

# Best Practices



*in the IAEA's technical cooperation programme*

## ***Building the future on effective and sustainable technology transfer: An active and monitored TCDC and partnership programme for the RCA***

### **Best Practice Description:**

#### **Description**

The targeted and strategic use of a balance of Technical Cooperation among Developing Countries (TCDC) and partnerships between the advanced RCA Member States and those at a lower stage of development has been the basis for effective, efficient and sustainable technology transfer in the RCA programme.

#### **Problem/Issue**

Among the four cooperative agreements operating under the aegis of the International Atomic Energy Agency (IAEA), the RCA is unique because its Member States (MSs) cover the whole spectrum from Least Developed Countries (LDCs) to Highly Developed Industrialised Countries (HDICs). It has been widely recognised within the RCA that effective, efficient and sustainable transfer of technology does not result simply from inputs from the HDICs. Rather the major benefits for effective and sustainable technology transfer are enhanced through the adaptation of the technology from the HDICs by the more advanced recipient MSs to make it more appropriate for use under the general condition prevalent in developing countries. The design of the RCA projects has to take into account such wide variations in capabilities across the RCA MSs and, through a mixture of TCDC and partnerships introduced at the design stage of the projects, is making the maximum use of the large pool of appropriate experience and knowledge resident in the MSs to maximise the efficient, effective and sustainable transfer of technology.

#### **TC project: RCA**

Building the future on effective and sustainable technology transfer:  
An active and monitored TCDC and partnership programme for the RCA

#### **Category:**

- C.1: Country Programme Framework/ Regional Profile Process
- C.2: Programme Cycle Management (PCM)
- C.3: Logical Framework Methodology
- C.4: Coordination Arrangements
- C.5: Regional and Interregional Cooperation
- C.6: Partnership
- C.7: Project Results

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### **Best Practice Description: cont'd:**

#### **How & who**

A proposal entitled, "The Enhancement of Technical Cooperation among Developing Countries (TCDC) within the RCA Programme", which was presented at the 30th RCA NR Meeting held in April 2008 in Hanoi, Vietnam, brought together and summarised the various initiatives that the RCA National Representatives had been advocating for some time. A Working Group tasked by this NRM to integrate the aims and objectives for the TCDC activities within individual RCA projects, and link TCDC and associated partnerships to the enhancement of national and regional sustainability of the RCA programme delivered a report containing eleven (11) recommendations and an Implementation Plan. It was approved at the 37th RCA General Conference Meeting in September 2008 (a copy of the document is attached to this questionnaire - attachment 1 and the Implementation Plan is attached separately - attachment 2).

#### **Approach**

TCDC and partnership activities within a RCA project are introduced at the project design stage. This is further enhanced at the Project Planning Meeting (PPM) which is held for each new project. Every participating Member State is tasked to identify and introduce possible TCDC or partnership activities into both the regional and their national Work Plans, which are designed to cascade off the regional project activities. Such actions are fundamental to building sustainability. At the PPM MSs also state their capacities as technology donors/technology recipients.

TCDC and partnership activities take various forms including: expert missions; hosting of training events; provision of services; provision of funds; and, volunteering to act as a Regional Resource Unit (RRU). In terms of the utilisation of regional expertise within each project activity, a hierarchical approach has been adopted, which assures optimal TCDC involvement.

#### **Sub Categories:**

- Supporting medium term development objectives
- Meeting current and emerging country or regional needs
- Meeting policy and strategic requirements for cooperation and dialogue
- Planning, concept and project design
- Implementation and monitoring
- Evaluation
- Interrelationship and continuous dialogue between different stakeholders
- Sustainability of outputs: outreach towards end-users and beneficiaries
- Effective and efficient management of planning and management of the TC Programme between different Member States entities and IAEA.
- Coordination arrangements supported by guidelines on established quality criteria, workflows, and IT structure

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### **Best Practice Description: cont'd:**

At the end of the Agency's funding support for the project, the participating MSs report on their exit strategies, including TCDC activities that could contribute to the sustainability of the project at both the national and regional levels. The MSs explore possible sources of support for those TCDC and partnership activities still needed to provide sustainability of the transferred technologies.

The extent of all the TCDC and partnership activities under the RCA programme is presented in the RCA Annual Report.

### **How effective**

All RCA MSs have strongly supported this initiative and the Working Group's full eleven (11) recommendations are listed in the RCA Guidelines and Operating Rules (GOR)<sup>1</sup>. The approach is highly effective, as each MSs is in the best position to determine: the status, the strengths and weaknesses of a particular nuclear technology in their country; the capabilities of their national experts who could assist other MS requiring his expertise; and their requirements for assistance from experts from another RCA MSs to assist in addressing their identified gaps or weaknesses.

Partnerships by the more experienced Industrialising Member States have provided essential human resource development to the developing countries, which extends their expertise and enhances their potential to contribute to TCDC. This is exemplified in the current project studying the possible impact of the Fukushima accident on the marine environment of the Asia-Pacific where the Philippines has taken on the role of custodian of the ASPAMARD marine database and providing expert tuition to other Member States in using the database.

Similarly, some developing RCA Member States have taken up key TCDC roles in the studies of air particulate matter pollution in urban areas in the Asia Pacific region. China, Republic of Korea, and Thailand have joined Australia and New Zealand as Regional Resource Units (RRUs) by providing analytical measurements of particulate matter sampled in air filters and in data interpretation.

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### **Sub Categories, cont'd:**

- RCA
- Strategic
- Technical
- Financial
- Sustainability of a transferred technology
- Adoption and utilization of technology by end-users
- Educational impact
- Impact on decision and policy makers
- Safety, environmental and/or economic results
- Other: Enhanced utilization of expertise from the developing RCA MSs

<sup>1</sup> The RCA GOR is the source document for any guidelines, operating rules and procedures needed to govern regional cooperation under the RCA programme.

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### **Best Practice Description: cont'd:**

Their inputs have assisted in demonstrating the use of nuclear analytical techniques (NATs) and has enabled many academic end-users, end-users from government agencies, environmental protection agencies (EPA), etc. to be trained in NATs and source apportionment analysis (SA). Data from this RCA programme has been used for source identification, source apportionment and trans-boundary modelling.

Project sustainability is well demonstrated in a recent RCA project that built self-sustainability and self-reliance into radiation protection infrastructures in the Asia-Pacific region. The project initiated four crucial strategic networks amongst Member States – the Asian Network of Cardiologists; the Asian Region ALARA Network (ARAN); the Regional Responders' Network; and the Regional Regulators' Network. The Asian Network of Cardiologists was fully established during the project<sup>2</sup>.

### **Lessons Learned**

While TCDC has been an integral part of the RCA Programme and many current activities of the RCA Programme have been involved with and benefitted from such interactions, the establishment of a formally adopted Implementation Plan, integrating the aims and objectives for the TCDC and partnering activities within individual RCA projects, and linking these to the enhancement of national and regional sustainability of the RCA programme, has been of crucial importance. Formalisation of this mode of cooperation and partnership has ensured an on-going commitment to meeting the individual MS's needs across the RCA programme.

### **Key Success factors**

Key success factors in adopting and implementing a policy in TCDC and partnerships are as follows:

- The strategic matching of capacities and needs across all Member States;
- The commitment by all RCA stakeholders to the regional and national integration of TCDC and partnership activities into project Work Plans; and,
- RCA MSs have been proactive in taking initiatives to assume more responsibility for their programme and seeking ways to improve both the efficiency and effectiveness of their projects to contribute to the solution of national and regional problems.

### **Beneficiaries**

- All RCA Member States - the overall development objectives of the Member States including human resource development through the TCDC and partnership modalities.

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<sup>2</sup> Details of the success of the networks are described in the RCA Success Story 2012 Edition on the project.

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### **Best Practice Description: cont'd:**

- All developing RCA Member States – their role in adapting the technologies being transferred to make them more appropriate to local conditions in developing countries has maximised the utilisation of regional TCDC inputs and greatly enhanced the potential for sustainability of the technologies at both the regional and national levels.
- The IAEA TC programme – support of the RCA projects provides a greater assurance of success, cost-effectiveness and sustainability. The enhancement of the capabilities of the developing RCA MSs provides a new cadre of experts well-suited to assist in TCDC initiatives in other parts of the TC programme.

### **Quality Criteria**

This proposed Best Practice addresses all quality criteria as outlined in the Best Practices Survey Guidelines, in particular:

- **Relevance:** This initiative has recognised the diverse membership of the RCA from Least Developed to Highly Developed Industrialised Countries and has adopted practices that enable all RCA Member States to play a role in the technology transfer being undertaken through the individual RCA projects.
- **Ownership:** The RCA programme has adopted and implemented the recommended policy on TCDC and partnerships.
- **Sustainability:** This initiative has recognised that effective and sustainable technology transfer can be assured only if it is tailored to the specific Member State's capabilities, capacities, and needs, and TCDC and partnership mechanisms are in place to manage the transfer and absorption of skills and technologies and sustain these when the transfer has taken place.
- **Efficiency:** The integration of the TCDC and partnering activities in the project design as well as the regional and national Work Plans of the participating Member States for each project at the Project Planning Meeting has maximised the efficient use of these resources. The additional commitment of Member States to implementing activities extending past the cessation of TC funding support provides further enhancement of the efficiency of the initiative.
- **Effectiveness:** The initiative is very effective as it combines and integrates the contributions of all participating RCA Member States while at the same time recognises their individual capabilities, capacities, and needs.

### **Special Conditions**

There are no special conditions.

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