

MAJOR PROGRAMME 2
NUCLEAR TECHNIQUES FOR DEVELOPMENT AND ENVIRONMENTAL PROTECTION
 Summary of Programme and Budget
 Table 10

| 2004-05 Project Codes | 2004 | | | 2005 | | | |
|-----------------------------|---|-------------------------|--------------------|------------------------------------|-------------------------|--------------------|---------------|
| | Regular Budget (2004 prices) | Extra- Budgetary a_/ | CAURBs Unfunded | Regular Budget (2004 prices) | Extra- Budgetary a_/ | CAURBs Unfunded | |
| 2. | Overall Management, Co-ordination and Common Activities | 767 000 | - | - | 767 000 | - | - |
| | | 767 000 | - | - | 767 000 | - | - |
| E.1. | Sustainable Intensification of Crop Production Systems | | | | | | |
| E.1.01 | Development of integrated plant nutrient and water management practices for increasing soil fertility and crop yields | 721 900 | - | - | 697 500 | - | - |
| E.1.02 | Development of soil management and conservation practices for sustainable crop production and environmental protection | 1 122 400 | - | - | 1 113 900 | - | - |
| E.1.03 | Induced biodiversity for breeding crops with increased adaptability to drought, salinity and other constraints | 1 124 400 | - | - | 1 183 700 | - | - |
| E.1.04 | Identification, characterization and transfer of mutated genes | 1 374 800 | - | - | 1 236 500 | - | - |
| E.1.05 | Identification and development of crop germplasm with superior resource use efficiency and nutritional value and adapted to harsh environments | 1 315 600 | - | - | 1 314 200 | - | - |
| E.1.06 | Improved procedures and capacities for risk assessment and management of major trade related insect pests of crops through the integration of sterile insect technique in control and eradication programmes | 2 285 400 | - | - | 2 145 400 | - | - |
| | Subtotal E.1. | 7 944 500 | - | - | 7 691 200 | - | - |
| E.2. | Sustainable Intensification of Livestock Production Systems | | | | | | |
| E.2.01 | Technologies for integrated management of natural resources in small scale dairy production systems | 417 200 | - | - | 431 300 | - | - |
| E.2.02 | Technologies for reducing risk from transboundary livestock diseases and those of veterinary public health importance | 1 497 600 | 478 000 | - | 1 450 200 | 455 000 | - |
| E.2.03 | Use of molecular techniques for improving productivity in small holder livestock systems | 757 300 | - | - | 902 100 | - | - |
| E.2.04 | Enhanced risk assessment and management procedures for tsetse and screwworm flies through integration of the sterile insect technique in intervention campaigns | 1 620 200 | - | - | 1 798 200 | - | - |
| | Subtotal E.2. | 4 292 300 | 478 000 | - | 4 581 800 | 455 000 | - |
| E.3. | Risk Analysis Methodologies and Capacity Building for Compliance with Food Safety Standards | | | | | | |
| E.3.01 | International standards and guidelines on irradiation as a sanitary and phytosanitary treatment for food and agricultural commodities | 522 100 | 21 000 | 23 000 | 407 300 | - | 45 000 |
| E.3.02 | Analytical methods and strengthened capacities for risk analysis related to food safety and pesticide management | 1 911 500 | 425 000 | 30 000 | 1 990 100 | 380 000 | 30 000 |
| | Subtotal E.3. | 2 433 600 | 446 000 | 53 000 | 2 397 400 | 380 000 | 75 000 |
| | Total | 14 670 400 | 924 000 | 53 000 | 14 670 400 | 835 000 | 75 000 |
| | Less: FAO Budget Amount | 2 834 000 | (2 834 000) | - | 2 834 000 | (2 834 000) | - |
| | Programme E - Food and Agriculture | 11 836 400 | 3 758 000 | 53 000 | 11 836 400 | 3 669 000 | 75 000 |

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| | | Regular Budget (2004 prices) | Extra- Budgetary a_/ | CAURBs Unfunded | Regular Budget (2004 prices) | Extra- Budgetary a_/ | CAURBs Unfunded |
| F.1. | Nuclear Medicine | | | | | | |
| F.1.01 | Applying in vivo diagnostic nuclear medicine procedures in the management of childhood diseases, cancer, coronary artery disease and degenerative disorders | 521 000 | - | - | 455 800 | - | - |
| F.1.02 | Radiopharmacology and therapeutic applications of unsealed radioactive sources in the management of thyroid cancer, liver cancer, joint diseases, and coronary artery disease | 536 600 | - | - | 495 700 | - | - |
| F.1.03 | Molecular nuclear medicine and immunodiagnostics in the diagnosis and management of infectious, neoplastic, metabolic, genetic and degenerative diseases | 503 100 | - | - | 550 400 | - | - |
| F.1.04 | Quality assurance in clinical nuclear medicine | 204 800 | - | - | 318 600 | - | - |
| F.1.05 | Development of the sterile insect technique (SIT) for the control of malaria transmitting mosquitoes | 490 600 | - | - | 508 200 | - | - |
| F.1.06 | Applying diagnostic radiology procedures in the management of cardiovascular, oncological and neurological disorders | - | 40 000 | 203 000 | - | 40 000 | 309 000 |
| | Subtotal F.1. | 2 256 100 | 40 000 | 203 000 | 2 328 700 | 40 000 | 309 000 |
| F.2. | Applied Radiation Biology and Radiotherapy | | | | | | |
| F.2.01 | Modification of radiation therapy using radiobiological knowledge | 266 200 | - | - | 285 600 | - | - |
| F.2.02 | Human cell and tissue response to radiation | 237 200 | - | - | 204 600 | - | - |
| F.2.03 | Adaptation of radiation therapy protocols to local conditions | 285 200 | - | 65 000 | 301 700 | - | 85 000 |
| F.2.04 | Improvement of radiotherapy in Member States through training and education | 351 000 | - | 24 000 | 348 400 | - | 24 000 |
| | Subtotal F.2. | 1 139 600 | - | 89 000 | 1 140 300 | - | 109 000 |
| F.3. | Dosimetry and Medical Radiation Physics | | | | | | |
| F.3.01 | Network of Secondary Standards Dosimetry Laboratories | 843 900 | - | - | 1 579 500 | 500 000 | - |
| F.3.02 | Quality assurance and dose audits | 480 000 | - | 35 000 | 477 800 | - | 35 000 |
| F.3.03 | Development of radiation dosimetry techniques | 322 500 | - | - | 352 200 | - | - |
| F.3.04 | Developments in medical radiation physics quality assurance | 450 500 | - | - | 436 700 | - | - |
| | Subtotal F.3. | 2 096 900 | - | 35 000 | 2 846 200 | 500 000 | 35 000 |
| F.4. | Nutrition and Effects of Contaminants on Human Health | | | | | | |
| F.4.01 | Applied human nutrition assessment and research using nuclear and isotopic techniques | 896 600 | - | - | 891 900 | - | - |
| F.4.02 | Facilitating studies of contaminants affecting human health by nuclear and related analytical techniques | 689 800 | - | - | 695 800 | - | - |
| | Subtotal F.4. | 1 586 400 | - | - | 1 587 700 | - | - |
| | Programme F - Human Health | 7 079 000 | 40 000 | 327 000 | 7 902 900 | 540 000 | 453 000 |

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| G.1. | Isotope Methodologies for the Protection and Management of Surface Water, Groundwater and Geothermal Resources | | | | | |
| G.1.01 | 521 400 | - | - | - | - | - |
| G.1.02 | 126 800 | - | - | 126 800 | - | - |
| G.1.03 | 80 000 | - | - | 85 200 | - | - |
| G.1.04 | 293 900 | - | - | 270 200 | - | - |
| G.1.05 | 524 700 | - | - | 1 008 400 | - | - |
| | Subtotal G.1. | 1 546 800 | - | - | 1 490 600 | - |
| G.2. | Reference Isotope Data and Analysis for Hydrological Applications | | | | | |
| G.2.01 | 492 800 | - | - | 508 600 | - | - |
| G.2.02 | 714 800 | - | - | 709 300 | - | - |
| G.2.03 | 197 500 | - | 65 000 | 229 700 | - | 90 000 |
| G.2.04 | 284 100 | - | - | 276 300 | - | - |
| | Subtotal G.2. | 1 689 200 | - | 65 000 | 1 723 900 | 90 000 |
| | Programme G - Water Resources | 3 236 000 | - | 65 000 | 3 214 500 | 90 000 |

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| H.1. | Measurement and Assessment of Radionuclides in the Marine Environment | | | | | | |
| H.1.01 | Worldwide marine radioactivity studies in oceans and seas | 422 100 | 50 000 | - | 422 100 | 50 000 | - |
| H.1.02 | Contamination studies in selected coastal zones (in co-operation with UNESCO) | 387 000 | - | - | 387 000 | - | - |
| H.1.03 | Climate change studies using isotopic records in the marine environment (in collaboration with ICTP, Trieste) | 299 900 | - | - | 299 900 | - | - |
| H.1.04 | Analytical Quality Control Services for marine radioactivity studies | 319 500 | - | - | 319 700 | - | - |
| H.1.05 | Development of methods for analysis of low level radionuclide concentrations in the environment in response to emergencies | 334 200 | - | - | 334 000 | - | - |
| | Subtotal H.1. | 1 762 700 | 50 000 | - | 1 762 700 | 50 000 | - |
| H.2. | Radioecological Approaches to Coastal Contaminant Problems | | | | | | |
| H.2.01 | Behaviour and transfer processes of radionuclides and analogues | 298 800 | 20 000 | - | 298 800 | 20 000 | - |
| H.2.02 | Nuclear and isotopic applications to delineate carbon flux processes | 279 500 | - | - | 279 500 | - | - |
| H.2.03 | Radiotracer techniques to study ecotoxicological processes and impacts in coastal zones | 296 300 | 25 000 | - | 296 300 | 25 000 | - |
| H.2.04 | Bioaccumulation and transfer of natural radionuclides arising from hydrothermal and anthropogenic sources in coastal environments | 263 800 | 5 000 | - | 263 800 | 5 000 | - |
| | Subtotal H.2. | 1 138 400 | 50 000 | - | 1 138 400 | 50 000 | - |
| H.3. | Monitoring and Study of Non-Radioactive Marine Pollution | | | | | | |
| H.3.01 | Environmental analytical chemistry in support of marine pollution monitoring programmes | 72 600 | 268 000 | - | 72 600 | 268 000 | - |
| H.3.02 | Marine pollution assessment in coastal regions and bioresources, including support to relevant UN inter-agency activities | 106 300 | 370 000 | - | 106 300 | 370 000 | - |
| H.3.03 | Nuclear techniques in studies of marine antifoulants in coastal environments | 64 900 | 110 000 | - | 64 900 | 110 000 | - |
| H.3.04 | Isotopic applications in non-radioactive marine contaminant studies | 174 600 | 74 000 | - | 174 600 | 74 000 | - |
| | Subtotal H.3. | 418 400 | 822 000 | - | 418 400 | 822 000 | - |

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| H.4. | Measurement and Assessment of Radionuclides and Non-Radioactive Pollutants in the Terrestrial Environment | | | | | | |
| H.4.01 | Agency network of laboratories for measuring radionuclides in the environment (ALMERA) | 113 200 | - | 25 000 | 113 200 | - | 25 000 |
| H.4.02 | Behaviour of radionuclides in terrestrial and freshwater environments | 99 800 | - | - | 99 800 | - | - |
| H.4.03 | Radiological assessment techniques for contaminated areas | 211 100 | - | 80 000 | 211 100 | - | 62 000 |
| H.4.04 | Remediation strategies for sustainable development of contaminated areas | 40 700 | - | 45 000 | 40 700 | - | 60 000 |
| H.4.05 | Application of nuclear analytical techniques to non-radioactive contaminants for ecotoxicological studies | 79 300 | - | 10 000 | 79 300 | - | 24 000 |
| | Subtotal H.4. | 544 100 | - | 160 000 | 544 100 | - | 171 000 |
| | Programme H - Protection of the Marine and Terrestrial Environment | 3 863 600 | 922 000 | 160 000 | 3 863 600 | 922 000 | 171 000 |
| I.1. | Radiochemical Applications | | | | | | |
| I.1.01 | Supporting the development of radioisotope sources and generators | 288 500 | - | - | 305 100 | - | - |
| I.1.02 | Nuclear analytical techniques and training in radiochemistry | 309 700 | - | - | 292 200 | - | 30 000 |
| I.1.03 | Development, production and QA of radiopharmaceuticals | 275 500 | - | - | 286 100 | - | - |
| I.1.04 | Analytical Quality Control Services (AQCS) | 895 900 | - | - | 895 900 | - | - |
| | Subtotal I.1. | 1 769 600 | - | - | 1 779 300 | - | 30 000 |
| I.2. | Industrial Applications and Nuclear Techniques for Demining | | | | | | |
| I.2.01 | Radioisotope technology for natural resource exploration and exploitation | 234 400 | - | - | 284 500 | - | - |
| I.2.02 | Radiation processing for superior grade polymers and treatment of gaseous effluents/waste water from industry | 356 000 | - | - | 321 600 | - | 44 000 |
| I.2.03 | Development of procedures and standard protocols for industrial radiography | 201 400 | - | - | 180 800 | - | - |
| I.2.04 | Nuclear methods for landmine identification | 171 600 | - | - | 87 400 | - | - |
| | Subtotal I.2. | 963 400 | - | - | 874 300 | - | 44 000 |
| | Programme I - Physical and Chemical Applications | 2 733 000 | - | - | 2 653 600 | - | 74 000 |
| | Major Programme 2 | 29 515 000 | 4 720 000 | 605 000 | 30 238 000 | 5 131 000 | 863 000 |

a_/ Includes CAURB's extrabudgetary and funds from other UN organizations (where applicable) - see Tables 3A and 3B for details.