

Sustainable Science and Technology Transfer

What Are the Conditions for Success?

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**Nuclear Technology for
the Sustainable Development Goals**



Science Technology and Innovation (STI)

Technologies

Capital goods,
services &
designs

Skills & know-
how for
operation &
maintenance

Knowledge &
expertise
behind
technology

National STI System

New
production
and
consumption
capabilities
and capacity

Accumulation
of innovation
capabilities
and capacity



STI= Enabling's skills, capacities and institutions for generating and domesticating technologies in particular contexts.

Science Technology and Innovation (STI)

Energy technologies such as nuclear energy require well developed STI systems to thrive in Africa - New technologies thrive within well developed STI systems – Countries with relatively poor STI systems performed poorly in the MDGs- e.g. Africa.

But

How can the development of nuclear energy embrace participatory and inclusive approach to make a social, economic and environmental case for African context where poverty alleviation is a priority?- **I am not sure this case has been made yet- We have only heard political statements!**

Role of Partnerships

Building STI for energy technologies highly depends on **partnerships** for technology transfer not **financial aid!**

Partnerships = **exchange** of ideas, lessons and resources between two or more parties with the aim of **harnessing complementary strengths** of the parties- **It is not financial support!**

Note: SSA received most of the world's Official Development Aid (ODA), debt relief grants and humanitarian but still performed poorly in SDGs i.e. 28% poverty reduction – half the achievement of other developing regions e.g. Asia ([Millennium Development Goals Report](#))

Role of Partnerships

Generating evidence on what works and what does not:
International partners e.g. IAEA can benefit from experiences, lessons on strategic perspectives **on what works in Africa or not** to inform design and transfer of feasible energy technologies (see case study- next slide).

Leveraging expertise and capacity building

Leveraging **cost-effective access and allocation of resources** that could spur environmental, social and economic benefits

Case- The Africa Sustainability Hub

The [Africa Sustainability Hub](#) (ASH) is a networked North-South and South-South partnership on energy research and capacity building in line with Africa context.

Leverages on institutional strengths of North and South Partners: the STEPS Centre at the University of Sussex, the African Centre for Technology Studies (ACTS), the Stockholm Environment Institute (SEI), and the African Technology Policy Studies Network (ATPS).

Case- The Africa Sustainability Hub

The Transformative Knowledge Network Project - Supported the Int. Social Science Council

Research and knowledge exchange project applying social science to unpack and compare sustainability challenges facing energy, agriculture and urban development in various settings of global north and south. UK, Argentina, Kenya, China, India and Mexico

Key insights: Different context are characterized by **different socio-political features** that influence uptake and sustainability of energy technologies but **offer lessons for building innovation for technology transfer and sustainable domestication.**

Key lessons from ASH research

Technology transfer:

MUST enable (means of implementation) economic, social and environmental benefits and **co-benefits**.

MUST- promote sustainable production and consumption of energy products and **by-products** in line with SDGs and climate goals.

MUST embrace feasibility and **policy coherence** with African circumstances.

MUST be transformative and inclusive - the case of mobile money in Kenya enhancing to access to clean energy technologies and capacities.

Thank you!

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