

Programme of Action for Cancer Therapy (PACT)

PACT Model Demonstration Sites: Tanzania

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PACT

Meeting of the National Cancer Control Steering Committee
Dar es Salaam, 20 August 2007



IAEA

*Atoms for Peace: The First Half Century
1957-2007*

International Atomic Energy Agency (IAEA)

The IAEA is the world's center of cooperation in the nuclear field. It was set up as the world's "**Atoms for Peace**" organization in 1957 within the United Nations family.

The Agency works with its Member States and multiple partners worldwide to promote safe, secure and peaceful nuclear technologies.

International Atomic Energy Agency (IAEA)

“The Agency shall seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world”

Article II of the Statutes of IAEA



Atoms for Peace, Health and Prosperity

IAEA – Areas of Work

- **Safety and Security**: Work is keyed to international conventions, standards and, guidance. The main aim is to protect people and the environment from harmful radiation exposure.
- **Safeguards and Verification** : Inspectors work to verify that safeguarded nuclear material and activities are not used for military purposes.
- **Science and Technology** : Work targets food, health, water, and environmental areas where nuclear and radiation technologies can make a difference.

An example of technology application: radiation sterilization

- Ionizing radiation for the sterilization of medical disposables products has been used for the past 20 years.

Today, close to 60% of all medical disposables devices are sterilized by ionizing radiation.



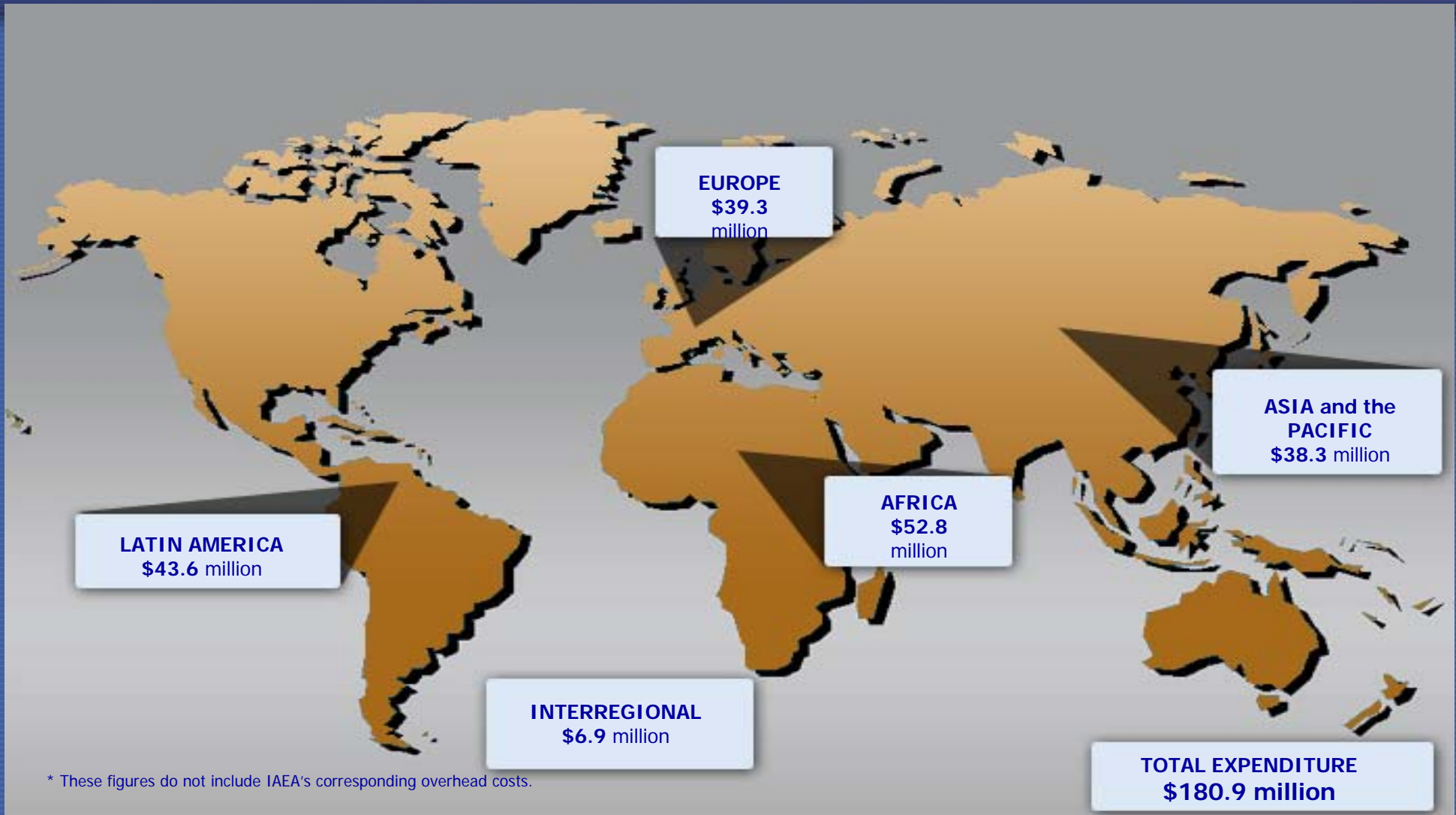
ENHANCING AGRICULTURAL PRODUCTIVITY / FOOD SECURITY



- Developing improved crop varieties
- Control of insect pests
- Food preservation and control



IAEA Expenditure on Cancer Projects 1980-2005



ACCESS TO RADIOTHERAPY

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Radiotherapy is an essential part of the treatment of cancer

Over 30 African and Asian countries have no access to radiotherapy

There is a shortfall of over 5000 radiotherapy machines in the developing world









IAEA has initiated PACT to comprehensively address this urgent problem

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Availability of treatment

Number of people served by a single radiotherapy centre (latest available data 1995–2003)

- | | | | |
|---|-----------------|---|----------------------|
|  | below 500 000 |  | 10–19.9 million |
|  | 500 000–999 999 |  | 20 million and above |
|  | 1–4.9 million |  | no centre |
|  | 5–9.9 million |  | no data |



Atoms for Peace: The First Half Century
1957–2007

Programme of
Action for
Cancer
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Radiotherapy: not only an equipment issue

- **Shortages** of RT services can only be overcome with **investments** in staff, appropriate equipment, maintenance, access to knowledge, QA/QC, advocacy, safety, and high standards
- **Maximising** RT efficiency and effectiveness needs **complementary capacity building** in other areas of cancer control such as prevention and early detection (e.g. present palliative role of RT because of late-stage presentation)

PACT's Overall Goal

PACT was initiated in 2004 as a special programme of the IAEA to:

- Introduce or expand existing **infrastructure and capacity in radiotherapy** in a sustainable manner
- Improve or accelerate widespread access to **effective radiotherapy services** as an essential part of multidisciplinary cancer care

PACT's Basic Strategy

- Move the IAEA's cancer-related programmes to a **public health model**
- Integrate **radiotherapy** intervention into a **broad cancer capacity building** effort
- Exploit **prevention and early detection** synergies to maximise the public health impact of treatment investments

Maximising the impact of interventions through balanced investments

PACT's Integrated System for Comprehensive Cancer Control

Maximize the Impact of Interventions including
Radiotherapy through Balanced Investments across the System

*Population Based Cancer Control Programme
(WHO Guidelines on Planning, Management and Evaluation)*

Cancer Knowledge Transfer and Technology Evaluations

Cancer Epidemiology and Surveillance System

Multidisciplinary Education, Training and Research in Cancer

*Multisectoral Partnerships including Cancer Society Building
(Advocacy, Public Education, Policy, Legislation and Resource Mobilization)*

*Cancer Prevention
(Controlling Cancer
Risk Factors)*

*Screening and
Early Detection*

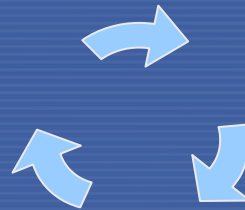
*Diagnosis, Treatment,
Follow-up and
Rehabilitation
(Pathology, Surgery,
Imaging, Radiotherapy/
Nuclear Medicine,
Chemotherapy, Other)*

*Palliative Care and
Support for Patients
and Families
(Symptom Control, especially
Opiates and Radiotherapy,
Psychological Interventions,
Other)*

Need for Global Alliances – PACT does not work alone!



International Network for Cancer Treatment and Research



Stages of PACT Implementation

1. Comprehensive cancer control needs assessment with partners (**imPACT reviews**)
2. Establish **PACT Model Demonstration Sites** and use them for incremental fundraising
3. **Regional cancer training networks** for capacity building

Move towards a global alliance and fund

PACT methodology in PMDS

- Governmental invitation
- PACT desk study, plus questionnaire
- imPACT needs assessment mission
- Provision of recommendations to MoH
- Assistance in devising National Cancer Control Strategies and Action Plans
- Partner assistance in areas of competence
- Fundraising

PACT in Tanzania/1

- Initial fact-finding mission to Tanzania in 2005
- Tanzanian authorities formally requested an imPACT mission in the first quarter of 2006
- **imPACT mission May 2006:** IAEA/PACT, WHO/AFRO, ACS, INCTR; Tanzanian counterparts: Ministry of Health, ORCI, governmental officials, health professionals, academic community

imPACT mission to Tanzania – May 2006



PACT in Tanzania/2

- Following the high level of demonstrated commitment by the Tanzanian authorities to develop comprehensive cancer control, Tanzania was chosen as a **PACT Model Demonstration Site (PMDS)**
- IAEA already contributes to Tanzania's development of its nuclear capabilities through **Technical Cooperation**

PACT in Tanzania/3

- Ministry of Health: established **National Cancer Control Steering Committee**
- **May 2007 imPACT follow-up mission**
 - coordination and action planning workshops; critical action points identified
 - agreement to form Working Groups, which will formulate concrete, realistic plans of action
 - Initial meeting of the National Cancer Control Strategic Committee

Examples of Working Groups/1

- **Cancer Registration** increase registration capabilities and integrate registration to planning for cancer control
- **Prevention** identify activities according to prevalent risk factors
- **Early Detection and Diagnosis** strengthen local capacity, develop screening infrastructure and protocol
- **Treatment** ensure that internationally recognised guidelines and standards are adopted and implemented
- **Palliative Care** strengthen existing capacity and ensure widespread access to opioids

Examples of Working Groups/2

- **Cancer knowledge transfer and multidisciplinary education and training** (educate the public, professionals and policy-makers with regards to facts and myths, appropriate behaviour; professional training)
- **Society Building** help build strong cancer associations, patients associations
- **Access to care**
- **Fundraising**
- **Programme Evaluation**
- **Coordination**
-

Way Forward

- **National Cancer Control Steering Committee:** operational and active leadership; working group members identified
- **National Cancer Control Strategy and Action Plan:** evidence-based, priority-driven, resource adequate (NB complete questionnaire)
- **Implementation:** timeline, process and outcome indicators; identification of financial and human resources needed
- **PACT Focal Point:** identified, active