

Annual Report 2003

Article VI.J of the IAEA's Statute requires the Board of Governors to submit "an annual report to the General Conference concerning the affairs of the Agency and any projects approved by the Agency".

This report covers the period 1 January to 31 December 2003.



IAEA

International Atomic Energy Agency

GC(48)/3

Member States of the International Atomic Energy Agency

(designation as of 31 December 2003)

AFGHANISTAN	GREECE	PANAMA
ALBANIA	GUATEMALA	PARAGUAY
ALGERIA	HAITI	PERU
ANGOLA	HOLY SEE	PHILIPPINES
ARGENTINA	HONDURAS	POLAND
ARMENIA	HUNGARY	PORTUGAL
AUSTRALIA	ICELAND	QATAR
AUSTRIA	INDIA	REPUBLIC OF MOLDOVA
AZERBAIJAN	INDONESIA	ROMANIA
BANGLADESH	IRAN, ISLAMIC REPUBLIC OF	RUSSIAN FEDERATION
BELARUS	IRAQ	SAUDI ARABIA
BELGIUM	IRELAND	SENEGAL
BENIN	ISRAEL	SERBIA AND MONTENEGRO
BOLIVIA	ITALY	SEYCHELLES
BOSNIA AND HERZEGOVINA	JAMAICA	SIERRA LEONE
BOTSWANA	JAPAN	SINGAPORE
BRAZIL	JORDAN	SLOVAKIA
BULGARIA	KAZAKHSTAN	SLOVENIA
BURKINA FASO	KENYA	SOUTH AFRICA
CAMEROON	KOREA, REPUBLIC OF	SPAIN
CANADA	KUWAIT	SRI LANKA
CENTRAL AFRICAN REPUBLIC	KYRGYZSTAN	SUDAN
CHILE	LATVIA	SWEDEN
CHINA	LEBANON	SWITZERLAND
COLOMBIA	LIBERIA	SYRIAN ARAB REPUBLIC
COSTA RICA	LIBYAN ARAB JAMAHIRIYA	TAJIKISTAN
CÔTE D'IVOIRE	LIECHTENSTEIN	THAILAND
CROATIA	LITHUANIA	THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA
CUBA	LUXEMBOURG	TUNISIA
CYPRUS	MADAGASCAR	TURKEY
CZECH REPUBLIC	MALAYSIA	UGANDA
DEMOCRATIC REPUBLIC OF THE CONGO	MALI	UKRAINE
DENMARK	MALTA	UNITED ARAB EMIRATES
DOMINICAN REPUBLIC	MARSHALL ISLANDS	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND
ECUADOR	MAURITIUS	UNITED REPUBLIC OF TANZANIA
EGYPT	MEXICO	UNITED STATES OF AMERICA
EL SALVADOR	MONACO	URUGUAY
ERITREA	MONGOLIA	UZBEKISTAN
ESTONIA	MOROCCO	VENEZUELA
ETHIOPIA	MYANMAR	VIETNAM
FINLAND	NAMIBIA	YEMEN
FRANCE	NETHERLANDS	ZAMBIA
GABON	NEW ZEALAND	ZIMBABWE
GEORGIA	NICARAGUA	
GERMANY	NIGER	
GHANA	NIGERIA	
	NORWAY	
	PAKISTAN	

The Agency's Statute was approved on 23 October 1956 by the Conference on the Statute of the IAEA held at United Nations Headquarters, New York; it entered into force on 29 July 1957. The Headquarters of the Agency are situated in Vienna. Its principal objective is "to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world".

The Board of Governors

The Board of Governors oversees the ongoing operations of the Agency. It comprises 35 Member States and generally meets five times a year, or more frequently if required for specific situations. Among its functions, the Board adopts the Agency's programme for the incoming biennium and makes recommendations on the Agency's budget to the General Conference.

In 2003, the Board considered the *Nuclear Technology Review 2003* and various activities related to nuclear science, technology and applications. In the area of safety and security, it considered the *Nuclear Safety Review for the Year 2002* and related activities. It also approved action plans for the safety and security of radioactive sources and for occupational radiation protection, as well as a revised Code of Conduct on the safety and security of radioactive sources. It also established as an Agency safety standard a Safety Requirements publication on *Site Evaluation*

for Nuclear Installations. As regards verification, the Board considered the *Safeguards Implementation Report for 2002*. It approved a number of safeguards agreements and additional protocols. The Board reported to the Security Council and General Assembly of the United Nations on the non-compliance of the Democratic People's Republic of Korea with its safeguards agreement. The Board passed two resolutions with regard to the implementation of the NPT safeguards agreement in the Islamic Republic of Iran. As a result of the intensive consultations conducted within the framework of its Informal Open-ended Working Group on the Programme and Budget for 2004–2005, the Board approved a package proposal and it recommended to the General Conference a revised level of the Agency's regular budget, representing an increase above zero real growth. The Board also agreed to the introduction of a euro based financial system for the Agency.

Composition of the Board of Governors (2003–2004)

Chairman: H.E. Mr. Antonio NÚÑEZ GARCÍA-SAÚCO
Ambassador, Governor from Spain

Vice-Chairman: H.E. Mr. Javier Manuel PAULINICH VELARDE
Ambassador, Governor from Peru

Vice-Chairman: Ms Dana DRÁBOVÁ
President, State Office for Nuclear Safety
Governor from the Czech Republic

Argentina
Australia
Belgium
Brazil
Canada
China
Cuba
Czech Republic
Denmark
Egypt
France
Germany
Hungary
India
Italy
Japan
Korea, Republic of
Malaysia

Mexico
Netherlands
New Zealand
Nigeria
Pakistan
Panama
Peru
Poland
Russian Federation
Saudi Arabia
South Africa
Spain
Sudan
Tunisia
United Kingdom of
Great Britain and Northern Ireland
United States of America
Vietnam

The General Conference

The General Conference comprises all Member States of the Agency and meets once a year. It considers the annual report of the Board of Governors on the Agency's activities during the previous year; approves the Agency's accounts and the budget;

approves any applications for membership; and elects members to the Board of Governors. It also conducts a wide ranging general debate on the Agency's policies and programmes and passes resolutions directing the priorities of the Agency's work.

The IAEA at a Glance

(as of 31 December 2003)

- 137** Member States.
- 65** intergovernmental and non-governmental organizations worldwide having formal agreements with the Agency.
- 46** years of international service by 2003.
- 2247** professional and support staff.
- \$249 million** total regular budget for 2003, supplemented by extrabudgetary contributions received in 2003 amounting to **\$51 million**.
- \$74.75 million** target in 2003 for voluntary contributions to the Agency's Technical Cooperation Fund, supporting projects involving **3121** expert and lecturer assignments, **2848** meeting and workshop participants, **2107** participants in training courses and **1411** fellows and visiting scientists.
- 2** liaison offices (in New York and Geneva) and **2** safeguards regional offices (in Tokyo and Toronto).
- 2** international laboratories and research centres.
- 120** approved Coordinated Research Projects involving **1598** active research contracts and agreements.
- 232** safeguards agreements in force in **148** States (and with Taiwan, China) involving **2363** safeguards inspections performed in 2003. Safeguards costs in 2003 amounted to **\$89.1 million** in regular budget and **\$15.1 million** in extrabudgetary resources.
- 18** national safeguards support programmes and **1** multinational support programme (European Union).
- 5.5 million** monthly visits to the Agency's *WorldAtom* web site.
- 2.4 million** records in the International Nuclear Information System (INIS), the Agency's largest database.
- 160** publications issued (in print and electronic formats) in 2003.

Notes

- The *Annual Report* reviews the results of the Agency's programme according to the three "pillars" of **technology, safety** and **verification**. The main part of the report, starting on page 9, generally follows the programme structure as it applied in 2003. The introductory chapter, "The Year in Review", seeks to provide a thematic analysis, based on the three pillars, of the Agency's activities within the overall context of notable developments during the year. Additional information on specific issues can be found in the latest editions of the Agency's *Nuclear Safety Review*, *Nuclear Technology Review* and *Technical Co-operation Report*.
- Additional information covering various aspects of the Agency's programme is provided on the attached CD-ROM. This material is also available on the Agency's *WorldAtom* web site (<http://www.iaea.org/Worldatom/Documents/Anrep/Anrep2003/>).
- All sums of money are expressed in United States dollars.
- The designations employed and the presentation of material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of its frontiers.
- The mention of names of specific companies or products (whether or not indicated as registered) does not imply any intention to infringe proprietary rights, nor should it be construed as an endorsement or recommendation on the part of the Agency.
- The term "non-nuclear-weapon State" is used as in the Final Document of the 1968 Conference of Non-Nuclear-Weapon States (United Nations document A/7277) and in the NPT.

Abbreviations

ABACC	Brazilian–Argentine Agency for Accounting and Control of Nuclear Materials
ADB	Asian Development Bank
AFRA	African Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology
ARCAL	Regional Co-operative Arrangements for the Promotion of Nuclear Science and Technology in Latin America
BWR	Boiling water reactor
CRP	Coordinated Research Project
CTBTO	Comprehensive Nuclear-Test-Ban Treaty Organization
ESTRO	European Society of Therapeutic Radiology and Oncology
Euratom	European Atomic Energy Community
FAO	Food and Agriculture Organization of the United Nations
FORATOM	Forum Atomique Européen
HWR	Heavy water reactor
IAEA-MEL	IAEA Marine Environment Laboratory
ICAO	International Civil Aviation Organization
IEA	OECD International Energy Agency
ICTP	International Centre for Theoretical Physics
IPCC	Intergovernmental Panel on Climate Change
IIASA	International Institute for Applied Systems Analysis
ILO	International Labour Organization
IMO	International Maritime Organization
INDC	International Nuclear Data Committee
INIS	International Nuclear Information System
IOC	Intergovernmental Oceanographic Commission (UNESCO)
ISO	International Organization for Standardization
LWR	Light water reactor
NEA	OECD Nuclear Energy Agency
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
OECD	Organisation for Economic Co-operation and Development
OLADE	Organización Latinoamericana de Energía (Latin American Energy Organization)
OPANAL	Organismo para la Proscripción de las Armas Nucleares en América Latina y el Caribe
PAHO	Pan American Health Organization/WHO
PHWR	Pressurized heavy water reactor
PWR	Pressurized water reactor
RAF	Regional Africa
RAS	Regional East Asia and Pacific
RAW	Regional West Asia
RBMK	Light boiling water cooled graphite moderated pressure tube reactor (former USSR)

RCA	Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science and Technology
SQ	Significant quantity
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNECLAC	United Nations Economic Commission for Latin America and the Caribbean
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNMOVIC	United Nations Monitoring, Verification and Inspection Commission
UNSCEAR	United Nations Scientific Committee on the Effects of Atomic Radiation
UPU	Universal Postal Union
WANO	World Association of Nuclear Operators
WCO	World Customs Organization
WEC	World Energy Council
WFP	World Food Programme
WHO	World Health Organization
WMO	World Meteorological Organization
WTO	World Trade Organization
WWER	Water cooled and moderated energy reactor (former USSR)

Contents

Member States of the International Atomic Energy Agency

The Board of Governors and the General Conference

The IAEA at a Glance

Notes

Abbreviations

The Year in Review	1
--------------------------	---

Technology

Nuclear Power	11
Nuclear Fuel Cycle and Material Technologies	14
Analysis for Sustainable Energy Development	16
Nuclear Science	19
Food and Agriculture	22
Human Health	26
Water Resources	29
Protection of the Marine and Terrestrial Environments	31
Physical and Chemical Applications	33

Safety

Safety of Nuclear Installations	37
Radiation Safety	40
Management of Radioactive Waste	44
Security of Material	48

Verification

Safeguards	53
Verification in Iraq Pursuant to UNSC Resolutions	61

Technical Cooperation

Management of Technical Cooperation for Development	65
---	----

Annex	67
--------------------	----

Organizational Chart	72
-----------------------------------	----