1) MANAGING AGROBIODIVERSITY UNDER CHANGING SOUTH AND SOUTHEAST ASIAN MARKET AND AGRICULTURAL PRODUCTION SYSTEMS

- Southeast Asia Regional Institute for Community Education (SEARICE)

This paper provides the synthesis of the different experiences and lessons in managing agrobiodiversity under the complex market and production system of Southeast Asian agriculture. The discussions and arguments are based on the experiences of SEARICE in co-ordinating two regional programs on community based plant genetic resources conservation, development and use, namely CBDC (Community Biodiversity Development and Conservation Program) and BUCAP (Biodiversity Use and Conservation in Asia Program) and also from its’ Philippine based field operations in Central Mindanao and Bohol.

The paper looks at conservation and management of agrobiodiversity from subsistence, upland areas to prime irrigated, market-oriented ricelands. It is argued that agrobiodiversity conservation and development should not only focus on upland, marginal ecosystems but on prime irrigated areas as well, where genetic erosion, market and cultural pressures are more pronounced. The paper likewise explores the links between production system (covering both ecosystem and market system) and farmers selection and management criteria. Farmers criteria and assessment of their agrobiodiversity determines the approach and shift from conservation to improvement. Capacity building mechanisms and the role of formal and informal institutions to strengthen farmers’ role in agrobiodiversity management and the necessary institutional formation and policy amendments needed to scale up the efforts and ensure sustainability of farmers’ endeavours are likewise discussed.

This paper supplements the papers of SEARICE partners that deals more on their experiences in agrobiodiversity management under intensive crop production system in Vietnam, the transitory production system in Lao PDR, the upland, subsistence production system in Thailand and the high altitude, subsistence production system in Bhutan.

2) MANAGING AGROBIODIVERSITY UNDER CHANGING SOUTHEAST ASIAN MARKET AND AGRICULTURAL PRODUCTION SYSTEMS:

- The Use of Farmers Fields Schools Approach in BUCAP-Vietnam National Project

- BUCAP Vietnam Country Project
National IPM Program
Plant Protection Department
Ministry of Agriculture and Rural Development, Vietnam
The Biodiversity Use and Conservation in Asia Program (BUCAP) in Vietnam is a follow-up activity of IPM and builds on the methodologies and approaches of IPM. The main approach adapted by BUCAP from IPM is the Farmer Field School (FFS) approach where community based study groups are formed composed of 20-30 farmers and extension workers who provide technical inputs and facilitation. A group field is set-up as a common learning area from which hands on exercises on ecological aspects of rice production are studied. The ‘learning field’ provides the main learning material, and the field exercises and special topics are rooted in the fields i.e., before starting any discussion or activity, the study group must first observe the field. FFS is more of an education tool than a high level research and in most IPM-FFS studies (e.g. defoliation studies) the outcome is known. The important aspect is the process of learning, where farmers discover on their own through a simple field experiment the results (discovery based learning).

BUCAP adapted this educational process and extended it further by engaging in research whose outcome is not pre-determined. In the process generating new information which are not known by facilitators nor by research institutions. At the same time developing the capacity of farmers to conduct crop improvement researches for improved production.

This paper looks at the use of FFS in managing agrobiodiversity by looking at rice crop conservation and improvement under prime irrigated ricelands areas of North and Central Vietnam. The selection criteria of farmers in the different provinces, the initial results of their work including needs and problem areas for both farmers and IPM-BUCAP trainers are discussed.

3) MANAGING AGROBIODIVERSITY UNDER CHANGING SOUTHEAST ASIAN MARKET AND AGRICULTURAL PRODUCTION SYSTEMS:
The Multistakeholder Approach of BUCAP-Lao PDR National Project

- BUCAP Lao PDR Country Project
BUCAP Lao PDR National Team:
  ■ National IPM Programme, Agriculture and Extension Agency, Department of Agriculture, Ministry of Agriculture and Forestry
  ■ National Agricultural Research Centre, National Agriculture and Forestry Research Institute, Ministry of Agriculture and Forestry
  ■ CIDSE Lao PDR
  ■ Oxfam Solidarity Belgium in Lao PDR

The distinguishing feature of BUCAP Lao PDR Country Project is its institutional formation. The project is currently coordinated by Oxfam Solidarity Belgium in Laos which serves as the project holder and financial overseer of BUCAP in Lao PDR. The main implementing institution are the Agriculture Extension Agency through its National Integrated Pest Management (IPM) Program and the Secondary Agricultural Technical School in Luang Prabang and Champassak province. Both implementing institutions are under the coordination of the Department of Agriculture of the Ministry of Agriculture and Forestry. CIDSE Laos provides support monitoring, backstopping and coordination for the implementation of BUCAP in the agricultural colleges and in Vientiane Municipality. The National Agriculture Research Centre of the National Agriculture and Forestry Institute provides technical backstopping and breeding materials to farmer partners of BUCAP.

BUCAP in Lao PDR is an institutional experiment. It is one of the few initiatives that try to bring both extension and research institutions together in actively implementing and monitoring community based
projects in cooperation with non-government organisations. BUCAP in Lao PDR is a working model of the multistakeholder approach to project management.

This paper presents the complementation between formal and informal system in managing agrobiodiversity, the roles of the different stakeholders in strengthening farmers role in agrobiodiversity conservation under a changing agricultural and market system (from traditional, subsistence farming to intensive, market oriented system). Results of the selection and management criteria of farmers including bottlenecks in field implementation and policy concerns are discussed.

4) MANAGING AGROBIODIVERSITY UNDER CHANGING SOUTH ASIAN MARKET AND AGRICULTURAL PRODUCTION SYSTEMS: The Case of BUCAP-Bhutan National Project

- **BUCAP Bhutan Country Project**
  National Biodiversity Centre  
  Ministry of Agriculture  
  Royal Government of Bhutan

Bhutan is one of the biodiversity hotspots in the world. A number of efforts are underway in conserving the rich biodiversity of the country. A few focus on agrobiodiversity conservation work like BUCAP.

Bhutan was selected as a site for BUCAP because of its unique ecosystem. The country is still in subsistence agriculture where altitude and season plays defining roles in plant genetic resources conservation and development. The challenge is how to make the system productive while maintaining the prime role of farmers in crop development and conservation.

This paper looks at the agrobiodiversity management system in Bhutan, the challenges in conserving and managing the system and how the project (BUCAP) address these challenges by linking research and extension in strengthening farmers role and building their capacities to manage the ever changing system.

5) MANAGING AGROBIODIVERSITY UNDER CHANGING SOUTHEAST ASIAN MARKET AND AGRICULTURAL PRODUCTION SYSTEMS: The Case of CBDC-Thailand

- **CBDC- Nan Project**
  Hak Muang Nan Network  
  Nan, Thailand

This paper looks at the experience of CBDC Nan project in using the curatorship approach for agrobiodiversity conservation under three agricultural and market systems, namely a) traditional, subsistence Northern Thailand agricultural system with indigenous peoples, b) subsistence, upland agricultural system and c) lowland rice production system. An assessment of the approach and its subsequent evolution is discussed.
The paper also discusses the different ways of bringing conservation issues and sustainable use of biological diversity to the greater public through community radio, the formation of children’s cultural group, and the establishment of a province wide network of fish sanctuaries and rehabilitation of community forests supported by professionals in the province (doctors, engineers, civil servants), monks, farmers, students and development workers.

6) MANAGING AGROBIODIVERSITY UNDER CHANGING SOUTHEAST ASIAN MARKET AND AGRICULTURAL PRODUCTION SYSTEMS: The Case of CBDC-Vietnam

-CBDC Vietnam
Mekong Delta Farming Research Institute
Can Tho University
Can Tho, Vietnam

This paper looks at the experiences of CBDC Vietnam in conserving and managing agrobiodiversity under market oriented, intensive rice production system. The advantages and disadvantages of having the project initiated by a research institution in the Mekong Delta will be discussed. An assessment of the link between the genebank and breeding institution and farmer groups is also presented. The paper also outlines the challenges faced by a research institution in setting up a project to manage agrobiodiversity and strengthen farmers’ role in agrobiodiversity conservation.

7) MANAGING AGROBIODIVERSITY UNDER CHANGING SOUTHEAST ASIAN MARKET AND AGRICULTURAL PRODUCTION SYSTEMS: The Experience of SEARICE in the Philippines

-SEARICE

SEARICE directly implements two community based agrobiodiversity conservation and improvement projects in Central and South Philippines and provides assistance to CONSERVE, a non-government organisation based in Mindanao. This paper looks at the experiences of SEARICE in these Philippine based projects. Specifically, reviewing the shifts in approaches, the development of new methodologies and tools for community based agrobiodiversity management. The link of agrobiodiversity conservation work with the market and the accompanying advocacy work and policy discussions are discussed.