International Cooperation in EST Diffusion: A View from the Ground

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Key Messages (1)

1. International cooperation on EST diffusion should involve direct participation of civil society networks, social movements and/or communities

   ➢ International cooperation on EST diffusion (especially involving adaptation technologies) among civil society, social movements and local communities must be enabled and supported by governments and international institutions by providing resources and enabling environments

Key Messages (2)

2. The active participation and involvement of the end-users of ESTs and innovation in the different stages of the technology process, from identification of technology needs to the assessment of new and emerging technologies must be enabled and integrated in the technology process

   ➤ Direct involvement, participation and sense of ownership by the end-users of innovations are crucial – also ensures relevance of ESTs to local needs and conditions

   ➤ ESTs for diffusion should promote further local innovations and capacities and the use of domestically available resources

Key Messages (3)

3. International cooperation among developing countries on technology assessment (TA), such as through global/regional network of TAs, can facilitate sharing of information and experiences and build capacities among developing countries (and with developed countries) and the different stakeholders

   ➢ Technology assessment should be viewed as a safeguard to ensure that untested and unwanted technologies are not dumped on developing countries, esp. on LDCs and small economies

Civil Society-led Cooperation in ESTDiffusion

1. **System of Rice Intensification (SRI)**
   - is an agro-ecological methodology for increasing the productivity of irrigated rice by changing the management of plants, soil, water and nutrients
   - Developed by a local NGO in Madagascar
   - Supported by an international network of CSOs, farmers' organizations and research organizations to promote diffusion and widespread adoption
   - Adopted and adapted in more than 45 countries since its active promotion in 2001
   - Adopted as a national program in Cambodia with the active participation of a national network of CSOs
     - SRI yields about 1 ton more than conventional methods and 40% more than the national average yield of 2.54 t/ha

Civil Society-led Cooperation in ESTDiffusion

2. **Climate Field Schools (CFS)**

➢ On-site training of farmers in collective monitoring weather patters and variations and analyzing implications to agricultural production

➢ Builds on the local/traditional knowledge systems and complemented by formal science

➢ Use of SMS to disseminate weather alerts among farmers

➢ Developed in the Philippines by a national network of CSOs with technical support from government agencies, academe and local governments

➢ Endorsed and replicated by the Philippines' Department of Agriculture as a key strategy to promote climate adaptation in agriculture

➢ Currently being adopted in Cambodia

Emerging Farmer-led Cooperation in ESTDiffusion

3. **Farmer-led Global Seed Diversification**

➢ Massive exchanges and dissemination of farmer's seeds across farming communities worldwide to provide diverse seeds for adaptation to the climate crisis
  - 90% of the world's surviving agricultural biodiversity can only be found in the fields and gardens of smallholder producers
  - Another 2 million peasant-bred and donated plant varieties are stored in about 60 major national, regional and international gene banks.

➢ Builds on and scales up national and local efforts on seed exchanges among farmers and communities

➢ Role of governments: to facilitate compliance with regulations for transboundary seed exchanges

➢ Role of NGOs: support in coordination and facilitating linkages

➢ Role of NARS: to provide technical support

➢ Role of CGIAR: to facilitate farmers' access to their seeds kept *ex-situ* in international genebanks

Global/Regional Network on Technology Assessment

- UNSG Recommendation as part of the proposed international technology facilitation mechanism: establishment of global/regional networks on Technology Assessment

- UNEP Foresight Report (2012): urges policy makers to "consider, for example, organizing a new international governance system which would produce, and potentially oversee, new international procedures to identify dangerous side effects of technologies and chemicals before they are produced"

TA and TNA

➢ **Technology assessment (TA)** attempts to analyze and evaluate the impacts of applications of scientific-technical knowledge in modern society (Maarsen and Merz, 2006: 11).

➢ TNA: "prioritizes technologies, practices, and policy reforms that can be implemented in different sectors of a country to reduce greenhouse gas emissions and/or adapt to the impacts of climate change by enhancing resilience and/or contributing to sustainable development goals" (Gross, et al., 2004).

Tech Assessment: Objectives

- Technology assessment aims to address concerns about the unpredictability of impacts of specific technologies, and to address the lack of public trust that results from controversies over technologies.

- Regarded as a response to the *Collingridge Dilemma*: the consequences of a technology cannot be predicted early in its life, and by the time unintended and/or undesirable consequences are discovered, the technology is already well-entrenched so that control is extremely difficult and change is expensive and time-consuming

Tech Assessment: Objectives

- Technology assessment aims to address concerns about the unpredictability of technology impacts, and to address the lack of public trust that results from controversies over technologies.

- Assessment includes the various aspects : technical/scientific, economic, environmental, social, cultural
  - Governance issues

- In order to be effective, TA needs to be anticipatory, comprehensive, inclusive and oriented toward decision-making, and must involve the different stakeholders especially the end-users

International Cooperation in Technology Assessment

- Currently, national TA mechanisms mainly in developed countries
  - N-S cooperation: useful in sharing capacities and experiences in TA
    - A number of EU countries have well-established mechanisms and innovative models of TA
  - S-S cooperation: exchange and sharing of information and expertise, alerts and early warning, capacity building

- Civil Society-initiated Technology Observation Platforms (TOPs) to monitor and evaluate new and emerging technologies
  - Build national and local capacities to monitor and assess new technologies

Key Elements in Involving Civil Society in ESTDiffusion

- Recognition of civil society and social movements as partners in sustainable development at the local, national and international levels

- Recognition of strengths, resources and contributions of civil society in the diffusion and widespread adoption of EST and innovations

- Enabling and supporting civil society initiatives in the development, transfer and diffusion of EST and innovations

- Mutual trust

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THANK YOU!