building and Nuclear Knowledge Maintenance for Sustainable Energy Development

Rationale: Affordable and reliable energy is fundamental for social-economic development. Uncertainties about future fossil fuel supplies, energy security and environmental concerns, especially climate change, drive many countries to look for alternatives, including nuclear energy. Comprehensive assessment of all energy demand, supply and technology options is essential for informed policy and investment decisions. Many Member States, particularly developing countries, lack expertise in this regard and need support for building local analytical and planning capacity.

Nuclear energy has been a contentious issue in international sustainable development and climate change debates. There is a continued need to provide authoritative and factual information about the comparative risks and benefits of nuclear energy compared to alternatives. The renaissance in the interest in nuclear energy has accelerated the demand for easily accessible and authoritative nuclear information and knowledge, especially in newcomer countries. The Agency has important resources in its Library and the International Nuclear Information System (INIS), the largest information provider for nuclear science and technology in the world. The challenge is to efficiently adapt those resources, amidst fast evolving information technologies, to the growing demands around the world for nuclear information and knowledge.

Slow growth in nuclear power in some countries since the mid-1980s discouraged young professionals in those countries from pursuing nuclear careers. Now nuclear industries and government institutions in many countries are confronted with a workforce approaching retirement and a danger of losing valuable nuclear knowledge. Member States have requested guidance and assistance in preserving nuclear knowledge, assessing the risks of knowledge loss and devising knowledge management strategies.

Objectives:

— To enhance the capacity of Member States to perform their own analyses of electricity and energy system development, energy investment planning and energy–environment policy formulation and their economic implications.
— To sustain and effectively manage nuclear knowledge and information resources for the peaceful uses of nuclear science and technology.
— To support Member States interested in including nuclear energy in their national energy mixes by providing nuclear information.

Outcomes	Performance Indicators
• Increased reliance of energy policies and investment decisions in Member States, particularly in developing countries and countries with economies in transition, on Agency methodological tools and analyses, nuclear information and knowledge transfer.	• Number of Member States using the Agency's assessments and analysis tools related to energy system and investment planning or energy–environment policy formulation and their economic implications.
• The Agency regarded by Member States and international organizations as an objective, wide ranging and continuously improving source of quality information on nuclear energy and its peaceful applications.	• Number of cooperative ventures, presentations and other interactions of the Agency with other international organizations. • Number of Member States satisfied with the availability and quality of nuclear knowledge and information services with direct or indirect impacts on their national nuclear programmes.
• The use by Member States of Agency methods, services, tools and guidance to help manage their nuclear knowledge effectively and efficiently.	• Level of access and use of Agency information resources and services.

Follow-up on Programme-wide lessons learned from reviews, assessment, evaluations: The use of IT and e-learning has proven a cost-effective way to enhance capacity building but cannot fully replace face-to-face training. IT is expected to further affect and shape capacity building, nuclear information systems and nuclear knowledge management.

Specific criteria for prioritization:

1. First priority is given to Subprogramme 1.3.1, Energy Modelling, Data and Capacity Building, and Subprogramme 1.3.3, Nuclear Knowledge Management.
2. Second priority is given to the remaining subprogrammes on 3E Analysis, INIS and the Library.

Subprogramme 1.3.1 Energy Modelling, Data and Capacity Building

Objective: To strengthen the capacity and capabilities in Member States to elaborate their sustainable energy strategies and conduct studies for energy system and electricity sector development and management, energy investment planning and energy environment policy formulation.

Outcome	Performance Indicator
• Use of the Agency's analytical tools, experts trained in the use of these tools to independently conduct comprehensive energy environment analyses.	• Number of requests for Agency analytical tools (energy models) by Member States and other international organizations. • Number of experts from Member States trained in the use of Agency energy models.

Programmatic changes and trends: To meet increasing demand from Member States for energy assessments and evaluations of energy strategies that include nuclear power, activities under this subprogramme will focus on: expanding support (in cooperation with Subprogramme 1.1.3) for TC projects for building local capacity in Member States for evaluating the nuclear power option; developing methods to integrate analyses of climate, land-use, energy and water issues; expanding and improving distance learning methods, self-learning packages and e-training materials; expanding the Agency's Tele-Support Expert Service; training additional trainers to expand the pool of competent external experts; and conducting national and regional energy assessments with nuclear power components.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 13.1% (€218 869) in 2012 as compared to 2011 and an increase of 1.1% (€20 000) in 2013 as compared with 2012. Efficiency will be improved by further expanding the use of IT and web-based techniques, including distance learning.

Projects

Title, duration and ranking	Main outputs
1.3.1.1 Energy, electricity and nuclear power economics: databanks on status and trends ***Duration:*** Recurrent/***Ranking:*** 2	Updated information on status and trends of energy, electricity and nuclear power development in different world regions; updated internal and external web sites; publication of Reference Data Series No. 1 and the Nuclear Technology Review.
1.3.1.2 Energy models and capacity building for sustainable energy development ***Duration:*** Recurrent/***Ranking:*** 1	Technical support, including through TC projects, for Member States' energy planning studies; enhanced analytical tools (models) applicable in widely diverse country situations; training courses.

Subprogramme 1.3.2 Energy Economy Environment (3E) Analysis

Objective: To improve Member States' understanding of possible contributions of nuclear technology to socioeconomic development, climate protection, and energy security and its compatibility with national sustainable development objectives.

Outcome	Performance Indicator
• Agency considered by Member States and other international organizations as a competent partner in addressing sustainable energy development issues and as an objective and up to date source of information on nuclear technology in the context of sustainable energy and economic development.	• Number of instances where Agency's economic or 3E analyses are requested, or incorporated into the decision making process of Member States or other agencies or offices.

Programmatic changes and trends: The level of activities will remain fairly stable.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 0.7% (€10 834) in 2012 as compared to 2011 and an increase of 0.8% (€11 500) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
1.3.2.1 Techno–economic analysis ***Duration:*** 2008–2013/***Ranking:*** 1	Economic studies (feasibility studies, cost assessments, comparisons, cost effectiveness and cost–benefit analyses); integrated assessment of energy–water–land–climate policies; comparative assessments of energy systems or their attributes.
1.3.2.2 Topical issues related to sustainable energy development ***Duration:*** Recurrent/***Ranking:*** 1	Reports, presentations on diverse issues of sustainable development and climate change, especially on the potential contribution of nuclear technologies; case studies and country profiles analysing sustainable energy development strategies.

Subprogramme 1.3.3 Nuclear Knowledge Management (NKM)

Objectives:

— To increase Member States' application of nuclear knowledge management strategies through the development and dissemination of methodology, guidance and tools, as well as their implementation in national programmes, and by providing knowledge management services and assistance;
— To enhance the synergy of the Agency's nuclear information and knowledge resources and services.

Outcome	Performance Indicators
• Application by Member States of nuclear knowledge management methods and tools for nuclear knowledge preservation, capacity building and innovation in the area of nuclear science and technology.	• Number of Member States participating in and/or supporting the Agency's nuclear knowledge management activities. • Number of nuclear knowledge management activities initiated in Member States and supported by the Agency.

Programmatic changes and trends: With the increased resources specified below, all Subprogramme 1.3.3 activities will be increased in 2012.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 6.0% (€125 300) in 2012 as compared to 2011 and an increase of 1.7% (€36 500) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
1.3.3.1 Implementing methodology and guidance for nuclear knowledge management ***Duration:*** 2012–2013/***Ranking:*** 1	Publications on managing knowledge in nuclear organizations and practical examples, approaches and tools for implementation; a CRP and international community of practice on NKM to promote industry benchmarks.
1.3.3.2 Facilitating sustainable education and training in nuclear science and technology ***Duration:*** Recurrent/***Ranking:*** 1	Publication on nuclear education; internet platforms for distance learning, benchmark curricula, multimedia nuclear education resources.
1.3.3.3 Providing products and services in nuclear knowledge management ***Duration:*** Recurrent/***Ranking:*** 1	NKM Assist Visits; updated databases on taxonomies for current reactor designs, reports and database on knowledge indicators for nuclear power development, regular updates of the Agency's directory of Meetings on Atomic Energy.

Subprogramme 1.3.4 International Nuclear Information System (INIS)

Objectives:

— To provide information in the area of nuclear science and technology;
— To facilitate a sustainable exchange of information generated by Member States on the peaceful uses of nuclear energy.

Outcome	Performance Indicators
• Unrestricted and easy access for Member States and the Agency to high quality, relevant and reliable information on peaceful uses of nuclear energy stored in the INIS database.	• Number of records available in the INIS database. • Number of INIS database searches and document downloads.

Programmatic changes and trends: The Agency has important resources in INIS, the largest information provider for nuclear science and technology in the world, and in its Library. The resource reductions specified below reflect planned productivity increases to take full advantage of fast evolving information technologies and more efficient integration with Subprogrammes 1.3.3 and 1.3.5. Service levels are not expected to decline.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 17.5% (€581 435) in 2012 as compared to 2011 and a decrease of 3.1% (€83 675) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
1.3.4.1 INIS production, content management, quality assurance and preservation ***Duration:*** Recurrent/***Ranking:*** 1	Extensive, high quality, easily accessible INIS database records.
1.3.4.2 INIS services, partnerships and capacity building ***Duration:*** Recurrent/***Ranking:*** 1	Agreement with INIS partners; promotional materials for INIS; INIS web site and Members Area; newsletters; training courses; enhancement of national INIS centres; user surveys; access to non-INIS nuclear information.

Subprogramme 1.3.5 Library and Information Support

Objectives:

— To improve the availability and accessibility of trusted information in all areas of IAEA activities;
— To improve the availability and accessibility of information research services for the Secretariat, countries with advanced nuclear power programmes and newcomers;
— To improve Member States' capabilities on all aspects of information management.

Outcome	Performance Indicator
• Effective and efficient information services	• Availability and ease of access to information

Programmatic changes and trends: Despite the resource reductions specified below, the Library will promote a collaborative approach to strengthen existing information services in Subprogrammes 1.3.3, 1.3.4 and 1.3.5, gain efficiency, and expand the provision of services on a consolidated basis where possible.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 10.1% (€295 023) in 2012 as compared to 2011 and an increase of 0.7% (€17 500) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
1.3.5.1 Development and maintenance of the IAEA Library's information resources ***Duration:*** Recurrent/***Ranking:*** 1	Procurement and licensing of information resources in accordance with IAEA rules and procedures; provision of access to information resources.
1.3.5.2 Provision of library services and information support ***Duration:*** Recurrent/***Ranking:*** 1	Research services; outreach activities to maximize resource usage; support to IAEA and Member States in all aspects of information management.

Programme 1.4 Nuclear Science

Rationale: Countries starting or enlarging nuclear programmes require a strong foundation in nuclear sciences and seek Agency support in strengthening national infrastructure. Easy, reliable availability of atomic, nuclear and molecular data is crucial to the efficient and safe deployment of nuclear technologies. The Agency contributes by coordinating international networks and in-house studies to establish and maintain data libraries that support advanced fission and fusion designs and non-energy applications

Operating research reactors are often ageing or underutilized. Some face fuel cycle issues associated with HEU. Other Member States are planning new research reactors. The Agency will foster coalitions and networks to improve utilization, ageing management, modernization and refurbishment. Agency support for new research reactors will cover infrastructure issues and utilization strategies, and the Agency will continue assistance to convert research reactors to LEU cores and return fuel to the country of origin. New activities will support the management and storage of spent fuel. The Agency will contribute to initiatives to address shortages of molybdenum-99 supplies and assist in developing domestic production capability using non-HEU routes.

Innovative experiments at accelerators and neutron sources are vital to verify the modelling of materials behaviour. Modern accelerator applications using synchrotron radiation and neutrons from spallation sources and the use of ion beams are of interest in energy-related research, environmental studies and cultural heritage analysis. The Nuclear Spectrometry and Applications Laboratory will provide services in the development and utilization of spectrometry techniques and training tools.

In fusion research, the Agency will foster international cooperation through topical meetings and the biennial Fusion Energy Conference. Reciprocal participation in ITER events will make it possible for countries beyond the ITER partners to keep abreast of developments.

Objective: To increase Member State capabilities in the development and application of nuclear science as a tool for their technological and economic development.

Outcome	Performance Indicator
• Increased international cooperation in nuclear sciences for technological advancement.	• The number of institutions and number of Member States participating in the Agency's nuclear science activities and the number of resultant products/documents.

Follow-up on Programme-wide lessons learned from reviews, assessment, evaluations: Coordination will be increased with Programmes 1.1 and 1.2 on materials for nuclear energy systems and with Programme 2.5 on building sustainable local and regional capabilities to use research reactors and accelerators to produce Mo-99.

Holding Agency meetings along with other international events remains an effective means of achieving fruitful programme delivery, as does Agency involvement in international initiatives in nuclear science such as in projects of EU and OECD-NEA.

TC projects on mature nuclear techniques/instrumentation will be supported using expertise created in other Member States.

Specific criteria for prioritization:

1. Addressing emerging needs in nuclear power and other applications and materials science aspects; atomic and nuclear data services; activities to reduce proliferation risks of using HEU.
2. Activities to strengthen research reactor management and effective utilization; laboratory services for advanced training; resource materials for human resources development.
3. Activities to foster international cooperation and information exchange in nuclear fusion research and plasma physics.

Subprogramme 1.4.1 Atomic and Nuclear Data

Objective: To increase the capabilities and expertise of Member States to ensure the safe and economic adoption of all forms of nuclear technologies by providing rapid access to reliable atomic and nuclear data for energy and non-energy applications.

Outcome	Performance Indicator
• Adoption by Member States and use of Agency atomic and nuclear data generated from CRPs and other routes, leading to their establishment as internationally accepted databases.	• Extent of use by Member States of Agency recommended sets of atomic and nuclear data.

Programmatic changes and trends: During 2012–2013, the Subprogramme's activities will extend the most important aspects of the work of previous biennia, notably in terms of data evaluations and compilations, provision of data services to Member States, organization of CRPs, missions to collaborators' centres, and support for information exchange. To increase efficiency, the number of projects has been reduced from six to five.

There are many steps in the production of databases — measurements, evaluation, database production, processing, benchmarking and validation — before a database is suitable for public use. These are typically carried out by different experts, many outside of the Agency, and thus it is essential that the coordinating role of the Agency in this process is also long term. These steps usually straddle the Agency's biennial programmes, and thus many of the activities are necessarily long term.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 0.9% (€24 939) in 2012 as compared to 2011 and an increase of 0.2% (€4 546) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
1.4.1.1 Data services, data networks and user support ***Duration:*** Recurrent/***Ranking:*** 1	Easy access to data via the web (searching and visualization) and provision of documentation to enable efficient data use. Production of new and improved atomic and nuclear databases and the provision of a range of training courses.
1.4.1.2 Nuclear data standards and evaluations ***Duration:*** Recurrent/***Ranking:*** 2	Maintenance/improvement of neutron cross section standards to ensure their continuity and reliability. Improved experimental and bibliographic databases and production of high quality scientific publications.
1.4.1.3 Nuclear data for medical applications and analytical techniques ***Duration:*** 2003–2013/***Ranking:*** 2	Rapid communication with users in Member States (dedicated web pages); new nuclear databases and related scientific publications: maintenance of IBANDL database, and extension to include PIGE related data.
1.4.1.4 Atomic, molecular and plasma-material data for fusion experiments ***Duration:*** Recurrent/***Ranking:*** 2	Rapid communication with users in Member States; useful web pages for database descriptions and access; standards for data exchange; evaluations of data and comparisons of codes; new databases and knowledge bases; scientific publications.
1.4.1.5 Nuclear data for emerging issues and advanced nuclear facilities ***Duration:*** Recurrent/***Ranking:*** 1	Clear definitions of the long term nuclear data needs by an advisory group meeting of appropriate technical expertise; recommendations on new tools especially in the areas of covariance and uncertainty; new databases.

Subprogramme 1.4.2 Research Reactors

Objectives:

— To enhance Member States' potential in ageing management, modernization and operational management of research reactors; core and target conversion and repatriation of fuel to the country of origin; and planning and building new facilities;
— To increase the capabilities of Member States to safely, reliably and efficiently use research reactors for research and technology development; to advance arrangements for regional and international coalitions, networks and shared-user facilities.

Outcomes	Performance Indicators
• Increased use of the Agency's assistance and guidance on HEU–LEU conversion ageing management, modernization, repatriation of fuel, other operational issues, and planning and building new research reactors and associated facilities.	• Number of facilities implementing improved operational practices, conversion from HEU to LEU, fuel return to the country of origin; improved spent fuel storage, improved ageing management, modernization, and good practices on new research reactors.
• Increased use of the Agency's assistance and guidance on strategic and business planning and possible regional and international research reactor coalitions, networks and shared-user facilities.	• Number of facilities planning or implementing utilization strategies and new applications, strategic and business plans, regional and international research reactor coalitions, networks and shared-user facilities.

Programmatic changes and trends: The subprogramme will address the following priorities:

- Minimization of civilian uses of HEU;
- Regional and interregional collaboration through coalitions, networking and centres of excellence to improve utilization and provide access to countries with no research reactors;
- Improvement in operation and maintenance to maximize availability and reliability;
- Dissemination of good practices on modernization and refurbishment;
- National planning or implementation of a first or new research reactor;
- Assistance to reduce underutilization, inadequate funding and over-reliance on public sector funding by supporting strategic and business planning and developing market analyses and marketing skills for research reactor goods and services;
- Assistance on aging issues;
- International and regional solutions as 'state of the art' research reactors are unaffordable for some Member States; and
- Assistance with spent fuel management.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 21.5% (€304 184) in 2012 as compared to 2011 and a slight increase of 0.2% (€3 000) in 2013 as compared with 2012. Services to Member States will be expanded in terms of support for the effective management of existing research reactors as well as expanded advice on planning for new research reactors.

Projects

Title, duration and ranking	Main outputs
1.4.2.1 Enhancement of utilization and applications of research reactors ***Duration:*** Recurrent/***Ranking:*** 1	Reports on networking strategies for research reactor use; advanced use of neutron beams; materials testing; applications of and planning for research reactors; brochure on commercial products and services; regional workshops on coalitions.
1.4.2.2 Research reactor infrastructure, planning and innovation ***Duration:*** 2005–2013/***Ranking:*** 1	Research Reactor Database; reports on ageing and modernization; regional reactors; LEU fuelled homogeneous reactors; new methods in research reactor analysis; role of material test reactors in development and qualification of materials.
1.4.2.3 Addressing research reactor fuel cycle issues ***Duration:*** 2005–2014/***Ranking:*** 1	Reports on high density U–Mo fuels; good practices for spent fuel storage; LEU-based ADS systems and applications; production of Mo-99 without HEU and conversion of research reactors; training courses on U-Mo fuel; return of HEU to origin.
1.4.2.4 Research reactor operation and maintenance ***Duration:*** 2006–2013/***Ranking:*** 2	New CRPs, RCM reports, peer review missions; report on digital instrumentation and control systems for new facilities and modernization of existing research reactors.

Subprogramme 1.4.3 Accelerators and Nuclear Spectrometry for Materials Science and Analytical Applications

Objective: To increase the capabilities of Member States to adopt and benefit from the application of particle accelerators, nuclear spectrometry and related instrumentation in materials science and analytical services.

Outcome	Performance Indicator
• Well functioning and optimized nuclear science infrastructure established in interested Member States and operated by qualified experts.	• Number of beneficiaries attending conferences, meetings and training supported under the subprogramme. Feedback of laboratories in Members States in Newsletters and Agency publications. Number of publications/reports resulting from utilization of accelerators, nuclear spectrometry and instrumentation in Member States.

Programmatic changes and trends: The Nuclear Spectrometry and Applications Laboratory (NSAL), a Unit within the Physics Section (former Instrumentation Unit, NAAL), is now implementing Projects 1.4.3.3 and 1.4.3.4. Emphasis on joint activities within NAPC and with NE will be further strengthened. Provision of instrumentation expertise in support of other groups in the NA laboratories will mainly be for collaborative tasks.

Provision of basic training in nuclear electronics will be phased out as well as support for routine maintenance and repairs. The possibility of shifting instrumentation related support services to Collaborating Centres will be explored.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 0.7% (€18 528) in 2012 as compared to 2011 and a decrease of 0.3% (€7 546) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
1.4.3.1 Accelerator techniques for modification and analysis of materials for nuclear technologies ***Duration:*** 2007–2013/***Ranking:*** 1	Reports on advanced engineering research, structural materials, materials for energy applications, and ion beam writing; updated accelerator database.
1.4.3.2 Fostering interdisciplinary developments in accelerator applications ***Duration:*** 2008–2013/***Ranking:*** 1	Reports on intense neutron beams, hydrogen fuel cells, synchrotron applications, networking of accelerator facilities, and handbook on nuclear physics experiments; proceedings of accelerator conference.
1.4.3.3 Sustainable use of nuclear instrumentation for environmental and other applications ***Duration:*** Recurrent/***Ranking:*** 2	Calibration services and effective utilization of nuclear instruments, guidelines on advances in nuclear instruments and QA procedures; distance learning modules, programmes and facilities for training; training courses.
1.4.3.4 Nuclear spectrometry for analytical applications ***Duration:*** 2006–2013/***Ranking:*** 2	Guidelines on new developments and use of nuclear spectrometry techniques; methods and resource materials for practising and teaching and training technical staff in nuclear spectrometry and its applications.

Subprogramme 1.4.4 Nuclear Fusion Research

Objective: To strengthen international cooperation and coordinate scientific and technology development activities on fusion among institutions and/or researchers, and enhance developing Member States involvement with leading fusion laboratories/initiatives.

Outcome	Performance Indicators
• Increased collaboration and information exchange in the fusion community.	• Number of cost-free participants in Agency sponsored meetings on fusion. • Number of participants in CRPs and joint experiments.

Programmatic changes and trends: Subprogramme 1.4.4 activities will be more closely coordinated with ITER and ICTP to enhance information exchange and to strengthen human resources development tasks required to support and sustain fusion energy research efforts. Greater support to information exchange through topical technical meetings will be an important trend.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 1.2% (€7 516) in 2012 as compared to 2011 and no change in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
1.4.4.1 Supporting plasma physics and fusion research ***Duration:*** 2004–2013/***Ranking:*** 1	24th Fusion Energy Conference; publications containing the results of meetings and CRPs.
1.4.4.2 Cooperation with ITER ***Duration:*** Recurrent/***Ranking:*** 2	Proceedings of the ITER–IAEA Monaco International Fusion Energy Days event; reports to Member States about main progress of ITER; day events and other ITER scientific meetings.

Subprogramme 1.4.5 Support to the Abdus Salam International Centre for Theoretical Physics (ICTP)

Objective: To enhance the scientific capability of particularly developing countries through training and exchange of knowledge between scientists from developing and developed countries in nuclear science and technology and related applications.

Outcomes	Performance Indicators
• Scientists from developing and developed Member States making use of knowledge obtained through their participation in the scientific programmes of ICTP.	• Number of scientists benefiting from ICTP programmes in fields related to Agency programmes and using the information in their home institutions. • Number of publications by, and degrees awarded to, scientists participating in ICTP scientific events.

Programmatic changes and trends: The yearly programme of ICTP supported activities will be approved by the ICTP Steering Committee upon the recommendations of the ICTP Programme Committee or the Scientific Council. Topics for advanced training events will cover areas of interest to Agency Member States in nuclear science, nuclear energy, nuclear safety and security and various nuclear applications. In addition, topics for research and studies to be carried out by ICTP scientists and associates to support the Agency's scientific and technical programmes will be identified and implemented.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 2.9% (€71 812) in 2012 as compared to 2011 and no change in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
1.4.5.1 Support to ICTP ***Duration:*** Recurrent/***Ranking:*** 2	Training courses and material on topics covered by workshops and seminars.

Medium Term Strategy[2]

As indicated in paragraph 7, Section I, the Medium Term Strategy (MTS) for 2012–2017 constitutes the roadmap for all programme and budget proposals for 2012–2017. The following table cross-references activities reflected in the MTS with the relevant projects or functions that are included in the 2012–2013 proposals for this MP:

MTS 2012–2017 activity	Budget reference		New project
	Programme	Project	
Assist newcomer states on safeguards and infrastructure issues	1.1, 1.2 and 1.4	All	1.1.3.4
Peer reviews	1.1, 1.2, 1.3 and 1.4	All	
Assistance to Member States with nuclear power programmes to plan expansion and to improve performance at all stages of the fuel cycle	1.1 and 1.2	All	
Support for innovations in all areas of nuclear power	1.1, 1.2 and 1.4	All	
Assistance throughout all stages of research reactor applications	1.4	All	
Standards, guidance, peer reviews and advisory services to improve nuclear safety and security[3]	1.1, 1.2 and 1.4 in cooperation with Major Programme 3		
Objective and reliable source of information to support nuclear power's contributions to socio-economic development	All	All	
Assistance with international research and development collaboration for beneficial uses of nuclear energy	All	All	
Development of multilateral approaches to the nuclear fuel cycle	1.2 and 1.3	All	
Build capacities in nuclear science, energy systems analysis, engineering evaluations, project management and long term planning	All	All	
Information on atomic, molecular and nuclear data, and advice on establishing/utilizing nuclear science facilities	1.4.1	All	
Capacity building in the area of utilization of research reactors and accelerators for radioisotope production and radiation technology	1.4.2 and 1.4.3 in cooperation with Programme 2.5	All	

[2] MTS activities — Lessons learned and good practices, technology transfer, one-house approach, and capacity building — are common to all Major Programmes.

[3] As appropriate, MP1 coordinates relevant activities with MP3 to ensure that all pertinent nuclear safety and security standards, guidance, peer reviews and advisory services are utilized. MP3 is the primary "owner" of such nuclear safety and security activities.

Major Programme 1 – Nuclear Power, Fuel Cycle and Nuclear Science

Summary of Programme Structure and Resources

(excluding Major Capital Investments)

Table 13

	Project / Subprogramme / Programme	2012			2013 preliminary estimates		
		Regular Budget at 2012 prices	Extra-budgetary	CAURBs Unfunded	Regular Budget at 2012 prices	Extra-budgetary	CAURBs Unfunded
1.0.0.1	Overall management, coordination and common activities	1 021 587	-	-	1 037 317	-	-
1.0.0.2	Printing and translation indirect costs	30 065			30 065		
1.0.0.3	AIPS services	6 941			6 935		
		1 058 593	**-**	**-**	**1 074 317**	**-**	**-**
1.1.1.1	Engineering support for operating nuclear power plants including safety aspects	876 596	222 900	-	878 148	222 900	-
1.1.1.2	Advanced technology application for process control system	417 603	-	-	425 762	-	-
1.1.1.3	Support plant performance improvement by information exchange	398 524	-	-	398 513	-	-
1.1.1.4	Support long term operation safety	363 659	-	104 580	363 659	-	104 580
1.1.1.5	Printing and translation indirect costs	55 230	-	-	55 230	-	-
1.1.1.6	AIPS services	12 751	-	-	14 771	-	-
	Subprogramme 1.1.1 - Integrated Support for Operating Nuclear Facilities	**2 124 363**	**222 900**	**104 580**	**2 136 083**	**222 900**	**104 580**
1.1.2.1	Development of strategies for expanding nuclear power programmes	320 877	-	-	326 655	-	-
1.1.2.2	Human resource management including personnel training	246 595	100 000	-	246 595	100 000	-
1.1.2.3	Printing and translation indirect costs	23 744	-	-	18 820	-	-
1.1.2.4	AIPS services	5 482	-	-	6 492	-	-
	Subprogramme 1.1.2 - Support for Expansion of Nuclear Power Plants	**596 698**	**100 000**	**-**	**598 562**	**100 000**	**-**
1.1.3.1	Strengthening nuclear power infrastructures	1 116 876	530 560	-	1 126 889	590 560	-
1.1.3.2	Effective planning for NPP programmes	361 802	772 920	-	355 937	772 920	-
1.1.3.3	Coordination of infrastructure activities	199 766	312 920	-	199 766	312 920	-
1.1.3.4	Economic studies and considerations for new nuclear power programmes	321 110	-	-	321 110	-	-
1.1.3.5	Printing and translation indirect costs	63 215	-	-	63 215	-	-
1.1.3.6	AIPS services	14 593	-	-	19 656	-	-
	Subprogramme 1.1.3 - Infrastructure and Planning for the Introduction of Nuclear Power Programmes	**2 077 362**	**1 616 400**	**-**	**2 086 573**	**1 676 400**	**-**
1.1.4.1	Long-range nuclear energy system strategies	220 105	434 375	-	220 105	434 375	-
1.1.4.2	Analysis of global nuclear energy sustainability in the 21st century	261 835	356 175	-	261 835	356 175	-
1.1.4.3	Innovations in institutional arrangements and in selected cross-cutting nuclear reactor and fuel cycle technologies	4 494	371 175	-	4 494	371 175	-
1.1.4.4	Policy coordination and dialogue	154 391	456 375	-	154 391	456 375	-
1.1.4.5	Printing and translation indirect costs	19 046	-	-	19 046	-	-
1.1.4.6	AIPS services	4 397	-	-	5 408	-	-
	Subprogramme 1.1.4 - International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO)	**664 268**	**1 618 100**	**-**	**665 279**	**1 618 100**	**-**

Major Programme 1 – Nuclear Power, Fuel Cycle and Nuclear Science

Summary of Programme Structure and Resources

(excluding Major Capital Investments)

Table 13

	Project / Subprogramme / Programme	2012			2013 preliminary estimates		
		Regular Budget at 2012 prices	Extra-budgetary	CAURBs Unfunded	Regular Budget at 2012 prices	Extra-budgetary	CAURBs Unfunded
1.1.5.1	Technology support for near term deployment	244 195	109 100	-	244 195	134 100	-
1.1.5.2	Technology advances in water cooled reactors for improvements in economics and safety	646 144	74 100	70 000	645 103	64 100	70 000
1.1.5.3	Support for fast reactor research, technology development and deployment	437 979	139 100	25 000	437 653	79 100	-
1.1.5.4	Technology advances for gas cooled reactors (GCRs)	189 511	44 100	-	189 511	44 100	-
1.1.5.5	Common technologies and issues for small and medium sized reactors (SMRs)	386 448	-	-	386 448	-	-
1.1.5.6	Printing and translation indirect costs	56 877	-	-	56 877	-	-
1.1.5.7	AIPS services	13 131	-	-	16 165	-	-
	Subprogramme 1.1.5 - Technology Development for Advanced Reactor Lines	**1 974 285**	**366 400**	**95 000**	**1 975 952**	**321 400**	**70 000**
1.1.6.1	Support for demonstration of nuclear seawater desalination	261 498	15 000	-	264 531	35 000	20 000
1.1.6.2	Nuclear hydrogen production	176 558	-	-	156 773	30 000	-
1.1.6.3	Industrial applications of nuclear power	56 174	7 000	-	56 840	30 000	8 000
1.1.6.4	Printing and translation indirect costs	15 211	-	-	10 006	-	-
1.1.6.5	AIPS services	3 513	-	-	5 539	-	-
	Subprogramme 1.1.6 - Support for Non-electric Applications of Nuclear Power	**512 954**	**22 000**	**-**	**493 689**	**95 000**	**28 000**
Programme 1.1 - Nuclear Power		**7 949 930**	**3 945 800**	**199 580**	**7 956 138**	**4 033 800**	**202 580**
1.2.1.1	Updating uranium resources, production and demand and nuclear fuel cycle databases	923 847	-	-	925 406	-	-
1.2.1.2	Supporting good practice in the uranium production cycle	309 147	-	-	319 511	-	-
1.2.1.3	Printing and translation indirect costs	24 721	-	-	24 721	-	-
1.2.1.4	AIPS services	5 707	-	-	7 732	-	-
	Subprogramme 1.2.1 - Uranium Resources and Production and Databases for the Nuclear Fuel Cycle	**1 263 422**	**-**	**-**	**1 277 370**	**-**	**-**
1.2.2.1	Nuclear power reactor fuel research and development, design and manufacturing	318 500	-	-	320 303	-	-
1.2.2.2	In-reactor behaviour and operational experience of fuel for nuclear power reactors	276 971	-	-	305 048	-	-
1.2.2.3	Printing and translation indirect costs	24 721	-	-	24 721	-	-
1.2.2.4	AIPS services	5 707	-	-	7 732	-	-
	Subprogramme 1.2.2 - Nuclear Power Reactor Fuel Engineering	**625 899**	**-**	**-**	**657 804**	**-**	**-**
1.2.3.1	Promoting strategies for spent fuel management for established and newcomer nuclear countries	452 651	-	-	441 866	-	-
1.2.3.2	Providing technical guidance on good practices for long term management of spent fuel	555 112	-	-	566 713	-	-
1.2.3.3	Printing and translation indirect costs	24 721	-	-	24 721	-	-
1.2.3.4	AIPS services	5 707	-	-	7 732	-	-
	Subprogramme 1.2.3 - Management of Spent Fuel from Nuclear Power Reactors	**1 038 191**	**-**	**-**	**1 041 032**	**-**	**-**

Major Programme 1 – Nuclear Power, Fuel Cycle and Nuclear Science

Summary of Programme Structure and Resources

(excluding Major Capital Investments)

Table 13

	Project / Subprogramme / Programme	2012 Regular Budget at 2012 prices	2012 Extra-budgetary	2012 CAURBs Unfunded	2013 preliminary estimates Regular Budget at 2012 prices	2013 preliminary estimates Extra-budgetary	2013 preliminary estimates CAURBs Unfunded
1.2.4.1	Supporting emerging nuclear fuel cycle technologies for advanced and innovative reactors	453 150	-	34 000	391 705	-	39 000
1.2.4.2	Supporting development of proliferation resistant fuel cycles	54 341	408 696	33 000	73 784	408 696	10 000
1.2.4.3	IAEA low enriched uranium (LEU) bank	-	74 750 000	-	-	74 750 000	-
1.2.4.4	Printing and translation indirect costs	24 721	-	-	24 721	-	-
1.2.4.5	AIPS services	5 707	-	-	8 747	-	-
	Subprogramme 1.2.4 - Topical Issues of Nuclear Fuels and Fuel Cycles for Advanced and Innovative Reactors	**537 919**	**75 158 696**	**67 000**	**498 957**	**75 158 696**	**49 000**
Programme 1.2 - Nuclear Fuel Cycle and Materials Technologies		**3 465 431**	**75 158 696**	**67 000**	**3 475 163**	**75 158 696**	**49 000**
1.3.1.1	Energy, electricity and nuclear power economics: databanks on status and trends	523 660	-	-	530 244	-	-
1.3.1.2	Energy models and capacity building for sustainable energy development	1 307 516	-	50 000	1 319 174	-	50 000
1.3.1.3	Printing and translation indirect costs	55 113	-	-	55 113	-	-
1.3.1.4	AIPS services	12 724	-	-	14 744	-	-
	Subprogramme 1.3.1 - Energy Modelling, Data and Capacity Building	**1 899 013**	**-**	**50 000**	**1 919 275**	**-**	**50 000**
1.3.2.1	Techno-economic analysis	691 896	-	-	692 020	300 000	-
1.3.2.2	Topical issues related to sustainable energy development	708 103	-	-	718 353	-	-
1.3.2.3	Printing and translation indirect costs	41 659	-	-	41 659	-	-
1.3.2.4	AIPS services	9 618	-	-	10 625	-	-
	Subprogramme 1.3.2 - Energy Economy Environment (3E) Analysis	**1 451 276**	**-**	**-**	**1 462 657**	**300 000**	**-**
1.3.3.1	Implementing methodology and guidance for nuclear knowledge management	624 794	-	45 000	612 379	-	45 000
1.3.3.2	Facilitating sustainable education and training in nuclear science and technology	716 818	100 200	-	730 949	100 200	-
1.3.3.3	Providing products and services in nuclear knowledge management	787 944	-	50 000	817 212	-	50 000
1.3.3.4	Printing and translation indirect costs	63 912	-	-	63 912	-	-
1.3.3.5	AIPS services	14 755	-	-	16 773	-	-
	Subprogramme 1.3.3 - Nuclear Knowledge Management (NKM)	**2 208 223**	**100 200**	**95 000**	**2 241 225**	**100 200**	**95 000**
1.3.4.1	INIS production, content management, quality assurance and preservation	1 711 388	-	-	1 703 185	-	-
1.3.4.2	INIS services, partnerships and capacity building	962 983	-	-	889 754	-	-
1.3.4.3	Printing and translation indirect costs	79 707	-	-	79 707	-	-
1.3.4.4	AIPS services	18 402	-	-	20 418	-	-
	Subprogramme 1.3.4 - International Nuclear Information System (INIS)	**2 772 480**	**-**	**-**	**2 693 064**	**-**	**-**

Major Programme 1 – Nuclear Power, Fuel Cycle and Nuclear Science
Summary of Programme Structure and Resources
(excluding Major Capital Investments)

Table 13

	Project / Subprogramme / Programme	2012 Regular Budget at 2012 prices	2012 Extra-budgetary	2012 CAURBs Unfunded	2013 preliminary estimates Regular Budget at 2012 prices	2013 preliminary estimates Extra-budgetary	2013 preliminary estimates CAURBs Unfunded
1.3.5.1	Development and maintenance of the IAEA Library's information resources	1 580 330	-	-	1 589 279	-	-
1.3.5.2	Provision of library services and information support	994 536	-	-	1 000 401	-	-
1.3.5.3	Printing and translation indirect costs	76 164	-	-	76 163	-	-
1.3.5.4	AIPS services	17 584	-	-	20 615	-	-
	Subprogramme 1.3.5 - Library and Information Support	**2 668 614**	**-**	**-**	**2 686 458**	**-**	**-**
	Programme 1.3 - Capacity Building and Nuclear Knowledge Maintenance for Sustainable Energy Development	**10 999 606**	**100 200**	**145 000**	**11 002 679**	**400 200**	**145 000**
1.4.1.1	Data services, data networks and user support	1 213 866	-	30 000	1 256 672	-	30 000
1.4.1.2	Nuclear data standards and evaluations	603 766	-	25 000	574 798	-	25 000
1.4.1.3	Nuclear data for medical applications and analytical techniques	273 546	-	-	244 656	-	-
1.4.1.4	Atomic, molecular and plasma-material data for fusion experiments	456 587	-	-	477 059	-	-
1.4.1.5	Nuclear data for emerging issues and advanced nuclear facilities	194 671	-	-	193 603	-	-
1.4.1.6	Printing and translation indirect costs	82 720	-	-	82 719	-	-
1.4.1.7	AIPS services	19 098	-	-	19 083	-	-
	Subprogramme 1.4.1 - Atomic and Nuclear Data	**2 844 254**	**-**	**55 000**	**2 848 590**	**-**	**55 000**
1.4.2.1	Enhancement of utilization and applications of research reactors	647 888	354 996	-	580 188	354 996	-
1.4.2.2	Research reactor infrastructure, planning and innovation	346 623	-	-	346 280	-	-
1.4.2.3	Addressing research reactor fuel cycle issues	376 710	176 400	-	376 706	176 400	-
1.4.2.4	Research reactor operation and maintenance	280 489	-	-	353 267	-	-
1.4.2.5	Printing and translation indirect costs	49 999	-	-	49 999	-	-
1.4.2.6	AIPS services	11 543	-	-	11 534	-	-
	Subprogramme 1.4.2 - Research Reactors	**1 713 252**	**531 396**	**-**	**1 717 974**	**531 396**	**-**
1.4.3.1	Accelerator techniques for modification and analysis of materials for nuclear technologies	571 519	-	50 000	586 593	-	-
1.4.3.2	Fostering interdisciplinary developments in accelerator applications	431 313	-	100 000	418 487	-	125 000
1.4.3.3	Sustainable use of nuclear instrumentation for environmental and other applications	826 271	-	25 000	813 693	-	25 000
1.4.3.4	Nuclear spectrometry for analytical applications	678 796	-	75 000	681 813	-	25 000
1.4.3.5	Printing and translation indirect costs	75 206	-	-	75 206	-	-
1.4.3.6	AIPS services	17 363	-	-	17 349	-	-
	Subprogramme 1.4.3 - Accelerators and Nuclear Spectrometry for Materials Science and Analytical Applications	**2 600 468**	**-**	**250 000**	**2 593 141**	**-**	**175 000**

Major Programme 1 – Nuclear Power, Fuel Cycle and Nuclear Science
Summary of Programme Structure and Resources
(excluding Major Capital Investments)

Table 13

	Project / Subprogramme / Programme	2012 Regular Budget at 2012 prices	2012 Extra-budgetary	2012 CAURBs Unfunded	2013 preliminary estimates Regular Budget at 2012 prices	2013 preliminary estimates Extra-budgetary	2013 preliminary estimates CAURBs Unfunded
1.4.4.1	Supporting plasma physics and fusion research	572 887	-	50 000	567 985	-	-
1.4.4.2	Cooperation with ITER	43 886	-	35 000	50 921	-	35 000
1.4.4.3	Printing and translation indirect costs	18 521	-	-	18 521	-	-
1.4.4.4	AIPS services	4 276	-	-	4 273	-	-
	Subprogramme 1.4.4 - Nuclear Fusion Research	**639 570**	**-**	**85 000**	**641 700**	**-**	**35 000**
1.4.5.1	Support to ICTP	2 368 015	-	-	2 368 015	-	-
1.4.5.2	Printing and translation indirect costs	69 405	-	-	69 406	-	-
1.4.5.3	AIPS services	16 023	-	-	16 011	-	-
	Subprogramme 1.4.5 - Support to the Abdus Salam International Centre for Theoretical Physics (ICTP)	**2 453 443**	**-**	**-**	**2 453 432**	**-**	**-**
Programme 1.4 - Nuclear Science		**10 250 987**	**531 396**	**390 000**	**10 254 837**	**531 396**	**265 000**
Major Programme 1 - Nuclear Power, Fuel Cycle and Nuclear Science		**33 724 547**	**79 736 092**	**801 580**	**33 763 134**	**80 124 092**	**661 580**

Major Programme 1 – Nuclear Power, Fuel Cycle and Nuclear Science
Core Activities Unfunded in the Regular Budget

Table 14

	Project Title and Description of Activities	2012 CAURBs Unfunded	2013 CAURBs Unfunded
1.1.1.4	Support long term operation safety		
1.1.1.4	*Supporting safety review services for long term operation of NPPs and facilitating exchange of information on ageing management among Member States*	104 580	104 580
	Subprogramme 1.1.1 - Integrated Support for Operating Nuclear Facilities	104 580	104 580
1.1.5.2	Technology advances in water cooled reactors for improvements in economics and safety		
1.1.5.2/03	*Facilitate technology advances for the design and deployment of new water cooled reactors*	20 000	20 000
1.1.5.2/04	*Facilitate the development of advanced modelling and simulation tools for the design and deployment of new water cooled reactors*	25 000	30 000
1.1.5.2/05	*Facilitate the development of innovative nuclear fuels and fuel designs for the improved performance of advanced water cooled reactors (jointly with 1.2.2.1)*	10 000	-
1.1.5.2/07	*Facilitate technology development for medical isotope production in commercial NPPs*	-	10 000
1.1.5.2/13	*Develop and maintain resources for education and training on advanced water cooled reactor technology through workshops and courses (e.g. course on natural circulation, course on SCWRs)*	15 000	10 000
1.1.5.3	Support for fast reactor research, technology development and deployment		
1.1.5.3/01	*Support fast reactor data retrieval and knowledge preservation activities in Member States and maintain the Agency's fast reactor knowledge portal*	5 000	-
1.1.5.3/15	*Coordinate a CRP on optimum plant parameters for metallic and MOX fuelled fast reactors*	10 000	-
1.1.5.3/16	*Coordinate a CRP on analyses of fuel melting and core mechanics tests performed during the Phenix end of life experimental programme*	10 000	-
	Subprogramme 1.1.5 - Technology Development for Advanced Reactor Lines	95 000	70 000
1.1.6.1	Support for demonstration of nuclear seawater desalination		
1.1.6.1/02	*Prepare an NE Series report on technical and economic aspects of co-generation options for seawater desalination as an integral part of feasibility studies*	-	20 000
1.1.6.3	Industrial applications of nuclear power		
1.1.6.3/02	*Prepare an NE Series document on industrial applications of nuclear power*	-	8 000
	Subprogramme 1.1.6 - Support for Non-electric Applications of Nuclear Power	-	28 000
Programme 1.1 - Nuclear Power		**199 580**	**202 580**

Major Programme 1 – Nuclear Power, Fuel Cycle and Nuclear Science
Core Activities Unfunded in the Regular Budget

Table 14

	Project Title and Description of Activities	2012 CAURBs Unfunded	2013 CAURBs Unfunded
1.2.4.1	Supporting emerging nuclear fuel cycle technologies for advanced and innovative reactors		
1.2.4.1/07	*Advanced recycle technologies*	34 000	39 000
1.2.4.2	Supporting development of proliferation resistant fuel cycles		
1.2.4.2/02	*Identify technical and political challenges associated with multinational cooperation in nuclear fuel cycle facilities*	33 000	10 000
	Subprogramme 1.2.4 - Topical Issues of Nuclear Fuels and Fuel Cycles for Advanced and Innovative Reactors	67 000	49 000
Programme 1.2 - Nuclear Fuel Cycle and Materials Technologies		**67 000**	**49 000**
1.3.1.2	Energy models and capacity building for sustainable energy development		
1.3.1.2/09	*Conduct case studies to assess the social and macro-economic impacts of introducing nuclear power*	50 000	50 000
	Subprogramme 1.3.1 - Energy Modelling, Data and Capacity Building	50 000	50 000
1.3.3.1	Implementing methodology and guidance for nuclear knowledge management		
1.3.3.1/01	*Within the NE Series, produce a report on implementation of knowledge management as part of the integrated management systems in nuclear organizations*	10 000	10 000
1.3.3.1/02	*Within the NE Series, produce a guide/report on mapping competencies in nuclear organizations*	5 000	5 000
1.3.3.1/03	*Within the NE Series, produce a report on practical approaches to risk management of knowledge loss in nuclear organizations*	30 000	30 000
1.3.3.3	Providing products and services in nuclear knowledge management		
1.3.3.3/01	*Provide assistance and services (including assist visits) in NKM to NPPs, R&D, regulatory, radiation waste, nuclear education and other nuclear organizations*	30 000	30 000
1.3.3.3/02	*Contribute to integrated nuclear infrastructure review missions in area of knowledge management, human resource development, education and training*	20 000	20 000
	Subprogramme 1.3.3 - Nuclear Knowledge Management (NKM)	95 000	95 000
Programme 1.3 - Capacity Building and Nuclear Knowledge Maintenance for Sustainable Energy Development		**145 000**	**145 000**

Major Programme 1 – Nuclear Power, Fuel Cycle and Nuclear Science
Core Activities Unfunded in the Regular Budget

Table 14

	Project Title and Description of Activities	2012 CAURBs Unfunded	2013 CAURBs Unfunded
1.4.1.1	Data services, data networks and user support		
1.4.1.1/08	*Provide support to the organization of two workshops per annum at the ICTP, Trieste, Italy*	30 000	30 000
1.4.1.2	Nuclear data standards and evaluations		
1.4.1.2/03	*Compile and coordinate nuclear reaction data (EXFOR/CINDA)*	25 000	25 000
	Subprogramme 1.4.1 - Atomic and Nuclear Data	55 000	55 000
1.4.3.1	Accelerator techniques for modification and analysis of materials for nuclear technologies		
1.4.3.1/07	*Coordinate a CRP on integrated approach to advanced engineering research (2010–2013)*	50 000	-
1.4.3.2	Fostering interdisciplinary developments in accelerator applications		
1.4.3.2/02	*Support symposium on accelerator applications*	25 000	25 000
1.4.3.2/05	*Coordinate a CRP on applications of synchrotron radiation techniques with particular emphasis on interdisciplinary sciences (2010–2013)*	50 000	50 000
1.4.3.2/10	*Prepare an educational and training handbook on nuclear physics experiments using accelerators and research reactors*	25 000	25 000
1.4.3.2/11	*Prepare a report on synchrotron based analytical techniques for characterization of advanced energy related materials*	-	25 000
1.4.3.3	Sustainable use of nuclear instrumentation for environmental and other applications		
1.4.3.3/7	*Coordinate a CRP on optimization of nuclear instrumentation for modern environmental and industrial applications (2012–2016)*	25 000	25 000
1.4.3.4	Nuclear spectrometry for analytical applications		
1.4.3.4/8	*Organize a technical meeting on the advanced analytical techniques for laboratory and industrial applications*	25 000	25 000
1.4.3.4/10	*Coordinate a CRP on improvement of portable instruments and analytical techniques for in situ applications (2011–2014)*	50 000	
	Subprogramme 1.4.3 - Accelerators and Nuclear Spectrometry for Materials Science and Analytical Applications	250 000	175 000
1.4.4.1	Supporting plasma physics and fusion research		
1.4.4.1/08	*Coordinate a CRP on safety aspects of fusion power plants (2010–2012)*	50 000	-
1.4.4.2	Cooperation with ITER		
1.4.4.2/03	*Collaborate in the ITER Monaco International Fusion Days event and other ITER scientific meetings*	35 000	35 000
	Subprogramme 1.4.4 - Nuclear Fusion Research	85 000	35 000
Programme 1.4 - Nuclear Science		**390 000**	**265 000**
Major Programme 1 - Nuclear Power, Fuel Cycle and Nuclear Science		**801 580**	**661 580**

Major Programme 2
Nuclear Techniques for Development and Environmental Protection

Introduction

The overall objectives of Major Programme 2 continue to align with the Millennium Development Goals (MDGs). The Agency is facing growing Member States demand for assistance in addressing priorities related to non-communicable diseases, food security, water scarcity and environmental degradation.

This Major Programme's laboratories in Headquarters, Monaco and Seibersdorf remain a key vehicle for programme delivery. A growing role is foreseen in testing and facilitating the use of new technologies as well as for quality assurance activities. Major Programme 2 will expand its partnership networks and enhance the IAEA Collaborating Centre scheme in order to benefit from capacities and research in many Member States. The IAEA will provide a platform to enhance efforts where the market in technology does not function fully, as evidenced by the recent example of shortages of supply of the radioisotope molybdenum-99.

Efforts will be made to strengthen partnerships to enhance programme delivery. For example in the FAO/IAEA Joint Division, a focus will be on intensifying working closer with regional as well as national FAO offices, an effort that could also benefit both organizations' TC programmes. A particular emphasis of cancer control activities will be to further develop the Joint WHO/IAEA Programme on Cancer Control.

Along with growing partnerships within the UN family as well as close cooperation with Member State institutions, Major Programme 2 will intensify efforts to work with the private sector including public-private partnerships as a mechanism to advance the development of technology and equipment that is safe, affordable and technologically suitable for various conditions in developing countries.

The global reach of the Internet and the ability to continually evolve content is allowing the Agency to reach an ever expanding audience with timely, relevant information. Distance learning tools will be used as a cost effective way to support the training of professionals in Member States. Along with an increased effort with e-learning approaches, Major Programme 2 will work to develop a more structured approach to education and training with a focus on standardized curricula development and utilizing best practices in training delivery and assessment.

Major Programme 2 provides support for approximately two thirds of technical cooperation projects and will work to fulfil its role in providing the scientific foundation for as well as ensuring the technical soundness of these projects. Efforts will continue to optimize the synergies between regular budget and technical cooperation activities.

Printing and translation services are integral to the delivery of substantive programme outputs and thus the estimates for this major programme include its share of fixed costs for the printing and translation of documents published for dissemination.[1] In addition, since AIPS comprises a number of integrated management processes underpinning the delivery of the programme, the estimates also include the share of the funding of the AIPS Services Unit (ASU) tasked to provide ongoing operational support to AIPS systems and related business processes.

Objective	Performance Indicators
• To enhance the capacity of Member States to meet basic human needs and to assess and manage the marine and terrestrial environments through the integration of nuclear and isotopic techniques, where they have comparative advantages, into sustainable development programmes.	• Use by Member States of new or modified applications of radiation and isotope technologies. • The number of institutions/organizations in Member States that have a sustainable capacity to use radiation and isotope applications.

Outcome	Performance Indicator
• Increased use by Member States of nuclear and isotopic techniques for effecting improvements in food security, human health, water resources management, managing the marine and terrestrial environments, and industrial development.	• Use by Member States of Agency recommended techniques and standards in agricultural production, health care, water resources management, industrial processes, and marine and terrestrial environmental management.

[1] As indicated under para. 34 in Part I of this document.

2.0.0.1 Overall management, coordination and common activities

Description	Main outputs
The diversity of fields covered by this major programme requires efficient management and coordination at the scientific and technical levels to ensure that all activities respond to Member States' needs. Coordination and advisory activities are necessary to ensure the linkages between constituent programmes and subprogrammes are effective and efficient. Coordination on technical issues is necessary for the relevant activities in MPs 1, 3 and 6 and for managerial issues in MP 5. Coordination between programmes is also needed for preparation of documents for the Board of Governors and General Conference and for support to the Standing Advisory Group on Nuclear Applications. The facilitation of partnerships is needed in order to enhance programme delivery including, amongst others, the cooperation with IAEA Collaborating Centres.	Preparation of documents relating to nuclear applications; coordination reports; advisory group reports; policy on coordinated research. Policy-making Organs documents.

2.0.0.2 Management of the coordinated research activities

Description	Main outputs
The Coordinated Research Activities (CRA) fulfil Article III of the Agency's Statute, which mandates that the Agency encourage and assist research on, development and practical application of atomic energy for peaceful uses throughout the world and foster the exchange of scientific and technical information, as well as the exchange of scientists in the field of peaceful uses of atomic energy. The CRA have been designed to stimulate and coordinate the undertaking of research in selected nuclear fields by scientists in Member States. The Research Contracts Administration Section manages all aspects of the CRA for all MPs, including financial and programmatic planning and implementation relating to: some 1500 research, technical and doctoral contracts and research agreements; an average of 130 Coordinated Research Projects (CRPs); and approximately 80 Research Coordination Meetings (RCMs).	Completed CRPs; completed research, technical, doctoral contracts and research agreements; RCMs; publications, databases and techniques dissemination.

Programme 2.1 Food and Agriculture

Rationale: The persistence of widespread food insecurity and malnutrition, especially with continuing repercussions of the global food crisis, is influenced by many emerging trends that are likely to accelerate in the future. Chief among these are climate change (including extreme weather events), soil fertility degradation, land use change, water scarcity, transboundary animal and plant pests and diseases, and loss of biodiversity in agricultural production. Due to the foresight and longstanding support of Member States to the FAO/IAEA partnership, the application of nuclear techniques will continue contributing in the future to global food security in order to meet the demands of Member States in the field of food and agriculture. As a demand driven programme, the Joint FAO/IAEA Programme of Nuclear Techniques in Food and Agriculture will continue to assist Member States in applying cutting edge nuclear technologies to improve food security.

The 2012–2013 programme will include activities to address the risk of transboundary animal and plant pests and diseases, to increase efficiency in mutation induction for crop improvement, the use of isotopes to assess the impact of climate change on agriculture and natural resources used for food and feed production, and the continued development and adoption of phytosanitary irradiation treatments for the control of quarantine insect pests to reduce post-harvest losses and to facilitate international agricultural trade. In order to continue to meet the demands and address the needs of Member States in food and agriculture, the Joint Division will focus on three major directions, namely global food security, adaptation and mitigation of effects of climate change in agriculture, and food safety and control for agricultural trade.

Objective: To promote and contribute to the improvement of food security and safety; and to enhance Member State capabilities in the application of nuclear techniques for sustainable agricultural development.

Outcomes	Performance Indicators
• Increased use of Agency recommended techniques, guidelines and information products in agricultural research and development.	• Number of Member States using Agency recommended techniques, guidelines and products in their agricultural research and development.
• Use of Agency recommended norms and procedures by international organizations.	• Number of Agency recommended norms and procedures adopted or approved and promoted by international organizations.

Follow-up on Programme-wide lessons learned from reviews, assessment, evaluations: The Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture (NAFA) was a subject of two reviews in 2009 and two important lessons should be emphasized:

- FAO and IAEA Member States have come together to show support for strengthening the partnership between the two organizations.
- More integrated programming and budgeting with FAO and IAEA to better link their programmatic goals is needed. In addition, efforts should be made to enhance cooperation in the field through the regional strategic priorities established by Member States.

Specific criteria for prioritization:

1. Promotion of food security through the use of nuclear and related techniques; develop new technology options to enhance resilience and sustainability of agricultural production systems.
2. Projects that address adaptation to climate change, specifically through risk management and risk reduction.
3. Projects that assist Member States in improving food safety through standards underpinning international agreements.

Subprogramme 2.1.1 Sustainable Intensification of Crop Production Systems

Objective: To enhance Member States' capabilities to ensure agricultural and environmental sustainability under climate change and variability conditions, while intensifying and diversifying crop production systems, through the development and application of nuclear techniques.

Outcome	Performance Indicator
• Enhanced Member State capability to mitigate the impact of climate change and land use activities on land degradation, soil erosion and water scarcity on food and biomass production.	• Number of innovative land–water-plant management packages developed and adapted for improving water use efficiency, soil quality, soil resilience and crop adaptation to climate change.

Programmatic changes and trends: New areas include broadening the genetic base of crops as an adaptation strategy to emerging local climatic conditions and targeting sustainable agro-systemic efficiency gains through an integrated strategy for the conservation, improvement and production of land, water and plant genetic resources for food and agriculture in an equitable way.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 2.2% (€90 105) in 2012 as compared with 2011 and a decrease of 0.4% (€16 454) in 2013 as compared with 2012. Efficiency gains include the streamlining of the management of laboratory activities into the subprogramme, which will be a more effective way of delivering outputs to Member States.

Projects

Title, duration and ranking	Main outputs
2.1.1.1 Soil management and conservation for sustainable agriculture and environment ***Duration:*** 2006–2013/***Ranking:*** 2	Data on critical areas of land degradation and effectiveness of improved soil management practices; strategies for food and bioenergy production; publications in journals and newsletters; support for 10 TC projects; fellowship training and an international symposium.
2.1.1.2 Technologies and practices for sustainable use and management of water in agriculture ***Duration:*** 2006–2013/***Ranking:*** 1	Datasets, methodologies and guidelines to evaluate crop–water productivity and validate FAO's AquaCrop model for improving soil water management; publications in journals and newsletters; support for 10 TC projects; fellowship training.
2.1.1.3 Crop improvement for high yield and enhanced adaptability to climate change ***Duration:*** 2008–2014/***Ranking:*** 1	Improved (yield, quality, nutrition, commercial traits) mutant germplasm as breeding resources with broadened adaptability to climatic stresses; informational material; training.
2.1.1.4 Integrated and efficient mutation technologies for crop breeding and genetics ***Duration:*** 2008–2014/***Ranking:*** 2	Protocols and guidelines for enhancing the efficiency of mutation induction and genetic resources; trained scientists; characterized mutant genetic resources available for distribution.

Title, duration and ranking	Main outputs
2.1.1.5 Integrated soil-water-plant approaches to enhance food production and biomass productivity ***Duration:*** Recurrent/***Ranking:*** 3	Improved mutants with tolerance to environmental stress combined with good agricultural practices to increase land and biomass productivity; two newsletters; technical inputs to technical cooperation projects; fellow training.

Subprogramme 2.1.2 Sustainable Intensification of Livestock Production Systems

Objective: To enhance Member State capabilities to intensify livestock production systems sustainably and to assess, control and manage risks from transboundary animal diseases (TADs) and those of zoonotic importance by developing and applying nuclear and related techniques.

Outcomes	Performance Indicators
• Increased use of Agency recommended locally available feed resources and appropriate reproductive management practices that improves livestock productivity in smallholder production systems.	• Number of livestock farms using Agency recommended standards and techniques in feeding and reproductive management.
• Improved control of TADs and increased use of quality management systems for managing risks from TADs.	• Number of Member States reporting to the World Organisation for Animal Health (OIE) and/or obtaining recognition of freedom from TADs, and veterinary laboratories meeting quality assurance standards.
• Increased capacity to promote self-reliance in livestock production.	• Number of scientists from developing countries trained and their output in the scientific literature.

Programmatic changes and trends: Due to radioisotope, stable isotope, nanotechnologies, tracing and labelling technological developments, there continues to be a programmatic shift from classical technologies towards the molecular and nuclear based technologies to develop and transfer early and rapid diagnostic technologies of TADs to enable Member States to respond to the risks posed by such events earlier and with greater effectiveness and sensitivity. In addition, the use of gamma radiated inactivated/killed disease pathogens as vaccine components and the use of stable isotopes to follow and monitor molecules in a non-invasive way will increasingly form the basis of activities in this biennium. The subprogramme will address and increase these trends through consultation with Member States and leaders in the fields of diagnostic technologies, vaccinology and molecule tracing, molecular characterization and introgression, and climatic variations and change.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 5.6% (€117 149) in 2012 as compared with 2011 and a decrease of 3.1 % (€68 347) in 2013 as compared with 2012. Greater efficiencies will be sought through partnerships with external institutions and efforts will be made to secure external funding.

Projects

Title, duration and ranking	Main outputs
2.1.2.1 Integrated management of animal nutrition, reproduction and health ***Duration:*** 2008–2014/***Ranking:*** 2	Publications and guidelines on procedures and strategies for an integrated approach for improving smallholder market oriented animal production; database for recording production data; inputs to technical cooperation projects.
2.1.2.2 Reducing risk from transboundary animal diseases (TADs) and those of zoonotic importance ***Duration:*** 2008–2014/***Ranking:*** 1	Nuclear and related technologies for the diagnosis of TADs and those of zoonotic importance; isotopic signatures of migratory wildlife correlated with environmental isoscapes; radiation attenuated vaccines; guidelines and standard operating procedure (SOPs).
2.1.2.3 Innovative nuclear based approaches to maintain biodiversity and enhance livestock productivity ***Duration:*** 2011–2017/***Ranking:*** 1	Tools for animal biodiversity utilization and characterization of animal genetic resources; procedures to monitor and manipulate methanogenic and fibre degrading microbes; improved diagnostic and control technologies of livestock diseases.

Subprogramme 2.1.3 Improvement of Food Safety and Food Control Systems

Objective: To improve food safety and food control systems, including preparedness and response to nuclear and radiological emergencies, and to enhance international food trade through the use of nuclear and related techniques.

Outcomes	Performance Indicators
• Increased application of irradiation for consumer protection and facilitation of trade.	• Number of countries that allow the export/import of irradiated food. • Estimated volume of irradiated products traded.
• Improved food safety and strengthened international food trade through the use of quality assured and controlled traceability and authentication techniques and contaminant control methodologies in Member State laboratories.	• Number of Member State laboratories developing and applying analytical techniques for the implementation of traceability and contaminant control programmes. • Number of validated analytical methods and procedures for traceability and food contaminant control transferred to Member States.
• Enhanced internal and external cooperation and collaboration in the application of harmonized administrative arrangements and procedures related to nuclear and radiological emergency preparedness and response.	• Number of countries requesting advice on agricultural countermeasures in response to exercises or actual nuclear and radiological emergencies. • Revised Joint Radiation Emergency Management Plan of the International Organizations (JPLAN) and the Cooperative Arrangements between FAO and IAEA in Response to Nuclear or Radiological Emergencies.

Programmatic changes and trends: Subprogramme 2.1.3 has several changes due to trends towards a need for more specific food safety and control systems. New areas include specific applications of food irradiation that show a clear comparative advantage, such as the development of foods for immuno-compromised patients. The consideration of traceability techniques to control emerging food safety risks, for example the examination of food safety and regulatory aspects of nanotechnology and radiotracer labelling for risk characterization, detection and control, are areas of expansion.

Given the current levels of available resources, activities such as train-the-trainer workshops and information exchange through e-resources, conferences and technical meetings will, to a large extent, be implemented only if extrabudgetary funding can be secured.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 2.8% (€44 875) in 2012 as compared with 2011 and an increase of 3.7% (€57 076) in 2013 as compared with 2012. Efficiency gains in Subprogramme 2.3.1 are achieved through streamlining of activities within projects.

Projects

Title, duration and ranking	Main outputs
2.1.3.1 Post-harvest applications of food irradiation to ensure food safety, control quarantine pests and facilitate international trade ***Duration:*** 2010–2015/***Ranking:*** 2	Research leading to the development and application of international standards for sanitary and phytosanitary application of food irradiation. Updated databases on food irradiation clearances and food irradiation facilities.
2.1.3.2 Traceability to improve food safety and quality and enhance international trade ***Duration:*** 2008–2015/***Ranking:*** 1	Validated methods for traceability and authenticity of food products and for contaminant control. Laboratory scientists and technicians trained. Quality assurance/control programmes implemented in Member State laboratories.
2.1.3.3 Preparedness and response to nuclear and radiological emergencies affecting food and agriculture ***Duration:*** Recurrent/***Ranking:*** 3	Revised EPR JPLAN 2012 and cooperative arrangements between FAO and IAEA in response to nuclear or radiological emergencies. Advice on agricultural countermeasures disseminated.

Subprogramme 2.1.4 Sustainable Control of Major Insect Pests

Objective: To increase Member State capacity in area-wide suppression, containment or eradication of key pests of crops, livestock and humans by developing and integrating sterile insect technique (SIT) with other methods.

Outcome	Performance Indicator
• Increased awareness and use by Member States of improved sterile insect and related techniques and decision support systems.	• Number of Member States using improved technologies, feasibility and decision support studies, guidelines and SOPs.

Programmatic changes and trends: Subprogramme 2.1.4 has several changes due to a growing demand for the environment-friendly management of principal plant pests that cause major economic losses. This trend also represents a change in emphasis from integrating sterile insects mainly for creating pest-free areas to applying an area-wide integrated pest management approach to pest suppression, combined with post-harvest treatments and other measures to facilitate international trade. New areas include sugarcane borers, and greenhouse and palm pests, as well as stable flies and parasitoids. Given the many demands and the limited resources, some activities

including research, courses and coordinated research networks were placed under CAURBs. Requests to develop the SIT for migratory desert locust have been found to be technically not viable and thus have not been included.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 0.3% (€12 175) in 2012 as compared with 2011 and an increase of 1.1% (€39 321) in 2013 as compared with 2012. Greater efficiencies will be sought through partnerships with external institutions and efforts will be made to secure external funding.

Projects

Title, duration and ranking	Main outputs
2.1.4.1 SIT to control exotic insect plant pests of agriculture and the environment ***Duration:*** 2006–2014/***Ranking:*** 2	Support to International Plant Protection Convention, guidelines for outbreak, improved strains of insect pests for SIT, diagnostic tools, mating compatibility studies, international symposium, newsletters and web site maintenance.
2.1.4.2 Area-wide suppression of native insect plant pests to reduce insecticide use and facilitate international trade ***Duration:*** 2008–2015/***Ranking:*** 1	Feasibility assessments and implementation of area-wide integrated programmes, design of rearing facilities, post-harvest treatments, guidelines, databases, models, training and technical support to technical cooperation projects.
2.1.4.3 Management of transboundary livestock insect pests for sustainable agriculture and rural development ***Duration:*** 2012–2017/***Ranking:*** 3	Geo-genetic assessments and feasibility assessments for managing populations of livestock insect pests; harmonized approaches among key international partners; training and technical support to technical cooperation projects.
2.1.4.4 Development of the SIT for the control of disease transmitting mosquitoes ***Duration:*** 2010–2017/***Ranking:*** 4	Methodologies for medium scale rearing of Ae. albopictus and An. arabiensis, male mosquito behaviour; international workshop/conference on area-wide integrated pest management training and technical support to technical cooperation projects.

Programme 2.2 Human Health

Rationale: Improved health and nutrition for development represents the overall priority for the Human Health programme. Three major areas can be identified:

- To provide improved diagnosis and treatment of cancer and chronic diseases by radiation medicine within a framework of quality assurance;
- To contribute to the achievement of the MDGs by improved nutrition;
- To contribute to capacity building in radiation medicine and nutrition through effective education and training programmes based on sound educational principles.

Nuclear techniques provide unique opportunities to address priority areas in human health. The Agency has a well established and well recognized function globally in providing technical guidance in the use of nuclear techniques through the human health programme including medical imaging for diagnosis of childhood and cardiac diseases and cancer and radiotherapy for the treatment of infection and cancer.

In an effort to maximize the impact of radiotherapy, the Programme of Action for Cancer Therapy (PACT) continues to coordinate the Agency's cancer control activities to support Member States in the development of comprehensive national cancer control programmes as well as to focus on promotion and advocacy for cancer control. Emphasis will be placed on implementing a WHO/IAEA Joint Programme on Cancer Control.

The priority areas for the 2012–2013 biennium are to focus on the top developmental needs, that is the enhancement of education and training using professional educationists to assist in building an integrated curriculum and e-learning environment in radiation medicine and nutrition; the strengthening of the Agency's contribution to the MDGs; and the improvement of diagnosis and treatment of cancer and chronic diseases in Member States; all based on nuclear techniques within the framework of quality assurance and traceability of radiation measurements.

Prioritization of activities within the programme is based on the needs of Member States as reflected by requests for TC projects, interactions with partners within the UN system, professional societies and other international organizations, as well as from interactions with peers in Member States.

Objective: To enhance capabilities in Member States to address needs related to the prevention, diagnosis and treatment of health problems through the development and application of nuclear techniques within a framework of quality assurance.

Outcomes	Performance Indicators
• Increased use of nuclear techniques in human health as a result of support provided by the Agency.	• Number of institutions in Member States using nuclear techniques in human health or an increase in the frequency of their use.
• Increased application of Agency standards of practice in health programmes.	• Number of institutions in Member States applying Agency standards of practice in health programmes.
• Implementation of quality assurance (QA) procedures in health services based on nuclear techniques.	• Number of institutions in Member States implementing QA programmes in health activities based on nuclear techniques.

Follow-up on Programme-wide lessons learned from reviews, assessment, evaluations: Strengthening existing and creating new partnerships, within and outside the UN system, will be an integral part of the programme. Development in line with technological advances to respond appropriately to Member State needs will be continued. To this end, the programme must engage in addressing nuclear medicine and radiotherapy technologies and assessing their appropriateness for low and middle resource settings.

Strengthened capacity building in radiation medicine and nutrition is crucial. Human resource development is a priority for applying nuclear techniques in health. Emphasis will be placed on the development of curricula and didactic materials in close collaboration with educationists.

Specific criteria for prioritization:

1. First priority is given to activities based on nuclear technologies and techniques that are already proven and that meet the needs of Member States.
2. Second priority is given to activities designed to build human resources capacity, with greater emphasis on education, distance learning and training the trainers.
3. Third priority is given to activities based on emerging nuclear technologies that reflect priorities identified by individual Member States.

Subprogramme 2.2.1 Nutrition for Improved Health

Objective: To enhance Member State capabilities to combat malnutrition in all its forms.

Outcomes	Performance Indicators
• Increased Member State ability to use nuclear techniques in nutrition to develop and evaluate nutrition interventions.	• Number of Member States using nuclear techniques in nutrition.
• Increased transfer of technology in the use of nuclear techniques in nutrition.	• Number of individuals trained.

Programmatic changes and trends: Subprogramme 2.2.1 changes are due to alteration in focus from molecular diagnosis and genotype identification of infectious diseases to interactions between nutrition and infectious diseases. New areas include stronger focus on maternal, newborn and child nutrition and health to reflect increased attention on improved nutrition to achieve MDGs 4 and 5. The recently designated IAEA collaborating centre in nutrition (Bangalore, India) will help to increase South–South collaboration. Increased focus on capacity building via support to doctoral CRPs will contribute to training of future policy makers/leaders in nutrition. Links to agriculture with regard to biofortification will be enhanced. Given current levels of resources available activities will be slightly reduced in 2012, notably in terms of CRP activities. Some tasks may be restored if extrabudgetary funds become available.

Resource changes and trends: The proposed regular budget resources, at 2011 prices, reflect a decrease of 4.7% (€93 469) in 2012 as compared with 2011 and a slight increase of 0.1% (€1 902) in 2013, as compared with 2012. Efficiency gains result from focusing on maternal, newborn and child nutrition and public health problems related to obesity and non-communicable diseases, while phasing out molecular diagnosis and genotype identification of infectious diseases.

Projects

Title, duration and ranking	Main outputs
2.2.1.1 Maternal, newborn and child nutrition ***Duration:*** 2010–2020/***Ranking:*** 1	Guidelines and distance learning modules; reports and peer reviewed publications; input to technical cooperation projects.
2.2.1.2 Overnutrition, obesity and non-communicable diseases ***Duration:*** 2010–2020/***Ranking:*** 2	Guidelines and distance learning modules; reports and peer reviewed publications; input to technical cooperation projects.

Title, duration and ranking	Main outputs
2.2.1.3 Nutrition and infectious diseases ***Duration:*** 2010–2020/***Ranking:*** 1	Guidelines and distance learning modules; reports and peer reviewed publications; input to technical cooperation projects.

Subprogramme 2.2.2 Nuclear Medicine and Diagnostic Imaging

Objective: To improve the management of cancer, cardiac and other diseases by enhancing professional capabilities towards the effective implementation of nuclear medicine and integrated diagnostic imaging practices.

Outcomes	Performance Indicators
• Increased capacity to manage major health conditions such as cardiovascular disease and cancer, by using nuclear and imaging techniques and Agency standards/guidelines.	• Number of institutions in Member States applying nuclear medicine and diagnostic imaging procedures.
• Increase capacity to provide more advanced diagnostic procedures.	• Number of nuclear cardiology investigations. • Number of PET/CT studies in oncology.

Programmatic changes and trends: The requests to support medical applications of nuclear techniques are steadily increasing, as witnessed by the continuous increase of the number of TC projects. The former radiopharmacist position has been converted to a medical doctor/nuclear physician position to cope with this increase. The subprogramme will further increase its focus on integrated diagnostic medical imaging, including some radiological techniques like CT and MRI. Chronic diseases such as cardiac disorders and cancer are also becoming one of the new focuses of the WHO. Applications of PET/CT, SPECT/CT, CT and MRI in their management will be addressed from both normative and research perspectives and the main outputs will be guidance documents and web-based e-learning resources. From a research point of view, new CRPs have been planned to cover areas of interest for Member States.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 0.1% (€2 657) in 2012 as compared with 2011 and a decrease of 1.7% (€33 682) in 2013 as compared with 2012. Efficiency gains are related to the merging of projects and to the integration of activities that may be carried out together, resulting in synergistic efficiency gains.

Projects

Title, duration and ranking	Main outputs
2.2.2.1 Managing chronic diseases with integrated diagnostic imaging modalities emphasizing infectious and cardiovascular diseases, and cancer ***Duration:*** 2010–2016/***Ranking:*** 1	Guidance documents on different procedures and clinical applications, and results from CRPs focused on topics covering applications in chronic diseases of particular interest to Member States, such as cancer and cardiac diseases.
2.2.2.2 Cost-effective use of radiopharmaceuticals in therapy, neurology and paediatric diseases (jointly with 2.5.1.3) ***Duration:*** 2010–2016/***Ranking:*** 2	Guidelines, web-based tools, completed series of WHO international pharmacopia standards with additional radiopharmaceuticals, distance learning tools and scientific publications.
2.2.2.3 Quality management in professional education and clinical practice ***Duration:*** Recurrent/***Ranking:*** 3	Educational resources such as web site with updated relevant material; quality management in nuclear medicine audits, reports and review publications; database on NM practices in Member States.

Subprogramme 2.2.3 Radiation Oncology and Cancer Treatment

Objective: To enhance Member States' capabilities to establish sound policies for radiotherapy and cancer treatment, and other applications of radiation in human health, and to ensure the effective, efficient and safe utilization of current and future advanced radiotherapy technologies. The subprogramme will focus on clinical radiation oncology in the palliative and curative treatment of cancer, including clinical aspects of quality assurance, radiation sterilization for tissue banking and novel techniques to improve the effects of radiotherapy.

Outcomes	Performance Indicators
• Improved management of cancer patients through implementation of evidence based approaches and Agency guidelines.	• Number of radiotherapy institutions in Member States applying Agency's guides and standards through active collaboration with the Agency. • Number of training materials, modules and courses made available to Member States. • Number of training courses organized on radiation oncology and radiation biology. • Number of technical cooperation projects and

Outcomes	Performance Indicators
	training activities for tissue sterilization, stem-cell research and biological dosimetry.
• Improved quality of education and training of radiotherapy professionals in Member States.	• Number of training materials, modules and courses made available to Member States. • Number of training courses organized in radiation oncology and radiation biology.
• Increased capability of Member States in their safe and effective use of radiotherapy and radiation biology.	• Number of centres in Member States participating in the Agency's CRPs on radiotherapy and radiation biology. • Number of technical cooperation projects on radiotherapy and radiation biology.

Programmatic changes and trends: Consistent with the overall objectives of the *Human Health* programme, the subprogramme will pursue modern mechanisms for the delivery of training in low-resource environments including e-learning strategies. New areas including novel techniques (e.g. intensity modulated radiation therapy, image-guided radiation therapy, stereotactic radiotherapy, intra-operative radiotherapy, tomotherapy and applied radiation biology) and their feasibility for effective use in developing countries will be explored. The subprogramme will emphasize the use of radiotherapy in paediatric oncology in developing countries and other areas of interest such as dose fractionation and brachytherapy in prostate cancer. Given current levels of resources available, the subprogramme will be unchanged in 2012 in terms of active CRPs, publications, training courses and TC support. Some additional activities may be undertaken if extrabudgetary funds become available.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 1.6% (€30 312) in 2012 as compared with 2011 and a slight decrease of 0.2% (€3 803) in 2013 as compared with 2012. Projects on palliative and curative cancer management and advanced techniques in cancer radiotherapy were merged to allow flexibility in implementing overlapping tasks.

Projects

Title, duration and ranking	Main outputs
2.2.3.1 Radiation oncology ***Duration:*** 2005–2015/***Ranking:*** 1	Reports and publications from CRPs on curative and palliative RT for site-specific cancers, clinical meeting publications, reviews for treatments of common cancers in limited resource settings, assessments of modern technology in radiation oncology.
2.2.3.2 Applied radiation biology ***Duration:*** 2009–2016/***Ranking:*** 2	Production of training materials; provision of expertise to implement clinical trials utilizing novel strategies; research progress in radiation sterilization in tissue banking; collaboration with NIRS.
2.2.3.3 Quality assurance in radiotherapy ***Duration:*** Recurrent***/Ranking:*** 2	Comprehensive publications on methodologies to ensure continued improvement of the RT process, in particular clinical and RT technology aspects; publications/reviews on auditing procedures, quality and audit standards (with Subprogramme 2.2.4).

Subprogramme 2.2.4 Quality Assurance and Metrology in Radiation Medicine

Objective: To enhance the capability of Member States to implement radiation imaging and treatment modalities safely and effectively.

Outcomes	Performance Indicators
• Enhanced QA and dosimetry in hospitals in Member States through a dose auditing and verification service.	• Number of facilities in Member States that have dosimetry calibrations for radiotherapy applications audited, verified and with discrepancies corrected through Agency support.
• Increased accuracy in dosimetry in the IAEA/WHO Network of secondary standards dosimetry laboratories (SSDLs) due to the availability of calibrated radiation measurement standards.	• Number of facilities in Member States that use the Agency's calibration services for national measurement standards and/or participate in the Agency's dosimetry comparisons.
• Increased use by Member States of Agency recommendations for dosimetry and medical radiation physics and for establishing QA systems to optimize patient diagnosis and treatment.	• Number of Member State institutions using Agency QA procedures and dosimetry codes of practice, and following Agency guidelines for medical physics in nuclear medicine, diagnostic radiology and radiation treatment.

Outcomes	Performance Indicators
• Increased availability of trained clinical medical physicists in Member States to support safe and effective use of radiation in medicine.	• Number of professionals in Member States trained in medical physics. • Number of Member States adopting Agency's guidelines on education and training in medical physics, and Agency's publications.

Programmatic changes and trends: This biennium will focus on the development and harmonization of QA guidance in medical radiation imaging. Following the expansion of the Agency's laboratory facilities for calibration services and enhanced collaboration with professional societies involved in medical physics, the Agency will focus on the harmonization of education and training materials. The capacity of the laboratory for dosimetry audit services must be increased to meet the current demand for these services by Member States. Also, the development of a new dosimetry protocol for brachytherapy will not be included. Some of these activities may be implemented if extrabudgetary funds (CAURB) become available.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 14.2% (€332 775) in 2012 as compared with 2011 and a slight increase of 0.2% (€5 148) in 2013 as compared with 2012. Efficiency gains will be accomplished by cooperation with Subprogrammes 2.2.2, 2.2.3 and 3.3.1, ensuring improved rationalization and harmonization of activities.

Projects

Title, duration and ranking	Main outputs
2.2.4.1 Quality audits in dosimetry for radiation therapy **Duration:** Recurrent/***Ranking:*** 1	Results of thermoluminescent dosimetry (TLD) postal audit service; resolution of discrepancies of beam calibrations in Member States; updated international dose external audits database (IDEA).
2.2.4.2 Supporting traceability of measurements in radiation medicine ***Duration:*** Recurrent/***Ranking:*** 1	Agency calibration and comparison certificates for radiation measurements; SSDL Newsletter, updated SSDL database; reports of international dosimetry comparisons.
2.2.4.3 Quality assurance guidelines for medical physics in clinical radiation imaging ***Duration:*** 2005–2015/***Ranking:*** 2	Publications on methodologies and education for medical radiation imaging and auditing procedures for diagnostic radiology and nuclear medicine.
2.2.4.4 Developments and harmonization of quality assurance in radiation medicine ***Duration:*** 2007–2015/***Ranking:*** 3	Publications on QA, guidelines and training material for medical radiation physics; audit report, update of DIRAC database.

Subprogramme 2.2.5 Programme of Action for Cancer Therapy (PACT)

Objectives:

— To enable Member States to introduce, expand and improve their cancer care capacity by integrating radiotherapy into a comprehensive national cancer control programme (NCCP) that maximizes its therapeutic effectiveness and public health impact.
— To build a global public–private partnership of interested organizations committed to addressing the challenge of cancer in low and middle income (LMI) Member States in all its aspects.
— To mobilize resources from charitable trusts, foundations and others in the public and private sectors to assist LMI Member States to develop and implement their diagnostic imaging and radiotherapy capacities within their NCCPs.
— To ensure the effective and sustainable transfer of diagnostic imaging and radiotherapy technologies or knowledge to all LMI Member States where unmet needs exist through expanded education and training facilities as well as the development of suitable, appropriate and affordable radiation medicine technologies.

Outcomes	Performance Indicators
• Increased Member State capacity to implement and manage self-sustaining comprehensive cancer control systems in developing Member States.	• Number of PACT Model Demonstration Sites (PMDS) established; number of partner organizations collaborating in their development and implementation.
• Member States develop and implement national policies, action plans and strategies for cancer prevention, management and treatment governed by the WHO comprehensive cancer control guidelines and multidisciplinary assessments of existing capacity.	• Number of national cancer control strategies and associated action plans developed and implemented in Member States with assistance through PACT.

Outcomes	Performance Indicators
• Increased availability of trained cancer control professionals to support national cancer control programmes in low and middle income African Member States, through the launching of the Virtual University for Cancer Control network (VUCCnet).	• An increased number of trained and, where possible, certified African cancer control practitioners; enhanced capabilities in comprehensive cancer control at selected African cancer centres; a regionally accepted training programme for each key area of cancer control accessible at lower cost through a combination of distance learning, online channels, and on-the-job training and certification; and a network of physicians and other health care professionals able to mentor and support each other with linkages to existing networks, such as African Radiation Oncology Group (AFROG).
• Mobilization of significant new resources including funding, equipment and expertise from non-traditional sources for combined implementation of comprehensive cancer control in the PMDS countries and other Member States.	• Number of non-traditional donors providing significant resources for the implementation of cancer control programmes in developing countries.
• Increased availability of radiation therapy equipment that is technically reliable and financially affordable for low and middle income Member States, through recognition and utilization of guidelines developed through the Advisory Group on Increasing Access to Radiotherapy Technology (AGaRT).	• Selection of experts and participating manufacturers; successful organization of AGaRT meetings; development of guidelines for facility design, operation and maintenance of radiotherapy technologies, including guidelines for sale and service contracts, to guarantee the production of affordable, suitable and highly reliable radiotherapy solutions for developing countries.

Programmatic changes and trends: Particular emphasis will be placed on implementing the WHO/IAEA Joint Programme on Cancer Control. This joint programme has the objective of enhancing and harmonizing the activities and resources of the Agency and WHO to work more effectively together and with partners in support of the development and implementation of sustainable comprehensive cancer control programmes in Member States. In response to a lack of human resources in cancer related fields, the Agency will begin work to develop a web-based VUCCnet in conjunction with Member State cancer centres, medical universities, and international partners. VUCCnet will eventually offer a standardized curriculum for key subject areas of cancer control, and will support multidisciplinary education and training through existing recognized cancer training centres or medical universities in Africa, Asia and Latin America.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 10.2% (€131 183) in 2012 as compared with 2011 and a slight increase of 0.1% (€1 434) in 2013 as compared with 2012. Efficiency gains will be achieved by partnering with other UN system agencies such as WHO and IARC, and leading international cancer organizations.

Projects

Title, duration and ranking	Main outputs
2.2.5.1 Cancer control capacity assessment and evaluation ***Duration:*** Recurrent/***Ranking:*** 1	Assessment and evaluation tools; baseline assessments; evaluative assessments.
2.2.5.2 Establishing and coordinating model demonstration sites ***Duration:*** Recurrent/***Ranking:*** 3	Project documents outlining comprehensive cancer control strategies, identification and design of priority projects, and funding proposals.
2.2.5.3 Outreach, public–private partnership development and resource mobilization ***Duration:*** Recurrent/***Ranking:*** 4	Dynamic web site; PACT prospectus, PACT progress reports, joint WHO/IAEA web site and/or progress reports, press releases, outreach pamphlets and brochures, posters; partnership agreements; joint proposals; donor recognition events.
2.2.5.4 Promoting regional cancer training networks ***Duration:*** Recurrent/***Ranking:*** 2	Criteria, standards, list of selected training institutions and candidates, agreed programme framework, funding proposals; terms of reference for VUCC and for mentorship network, list of committed centres, proposals.

Programme 2.3 Water Resources

Rationale: A recent UN assessment of the MDGs noted that sufficient progress is being made towards the goal of "reducing in half the number of people without access to drinking water". Despite this progress, nearly a billion people would still lack access to any source of safe drinking water. Water supply and water quality problems continue to be two of the topmost development needs in Member States due to multiple sources of stress on resources, including greater needs for food production for an increasing population, irrigated agriculture, energy production, and climate variability and change. A key to increasing the availability and

sustainability of water is to develop a comprehensive, scientific assessment of surface and groundwater resources. Progress on another MDG, which calls for stopping the over-exploitation of water resources, also cannot be easily achieved and documented without the availability of credible resource assessments. In spite of the fact that a need for water resources assessment has been recognized for nearly fifty years, comprehensive national assessments (including groundwater) are still lacking, limiting Member States' ability to fully use their water resources. Thus, the lack of credible and scientifically sound water resource assessments needs to be overcome in order to meet the demands for water supply. Isotope techniques in hydrology — based upon "fingerprints" of radioactive and stable isotopes in water — help to rapidly and cost-effectively assess water resources. Continued Agency activities in water resources management are necessitated by a lack of sufficient capacity in most countries for using isotope hydrology. Programme priorities are to increase capacity and use of isotopes for assessments. This is rarely possible without the frameworks of cooperation available through the Agency, which is the only international organization with a mandate to promote the use of isotope and nuclear techniques for peaceful purposes.

Objective: To enable Member States to use isotope hydrology for the assessment, use and management of their water resources.

Outcome	Performance Indicator
• Sustainable water resources management and related policy development in Member States is increasingly based on a scientifically sound knowledge base.	• Availability and use of isotope methodologies and global isotope data for basin and groundwater management, including adaptation for climate change.

Follow-up on Programme-wide lessons learned from reviews, assessment, evaluations: A key lesson has been to formulate activities based on specific gaps where isotope techniques and the Agency have an advantage and make the most important contributions to the international water agenda. Accordingly, tasks related to stable isotopes, geothermal reservoirs and dam leakage were reduced. Routine stable isotope analysis was nearly eliminated in the Agency's Isotope Hydrology Laboratory. The integration of this laboratory after reorganization of the Agency's laboratories has allowed increased efforts in radioisotope applications with existing resources. The use of gap analysis for Agency role led to collaborative tasks with World Bank and GEF.

Specific criteria for prioritization:

1. First priority is given to Member State interest in the Agency's services as expressed in General Conference resolutions.
2. Second priority is given to comparative advantage of nuclear technology compared with non-nuclear alternatives for the proposed application.
3. Third priority is given to Member States' prioritization of their development needs and efforts.

Subprogramme 2.3.1 Isotope Data Networks for Hydrology and Climate Studies

Objective: To provide Member States access to global isotope data and mapping products, and disseminate isotope hydrology information through publications and training.

Outcome	Performance Indicator
• Increased ability of Member State institutions to effectively utilize isotope techniques in planning and implementation of water resources management projects.	• Number of water management and/or other technical institutions receiving Agency assistance for using isotope techniques.

Programmatic changes and trends: Subprogramme 2.3.1 has been modified to address priority areas and lessons learned. There will be an increased focus on isotope networks, databases, mapping, climate change, as well as e-learning. The subprogramme also retains activities related to information exchange and training from the previous cycle. Subprogramme 2.3.1 contains one unfunded core (CAURB) activity which may be activated if extrabudgetary funds become available.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 14.2% (€145 142) in 2012 as compared with 2011 and an increase of 2.9% (€25 399) in 2013 as compared with 2012. Efficiency gains in Subprogramme 2.3.1 include reduction of stable isotope related activities and increased analysis by laser machines.

Projects

Title, duration and ranking	Main outputs
2.3.1.1 IAEA Isotope data networks for precipitation, rivers and groundwater *Duration:* Recurrent/*Ranking:* 1	Updates to the WISER databases and new spatial analysis/mapping products.
2.3.1.2 Synthesis and dissemination of global isotope data and related information *Duration:* Recurrent/*Ranking:* 1	Mapping products, newsletters, atlases, training programmes/e-learning products with UNESCO-IHE.

Subprogramme 2.3.2 Isotope Based Assessments of Water Resources

Objective: To enable Member States to use isotope techniques for local to national-scale water resources assessments.

Outcome	Performance Indicator
• Increased use of isotope hydrology by Member States as part of their water resources assessment efforts.	• Number of Member States who are using isotopes as part of their water resource assessments.

Programmatic changes and trends: Subprogramme 2.3.2 has been reformulated for this biennium to focus on the growing need of Member States for integrated water resources assessments at national and regional scales. This reformulation is consistent with recent assessments, which emphasized the Agency's beneficial role in helping to conduct assessments through the promotion of isotope techniques through TC projects as well as collaborative projects with other UN system agencies and NGOs. Consistent with the OIOS review recommendations, activities related to dam safety, geothermal and coastal aquifer salinity problems will be phased out.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 8.5% (€112 760) in 2012 as compared with 2011 and a decrease of 1.6% (€23 040) in 2013 as compared with 2012. Efficiency gains are related to streamlining of TC project implementation which allows implementation of more requests for technical cooperation.

Projects

Title, duration and ranking	Main outputs
2.3.2.1 Assessment of groundwater resources at local/national scales *Duration:* Recurrent/*Ranking:* 1	National assessment reports for participating Member States.
2.3.2.2 Assessment and strategies for management of transboundary aquifers and rivers *Duration:* Recurrent/*Ranking:* 1	Transboundary assessment reports.

Subprogramme 2.3.3 Radioisotope Applications for Hydrology

Objective: To enable Member States to provide analytical services for isotope hydrology at national and regional levels and access technologies such as noble gas isotope analyses.

Outcome	Performance Indicator
• Improved Member State capacity for the isotope analysis of hydrological samples, and increased utilization of radioisotope approaches including noble gas isotopes.	• Extent to which Member States are able to produce high quality isotope data in their own laboratories.

Programmatic changes and trends: Subprogramme 2.3.3 has been modified for the 2012–2013 biennium to include a major focus on radionuclide applications for water resources management. New activities related to long lived and short lived radionuclides for groundwater age dating and recharge assessments, as well as pollution vulnerability studies make the core of this subprogramme. Three CRPs, including two new CRPs, are included to improve radionuclide methods in hydrology and utilize current methods to address major surface water and groundwater resource issues in Member States. Stable isotopes are no longer a focus of this subprogramme.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 10.0% (€105 431) in 2012 as compared with 2011 and a slight increase of 0.1% (€1 167) in 2013 as compared with 2012. Efficiency gains will be realized by decreasing stable isotope activities and streamlining of TC project implementation.

Projects

Title, duration and ranking	Main outputs
2.3.3.1 Characterization of fossil groundwater systems using long lived radionuclides ***Duration:*** Recurrent/***Ranking:*** 1	Expanded network of Member State laboratories providing isotope analysis for technical cooperation projects; measurement protocols for isotope sampling and analysis.
2.3.3.2 Helium and other noble gas isotopes for estimating groundwater recharge and vulnerability to pollution ***Duration:*** Recurrent/***Ranking:*** 1	Improved sampling methods for helium isotope analysis; use of helium and other noble gases for water resource assessments.

Programme 2.4 Environment

Rationale: Environmental issues were considered in the MDGs as an integral part of the development process. However, as reported at the MDGs Conference in 2009 and also reiterated in the report by the UN Secretary-General in February 2010 in preparation of the summit of September 2010, concerning Goal 7 "Ensure Environmental Sustainability", limited progress has been achieved. The target to reduce the rate of biodiversity loss by 2010 was not met as the major threats and drivers of biodiversity loss such as over-consumption, habitat loss, invasive species, pollution and climate change are not being effectively tackled.

Nuclear techniques have an important role to play in the management of the environment. Within this programme, the transfer and behaviour of radionuclides and non-radioactive pollutants are investigated to enhance Member States capabilities for environmental assessments and to elaborate appropriate remediation strategies. An increasingly important feature of this work is the impact of climate change on environmental sustainability and natural resources.

In pursuing these activities, the programme supports international trade, ecological sustainability, effective environmental risk assessment and remediation of polluted environments, with corresponding improvements in the analytical capabilities of the Member State laboratories involved through CRPs, Collaborating Centres and TC projects at national, regional and interregional level. The programme further provides scientific information and assistance to international organizations such as UNESCO-IOC, UNIDO, OECD, WHO, WMO, UNDP, UNEP and FAO. It will also enhance capacity building in Member States dealing with elevated levels of radioactive or other environmental contaminants, whether of natural or anthropogenic origin, for sustainable management of terrestrial, marine and atmospheric environments and their natural resources.

Objective: To enhance the capacity to understand marine, terrestrial and atmospheric environmental processes and identify problems caused by radioactive and non-radioactive pollutants and climate change using nuclear techniques and isotope.

Outcomes	Performance Indicators
• Improved understanding of environmental processes, impacts and fate of pollutants in aquatic, terrestrial and atmospheric ecosystems of Member States through the use of nuclear techniques.	• Number of published reports and papers on the aquatic, terrestrial and atmospheric ecosystems of Member States. • Number of fellowships/training conducted on assessment and management of the aquatic, terrestrial and atmospheric ecosystems.
• Increased capacity of Member State analytical laboratories through the use of Agency recommended techniques for monitoring, assessment studies and environmental management, reference materials and interlaboratory comparison exercises.	• Number of reference materials provided on request of Member States.

Follow-up on Programme-wide lessons learned from reviews, assessment, evaluations: In 2010–2011 the programme was reorganized and consolidated to achieve greater synergies between the Seibersdorf and Monaco laboratories. In the present cycle the programme is further strengthening and harmonizing IAEA reference products to better support Member State laboratories in environmental sample analysis, intercalibrations and analytical quality control. The new structure of IAEA Environmental Laboratories (NAEL) will bring a further integration of land–coastal–marine activities in the cycle 2012–2013.

Specific criteria for prioritization:

1. First priority is given to activities that make a significant contribution to reaching the MDGs, with special emphasis on Goal 7 "Ensure Environmental Sustainability".
2. Second priority is given to activities that assist Member State laboratories through networking and development of guidelines and enhance their environmental awareness using nuclear techniques.
3. Third priority is given to activities that support lowering technical barriers to trade and support the competitiveness of least developed and developing Member States.

Subprogramme 2.4.1 IAEA Reference Products for Science and Trade

Objective: To enhance the reliability and comparability of measurement results obtained by nuclear analytical techniques in Member States laboratories.

Outcome	Performance Indicators
• Enhanced capability of Member State laboratories to carry out sampling and measurement with the assistance of reference materials provided by the Agency.	• Number of Member State scientists trained in analytical methodology and quality systems. • Number of reference materials provided on request to Member State Laboratories. • Number of laboratories participating in Agency interlaboratory comparison exercises.

Programmatic changes and trends: Building on the work of a project established in the 2006–2007 biennium to harmonize approaches used in the terrestrial and marine parts of environment, all reference material activities in Major Programme 2 will be combined and harmonized under this subprogramme. Given current levels of resources available for Subprogramme 2.4.1, some activities will be reduced in 2012. Some activities may be restored if extrabudgetary funds become available.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 3.0% (€50 192) in 2012 as compared with 2011 and a slight increase of 0.2% (€3 006) in 2013 as compared with 2012. Efficiency gains in Subprogramme 2.4.1 will be achieved through use of collaborating centres for activities related to training on the use of reference materials.

Projects

Title, duration and ranking	Main outputs
2.4.1.1 Coordination of reference product services and customer relations ***Duration:*** Recurrent/***Ranking:*** 1	Reference materials; consolidated Agency reference materials catalogue; consolidated Agency web site for customer interaction; harmonization of Agency reference materials production and reference material certification process.
2.4.1.2 Provision of reference products for terrestrial environments and laboratory performance support ***Duration:*** Recurrent/***Ranking:*** 1	New matrix reference materials; proficiency tests and advice to Member State laboratories regarding their analytical performance; operational Analytical Laboratories for Measurement of Environmental Radioactivity (ALMERA) network of laboratories; personnel trained.
2.4.1.3 Provision of reference products for the marine environment and laboratory performance support ***Duration:*** Recurrent/***Ranking:*** 2	Marine reference materials; global and regional interlaboratory comparisons; reports and publications on the results of interlaboratory comparisons; the provision of training courses in the analysis of contaminants in marine matrices.
2.4.1.4 Provision of stable isotope reference products for water and other environmental applications ***Duration:*** Recurrent/***Ranking:*** 1	Stable isotope reference materials. Production of new reference materials. Improved reference values for existing reference materials. Reports on interlaboratory comparison exercises.

Subprogramme 2.4.2 Nuclear Techniques to Understand Climate and Environmental Change

Objective: To help Member States in the development and use of nuclear techniques to achieve better understanding of climate and environmental change.

Outcome	Performance Indicators
• Improved Member State capacity for understanding the causes and effects of climate change in their marine environments through nuclear techniques.	• Number of reports, papers, manuals and guidelines published in collaboration with Member States where appropriate, on the study of climate and marine change and its effects in the marine environment. • Number of partnerships with UN and other international organizations to study climate and environmental change.

Programmatic changes and trends: Due to increasing cooperation with other UN system agencies and organizations, as well as the limited available resources, modelling and remote sensing will no longer be developed and carried out as a separate task but be used as a tool for better understanding of climate processes in close cooperation with other organizations, which are much better equipped and experienced in this field of research. New areas include the use of nuclear techniques for understanding ocean acidification. Given current levels of resources available, some activities will be reduced in 2012, notably in terms of review and assist missions, TC support, and information exchange through conferences and technical meetings. Some activities may be restored if extrabudgetary funds become available.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 3.6% (€49 082) in 2012 as compared with 2011 and a slight decrease of 0.3% (€3 929) in 2013 as compared with 2012. Efficiency gains will be achieved through strengthening collaboration with other programmes, with other UN system agencies, international organizations and Member State laboratories.

Projects

Title, duration and ranking	Main outputs
2.4.2.1 Isotopic tools to study climate and environmental change ***Duration:*** Recurrent/***Ranking:*** 2	Technical Reports, Agency and non-Agency publications.
2.4.2.2 Nuclear techniques and isotopes for understanding ocean acidification and related socio-economic impact ***Duration:*** 2012–2016/***Ranking:*** 1	Technical reports, Agency and non-Agency publications.
2.4.2.3 Monitoring and assessment of carbon cycle in the oceans ***Duration:*** Recurrent/***Ranking:*** 1	Technical reports, Agency and non-Agency publications.

Subprogramme 2.4.3 Nuclear Techniques for the Sustainable Development of Marine and Land–Coastal Ecosystems

Objective: To improve Member State capabilities to use nuclear techniques to understand and assess changes in coastal and marine ecosystems and to manage marine natural resources.

Outcomes	Performance Indicators
• Enhanced capability of Member States to use nuclear and isotopic techniques to understand and assess impacts of radioactive and non-radioactive contaminants in their marine and coastal environments.	• Publications, including peer reviewed journal papers, training manuals, guidelines and reports, in collaboration with Member States, where appropriate.
• Enhanced capability of Member States to use nuclear and isotopic techniques for seafood safety investigations.	• Number of Member States using nuclear and isotopic techniques as a result of Agency assistance to investigate the impacts of contaminants on seafood species, their consumption and production. • Number of partnerships with other relevant UN system organizations.
• Improved reliability and comparability of marine radioactivity data, produced by Member State laboratories, based on harmonized methodologies.	• Data in Marine Information System (MARIS) marine radioactivity database.

Programmatic changes and trends: Subprogramme 2.4.3 has several changes due to consolidation of the *Environment* programme. Further reductions will occur in classical radio-ecological studies and there will be enhanced activity in the following areas: ecological impacts of contaminants in submarine groundwater discharge in the coastal zone (in collaboration with the *Water Resource* Programme and *Environment* Subprogramme 2.4.4); and the use of radiotracers to experimentally investigate exposure pathways of priority contaminants to seafood in collaboration with the Programme *Food and Agriculture*. Given these shifting areas of focus and activity, some Subprogramme 2.4.3 activities may be reduced in 2012, notably in terms of training

courses, review and assist missions, TC support, and information exchange through conferences and technical meetings. Some activities may be restored if extrabudgetary funds become available.

Resource changes and trends: The proposed regular budget resources, at 2011 prices, reflect an increase of 1.1% (€24 824) in 2012 as compared with 2011 and a decrease of 0.5% (€12 123) in 2013 as compared with 2012. Efficiency gains are achieved through closer collaboration with other Agency programmes; partnerships with marine and coastal zone managers, especially in the aquaculture and fisheries industries; and support from Collaborating Centres.

Projects

Title, duration and ranking	Main outputs
2.4.3.1 Nuclear techniques to understand coastal and estuarine processes ***Duration:*** Recurrent/***Ranking:*** 2	Published reports, papers, manuals and guidelines on radionuclide techniques in coastal environmental studies reflecting increased knowledge of land–ocean interaction in the water cycle; isotopic methods for environmental studies.
2.4.3.2 Marine pollution and impact assessment on land and coastal ecosystems ***Duration:*** 2006–2015/***Ranking:*** 1	Manuals on radioecological techniques; increased knowledge of radiation impacts on marine biodiversity.
2.4.3.3 Radioecological techniques for seafood safety ***Duration:*** Recurrent/***Ranking:*** 2	On-line training CD on seafood safety assessment using nuclear techniques; increased knowledge of contaminant bio-accumulation in seafood, to support trade. Manual on seafood safety assessment using nuclear techniques.
2.4.3.4 Marine radioactivity measurement and assessment ***Duration:*** Recurrent/***Ranking:*** 1	Reports and guidelines on measurement and assessment of radionuclides in the marine environment; publications; contributions to Agency publications and electronic training material.

Subprogramme 2.4.4 Terrestrial, Aquatic and Atmospheric Ecological Processes

Objective: Increased Member State capacities to apply nuclear techniques for understanding and protecting terrestrial, aquatic and atmospheric ecosystems.

Outcome	Performance Indicator
• Enhanced Member State capability to use nuclear techniques to understand and assess change in terrestrial, aquatic and atmospheric environments and to adopt and assess suitable and sustainable remediation strategies, where needed.	• Number of Agency reports giving guidance to Member States on the use of nuclear techniques for terrestrial, aquatic and atmospheric environmental assessment and management.

Programmatic changes and trends: Subprogramme 2.4.4 has several changes with more activities directed towards the use of nuclear techniques in the study of environmental processes. In addition, greater emphasis will be given to the development of guidelines and standard methodologies.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 37.1% (€220 935) in 2012 as compared with 2011 and an increase of 2.4% (€19 195) in 2013 as compared with 2012. Efficiency gains will be achieved through close cooperation with relevant projects in MPs 1 and 3 and also with the support of collaborating centres.

Projects

Title, duration and ranking	Main outputs
2.4.4.1 Methodologies for understanding environmental processes in terrestrial, aquatic and atmospheric ecosystems ***Duration:*** 2012–2015/***Ranking:*** 2	Data for radionuclide transfer parameters; personnel trained; reports, publications and conference proceedings.
2.4.4.3 Radioanalytical method developments for determination of radioactivity in environmental samples ***Duration:*** 2012–2015/***Ranking:*** 1	Published procedures for the collection and analysis of environmental samples.
2.4.4.4 Scientific and technical basis of contaminated site remediation planning ***Duration:*** Recurrent/***Ranking:*** 3	New and improved methods for remediation planning and assessment; data from site specific cases; guidelines on remediation efficiency assessment; personnel trained.

Programme 2.5 Radioisotope Production and Radiation Technology

Rationale: The application of radioisotope products and radiation techniques continues to contribute significantly towards improving healthcare management practices, food safety and sustainable industrial growth.

The programme will provide guidelines, databases, protocols, best practices and training materials in support of capacity building and quality management systems for local and regional production of radioisotopes and radiopharmaceuticals, and assist countries in the development of human and institutional capacities in applying radiation based techniques for enhancing food safety and safer and cleaner industrial practices. There will be joint activities and close coordination with Programmes 1.4 and 2.2.

Enhancing Member States' capacity in indigenous production of quality products, both medical isotopes and radiopharmaceuticals, implemented jointly with the *Human Health* programme, will support diagnosis and treatment of cancer, cardiac disorders and other chronic diseases. The activities proposed will address both proven and emerging products including new PET tracers (e.g. copper-64, gallium-68) and therapy products (e.g. yttrium-90, lutetium-177), as well as foster the adoption of non-HEU based technologies for local/regional production of molybdenum-99 and/or technetium-99m, the latter jointly with the Research Reactors subprogramme.

The normative focus in supporting radiation technology applications will include evolving guidelines and providing services to enhancing quality management system in radiation processing facilities, and evolving efficient production protocols of advanced materials for public health and enhancing food safety. The emphasis will also be on human resources development for improving scientific and technological expertise in deploying radiation technology for cleaner environment and effectively managing industrial practices.

Objective: To strengthen national capabilities for producing radioisotope products and utilizing radiation technology, and contribute to improved health care and safe and clean industrial development in Member States.

Outcome	Performance Indicators
• Enhanced Member State capability in the application of radioisotope products and radiation technology as tools for improved healthcare management and sustainable industrial practices.	• Number of Member State laboratories adapting/contributing to developing and improving the methodologies for various products, techniques and applications. • Number of technical publications, databases, guidelines and training materials made available to Member States.

Follow-up on Programme-wide lessons learned from reviews, assessment, evaluations: Priority in the area of radioisotopes and radiopharmaceuticals for medical applications will be driven by the needs of nuclear medicine. Continued close coordination of activities in the area of radiopharmaceuticals and reciprocal involvement in all related tasks with the Human Health programme will be pursued and strengthened further to deliver holistic support to Member States.

In the area of radiation technology, the activities will be focused more on normative functions, for example. more structured approach to education, training and guidelines for setting up facilities as well as facilitating adoption of best practices; also, mechanisms to involve industries and end-users will be encouraged.

Specific criteria for prioritization:

1. First priority is given to activities where nuclear techniques have established usefulness and distinct advantage in meeting the needs and interests of Member States.
2. Second priority is given to projects that support emerging radioisotopes and radiation technology and in providing associated services and transfer of know-how.

Subprogramme 2.5.1 Radioisotope Products for Management of Cancer and other Chronic Diseases

Objective: To improve Member State capabilities in the production and use of radioisotope products for supporting the management of cancer and other chronic diseases.

Outcome	Performance Indicators
• Enhanced benefit to a greater number of cancer and cardiac patients in developing Member States through increased availability of radioisotopes and radiopharmaceuticals to user centres.	• Number of Member State laboratories involved in developing and utilizing the methodologies for radioisotopes and radiopharmaceuticals production. • Number of technical documents on the above topics made available to Member States.

Programmatic changes and trends: Greater support for individual/group technical contracts for development of products and procedures in place of some CRPs, as well as more joint activities on radiopharmaceuticals with the Human Health programme, will be pursued to provide services to Member States.

The functions will be normative to strengthen quality assurance and regulatory compliance, for example structured approach to education and training, increased focus on publication of technical manuals, harmonized guidelines and sharing of best practices, as well as to address issues in nurturing worldwide availability of identified products and techniques.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 5.1% (€51 718) in 2012 as compared with 2011 and a slight increase of 0.8% (€8 334) in 2013 as compared with 2012. Efficiency is gained through joint activities, reducing the level of support for meeting participants and enhanced use of research agreements in CRPs.

Projects

Title, duration and ranking	Main outputs
2.5.1.1 Supporting national capacity building for production of radioisotopes and generators and adoption of emerging products for medical applications ***Duration:*** 2010–2016/***Ranking:*** 1	Improved practices and guidelines involving targetry for emerging isotope production in cyclotrons and non-HEU based molybdenum-99/or technetium-99m production; database on updated medical cyclotron directory.
2.5.1.2 Supporting development and availability of quality diagnostic radiopharmaceuticals by enhancing quality assurance systems and compliance with good manufacturing practices ***Duration:*** 2009–2015/***Ranking:*** 1	Methodologies and protocols for the development and production of fluorine-18 labelled products and gallium-68 radiopharmaceuticals for PET with a focus on imaging cancer; guidelines on QA and good manufacturing practices.
2.5.1.3 Cost effective radiopharmaceuticals development (complementary project to Project 2.2.2.2 of the Human Health programme) ***Duration:*** 2008–2015/***Ranking:*** 2	Guidelines, protocols and e-learning tools for development of Y-90 electrochemical generator and methodologies applicable for therapeutic radiopharmaceuticals based on Y-90 and Lu-177 and publication of CRP findings.

Subprogramme 2.5.2 Radiation Technology Applications for Health Care and Cleaner Industrial Processes and Practices

Objective: To strengthen Member State capabilities in the adoption and utilization of radiation technology for the development of products for health care and cleaner industrial processes and practices.

Outcome	Performance Indicators
• Increased national capabilities in the use of radioisotope techniques and radiation technology for efficient production of advanced materials including for health care, food safety and cleaner industrial processes.	• Number of Member State laboratories involved in developing and utilizing the methodologies for radiation processing, compositional analysis and industrial applications of radioisotope techniques. • Number of technical documents on the above topics made available to Member States.

Programmatic changes and trends: Greater support for collaborating centres, for example regional collaborating centres for assistance in NDT, and award of individual/group technical contracts for development of applications and procedures in place of CRPs, as well as more joint activities with other programmes will be pursued to provide efficient services to Member States. There will be more activities on normative functions, for example a more structured approach to education and training for capacity building, increasing focus on publications of technical manuals, internationally harmonized guidelines and best practices in use of radiation technology.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 3.5% (€40 423) in 2012 as compared with 2011 and a slight decrease of 0.5% (€6 037) in 2013 as compared with 2012. Efficiency is gained by joint activities, reducing the level of support for meeting participants and enhanced use of research agreements in CRPs.

Projects

Title, duration and ranking	Main outputs
2.5.2.1 Supporting national capacity building to adopt radiation based techniques for industrial process management and compositional analysis of materials/objects ***Duration:*** 2010–2016/***Ranking:*** 2	Manuals, training materials on sealed radiation source applications in industry and methodologies for application of large sample neutron activation analysis techniques for archaeological and art objects based on CRP findings.
2.5.2.2 Radiation technology support for materials development and nanoscience ***Duration:*** 2007–2016/***Ranking:*** 1	Methodologies and standard procedures for production of radiation-processed products of natural polymers for application in agriculture, healthcare and industry; publication of CRP findings.
2.5.2.3 Supporting national capacity building to adopt radiation processing techniques in remediation of pollutants ***Duration:*** 2010–2015/***Ranking:*** 1	Guidelines on improving QA system in irradiation facilities; database on updated electron beam and gamma facilities in Member States; publication of CRP findings.

Medium Term Strategy[2]

As indicated in paragraph 7, Section I, the Medium Term Strategy (MTS) for 2012–2017 constitutes the roadmap for all programme and budget proposals for 2012–2017. The following table cross-references activities reflected in the MTS with the relevant projects or functions that are included in the 2012–2013 proposals for this MP:

MTS 2012–2017 activity	Budget reference		New project
	Programme	Project	
Promotion of nuclear technology and applications for basic human needs and socio-economic development	All	All	
Millennium Development Goals	All	All	
Safe and effective use of radiation medicine for the diagnosis and treatment of patients	2.2	All	
Joint WHO/IAEA Programme on Cancer Control	2.2	All	
Education and training of health practitioners	2.2	2.2.2.3	
Use of nuclear technologies in food and agriculture, in partnership with FAO	2.1	All	
Isotopic techniques for water resource management	2.3	All	
Nuclear techniques for environmental protection	2.4	All	2.4.4.3
Forum for disseminating information on technological developments and for promoting synergies	All	All	
Capacity building in the area of utilization of research reactors and accelerators for radioisotope production and radiation technology	2.5 in cooperation with Programme 1.4	All	
Technologies/services provided from laboratories in Monaco and Seibersdorf	All	All	
Upgrading and modernization of the Agency's laboratories	2.1, 2.2, 2.3 and 2.4		
Comprehensive thematic approach for improved synergies and coordination	All	All	
Partnerships with UN system bodies and other organizations	All	All	

[2] MTS activities — Lessons learned and good practices, technology transfer, one-house approach, and capacity building — are common to all major programmes.

Major Programme 2 – Nuclear Techniques for Development and Environmental Protection

Summary of Programme Structure and Resources
(excluding Major Capital Investments)

Table 15

	Project / Subprogramme / Programme	2012			2013 preliminary estimates		
		Regular Budget at 2012 prices	Extra-budgetary	CAURBs Unfunded	Regular Budget at 2012 prices	Extra-budgetary	CAURBs Unfunded
2.0.0.1	Overall management, coordination and common activities	4 637 754	66 232	-	4 637 753	66 232	-
2.0.0.2	Management of the coordinated research activities	713 681	-	-	713 270	-	-
2.0.0.3	Printing and translation indirect costs	68 739	-	-	68 809	-	-
2.0.0.4	AIPS services	36 866	-	-	42 280	-	-
		5 457 040	**66 232**	**-**	**5 462 112**	**66 232**	**-**
2.1.1.1	Soil management and conservation for sustainable agriculture and environment	807 556	304 790	10 000	683 522	304 790	-
2.1.1.2	Technologies and practices for sustainable use and management of water in agriculture	789 410	81 763	-	860 981	81 763	-
2.1.1.3	Crop improvement for high yield and enhanced adaptability to climate change	701 335	199 044	16 000	754 087	199 044	160 000
2.1.1.4	Integrated and efficient mutation technologies for crop breeding and genetics	796 436	197 921	-	758 756	197 921	40 000
2.1.1.5	Integrated soil–water–plant approaches to enhance food production and biomass productivity	973 109	228 416	95 000	994 673	228 416	120 000
2.1.1.6	Printing and translation indirect costs	52 738	-	-	52 400	-	-
2.1.1.7	AIPS services	28 283	-	-	32 198	-	-
	Subprogramme 2.1.1 - Sustainable Intensification of Crop Production Systems	**4 148 867**	**1 011 934**	**121 000**	**4 136 617**	**1 011 934**	**320 000**
2.1.2.1	Integrated management of animal nutrition, reproduction and health	331 155	27 948	9 000	357 844	27 948	9 000
2.1.2.2	Reducing risk from transboundary animal diseases (TADs) and those of zoonotic importance	1 182 153	77 411	213 000	1 024 118	77 411	223 000
2.1.2.3	Innovative nuclear based approaches to maintain biodiversity and enhance livestock productivity	656 263	16 769	9 000	712 783	16 769	9 000
2.1.2.4	Printing and translation indirect costs	28 588	-	-	27 845	-	-
2.1.2.5	AIPS services	15 332	-	-	17 110	-	-
	Subprogramme 2.1.2 - Sustainable Intensification of Livestock Production Systems	**2 213 491**	**122 128**	**231 000**	**2 139 700**	**122 128**	**241 000**
2.1.3.1	Post-harvest applications of food irradiation to ensure food safety, control quarantine pests and facilitate international trade	474 917	195 152	37 000	474 917	195 152	80 000
2.1.3.2	Traceability to improve food safety and quality and enhance international trade	1 062 183	321 206	100 000	1 118 820	321 206	240 000
2.1.3.3	Preparedness and response to nuclear and radiological emergencies affecting food and agriculture	-	-	109 000	-	-	109 000
2.1.3.4	Printing and translation indirect costs	19 902	-	-	20 629	-	-
2.1.3.5	AIPS services	10 674	-	-	12 676	-	-
	Subprogramme 2.1.3 - Improvement of Food Safety and Food Control Systems	**1 567 676**	**516 358**	**246 000**	**1 627 042**	**516 358**	**429 000**
2.1.4.1	SIT to control exotic insect plant pests of agriculture and the environment	806 233	287 553	75 000	698 402	287 553	75 000
2.1.4.2	Area-wide suppression of native insect plant pests to reduce insecticide use and facilitate international trade	1 162 457	129 459	80 000	1 193 239	129 459	80 000

Major Programme 2 – Nuclear Techniques for Development and Environmental Protection

Summary of Programme Structure and Resources
(excluding Major Capital Investments)

Table 15

	Project / Subprogramme / Programme	2012 Regular Budget at 2012 prices	2012 Extra-budgetary	2012 CAURBs Unfunded	2013 preliminary estimates Regular Budget at 2012 prices	2013 preliminary estimates Extra-budgetary	2013 preliminary estimates CAURBs Unfunded
2.1.4.3	Management of transboundary livestock insect pests for sustainable agriculture and rural development	958 100	93 771	25 000	962 300	93 771	-
2.1.4.4	Development of the SIT for the control of disease transmitting mosquitoes	581 422	29 554	130 000	690 606	29 554	178 000
2.1.4.5	Printing and translation indirect costs	45 481	-	-	45 982	-	-
2.1.4.6	AIPS services	24 392	-	-	28 254	-	-
	Subprogramme 2.1.4 - Sustainable Control of Major Insect Pests	**3 578 085**	**540 337**	**310 000**	**3 618 783**	**540 337**	**333 000**
Programme 2.1 - Food and Agriculture		**11 508 119**	**2 190 757**	**908 000**	**11 522 142**	**2 190 757**	**1 323 000**
2.2.1.1	Maternal, newborn and child nutrition	758 329	-	-	732 172	-	-
2.2.1.2	Overnutrition, obesity and non-communicable diseases	501 469	-	-	623 981	-	-
2.2.1.3	Nutrition and infectious diseases	590 066	-	-	494 958	-	110 000
2.2.1.4	Printing and translation indirect costs	24 081	-	-	24 104	-	-
2.2.1.5	AIPS services	12 914	-	-	14 810	-	-
	Subprogramme 2.2.1 - Nutrition for Improved Health	**1 886 859**	**-**	**-**	**1 890 025**	**-**	**110 000**
2.2.2.1	Managing chronic diseases with integrated diagnostic imaging modalities emphasizing infectious and cardiovascular diseases, and cancer	826 974	-	-	872 004	-	95 000
2.2.2.2	Cost-effective use of radiopharmaceuticals in therapy, neurology and paediatric diseases (jointly with 2.5.1.3)	481 993	-	-	428 293	-	95 000
2.2.2.3	Quality management in professional education and clinical practice	631 599	-	-	605 976	-	-
2.2.2.6	Printing and translation indirect costs	25 866	-	-	25 437	-	-
2.2.2.7	AIPS services	13 872	-	-	15 630	-	-
	Subprogramme 2.2.2 - Nuclear Medicine and Diagnostic Imaging	**1 980 304**	**-**	**-**	**1 947 340**	**-**	**190 000**
2.2.3.1	Radiation oncology	887 305	-	-	927 209	-	31 000
2.2.3.2	Applied radiation biology	470 872	-	-	376 673	-	-
2.2.3.3	Quality assurance in radiotherapy	437 614	-	-	484 466	-	-
2.2.3.5	Printing and translation indirect costs	23 371	-	-	23 322	-	-
2.2.3.6	AIPS services	12 534	-	-	14 331	-	-
	Subprogramme 2.2.3 - Radiation Oncology and Cancer Treatment	**1 831 696**	**-**	**-**	**1 826 001**	**-**	**31 000**
2.2.4.1	Quality audits in dosimetry for radiation therapy	777 780	-	37 000	836 218	-	37 000
2.2.4.2	Supporting traceability of measurements in radiation medicine	617 636	-	51 000	492 527	-	51 000
2.2.4.3	Quality assurance guidelines for medical physics in clinical radiation imaging	540 534	-	-	601 332	-	-

Major Programme 2 – Nuclear Techniques for Development and Environmental Protection
Summary of Programme Structure and Resources
(excluding Major Capital Investments)

Table 15

	Project / Subprogramme / Programme	2012 Regular Budget at 2012 prices	2012 Extra-budgetary	2012 CAURBs Unfunded	2013 preliminary estimates Regular Budget at 2012 prices	2013 preliminary estimates Extra-budgetary	2013 preliminary estimates CAURBs Unfunded
2.2.4.4	Developments and harmonization of quality assurance in radiation medicine	699 056	-	37 000	705 524	-	37 000
2.2.4.5	Printing and translation indirect costs	34 137	-	-	34 202	-	-
2.2.4.6	AIPS services	18 308	-	-	21 016	-	-
	Subprogramme 2.2.4 - Quality Assurance and Metrology in Radiation Medicine	**2 687 451**	**-**	**125 000**	**2 690 819**	**-**	**125 000**
2.2.5.1	Cancer control capacity assessment and evaluation	403 517	328 288	305 000	403 501	328 288	305 000
2.2.5.2	Establishing and coordinating model demonstration sites	465 767	475 718	240 000	465 766	470 718	240 000
2.2.5.3	Outreach, public–private partnership development and resource mobilization	299 922	473 193	60 000	299 921	573 193	60 000
2.2.5.4	Promoting regional cancer training networks	234 429	385 997	220 000	234 428	435 997	220 000
2.2.5.5	Printing and translation indirect costs	18 128	-	-	18 147	-	-
2.2.5.6	AIPS services	9 722	-	-	11 150	-	-
	Subprogramme 2.2.5 - Programme of Action for Cancer Therapy (PACT)	**1 431 485**	**1 663 196**	**825 000**	**1 432 913**	**1 808 196**	**825 000**
Programme 2.2 - Human Health		**9 817 795**	**1 663 196**	**950 000**	**9 787 098**	**1 808 196**	**1 281 000**
2.3.1.1	IAEA Isotope data networks for precipitation, rivers and groundwater	609 835	-	-	628 672	-	-
2.3.1.2	Synthesis and dissemination of global isotope data and related information	259 686	-	100 000	265 056	-	100 000
2.3.1.3	Printing and translation indirect costs	11 402	-	-	11 726	-	-
2.3.1.4	AIPS services	6 115	-	-	7 204	-	-
	Subprogramme 2.3.1 - Isotope Data Networks for Hydrology and Climate Studies	**887 038**	**-**	**100 000**	**912 658**	**-**	**100 000**
2.3.2.1	Assessment of groundwater resources at local/national scales	716 584	-	-	756 463	-	-
2.3.2.2	Assessment and strategies for management of transboundary aquifers and rivers	698 560	-	-	635 815	-	-
2.3.2.3	Printing and translation indirect costs	18 436	-	-	18 143	-	-
2.3.2.4	AIPS services	9 888	-	-	11 148	-	-
	Subprogramme 2.3.2 - Isotope Based Assessments of Water Resources	**1 443 468**	**-**	**-**	**1 421 569**	**-**	**-**
2.3.3.1	Characterization of fossil groundwater systems using long lived radionuclides	647 018	-	-	658 328	-	-
2.3.3.2	Helium and other noble gas isotopes for estimating groundwater recharge and vulnerability to pollution	496 234	-	-	487 444	-	-
2.3.3.4	Printing and translation indirect costs	14 762	-	-	14 777	-	-
2.3.3.5	AIPS services	7 917	-	-	9 079	-	-
	Subprogramme 2.3.3 - Radioisotope Applications for Hydrology	**1 165 931**	**-**	**-**	**1 169 628**	**-**	**-**
Programme 2.3 - Water Resources		**3 496 437**	**-**	**100 000**	**3 503 855**	**-**	**100 000**

Major Programme 2 – Nuclear Techniques for Development and Environmental Protection

Summary of Programme Structure and Resources
(excluding Major Capital Investments)

Table 15

	Project / Subprogramme / Programme	2012 Regular Budget at 2012 prices	2012 Extra-budgetary	2012 CAURBs Unfunded	2013 preliminary estimates Regular Budget at 2012 prices	2013 preliminary estimates Extra-budgetary	2013 preliminary estimates CAURBs Unfunded
2.4.1.1	Coordination of reference product services and customer relations	225 083	-	70 000	225 083	-	70 000
2.4.1.2	Provision of reference products for terrestrial environments and laboratory performance support	624 323	-	-	625 729	-	-
2.4.1.3	Provision of reference products for the marine environment and laboratory performance support	424 909	-	-	424 909	-	-
2.4.1.4	Provision of stable isotope reference products for water and other environmental applications	323 225	-	-	323 225	-	-
2.4.1.5	Printing and translation indirect costs	19 899	-	-	19 937	-	-
2.4.1.6	AIPS services	10 672	-	-	12 250	-	-
	Subprogramme 2.4.1 - IAEA Reference Products for Science and Trade	**1 628 111**	**-**	**70 000**	**1 631 133**	**-**	**70 000**
2.4.2.1	Isotopic tools to study climate and environmental change	589 761	31 076	25 000	564 148	31 076	25 000
2.4.2.2	Nuclear techniques and isotopes for understanding ocean acidification and related socio-economic impact	342 954	45 000	70 000	348 046	55 000	70 000
2.4.2.3	Monitoring and assessment of carbon cycle in the oceans	371 609	-	-	386 954	-	-
2.4.2.4	Printing and translation indirect costs	17 494	-	-	17 316	-	-
2.4.2.5	AIPS services	9 382	-	-	10 640	-	-
	Subprogramme 2.4.2 - Nuclear Techniques to Understand Climate and Environmental Change	**1 331 200**	**76 076**	**95 000**	**1 327 104**	**86 076**	**95 000**
2.4.3.1	Nuclear techniques to understand coastal and estuarine processes	478 148	66 436	-	478 148	66 436	-
2.4.3.2	Marine pollution and impact assessment on land and coastal ecosystems	651 632	213 856	-	649 704	213 856	-
2.4.3.3	Radioecological techniques for seafood safety	414 469	31 076	-	419 599	31 076	-
2.4.3.4	Marine radioactivity measurement and assessment	753 525	31 076	-	736 406	31 076	-
2.4.3.5	Printing and translation indirect costs	30 024	-	-	29 996	-	-
2.4.3.6	AIPS services	16 101	-	-	18 432	-	-
	Subprogramme 2.4.3 - Nuclear Techniques for the Sustainable Development of Marine and Land–Coastal Ecosystems	**2 343 899**	**342 444**	**-**	**2 332 285**	**342 444**	**-**
2.4.4.1	Methodologies for understanding environmental processes in terrestrial, aquatic and atmospheric ecosystems	342 165	-	-	347 674	-	-
2.4.4.3	Radioanalytical method developments for determination of radioactivity in environmental samples	258 272	-	-	264 310	-	-
2.4.4.4	Scientific and technical basis of contaminated site remediation planning	203 237	-	-	209 775	-	-
2.4.4.5	Printing and translation indirect costs	10 388	-	-	10 632	-	-
2.4.4.6	AIPS services	5 571	-	-	6 539	-	-
	Subprogramme 2.4.4 - Terrestrial, Aquatic and Atmospheric Ecological Processes	**819 633**	**-**	**-**	**838 930**	**-**	**-**
Programme 2.4 - Environment		**6 122 843**	**418 520**	**165 000**	**6 129 452**	**428 520**	**165 000**

Major Programme 2 – Nuclear Techniques for Development and Environmental Protection
Summary of Programme Structure and Resources
(excluding Major Capital Investments)

Table 15

	Project / Subprogramme / Programme	2012			2013 preliminary estimates		
		Regular Budget at 2012 prices	Extra-budgetary	CAURBs Unfunded	Regular Budget at 2012 prices	Extra-budgetary	CAURBs Unfunded
2.5.1.1	Supporting national capacity building for production of radioisotopes and generators and adoption of emerging products for medical applications	393 148	-	-	440 807	-	-
2.5.1.2	Supporting development and availability of quality diagnostic radiopharmaceuticals by enhancing quality assurance systems and compliance with good manufacturing practices	285 877	-	-	226 839	-	-
2.5.1.3	Cost effective radiopharmaceuticals development (jointly with 2.2.2.2)	360 799	-	75 000	375 871	-	75 000
2.5.1.4	Printing and translation indirect costs	13 591	-	-	13 698	-	-
2.5.1.5	AIPS services	7 289	-	-	8 417	-	-
	Subprogramme 2.5.1 - Radioisotope Products for Management of Cancer and other Chronic Diseases	**1 060 704**	**-**	**75 000**	**1 065 632**	**-**	**75 000**
2.5.2.1	Supporting national capacity building to adopt radiation based techniques for industrial process management and compositional analysis of materials/objects	442 430	-	-	429 056	-	-
2.5.2.2	Radiation technology support for materials development and nanoscience	383 779	-	-	390 064	-	-
2.5.2.3	Supporting national capacity building to adopt radiation processing techniques in remediation of pollutants	351 161	-	5 000	354 379	-	5 000
2.5.2.4	Printing and translation indirect costs	15 470	-	-	15 392	-	-
2.5.2.5	AIPS services	8 296	-	-	9 458	-	-
	Subprogramme 2.5.2 - Radiation Technology Applications for Health Care and Cleaner Industrial Processes and Practices	**1 201 136**	**-**	**5 000**	**1 198 349**	**-**	**5 000**
Programme 2.5 - Radioisotope Production and Radiation Technology		**2 261 840**	**-**	**80 000**	**2 263 981**	**-**	**80 000**
Major Programme 2 - Nuclear Techniques for Development and Environmental Protection		**38 664 074**	**4 338 705**	**2 203 000**	**38 668 640**	**4 493 705**	**2 949 000**

Major Programme 2 – Nuclear Techniques for Development and Environmental Protection
Core Activities Unfunded in the Regular Budget

Table 16

	Project Title and Description of Activities	2012 CAURBs Unfunded	2013 CAURBs Unfunded
2.1.1.1	Soil management and conservation for sustainable agriculture and environment		
2.1.1.1/03	*Develop a framework and methodologies for assessing impacts of changes in soil and nutrient management practices on soil carbon status in agricultural ecosystems and their contribution to greenhouse gas emissions*	10 000	-
2.1.1.3	Crop improvement for high yield and enhanced adaptability to climate change		
2.1.1.3/10	*Coordinate a CRP on the improvement of biomass productivity through effective mutation induction (2012–2016)*	16 000	120 000
2.1.1.3/11	*Coordinate a CRP on improving nutritional quality by altering concentrations of enhancing factors using induced mutation and biotechnology in crops (2009–2014)*	-	40 000
2.1.1.4	Integrated and efficient mutation technologies for crop breeding and genetics		
2.1.1.4/22	*Coordinate a CRP on DNA damage, repair and mutagenesis in plants (2009–2014)*	-	40 000
2.1.1.5	Integrated soil–water–plant approaches to enhance food production and biomass productivity		
2.1.1.5/10	*Organize a CRP on broadening adaptability to adverse effects of climate change and variability using integrated soil–water–mutant crop methodologies (2010–2015)*	40 000	-
2.1.1.5/11	*Plan and coordinate a CRP on mitigation of climate change through integrated soil–plant management to promote carbon and nitrogen capture and storage in agroecosystems (2010–2014)*	55 000	120 000
	Subprogramme 2.1.1 - Sustainable Intensification of Crop Production Systems	121 000	320 000
2.1.2.1	Integrated management of animal nutrition, reproduction and health		
2.1.2.1/05	*Coordinate a CRP on the use of enzymes and nuclear technologies to improve the utilization of fibrous feeds and reduce greenhouse gas emission from livestock (2010–2015)*	9 000	9 000
2.1.2.2	Reducing risk from transboundary animal diseases (TADs) and those of zoonotic importance		
2.1.2.2/02	*Develop a quality management system for veterinary laboratories to OIE standards and pathways*	10 000	10 000
2.1.2.2/09	*Coordinate a CRP for the early and rapid diagnosis and control of DNA viruses such as Capripox virus and African swine fever virus (2012–2016)*	80 000	120 000
2.1.2.2/12	*Develop new generation technologies, devices and systems for the early and rapid detection of animal diseases*	9 000	9 000
2.1.2.2/14	*Coordinate a CRP on early and rapid diagnosis and control of animal trypanosomosis*	114 000	84 000
2.1.2.3	Innovative nuclear based approaches to maintain biodiversity and enhance livestock productivity.		
2.1.2.3/01	*Technical guidelines for veterinary laboratories*	9 000	9 000
	Subprogramme 2.1.2 - Sustainable Intensification of Livestock Production Systems	231 000	241 000

Major Programme 2 – Nuclear Techniques for Development and Environmental Protection
Core Activities Unfunded in the Regular Budget

Table 16

	Project Title and Description of Activities	2012 CAURBs Unfunded	2013 CAURBs Unfunded
2.1.3.1	Post-harvest applications of food irradiation to ensure food safety, control quarantine pests and facilitate international trade		
2.1.3.1/06	*CRP on the application of radiation technology in the development of advanced packaging materials for food products (2013–2018) (joint activity with 2.5.2.2)*	7 000	50 000
2.1.3.1/07	*Regional train-the-trainers workshop on the application of international standards related to food irradiation*	30 000	-
2.1.3.1/08	*Regional train-the-trainers workshop on the operation of facilities related to food irradiation*	-	30 000
2.1.3.2	Traceability to improve food safety and quality and enhance international trade		
2.1.3.2/09	*International symposium on nuclear and related techniques for food integrity, traceability and consumer protection*	-	100 000
2.1.3.2/10	*Inter-regional Seibersdorf train-the-trainers workshop on integrated analytical techniques to control contaminants in foods*	100 000	-
2.1.3.2/11	*Inter-regional Seibersdorf train-the-trainers workshop on traceability techniques to control contaminants in foods*	-	100 000
2.1.3.2/12	*Regional workshops on integrated analytical approaches for food traceability and contaminant control*	-	40 000
2.1.3.3	Preparedness and response to nuclear and radiological emergencies affecting food and agriculture		
2.1.3.3/01	*Revision and updating of Agency Basic Safety Standards and inter-agency management procedures related to preparedness and response to nuclear and radiological emergencies affecting food and agriculture*	56 500	56 500
2.1.3.3/02	*Cooperation, communication and information exchange on the development and application of harmonized administrative arrangements, guidelines and procedures related to emergency exercises or actual events*	52 500	52 500
	Subprogramme 2.1.3 - Improvement of Food Safety and Food Control Systems	246 000	429 000
2.1.4.1	SIT to control exotic insect plant pests of agriculture and the environment		
2.1.4.1	*General operating costs and maintenance of equipment at Seibersdorf laboratories*	75 000	75 000
2.1.4.2	Area-wide suppression of native insect plant pests to reduce insecticide use and facilitate international trade		
2.1.4.2	*General operating costs and maintenance of equipment at Seibersdorf laboratories*	80 000	80 000
2.1.4.3	Management of transboundary livestock insect pests for sustainable agriculture and rural development		
2.1.4.3	*General operating costs and maintenance of equipment at Seibersdorf laboratories*	25 000	-
2.1.4.4	Development of the SIT for the control of disease transmitting mosquitoes		
2.1.4.4/23	*Coordinate a CRP on the effects of mosquito production and release methods on male competitiveness (2013–2018)*	-	128 000
2.1.4.4	*General operating costs and maintenance of equipment at Seibersdorf laboratories*	130 000	50 000
	Subprogramme 2.1.4 - Sustainable Control of Major Insect Pests	310 000	333 000
Programme 2.1 - Food and Agriculture		**908 000**	**1 323 000**

Major Programme 2 – Nuclear Techniques for Development and Environmental Protection
Core Activities Unfunded in the Regular Budget

Table 16

	Project Title and Description of Activities	2012 CAURBs Unfunded	2013 CAURBs Unfunded
2.2.1.3	Nutrition and infectious diseases		
	2.2.1.3/01 Coordinate a CRP on nutrition and neglected tropical diseases (2013–2016)	-	110 000
	Subprogramme 2.2.1 - Nutrition for Improved Health	-	110 000
2.2.2.1	Managing chronic diseases with integrated diagnostic imaging modalities emphasizing infectious and cardiovascular diseases, and cancer		
	2.2.2.1/07 Coordinate a CRP on integrated imaging (SPECT/CT; PET/CT; MRI) in infection/inflammation and spine pathology (2013–2015)	-	95 000
2.2.2.2	Cost-effective use of radiopharmaceuticals in therapy, neurology and paediatric diseases (jointly with 2.5.1.3)		
	2.2.2.2/07 Coordinate a CRP on imaging of neurodegenerative disorders with a focus on Parkinson's and Alzheimer's disease (in coordination with 2.5.1.3)	-	95 000
	Subprogramme 2.2.2 - Nuclear Medicine and Diagnostic Imaging	-	190 000
2.2.3.1	Radiation oncology		
	2.2.3.1/03 Develop documents on brachytherapy of prostate cancer and on the use of altered fractionation in radiation oncology	-	31 000
	Subprogramme 2.2.3 - Radiation Oncology and Cancer Treatment	-	31 000
2.2.4.1	Quality audits in dosimetry for radiation therapy		
	2.2.4.1/13 Support training of national external audit groups in radiation dosimetry	37 000	37 000
2.2.4.2	Supporting traceability of measurements in radiation medicine		
	2.2.4.2/08 Develop a harmonized dosimetry protocol for brachytherapy applications	51 000	51 000
2.2.4.4	Developments and harmonization of quality assurance in radiation medicine		
	2.2.4.4/11 Support training of auditors in radiation medicine	37 000	37 000
	Subprogramme 2.2.4 - Quality Assurance and Metrology in Radiation Medicine	125 000	125 000
2.2.5.1	Cancer control capacity assessment and evaluation		
	2.2.5.1/01 Conducting cancer control assessments (imPACT reviews) and evaluations for Member States	305 000	305 000
2.2.5.2	Establishing and coordinating model demonstration sites		
	2.2.5.2/01 Strategic planning and design of PACT Model Demonstration Site (PMDS) projects	120 000	120 000
	2.2.5.2/02 Coordination of PMDS Country Projects	120 000	120 000
2.2.5.3	Outreach, public–private partnership development and resource mobilization		
	2.2.5.3/01 Building and strengthening public–private partnerships	20 000	20 000
	2.2.5.3/02 Increasing cancer's priority on the global health agenda by conducting outreach and public education campaigns	20 000	20 000
	2.2.5.3/03 Building non-traditional donor support through resource mobilization strategies and stewardship	20 000	20 000

Major Programme 2 – Nuclear Techniques for Development and Environmental Protection
Core Activities Unfunded in the Regular Budget

Table 16

	Project Title and Description of Activities	2012 CAURBs Unfunded	2013 CAURBs Unfunded
2.2.5.4	Promoting regional cancer training networks		
	2.2.5.4/01 Supporting the initiation of regional training networks	10 000	10 000
	2.2.5.4/02 Development of Virtual University for Cancer Control and mentoring support	210 000	210 000
	Subprogramme 2.2.5 - Programme of Action for Cancer Therapy (PACT)	825 000	825 000
Programme 2.2 - Human Health		**950 000**	**1 281 000**
2.3.1.2	Synthesis and dissemination of global isotope data and related information		
	2.3.1.2/06 Compile and evaluate the distribution of fossil water used for irrigation and domestic water supply in the context of food security and adaptation to climate change in the Middle East and Africa	100 000	100 000
	Subprogramme 2.3.1 - Isotope Data Networks for Hydrology and Climate Studies	100 000	100 000
Programme 2.3 - Water Resources		**100 000**	**100 000**
2.4.1.1	Coordination of reference product services and customer relations		
	2.4.1.1/01 Preparation for and formal accreditation of the IAEA-EL as a reference materials producer	70 000	70 000
	Subprogramme 2.4.1 - IAEA Reference Products for Science and Trade	70 000	70 000
2.4.2.1	Isotopic tools to study climate and environmental change		
	2.4.2.1/05 Nuclear Techniques to understand relationship/effects of climate change and human health	25 000	25 000
2.4.2.2	Nuclear techniques and isotopes for understanding ocean acidification and related socio-economic impact		
	2.4.2.2/04 International workshop on the socioeconomic effects of ocean acidification on developing countries	70 000	70 000
	Subprogramme 2.4.2 - Nuclear Techniques to Understand Climate and Environmental Change	95 000	95 000
Programme 2.4 - Environment		**165 000**	**165 000**
2.5.1.3	Cost effective radiopharmaceuticals development (jointly with 2.2.2.2)		
	2.5.1.3/07 Contribution to coordinate a CRP on imaging of neurodegenerative disorders with focus on Parkinson's and Alzheimer's diseases (contribution to 2.2.2.2)	75 000	75 000
	Subprogramme 2.5.1 - Radioisotope Products for Management of Cancer and other Chronic Diseases	75 000	75 000
2.5.2.3	Supporting national capacity building to adopt radiation processing techniques in remediation of pollutants.		
	2.5.2.3/04 Supporting preparation of guidelines and protocols for decontamination of biohazard agents in emergency cases (e.g. addressing bioterrorism) by using ionizing radiation	5 000	5 000
	Subprogramme 2.5.2 - Radiation Technology Applications for Health Care and Cleaner Industrial Processes and Practices.	5 000	5 000
Programme 2.5 - Radioisotope Production and Radiation Technology		**80 000**	**80 000**
Major Programme 2 - Nuclear Techniques for Development and Environmental Protection		**2 203 000**	**2 949 000**

Major Programme 3
Nuclear Safety and Security

Introduction

This major programme promotes the worldwide achievement and maintenance of high levels of nuclear safety and security to protect people, society and the environment. Challenges identified in the Medium Term Strategy 2012–2017 include, inter alia, the rapid growth of nuclear installations, including uranium mining facilities, the ageing of existing nuclear power plants and research reactors, the wider use of ionizing radiation in industry, medicine and agriculture, the continuous threat of nuclear terrorism, and the accumulation of radioactive waste and spent fuel. The lessons learned from the accident at the Fukushima Daiichi nuclear power plant in Japan in March 2011 will need to be taken into consideration in all relevant programme areas.

Major Programme 3 directly implements the Agency's statutory functions of establishing standards of safety and in providing for their application. It establishes safety guidelines and promotes their use and supports their application. Some of the safety issues include growing medical doses, the lack of infrastructure to manage disused sources and legacy sites.

With the expansion of nuclear and radiation technologies, there is a need for adequate capacity building, including more qualified and well trained staff around the world. As safety and security are global issues, it is crucial to promote international cooperation, transferring existing and new knowledge from mature nuclear energy countries to emerging nuclear energy countries. Special emphasis is put on expanding and maintaining knowledge networks that support the global nuclear safety and security framework.

The security of nuclear and other radioactive material will remain a high priority area. The Agency develops and publishes nuclear security recommendations and guidance and maintains an effective information platform for their application. At the request of a State, the Agency will also provide assistance in developing and implementing a robust nuclear security infrastructure, including prevention, detection and response.

This major programme also provides for national and international capacities and preparedness to effectively respond to and mitigate the consequences of a nuclear and radiological incident or emergency, including nuclear terrorism, should such events occur.

Printing and translation services are integral to the delivery of substantive programme outputs and thus the estimates for this major programme include its share of fixed costs for the printing and translation of documents published for dissemination.[1] In addition, since AIPS comprises a number of integrated management processes underpinning the delivery of the programme, the estimates also include the share of the funding of the AIPS Services Unit (ASU) tasked to provide ongoing operational support to AIPS systems and related business processes.

Objectives	Performance Indicators
• To continuously improve global safety and security through the establishment and wide application of safety standards and security guidance, worldwide adherence to international legal instruments, integrated and modular peer reviews and services, capacity building and networking.	• Number of countries using the elements of the global nuclear safety and security framework. • Number of State party ratifications.
• To continuously enhance national, regional and international capabilities and arrangements for ensuring a high level of safety and security and emergency planning and response.	• Number of countries using the Agency's guidance materials and participating in events to promote and facilitate the use of the guidance material.

Outcomes	Performance Indicators
• Improved nuclear safety and security capabilities at national, regional and international levels.	• Number of good practices and positive conclusions of reviews and services.
• Current, comprehensive and complete suite of safety standards and security guidance.	• Percentage of approved safety standards and security guidance and other documents.
• Global communications and knowledge sharing network.	• Number of issues resolved through communication networks.

[1] As indicated under para. 34 in Part I of this document.

3.0.0.1 Enhancing the global nuclear safety and security framework

Description	Main outputs
Support and coordination are provided for the nuclear safety and security programmes and activities to ensure, inter alia, that the Agency's safety standards and security guidance constitute a comprehensive, up-to-date, coherent and authoritative suite of internationally accepted references. Similarly, support and coordination will be provided to facilitate harmonized and integrated application of these standards and guidance and to maximize opportunities for knowledge sharing and for continuous improvements through the appropriate feedback mechanisms. Policy support and coordination will be provided for the Commission on Safety Standards (CSS) and any directly related interactions with the safety standards and security guidance committees. A particular focus will also be enhancing the synergies between safety and security and to implement the recommendations of the Joint AdSec CSS Task force with regard to the feasibility of establishing standards that would cover both nuclear safety and nuclear security.	Policies, standards and guidelines. Databases and promotional products (e.g. web site, brochures, etc.).

3.0.0.2 Enhancing and strengthening capacity building, communications, knowledge networking, education and training

Description	Main outputs
To effectively meet the safety and security challenges and needs of Member States, this project places strong emphasis on developing, strengthening and coordinating capacity building efforts by integrating related programme activities along three major categories: i) communications and outreach activities; ii) knowledge networks and knowledge management; iii) education and training. Furthermore, this project, in close coordination and cooperation with other relevant Agency activities, aims at: (i) advancing efforts of Member States in their long term commitment to nuclear safety and security through development, implementation and maintenance of an effective and sustainable safety and security infrastructure in line with their national policy and strategy; (ii) assisting Member States in developing practical expertise; (iii) encouraging Member States to be prepared to effectively assume their national responsibility for safety and security and to share their knowledge, information and expertise as members of the global nuclear safety framework and nuclear security framework; (iv) coordinating MP 3 activities to support capacity building and improve related policies, approaches and methodologies. Both internal and external knowledge networking approaches will be supported with the goal of improving practices in nuclear, radiation, transport and waste safety and security. This project will provide support and coordination for Member States to promote knowledge management, and to enhance their technical and programmatic capacity building efforts. Moreover, this project promotes strengthening and harmonizing human resource development through the education and training strategy and programmes, ensuring that coordinated, effective and sustainable infrastructures are in place within Member States.	Integrated national capacity building action plans. Comprehensive and up to date Member States country profiles.

Programme 3.1 Incident and Emergency Preparedness and Response

Rationale: Despite best efforts, radiation incidents and emergencies that may affect the public, workers, patients, property and/or the environment continue to occur. They can range from events with no radiological consequences, but with considerable media and public interest and concern to severe accidents at nuclear power plants. Malicious acts or threats involving radioactive material are also scenarios that must be addressed. States and the international community have to be prepared to efficiently respond to such events.

The Agency has specific obligations and functions under the Convention on Early Notification of a Nuclear Accident, the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency and the Convention on Physical Protection of Nuclear Material related to the EPR area. The Agency also has a statutory function to develop safety standards in the area of EPR and to provide for their application. Finally, the Agency has an important role in assessing radiation events and helping in the communication of the significance of these events to the public.

Effective national and global response capabilities and arrangements are essential to minimize the impacts of radiation events and to build public trust in the safety and security of nuclear technology. The expansion in the use of nuclear energy cannot occur without enhanced national, regional and international emergency preparedness and response (EPR) capabilities and arrangements. Sound national capabilities and arrangements for EPR are prerequisite for effective national nuclear power programmes. The provision of technical assistance, sharing of information from past events, and development of effective international EPR arrangements will benefit all Member States.

An effective response to emergencies requires a coherent initial assessment followed by adequate emergency management, all of which can only be achieved through coordinated EPR activities. However, not all Member States have adequate EPR capabilities.

Lessons learned from the response to the Fukushima accident, as specified at the Ministerial Conference on Nuclear Safety in June 2011, will be taken into account during the implementation of the programme.

Objectives:

— To maintain and enhance effective and compatible Agency, national, regional and international EPR capabilities and arrangements for early warning and timely response to nuclear or radiological incidents and emergencies independent of whether they arise from an accident, negligence or malicious act.
— To improve provision and sharing of information on radiation incidents and emergencies among States, international organizations and the public/media.

Outcomes	Performance Indicators
• Enhanced EPR capabilities and arrangements at the Agency, national, regional and international levels.	• Decreased number of deficiencies identified in EPR capabilities and arrangements at the national, regional and international levels.
• Enhanced Agency EPR capabilities and arrangements.	• Decreased number of deficiencies identified in Agency capabilities and arrangements.
• Improved provision/sharing of information on radiation incidents and emergencies.	• Number of incidents and emergencies reported to the Incident and Emergency Centre (IEC).

Follow-up on Programme-wide lessons learned from reviews, assessment, evaluations: This programme is also based on GC(53)/RES/10 part 11, GC(54)/RES/7 part 11. The EPR is a cross-cutting area, explicitly or implicitly part of most of the Agency's programmes. To ensure a consistent in-house approach to the EPR, coordination will be carried out through and by the IEC.

Specific criteria for prioritization:

1. Activities enhancing EPR for States and regions embarking on new nuclear power programmes.
2. Activities necessary to fulfil obligations under the previously listed Conventions.
3. Activities that are linked to the Conventions, but not mandatory (e.g. in-house EPR activities and Response and Assistance Network).

Subprogramme 3.1.1 Strengthening National and International Emergency Preparedness

Objectives:

— To strengthen national and regional EPR arrangements and capabilities through development and assistance in application of the safety standards, operational guidelines and tools.
— To have in place adequate EPR capabilities and arrangements at the intergovernmental and interagency level and a sustainable process for their further and continuous improvement.

Outcomes	Performance Indicators
• Strengthened national and regional EPR arrangements and capabilities.	• Decreased number of deficiencies identified in the EPR systems of Member States and regions.
• Improved EPR capabilities and arrangements at the intergovernmental and interagency levels.	• Decreased number of deficiencies identified in the interagency response to radiation emergencies.

Programmatic changes and trends: This is a follow-up subprogramme and represents continuation and consolidation of relevant activities from the previous two year programme cycle. It was prepared based on needs and lessons identified through the assessment and evaluation of the national and international EPR for nuclear and radiological incidents or acts of nuclear terrorism. It also takes into account the project results and recommendations of the International Action Plan for Strengthening the International Emergency Preparedness and Response System for Nuclear and Radiological Emergencies.

Resource changes and trends: The proposed resources, at 2011 prices, reflect an increase of 11.9% (€145 692) in 2012 as compared with 2011 and an increase of 3.1% (€41 867) in 2013 as compared to 2012. The substantial increase in regular budget funds in the 2012–2013 cycle will provide for a more stable staffing situation.

Projects

Title, duration and ranking	Main outputs
3.1.1.1 Improving Member States emergency preparedness ***Duration:*** Recurrent/***Ranking:*** 1	Trained national/regional experts, trained RANET teams, accident reports, EPR publications, web site, information data, database, national self-assessments, EPREV and IRRS missions reports, country specific action plans.
3.1.1.2 Enhancing international emergency management ***Duration:*** Recurrent/***Ranking:*** 1	Document to enhance international EPR framework, 7th CA Workshop programme and reports, report on Action Plan implementation, JPLAN Edition 2013 (draft), IEC outreach material, leaflets, brochures.

Subprogramme 3.1.2 IAEA Incident and Emergency System and Operational arrangements with States and International Organizations

Objectives:

— To respond effectively and to mitigate the effects of incidents and emergencies in Member States and State Parties to the relevant conventions.

— To enhance the training of the staff and the training of the external contact points on emergency communications, assessment and assistance matters.

Outcome	Performance Indicator
• Reduced consequences of incidents and emergencies which exceeded national capabilities in Member States and State Parties, trained Agency Staff as per the functions within the internal response plan, trained trainers and operators in Member States with low to moderate performance in ConvEx type exercises.	• Successful completion of the Assistance Action Plan set by the Agency and the receiving and donor counterparts, number of trained staff, counterpart participation rate to ConvEx exercises.

Programmatic changes and trends: This subprogramme represents follow-up and amalgamation of activities from the preceding two years cycle and recommendations of the International Action Plan for Strengthening the International Emergency Preparedness and Response System for Nuclear and Radiological Emergencies. It was prepared based on assessment, evaluation and needs to further improve the IAEA Incident and Emergency System and operational arrangements with Member States and international organizations co-sponsors of the Joint Emergency Management Plan of International Organizations.

Resource changes and trends: The proposed resources, at 2011 prices, reflect a decrease of 2.5% (€56 580) in 2012 as compared with 2011 and a decrease of 2.3% (€49 270) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
3.1.2.1 Responding to incidents and emergencies ***Duration:*** Recurrent/***Ranking:*** 1	A revised technical operations manual, IEC internal information/workflow system, assistance reports on incidents/emergencies as requested, operational response agreements with relevant international organizations.
3.1.2.2 Enhancing response capabilities ***Duration:*** Recurrent/***Ranking:*** 1	Working instructions, checklists and procedures for the on-call and the call out system, response arrangements with other divisions and other departments, scenarios for training of external contact points in emergency communications.

Programme 3.2 Safety of Nuclear Installations

Rationale: In recent years, Member State interest in developing new, or expanding existing nuclear power programmes has grown significantly at a rate exceeding that of previous years.

Renewed interest in nuclear power, as well as the long term operation of existing installations, requires strong safety assessment capabilities consistent with the advances in technology, safety assessment methods and tools, strong safety design requirements and management systems, leadership and safety culture.

The need to evaluate new and existing nuclear installation safety against natural hazards and human induced events, including sabotage and site related environmental aspects, requires state-of-the-art methods.

Along with these new challenges, comes the opportunity to help Member States develop their own capacity for capacity building and safety infrastructure development through enhanced international cooperation and in line with the Global Nuclear Safety Framework. At the same time, existing nuclear installations currently in operation are ageing, which will become an increasingly important safety issue. Assistance to Member States will be provided in the review and assessment of regulatory requirements as well as design and operational safety of nuclear installations in the context of lessons learned from the Fukushima accident.

The Agency will strengthen linkages between safety conventions, safety standards and codes of conduct so that all are applied in a strategic and synergistic manner. Developing safety standards, promoting their application and reviewing their implementation through safety review services are necessary components for Member States to assure a solid safety infrastructure and continued improvements in the safety of nuclear installations and regulatory body effectiveness. Sharing information and operating experience regarding the identification, analysis and implementation of corrective actions may contribute to the prevention of future events. This will be supported by the international event reporting systems, by increasing the sharing of best operating experience practices, and by facilitating learning from events by regulatory bodies and nuclear organizations.

Objectives:
— To continuously improve the safety of nuclear installations during site evaluation, design, construction and operation through the availability of set safety standards and their application.
— To support Member States in developing appropriate safety infrastructure.
— To assist adherence to and implementation of the Convention on Nuclear Safety and the Code of Conduct on the Safety of Research Reactors and to strengthen international cooperation.

Outcomes	Performance Indicators
• Strengthened global safety regime through acceptance of Agency safety standards relevant to legal and governmental infrastructure and nuclear installations.	• Number of new or revised safety standards relevant to governmental organizations and nuclear installations approved by CSS.
• Improved safety of nuclear installations in Member States based on the implementation of recommendations and suggestions of safety services based on Agency safety standards.	• Percentage of Agency recommendations and suggestions from safety services adequately addressed by regulatory authorities and nuclear installations. • Number of documented regulatory body and nuclear installation self assessments prior to safety services.

Follow-up on Programme-wide lessons learned from reviews, assessment, evaluations: The background and basis for this programme takes into consideration the Medium Term Strategy, Member State recommendations provided during Agency conferences, GC(53)/RES/10 part 3, GC(54)/RES/7 part 3, and the 4th Review Meeting of the Convention on Nuclear Safety (CNS). Lessons and feedback from safety review services as well as analyses with regard to the Fukushima accident are incorporated. However, implementation of this programme very much depends on extrabudgetary programmes.

Specific criteria for prioritization:

1. Projects establishing safety standards and servicing conventions and codes of conduct.
2. Projects related to the application of the standards.
3. Projects dealing with capacity building and strengthening in information exchange.

Subprogramme 3.2.1 Governmental and Regulatory Framework, Safety Infrastructure and Capacity Building for Nuclear Installations

Objectives:
— To have effective, independent and sustainable governmental and regulatory frameworks in place for nuclear installations.
— To have safety infrastructures in place through the progressive implementation of the Agency safety standards.

— To support the enhancement of the Global Nuclear Safety Framework through a consistent, needs based, development, review and revision process for up to date and high quality safety standards for nuclear installations.
— To have an enhanced regulatory and safety capacity building process in place in line with the Agency safety standards.

Outcomes	Performance Indicators
• Effective, independent and sustainable regulatory bodies in Member States to ensure adequate regulatory control during the entire lifetime of the nuclear installations, in accordance with the Agency's safety standards.	• Number of Member States requests for expert assistance and IRRS missions and number of missions conducted.
• Adequate safety infrastructure through the progressive application of the Agency's safety standards.	• Number of requests from Member States for safety review missions (e.g. IRRS, Siting, INIR).
• Up-to-date and improved set of safety standards for nuclear installations and their regulation. • Improved competency frameworks supporting the safe use of nuclear installations in Member States with both emerging and mature nuclear programmes.	• Number of safety standards for approval in accordance with the agreed work plan by CSS. • Number of Member States adopting competency frameworks.

Programmatic changes and trends: In line with the increasing trend of countries either expanding or introducing nuclear power programmes a review of support activities was carried out and the projects under this subprogramme modified to build upon the Agency work on assisting countries in developing their governmental and regulatory frameworks. Also, a safety guide has been produced to help put in place safety infrastructures. Capacity building for nuclear installations has become increasingly important and Project 3.2.1.4 focuses on this specifically. Preparedness of regulatory authorities to review and implement lessons learned into national regulatory and oversight programmes will be an important topic.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 5.7% (€169 064) in 2012 as compared with 2011 and a small increase of 0.1% (€2 394) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
3.2.1.1 Strengthening regulatory effectiveness and regulatory networking ***Duration:*** Recurrent/***Ranking:*** 1	IRRS mission reports; self-assessment reports; information available on REGNET; expert review mission reports.
3.2.1.2 Developing safety infrastructure of countries embarking on nuclear power ***Duration:*** Recurrent/***Ranking:*** 1	Mission reports; self-assessment reports; expert review mission reports.
3.2.1.3 Improving the IAEA Safety Standards, supporting the Convention on Nuclear Safety, the International Nuclear Safety Group (INSAG) and other international organizations ***Duration:*** Recurrent/***Ranking:*** 1	Safety standards and reports.
3.2.1.4 Development of regulatory and safety capacity building for nuclear installations ***Duration:*** Recurrent/***Ranking:*** 1	Reports, training materials, enhanced web platforms and multimedia products.

Subprogramme 3.2.2 Safety Assessment of Nuclear Installations

Objectives:
— To provide Member States with up-to date safety assessment and safety design standards based on current technology and best practices.
— To support Member States with advice and review services in implementation of safety assessment and design safety standards.
— To develop safety assessment knowledge requirements and provide support to Member States in safety assessment competency and capacity building.

Outcomes	Performance Indicators
• Enhanced and harmonized nuclear safety assessment capability for design, licensing and operation of nuclear facilities. • Enhanced collaboration and information sharing on safety assessment among Member States.	• Number of Member States using the Agency safety assessment and design standards, utilizing Agency's technical collaboration and safety assessment knowledge resources. • Number of Member States embarking on nuclear power that have established comprehensive and timely safety assessment capacity building programmes.

Programmatic changes and trends: The key Safety Standards on the level of requirements were developed (GSR-4) or are under development (design); however, standards addressing specific systems such as I&C as well as standards for assessment of fire protection, safety goals and safety indicators still need to be developed. Also standards related to innovative designs need to be planned and developed for high temperature gas cooled reactors and fast neutron reactors, to support proactively the safety design of these reactors. All safety standards related to the design and assessment need to be reviewed in the light of the lessons learned from the Fukushima accident and revised when necessary, especially safety standards related to the design, accident management, severe accidents, PSA Level 2.

Since many Member States plan to embark on nuclear energy programmes, the Agency safety assessment activities need to be adjusted to help these newcomers in the development of necessary safety assessment competency and capacities. The growing trend to introduce nuclear power programmes or significantly increase existing programmes necessitates increased attention to safety assessment as the key tool for all safety related decision making.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 18.1% (€364 944) in 2012 as compared with 2011 and a small increase of 0.1% (€2 394) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
3.2.2.1 Promoting and applying an integrated approach to evaluation of safety design of nuclear facilities ***Duration:*** Recurrent/***Ranking:*** 1	Review reports, training and workshop sessions, training materials, advisory reports.
3.2.2.2 Supporting sustainable safety assessment competency, methods and tools ***Duration:*** Recurrent/***Ranking:*** 1	Operational global safety assessment network (G-SAN); two international exercises organized per year; training means, materials and workshops.

Subprogramme 3.2.3 Site Safety and Protection Against Internal and External Hazards

Objectives:

— To enhance Member State capabilities to assess and monitor their nuclear installations with respect to site safety and design related to internal and external hazards, engineering aspects of sabotage and radiological impact to the environment through an integrated approach.
— To assist Member States, especially the embarking countries, on developing site safety infrastructure regarding site selection, site evaluation and protection against internal and external hazards through the application of the Agency's safety standards in a harmonized way.
— To assist Member States in resolving new technical issues resulting from the occurrence of natural events affecting nuclear installations and supporting operating organizations and regulatory bodies during the crisis and aftermath of major external events.
— To consolidate the recently established International Seismic Safety Centre (ISSC) at the Agency that provides a focal point for the advancement of scientific and technical knowledge of the effects of seismic and other natural events on nuclear installations.

Outcomes	Performance Indicators
• Compliance of Member States with the requirements and recommendations of the Agency's safety standards in the areas of engineering safety for site evaluation, internal and external hazards.	• Number of Member States that, integrally or partially, apply or use Agency safety standards. • Number of site safety review services requested by Member States and percentage of recommendations and suggestions adequately addressed.

Outcomes	Performance Indicators
• Updated methodologies for external and internal hazards safety evaluation.	• Number of supporting documents (Safety Reports and TECDOCs).
• Dissemination of experience and lessons learned.	• Number of education and training activities provided to Member States and participation in international conferences.

Programmatic changes and trends: The trend is to continue to update and develop a coherent set of safety standards and supporting documents, including such on lessons learned from the Fukushima accident, for site safety related aspects including design in relation to protection against internal and external events and engineering aspects of sabotage. Also the trend shows an increasing demand for safety review services and capacity building for the newcomer countries.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 7.9% (€78 266) in 2012 as compared with 2011 and a small increase of 0.3% (€2 394) in 2013 as compared with 2012. However, due to a reallocation of resources within this subprogramme funding of the International Seismic Safety Centre (ISSC) to expand its activities to address other external hazards has been increased, as recommended by the 54th General Conference.

Projects

Title, duration and ranking	Main outputs
3.2.3.1 Promoting an integrated approach for site safety and protection against internal and external hazards ***Duration:*** Recurrent/***Ranking:*** 1	New and updated safety guides corresponding to site selection, evaluation and protection against external hazards; mission reports which identify issues; reports to Member States which identify lessons learned or good practice.
3.2.3.2 Supporting development of sustainable competency, methods and tools for site safety assessments against internal and external hazards ***Duration:*** Recurrent/***Ranking:*** 1	New and updated supporting technical documents required for implementation of the safety guides and capacity building; ISSC Information System and upgraded Notification System; technical documents which provide the results of completed projects.

Subprogramme 3.2.4 Safe Operation of Nuclear Power Plants

Objective: To assist Member States in enhancing the operational safety of nuclear power plants.

Outcomes	Performance Indicators
• Improved operational safety in Member States based on the implementation of recommendations and suggestions of operational safety review services.	• Number of OSART/Peer Review of Operational Safety Performance Experience (PROSPER)/Safe Long Term Operation (SALTO) missions and safety culture assessments requested by Member States. Percentage of Agency recommendations and suggestions adequately addressed.
• Improved capability by Member States to manage and improve a high level of safety in the operation of nuclear power plants through self-assessment, high quality leadership, management for safety and safety culture and through the application of Agency safety standards.	• Number of nuclear power plant documented self-assessments or improvement programmes as response to address Agency recommendations and suggestions or based on self-assessment and improvement programmes initiated by management independently from missions.
• Strengthened national and international operational experience feedback.	• Number of reports containing information on events.
• Use of international experience in the area of ageing management and long term operation (LTO) by Member States for establishing ageing and LTO programmes for their nuclear power plants.	• Number of Member States participating in information sharing on ageing management and LTO facilitated by the Agency.

Programmatic changes and trends: Operational safety review services will focus on better serving the needs of Member States requesting the service through developing flexible scope of review while maintaining a high level of recommendations and suggestions by referring them to specific requirements of Agency safety standards. Introduction of an independent Project 1.1.1.4 under MP 1 “Support long term operation safety” is a response to the recommendation of the June 2010 International Conference on Operational Safety, addressing the need to establish an international system to share information on generic ageing lessons learned. The subprogramme will focus on safety during construction of nuclear plants. It will improve the system for reporting and analysing operational events in order to improve learning in nuclear organizations. Lessons learned in the context of the Fukushima accident will be taken into consideration.

Resource changes and trends: Efficiency is gained by conducting more focused missions and reports, as well as using new methods for exchange and sharing of information. The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 11.7% (€318 885) in 2012 as compared with 2011 and a small increase of 0.1% (€2 394) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
3.2.4.1 Enhancing the operational safety performance ***Duration:*** Recurrent/***Ranking:*** 1	OSART mission reports; updated database of OSART mission results; revision of safety standards for operational safety; publication of OSART mission highlights, report on the evaluation of the effectiveness of the OSART missions.
3.2.4.2 Strengthening the sharing and use of international experience ***Duration:*** Recurrent/***Ranking:*** 1	Enhanced learning in Member States in order to improve nuclear safety by sharing events with other Member States, and those other Member States taking corrective actions to prevent a similar event occurring.
3.2.4.3 Supporting Member States in effective leadership, management for safety and safety culture ***Duration:*** Recurrent/***Ranking:*** 1	Revised GS-R-3 Management System for Facilities and Activities; self-assessment methodology and associated training tools; Development of an in depth safety culture assessment and integration into the OSART service.
3.2.4.4 Implementation of management systems ***Duration:*** Recurrent/***Ranking:*** 1	NE Series publications on integrated management system and support for implementation of new nuclear power plant projects.

Subprogramme 3.2.5 Safety of Research Reactor and Fuel Cycle Facilities

Objective: To enhance the safety of research reactors and fuel cycle facilities in Member States through effective application of the Code of Conduct on the Safety of Research Reactors, development and application of safety standards, conducting safety review services and sharing operating experience.

Outcomes	Performance Indicators
• Enhanced safety of research reactors and fuel cycle facilities in Member States.	• Number of safety review services implemented. • Number of finalized safety standards compared to those planned.
• Enhanced exchange of information on operating experience and issues for research reactors and fuel cycle facilities.	• Number of Member States participating in IRSRR and FINAS meetings.
• Enhanced safety status of research reactors under Project and Supply Agreements.	• Number of Member States participating in the follow-up system and fulfilling their obligations.

Programmatic changes and trends: There will be greater focus on safety review services, and training activities on specific safety issues addressed by the Code of Conduct.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 25.5% (€272 320) in 2012 as compared with 2011 and a small increase of 0.2% (€2 394) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
3.2.5.1 Enhancing the safety of research reactors and knowledge sharing ***Duration:*** Recurrent/***Ranking:*** 1	Safety standards and guidelines, mission reports, proceedings of meetings, training material, databases.
3.2.5.2 Monitoring and safety enhancement of research reactors under agreements ***Duration:*** Recurrent/***Ranking:*** 2	Mission reports, meeting reports, safety performance indicators.
3.2.5.3 Enhancing the safety of fuel cycle facilities ***Duration:*** Recurrent/***Ranking:*** 1	FINAS national coordinator meeting reports.

Programme 3.3 Radiation and Transport Safety

Rationale: This programme focuses on the protection of people from the detrimental effects attributed to radiation exposure. The programme covers the establishment of safety standards and provision for their application — both being statutory functions of the Agency. Capacity building, including education and training, and networking are cross-cutting key elements of the global safety regime, and they are included throughout the programme. The importance of international programmes as an element of the safety regime is also recognized.

The activities within the programme are mainly ongoing with some changes of emphasis, remaining cognisant of GC(53)/RES/10 parts 3 and 5, and GC(54)/RES/7 parts 3 and 5. The target audience includes national bodies and relevant international organizations dealing with radiation and transport safety issues. The beneficiaries are workers, patients, members of the public, and users and operators.

The programme relates to the establishment of key safety elements: development and maintenance of the Agency's safety standards and international undertakings which provide the cornerstone of the regime, plus building capacity and enhancing networking to ensure that the regime can function. The expected expansion in nuclear power including uranium mining will give rise to increasing work in the area of radiation and transport safety, particularly in the area of protecting workers.

The programme includes providing for the application of the Agency safety standards and the Code of Conduct on the Safety and Security of Radioactive Sources. This is done through means that include: peer review and advisory services; outreach and information exchange; guidance and training materials; and implementation of strategies specifically designed to address transport safety. These activities provide essential feedback and provide assurances on the overall effectiveness of the programme, as well as facilitating planning and anticipating future issues.

Objective:

— To achieve global harmonization of the development and application of the Agency's radiation and transport safety standards.
— To increase the safety and security of radiation sources and thereby raise the levels of protection of people, including Agency staff, against the harmful effects of radiation exposure.

Outcome	Performance Indicator
• Improved safety through international acceptance of the Agency radiation and transport safety standards, and relevant international undertakings.	• Level of State application of radiation and transport safety standards and the Code of Conduct.

Follow-up on Programme-wide lessons learned from reviews, assessment, evaluations: Considerable time and effort needs to be devoted to creating awareness of and promoting the use of international safety standards and the relevant international undertakings with States. International harmonization, especially in the application of the safety standards, and of the Code of Conduct with its supplementary import/export guidance, remains an important goal.

Specific criteria for prioritization:

1. Strengthening the global safety regime — establishing safety standards and international undertakings, and assisting Member States with their application.
2. Strengthening information exchange.

Subprogramme 3.3.1 Radiation Safety and Monitoring

Objectives:

— To provide for improved radiation safety in Member States.
— To ensure a high level of radiation protection for the Agency's own operations and for all operations making use of materials, services, equipment, facilities and information made available by the Agency, including technical cooperation projects.

Outcome	Performance Indicator
• Improved radiation safety in Member States through establishment, global acceptance and use of the Agency's safety standards.	• Increased number of States providing input to the development of the Agency safety standards.

Programmatic changes and trends: This subprogramme focuses on ensuring that the fundamental basis for radiation safety is in place, paying particular attention to the radiation protection of patients and workers including technical services. The Agency's safety standards are receiving increased attention around the world as more organizations, regulatory authorities and users look to them as international benchmarks. In 2012–2013, the Agency will build on the revised requirements in the International Basic Safety Standards, develop safety guides to further elaborate some of the concepts and approaches. In the medical area, the increased uses of radiation need to be properly justified and controlled and patients and medical professionals need to be properly addressed by the Agency's activities. The Agency will continue to place emphasis on the protection of workers, focusing on areas such as uranium mining and the industrial uses of radioactive sources.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 0.8% (€21 884) in 2012 as compared with 2011, and a decrease of 0.3% (€7 639) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
3.3.1.1 Radiation protection criteria and standards ***Duration:*** Recurrent/***Ranking:*** 1	Revised Basic Safety Standards; safety related documents on general radiation protection issues, excluding those related specifically to occupational radiation protection and radiation protection of patients.
3.3.1.2 Radiation protection of patients ***Duration:*** Recurrent/***Ranking:*** 1	Safety related documents on radiation protection of patients; reporting systems for radiological procedures and radiotherapy; web-site with updated information on dose reduction in medical exposure for health professionals and patients.
3.3.1.3 Radiation protection of workers ***Duration:*** Recurrent/***Ranking:*** 1	Draft and published safety documents; expanded and new radiation protection networks; upgraded and new training packages; reports and SAT for ORPAS; expanded ORPNET; project implementation for TSA2; ISOE Symposium and reports; data and analysis for ISEMIR.
3.3.1.4 Radiation protection and monitoring services ***Duration:*** Recurrent/***Ranking:*** 1	Emergency mission reports; project implementation for TSA2; fellows and scientific training; monitoring, protection, training services; testing methods accreditation; in-house assistance to SG, TC, NA and NE; support to Seibersdorf and Monaco.

Subprogramme 3.3.2 Regulatory Infrastructure and Transport Safety

Objectives:

— To provide for improved radiation and transport safety, and the safety of sources, in Member States.
— To assist Member States in strengthening their capabilities in order to facilitate implementation of safe and sustainable approaches and increase competencies in radiation and transport safety.

Outcomes	Performance Indicators
• Improved radiation and transport safety in Member States through establishment and global acceptance of the Agency safety standards and relevant international undertakings.	• Number of States attending meetings to share experiences in implementing the Code of Conduct.
• Improved radiation and transport safety in Member States through increased global application of Agency safety standards and relevant international undertakings.	• Improved application of Agency safety standards on regulatory infrastructure, education and training and transport safety. • Number of Member States implementing the provisions from the Code of Conduct.

Programmatic changes and trends: The programme recognizes the increasing importance of the globalization of the safety regime to maximize synergies and improve effectiveness. There will be more demands from Member States for independent peer reviews and advisory mission supported by self-assessments, especially in the area of regulatory infrastructure. In terms of technical assistance to Member States, a more focused approach to those with weak or no safety regulatory infrastructure must be adopted. In addition, an international agreement on transboundary movements of radioactive material will need to be developed. In the transport safety area, the revision of TS-R-1 will be completed and the problems associated with the denial of shipments are getting close to being solved. This subprogramme therefore focuses on facilitating Member State application of the safety regime in the areas of radiation and transport safety.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 8.9% (€264 255) in 2012 as compared with 2011, and an increase of 0.5% (€16 161) in 2013 as compared with 2012, as more emphasis will be placed on activities related to the control of radiation sources including regulatory infrastructure.

Projects

Title, duration and ranking	Main outputs
3.3.2.1 Control of radiation sources ***Duration:*** Recurrent/***Ranking:*** 1	Provision of expert advice and appropriate tools to support MS in establishing national legislation and regulations in accordance with relevant standards and instruments.
3.3.2.2 Transport Safety ***Duration:*** Recurrent/***Ranking:*** 1	A comprehensive set of transport safety standards and supporting guides and their implementation; denial of shipment action plan delivery.

Title, duration and ranking	Main outputs
3.3.2.3 Technical assistance and information management ***Duration:*** Recurrent/***Ranking:*** 1	Radiation, transport and waste safety profiles for Member States in the TC programmes; reports of the Steering Committee on radiation, transport and waste safety; guidance on establishing a national strategy for radiation, transport and waste safety.

Programme 3.4 Management of Radioactive Waste

Rationale: Fuel cycle facilities and the handling, use and processing of radioactive material generate radioactive waste (RW) and may give rise to discharges to the environment. RW is potentially hazardous to health and the environment and must be carefully managed, discharges controlled and facilities carefully decommissioned, which may require restoration of sites. RW must be immobilized and safely stored or disposed of. These activities require safety standards and sound technologies. Several international agreements also place obligations on the Agency.

Amounts and types of RW generated world-wide vary considerably. It is of great importance that the Agency's programme on radioactive waste management (RWM) promotes a global safety regime for use by the Member States. The establishment and maintenance of such a regime for RWM is the ultimate objective of the programme. RWM projects can last for decades, continuity and sustainability in programme activities is important. Thus, most of the proposed projects are a continuation of existing ones.

Use of good practices and adequate technologies in RWM are necessary for achieving a high level of safety. An important objective of the programme is to help Member States in finding solutions for RW, decommissioning and remediation of legacy sites. The programme assists countries to share experience, good practices and technological approaches for safe and efficient RWM and to cooperate. Assistance is provided to countries with disused radioactive sources and to newcomers to timely address RWM and to develop infrastructure. The programme addresses public communication with the aim to correct public misperceptions, which are often a major obstacle to the implementation of RWM projects.

The beneficiaries of the programme are national bodies with RWM responsibilities and competent safety authorities, operators of RWM facilities or facilities generating RW, environmental protection agencies controlling discharges, and to some extent health authorities.

Objective: To achieve global harmonization in policies, criteria and standards governing waste safety and public and environmental protection, together with provisions for their application, including state-of-the-art technologies and methods for demonstrating their adequacy.

Outcome	Performance Indicators
• Strengthened global safety regime through internationally harmonized application of the Agency waste safety standards, state of the art technologies and relevant international undertakings.	• New or revised waste safety standards approved by the Commission on Safety Standards (CSS). • Number of new contracting parties to the Joint Convention. • Level of States' application of waste safety standards and the Joint Convention.

Follow-up on Programme-wide lessons learned from reviews, assessment, evaluations: Development and promotion of safety standards need continuous efforts. International harmonization of methods for preparing and reviewing safety cases for spent fuel and radioactive waste management are prioritized. Increased efforts are planned for disposal of high level waste and spent fuel. Decommissioning and remediation activities are increasing worldwide and many Member States need support. The renewed interest in uranium production requires recommendations on safety and appropriate technologies in order to prevent new legacy sites. Several networks for transferring technologies and good practices are in place and are important for supporting both developing and developed countries.

Specific criteria for prioritization:

1. Establishing safety standards and international undertakings, assisting States with their application, servicing of Joint Convention and transfer of technology.
2. Fostering information exchange.

Subprogramme 3.4.1 Waste and Environmental Safety

Objectives:

— To produce a comprehensive suite of international safety standards and support documents, including safety reports, TECDOCs, software and other relevant instruments.
— To promote the application of the Agency safety standards and supporting instruments relevant to waste, decommissioning, remediation and environmental safety in Member States programmes.

Outcomes	Performance Indicators
• International consensus achieved on the Agency radioactive waste safety standards.	• New or revised waste safety standards approved by the Commission on Safety Standards (CSS).
• Strengthened capabilities and improved practices in radioactive waste management, decommissioning, remediation and environmental protection in Member States.	• Demand for waste and environmental safety services such as peer reviews, continuation of safety harmonization and demonstration projects and demonstrated application of the safety standards.

Programmatic changes and trends: The programme structure retained the same two subprogrammes as for 2010–2011 biennium. Subprogramme 3.4.1 consists of three projects concerned with the safety of spent fuel and radioactive waste management. Together the projects cover pre-disposal and disposal of spent fuel and radioactive waste, decommissioning, environmental remediation and assessment and management of radioactive releases to the environment. Increased efforts are planned for disposal of high level waste (new initiative) and concern guidance on development and review of safety cases and the use of safety assessment tools as well as training material. Due to the renewed interest in uranium production, which includes new countries and organizations, new or revised recommendations and training material will be developed.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 9.3% (€309 755) in 2012 as compared with 2011 and a small increase of 0.1% (€2 261) in 2013 as compared with 2012. The increase will enable some environmental activities to be carried out in relation to the Fukushima accident and will allow for more emphasis to be placed on activities related to the disposal of high level waste.

Projects

Title, duration and ranking	Main outputs
3.4.1.1 Radioactive waste and spent fuel management ***Duration:*** Recurrent/***Ranking:*** 1	Revised or new safety guide on small amount management systems, and predisposal management of radioactive material; final reports of international harmonization projects; organization of 4th review meeting of the Joint Convention.
3.4.1.2 Assessment and management of environmental releases ***Duration:*** Recurrent/***Ranking:*** 1	Safety guides, technical documents, peer review reports.
3.4.1.3 Decommissioning and remediation safety ***Duration:*** Recurrent/***Ranking:*** 1	Safety standards and supporting documents; development of training material; establishment of RSLS Forum; maintenance of safety harmonization/demonstration projects [FaSa]; delivery on TC programme and extrabudgetary work; support for Central Asia remediation initiative.

Subprogramme 3.4.2 Good Practices and Technologies for Radioactive Waste Management, Decommissioning and Environmental Remediation

Objectives:

— To assist and support Member States in strengthening their capabilities and improving their practices in radioactive waste management, decommissioning of installations and remediation of contaminated sites.
— To provide support to countries embarking on nuclear power and developing countries to plan and develop necessary radioactive waste management infrastructure, RWM policies and strategies and human resource capacities and capabilities to deal with waste issues.
— To facilitate experience sharing and knowledge transfer on effective applications of practical solutions in radioactive waste management, decommissioning of installations and environmental remediation of contaminated sites.

Outcomes	Performance Indicators
• Strengthened capabilities and improved practices in radioactive waste management, decommissioning of nuclear installations and remediation of contaminated sites in Member States.	• Number of Member States having developed national policy and strategy for RWM. • Implementation rate of recommendations proposed by the International Radioactive Waste Technical Committee (WATEC) at its annual meeting. • Number of requests for peers reviews and appraisals on RWM, decommissioning or environmental remediation.
• Increased awareness of the importance of early consideration of radioactive waste management issue among newcomers.	• Number of Member States embarking on nuclear power with a developed national policy and strategy for RWM.
• Increased international cooperation and improved national competence in radioactive waste management, decommissioning of nuclear installations and environmental remediation of sites.	• Number of Member States participating in networks activities.

Programmatic changes and trends: Programme 3.4 retained the two subprogramme structure; however, the content of the subprogrammes has been significantly modified compared to the programme from 2010-2011 biennium. Subprogramme 3.4.2 consists of five projects which deal with technological aspects of RWM and are thematically organized, covering pre-disposal, disposal of radioactive waste, disused source management, decommissioning and environmental remediation and information exchange, and dissemination of knowledge for capacity building.

All CRPs, including two already approved in the 2010–2011 budget (eight in total) are unfunded. Publication activities are reduced and/or delayed, new activities such as developing e-training material and enhancing waste management information systems and databases are just barely continuing.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 2.0% (€71 497) in 2012 as compared with 2011 and a small increase of 0.1% (€3 990) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
3.4.2.1 Pre-disposal management of radioactive waste ***Duration:*** Recurrent/***Ranking:*** 1	Effective implementation of predisposal activities in the Member States assisted by six initiated documents; development of lecturing materials (e-learning); and training courses in the framework of the regular budget and TC projects.
3.4.2.2 Managing disposal of radioactive waste and spent fuel ***Duration:*** Recurrent/***Ranking:*** 1	Two published and four initiated documents; a set of lecturing materials (e-learning); eight training events and courses; eight TC projects.
3.4.2.3 Managing disused sealed radioactive sources (DSRS) ***Duration:*** Recurrent/***Ranking:*** 1	Successful conclusion of source recovery operations and the promotion of a consistent methodology for managing DSRS throughout Member States.
3.4.2.4 Decommissioning of nuclear facilities and environmental remediation of sites ***Duration:*** Recurrent/***Ranking:*** 1	Effective implementation of decommissioning and remediation projects in Member States assisted by the Agency.
3.4.2.5 Facilitating information exchange and dissemination of knowledge for capacity building in radioactive waste management, decommissioning and environmental remediation ***Duration:*** Recurrent/***Ranking:*** 1	Maintained, updated, and improved web-based systems; improved implementation of recommended best practices in radioactive waste management; better access to information supporting the safety of radioactive waste management.

Programme 3.5 Nuclear Security

Rationale: The risk that nuclear or other radioactive material could be used in malicious acts is recognized as a serious threat to international peace and security. Appropriate and effective national nuclear security will facilitate the peaceful use of nuclear energy and enhance global efforts to combat nuclear terrorism.

Comprehensive security requires a combination of prevention, detection and response measures set within a robust national civil and criminal legal framework. The security of nuclear material suitable for use in nuclear weapons has always been, and will remain, of the very highest priority and a long term imperative. The understanding of potential threats involving the malicious use of other radioactive material, for example dispersal by a dirty bomb, has increased, as has the priority given to improving the security of such materials.

The programme is designed to assist States to meet the requirements of the international binding and non-binding instruments, to establish and provide long term sustained improvements in nuclear security. Assistance is only provided at the request of a State. Priority is given to resources to: maintain an effective information platform; develop and publish nuclear security recommendations and guidance; provide services for assessment and evaluation of State systems against the guidance at their request; and provide human resources development. Activities will be implemented in a way that builds on the synergies with other Agency programmes that serve nuclear security purposes.

Extrabudgetary funds will be required to fund the majority of programmatic activities.

Objectives:

— To contribute to global efforts to achieve effective security of nuclear or other radioactive material, by supporting national and international efforts to establish and maintain effective nuclear security.
— To assist adherence to and implementation of nuclear security related international instruments and to strengthen the international cooperation and coordination of assistance in a way that underpins the use of nuclear energy and applications.

Outcomes	Performance Indicators
• Continued improvement in the global security of nuclear material, other radioactive material, nuclear facilities, locations and transports.	• Number of States that have established or improved national nuclear security systems on the basis of advice or assistance from the Agency.
• Improved capacity amongst States to implement national nuclear security systems.	• Number of States implementing systems on the basis of Agency assistance.

Follow-up on Programme-wide lessons learned from reviews, assessment, evaluations: The programme has been prioritized to focus on the provision of services. However, resources from the regular budget are insufficient to meet all requests for support and implementation of the programme will continue to be dependent on contributions to the Nuclear Security Fund (NSF) and conditions placed on those contributions.

Specific criteria for prioritization:

1. Completion and maintenance of nuclear security recommendations and guidance.
2. Provision of assessment and evaluation services at the request of States.
3. Provision of assistance in human resource development programmes and risk reduction activities.

Subprogramme 3.5.1 Needs Assessment, Information Collation and Analysis

Objective: To maintain a comprehensive information platform, effectively supporting implementation of the Nuclear Security Plan (NSP), an updated threat analysis, and providing a good understanding of global nuclear security needs, to assist in the prioritization of nuclear security improvements and to facilitate international cooperation and coordination in meeting those needs.

Outcome	Performance Indicator
• The maintenance of comprehensive and complete databases and tools that underpin a coordinated nuclear security programme which meets the requirements of States without duplicating other national, bilateral or multilateral programmes.	• Degree to which databases cover existing needs and degree of overlaps among databases.

Programmatic changes and trends: States have asked for improved information analysis. This will be achieved through integration of data sets, improved access to data sets and the introduction of new analytical tools.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 1.3% (€17 204) in 2012 as compared with 2011 and an increase of 4.5% (€61 064) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
3.5.1.1 Assessing nuclear security needs, priorities and threats ***Duration:*** Recurrent/***Ranking:*** 1	Integrated Nuclear Security Support Plans; reports for Member States; improved databases.
3.5.1.2 Building international networks and partnerships ***Duration:*** Recurrent/***Ranking:*** 1	Practical arrangements with States and organizations, reports to the Board of Governors and the General Conference.

Subprogramme 3.5.2 Contributing to the Establishment of a Global Nuclear Security Framework

Objectives:

— To complete the production of a comprehensive set of nuclear security recommendations and guidance as part of the nuclear security framework by the end of the biennium to a standard agreed by the international community.

— To provide support for the development of R&D programmes to provide effective, technically up to date guidance and to develop user-friendly instrumentation and other means to implement the nuclear security framework in an effective, yet flexible, manner.

Outcome	Performance Indicator
• Improved ability of States to meet the requirements of the binding and non-binding international legal instruments.	• Agreement by the international community on the completeness and acceptability of publications, technical specifications and methodologies produced under Agency auspices.

Programmatic changes and trends: The 'top tier' fundamentals and recommendations documents will be published in 2011. The focus will then be on completing the implementing and technical guides which support these documents.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 24.9% (€269 312) in 2012 as compared with 2011 and a small increase of 0.1% (€931) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
3.5.2.1 Developing guidance documents for global nuclear security ***Duration:*** Recurrent/***Ranking:*** 1	Guidance documents in the Nuclear Security Series.
3.5.2.2 Research and development to support the further development of the nuclear security framework ***Duration:*** Recurrent/***Ranking:*** 1	Technical input to guidance documents; reports of CRPs.

Subprogramme 3.5.3 Providing Nuclear Security Services

Objective: To underpin sustainable national nuclear security by providing, at the request of States, peer reviews and assessment missions and to assist States in capacity building and development of the necessary human resources.

Outcome	Performance Indicator
• Increased implementation of the global nuclear security framework by States.	• Number of States having used Agency services in their efforts to implement a nuclear security framework.

Programmatic changes and trends: An increased demand is anticipated for advisory services and assessment missions which will be given on a modular basis, tailored to meet the needs of the requesting State. Greater synergy will be sought with services provided for safety and safeguards purposes, where appropriate. Human resource development will be delivered through national and regional centres using standard Agency training packages.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 2.6% (€38 475) in 2012 as compared with 2011 and a small increase of 0.1% (€931) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
3.5.3.1 Facilitating adherence to international instruments ***Duration:*** Recurrent/***Ranking:*** 2	Adherence by States to relevant international instruments.
3.5.3.2 Peer reviews and evaluation ***Duration:*** Recurrent/***Ranking:*** 1	Mission reports.
3.5.3.3 Human resource development and capacity building ***Duration:*** Recurrent/***Ranking:*** 1	Comprehensive HR development programme.

Subprogramme 3.5.4 Risk Reduction and Security Improvement

Objective: To improve global nuclear security through risk reduction so that nuclear and other radioactive material would not be used for malicious acts, to improve national nuclear security capacities in all locations and act effectively when material is detected out of control.

Outcome	Performance Indicator
• Reduction of the risk that nuclear and other radioactive material could be involved in malicious acts.	• Number of facilities and other locations where security has been improved through the implementation of Agency advice and assistance.

Programmatic changes and trends: This subprogramme will continue to receive minimal regular budget funding and will be primarily dependent on extrabudgetary resources. Attention will continue to be given to coordination of Agency activities with those of bilateral donors and to ensuring the sustainability of capacity improvements.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 38.9% (€100 805) in 2012 as compared with 2011 and a small increase of 0.3% (€931) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
3.5.4.1 Improving nuclear security at facilities and locations ***Duration:*** Recurrent/***Ranking:*** 2	Physical protection upgrades to facilities, locations and transports.
3.5.4.2 Securing materials outside of regulatory control ***Duration:*** Recurrent/***Ranking:*** 2	Assessments, training, supply of equipment.
3.5.4.3 Enhancing national, regional and international support capacities ***Duration:*** Recurrent/***Ranking:*** 1	National nuclear security support centres; network of nuclear forensics laboratories.

Medium Term Strategy[2]

As indicated in paragraph 7, Section I, the Medium Term Strategy (MTS) for 2012–2017 constitutes the roadmap for all programme and budget proposals for 2012–2017. The following table cross-references activities reflected in the MTS with the relevant projects or functions that are included in the 2012–2013 proposals for this MP:

MTS 2012–2017 activity	Budget reference		New project
	Programme	Projects	
Protection of people, the environment and society	All		
Standards and guidance	All		
Enhancement of the global nuclear safety and security framework		3.0.0.1	
National safety and security for all type of facilities and activities	All		
Response to requirements of relevant international instruments		3.1.1, 3.3.1, 3.4.1 and 3.5.3	
Peer reviews and advisory services	All		
Adherence to international safety and security conventions		3.1.1, 3.3.1, 3.4.1 and 3.5.3	
National, regional and international capacity building for incidents and emergencies		3.1.1.1, 3.1.1.2, 3.1.1, 3.2.1, 3.3.2 and 3.4.2.	
Nuclear installation design, construction, testing, operation and maintenance, ageing, surveillance, inspection, pre-decommissioning and regulatory activities	3.2	All	
Control of radioactive sources and mitigation of the effects of unauthorized disposal		3.3.2.1, 3.4.2.3 and 3.5.4.2.	
National radiation, transport and waste safety infrastructure and capacity building	All		
Radioactive sources control through life-cycle	All		
Radioactive waste and spent fuel management, decommissioning of installations, and remediation of contaminated sites.	3.4	All	
Denial and delays of shipments of radioactive materials		3.3.2.2	
Medical and occupational exposure control		3.3.1.2 and 3.3.1.3	
Effective information platform		3.5.1.1	
Nuclear security guidance and modular assessment services		3.5.1.1 and 3.5.3.2	
Comprehensive HR development		3.5.1.1 and 3.5.3.3	
Nuclear security related international legal instruments		3.5.3.1	
Strengthening of international cooperation		3.5.1.2 and 3.5.4.3	
Effective operation of the international nuclear security framework		3.5.2.1 and 3.5.2.2	

[2] MTS activities — Lessons learned and good practices, technology transfer, one-house approach, and capacity building — are common to all major programmes.

Major Programme 3 – Nuclear Safety and Security
Summary of Programme Structure and Resources
(excluding Major Capital Investments)

Table 17

	Project / Subprogramme / Programme	2012 Regular Budget at 2012 prices	2012 Extra-budgetary	2012 CAURBs Unfunded	2013 preliminary estimates Regular Budget at 2012 prices	2013 preliminary estimates Extra-budgetary	2013 preliminary estimates CAURBs Unfunded
3.0.0.1	Enhancing the global nuclear safety and security framework	764 425	-	-	757 172	-	-
3.0.0.2	Enhancing and strengthening capacity building, communications, knowledge networking, education and training	513 381	597 628	-	438 021	597 628	-
3.0.0.3	Printing and translation indirect costs	106 388	-	-	106 388	-	-
3.0.0.4	AIPS services	27 570	-	-	31 598	-	-
		1 411 764	**597 628**	**-**	**1 333 179**	**597 628**	**-**
3.1.1.1	Improving Member States emergency preparedness	833 062	310 480	-	820 641	270 480	-
3.1.1.2	Enhancing international emergency management	468 942	232 400	-	516 131	232 400	-
3.1.1.3	Printing and translation indirect costs	54 278	-	-	58 037	-	-
3.1.1.4	AIPS services	9 190	-	-	10 533	-	-
	Subprogramme 3.1.1 - Strengthening National and International Emergency Preparedness	**1 365 472**	**542 880**	**-**	**1 405 342**	**502 880**	**-**
3.1.2.1	Responding to incidents and emergencies	1 532 281	405 840	-	1 504 648	405 840	-
3.1.2.2	Enhancing response capabilities	606 430	82 000	-	584 550	82 000	-
3.1.2.3	Printing and translation indirect costs	36 828	-	-	36 828	-	-
3.1.2.4	AIPS services	9 190	-	-	10 533	-	-
	Subprogramme 3.1.2 - IAEA Incident and Emergency System and Operational arrangements with States and International Organizations	**2 184 729**	**487 840**	**-**	**2 136 559**	**487 840**	**-**
Programme 3.1 - Incident and Emergency Preparedness and Response		**3 550 201**	**1 030 720**	**-**	**3 541 901**	**990 720**	**-**
3.2.1.1	Strengthening regulatory effectiveness and regulatory networking	1 315 228	898 140	-	1 316 168	898 140	-
3.2.1.2	Developing safety infrastructure of countries embarking on nuclear power	542 414	880 748	-	542 414	880 748	-
3.2.1.3	Improving the IAEA safety standards, supporting the Convention on Nuclear Safety, the International Nuclear Safety Group (INSAG) and other international organizations	860 106	276 400	-	860 736	276 400	-
3.2.1.4	Development of regulatory and safety capacity building for nuclear installations	355 701	229 400	-	355 701	229 400	-
3.2.1.5	Printing and translation indirect costs	87 827	-	-	87 827	-	-
3.2.1.6	AIPS services	16 542	-	-	18 959	-	-
	Subprogramme 3.2.1 - Governmental and Regulatory Framework, Safety Infrastructure and Capacity Building for Nuclear Installations	**3 177 818**	**2 284 688**	**-**	**3 181 805**	**2 284 688**	**-**
3.2.2.1	Promoting and applying an integrated approach to evaluation of safety design of nuclear facilities	1 467 628	1 922 358	149 400	1 468 255	1 922 358	149 400
3.2.2.2	Supporting sustainable safety assessment competency, methods and tools	829 969	352 800	-	830 915	352 800	-
3.2.2.3	Printing and translation indirect costs	81 723	-	-	81 723	-	-
3.2.2.4	AIPS services	16 542	-	-	18 959	-	-
	Subprogramme 3.2.2 - Safety Assessment of Nuclear Installations	**2 395 862**	**2 275 158**	**149 400**	**2 399 852**	**2 275 158**	**149 400**

Major Programme 3 – Nuclear Safety and Security
Summary of Programme Structure and Resources
(excluding Major Capital Investments)

Table 17

	Project / Subprogramme / Programme	2012 Regular Budget at 2012 prices	2012 Extra-budgetary	2012 CAURBs Unfunded	2013 preliminary estimates Regular Budget at 2012 prices	2013 preliminary estimates Extra-budgetary	2013 preliminary estimates CAURBs Unfunded
3.2.3.1	Promoting an integrated approach for site safety and protection against internal and external hazards	503 435	423 320	-	503 433	423 320	-
3.2.3.2	Supporting development of sustainable competency, methods and tools for site safety assessments against internal and external hazards	324 052	2 268 896	149 400	324 052	2 268 896	149 400
3.2.3.3	Printing and translation indirect costs	74 503	-	-	74 504	-	-
3.2.3.4	AIPS services	16 542	-	-	18 959	-	-
	Subprogramme 3.2.3 - Site Safety and Protection Against Internal and External Hazards	**918 532**	**2 692 216**	**149 400**	**920 948**	**2 692 216**	**149 400**
3.2.4.1	Enhancing the operational safety performance	1 494 336	1 349 922	-	1 495 176	1 349 922	-
3.2.4.2	Strengthening the sharing and use of international experience	788 787	-	44 820	788 787	-	44 820
3.2.4.3	Supporting Member States in effective leadership, management for safety and safety culture	418 360	-	-	418 360	-	-
3.2.4.4	Implementation of management systems	264 078	-	-	264 078	-	-
3.2.4.5	Printing and translation indirect costs	78 995	-	-	78 995	-	-
3.2.4.6	AIPS services	16 542	-	-	18 959	-	-
	Subprogramme 3.2.4 - Safe Operation of Nuclear Power Plants	**3 061 098**	**1 349 922**	**44 820**	**3 064 355**	**1 349 922**	**44 820**
3.2.5.1	Enhancing the safety of research reactors and knowledge sharing	697 829	-	149 400	697 827	-	149 400
3.2.5.2	Monitoring and safety enhancement of research reactors under agreements	305 173	-	-	305 173	-	-
3.2.5.3	Enhancing the safety of fuel cycle facilities	251 669	-	149 400	251 665	-	149 400
3.2.5.4	Printing and translation indirect costs	75 850	-	-	75 850	-	-
3.2.5.5	AIPS services	16 542	-	-	18 959	-	-
	Subprogramme 3.2.5 - Safety of Research Reactor and Fuel Cycle Facilities	**1 347 063**	**-**	**298 800**	**1 349 474**	**-**	**298 800**
	Programme 3.2 - Safety of Nuclear Installations	**10 900 373**	**8 601 984**	**642 420**	**10 916 434**	**8 601 984**	**642 420**
3.3.1.1	Radiation protection criteria and standards	1 023 887	-	-	927 706	-	-
3.3.1.2	Radiation protection of patients	1 094 656	50 000	-	1 130 121	50 000	-
3.3.1.3	Radiation protection of workers	339 847	-	-	388 386	-	-
3.3.1.4	Radiation protection and monitoring services	339 977	-	-	340 009	-	-
3.3.1.5	Printing and translation indirect costs	132 152	-	-	132 152	-	-
3.3.1.6	AIPS services	15 623	-	-	17 905	-	-
	Subprogramme 3.3.1 - Radiation Safety and Monitoring	**2 946 142**	**50 000**	**-**	**2 936 279**	**50 000**	**-**
3.3.2.1	Control of radiation sources	1 223 199	250 000	-	1 252 582	250 000	-
3.3.2.2	Transport safety	1 081 479	30 000	-	1 035 924	30 000	-
3.3.2.3	Technical assistance and information management	807 258	50 000	-	836 000	50 000	-
3.3.2.4	Printing and translation indirect costs	132 937	-	-	132 938	-	-
3.3.2.5	AIPS services	15 623	-	-	17 905	-	-
	Subprogramme 3.3.2 - Regulatory Infrastructure and Transport Safety	**3 260 496**	**330 000**	**-**	**3 275 349**	**330 000**	**-**
	Programme 3.3 - Radiation and Transport Safety	**6 206 638**	**380 000**	**-**	**6 211 628**	**380 000**	**-**

Major Programme 3 – Nuclear Safety and Security
Summary of Programme Structure and Resources
(excluding Major Capital Investments)

Table 17

	Project / Subprogramme / Programme	2012 Regular Budget at 2012 prices	2012 Extra-budgetary	2012 CAURBs Unfunded	2013 preliminary estimates Regular Budget at 2012 prices	2013 preliminary estimates Extra-budgetary	2013 preliminary estimates CAURBs Unfunded
3.4.1.1	Radioactive waste and spent fuel management	1 414 881	100 000	80 000	1 414 879	100 000	-
3.4.1.2	Assessment and management of environmental releases	1 059 604	-	-	1 060 334	-	-
3.4.1.3	Decommissioning and remediation safety	981 773	150 000	-	981 771	150 000	-
3.4.1.4	Printing and translation indirect costs	167 660	-	-	167 659	-	-
3.4.1.5	AIPS services	15 623	-	-	17 905	-	-
	Subprogramme 3.4.1 - Waste and Environmental Safety	**3 639 541**	**250 000**	**80 000**	**3 642 548**	**250 000**	**-**
3.4.2.1	Pre-disposal management of radioactive waste	877 952	176 400	63 000	862 223	176 400	63 000
3.4.2.2	Managing disposal of radioactive waste and spent fuel	953 685	104 580	149 000	968 772	104 580	80 000
3.4.2.3	Managing disused sealed radioactive sources (DSRS)	256 590	-	43 000	262 350	-	20 000
3.4.2.4	Decommissioning of nuclear facilities and environmental remediation of sites	807 852	44 820	-	816 060	44 820	45 000
3.4.2.5	Facilitating information exchange and dissemination of knowledge for capacity building in radioactive waste management, decommissioning and environmental remediation	666 062	-	15 000	650 112	-	10 000
3.4.2.6	Printing and translation indirect costs	131 887	-	-	131 888	-	-
3.4.2.7	AIPS services	27 570	-	-	31 598	-	-
	Subprogramme 3.4.2 - Good Practices and Technologies for Radioactive Waste Management, Decommissioning and Environmental Remediation	**3 721 598**	**325 800**	**270 000**	**3 723 003**	**325 800**	**218 000**
	Programme 3.4 - Management of Radioactive Waste	**7 361 139**	**575 800**	**350 000**	**7 365 551**	**575 800**	**218 000**
3.5.1.1	Assessing nuclear security needs, priorities and threats	693 640	958 168	-	693 640	958 168	-
3.5.1.2	Building international networks and partnerships	618 703	426 557	-	675 217	416 557	-
3.5.1.3	Printing and translation indirect costs	26 092	-	-	26 092	-	-
3.5.1.4	AIPS services	7 352	-	-	8 426	-	-
	Subprogramme 3.5.1 - Needs Assessment, Information Collation and Analysis	**1 345 787**	**1 384 725**	**-**	**1 403 375**	**1 374 725**	**-**
3.5.2.1	Developing guidance documents for global nuclear security	1 018 745	1 388 078	-	1 019 375	1 388 078	-
3.5.2.2	Research and development to support the further development of the nuclear security framework	302 200	368 200	-	302 200	368 200	-
3.5.2.3	Printing and translation indirect costs	26 092	-	-	26 092	-	-
3.5.2.4	AIPS services	6 433	-	-	7 373	-	-
	Subprogramme 3.5.2 - Contributing to the Establishment of a Global Nuclear Security Framework	**1 353 470**	**1 756 278**	**-**	**1 355 040**	**1 756 278**	**-**
3.5.3.1	Facilitating adherence to international instruments	160 296	10 000	-	160 296	10 000	-
3.5.3.2	Peer reviews and evaluation	514 404	1 489 174	-	514 404	1 489 174	-
3.5.3.3	Human resource development and capacity building	798 369	3 175 506	-	798 369	3 175 506	-
3.5.3.4	Printing and translation indirect costs	26 092	-	-	26 092	-	-
3.5.3.5	AIPS services	6 433	-	-	7 373	-	-
	Subprogramme 3.5.3 - Providing Nuclear Security Services	**1 505 594**	**4 674 680**	**-**	**1 506 534**	**4 674 680**	**-**

Major Programme 3 – Nuclear Safety and Security
Summary of Programme Structure and Resources
(excluding Major Capital Investments)

Table 17

	Project / Subprogramme / Programme	2012 Regular Budget at 2012 prices	2012 Extra-budgetary	2012 CAURBs Unfunded	2013 preliminary estimates Regular Budget at 2012 prices	2013 preliminary estimates Extra-budgetary	2013 preliminary estimates CAURBs Unfunded
3.5.4.1	Improving nuclear security at facilities and locations	121 270	7 153 560	-	121 270	7 153 560	-
3.5.4.2	Securing materials outside of regulatory control	93 156	3 236 560	-	93 156	3 236 560	-
3.5.4.3	Enhancing national, regional and international support capacities	116 619	239 910	-	116 619	239 910	-
3.5.4.4	Printing and translation indirect costs	26 092	-	-	26 092	-	-
3.5.4.5	AIPS services	6 433	-	-	7 373	-	-
	Subprogramme 3.5.4 - Risk Reduction and Security Improvement	**363 570**	**10 630 030**	**-**	**364 510**	**10 630 030**	**-**
Programme 3.5 - Nuclear Security		**4 568 421**	**18 445 713**	**-**	**4 629 459**	**18 435 713**	**-**
Major Programme 3 - Nuclear Safety and Security		**33 998 536**	**29 631 845**	**992 420**	**33 998 152**	**29 581 845**	**860 420**

Major Programme 3 – Nuclear Safety and Security
Core Activities Unfunded in the Regular Budget

Table 18

	Project Title and Description of Activities	2012 CAURBs Unfunded	2013 CAURBs Unfunded
3.2.2.1	Promoting and applying an integrated approach to evaluation of safety design of nuclear facilities		
3.2.2.1	*Increasing emphasis on deterministic safety assessment capabilities, including safety standards development*	149 400	149 400
	Subprogramme 3.2.2 - Safety Assessment of Nuclear Installations	149 400	149 400
3.2.3.2	Supporting development of sustainable competency, methods and tools for site safety assessments against internal and external hazards		
3.2.3.2	*Enhancing seismic safety of nuclear installations mainly through developing international safety standards and providing technical assistance*	149 400	149 400
	Subprogramme 3.2.3 - Site Safety and Protection Against Internal and External Hazards	149 400	149 400
3.2.4.2	Strengthening the sharing and use of international experience		
3.2.4.2	*Supporting Member States in the area of analysis of operating experience, especially countries embarking on new nuclear power programmes*	44 820	44 820
	Subprogramme 3.2.4 - Safe Operation of Nuclear Power Plants	44 820	44 820
3.2.5.1	Enhancing the safety of research reactors and knowledge sharing		
3.2.5.1	*Providing adequate services to Member States for research reactor safety, including new builds*	149 400	149 400
3.2.5.3	Enhancing the safety of fuel cycle facilities		
3.2.5.3	*Advancing the completion of the Agency's fuel cycle facility safety standards and supporting operational safety review services*	149 400	149 400
	Subprogramme 3.2.5 - Safety of Research Reactor and Fuel Cycle Facilities	298 800	298 800
Programme 3.2 - Safety of Nuclear Installations		**642 420**	**642 420**

Major Programme 3 – Nuclear Safety and Security
Core Activities Unfunded in the Regular Budget

Table 18

	Project Title and Description of Activities	2012 CAURBs Unfunded	2013 CAURBs Unfunded
3.4.1.1	Radioactive waste and spent fuel management		
	3.4.1.1/01 Organize the review meeting of the joint convention	80 000	-
	Subprogramme 3.4.1 - Waste and Environmental Safety	80 000	-
3.4.2.1	Pre-disposal management of radioactive waste		
	3.4.2.1/12 Coordinate a CRP on processing technologies for HLW, formulation of matrices and characterization of waste forms (2010–2015)	20 000	43 000
	3.4.2.1/13 Coordinate a CRP on treatment and conditioning of alpha bearing and other problematic liquid and solid waste streams	43 000	20 000
3.4.2.2	Managing disposal of radioactive waste and spent fuel		
	3.4.2.2/14 Coordinate a CRP on repository monitoring in support of performance assessments (2012–2015)	40 000	-
	3.4.2.2/15 Coordinate a CRP on design and initiation of an in situ experiment on swelling clays in an underground research laboratory (2012–2015)	43 000	40 000
	3.4.2.2/16 Coordinate a CRP on characterizing fracture networks to support models of radionuclide transport in the geosphere (2012–2015)	46 000	-
	3.4.2.2/17 Coordinate a CRP on site characterization approaches and tools in LLW repository development (2010–2014)	20 000	40 000
3.4.2.3	Managing disused sealed radioactive sources (DSRSs)		
	3.4.2.3/07 Coordinate a CRP on harmonization of methodologies used for DSRS management in different regions of the world (2012–2015)	43 000	20 000
3.4.2.4	Decommissioning of nuclear facilities and environmental remediation of sites		
	3.4.2.4/21 Coordinate a CRP on the use of mathematical models in the design and performance assessment of environmental remediation strategies (2012–2015)	-	45 000
3.4.2.5	Facilitating information exchange and dissemination of knowledge for capacity building in radioactive waste management, decommissioning and environmental remediation		
	3.4.2.5/01 Update the Waste Management Glossary	15 000	10 000
	Subprogramme 3.4.2 - Good Practices and Technologies for Radioactive Waste Management, Decommissioning and Environmental Remediation	270 000	218 000
Programme 3.4 - Management of Radioactive Waste		**350 000**	**218 000**
Major Programme 3 - Nuclear Safety and Security		**992 420**	**860 420**

Major Programme 4
Nuclear Verification

Introduction

The nuclear verification programme supports the Agency's statutory mandate to establish and administer safeguards, to ensure that special fissionable and other material, services, equipment, facilities and information made available to the Agency or at its request or under its supervision or control are not used in such a way as to further any military purpose. For this reason, the Agency concludes safeguards agreements with States which confer upon the Agency the legal obligation and authority to apply safeguards to nuclear material, facilities and other items subject to the agreements.

Under this major programme, the Agency carries out verification, information analysis and evaluation activities, and manages safeguards instrumentation as well as analytical services required for implementing safeguards. These activities enable the Agency to establish a complete and comprehensive information basis upon which safeguards conclusions can be drawn. Development and strategic planning activities permit the Agency to enhance and improve this information basis, to anticipate and prepare for future technological requirements, and to improve the overall effectiveness and efficiency of the safeguards system.

The objectives of the nuclear verification programme are consistent with the *Medium Term Strategy 2012–2017* and aim, inter alia, at supporting the global nuclear non-proliferation regime by providing credible assurances of States' compliance with their safeguards obligations, and by detecting and reporting as early as possible cases of misuse of nuclear materials and facilities. Therefore the increased effectiveness of the Agency's detection capability of undeclared nuclear material and activities is one of the verification programme's overarching goals. In addition, the Agency is supporting the efforts of the international community with verification tasks under nuclear arms control and disarmament agreements and arrangements, as requested.

The programmatic and financial forecast provided hereunder is based on currently available information regarding States' nuclear infrastructure, nuclear material and activities. The resource impact of new, additional tasks as well as of tasks which are expected to be completed during the upcoming biennium, has been assessed and taken into account. The impact of tasks of an uncertain nature and their potential resource requirements have also been assessed to the extent possible.

Printing and translation services are integral to the delivery of substantive programme outputs, and thus the estimates for this major programme include its share of fixed costs for the printing and translation of documents published for dissemination.[1] In addition, since the Agency-wide Information System for Programme Support (AIPS) comprises a number of integrated management processes underpinning the delivery of the programme, the estimates also include the share of the funding of the AIPS Services Unit (ASU) tasked to provide ongoing operational support to AIPS systems and related business processes.

Objectives	Performance Indicators
• To deter the proliferation of nuclear weapons by detecting, as early as possible, the misuse of nuclear material or technology, and by providing credible assurances that States are honouring their safeguards obligations.	• Verification measures performed to draw timely and soundly based safeguards conclusions and provide implementation reports. • Number of States for which safeguards conclusions are drawn regarding the peaceful use of nuclear material and other items placed under safeguards. • Number of States for which safeguards conclusions are drawn regarding the absence of undeclared nuclear material and activities.
• To contribute to nuclear arms control and disarmament by responding to States' requests for verification and other technical assistance associated with related agreements and arrangements.	• Support provided for verification of weapons origin and other fissile materials, as requested by Member States and authorized by the Board.
• To continually improve and optimize operations and capabilities to effectively carry out the Agency's verification mission.	• Safeguards system fully information driven in defining the optimal State specific safeguards activities to be conducted. • Quality management system used to improve effectiveness and efficiency assessed against ISO standard 9004:2009.

[1] As indicated under para. 34 in Part I of this document.

Outcomes	Performance Indicators
• Safeguards conclusions regarding the peaceful use of all nuclear material in States.	• Percentage of States with comprehensive safeguards agreements and additional protocols in force, for which safeguards conclusions are drawn.
• Safeguards conclusions regarding the peaceful use of declared nuclear material and, where applicable, of nuclear material, facilities and other items to which safeguards are applied.	• Percentage of States with safeguards agreements in force, but without the broader conclusion, for which safeguards conclusions are drawn.
• Increased effectiveness and efficiency of the safeguards system through the implementation of strengthening measures in all States.	• Percentage of States with safeguards agreements and additional protocols in force. • Percentage of States with the broader conclusion, for which integrated safeguards are implemented. • Percentage of States yet to amend or rescind their small quantities protocols (SQPs). • Percentage of State evaluations performed using a collaborative evaluation process.
• Appropriate contributions to the verification of dismantlement of nuclear weapons programmes and international verification of nuclear disarmament, upon request.	• Technical readiness and timely and appropriate support provided for verification of weapons origin and other fissile materials, as requested by States.

4.0.0.1 Overall management and coordination

Description	Main outputs
A central focal point is required to: provide leadership and overall direction; set and coordinate policy; and exercise general management of programme planning, implementation and monitoring.	Policies and directives, reporting documents; country specific safeguards information; action and follow-up plans for implementation of management mechanisms and tools; overarching communication plan.

4.0.0.2 Quality management

Description	Main outputs
To ensure that safeguards are implemented in a non-discriminatory manner, that the conclusions drawn are soundly based, and that the effectiveness and efficiency of safeguards implementation are continually improved, a quality management system compliant with the requirements of ISO 9001:2008 is being implemented.	Trained staff and trained internal quality auditors; document control software, document templates, current and valid documents; process performance reports; audit programme, audit reports and follow-up actions; corrective action reports.

4.0.0.3 Resources management

Description	Main outputs
With the projected nuclear expansion and increasing numbers of facilities with nuclear material, securing sufficient and predictable financial resources will take on greater strategic importance. An effective and cost efficient verification system requires optimal design, planning, allocation and management of financial and human resources, as well as sound monitoring, performance analysis and reporting.	Programme and budget proposal; programme performance report; financial plan; financial mid-year review; financial end-year review; annual staffing plans; departmental succession plans; health and safety standard; statistical reports.

Programme 4.1 Safeguards Implementation

Rationale: The effective implementation of the safeguards system requires the Agency to conduct a variety of activities to verify the correctness and completeness of State declarations. The activities range from access to safeguards relevant information and locations in States, to providing appropriately prepared, calibrated, tested and well maintained equipment, including information analysis, and development and/or refinement of safeguards approaches to be implemented in specific States and at specific types of facility, to providing staff with the specialist skills and training that they require in an increasingly complex international environment for effective and efficient safeguards implementation.

This programme includes projects that enable the Agency to establish a complete and comprehensive information basis upon which safeguards conclusions can be drawn.

Objectives:

— To provide credible assurances that all nuclear material remains in peaceful activities in States with comprehensive safeguards agreements and additional protocols in force.

— To provide credible assurances that declared nuclear material remains in peaceful activities in States with comprehensive safeguards agreements in force.
— To provide credible assurances that nuclear material, facilities and other items to which safeguards are applied under agreements pursuant to INFCIRC/66/Rev.2 remain in peaceful activities.
— To provide credible assurances that nuclear material to which safeguards are applied in selected facilities pursuant to voluntary offer agreements remains in peaceful activities unless withdrawn as provided for under agreements.

Outcome	Performance Indicator
• Evaluated information on nuclear material, nuclear activities and other safeguards relevant issues for individual States at the State level.	• Number of States for which safeguards relevant information was received or collected, verified and analysed.

Follow-up on Programme-wide lessons learned from reviews, assessment, evaluations: The Programme incorporates activities identified in the Medium Term Strategy 2012–2017 and addresses recommendations from external programme evaluations of the State evaluation process and the implementation of integrated safeguards and two internal audits of safeguards equipment management. There is significant staff turnover at a time when the Agency must compete for a limited supply of professionals with nuclear expertise. Priorities therefore include knowledge management, staff planning and development. Gender mainstreaming and activities to ensure equitable geographical representation will also be integrated through training of personnel from Member States and specific recruitment policies.

Specific criteria for prioritization:

1. Projects that respond directly to the Agency's statutory and legal obligations, and to decisions of the Board of Governors. The Agency must conduct these projects and cannot defer their implementation.
2. Projects that enhance the Agency's ability to conduct mandatory activities effectively and efficiently, by providing technological, methodological, information management and research infrastructure.
3. Non-mandatory projects that are carried out at the request of Member States.

Subprogramme 4.1.1 Concepts and Planning

Objectives:
— To ensure that State evaluations, and State level and facility level safeguards approaches will provide for effective safeguards implementation.
— To ensure that processes provide for efficient safeguards implementation.
— To ensure that safeguards activities are carried out in an effective and efficient manner through the provision of appropriate and up to date training.

Outcomes	Performance Indicators
• State evaluations, State and facility specific safeguards approaches, implementation procedures, and technical measures reviewed and approved at the Departmental level.	• Evaluations completed by established milestone dates.
• New and updated processes.	• An assessment of the cost of safeguards implementation.
• Staff able to perform safeguards activities effectively and efficiently.	• Percentage of formalized safeguards training carried out, as and when required.

Programmatic changes and trends: A new subprogramme is dedicated to high priority direct operational support activities critical to ensuring that the Agency's mandatory safeguards obligations can be carried out effectively. These activities cover process design and improvement; review and implementation of required safeguards approaches and measures; and training. Activities and resources of former projects from the 2010–2011 Programme, which included both direct operational support and longer term development activities, have therefore been split into new projects and placed under the appropriate programmatic element. Former Project 4.1.2.4 *Concepts and approaches*, has been replaced by Project 4.1.1.1 *Safeguards approaches*, and Project 4.3.1.1 *Safeguards concepts*. Former Project 4.1.2.5 *Process design, analysis and improvement* has been replaced by Project 4.0.0.2 *Quality management*, and Project 4.1.1.2 *Process design*.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 15.2% (€0.6 million) in 2012 as compared with 2011 and a decrease of 5.5% (€0.2 million) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
4.1.1.1 Safeguards approaches ***Duration:*** Recurrent/***Ranking:*** 1	State evaluation report reviews; State level integrated safeguards report reviews; safeguards approach and measure reviews and advice; subsidiary arrangement and facility attachment reviews; anomaly follow-up.
4.1.1.2 Process design ***Duration:*** Recurrent/***Ranking:*** 1	Improved processes, process descriptions, procedures and guides; knowledge retention plans; organizational culture self-assessment and change plan; improved methods for assessing safeguards implementation costs, including cost by State.
4.1.1.3 Training ***Duration:*** Recurrent/***Ranking:*** 1	Training needs analysis; training curricula; evaluation procedures; approximately 50 training courses; reports and assessment of training courses; teaching materials and training tools; traineeship programme for six trainees.

Subprogramme 4.1.2 Safeguards Implementation in States under the Responsibility of the Division of Operations A

Objective: To draw independent, impartial and timely conclusions that all nuclear material has remained in peaceful activities in each State based on the Secretariat's finding that there are no indications of diversion of declared nuclear material from peaceful nuclear activities and no indications of undeclared nuclear material or activities in the State as a whole.

Outcomes	Performance Indicators
• The timely detection of the diversion of declared nuclear material from peaceful nuclear activities at the facility level, and the timely detection of undeclared nuclear material and activities at the State level.	• For States not under integrated safeguards, the percentage attainment of the quantity and timeliness component of the inspection goal as defined in the safeguards criteria. • For States under integrated safeguards, the percentage of States achieving their State specific objectives as defined in the State level safeguards approach (SLA). • Percentage of States with comprehensive safeguards agreements and additional protocols in force where the broader conclusion has been drawn or reaffirmed. • Extent to which design information was examined and verified as and when required.
• Evaluated information on nuclear material, nuclear activities and other safeguards relevant issues at the State level.	• Number of States with safeguards agreements in force for which safeguards relevant information is collected, processed, analysed and verified. • Percentage of State evaluation reports (SERs) in the annual SER review plan, prepared, reviewed and accepted as supporting the proposed safeguards conclusion.
• Verification activities performed at the State, site, facility and other locations.	• Percentage of State level safeguards approaches prepared, approved and implemented for States that require them. • The percentage of required annual implementation plans (AIPs) prepared and fully implemented.

Programmatic changes and trends A new subprogramme has been created to ensure 'AIPS compliance', reflecting a 'one project – one manager' relationship. Equivalent verification projects have been created under each Subprogramme 4.1.2, 4.1.3 and 4.1.4 to reflect the States under the responsibility of each safeguards operational area and resources have been divided among the subprogrammes accordingly. Resources between projects have been adjusted according to forecasts of the number of States with types of safeguards agreements and an additional protocol in force and the implementation of integrated safeguards. Technical activities conducted under the former Project 4.1.2.11, *Negotiation and promotion of CSAs, additional protocols, SQPs and subsidiary arrangements*, are now included under relevant verification projects.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 0.7% (€0.1 million) in 2012 as compared with 2011 and a decrease of 0.4% (€0.1 million) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
4.1.2.1 Verification in States with comprehensive safeguards agreements and additional protocols in force ***Duration:*** Recurrent/***Ranking:*** 1	State evaluation reports; statements and documentation on activities, results and conclusions of inspections and complementary access; safeguards approaches and inspection procedures; SLAs and AIPs; Design information verification (DIV) plans and completed DIVs.
4.1.2.2 Verification in States with comprehensive safeguards agreements ***Duration:*** Recurrent/***Ranking:*** 1	State evaluation reports; statements and documentation on activities, results and conclusions of inspections; safeguards approaches and inspection procedures; DIV plans and completed DIVs.
4.1.2.3 Verification in States with voluntary offer agreements: China ***Duration:*** Recurrent/***Ranking:*** 2	State evaluation reports; statements and documentation on activities, results and conclusions of inspections; safeguards approaches and inspection procedures; DIV plans and completed DIVs.

Subprogramme 4.1.3 Safeguards Implementation in States under the Responsibility of the Division of Operations B

Objective: To draw independent, impartial and timely conclusions that all nuclear material has remained in peaceful activities in each State based on the Secretariat's finding that there are no indications of diversion of declared nuclear material from peaceful nuclear activities and no indications of undeclared nuclear material or activities in the State as a whole.

Outcomes	Performance Indicators
• The timely detection of the diversion of declared nuclear material from peaceful nuclear activities at the facility level, and the timely detection of undeclared nuclear material and activities at the State level.	• For States not under integrated safeguards, the percentage attainment of the quantity and timeliness component of the inspection goal as defined in the safeguards criteria. • For States under integrated safeguards, the percentage of States achieving their State specific objectives as defined in the SLA. • Percentage of States with comprehensive safeguards agreements and additional protocols in force, where the broader conclusion has been drawn or reaffirmed. • Extent to which design information was examined and verified as and when required.
• Evaluated information on nuclear material, nuclear activities and other safeguards relevant issues at the State level.	• Number of States with safeguards agreements in force for which safeguards relevant information is collected, processed, analysed and verified. • Percentage of SERs in the annual SER review plan, prepared, reviewed and accepted as supporting the proposed safeguards conclusion.
• Verification activities performed at the State, site, facility and other locations.	• Percentage of State level safeguards approaches prepared, approved and implemented for States that require them. • Percentage of required AIPs prepared and fully implemented.

Programmatic changes and trends: A new subprogramme has been created to ensure 'AIPS compliance', reflecting a 'one project – one manager' relationship. Equivalent verification projects have been created under each Subprogramme 4.1.2, 4.1.3 and 4.1.4 to reflect the States under the responsibility of each safeguards operational area and resources have been divided among the subprogrammes accordingly. Resources between projects have been adjusted according to forecasts of the number of States with types of safeguards agreements and an additional protocol in force and the implementation of integrated safeguards. Technical activities conducted under the former Project 4.1.2.11, *Negotiation and promotion of CSAs, additional protocols, SQPs and subsidiary arrangements* are now included under relevant verification projects.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 1.2% (€0.2 million) in 2012 as compared with 2011 and an increase of 1.5% (€0.2 million) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
4.1.3.1 Verification in States with comprehensive safeguards agreements and additional protocols in force ***Duration:*** Recurrent/***Ranking:*** 1	State evaluation reports; statements and documentation on activities, results and conclusions of inspections and complementary access; safeguards approaches and inspection procedures; SLAs and AIPs; DIV plans and completed DIVs.
4.1.3.2 Verification in States with comprehensive safeguards agreements ***Duration:*** Recurrent/***Ranking:*** 1	State evaluation reports; statements and documentation on activities, results and conclusions of inspections; safeguards approaches and inspection procedures; DIV plans and completed DIVs.
4.1.3.3 Verification in States with an INFCIRC/66- type agreement ***Duration:*** Recurrent/***Ranking:*** 1	State evaluation reports; statements and documentation on activities, results and conclusions of inspections; safeguards approaches and inspection procedures; DIV plans and completed DIVs.
4.1.3.4 Verification in States with voluntary offer agreements: United States of America ***Duration:*** Recurrent/***Ranking:*** 2	State evaluation reports; statements and documentation on activities, results and conclusions of inspections and complementary access; safeguards approaches and inspection procedures; DIV plans and completed DIVs.

Subprogramme 4.1.4 Safeguards Implementation in States under the Responsibility of the Division of Operations C

Objective: To draw independent, impartial and timely conclusions that all nuclear material has remained in peaceful activities in each State based on the Secretariat's finding that there are no indications of diversion of declared nuclear material from peaceful nuclear activities and no indications of undeclared nuclear material or activities in the State as a whole.

Outcomes	Performance Indicators
• Timely detection of the diversion of declared nuclear material from peaceful nuclear activities at the facility level, and the timely detection of undeclared nuclear material and activities at the State level.	• For States not under integrated safeguards, the percentage attainment of the quantity and timeliness component of the inspection goal as defined in the safeguards criteria. • For States under integrated safeguards, the percentage of States achieving their State specific objectives as defined in the SLA. • Percentage of States with comprehensive safeguards agreements and additional protocols in force, where the broader conclusion has been drawn or reaffirmed. • Extent to which design information was examined and verified as and when required.
• Evaluated information on nuclear material, nuclear activities and other safeguards relevant issues at the State level.	• Number of States with safeguards agreements in force for which safeguards relevant information is collected, processed, analysed and verified. • Percentage of SERs in the annual SER review plan, prepared, reviewed and accepted as supporting the proposed safeguards conclusion.
• Verification activities performed at the State, site, facility and other locations.	• Percentage of State level safeguards approaches prepared, approved and implemented for States that require them. • Percentage of required AIPs prepared and fully implemented.

Programmatic changes and trends: A new subprogramme has been created to ensure 'AIPS compliance', reflecting a 'one project – one manager' relationship. Equivalent verification projects have been created under each Subprogramme 4.1.2, 4.1.3 and 4.1.4 to reflect the States under the responsibility of each safeguards operational area and resources have been divided among the subprogrammes accordingly. Resources between projects have been adjusted according to forecasts of the number of States with types of safeguards agreements and an additional protocol in force and the implementation of integrated safeguards. Technical activities conducted under the former Project 4.1.2.11, *Negotiation and promotion of CSAs, additional protocols, SQPs and subsidiary arrangements* are now included under relevant verification projects.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 5.0% (€0.8 million) in 2012 as compared with 2011 and a decrease of 0.5% (€0.1 million) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
4.1.4.1 Verification in States with comprehensive safeguards agreements and additional protocols in force ***Duration:*** Recurrent/***Ranking:*** 1	State evaluation reports; statements and documentation on activities, results and conclusions of inspections and complementary access; safeguards approaches and inspection procedures; SLAs and AIPs; DIV plans and completed DIVs.
4.1.4.2 Verification in States with comprehensive safeguards agreements ***Duration:*** Recurrent/***Ranking:*** 1	State evaluation reports; statements and documentation on activities, results and conclusions of inspections; safeguards approaches and inspection procedures; DIV plans and completed DIVs.
4.1.4.3 Verification in States with voluntary offer agreements: France, Russian Federation and United Kingdom ***Duration:*** Recurrent/***Ranking:*** 2	State evaluation reports; statements and documentation on activities, results and conclusions of inspections and complementary access; safeguards approaches and inspection procedures; DIV plans and completed DIVs.

Subprogramme 4.1.5 Information Analysis and Support

Objective: To provide the knowledge to draw credible safeguards conclusions, through collecting, evaluating, analysing, structuring, securing and disseminating the necessary information in a timely manner.

Outcomes	Performance Indicators
• Competent collection, processing, analysis and evaluation of all safeguards relevant data accessible from any origin.	• Number of weaknesses in the data collection or evaluation processes as measured by the absence of new information arising later that would challenge a safeguards conclusion.
• Structuring, processing and analysis of all available safeguards information, allowing sufficient knowledge to be gained to identify effective verification activities and draw credible safeguards conclusions.	• Extent to which all information is accessible, as required, to relevant authorized users on a 'need to know' basis; effectiveness of analytical processes and methodologies in place.
• Business process improvements supported by adaptable enterprise information architecture and continuous development of improved collaborative analysis approaches.	• Extent to which IT solutions and analytical methodologies improve analysis effectiveness and support process improvement. • No process improvement is impaired by the inability to adapt internal approaches or information and communication technology (ICT) solutions.

Programmatic changes and trends: A new subprogramme has been created to group all projects dedicated to ongoing safeguards-relevant information analysis required to draw soundly based safeguards conclusions from mandatory verification activities, as well as the necessary operational support for the ICT infrastructure required for safeguards information management. Activities in projects from the 2010–2011 Programme (4.1.2.6 *Statistical analysis* and 4.1.1.5 *Information processing*) have been combined into a new Project 4.1.5.4 *Declared and statistical information analysis*. Other projects cover direct operational support activities for ICT architecture management, operations and security (4.1.5.1 and 4.1.5.2), and information analysis (4.1.5.3).

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 24.5% (€4.8 million) in 2012 as compared with 2011 and a decrease of 1.9% (€0.5 million) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
4.1.5.1 ICT architecture management ***Duration:*** Recurrent/***Ranking:*** 1	Business processes supported by cost effective services and ICT solutions.
4.1.5.2 ICT operations and security ***Duration:*** Recurrent/***Ranking:*** 1	Reliable and secure network and communication infrastructure at Headquarters and regional offices, and for users in the field; skilled staff and adequate technology capabilities; an operational data centre.
4.1.5.3 Information analysis for State level safeguards ***Duration:*** Recurrent/***Ranking:*** 1	Analysed open source information; analysed information from commercially available satellite imagery; information on nuclear trade procurement activities; contributions to State evaluation and other safeguards relevant analysis.
4.1.5.4 Declared and statistical information analysis ***Duration:*** Recurrent/***Ranking:*** 1	Up to date State declared and related safeguards information, processed and stored in databases; official statements to States; support for verification activities and State evaluation; methodologies; training support for State systems of accounting for and control of nuclear material (SSACs).

Subprogramme 4.1.6 Provision of Safeguards Instrumentation

Objectives:

— To enable and improve the implementation of safeguards through the provision of appropriate and reliable safeguards instruments with adequate field support.
— To enable and maintain a system of asset management and operational equipment tracking compliant with International Public Sector Accounting Standards (IPSAS).
— To ensure safety in the handling of portable equipment through properly organized equipment flow, contamination checking and decontamination measures.

Outcomes	Performance Indicators
• Timely availability of appropriate and reliable safeguards instruments and adequate field support.	• Availability of reliable safeguards instruments as and when requested. • Reliability of safeguards instruments as measured by mean time between failures.
• IPSAS compliant asset management and real-time tracking of equipment.	• Auditors' findings. • Ratio of equipment with lost tracking information to overall equipment pool.
• Fewer contaminated equipment items issued for inspection use.	• Number of contaminated items issued to inspectors.

Programmatic changes and trends: A new subprogramme has been created to group projects dedicated to provision and logistical and maintenance support of safeguards instrumentation required to conduct mandatory safeguards verification activities. In order to improve manageability and transparency, and to ensure 'AIPS compliance' (reflecting a 'one project — one manager' relationship) the former project 4.1.1.7 *Provision of safeguards instrumentation* from the 2010–2011 Programme has been split into separate projects: 4.1.6.1 *Portable and resident non-destructive assay equipment*; 4.1.6.2 *Unattended safeguards instrumentation*; 4.1.6.3 *Equipment logistics and storage*; and 4.1.6.4 *Systems integration and coordination*.[2]

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 9.2% (€1.3 million) in 2012 as compared with 2011 and a slight increase in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
4.1.6.1 Portable and resident non-destructive assay equipment ***Duration:*** Recurrent/***Ranking:*** 1	Portable non-destructive assay (NDA) instruments provided to inspectors; transportable attended monitoring systems; installed unattended monitoring systems; field support; expertise; measurement results.
4.1.6.2 Unattended safeguards instrumentation ***Duration:*** Recurrent/***Ranking:*** 1	Prepared, installed and tested surveillance equipment and remote monitoring systems; seals and other containment verification systems equipment provided; verification results of seals; field support; remote monitoring data.
4.1.6.3 Equipment logistics and storage ***Duration:*** Recurrent/***Ranking:*** 1	Received and contamination checked safeguards equipment; delivered inspection items; stored equipment; IPSAS compliant equipment inventory management data and system; equipment performance and reliability data.
4.1.6.4 Systems integration and coordination ***Duration:*** Recurrent/***Ranking:*** 1	Equipment management procedures and tools; trained staff; maintained databases; equipment documentation and authorization records; plans and reports for managing resources for development and provision of instruments.

Subprogramme 4.1.7 Safeguards Analytical Services

Objective: To maintain and improve capabilities, capacity and services for destructive analysis and environmental sample analysis in order to strengthen the Agency's verification capabilities.

[2] The titles of three projects relating to the provision of safeguards instrumentation, have been modified from those listed in document GOV/2011/1 The Agency's Draft Programme and Budget 2012–2013: 4.1.6.1 *Portable and resident non-destructive assay equipment*; 4.1.6.2 *Unattended safeguards instrumentation*; and 4.1.6.4 *Systems integration and coordination*. These changes are not derived from a change in the projects' programmatic focus. Rather, they are required to ensure consistency with the organizational structure realignment for the Department of Safeguards that became effective on 1 July 2011.

Outcome	Performance Indicators
• Precise, accurate and timely analysis of nuclear material and environmental samples.	• Number and quality of nuclear material and environmental samples and subsamples analysed and reported. • Average reporting time, including shipping and handling, of analytical results for nuclear material and environmental samples from the Safeguards Analytical Laboratories (SAL) and the Network of Analytical Laboratories (NWAL).

Programmatic changes and trends: A new subprogramme has been created to group projects that provide capabilities to carry out nuclear material and environmental sample analysis required for mandatory verification activities, including logistical and other support, and to coordinate the network of analytical laboratories (NWAL).

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 0.4% (€47 000) in 2012 as compared with 2011 and a slight increase in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
4.1.7.1 Samples analysis ***Duration:*** Recurrent/***Ranking:*** 1	Nuclear material and environmental sample analytical results; transported and processed samples; stockpile of environmental sampling kits.
4.1.7.2 Analytical support ***Duration:*** Recurrent/***Ranking:*** 1	Samples analysed; completed mechanical workshop tasks; staff trained in sample taking; completed radiation protection support tasks and radiation protection officer reports; upgraded and maintained laboratory information management system (LIMS); audit and quality management reports.

Subprogramme 4.1.8 Effectiveness Evaluation

Objectives:

— To ensure an adequate level of safeguards effectiveness and efficiency through evaluation of annual safeguards implementation and follow-up on implementation problems.

— To ensure that annual reporting documents, such as the Safeguards Implementation Report (SIR) and the Safeguards Technical Report (STR), are of high quality and issued in a timely manner.

Outcomes	Performance Indicators
• High quality and timely evaluation of safeguards effectiveness at the facility and State levels.	• Extent to which safeguards effectiveness at State level and facility level is evaluated in a timely manner.
• High quality and timely issuance of the SIR and STR.	• Extent to which deadlines of the document production have been met; assessment of quality of the document by the Board of Governors.

Programmatic changes and trends: A new subprogramme has been created to identify and emphasize the role of effectiveness evaluation as a crucial, independent and overarching component of the Agency's mandatory verification activities necessary to ensure soundly based safeguards conclusions are drawn.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 6.2% (€0.1 million) in 2012 as compared with 2011 and a slight increase in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
4.1.8.1 Safeguards effectiveness evaluation ***Duration:*** Recurrent/***Ranking:*** 1	Evaluated and assessed inspections and other verification activities; SIR and STR.

Programme 4.2 Other Verification Activities

Rationale: In the past, the Agency has been tasked with special missions involving the verification of dismantled nuclear weapons programmes. To ensure that the Agency is ready to contribute to the verification of dismantlement of nuclear weapons programmes and/or nuclear arms control and disarmament when requested, including the verification of cessation of production of fissile material for use in nuclear weapons or other nuclear explosive devices and verification of material no longer required for defence purposes, the Agency will enhance its capability to contribute and respond to requests from States for verification and technical assistance in this field.

Objective: To maintain readiness to contribute to the verification of dismantlement of nuclear weapons programmes and international verification of nuclear arms control and disarmament, upon request.

Outcome	Performance Indicator
• Readiness to provide technical input for verification aspects of dismantlement of nuclear weapons programmes and/or arms control and verification of nuclear material no longer required for defence purposes.	• Verification tools and techniques and funding available.

Follow-up on Programme-wide lessons learned from reviews, assessment, evaluations: Among the strategic issues identified in the area of nuclear verification, it was found that the Agency must remain ready to assist, in accordance with its Statute, with verification tasks under nuclear disarmament or arms control agreements, that it may be requested to carry out. Hence, the Department will need to be prepared to assist the international community upon request.

Specific criteria for prioritization:

1. Projects that respond directly to the Agency's statutory and legal obligations, and to decisions of the Board of Governors. The Agency must conduct these projects and cannot defer their implementation.
2. Projects that enhance the Agency's ability to conduct mandatory activities effectively and efficiently by providing technological, methodological, information management and research infrastructure.
3. Non-mandatory projects that are carried out at the request of Member States.

Subprogramme 4.2.1 Verification Activities: Democratic People's Republic of Korea

Objectives:

— To prepare and be ready to verify the Democratic People's Republic of Korea's (DPRK) fulfilment of obligations, terms and conditions under its safeguards agreement (INFCIRC/403).
— To prepare and be ready to verify the abandonment of the DPRK nuclear programme in a complete, verifiable and irreversible manner, when requested by the Board.
— To prepare and be ready to verify the status of the DPRK nuclear programme if requested to do so in accordance with a number of potential scenarios.

Outcomes	Performance Indicators
• Maintained readiness to implement safeguards in the DPRK under INFCIRC/403.	• Plans available to verify declarations under the INFCIRC/403 agreement.
• Preparedness to verify the abandonment of the DPRK nuclear programme.	• Plans available to verify the abandonment of the DPRK nuclear programme.
• Preparedness to verify the DPRK nuclear programme in accordance with different scenarios.	• Plans available to verify the status of the DPRK nuclear programme.

Programmatic changes and trends: A new subprogramme has been created to maintain the Agency's readiness to conduct verification in the DPRK under a number of scenarios, if requested to do so, as well as to maintain continuous knowledge and an evaluation of the status of the nuclear programme in the DPRK based on all information available to the Agency.

Resource changes and trends: The proposed 2012–2013 regular budget resource requirements are based on estimates of the resources needed to implement this subprogramme.

Projects

Title, duration and ranking	Main outputs
4.2.1.1 Verification activities: Democratic People's Republic of Korea ***Duration:*** Recurrent/***Ranking:*** 2	Nuclear status report or SER for the DPRK for 2012; plan to implement safeguards under different scenarios.

Programme 4.3 Development

Rationale: Development and strategic planning activities permit the Agency to optimize the breadth and quality of information upon which safeguards conclusions can be drawn, to anticipate and prepare for future technological requirements, and to improve the overall effectiveness and efficiency of the safeguards system.

This programme includes projects addressing: the development of safeguards concepts and the hardware, software and infrastructure required for effective and efficient information processing and analysis; the evaluation of appropriate inspection strategies, supported by suitable methods and verification technologies; and the development of instrumentation and communications infrastructure. It also covers training and support to enable States to fulfil their safeguards obligations.

Objective: To optimize the Agency's capabilities to effectively carry out the safeguards verification mission.

Outcome	Performance Indicator
• Enhanced safeguards capabilities, equipment and techniques.	• Implementation in the field and at Headquarters of improved and new safeguards concepts, approaches, techniques and equipment.

Follow-up on Programme-wide lessons learned from reviews, assessment, evaluations: The Programme addresses recommendations from two external programme evaluations, in 2009, of the State evaluation process and the implementation of integrated safeguards. The Agency must have adequate technologies, methods and capabilities to meet current and future verification mandates effectively. This requires sufficient financial resources as well as long term research, development and planning. The Agency must also continue to develop the State level concept for the implementation and evaluation of safeguards by developing a safeguards system that is fully information driven.

Specific criteria for prioritization:

1. Projects that respond directly to the Agency's statutory and legal obligations, and to decisions of the Board of Governors. The Agency must conduct these projects and cannot defer their implementation.
2. Projects that enhance the Agency's ability to conduct mandatory activities effectively and efficiently; by providing technological, methodological, information management and research infrastructure.
3. Non-mandatory projects that are carried out at the request of Member States.

Subprogramme 4.3.1 Making the Safeguards System Fully Information Driven

Objectives:

— To develop new concepts and effective, efficient and non-discriminatory safeguards approaches for verification activities, particularly for further implementing the State level concept and for safeguarding new facility types; to enhance the ability to detect undeclared nuclear material and activities, and to address observed deficiencies or vulnerabilities in safeguards approaches.
— To ensure availability of and to validate the newly developed information architecture and associated business solutions created by the IAEA Safeguards Information System Re-engineering Project (IRP).
— To enhance existing, or develop new, information analysis methodologies, and to enhance information analysis and knowledge management software, capabilities and infrastructure, to support State information evaluation processes for qualitative and quantitative data.
— To develop, enhance and maintain an ICT infrastructure, including the integrated safeguards environment (ISE) hosting the re-engineered IAEA Safeguards Information System (ISIS), satisfying the need for functionality, performance and capacity.
— To further develop and enhance information security and physical security, providing Agency-wide services, and to develop business continuity and disaster recovery facilities.
— To strengthen the effectiveness and efficiency of, and enhance cooperation with, State and regional systems of accounting for and control of nuclear material (SSACs/RSACs).

Outcomes	Performance Indicators
• Advancement of the State level concept to enhance safeguards implementation and guide development of safeguards approaches, measures and technology needed for further evolving the safeguards system to become fully information driven.	• Safeguards concept development, policy and guidance development tasks completed by established milestone dates.
• Establishment of technical safeguards concepts and approaches to address safeguards for future facility types and designs. Development and promotion of the safeguards by design concept, including proliferation resistant methodologies.	• Safeguards concept and approach development tasks, including safeguards by design tasks completed by established milestone dates.
• More effective and efficient support for State information evaluation and need for all-source information analysis.	• Extent to which replacement and integration are carried out to the satisfaction of all customers, in accordance with the IRP objectives and updated master plan. • Reduction in the percentage of IT resources required to maintain the new ISE.
• More effective analysis and greater accessibility of safeguards relevant information and more efficient dissemination of knowledge to authorized users to support both field and analytical activities.	• Extent to which safeguards relevant information is processed, analysed and disseminated to authorized users in support of State evaluation and other core business.
• Adequate, secure and reliable ICT infrastructure.	• Extent to which the ICT infrastructure provides functionality, performance and capacity to meet requirements.
• Effective and efficient SSACs in all States with safeguards agreements in force.	• Percentage of States that meet their reporting obligations.

Programmatic changes and trends: A new subprogramme has been created to group critical projects for the application of the State level concept to the implementation and evaluation of safeguards. Safeguards implementation at the State level is termed 'information driven' if its planning, conduct and evaluation is based on an ongoing analysis of all safeguards-relevant information available to the Agency about a State in order to focus verification activities in the field and at Headquarters. The projects include: development of policy, concepts and guidance; a modern, secure and integrated ICT infrastructure; advanced analytical tools, and support for States to establish, maintain and develop SSACs. Former project 4.1.2.13 *IAEA Safeguards Information System (ISIS) re-engineering*, is complete and a one-year follow-on project: 4.3.1.2 *ISIS transitioning phase*, has been created for transition to the new integrated safeguards environment.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 45.1% (€4.3 million) in 2012 as compared with 2011 and an increase of 8.5% (€0.4 million) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
4.3.1.1 Safeguards concepts ***Duration:*** Recurrent/***Ranking:*** 2	Concepts for a safeguards system that is fully information driven; new and revised policies, approaches, methodologies and guidelines; strategic planning and research and development planning reviews; reports from the Standing Advisory Group on Safeguards Implementation (SAGSI) and other meetings.
4.3.1.2 IAEA Safeguards Information System (ISIS) transitioning phase ***Duration:*** One year/***Ranking:*** 2	New information platform and associated business solution to replace core safeguards software system.
4.3.1.3 Integrated analysis ***Duration:*** Recurrent/***Ranking:*** 2	Requirements and testing results for advanced analytical software products; acquired software; more comprehensive analytical reports using new tools and integrated data; analysis laboratory for improved IT analysis support.
4.3.1.4 ICT infrastructure development and security ***Duration:*** Recurrent/***Ranking:*** 2	Reliable IT security systems and infrastructure including the ISE; business continuity and disaster recovery systems in place.
4.3.1.5 Development of State systems of accounting for and control of nuclear material (SSACs) ***Duration:*** Recurrent/***Ranking:*** 2	Guidance documents with baseline requirements for effectiveness of SSACs; implemented training and workshops for SSAC personnel; IAEA SSAC Advisory Service (ISSAS) missions and other technical assistance and follow-up conducted; annual evaluation of SSAC performance.

Subprogramme 4.3.2 Development of Safeguards Instrumentation

Objectives:

— To ensure the availability of effective, up to date and cost efficient instrumentation for the verification of nuclear material and other items placed under safeguards.
— To pursue research and development in innovative approaches and the upgrading of traditional safeguard technologies, as well as the development and application of novel technologies for detection of undeclared activities.
— To ensure synergy between safeguards equipment development and nuclear security applications through provision of technical expertise and testing and evaluation services.

Outcomes	Performance Indicators
• Timely availability of state of the art NDA instruments, sealing systems, and systems for containment verification, surveillance, unattended and remote monitoring, authorized for inspection use.	• Satisfaction with authorized new and modified instruments measured by implementation requests from Operations Divisions. • Number of safeguards instrument types under evaluation and temporarily authorized for safeguards use, that have been in this status for more than two years. • Percentage of equipment development tasks completed successfully under the biennial Research and Development (R&D) Programme for Nuclear Verification.
• Identification and evaluation, including testing and specifications analysis, of technologies potentially addressing gaps in the technologies used in safeguards implementation.	• Number of novel technologies selected for evaluation and meeting end user requirements.
• Technical adequacy and quality of radiation measurement equipment installed or distributed under the nuclear safety and security programmes.	• Number of equipment installation missions, testing campaigns and training events.

Programmatic changes and trends: A new subprogramme has been created to group projects dedicated to the development, evaluation, testing and authorization for inspection use, of new and upgraded safeguards instrumentation as well as the identification of novel technologies, instruments and methods that could be applied to future safeguards applications. In order to improve manageability and transparency, and to ensure 'AIPS compliance' (reflecting a 'one project — one manager' relationship), the former project 4.1.2.1 *Development of safeguards instrumentation* from the 2010–2011 Programme has been split into separate projects covering: 4.3.2.1 *Non-destructive assay systems development* and 4.3.2.2 *Unattended safeguards instrumentation development*. The continuing project 4.3.2.3 *Novel technologies development* is also included in this subprogramme.[3]

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 39.4% (€1.7 million) in 2012 as compared with 2011 and a slight decrease in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
4.3.2.1 Non-destructive assay systems development ***Duration:*** Recurrent/***Ranking:*** 2	New and upgraded NDA instruments and methods available; vulnerability assessment report; test reports for instruments and systems; proposals for instrument development.
4.3.2.2 Unattended safeguards instrumentation development ***Duration:*** Recurrent/***Ranking:*** 2	New and upgraded remote monitoring systems, sealing and containment verification systems; corresponding procedures and documentation.
4.3.2.3 Novel technologies development ***Duration:*** Recurrent/***Ranking:*** 3	General and technical requirements for novel safeguards methods and instruments; reviews of state of the art technologies; research and development plan and task reports; equipment prototypes; evaluation and test results.

[3] The title of one project relating to the development of safeguards instrumentation has been modified from the one listed in document GOV/2011/1 The Agency's Draft Programme and Budget 2012–2013: 4.3.2.2 *Unattended safeguards instrumentation development*. This change is not derived from a change in the project's programmatic focus. Rather, it is required to ensure consistency with the organizational structure realignment for the Department of Safeguards that became effective on 1 July 2011.

Subprogramme 4.3.3 Special Projects

Objectives:

— To ensure the timely implementation of effective and efficient safeguards approaches for the large mixed oxide fuel fabrication plant at Rokkasho Mura, Japan (JMOX), the new safe confinement over the damaged Chernobyl reactor unit 4 and the new spent fuel conditioning facility at the Chernobyl site in Ukraine.
— To maintain and further develop effective and efficient analytical services for safeguards samples, to contribute to drawing independent, impartial and timely safeguards conclusions.
— To ensure readiness of the Agency to meet potential new mandates for verification of nuclear arms control and reduction agreements.
— To ensure a coordinated and effective biennial R&D Programme for Nuclear Verification supported by Member State Support Programmes (MSSPs), meeting the objectives of the Agency's long term R&D Plan.

Outcomes	Performance Indicators
• Effective and efficient safeguards approaches and verification systems available and implemented at JMOX and the Chernobyl NPP.	• Extent to which verification equipment, software and systems, and associated information are available.
• A new Nuclear Material Laboratory (NML) facilitating expanded analytical work and meeting relevant security and safety requirements.	• NML completed in accordance with the detailed conceptual design; commissioning of the facility on time and within budget. • Capacity to analyse at least 1000 nuclear material samples each year.
• Verification concepts, approaches and measures available to assist consideration of the assignment of new mandates and to perform verification under new mandates when they enter into force.	• Verification approach and measure development tasks are completed to meet established milestone dates.
• An effective and well implemented biennial R&D Programme for Nuclear Verification reflecting the long term R&D plan.	• The biennial R&D Programme for Nuclear Verification reflects those research and development objectives specified in the long term R&D plan to be undertaken within the biennium. • Implementation rate of MSSP tasks. • Percentage utilization of the results of completed tasks.

Programmatic changes and trends: A new subprogramme groups three complex, multi-year projects requiring significant capital investment. Two of these prepare the Agency to implement safeguards in facilities currently under construction, because of delays in the completion of the facilities concerned: Projects 4.3.3.1, *Development and implementation of a safeguards approach for a large mixed oxide fuel fabrication plant in Japan* and 4.3.3.2 *Development and implementation of safeguards approaches for Chernobyl NPP*. Project 4.3.3.3 *Enhancing capabilities of the safeguards analytical services* (ECAS) continues in order to complete the new Nuclear Material Laboratory. The subprogramme also contains two new projects: 4.3.3.4 *Preparation for new mandates*; and 4.3.3.5 *Member States Support Programme (MSSP) coordination*, resulting from transfer of relevant activities under the former Project 4.1.2.8 *Programme and resource management and administration of MSSPs*.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 23.3% (€0.8 million) in 2012 as compared with 2011 and an increase of 2.4% (€0.1 million) in 2013 as compared with 2012.

Projects

Title, duration and ranking	Main outputs
4.3.3.1 Development and implementation of a safeguards approach for a large mixed oxide fuel fabrication plant in Japan (JMOX) ***Duration:*** Recurrent/***Ranking:*** 1	Project plan and schedule; safeguards approach; facility attachment; design information and verification file; user requirements and acceptance test procedures; installed, calibrated and tested unattended measurement systems; trained staff.
4.3.3.2 Development and implementation of safeguards approaches for Chernobyl NPP ***Duration:*** Recurrent/***Ranking:*** 1	Safeguards approaches, equipment requirements and installed, tested equipment for verification of the new safe confinement (shelter) and transfer of irradiated fuel to dry storage; statements on results and conclusions of inspections.
4.3.3.3 Enhancing capabilities of the safeguards analytical services (ECAS) ***Duration:*** Recurrent/***Ranking:*** 1	Project management documentation; constructed and commissioned new Nuclear Material Laboratory (NML); old NML vacated and equipment and infrastructure transferred to new NML.

Title, duration and ranking	Main outputs
4.3.3.4 Preparation for new mandates ***Duration:*** Recurrent/***Ranking:*** 2	Input to non-proliferation and disarmament arrangements, including verification of weapons origin fissile material; assessments of technical verification needs; safeguards concepts, approaches and measures.
4.3.3.5 Member State Support Programme coordination ***Duration:*** Recurrent/***Ranking:*** 1	Biennial R&D Programme for Nuclear Verification; project plans and reports; biennial report on the R&D Programme; MSSP task proposals, status and completion reports; meeting documents; evaluation reports; statistical data.

Medium Term Strategy[4]

As indicated in paragraph 7, Section I, the Medium Term Strategy (MTS) for 2012–2017 constitutes the roadmap for all programme and budget proposals for 2012–2017. The following table cross-references activities reflected in the MTS with the relevant projects or functions that are included in the 2012–2013 proposals for this MP:

MTS 2012–2017 activity	Budget reference		New project
	Programme	Project	
Global challenge of non-proliferation	All		
Assistance with verification tasks under nuclear disarmament or arms control agreements, as requested	4.1, 4.2 and 4.3	4.1.3.4, 4.1.4.3, 4.2.1.1 and 4.3.3.4	4.2.1.1 and 4.3.3.4
Objective and independent verification of States' safeguards obligations	All		
Provision of credible assurances that States are fully honouring their safeguards obligations	All		
Improvement of the safeguards system to draw independent and soundly based safeguards conclusions and strengthened capability of early detection of misuse of nuclear material or technology for proscribed purposes	4.0, 4.1 and 4.3	4.0.0.2, 4.1.1.2, 4.1.8.1, 4.3.1.1, 4.3.1.2, 4.3.1.3, 4.3.1.4, 4.3.1.5 4.3.2.1, 4.3.2.2, 4.3.2.3, 4.3.3.3 and 4.3.3.5	
Conclusion of comprehensive safeguards agreements and additional protocols and associated assistance	4.0 and 4.3	4.0.0.1 and 4.3.1.5	
Encouragement of relevant States to accept the revised standardized text for SQPs	4.0	4.0.0.1	
Guidance and training on the implementation of safeguards agreements	4.1 and 4.3	4.1.1.3 and 4.3.1.5	
Development and implementation of the State level concept for planning, implementation and evaluation of safeguards activities	4.3	4.3.1.1	
Development of State level approaches for all States with comprehensive safeguards agreements	4.1 and 4.3	4.1.1.1, 4.1.2.1, 4.1.2.2, 4.1.3.1, 4.1.3.2, 4.1.4.1, 4.1.4.2, 4.1.6.1, 4.1.6.2, 4.1.6.3, 4.1.7.1, 4.1.7.2, 4.3.3.1 and 4.3.3.2	
Safeguards increasingly information driven, focused and more efficient	4.1 and 4.3	4.1.5.1, 4.1.5.2, 4.1.5.3, 4.1.5.4, 4.3.1.1, 4.3.1.2, 4.3.1.3, 4.3.1.4, and 4.3.1.5	
Diversification of sources of information and assessment of the veracity of the information.	4.1 and 4.3	4.1.5.3, 4.3.1.1, 4.3.1.2 and 4.3.1.3	
Outreach to States to increase voluntary sharing of safeguards relevant and reliable information	4.1	4.1.5.3	
Improvement of physical and information security	4.1 and 4.3	4.1.5.1, 4.1.5.2 and 4.3.1.4	

[4] MTS activities — Lessons learned and good practices, technology transfer, one-house approach, and capacity building — are common to all major programmes.

MTS 2012–2017 activity	Budget reference		New project
	Programme	Project	
Strengthening technical capabilities and identifying scientific and technological innovations promising for verification purposes	4.3	4.3.1.4, 4.3.2.1, 4.3.2.2 and 4.3.2.3	
Strengthening R&D planning and building effective partnerships with Member States	4.3	4.3.1.1 and 4.3.3.5	
Make use of better equipment and advanced information and communication technologies	4.1 and 4.3	4.1.5.1, 4.1.5.2, 4.1.6.1, 4.1.6.4, 4.3.1.4, 4.3.2.1, 4.3.2.2 and 4.3.2.3	
Strengthening the analytical capabilities of the SAL; expanding NWAL	4.1 and 4.3	4.1.7.1, 4.1.7.2 and 4.3.3.3	
Modern and secure safeguards information and communication technologies	4.1 and 4.3	4.1.5.1, 4.1.5.2 and 4.3.1.4	
Strategies to ensure safeguards workforce capability and appropriate management and preservation of knowledge	4.0, 4.1 and 4.3	4.0.0.3, 4.1.1.2, 4.1.1.3, 4.3.1.2, 4.3.1.3 and 4.3.1.4	
Ensuring States have competent State safeguards authorities and support to States in establishing SSACs/RSACs	4.3	4.3.1.5	
Guidance on the incorporation of safeguards relevant features into new facilities	4.1 and 4.3	4.1.1.1 and 4.3.1.1	
Transparent and timely reporting of safeguards conclusions and other safeguards and verification information	4.0 4.1	4.0.0.1, 4.0.0.2, 4.0.0.3, 4.1.1.2 and 4.1.8.1	
Building States' knowledge of the processes for drawing safeguards conclusions	4.0, 4.1 and 4.3	4.0.0.1, 4.0.0.2, 4.1.8.1, 4.3.1.1, 4.3.1.5 and 4.3.3.5	

Major Programme 4 – Nuclear Verification
Summary of Programme Structure and Resources
(excluding Major Capital Investments)

Table 19

	Project / Subprogramme / Programme	2012			2013 preliminary estimates		
		Regular Budget at 2012 prices	Extra-budgetary	CAURBs Unfunded	Regular Budget at 2012 prices	Extra-budgetary	CAURBs Unfunded
4.0.0.1	Overall management and coordination	2 484 902	66 800	-	2 484 902	66 800	-
4.0.0.2	Quality management	1 117 857	46 880	-	1 113 945	47 380	-
4.0.0.3	Resources management	1 260 260	66 800	-	1 341 207	66 800	-
4.0.0.4	Printing and translation indirect costs	75 300	-	-	75 300	-	-
4.0.0.5	AIPS services	34 383	-	-	39 394	-	-
		4 972 702	**180 480**	**-**	**5 054 748**	**180 980**	**-**
4.1.1.1	Safeguards approaches	1 210 444	176 400	-	1 210 444	176 400	-
4.1.1.2	Process design	920 887	119 520	-	892 934	119 520	-
4.1.1.3	Training	2 259 535	352 800	-	2 035 119	352 800	-
4.1.1.4	Printing and translation indirect costs	65 991	-	-	65 992	-	-
4.1.1.5	AIPS services	30 115	-	-	34 515	-	-
	Subprogramme 4.1.1 - Concepts and Planning	**4 486 972**	**648 720**	**-**	**4 239 004**	**648 720**	**-**
4.1.2.1	Verification in States with comprehensive safeguards agreements and additional protocols in force	18 427 420	-	-	18 332 802	-	-
4.1.2.2	Verification in States with comprehensive safeguards agreements	164 550	-	-	165 228	-	-
4.1.2.3	Verification in States with voluntary offer agreements: China	783 933	-	-	784 962	-	-
4.1.2.4	Printing and translation indirect costs	289 094	-	-	289 094	-	-
4.1.2.5	AIPS services	132 002	-	-	151 239	-	-
	Subprogramme 4.1.2 - Safeguards Implementation in States under the Responsibility of the Division of Operations A	**19 796 999**	**-**	**-**	**19 723 325**	**-**	**-**
4.1.3.1	Verification in States with comprehensive safeguards agreements and additional protocols in force	6 566 014	-	20 000	6 636 456	-	20 000
4.1.3.2	Verification in States with comprehensive safeguards agreements	7 093 514	-	-	7 111 914	-	-
4.1.3.3	Verification in States with an INFCIRC/66-type agreement	2 619 070	-	-	2 764 955	-	-
4.1.3.4	Verification in States with voluntary offer agreements: United States of America	-	384 520	-	-	384 520	-
4.1.3.5	Printing and translation indirect costs	246 167	-	-	246 166	-	-
4.1.3.6	AIPS services	112 402	-	-	128 782	-	-
	Subprogramme 4.1.3 - Safeguards Implementation in States under the Responsibility of the Division of Operations B	**16 637 167**	**384 520**	**20 000**	**16 888 273**	**384 520**	**20 000**
4.1.4.1	Verification in States with comprehensive safeguards agreements and additional protocols in force	15 180 414	-	-	15 083 415	-	-
4.1.4.2	Verification in States with comprehensive safeguards agreements	305 702	-	-	305 702	-	-
4.1.4.3	Verification in States with voluntary offer agreements: France, Russian Federation and United Kingdom	1 550 019	191 400	-	1 550 019	191 400	-
4.1.4.4	Printing and translation indirect costs	243 839	-	-	243 838	-	-
4.1.4.5	AIPS services	111 337	-	-	127 563	-	-
	Subprogramme 4.1.4 - Safeguards Implementation in States under the Responsibility of the Division of Operations C	**17 391 311**	**191 400**	**-**	**17 310 537**	**191 400**	**-**

Major Programme 4 – Nuclear Verification

Summary of Programme Structure and Resources
(excluding Major Capital Investments)

Table 19

	Project / Subprogramme / Programme	2012 Regular Budget at 2012 prices	2012 Extra-budgetary	2012 CAURBs Unfunded	2013 preliminary estimates Regular Budget at 2012 prices	2013 preliminary estimates Extra-budgetary	2013 preliminary estimates CAURBs Unfunded
4.1.5.1	ICT architecture management	4 926 631	325 800	-	4 741 506	325 800	-
4.1.5.2	ICT operations and security	8 552 958	149 400	-	8 034 157	149 400	-
4.1.5.3	Information analysis for State level safeguards	6 140 439	1 180 200	-	6 242 224	1 180 200	-
4.1.5.4	Declared and statistical information analysis	4 654 030	176 400	-	4 755 109	176 400	-
4.1.5.5	Printing and translation indirect costs	349 995	-	-	349 993	-	-
4.1.5.6	AIPS services	159 830	-	-	183 072	-	-
	Subprogramme 4.1.5 - Information Analysis and Support	**24 783 883**	**1 831 800**	**-**	**24 306 061**	**1 831 800**	**-**
4.1.6.1	Portable and resident non-destructive assay equipment	6 052 124	2 919 211	2 190 000	6 052 134	2 901 571	2 190 000
4.1.6.2	Unattended safeguards instrumentation	4 445 837	2 399 280	1 790 000	4 445 837	2 399 280	2 090 000
4.1.6.3	Equipment logistics and storage	2 654 782	-	-	2 654 782	-	-
4.1.6.4	Systems integration and coordination	2 025 233	178 596	-	2 025 233	178 596	-
4.1.6.5	Printing and translation indirect costs	258 496	-	-	258 495	-	-
4.1.6.6	AIPS services	118 042	-	-	135 245	-	-
	Subprogramme 4.1.6 - Provision of Safeguards Instrumentation	**15 554 514**	**5 497 087**	**3 980 000**	**15 571 726**	**5 479 447**	**4 280 000**
4.1.7.1	Samples analysis	8 963 993	50 100	-	8 963 945	50 100	-
4.1.7.2	Analytical support	2 764 069	449 400	-	2 764 069	449 400	-
4.1.7.3	Printing and translation indirect costs	183 002	-	-	183 003	-	-
4.1.7.4	AIPS services	83 560	-	-	95 738	-	-
	Subprogramme 4.1.7 - Safeguards Analytical Services	**11 994 624**	**499 500**	**-**	**12 006 755**	**499 500**	**-**
4.1.8.1	Safeguards effectiveness evaluation	1 900 143	-	-	1 900 355	-	-
4.1.8.2	Printing and translation indirect costs	28 629	-	-	28 630	-	-
4.1.8.3	AIPS services	13 072	-	-	14 978	-	-
	Subprogramme 4.1.8 - Effectiveness Evaluation	**1 941 844**	**-**	**-**	**1 943 963**	**-**	**-**
Programme 4.1 - Safeguards Implementation		**112 587 314**	**9 053 027**	**4 000 000**	**111 989 644**	**9 035 387**	**4 300 000**
4.2.1.1	Verification activities: Democratic People's Republic of Korea	505 694	-	-	505 694	-	-
4.2.1.2	Printing and translation indirect costs	-	-	-	-	-	-
4.2.1.3	AIPS services	82 086	-	-	82 086	-	-
	Subprogramme 4.2.1 - Verification Activities: Democratic People's Republic of Korea	**587 780**	**-**	**-**	**587 780**	**-**	**-**
Programme 4.2 - Other Verification Activities		**587 780**	**-**	**-**	**587 780**	**-**	**-**

Major Programme 4 – Nuclear Verification
Summary of Programme Structure and Resources
(excluding Major Capital Investments)

Table 19

	Project / Subprogramme / Programme	2012 Regular Budget at 2012 prices	2012 Extra-budgetary	2012 CAURBs Unfunded	2013 preliminary estimates Regular Budget at 2012 prices	2013 preliminary estimates Extra-budgetary	2013 preliminary estimates CAURBs Unfunded
4.3.1.1	Safeguards concepts	1 549 337	-	-	1 549 337	-	-
4.3.1.2	IAEA Safeguards Information System (ISIS) transitioning phase	719 627	40 000	-	486 952	-	-
4.3.1.3	Integrated analysis	1 374 119	122 700	250 000	1 522 802	122 700	200 000
4.3.1.4	ICT infrastructure development and security	977 722	188 700	-	1 512 970	750 000	-
4.3.1.5	Development of State systems of accounting for and control of nuclear material (SSACs)	567 748	871 000	200 000	570 718	712 400	-
4.3.1.6	Printing and translation indirect costs	85 044	-	-	85 044	-	-
4.3.1.7	AIPS services	38 817	-	-	44 514	-	-
	Subprogramme 4.3.1 - Making the Safeguards System Fully Information Driven	**5 312 414**	**1 222 400**	**450 000**	**5 772 337**	**1 585 100**	**200 000**
4.3.2.1	Non-destructive assay systems development	1 193 239	234 213	110 000	1 185 030	234 213	110 000
4.3.2.2	Unattended safeguards instrumentation development	1 007 137	94 820	120 000	1 007 137	94 820	120 000
4.3.2.3	Novel technologies development	380 626	237 000	-	380 626	237 000	-
4.3.2.4	Printing and translation indirect costs	33 691	-	-	33 691	-	-
4.3.2.5	AIPS services	15 383	-	-	17 625	-	-
	Subprogramme 4.3.2 - Development of Safeguards Instrumentation	**2 630 076**	**566 033**	**230 000**	**2 624 109**	**566 033**	**230 000**
4.3.3.1	Development and implementation of a safeguards approach for a large mixed oxide fuel fabrication plant in Japan (JMOX)	1 641 789	404 640	-	1 651 479	422 280	-
4.3.3.2	Development and implementation of safeguards approaches for Chernobyl NPP	194 250	-	-	251 666	-	-
4.3.3.3	Enhancing capabilities of the safeguards analytical services (ECAS)	343 108	1 161 432	-	343 108	1 161 432	-
4.3.3.4	Preparation for new mandates	-	-	-	-	-	-
4.3.3.5	Member State Support Programme coordination	461 391	149 700	-	457 851	149 700	-
4.3.3.6	Printing and translation indirect costs	34 137	-	-	34 137	-	-
4.3.3.7	AIPS services	15 588	-	-	17 859	-	-
	Subprogramme 4.3.3 - Special Projects	**2 690 263**	**1 715 772**	**-**	**2 756 100**	**1 733 412**	**-**
Programme 4.3 - Development		**10 632 753**	**3 504 205**	**680 000**	**11 152 546**	**3 884 545**	**430 000**
Major Programme 4 - Nuclear Verification		**128 780 549**	**12 737 712**	**4 680 000**	**128 784 718**	**13 100 912**	**4 730 000**

Major Programme 4 – Nuclear Verification
Core Activities Unfunded in the Regular Budget

Table 20

	Project Title and Description of Activities	2012 CAURBs Unfunded	2013 CAURBs Unfunded
4.1.3.1	Verification in States with comprehensive safeguards agreements and additional protocols in force		
4.1.3.1	*WAN services for Toronto regional office*	20 000	20 000
	Subprogramme 4.1.3 - Safeguards Implementation in States under the Responsibility of the Division of Operations B	20 000	20 000
4.1.6.1	Portable and resident non-destructive assay equipment		
4.1.6.1	*Attended and unattended NDA equipment systems for inspection use*	2 190 000	2 190 000
4.1.6.2	Unattended safeguards instrumentation		
4.1.6.2	*Surveillance systems; seals and containment verification systems*	1 790 000	2 090 000
	Subprogramme 4.1.6 - Provision of Safeguards Instrumentation	3 980 000	4 280 000
Programme 4.1 - Safeguards Implementation		**4 000 000**	**4 300 000**
4.3.1.3	Integrated analysis		
4.3.1.3/01	*Research, gather requirements, conduct usability testing and where appropriate, deploy advanced analytical software products to enhance the Department's analytical capabilities. Functional areas include enterprise search, entity extraction, link and timeline analysis, data visualization and a secure search capability*	250 000	200 000
4.3.1.5	Development of State systems of accounting for and control of nuclear material (SSACs)		
4.3.1.5/02	*Conduct international, regional and national training courses and workshops for SSAC personnel using up-to-date curricula and training materials*	200 000	-
	Subprogramme 4.3.1 - Making the Safeguards System Fully Information Driven	450 000	200 000
4.3.2.1	Non-destructive assay systems development		
4.3.2.1	*Equipment prototypes*	110 000	110 000
4.3.2.2	Unattended safeguards instrumentation development		
4.3.2.2	*Development of surveillance systems; monitoring systems; and seals and containment verification systems*	120 000	120 000
	Subprogramme 4.3.2 - Development of Safeguards Instrumentation	230 000	230 000
Programme 4.3 - Development		**680 000**	**430 000**
Major Programme 4 - Nuclear Verification		**4 680 000**	**4 730 000**

Major Programme 5
Policy, Management and Administration Services

Introduction

Under the leadership, direction and authority of the Director General, the Agency's programme seeks to achieve the goals and objectives of its Member States. This requires effective coordination to ensure a one-house approach, particularly with respect to: overall policies; interactions with Member States; strategic planning; the development and implementation of programmes; the setting of priorities; the evaluation and assessment of performance; and the management of interchange of information within the Secretariat, between the Secretariat and Member States, and for the benefit of the media and the general public. A wide range of administrative and legal services will continue to be provided to support activities in all Agency programmes. In 2012–2013, this major programme will continue to have a leadership role in respect to implementation of the International Public Sector Accounting Standards (IPSAS) and the Agency-wide Information System for Programme Support (AIPS).

Printing and translation services are integral to the delivery of substantive programme outputs and thus the estimates for this major programme include its share of fixed costs for the printing and translation of documents published for dissemination.[1] In addition, since AIPS comprises a number of integrated management processes underpinning the delivery of the programme, the estimates also include the share of the funding of the AIPS Services Unit (ASU) tasked to provide ongoing operational support to AIPS systems and related business processes.

Objectives	Performance Indicators
• To fully institute the one-house and results based approach to ensure the relevance, effectiveness and efficacy of all Agency programmes and the use of resources.	• Positive reaction by Member States, especially in the Board of Governors and General Conference.
• To improve and enhance understanding of the work of the Agency and to ensure timely access by stakeholders to relevant scientific and technical information.	• Degree of satisfaction and understanding of Agency programmes.

Outcomes	Performance Indicators
• Planning, formulation, implementation, assessment and evaluation of the Agency's programme in a fully coordinated manner.	• Absence of duplication in the Agency's programme.
• Timely and appropriate administrative and legal service provided to the scientific and technical programmes of the Agency.	• Degree of satisfaction regarding the efficiency of administrative and legal services.
• Efficient and effective information support services and communications strategies.	• Ease of access to Agency information by the Secretariat, Member States, the media and the general public.

5.0.1 Executive Leadership and Policy

Objective: To provide leadership and coordination of policy for all Agency activities at the executive level for meeting Member State needs, and achieving the one-house culture and the results based management approach.

Outcome	Performance Indicator
• Effective, efficient and transparent execution of Agency programmes and activities relevant to Member States.	• Satisfaction of Member States with the efficiency, effectiveness and transparency of the programme delivered.

Programmatic changes and trends: With the aim of improving coordination, avoiding duplication and enhancing overall efficiency, the activities of the former Subfunction 5.0.1.3, *Policy coordination and external relations*, have been merged with Subfunction 5.0.1.1, *Executive leadership*. An important aspect of this change is the introduction in the latter subfunction of a specific strategic planning position targeted to strengthen the Agency's policy and strategic planning, as recommended by Member States. Furthermore, in order to provide more consistency in the programmatic structure, the management services activities under the former Subfunction 5.0.1.4, *Planning, coordination and management services*, have been transferred from Function 5.0.1, *Executive Leadership and Policy*, to Function 5.0.3, *Oversight Services*. The coordination of the Agency's general and management operations are retained as Subfunction 5.0.1.3, which is now renamed, *General coordination and management*. The coordination and support of all the Agency's resource mobilization activities

[1] As indicated under para. 34 in Part I of this document.

is established under this subfunction, although funded by resources other than regular budget. In view of the importance of physical and information security, the position of a central security coordinator has been created in this subfunction.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 2.4% (€183 556) in 2012 as compared with 2011 and a slight decrease in 2013 as compared with 2012.

Follow–up on function specific lessons learned from reviews, assessment, evaluations: Proper planning of document preparation, adherence to document deadlines and the establishment of departmental communication officers are critical for quality and the timely submission to Member States. It is essential for the Agency to have an active and user friendly web site for the implementation of a proactive communications strategy.

Subfunctions

Title	Main outputs
5.0.1.1 Executive leadership	Direction and issuance of policy, coordination of Secretariat activities, and liaison with Member States and inter- and non-governmental organizations.
5.0.1.2 Policy-making Organs	Meetings of the Policy-making Organs; documents for meetings of the Policy-making Organs; briefing sessions for Member States on the Agency's programme.
5.0.1.3 General coordination and management	Meetings with Departmental staff; establishment/monitoring of action plans. Liaison with UN system organizations and Host Government. Coordination of programme and budget. Reviews of security and coordination with other VIC-based organizations (VBOs).

5.0.2 Legal Services

Objective: To achieve higher quality in programme implementation following timely and appropriate legal advice.

Outcome	Performance Indicator
• Highest standard of legal advice provided to the Director General, the Secretariat and the organs and bodies of the Agency, and on request to Member States.	• Appropriateness and timeliness of the legal support provided to all clients.

Programmatic changes and trends: The increase is expected to continue for general legal support and substantial work in connection with strengthened safeguards and other verification activities, for protection against nuclear terrorism and technical cooperation. This is also true for the demand from Member States for assistance in the preparation of national legislation, in particular relating to the implementation of international agreements to which they are a party. In addition, the areas of personnel and management continue to require an increasing amount of legal advice.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 8.5% (€205 626) in 2012 as compared with 2011 and a slight decrease in 2013 as compared with 2012.

Subfunctions

Title	Main outputs
5.0.2.1 General legal affairs	Legal advice and support to the Secretariat in all aspects of its operation to ensure that the Agency's activities are conducted in accordance with the Statute and other regulatory instruments in a transparent and accountable manner.
5.0.2.2 Legal services for non-proliferation and Policy-making Organs	Legal advice and support – in respect of the Agency's verification activities and safeguards agreements, and in connection with Project and Supply Agreements; in connection with the rules of procedures for meetings of the Policy-making Organs of the Agency
5.0.2.3 Legal services for nuclear and treaty law	Legal advice and support to the Secretariat under the pillars of safety and technology; response to legal questions in these areas; advice and training regarding legislative frameworks governing the safe and peaceful uses of nuclear energy in Member States.

5.0.3 Oversight Services

Objective: To achieve improved internal controls, accountability, organizational learning, management practices, compliance with regulations, rules and policies and economic, efficient and effective use of resources.

Outcome	Performance Indicator
• Recommendations emanating from audits, evaluations and reviews accepted and implemented by management within the target dates.	• Percentage of recommendations implemented from audits, evaluations and reviews.

Programmatic changes and trends: The Agency's focus on results, efficiency, effectiveness, quality, accountability and risk management, and its dependency on information technology systems in delivering its programmes, coupled with the increased emphasis on oversight functions in most organizations, as well as agencies of the United Nations system, mean that the Agency's oversight activities will continue to be strengthened. The management services activities under Subfunction 5.0.1.4 in the previous biennium have been transferred from Function 5.0.1, *Executive Leadership and Policy*, to Function 5.0.3, *Oversight Services*, as a new Subfunction 5.0.3.4, *Management services*, to provide more consistency in the programmatic structure.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 12.8% (€321 334) in 2012 and a slight decrease in 2013 as compared with 2012. The increase in 2012 is primarily attributable to an increase of programme evaluation activities including the establishment of a senior evaluation officer position and additional 4 to 5 evaluations for the biennium.

Follow-up on function specific lessons learned from reviews, assessment, evaluations: The rate of implementation of the Office of Internal Oversight Services (OIOS) recommendations is an important aspect of a manager's performance. The results of OIOS follow-up on the implementation rates are reported to the Director General on an annual basis.

Subfunctions

Title	Main outputs
5.0.3.1 Internal audit	Internal Audit reports according to annual work plans of 2012–2013.
5.0.3.2 Investigation	Investigation reports based upon concerns reported or detected.
5.0.3.3 Programme evaluation	Approximately 20 TC and regular budget evaluation reports for the biennium 2012–2013, and in addition two summary reports each to Technical Assistance and Cooperation Committee (TACC) and Programme and Budget Committee (PBC).
5.0.3.4 Management services	Management Services reports issued according to annual workplans of 2012–2013.

5.0.4 Public Information and Communications

Objective: To provide strong public support for the Agency's work and for its mandate and independence.

Outcome	Performance Indicators
• Broader awareness of the Agency's efforts to accelerate and enlarge the contribution of nuclear energy to peace, health and prosperity throughout the world, while preventing nuclear proliferation.	• Number of media calls and interviews; level of public interest in videos produced by the Agency. • Number of visits to the iaea.org web site.

Programmatic changes and trends: The Agency is widely acknowledged as the major global source of authoritative assessments concerning nuclear related issues. As more countries pursue nuclear power, public reliance on the Agency as an impartial source of information is increasing. The Agency's web site will continue to require expanded use of multimedia tools to maintain its high web profile in a fast expanding technological environment. However, the new social media (YouTube, Facebook, twitter, flickr …) have overtaken web sites as the main source of information. The Agency will need a strong social media presence if it wants to remain relevant. This will necessitate a significant realignment of public information resources. A special effort will be required to promote the Agency's work and role in developing countries. Similarly, special emphasis will be devoted to promoting the contribution of women in the fields of nuclear science and technology.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 4.4% (€142 641) in 2012 as compared with 2011 and a slight decrease in 2013 as compared with 2012.

Follow-up on function specific lessons learned from reviews, assessment, evaluations: The main lesson learned is that the general public considers that the work of the Agency is highly sensitive and that its impact is significant for the safety and security of the international community. It is thus important to provide accurate and timely information on major developments in the nuclear field. This is why the Agency has to continue to improve its outreach capacity.

Subfunctions

Title	Main outputs
5.0.4.1 Internet and print communications	Web-based public outreach on iaea.org; topical print publications, and multimedia products, including digital images and video.
5.0.4.2 Press and public outreach	Media briefings and interviews; lectures to visiting groups; audio/video packages; media advisories and press statements; press releases; daily review of the newspapers and journals (Daily Press Review).

5.0.5 Information and Communication Technology

Objective: To meet, in the most efficient and effective way, the information and communication technology (ICT) needs of Agency programmes and Member States.

Outcomes	Performance Indicators
• ICT services optimized to meet Agency programmatic requirements and those of the Member States.	• Number of Service Level Agreements (SLAs) with major customers. • Number of services that meet best practice targets of availability and resolution time.
• Major ICT investments coordinated throughout the Agency.	• Percentage of major ICT investment projects submitted to the IM/IT Committee for review and approval. • Percentage of major ICT investment projects controlled using PRINCE II, the Secretariat's project management methodology

Programmatic changes and trends: The Agency's ICT services will need to adapt not only to changes in the technology and in the requirements of Agency programmes, but also to industry trends and best practices towards centralization of the information used to plan and manage the resources of an organization in order to reduce costs and eliminate duplication. The Agency has constructed a secure and reliable technical area to serve as the Agency's computer centre. To avoid duplication of effort, it will support the IT infrastructure for the entire Agency while meeting the security standards necessary for confidential safeguards information. A final phase, which will add fire suppression capabilities, improve physical access control, and expand the available rack space to allow the centralization of all confidential safeguards information in this secure and modern data centre, is scheduled to be completed in 2012. In addition, Subfunction 5.0.5.4, *Programme management, information architecture and policy*, was created through the reallocation of resources from Subfunction 5.0.5.3, *ICT solutions*, to address the increased importance of IT project and programme management endeavours, both within MTIT and across the Agency.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 1.5% (€139 090) in 2012 as compared with 2011 and a slight decrease in 2013 as compared with 2012.

Follow-up on function specific lessons learned from reviews, assessment, evaluations: IT security continues to be a challenge, particularly due to the escalating sophistication of attacks. Expansion of the Agency hosting facility has enhanced IT security of the Agency's information resources. A business continuity plan for the Agency was addressed via a Business Continuity facility hosted at United Nations International Computing Centre (UNICC). Project Management (PRINCE2) training was widely introduced across the IT area.

Subfunctions

Title	Main outputs
5.0.5.1 ICT end user services	Supply of ICT end user services at the required level (including incident and problem solving, user registration for the network and email, etc.); maintenance of desktop and laptop standards; training in the use of standard tools.
5.0.5.2 ICT infrastructure services	Provision of secure infrastructure and networks at a high level of availability and performance, meeting the requirements and needs of Agency programmes and Member States.

Title	Main outputs
5.0.5.3 ICT solutions	Implementation of IT solutions supporting Agency programmes; maintenance of the Agency's intranet through On-line Administrative Staff Information System (OASIS), and the nuclear information resources through the *Nucleus* portal.
5.0.5.4 Programme management, information architecture and policy	Adherence to standards for project management across all subfunctions. Standardized time-tracking systems and processes in place for large projects to ensure compliance with IPSAS intangible assets policy.

5.0.6 Financial Management and Services

Objective: To ensure the continued confidence of Member States in the financial management of the Agency, and to deliver relevant services efficiently and effectively in support of all Agency programmes.

Outcome	Performance Indicator
• Sound and timely financial planning, budgeting, accurate and reliable financial reporting and efficient financial administration of the Agency. • External Auditor endorsement of the Agency's accounting practices and financial and budgetary policies.	• Timeliness and extent of use of budgetary and financial documents and reports. • Unqualified opinion on financial statements.

Programmatic changes and trends: Implementation of the International Public Sector Accounting Standards (IPSAS) and Agency-wide Information System for Programme Support (AIPS) continues to be the main focus. In order to provide Member States with a clear picture of the Agency's future investment requirements in a systematic way, a multi-year Major Capital Investments (MCI) plan was introduced in the 2010–2011 Programme and Budget. A long term capital budget plan will allow the Agency to foresee possible peaks and valleys in funding requirements and, in response, prepare appropriate funding strategies and a mechanism to finance these requirements.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 3.3% (€233 829) in 2012 as compared with 2011 and a slight decrease in 2013 as compared with 2012. The Agency's continuous efforts to rationalize resources allocation, and simplify and automate business processes will bring about efficiency gains. At the same time, management reforms that include changes in accounting standards, transition to an ERP system, and the further development of AIPS, will continue to represent a significant challenge.

Follow-up on function specific lessons learned from reviews, assessment, evaluations: There is a need to continue to improve the management of extrabudgetary resources, integrate support systems and streamline business procedures.

Subfunctions

Title	Main outputs
5.0.6.1 Budgeting, accounting, monitoring and reporting	*The Agency's Programme and Budget; The Agency's Accounts*; reports to governing bodies and donors.
5.0.6.2 Payment processing and treasury	No loss of funds entrusted to the Secretariat by the Member States; acceptable level of investment income earned. Payments for staff, vendors, contractors, trainees, etc.
5.0.6.3 Financial policy coordination and reporting support	Updated financial policies; documented standard IPSAS compliant procedures; standard and ad-hoc financial reports; follow-up reports to internal and external auditors; benchmark and information exchange on financial issues.

5.0.7 Human Resources Management

Objective: To support the Agency's programme through effective human resources (HR) management through recruitment, development and performance management of fully competent staff, while meeting geographic representation, gender balance and staff well-being requirements.

Outcome	Performance Indicators
• HR capacity optimized to deliver the Agency's programme through excellence in recruitment and development of staff, personnel administration and management of the health of staff.	• Average number of well qualified candidates per vacancy. • Staff development programme priorities in relation to programmatic needs identified by senior management. • Training programme effectiveness measured through participant evaluations and manager assessments of skills and behavioural changes. • The attractiveness of the Agency's conditions of employment compared with other UN system organizations. • Number of VIC medical services staff consultations; increased number of staff participating in health campaigns; number of ergonomics visits contributing to reduced health risks.

Programmatic changes and trends: The subfunction takes account of: increasing global demand for talented staff, particularly in the nuclear industry; decreasing competitiveness of UN salaries, especially at senior levels; funding pressures on the Agency in the context of the worldwide financial crisis; a new enterprise resource planning (ERP), with go-live risks and benefits; enhanced emphasis on quality management; demands for efficiency gains and accountability. In turn, these will significantly affect demands on HR management services. The major focus is a shift toward high value services, including organizational design and workforce planning to optimize HR capacity with restricted resources, greater demands on policy development, resolution of staff problems, use of best practices and streamlining of processes.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 2.2% (€134 667) in 2012 as compared with 2011 and a slight decrease in 2013 as compared with 2012.

Follow-up on function specific lessons learned from reviews, assessment, evaluations: HR policy development is critical to efficiency; training needs and evaluation must be improved; post reform provides flexibility for staffing plans; decision-making and accountability could be improved through delegation of authority.

Subfunctions

Title	Main outputs
5.0.7.1 HR advisory and operational services	Staffing plans; selection tools; career development reassignments; outreach agreements; training courses; performance appraisals; awards/recognition; improved working conditions.
5.0.7.2 Medical services	Medical services; advice on medical standards and on the handling of special circumstances (emergencies, serious health matters, epidemics, etc.); health campaigns; information/advice on health issues.

5.0.8 General Services

Objective: To enable the Agency to perform its function by providing an efficient and effective general administrative and support services infrastructure.

Outcome	Performance Indicators
• General and administrative support services delivered to the Agency in a cost effective, transparent and efficient manner.	• Satisfaction of clients with the quality of general support services provided. • Cost efficiencies achieved in delivering general administrative services. • Efficient and timely service delivery.

Programmatic changes and trends: Continued emphasis will be placed on the streamlining and simplification of work processes in order to achieve efficiencies and guarantee a more streamlined and controlled environment. This will apply to all areas of general administrative and support services. The planned implementation of AIPS should positively impact on travel and transport issues, property and equipment management, allowing efficiency gains and improving management information systems. The rapidly evolving travel industry will continue to be a challenge, and particular efforts will be made to maintain travel costs at an acceptable level. Incoming and outgoing official correspondence will continue to be stored in the Agency's electronic records management system. The steady increase in requests for videoconferencing services is expected to continue. Some challenging facility management projects will be conducted, such as the finalization of the asbestos removal project, the operation of the C Building, the maintenance of security installations and the construction of new laboratories in Seibersdorf. These will call for an attendant increase in resources to maintain a satisfactory level

of service. Subfunction 5.0.8.5, *Procurement services*, from the previous biennium, has been separated from Function 5.0.8, *General Services,* and established as a function of its own, Function 5.0.10, to rationalize the structure of these two functions.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 0.6% (€160 224) in 2012 as compared with 2011 and a slight decrease in 2013 as compared with 2012.

Follow-up on function specific lessons learned from reviews, assessment, evaluations: Recommendations by internal and external audits, as well as by management studies, will be implemented to: improve human resources action plans in General Services, facilitate better management and financial control of the Agency's share of costs relating to the common services, and improve customer service.

Subfunctions

Title	Main outputs
5.0.8.1 Travel and transportation services	Coordination and management of travel related issues, development of strategic travel policies; coordination of matters related to privileges/immunities, imports, tax refunds, visas; management of official vehicles, shipments, housing services, insurance and claims.
5.0.8.2 Safety and security management	Safety and security services for staff, mission staff, meeting participants and visitors.
5.0.8.3 Facilities management	Allocation of office space, storage facilities; alterations, refurbishment works; installation, maintenance of safety and security systems; technical support for meetings; coordinated facility management, dispatch and distribution, etc.
5.0.8.4 Archives and records management	Updated policies and procedures; records registration, filing, distribution, disposal; mail processing; services for information retrieval and messaging; preservation of records; digitalization of archives.

5.0.9 Conference, Languages and Publishing Services

Objective: To enable the effective exchange and dissemination of information relevant to the Agency's work and mandate between the Secretariat and Member States by organizing meetings and conferences, issuing documents in the six official languages of the Agency, and preparing and distributing publications.

Outcome	Performance Indicators
• Enhanced and efficient multilingual dialogue and communication between Agency and major stakeholders and Member States.	• Translation services: productivity as measured by number of words translated per hour worked. • Conference Services: client satisfaction (Member States and meeting organizers). • Publishing Services: number of printed pages per staff editor per year. • Nuclear Fusion journal: revenue to cover costs.

Programmatic changes and trends: The ever increasing application of IT technologies in tasks related to conference, translation and publishing services is seen as a key factor in the future. A new shared services cost allocation methodology has been adopted on a pilot basis for 2012–2013. A particular focus as of 2012–2013 will be to do more editing and quality control of texts prepared in the Secretariat that are submitted for translation in order to facilitate the translation process and to improve the quality and consistency of documentation and correspondence submitted to Member States. In addition, more outsourcing is being considered. As a result of the impending retirement of many senior staff, succession planning has become a top priority.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect a decrease of 1.4% (€71 999) in 2012 as compared with 2011 and a slight decrease in 2013 as compared with 2012.

Follow-up on function specific lessons learned from reviews, assessment, evaluations: The recommendations of various reviews have been implemented and managed in a systematic manner, employing project management tools. More attention will be devoted to risk management and quality control. In addition, more systematic and comprehensive quality control procedures will be put in place to deal with any increase in the use of outsourcing.

Subfunctions

Title	Main outputs
5.0.9.1 Conference services	Organizational support to all Agency meetings; facilities and premises provided for all Agency meetings; production of monthly meetings schedule; improved Agency-wide Meeting System; copies of meeting related documents produced.
5.0.9.2 Language services	29 000 pages of quality translation into six languages, including 22 000 pages of statutory and corporate documents.
5.0.9.3 Publication services	Scientific and technical publications; advocacy items; graphic design jobs; revenue from sales of Agency publications; items promoted and disseminated; official documents distributed; monthly Nuclear Fusion journal; journal revenue.

5.0.10 Procurement Services

Objective: To procure goods and services in order to support the achievement of the goals and objectives of the Agency.

Outcome	Performance Indicators
• To achieve best value for money for the Agency in procuring goods and services, by considering this element in every phase of the procurement process, and through fair, transparent and effective international competition.	• Best value for money achieved according to Key Performance Indicators established in procurement plans approved for Agency significant procurements (those over €150 000). • Compliance with the Financial Regulations and Rules.

Programmatic changes and trends: Innovations include: reduced transactional costs for low value procurements; reduced risk for critical procurements through considered planning and risk reduction measures by Agency-wide procurement teams; reduced staffing through direct procurement of low-value and standard items; best value for money improvements as measured by the performance indicators in significant procurement projects. This new Function 5.0.10, *Procurement services*, has been established and separated from Function 5.0.8, *General Services,* to rationalize the structure of these two functions.

Resource changes and trends: The proposed regular budget resources, at 2011 prices, reflect a decrease of 2.5% (€50 736) in 2012 as compared with 2011 and a slight decrease in 2013 as compared with 2012. The decrease is due to improved efficiencies — low-value miscellaneous purchases and standard items will be ordered directly by delegated staff and allotment managers under contracts established by procurement services.

Subfunctions

Title	Main output
5.0.10.1 Contracting services and strategic supply management	Procurement plans developed and implemented; goods and services for implementing Agency's programmatic activities procured and delivered on a timely and best-value-for-money basis.

Medium Term Strategy[2]

As indicated in paragraph 7, Section I, the Medium Term Strategy (MTS) for 2012–2017 constitutes the roadmap for all programme and budget proposals for 2012–2017. The following table cross-references activities reflected in the MTS with the relevant projects or functions that are included in the 2012–2013 proposals for this MP:

MTS 2012–2017 activity	Budget reference		New Subfunction
	Function	Subfunction	
Efficiency gains in management and focus on priority areas	All	All	
Guidance, direction and support in relation to the planning, and efficient and effective implementation of the Agency's programme	5.0.1	5.0.1.1	
Better coordination within the Secretariat with due regard to quality and risk management	5.0.1	5.0.1.1	
AIPS — establishing a common information base and management system for support functions	5.0.1	5.0.1.3	
Extension and strengthening of results based management	5.0.1	5.0.1.1	
Implementation of IPSAS	5.0.6	5.0.6.1	
More transparent reporting to Member States on the exact cost of operations and projects	5.0.6	5.0.6.1	
Business practices re-engineered in compliance with the best UN system standards	All	All	
Use of best practice tools, including a comprehensive application of quality management, and benchmarking, for identifying, quantifying and reporting on efficiency gains	5.0.1	5.0.1.1	
Advances in IT in areas such as translation, printing and outreach to the media and the public	5.0.4 and 5.0.9	All	
Continued security of the information with which the Agency is entrusted, especially in connection with safeguards and nuclear security	5.0.1	5.0.1.3	
Strategic and policy planning and policy coordination strengthened	5.0.1	5.0.1.1	
Specialized resource mobilization function[3]	5.0.1	5.0.1.3	
More targeted recruitment procedures	5.0.7	5.0.7.1	
More attractive non-monetary conditions of employment in accordance with standards set by the ICSC	5.0.7	5.0.7.1	
Enhanced policies and guidelines to sharpen lines of authority and accountability	5.0.1	5.0.1.3	
Promotion of gender equality and equitable geographical representation	5.0.7	5.0.7.1	
Member State ratification of the amendments to Articles VI and XIV. A of the Statute	5.0.1	5.0.1.1	

[2] MTS activities — Lessons learned and good practices, technology transfer, one-house approach, and capacity building — are common to all major programmes.
[3] Funded from resources other than regular budget.

Major Programme 5 – Policy, Management and Administration Services

Summary of Programme Structure and Resources
(excluding Major Capital Investments)

Table 21

	Subfunction / Function	2012			2013 preliminary estimates		
		Regular Budget at 2012 prices	Extra-budgetary	CAURBs Unfunded	Regular Budget at 2012 prices	Extra-budgetary	CAURBs Unfunded
5.0.1.1	Executive leadership	4 398 266	-	-	4 391 676	-	-
5.0.1.2	Policy-making Organs	2 154 133	-	-	2 154 131	-	-
5.0.1.3	General coordination and management	800 163	242 632	-	794 042	242 632	-
5.0.1.4	Printing and translation indirect costs	247 551	-	-	247 549	-	-
5.0.1.5	AIPS services	58 658	-	-	67 208	-	-
	Function 5.0.1 - Executive Leadership and Policy	**7 658 771**	**242 632**	**-**	**7 654 606**	**242 632**	**-**
5.0.2.1	General legal affairs	1 107 683	-	-	1 107 681	-	-
5.0.2.2	Legal services for non-proliferation and Policy-making Organs	419 543	-	-	419 541	-	-
5.0.2.3	Legal services for nuclear and treaty law	1 006 558	-	-	1 002 422	-	-
5.0.2.4	Printing and translation indirect costs	81 252	-	-	81 252	-	-
5.0.2.5	AIPS services	19 253	-	-	22 059	-	-
	Function 5.0.2 - Legal Services	**2 634 289**	**-**	**-**	**2 632 955**	**-**	**-**
5.0.3.1	Internal audit	849 343	-	-	849 341	-	-
5.0.3.2	Investigation	377 127	-	-	377 126	-	-
5.0.3.3	Programme evaluation	981 438	-	-	981 436	-	-
5.0.3.4	Management services	530 601	-	-	526 141	-	-
5.0.3.5	Printing and translation indirect costs	86 535	-	-	86 535	-	-
5.0.3.6	AIPS services	20 505	-	-	23 494	-	-
	Function 5.0.3 - Oversight Services	**2 845 549**	**-**	**-**	**2 844 073**	**-**	**-**
5.0.4.1	Internet and print communications	1 591 052	38 000	-	1 586 150	38 000	-
5.0.4.2	Press and public outreach	1 454 052	-	-	1 454 049	-	-
5.0.4.3	Printing and translation indirect costs	94 824	-	-	94 824	-	-
5.0.4.4	AIPS services	22 469	-	-	25 744	-	-
	Function 5.0.4 - Public Information and Communications	**3 162 397**	**38 000**	**-**	**3 160 767**	**38 000**	**-**
5.0.5.1	ICT end user services	2 002 615	-	-	1 989 050	-	-
5.0.5.2	ICT infrastructure services	4 101 495	-	-	4 101 491	-	-
5.0.5.3	ICT solutions	2 218 895	-	269 172	2 218 894	-	269 172
5.0.5.4	Programme management, information architecture and policy	846 970	-	-	846 968	-	-
5.0.5.5	Printing and translation indirect costs	285 370	-	-	285 370	-	-
5.0.5.6	AIPS services	67 621	-	-	77 476	-	-
	Function 5.0.5 - Information and Communication Technology	**9 522 966**	**-**	**269 172**	**9 519 249**	**-**	**269 172**

Major Programme 5 – Policy, Management and Administration Services
Summary of Programme Structure and Resources
(excluding Major Capital Investments)

Table 21

	Subfunction / Function	2012			2013 preliminary estimates		
		Regular Budget at 2012 prices	Extra-budgetary	CAURBs Unfunded	Regular Budget at 2012 prices	Extra-budgetary	CAURBs Unfunded
5.0.6.1	Budgeting, accounting, monitoring and reporting	3 335 225	80 240	-	3 324 529	80 240	-
5.0.6.2	Payment processing and treasury	2 404 440	66 232	-	2 404 440	66 232	-
5.0.6.3	Financial policy coordination and reporting support	1 045 960	-	-	1 045 894	-	-
5.0.6.4	Printing and translation indirect costs	210 710	-	-	210 710	-	-
5.0.6.5	AIPS services	49 930	-	-	57 206	-	-
	Function 5.0.6 - Financial Management and Services	**7 046 265**	**146 472**	**-**	**7 042 779**	**146 472**	**-**
5.0.7.1	HR advisory and operational services	6 165 267	100 200	-	6 155 389	100 200	75 000
5.0.7.2	Medical services	-	-	-	-	-	-
5.0.7.3	Printing and translation indirect costs	191 420	-	-	191 419	-	-
5.0.7.4	AIPS services	45 358	-	-	51 969	-	-
	Function 5.0.7 - Human Resources Management	**6 402 045**	**100 200**	**-**	**6 398 777**	**100 200**	**75 000**
5.0.8.1	Travel and transportation services	1 860 985	-	-	1 835 078	-	-
5.0.8.2	Safety and security management	6 817 102	-	-	6 817 102	-	-
5.0.8.3	Facilities management	15 628 370	-	-	15 627 448	-	-
5.0.8.4	Archives and records management	3 417 572	-	-	3 398 669	-	-
5.0.8.5	Printing and translation indirect costs	854 881	-	-	854 879	-	-
5.0.8.6	AIPS services	202 572	-	-	232 093	-	-
	Function 5.0.8 - General Services	**28 781 482**	**-**	**-**	**28 765 269**	**-**	**-**
5.0.9.1	Conference services	1 244 683	-	-	1 255 896	-	-
5.0.9.2	Language services	1 101 333	-	-	1 162 989	-	-
5.0.9.3	Publication services	2 760 419	-	-	2 677 933	-	-
5.0.9.4	Printing and translation indirect costs	158 198	-	-	158 198	-	-
5.0.9.5	AIPS services	37 487	-	-	42 950	-	-
	Function 5.0.9 - Conference, Languages and Publishing Services	**5 302 120**	**-**	**-**	**5 297 966**	**-**	**-**
5.0.10.1	Contracting services and strategic supply management	1 925 027	-	-	1 921 940	-	-
5.0.10.2	Printing and translation indirect costs	59 855	-	-	59 855	-	-
5.0.10.3	AIPS services	14 183	-	-	16 250	-	-
	Function 5.0.10 - Procurement Services	**1 999 065**	**-**	**-**	**1 998 045**	**-**	**-**
Major Programme 5 - Policy, Management and Administration Services		**75 354 949**	**527 304**	**269 172**	**75 314 486**	**527 304**	**344 172**

Major Programme 5 – Policy, Management and Administration Services
Core Activities Unfunded in the Regular Budget

Table 22

	Subfunction Title and Description of Activities	2012 CAURBs Unfunded	2013 CAURBs Unfunded
5.0.5.3	ICT solutions		
	5.0.5.3 *Develop information systems to support Agency programmes and the Member States*	269 172	269 172
	Function 5.0.5 - Information and Communication Technology	269 172	269 172
5.0.7.1	HR advisory and operational services		
	5.0.7.1 International conference on the development of the next generation of nuclear leaders	-	75 000
	Function 5.0.7 - Human Resources Management	-	75 000
Major Programme 5 - Policy, Management and Administration Services		**269 172**	**344 172**

Major Programme 6
Management of Technical Cooperation for Development

Introduction

Major Programme 6 covers the management of the technical cooperation programme (TCP), which consists of national, regional and interregional projects funded from the Technical Cooperation Fund (TCF) and extrabudgetary contributions. The programme is managed by the Department of Technical Cooperation in a manner that focuses on close coordination with the relevant technical Departments and other major programmes. This ensures that the Agency responds to Member States' needs in an integrated manner. Furthermore, this approach furthers the alignment of the Agency's regular programme and budget and the Agency's TCP.

Through MP6, the Secretariat, guided by the Agency's Medium Term Strategy (MTS) 2012–2017, works closely with Member States to formulate and implement the TCP, which addresses needs and priorities identified by Member States. This requires the Secretariat to interact and partner with a wider spectrum of organizations, including relevant organizations of the United Nations system, multilateral financial institutions, regional development bodies and other pertinent intergovernmental and non-governmental organizations.

Printing and translation services are integral to the delivery of substantive programme outputs and thus the estimates for this major programme include its share of fixed costs for the printing and translation of documents published for dissemination.[1] In addition, since AIPS comprises a number of integrated management processes underpinning the delivery of the programme, the estimates also include the share of the funding of the AIPS Services Unit (ASU) tasked to provide ongoing operational support to AIPS systems and related business processes.

Objectives	Performance Indicators
• To provide a TCP that contributes to enhanced use of nuclear technology for sustainable development and social and economic benefits in Member States.	• TCP is addressing the evolving needs of Member States in alignment with the Agency's MTS 2012–2017.

Outcomes	Performance Indicators
• Development and implementation of an effectively and efficiently coordinated TCP.	• Number of TC projects that achieve stated objectives and are completed as planned and within initial budget.
• Continuously improved quality of the TCP.	• Quality standards and processes for key phases of the TCP fully applied by internal and external stakeholders.
• Enhanced engagement of Member States in the TCP (shared responsibility), with commitment to the principles of ownership, relevance and sustainability, as well as strengthened relations with relevant selected partners.	• Percentage of Member States with national TCP that have valid Country Programme Frameworks (CPFs). • Rate of attainment against the TCF target. • Percentage of MS providing National Participation Costs in a timely manner. • Number of Member States where TC participates in the UNDAF process. • Number of partnership or contribution agreements concluded.

6.0.1 Management of the Technical Cooperation Programme

Programmatic changes and trends: The 2012–2013 TCP is designed and implemented with due consideration for the priorities, needs and capacities of Member States. The role of the Agency as a hub of nuclear knowledge and technology will be enhanced through South-South, North-South and triangular partnerships, including with relevant UN organizations and other stakeholders. This entails networking and capacity building initiatives to foster cooperation among Member States. Management initiatives such as the expansion and enhanced availability of the InTouch platform, the development of a comprehensive capacity building curriculum and the enhanced use of e-learning tools will promote best practices in project life cycles and will thus improve the quality of the TCP. Forecasted growth of IAEA membership in Africa, and in Asia and the Pacific, expansion of the TC programme in response to Member State's needs, and a stronger focus on improving the quality and impact of the programme will place significant demands on the management of the TCP. In line with the priorities defined in the MTS 2012–2017, the Secretariat will establish new and/or strengthen existing partnerships for the TCP, intensify the joint development of CPFs and enhance participation in United Nations

[1] As indicated under para. 34 in Part I of this document.

Development Assistance Framework (UNDAF) processes, and enhance the visibility of TC activities. Promoting the increased participation of women in TC activities at national and Secretariat level remains a priority.

Resource changes and trends: The proposed regular budget resource requirements, at 2011 prices, reflect an increase of 7.0% (€1 313 461) in 2012 as compared with 2011, and no change in 2013 as compared with 2012. New resources will be used mainly for staff to reinforce delivery capacity. This will help respond effectively to various General Conference resolutions, including those on strengthening the Agency's TC activities (GC(54)/RES/9), and to achieve objectives set out in the MTS 2012–2017.

Follow-up on function specific lessons learned from reviews, assessment, evaluations: Lessons learned included the importance of a deepened dialogue with key stakeholders in Member States and of clearly linking CPFs with UNDAFs, which will improve the design and implementation of the TC programme and the establishment of strategic partnerships. Training in the use of project planning and design tools will be pursued, and targeted outreach activities are planned.

Subfunctions

Title	Main outputs
6.0.1.1 Overall management and strategic guidance	Policies, statements at major meetings and events, reports to Policy-making Organs
6.0.1.2 Coordination of and support to the TC programme	Procedures and guidelines produced; IT systems and infrastructure developed, maintained and enhanced; support to mobilization of extrabudgetary resources, new partnerships identified.
6.0.1.3 Management of the TC programme for Africa	Signed/updated CPFs, project designs and work plans, completed and self-assessed projects; progress and final reports; regional agreement strategy. Programmes for 41 Member States, 23 of which are least developed countries (LDCs).
6.0.1.4 Management of the TC programme for Asia and the Pacific	Signed/updated CPFs; project designs and work plans; completed and self-assessed projects; progress and final reports; regional agreements strategy. Programmes for 32 Member States, along with the regional programme.
6.0.1.5 Management of the TC programme for Europe	Signed/updated CPFs, project designs and work plans, completed and self-assessed projects, progress and final reports, regional programme profile and strategy. Programmes for 32 Member States, along with the regional programmes.
6.0.1.6 Management of the TC programme for Latin America	Signed/updated CPFs, project designs and work plans, completed and self-assessed projects, progress and final reports, regional agreement strategy. Programmes for 22 Member States along with the regional programmes.
6.0.1.7 Procurement services	Procurement plans developed and implemented; goods and services for implementing Agency's programmatic activities procured and delivered on a timely and best-value-for-money basis.

Medium Term Strategy[2]

As indicated in paragraph 7, Section I, the Medium Term Strategy (MTS) for 2012–2017 constitutes the roadmap for all programme and budget proposals for 2012–2017. The following table cross-references activities reflected in the MTS with the relevant projects or functions that are included in the 2012–2013 proposals for this MP:

MTS 2012–2017 activity	Budget reference		New Subfunction
	Function	Subfunction	
Response to Member States needs and promotion of socio-economic impact	6.0.1.	All	
Promotion of South–South and North–South partnerships, by increasingly building upon Member States expertise and Regional Resource Centres. Promotion of regional cooperation among Member States in response to transboundary development challenge	6.0.1.	All	
Cooperation among Member States. Partnerships with the United Nations and other multilateral organizations, regional development bodies and other relevant intergovernmental and non-governmental bodies. Cooperation and the sharing of knowledge on nuclear technologies among Member States	6.0.1.	All	
Best practices in project formulation, management, monitoring and evaluation	6.0.1.	All	
Enhanced contribution of nuclear technologies to the sustainable development of Member States including LDCs	6.0.1.	All	

Major Programme 6 – Management of Technical Cooperation for Development
Summary of Programme Structure and Resources
(excluding Major Capital Investments)

Table 23

	Subfunction / Function	2012			2013 preliminary estimates		
		Regular Budget at 2012 prices	Extra-budgetary	CAURBs Unfunded	Regular Budget at 2012 prices	Extra-budgetary	CAURBs Unfunded
6.0.1.1	Overall management and strategic guidance	1 033 598	-	-	1 033 597	-	-
6.0.1.2	Coordination of and support to the TC programme	4 156 402	100 200	-	4 102 423	100 200	-
6.0.1.3	Management of the TC programme for Africa	3 753 037	-	-	3 769 801	-	-
6.0.1.4	Management of the TC programme for Asia and the Pacific	3 320 020	-	-	3 336 785	-	-
6.0.1.5	Management of the TC programme for Europe	3 147 473	66 232	-	3 164 237	66 232	-
6.0.1.6	Management of the TC programme for Latin America	2 441 138	-	-	2 457 904	-	-
6.0.1.7	Procurement services	1 762 747	-	-	1 717 156	-	-
6.0.1.8	AIPS services	217 660	-	-	249 382	-	-
6.0.1.9	Printing and translation indirect costs	557 830	-	-	557 828	-	-
	Function 6.0.1 - Management of the Technical Cooperation Programme	**20 389 905**	**166 432**	**-**	**20 389 113**	**166 432**	**-**
Major Programme 6 - Management of Technical Cooperation for Development		**20 389 905**	**166 432**	**-**	**20 389 113**	**166 432**	**-**

[2] MTS activities — Lessons learned and good practices, technology transfer, one-house approach, and capacity building — are common to all major programmes.

Annex 1. List of Acronyms

ACABQ	Advisory Committee on Administrative and Budgetary Questions (United Nations)
ADS	accelerator-driven systems
AdSec	Advisory Group on Nuclear Security (IAEA)
AFROG	African Radiation Oncology Group
AGaRT	Advisory Group on Increasing Access to Radiotherapy Technology
AIPS	Agency-wide Information System for Programme Support (IAEA)
AIPs	annual implementation plans
ALMERA	Analytical Laboratories for Measurement of Environmental Radioactivity (IAEA)
AP	additional protocol (Safeguards)
ASU	AIPS Services Unit
BMS	Buildings Management Services (UNIDO)
BMSF	Buildings Management Special Fund (UNIDO)
CA	Competent Authorities
CAURB	core activity unfunded in the Regular Budget (IAEA)
CNS	Convention on Nuclear Safety
ConvEx	Convention Exercise
CPF	Country Programme Framework (Technical cooperation)
CPI	consumer price index
CRA	coordinated research activity (IAEA)
CRP	coordinated research project
CSA	comprehensive safeguards agreement
CSC	common staff costs
CSS	Commission on Safety Standards (IAEA)
DEEP	Desalination Economic Evaluation Program (IAEA)
DIRAC	Directory of Radiotherapy Centres (IAEA)
DIV	design information verification (Safeguards)
DPRK	Democratic People's Republic of Korea
DSRS	disused sealed radioactive source
ECAS	Enhancing Capabilities of the Safeguards Analytical Services
EPR	emergency preparedness and response
EPREV	Emergency Preparedness Review (IAEA)
ERF	Equipment Replacement Fund (IAEA)
ERP	enterprise resource planning
FAO	Food and Agriculture Organization of the United Nations
FaSa	International Project on Use of Safety Assessment in Planning and Implementation of Decommissioning of Facilities using Radioactive Material (IAEA)
FINAS	Fuel Incident Notification and Analysis System (NEA/IAEA)
FTE	Full-Time Equivalent
GCR	gas cooled reactor
GEF	Global Environment Facility
G-SAN	Global Safety Assessment Network (IAEA)
GSR	General Safety Requirements (IAEA)
HEEP	Hydrogen Economic Evaluation Program (IAEA)
HEU	high enriched uranium
HLW	high level waste
HR	human resources
HTGR	high temperature gas cooled reactor
I&C	instrumentation and control
IARC	International Agency for Research on Cancer (WHO)
IBANDL	Ion Beam Analysis Nuclear Data Library (IAEA)
ICSC	International Civil Service Commission (United Nations)
ICT	information and communication technology
ICTP	International Centre for Theoretical Physics
IEC	Incident and Emergency Centre (IAEA)
IGALL	International Generic Ageing Lessons Learned

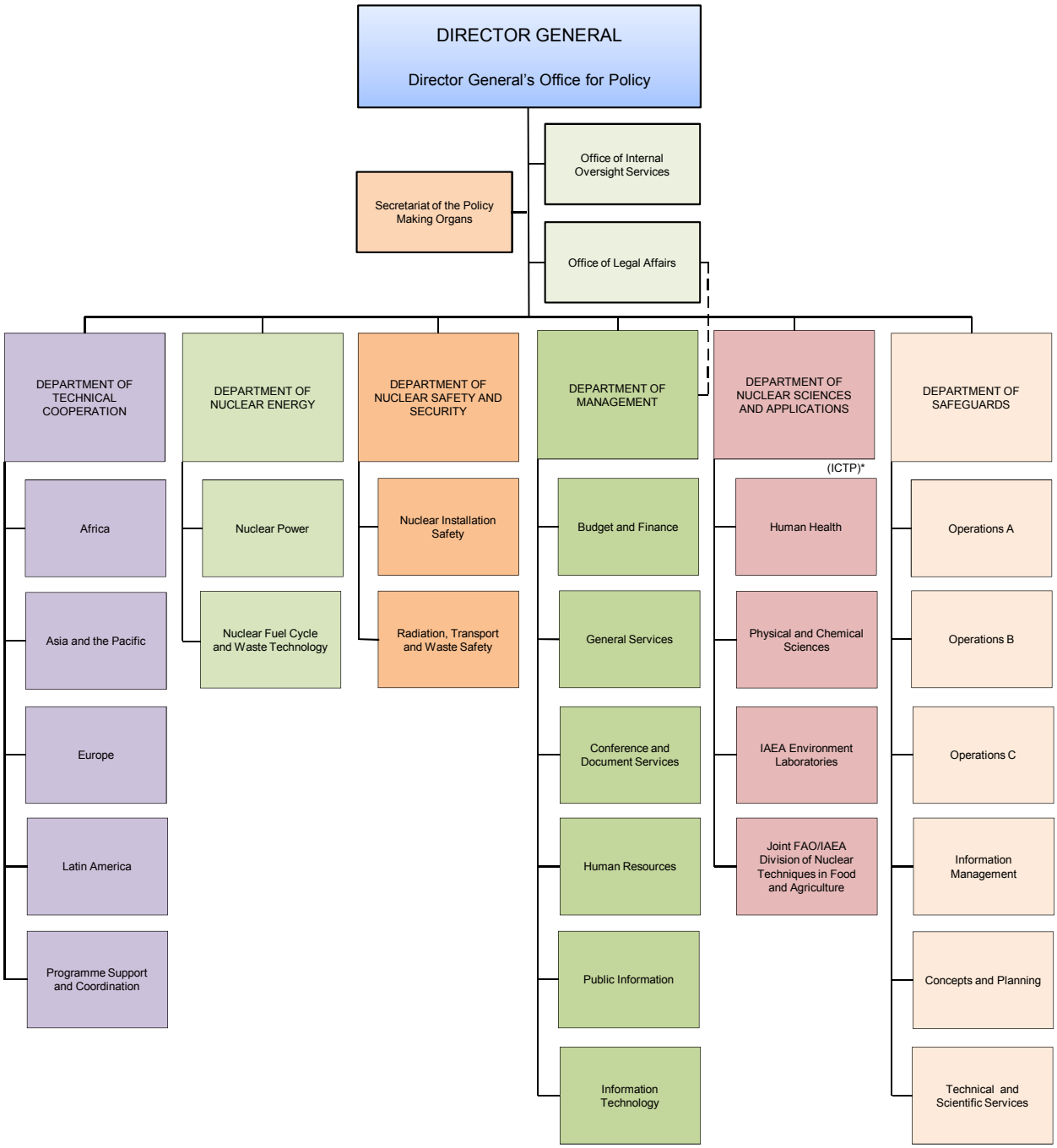
INES	International Nuclear and Radiological Event Scale (IAEA/NEA)
INIG	Integrated Nuclear Infrastructure Group
INIS	International Nuclear Information System (IAEA)
INIR	Integrated Nuclear Infrastructure Review
INPRO	International Project on Innovative Nuclear Reactors and Fuel Cycles (IAEA)
INSAG	International Nuclear Safety Group (IAEA)
IPF	Indicative Planning Figure
IPSAS	International Public Sector Accounting Standards
IRP	IAEA Safeguards Information System Re-engineering Project
IRRS	Integrated Regulatory Review Service (IAEA)
IRSRR	Incident Reporting System for Research Reactors (IAEA)
ISE	integrated safeguards environment
ISIS	IAEA Safeguards Information System
ISEMIR	Information System on Occupational Exposure in Medicine, Industry and Research (IAEA)
ISO	International Organization for Standardization
ISOE	International System on Occupational Exposure (IAEA/NEA)
ISSAS	IAEA SSAC Advisory Service
ISSC	International Seismic Safety Centre (IAEA)
IT	information technology
ITER	International Thermonuclear Experimental Reactor
JMOX	Mixed Oxide Fuel Fabrication Plant in Japan
JPLAN	Joint Radiation Emergency Management Plan of the International Organizations
JRC	Joint Research Centre (European Commission)
LDC	least developed country
LEU	low enriched uranium
LIMS	Laboratory information management system
LMI	low and middle income
LTO	long term operation
MARIS	Marine Information System (IAEA)
MCI	major capital investment
MCIF	Major Capital Investment Fund (IAEA)
MCIP	Major Capital Investment Plan
MDG	Millennium Development Goal
MP	Major Programme
MRI	magnetic resonance imaging
MSSP	Member State Support Programme (Safeguards)
MTS	Medium Term Strategy
NA	Department of Nuclear Sciences and Applications (IAEA)
NAEL	IAEA Environment Laboratories
NAFA	Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture
NAPC	Division of Physical and Chemical Sciences (IAEA)
NCCP	national cancer control programme
NDA	non-destructive assay
NDT	non-destructive testing
NE	Department of Nuclear Energy (IAEA)
NGO	non-governmental organization
NIRS	National Institute of Radiological Sciences (Japan)
NKM	nuclear knowledge management
NML	Nuclear Material Laboratory
NPP	nuclear power plant
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NSAL	Nuclear Spectrometry and Applications Laboratory
NSF	Nuclear Security Fund
NSP	Nuclear Security Plan
NWAL	Network of Analytical Laboratories (Safeguards)
OASIS	On-line Administrative Staff Information System (IAEA)
OECD	Organisation for Economic Co-operation and Development
OECD/NEA	OECD/Nuclear Energy Agency

OIE	World Organisation for Animal Health
OIOS	Office of Internal Oversight Services
ORPAS	Occupational Radiation Protection Appraisal Service (IAEA)
ORPNET	Occupational Radiation Protection Networks (IAEA)
OSART	Operational Safety Review Team (IAEA)
PACT	Programme of Action for Cancer Therapy (IAEA)
PMO	Policy-making Organs
PBC	Programme and Budget Committee (IAEA)
PET	positron emission tomography
PIGE	particle induced gamma ray emission
PLiM	plant life management
PMDS	PACT Model Demonstration Sites
PRINCE	Projects in Controlled Environment (United Kingdom)
PROSPER	Peer Review of Operational Safety Performance Experience (IAEA)
PUI	Peaceful Uses Initiative
QA	quality assurance
R&D	research and development
RANET	Response Assistance Network (IAEA)
RCM	Research Coordination Meeting (IAEA)
RegNet	International Regulatory Network
RSAC	regional system of accounting for and control of nuclear material
RSLS	International Working Forum on Regulatory Supervision of Legacy Sites (IAEA)
RT	radiotherapy
RWfO	reimbursable work for others
RW	radioactive waste
RWM	radioactive waste management
SAGNE	Standing Advisory Group on Nuclear Energy (IAEA)
SAGSI	Standing Advisory Group on Safeguards Implementation (IAEA)
SAL	Safeguards Analytical Laboratory
SALTO	Safety Aspects of Long Term Operation of Water Moderated Reactors Peer Review Service (IAEA)
SAT	Self-Assessment Tool (IAEA)
SER	State evaluation report (Safeguards)
SG	Department of Safeguards (IAEA)
SIR	Safeguards Implementation Report (IAEA)
SIT	sterile insect technique
SLA	State level safeguards approach (IAEA)
SMR	small and medium reactor
SOP	standard operating procedure
SQP	small quantities protocol
SSAC	State system of accounting for and control of nuclear material (Safeguards)
SSDL	secondary standards dosimetry laboratory
STR	Safeguards Technical Report (IAEA)
TACC	Technical Assistance and Cooperation Committee (IAEA)
TAD	transboundary animal disease
TC	technical cooperation
TCF	Technical Cooperation Fund (IAEA)
TCP	technical cooperation programme
TECDOC	technical document
TLD	thermoluminescent dosimetry
TSA	thematic safety area (IAEA)
TWG-ND	Technical Working Group on Nuclear Desalination (IAEA)
UN	United Nations
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNICC	United Nations International Computing Centre
UPSAT	Uranium Production Site Appraisal Team (IAEA)
VBOs	VIC-based organizations

VIC	Vienna International Centre
VUCC	Virtual University for Cancer Control
VUCCnet	Virtual University for Cancer Control and Regional Training Network (IAEA)
WAN	wide area network (Computing)
WANO	World Association of Nuclear Operators
WATEC	International Radioactive Waste Technical Committee (IAEA)
WCF	Working Capital Fund (IAEA)
WCR	water cooled reactor
WISER	Water Isotope System for Data Analysis, Visualization, and Electronic Retrieval (IAEA)
WMO	World Meteorological Organization
WNA	World Nuclear Association
ZRG	zero real growth
3E	energy economy environment

Annex 2. Organizational Chart

(as of July 2011)



* The Abdus Salam International Centre for Theoretical Physics (Abdus Salam ICTP), legally referred to as the "International Centre for Theoretical Physics", is operated as a joint programme by UNESCO and the Agency. Administration is carried out by UNESCO on behalf of both organizations.