

Project Concept Paper

Project Title:

Enhancing utilization and conservation of indigenous vegetables by rural farmers in ASEAN countries

Project Description:

Integrating regional policy initiatives, harmonising institutional frameworks within ASEAN to enhance utilization and conservation of indigenous vegetables through capacity building that enhances education of rural farmers in ASEAN countries

Proponent's name and address:

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Date of preparation:

27 September 2006

Proposed funding source:

To be sourced by Proponent Country

1. Problem to be addressed

The underlying problem to be addressed by the proposed project is the persistent rural poverty among small-scale farmers in the ASEAN region characterized by inadequate incomes, lack of food security and cumulative damage to productive land. In the context of survival in increasingly liberalized market economies, salvation for small farm-holders on the treadmill of over-reliance on agro-chemicals and serial destruction of their productive land lies in moving up from sub-optimal farming practices through better agronomic and economic crop management that built on promotion of tropical indigenous vegetables.

Tropical indigenous vegetables (IV) are common and yet unappreciated and underutilized, and more so in ASEAN countries where these vegetables form an important component of everyday diet. That indigenous vegetables can play a significant role in addressing three major factors that affect the quality of life of resource-poor households in the ASEAN region, namely low income, malnutrition or poor health and loss of biodiversity, have been identified in several projects involving ASEAN countries.

As ASEAN countries continue to advance and modernise, the trend is towards further neglect of indigenous vegetables. There exists the danger of loss of biodiversity, in tandem with lost opportunities for rural poor farmers to contribute to the health and well-being of the nation, thereby depriving them of yet another opportunity to get out of poverty. The reason behind much of this problem is the paucity of opportunities to educate rural farmers about the rich biodiversity and appreciation of traditional knowledge so that these farmers can become partners in development and not just mere recipient of technology.

To sustain this approach there should be conscious efforts to encourage both public and private sectors to develop strong policy initiatives, strengthen institutional frameworks and build capacity across ASEAN. This effort is matched by contributions of national programmes and private sectors to support participation in workshops/seminars/courses organized by the programme management.

2. Background, problem analysis and justification

a. Background

The Association of South East Asian Nations (ASEAN) encompasses ten (10) Southeast Asian countries: Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.

Rural farmholders in these countries account for almost two thirds of the total population of some 531 million people, the proportion of rural population ranging from 28% in Brunei Darussalam to as much as 76% in Lao PDR, with the exception of highly urbanized Singapore. Because of the importance of small farmers, agriculture development largely depends on the viability and productivity of smallholder agriculture.

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reflected in the proceedings on "Collection, conservation and utilization of Indigenous Vegetables" (Engle and Altoveros, 2000) and "Perspectives of ASEAN Cooperation in Vegetable Research and Development" (Kuo, 2001).

Based on the pioneering efforts made with the support of the Asian Development Bank (ADB) and various ASEAN national governments, this programme seeks to build on the achievements made to date. In this respect, the programme seeks to bring science to resource poor farmers of ASEAN countries to further enhance efficient intensification with links to market opportunities and in the process generate jobs, better rural services for market development and production of higher value products. Enhancing efficiency in indigenous vegetable production will greatly complement activities linked to commune marketing, enterprise/job facilitation and financing.

Apart from enriching seed banks of indigenous vegetables in ASEAN, this programme will focus on quality farmer education to promote more efficient production of indigenous vegetables that will meet the demanding standards of a growing urban rich in most ASEAN countries. In addition, the education of farmers will promote *in-situ* conservation of these indigenous vegetables by farmers for posterity as well as preserving a reservoir for the development of in-country seed production.

Inherent in farmer education is the need to build capacity through training of facilitators from among the extension workers who act as frontline service providers to the beneficiaries, i.e. the rural poor farmers. Combined with the development of skilled facilitators is the need for National Agriculture Research Systems (NARS) to form effective link-ups with these facilitators, thereby enhancing the flow

of research findings to reach beneficiaries via a system of discovery learning. When farmers have learned to generate knowledge, they

are more confident and through this empowerment process, such farmers are more willing to share their wealth of traditional knowledge, thereby sustaining the growth of the indigenous vegetable sector.

b. Problem analysis and justification

As ASEAN countries progress, as reflected by the economic growth in the region, there is a greater awareness for the need to protect the environment and loss of national and natural heritage. An important consideration is the well-being brought about by safe and nutritious food. Indigenous vegetables were the main source of such food for generations in all ASEAN countries. As such it is realised that protecting and conserving this rich source of nutrient will ensure ample supply of safe and healthy food for all in ASEAN for generations.

The decline in appreciation and utilization of indigenous vegetables, in the face of modernisation, has ramifications beyond the loss of biodiversity. It is the recognition of the erosion in the natural heritage that would deprive future generations the privilege of plants that may provide nutrition, medicine and health. It may lead to lost opportunities for rural poor farmers to contribute to the health and well-being of the nation, thereby depriving them of yet another opportunity to get out of poverty. In addition, it may signal the lost of traditional knowledge that defines the quality of life in ASEAN.

Much of the cause of this sad state goes beyond the perception that we need to sacrifice environment for modernisation. It has much to do with lack of opportunity in educating the rural poor. In particular,

there has been neglect in bringing science to resource poor farmers of ASEAN countries to further enhance efficient intensification with links to market opportunities and in the process generate jobs, better

rural services for market development and production of higher value products. Science, as taught in formal schools, has advanced the peoples of ASEAN and its value should be available to all sectors of the population. The rationale is that an educated rural society will protect the environment and produce safe and healthy food in a sustainable and profitable manner, thereby facilitating poverty reduction.

Regionality.

Indigenous vegetables are ubiquitous and are in integral part of life in all ASEAN countries. Indigenous vegetables offer nutrition, medicine and food but there are signs that these have been neglected with concomitant danger of biodiversity erosion of our natural resources from such neglect. Sharing of experiences can be integrated through developing regional policy initiatives resulting in a synergy in indigenous vegetable utilization and conservation.

By building a cadre of facilitators and research scientists in each country to be aware and be committed to the development of a viable indigenous vegetable culture and utilization by rural poor farmers, this project hopes to help all 10 ASEAN member countries to focus on sustainable development without sacrificing traditional values and the environment. The opportunity for rural poor to benefit from more efficient cultivation and marketing offers an avenue to reduce poverty.

Through a regional forum under the auspices of the ASEAN-AVRDC [Asian Vegetable Research and Development Centre] Regional

Network for Vegetable Research and Development (AARNET), tackling the problem of a decline in the availability of indigenous vegetables was prioritised with Brunei Darussalam taking the lead as the focal point.

Participation.

The project focuses on developing synergy among the 10 ASEAN countries with regional and international partner or partners in addressing a common problem, that of declining interest in indigenous vegetables that may result in loss of biodiversity as well as loss of opportunity to benefit from healthy vegetables consumed by generations of ASEAN nationals.

Moreover, promoting more efficient indigenous vegetable cultivation and marketing will offer the opportunity to reduce poverty among resource-poor farmers. More specifically, this project will address two of the four priority areas outlined in the Vientiane Action Programme, namely ASEAN Socio-Cultural Community Pillar and Narrowing the Development Gap. In the former, the project will support the building of a community of caring societies through a more healthy diet that has more nutrition, medicinal and food values. In addition, a greater awareness of natural heritage and resources will encourage farmers to support an *in-situ* conservation programme for indigenous vegetables, thereby promoting environmental sustainability and preservation of traditional knowledge associated with growing and eating indigenous vegetables in all 10 ASEAN countries.

To narrow the development gap, this project will foster a greater to bring about ASEAN integration for the benefits of the rural poor, especially in the CLMV countries through a shared value of promoting indigenous vegetables.

Beneficiaries.

The ultimate beneficiaries of the project will be the large numbers of rural poor households dependent on small-scale farm production in the ASEAN region. Within that huge number, the focus will be on

those farmers managing resources inefficiently and neglecting the familiar indigenous vegetables. The project seeks to encourage these poor households to appreciate and promote indigenous vegetables.

Commitment and sustainability.

While still a neglected field in most ASEAN countries, the benefits of indigenous vegetables through better awareness of the health aspect and the need to preserve biodiversity of these valuable natural resources have prompted several countries to take note and support initiatives to promote indigenous vegetables as a lead to safe and healthy food.

As such, Philippines have provided funding to enhance teaching of indigenous vegetables in school programmes, Thailand has set up an indigenous vegetable garden to create awareness of traditional vegetables and Brunei Darussalam has been given financial approval to promote the conservation and utilization of indigenous vegetables. Hence, this project will sustain and build on the interest generated for indigenous vegetables by promoting the value of educating stakeholders on the importance of bringing science to farmers.

3. Possible solutions

With the previous support of regional and national financial institution, research and National Agricultural Research Systems in ASEAN countries, much information about indigenous vegetable has been collected from surveys and research. However, the impact of

such an effort has been largely limited to the research community with little in supporting the beneficiaries identified in this project.

This project through the AARNET initiative hopes to address the development aspiration of AARNET by bringing science to farmers. This allows the researchers to work directly with farmers as farmer

research partners. To enable this to be achieved, farmers have to be educated first through a participatory farmer education involving indigenous vegetable facilitators from the extension services. The facilitators would be trained in a participatory approach that builds on non-formal education and will enhance the nature of service to farmers to become more confident, skilled and sustain their efforts to get out of poverty. The process of a top-down linear extension approach has proven to be unworkable in the ASEAN context and the experiences of a participatory discovery process has been experimented to be a very viable approach in all ASEAN countries.

The danger of not stopping the neglect in indigenous vegetables is the loss of biodiversity and concomitant opportunities to help farmers provide safe and healthy food to the peoples of ASEAN.

A farmer education process, including a farmer-to-farmer teaching approach, has been shown to be the best extension approach to address complex issues such as learning environmentally sound agronomic practices, learn marketing standards for vegetables/fruits and in general make better decisions to advance the economic well being of the rural poor. It necessitates the need to build a strong cadre of facilitators who would be able to provide this service as well as a caring research community who will recognize farmers as research partners and not passive recipients of technology.

4. Objective and success criteria

a.Objectives

1) To strengthen the capacity of ASEAN nations to address the challenges of declining biodiversity from neglect in indigenous vegetables. This project seeks to encourage sustainable utilization of indigenous vegetables through exploring traditional values and

preferences. It seeks to enhance ability to produce safe and healthy vegetables and promote concomitant policy support. This will enhance greater economic integration and providing an enabling environment to better participate in the global economy. Specifically, the project will support, or contribute to developing:

- integrated regional policy initiatives on safe and healthy vegetable production through a focus on indigenous vegetables
- harmonised institutional frameworks within ASEAN to promote the study, cultivation and marketing of indigenous vegetables by encouraging strong linkages between research and extension
- capacity building across ASEAN to implement policies in support of sustainable utilization of indigenous vegetables using a bottom up approach

2) The success criteria would include:

- Researchers, Extension workers and Farmers educated about the value of indigenous vegetables, with farmers skilled in growing them efficiently and marketing them profitably to a growing demand for safe and healthy vegetables within an enabling political environment.
- Publications to define the rich heritage of indigenous vegetables in ASEAN to foster an integrated regional policy support for their cultivation and sustainable utilization organized
- Public service agencies promote cultivation and marketing of indigenous vegetables through harmonised institutional framework across ASEAN

- Private sector involvement to produce and develop new varieties of indigenous vegetables

b. Success Indicators

The project seeks to achieve the following:

- Impact Assessment Results that will compare the outcome of the project with a baseline set at the onset of the project
- Ministerial and National statistics
- Wet market and supermarket outlets surveys
- Regular progress reports
- Publications by national agencies prepared
- Publicity brochures by ASEAN and national governments organized
- Policy initiatives by national governments to promote indigenous vegetables
- AMAF, SOM-AMAF and technical level meetings/discussions to harmonise institutional cooperation in implementation

c. Success Measures

1. A total of 100 quality farmer facilitators trained/re-trained
2. A total of 1250 farmers educated in season long farmer field schools from the project
3. 50 Farmer Facilitators organised to train other farmers in each country
4. Up to 12 national and regional workshops/seminars to bring awareness to researchers/extension workers and policy makers
5. Up to 10 researchers in each country working with farmers under farmer conditions to serve as resource person and to

learn about the research needs that will benefit the resource poor farmers

6. Increased number of studies of indigenous vegetables and concomitant publications in each country by national agriculture research systems
7. 20 in-situ conservation programmes by farmers initiated

8. Standing agenda on indigenous vegetables discussed in each ASEAN SOM-AMAF and AMAF meetings.
9. At least one illustrated guide to indigenous vegetables prepared in the local language in each country and one publication for ASEAN organized.

5. Outputs

a. Integrating Policy Initiatives

- Number and seniority of members of governments, lawmakers and civil servants exposed to pro-poor modernization with promotion of indigenous vegetables for safe and healthy food production through a participatory farmer education approach
- Relevant changes in legislation, subsidiary regulations and departmental work programmes
- Tangible linkages of farmers as research partners to researchers and enhanced linkages between service providers

b. Harmonising Institutional Frameworks

- Locally appropriate reforms installed in structures, working places, and internal cultures of institutions engaging with smallholders
- Number of scientific studies into indigenous vegetables that meet the implementation plans identified through regional consultation
- Modification and evaluation of affordable of FFS-based farmer education for indigenous vegetable utilization and conservation

- Increased co-ordination of GOs, NGOs and private sector brought about on support to farmer education

c. Capacity Building

- scientific management training courses at the Regional Training Center of AVRDC-Asian Regional Center, Kamphaengsean, Thailand or at any equivalent institutions from the collaborating partner
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- country. A total of 3 annual training courses would be organized with 20 participants per training course
- Key Managers and technicians exposed to information and debate
- Experiences shared systematically for benefit of all in the region
- Significant proportion of extension specialists and managers imbued with participatory FFS approach and methodology
- Capacity to implement participatory farmer education and action research enhanced through linkages between research and extension

6. Management and implementation arrangements

a. Management arrangements

The Natural Resources Unit of the ASEAN Secretariat would be responsible for ensuring the successful implementation of the project in coordination with Brunei Darussalam as the proponent country.

b. Implementation arrangements

To implement the project, Department of Agriculture, Brunei Darussalam will engage the expertise of a recognized R&D and training institution in the region or with the collaborating country who will provide overall Program coordination and technical backstopping to the national programmes.

The project provides advice and assistance to national governments through nascent or established national agriculture research and extension systems in participating ASEAN member countries. The status and structure of these national programs currently vary from country to country. Some member countries have established Program Steering Committees and Working Groups which coordinate the activities of a number of government units and other

concerned organizations engaged in activities in safe and healthy vegetable production.

In accordance with present local conditions, the project will have different counterpart arrangements, as identified by the SOM-AMAF leader of each of the participating ASEAN member country. However, it is a crucial factor for success that agreement will eventually be reached on the engagement of national agriculture research and extension systems with the most appropriate unit of the public sector in each member country.

At regional level, the appointed consultant will facilitate interactions among participating countries and will provide international support. The consultant will maintain a presence in all participating member countries through national experts duly seconded by the appropriate government agency. The national experts will work closely with the Country Program Support Unit (CPSU) of the respective member countries.

Experts, consultants and/or contractors funded by the project will perform the following functions at the level of individual member countries:

- Advising national policy-makers, program planners, project managers, local government officials, NGOs and community

groups on the planning, management and implementation of farmer education through FFS

- Organizing training of facilitators in order to establish self-reliant FFS training capability among government institutions and NGOs at the national level
- Organizing in-country activities to improve the skills and experience of indigenous vegetables training facilitators and thereby increase capacity and capability for the planning, management and implementation of Farmer Field Schools
- Providing expert advice and funding for field activities which lead to the design, testing and documentation of a range of farmer education approaches appropriate to local farming systems
- focusing on indigenous vegetables, and community needs and market demands, (including farmer action research, curriculum development, training of farmer facilitators, national/local program planning and market development).

c. Monitoring and Evaluation Arrangements

The project Program Steering Committee (PSC) will be constituted to provide direction and management guidance, most crucially through the approval process for Annual Work Programs and in consultation with the AARNET. The periodic reporting system is expected to bring management issues to the agenda of the PSC, both at and between formal meetings. As program managers, the PSC bears the responsibility for applying a constant constructive review process, with the advice and support of technical assistance staff of the project and AARNET Steering Committee.

A formal mid-term review will be carried out with supplementary external specialists at a convenient juncture, to take stock of the

first one and half years of implementation and recommend any “mid-course correction” that might assist with the achievement of program objectives.

An end-of-program review will also be conducted to capture the achievements of the project, to identify lessons learned, and to suggest any follow-on program activities that may be appropriate. The intransigent poverty of large numbers of smallholders in the region makes it highly likely that further investments in farmer

support modalities will be needed beyond the life of the present initiative.

The project progress will be monitored by consultants to be contracted by the Donor/s to produce formal reports gauging program status in a range of standard criteria including relevance, apparent effectiveness, efficiency and potential sustainability. These monitoring reports are intended primarily to capture experience for the benefit of future program design.

Above and beyond the regular monitoring and management information exchange processes, the project will be subjected to at least one formal performance evaluation exercise conducted by independent specialists. Program implementation history will be compared with the original intentions in a standard approach that is both neutral and constructive in identifying lessons learned.