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“Resilience of agricultural systems against crises”

## Assessing Sustainable Technology Options to Increase the Resilience of the Poorest and Most Vulnerable

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### Abstract

When a crisis strikes, it is often the poorest and most vulnerable people who suffer most, particularly in South and Southeast Asia where the majority of the world's poor reside. Victims often lack solutions to diversify into sustainable production activities that increase their resilience to shocks and lead to a higher but sustainable productivity level. Knowledge on appropriate technology options exists but is mostly contained in separate “knowledge silos”. To make the knowledge available within the region would require increased South-South dialogue and intraregional learning that could spur technology adoption contributing to improved food security and nutrition. But technologies will only be adopted in a sustainable manner if they are suitable and adaptable to farmers' local conditions.

Hence, an analytic framework was developed to identify agricultural innovations that are sustainable, productivity enhancing and suitable for the poorest and most vulnerable parts of the population. The framework contains a set of tools to collect and evaluate information on appropriate innovations based on relevant indicators. In particular, it has sections on environmental, social, and economic sustainability but also on important properties of the innovation itself.

Preliminary information on already available agricultural innovations was collected among project associates from ten countries in South and Southeast Asia, as well as the national and international agricultural research communities. Promising innovations were selected in a group process involving all associates and experts of the respective innovations were identified. A questionnaire was then sent to all experts to collect detailed information and data about the technologies or best practices. Multi criteria decision making was used to involve project associates in constructing a composite technology indicator to compare the available innovations.

All sustainable technologies will be accessible in the online data base of SATNET Asia, the “Network for Knowledge Transfer on Sustainable Agricultural Technologies and Improved Market Linkages in South and Southeast Asia”. The data base will contain fact sheets, descriptions of typical enabling environments, extension material and recommendations for dissemination strategies as well as links to regional experts and will enable relevant stakeholders and multipliers from research and extension services to find appropriate technology options.

**Keywords:** Best practice, evaluation, innovation, multi criteria decision making

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