Education Capability Assessment and Planning (ECAP)

Ugochukwu Ugbor, PhD
Nuclear Knowledge Management Section
Dept. of Nuclear Energy, IAEA
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Common Challenges for **Sustainable Nuclear Education**

1. a shortage of qualified and experienced personnel in various fields of nuclear applications

2. mismatches and gaps exist between specialties of graduates and actual labor market requirements

3. a need for appropriate national policy development and a programme framework for establishing and realizing appropriate funding priorities

4. strengthening the alignment and coordination of the roles of key stakeholders such as different ministries, government departments and agencies for understanding and promoting the contribution of nuclear science and engineering towards **sustainable** socio-economic development
Supporting the Agency’s Mandate…

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

IAEA
What is Needed?

**Strategic Stakeholder Engagement**

- Facilitating a systematic and integrated national approach to strategically enhance and continuously improve government - education -industry interaction and coordination necessary for achieving focused, impactful and sustainable national nuclear education programmes.

- **Target Audience:** Although our approach may apply to all member states, it has been developed with a focus on assisting developing countries looking to leverage nuclear education in a sustainable way.
The ECAP methodology aims to provide a process for developing countries to establish sustainable nuclear education, including a framework for assessing and planning national nuclear education capability.
Objectives

a) To provide a **framework and guidance** for the planning and assessment of sustainable national nuclear science and technology educational programmes

b) To foster the establishment of **institutional coordination** for nuclear education, science and technology at national level to leverage resources and build capability

c) To support development of an **indicator system**, involving government, education and industry stakeholders, for the planning and monitoring of national nuclear education programmes, policies and strategic plans that provides information on their current status and future sustainability
FRAMEWORK AND GUIDANCE
Stepwise Process for ECAP

**PHASE I**
Establish baseline for N. Education Resources & Capabilities
TOOLS
Preliminary Survey Self Assessment

**PHASE II**
Optimize Collaboration b/w Stakeholders
TOOLS Knowledge Marketplace

**PHASE III**
Develop Strategy, & Implementation Guidelines
TOOLS Logical Framework Analysis

**PHASE IV**
Monitor & Evaluate Progress & Produce National Benchmarks
TOOLS Indicator System

ECAP Process (2-4 years)

- Stakeholder Mobilization and engagement of stakeholders
- Government & Industry Support Mandate and resources
- Institutionalization Establishing Institutional framework and leadership
- Programme Establishment Recruitment Preparedness Start-up
- Sustainable National & Regional Collaboration

Achieving national leadership on and ownership of the ECAP process
Collaborative Process

Facilitate discussion with senior representatives of relevant government, education and industry stakeholders

Conducing ECAP assessments, formulating policy outline and developing national action plans to leverage nuclear education in a sustainable way

Stakeholder Engagement
INSTITUTIONAL COORDINATION
Examples of stakeholders

**Government**
- Atomic Energy Commission (AEC)
- Nuclear Regulatory Authority (NRA)
- National Nuclear Institutions (NNIs)
- Relevant Ministries

**Education**
- Academia
- R&D institutions and Nuclear Labs
- Colleges and Technical Schools
- Training organizations

**Industry**
- Representatives of industries
- National Planning Commissions and/or
- National Manpower Boards
- Nuclear Professional Associations

**Collaborators**
- International orgs/ NGOs
- Regional stakeholders, others
Strategic Stakeholder Engagement

IAEA

Universities & Technical Colleges

Regional/International Collaborators

IAEA / ECAP Assist Missions

R&D orgs and Labs

Government

Industry

ECAP
INDICATORS AND BENCHMARKS
Progress and Upcoming Milestones

NKM PROGRAMME ON ECAP
NKM Progress and Upcoming Milestones

**ECAP DESIGN AND CONCEPTUALIZATION**
- Need to strengthen N. Edu. alignment and coordination
- Document Proposal for ECAP

**SUSTAINABLE NUCLEAR EDUCATION**
- HR-Knowledge Development Networks
- University Collaboration and innovation

**ECAP PILOTING AND IMPLEMENTATION**
- ECAP Methodological report (NE Series Report)
- ECAP Assist Missions (South Africa, Saudi Arabia, Tanzania, …)
- Piloting experiences (2nd AFRA-NEST GA, Lusaka, Zambia)
Request your ECAP Assist Visit!

THANK YOU

Ugochukwu Ugbor, PhD
Nuclear Knowledge Management Section
Department of Nuclear Energy
u.ugbor@iaea.org

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