Poverty and Agricultural Biodiversity Conservation and Sustainable Use: Farmers' Rights in Policy and Practice in Bhutan, Lao PDR, Vietnam, Thailand and the Philippines

SEARICE

SEARICE is working with around 600 farming communities in Bhutan, Lao PDR, Vietnam, Thailand and the Philippines in partnership with national and local government units, civil society organizations, research institutions, academic institutions and farmer groups. Agricultural biodiversity conservation and sustainable use focusing on strengthening farmers' management of their agricultural biodiversity particularly plant genetic resources in different production systems (from marginal to prime irrigated rice areas) and market systems (from subsistence to highly market integrated systems) is undertaken by building on farmers' knowledge and practice in community plant breeding, conservation of their plant genetic resources and in managing local seed systems. The experiences on the ground provide an articulation of how Farmers' Rights as defined in the International Treaty on Plant Genetic Resources for Food and Agriculture are practiced. In the end, it is the continual development of farmers of their own plant genetic diversity and agricultural biodiversity which is the core of Farmers' Rights that eventually leads not just to conservation of genetic resources but of farmers' systems which in turn contribute to poverty alleviation.

Some results of the seven year program in relation to poverty reduction are as follows:

a) reported 30% yield increase for corn in high altitude areas in Khaling, Khangma and Drametse in Bhutan which led to corn production surplus processed into corn flakes and sold by farmers for additional household income
b) renewed interest in the use (and conservation of) 26 traditional rice varieties in communities in Nan, Thailand which commands higher market price at US$2/10 kg mark-up than improved rice varieties generating additional income for farmers
c) Hmong communities in Luang Prabang, Lao PDR reported (in 2006 interviews) to have closed the gap of 3 months famine period with the use of their own developed rice varieties (appropriate to their local practice, preferences and micro-climate). The Hmong communities in the valleys of Luang Prabang receive little attention from national rice breeding programs for various reasons and suffer from food insecurity and poverty. Community plant breeding (with support from national plant breeding institution, local government and CSOs) eradicated the hunger months in these communities. Results such as this, led to the inclusion of community plant breeding, farmers' conservation work as part of national plant breeding strategy, of extension system. The engagement of government authorities and the dramatic results of farmers' contribution in the active development and conservation of plant genetic resources led to a review of national seed laws and regulations for its appropriateness.
d) Majority of the 225 farming communities in 13 provinces in North and Central Vietnam reported 0.5 – 1ton/hectare increase in rice production from community plant breeding. Local authorities in Hoa Binh province, for instance reported that

such yield increases contributed to a reduction in poverty incidence in the district where the program is implemented.

e) In the Mekong Delta of Vietnam, farmers in 335 communities in the 13 provinces of the Delta, involved in on-farm conservation and community plant breeding contributed 12% of the total rice seed requirement for the 4million hectares of rice in the delta. In contrast, the formal seed system can only secure 3% of the total seed requirement. This 12% contribution of farmers involved in the program was calculated to be valued at US$2.4M in 2006 alone. This quantification of farmers' contribution to local economy led to continued interest and support from local provincial authorities to continue with on-farm conservation, community plant breeding and continual use of farmer varieties. There are several support schemes developed such as provincial seeds program, providing incentives for use of farmer varieties in the provinces, training all farmers in An Giang province on on-farm conservation, seed selection and community plant breeding, as part of 'safety-net' mechanisms before Vietnam liberalizes its rice seed sector.
f) In the Philippines, provincial seeds program in Bohol involving on-farm conservation and community crop improvement was developed to ensure sufficient rice seed supply in the province that used to rely on the (unreliable) delivery of certified seeds to farmers. Farmers in Bohol are able to supplement their income by selling organic rice at a premium price to the market contributing to lessening poverty incidence. The development of locally adapted rice varieties by farmers also led to more resilient rice farming system (can withstand cases of dry spell and flooding), while on-farm conservation and dynamic farmer seed system ensure supply of rice seeds from one community to other communities in times of environmental disaster (like drought or flooding).
g) On-farm conservation and community plant breeding slowly recognized as part of provincial strategies for emergency seed relief in Bohol, Philippines and Nan, Thailand.
h) Several rice varieties are developed by farmers in the five countries which has adaptations in acid sulphate soils, drought, certain flooding incidence, alkaline soils etc. There is growing interest among different stakeholders to look into the results as part of climate change adaptation work by farmers.

The work of SEARICE and its partner organizations in Southeast Asia is also a case of successful development aid spending. The involvement of 225 farming communities in the 13 provinces of North and Central Vietnam was made possible through development aid amounting to US$650,000 distributed over a seven year period for direct field implementation. Development aid stimulated local and national government as well as civil society counterpart which led to the expansion of work from 20 villages when it started in 2000 to 225 villages in 2007 reporting significant yield increases, poverty reduction incidences of farmers (at the household and community level), training of government personnel (there are 80 well trained plant protection specialists on on-farm conservation and community plant breeding work) and national policy changes (the Ministry of Agriculture and Rural Development of Vietnam issued in February 2008 a Decision to Regulate on-farm development of varieties calling all its agencies to support farmers' efforts and proposing new regulatory processes to include the results of farmers initiatives). An examination of this success story both at the field and practical level as well as national policies may contribute to the discourse on the link between conservation, sustainable use of genetic resources/biodiversity and poverty alleviation.