



# Policy Framework for Poverty Reduction by Realizing Sustainable Diversified Agriculture through the Development of Secondary Crops

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## Introduction

**A**gricultural diversification can be defined as increasing the number of activities concerning agriculture. It is classified into horizontal diversification and vertical diversification in terms of the direction to which the farm economy proceeds. Horizontal agricultural diversification involves diverse activities undertaken within a farm production unit, whereas vertical diversification involves the inclusion of income-earning activities undertaken off-farm into on-farm production activities (Taylor, 1994).

The first type of agricultural diversification has the primary function of combating risks of production failure and output-price fluctuation, while the second type has the primary function of increasing farming income through the maximization of value-added obtained from the farming operation. Given its primary economic functions, agricultural diversification can be regarded as a critical mean for farmers to improve their family's economic welfare. This is especially true of poor farmers whose access to economic resources is severely limited. For them, even a small production failure can be a serious threat to their family's survival. The possibility of such a nightmare to occur becomes greater

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when farming becomes less diversified. Meanwhile, successful implementation of agricultural diversification cannot only enable farmers to secure their survival, but can also give them the opportunity to escape the poverty trap that they are facing.

However, in many developing countries, including the ESCAP countries, where poverty is still a serious problem especially in rural areas, governments have long ignored the important role of agricultural diversification for improving rural income as well as for alleviating rural poverty. For instance, in the ESCAP countries, governments have long concentrated on pursuing rice self-sufficiency. As rice production is most suitable on lowlands, government policies have primarily been directed toward the development of lowland agriculture with its main crop of rice. As a consequence, secondary food crops, better known as CGPRT crops (coarse grains, pulses, roots and tubers) have become almost totally ignored by the governments. In fact, these types of food crops are the major source of employment and income for the poor who have been forced to move into hilly areas to defend their family's survival. If continued, the governments' ignorance will make not only the poor become poorer, but will also cause more serious environmental problems due to the heightened exploitation of the natural resources by the continually suffering poor farmers and their families on marginal land. As environmental degradation increases, agriculture will eventually become

unsustainable. Preventing this nightmare from happening requires the reshaping of public policy intervention.

Underlying such a background, UNESCAP-CAPSA has been implementing a three-year research project, "Identification of Pulling Factors for Enhancing Sustainable Development of Diverse Agriculture in Selected Asian Countries" (AGRIDIV), since April 2003. The project is funded by the Government of Japan. The country studies are being conducted in two separate phases, namely Phase I and Phase II within the three-year period of the project. The phase I country study was completed in June 2004 and the draft report meeting (phase I) and planning meeting (phase II) of the AGRIDIV project were held on 20-22 July 2004 at CAPSA. In the meeting, national experts from participating countries (Bangladesh, India, Indonesia, Lao People's Democratic Republic, Myanmar, Sri Lanka, Thailand and Viet Nam) presented country reports for the phase I study. In this article, we try to integrate the policy recommendations which have been obtained by country studies and formulate a policy framework to better present the situation concerning poverty alleviation in rural areas based on the major findings of the AGRIDIV phase I study.

### Research subjects

The principle study subject for phase I is a descriptive and quantitative analysis of the current status of CGPRT crop agriculture and the identification of its development constraints.

More specifically, it includes six subjects as follow:

- Historical review and analysis of the general pattern of production, marketing, and consumption of crops and their products with an emphasis on CGPRT crops;
- Identification of major constraints that determine CGPRT crop production, consumption, and processing;
- Quantitative analysis of the impacts of global trade orientation on upland CGPRT crop agriculture, including its impact on the rural economy, employment creation, and environment;
- Comprehensive analysis of the existing policies on food production, consumption, and market development that may have been encouraging or discouraging the diversification and sustainability of agricultural systems and CGPRT crop consumption, utilization and environment;
- Survey of research articles on the industrial importance of CGPRT crops as well as diversified ways of consuming them and explore the potential of product diversification to meet changes in demand;
- Formulation of policy recommendations for enhancing the production and consumption of CGPRT crop raw materials into processed end products.

The principal products of phase I country studies are policy recommendations for poverty reduction by realizing sustainable diversified agriculture through the development of CGPRT crops.

## *Message from the Director*

It is a pleasure for me, as the Officer in Charge of CAPSA, to address this "Message from the Director" to you. Since Dr. Maeno wrote the previous message to you in June 2004, several changes have taken place in CAPSA. The first change is that Dr. Maeno completed his term as the Centre's director on 30 June 2004 and returned to Japan. I would like to take this opportunity to express the gratitude of UNESCAP and CAPSA to Dr. Maeno for his work and his commitment to the Centre, and wish him all the best on behalf of the staff of CAPSA. As this issue of Palawija News goes to the press, UNESCAP is in the process of recruiting a new director and we hope that the new director will be able to assume his position by late this year or early 2005. The primary task of the new director will be to operationalize the new mandate of CAPSA as adopted by the 60<sup>th</sup> Session of the Commission into concrete programmes of work and to mobilize the funds for their implementation. However, as the Governing Board of the CGPRT Centre stated in its 2003 meeting, this cannot be the task of the Centre and its director alone. They require and deserve the support of UNESCAP and of the member countries of CAPSA.

The realignment of CAPSA is not a stand-alone reform, but takes place in the context of reforms in UNESCAP and in the United Nations as a whole. Increasingly, member countries of the UN express their concern about the effectiveness of the work of the UN. They are telling the UN to be more results-oriented and to constantly ask the question "*What difference does our work really make?*"

The reference point for our work is the Millennium Declaration, adopted by the member countries in September 2000, and the eight Millennium Development Goals which have set the agenda for the work of the United Nations. The most important of these goals, Goal 1, is to halve poverty in the world by 2015. Since most of the poor (i.e. those living on less than US\$ 1 per day) live in Asia and most of Asia's poor live in the rural areas, the question to be asked to us in CAPSA is "*What difference does our work make to the quality of life of rural poor, in particular those that are growers, processors and traders of secondary crops?*"

In order to enhance the effectiveness of its work, CAPSA organized a regional workshop in June 2004 in Jakarta to prioritize the research and development themes of the Centre. Dr. Robin Bourgeois reports about the results of the workshop in this issue of Palawija News. The results will serve as important inputs into the next programming cycle of CAPSA (2006-2007). The work programme of CAPSA for 2006-2007 will fully reflect the new focus of the Centre on poverty alleviation and the realignment with UNESCAP's objective to develop the capacity of countries in the region to design more effective poverty alleviation policies and programmes. This will be a challenge for all of us, whether in CAPSA and UNESCAP or in our partner institutes in the region. It is only through regional partnerships that we can make a difference.

**Mr. KIOE SHENG YAP**  
**Officer in Charge of CAPSA**

For the establishment of policy recommendations, each country study team was requested to identify constraints and driving factors for agricultural diversification through CGPRT crops. These factors were identified through four items.

1) Historical trends and the current status of CGPRT crops in the country, 2) Global economic trends such as trade liberalization and the comparative advantage of CGPRT crops in the region, 3) Analysis of current policies which affect agricultural diversification including their background, impacts and side-effects, 4) Industrial importance of CGPRT crops.

### Policy recommendations

A summary of policy recommendations presented in the country reports is shown in Table 1. They include various aspects reflecting the characteristics of agricultural diversification and there is a broad range in the methodology. For the establishment of policy frameworks for poverty reduction by agricultural diversification, we classified policy options into eleven categories which are 1) Technological development, 2) Marketing, 3) Infrastructure and information, 4) Credit, 5) Processing, 6) Price and trade policy, 7) Input, 8) Regional cooperation, 9) Farmers group, 10) Land policy and 11) Others.

Table 1 provides us with implications about how we can approach poverty alleviation through agricultural diversification. From the table and additional information from country study reports, we believe

there are five aspects in this approach.

Firstly, technological development still has a vital role in promoting agricultural diversification. Though agricultural diversification certainly has positive affects for risk mitigation, the principal obstacle which hinders farmers from changing their cropping pattern into diversified agriculture is low productivity. This is partly because "Better land is allocated to more important staple crops such as rice and wheat, while coarse grains, tubers and pulses are often grown on marginal and less fertile land (Bangladesh)." or "Most of the CGPRT farmers are resource poor farmers and they have limited access to quality seed and information on new production technologies (Sri Lanka)." Therefore, "Development of low cost technologies is necessary to meet the pressing needs of resource-limited small farmers (Myanmar)."

Secondly, marketing issues are crucial for income improvement through agricultural diversification. According to the study results, some CGPRT crops enjoy good profitability which meets or surpasses the profitability of some major cereals. However, most of the rural poor farmers don't seem to utilize these merits to help alleviate their poverty because of inadequate marketing activities and insufficient information. "There is no specific market for CGPRT crops. Though most of the states have a huge marketed surplus of coarse cereals as well as pulses, in the absence of proper marketing facilities and institutional support, these crops

find difficulty in reaching the regulated markets (India)."

Thirdly, processing or industrial uses have huge potential in terms of CGPRT crop development. In general, profitability of CGPRT crops is lower than high value commodities such as vegetables, fruits and livestock because of their lower prices and poorer income elasticity of demand. However, most CGPRT crops have various ways to be used as raw materials for agro-processing and industrial uses. Thailand, which is known as a major exporter of cassava chips to the EU until the early 90s', shows the greatest varieties and inestimable prosperity of cassava products. Thailand has expanded the varieties of cassava utility from traditional products like chips, pellets and starch to advanced industrial uses like the use of cassava starch in textile, paper and plywood production, or as a material of manufacturing products like various kinds of sweetener, glue, seasoning, amino acids, organic acids and advanced products like bio-degradable plastics and bio-fuels. As a result, in spite of the decreased cassava chips' exports to the EU, the cassava industry in Thailand has still shown robust development. "During 1996-2003, industrial demand for fresh cassava roots was on an increasing trend (the slice drying yards grew at an annual rate of 77 per cent). The linkage industries of starch production, e.g., seasoning, sweeteners, paper, textiles, household consumption, etc., grew at an annual rate of 6.3 per cent (Thailand)."

**Table 1. Summary of policy recommendations from the AGRIDIV country study in phase I**

Area	Recommended measurements
1. Technological Development	<p>Breeding research.                      Preservation of germplasm.                      Marketing system research.                      Cropping system research.                      Development of location specific crop production technologies by the adoption of non-monetary inputs.                      Improving productivity to decrease the slash-and-burn system.                      Socio-economic research.                      Farming system approach.                      Line sowing.                      Introduction of new varieties, especially hybrids with high productivity.                      Integrated pest management.                      Reforms of technological development and dissemination systems.</p>
2. Marketing	<p>Contract growing systems between farmers and processors.                      Domestic market reforms.                      Farmers' access to market information.                      Exploration for new markets for traditional and new species of pulses.                      Enlargement of the marketing network from the local level up to the national and export level.                      Forward Sales System (FSC): promoting trade of agricultural products at a pre-determined price.                      Integration between production and marketing.                      Motivation for production to meet the requirements of markets.                      Promotion of exportation.                      Strengthening of marketing and storage systems.</p>
3. Infrastructure and information	<p>Better transportation, communication and information systems.                      Small-scale irrigation devices with minimum cost.                      Irrigation through agro-wells.                      Improvement of storage facilities.                      Increase the area under irrigated agriculture.                      Establishment of a crop production and market price forecasting system.</p>
4. Credit	<p>The storage-cum-credit scheme.                      Involvement of the private sector in agricultural credit.                      Improvement of the banking and financial sector's stability.</p>
5. Processing	<p>Establishment of more processing plants and mills.                      Improvement of traditional processing devices.                      Easy access to imports and the use of processing machinery.                      Enlargement of cassava production to produce ethanol for its lower production cost relative to the use of molasses.</p>
6. Price and trade policy	<p>Price policy to ensure remunerative price to growers.                      Amendments of national tariff structure.                      Introduction of fair non-tariff measures.</p>
7. Input	<p>Subsidies for inputs.                      Ensuring timely and adequate availability of input.                      Improve the current level of fertilizer use and quality seed provision.                      Encouragement of production of seeds and planting material.</p>
8. Regional cooperation	<p>Regional cooperation for R&amp;D.                      Collaborative programs to enhance processing and trade.</p>
9. Farmers group	<p>Establishment of contract farming cooperatives and group action.                      Establishment of collective farmer group participatory programs.</p>
10. Land policy	<p>Rearrangement of land policy for guaranteeing land rights.                      Use of land rights as a loan collateral.</p>
11. Others	<p>Public awareness of nutritional value of CGPRT crops.                      Campaigns for consumption of locally produce beans which are non-GMO for value added.                      Investment in agriculture and processing.                      Establishment of "National Agricultural Diversification Council".                      Cooperation with related authorities, private sectors and farmers.                      National program to achieve nutritional security through food diversification.</p>

Sources: Compiled from country reports by authors.

Fourthly, coexistence with maintenance rice production should be considered for agricultural diversification. The policy recommendations which will be established in the project should account for how we maintain major cereal production which is crucial for food security in the participating countries. The key factor may be "right crops for the right land strategy." For example, "Cultivation under the slash-and-burn system is to be decreased and stopped. The additional gains in production have to come from irrigated dry season production (Lao People's Democratic Republic)." We should accentuate the positive factors of the current preferable situation of major cereals or mono-cropping and discard the negative factors of those farming systems through agricultural diversification. It is essential to see the big picture to coordinate a country's overall agricultural policies, not only focused on agricultural diversification issues themselves. "For horizontal diversification at farm level, it is difficult for Myanmar to adopt that type of crop diversification because some regions are especially assigned for a specific crop due to its agro-ecological suitability (Myanmar)." Regional diversification, which means the formulation of production centres for specified crops which have comparative advantage in

respective areas will be key to consider this issue.

Last but not least, proper policy arrangements which consider the overall well-being of the rural poor are key to effective poverty alleviation. We need to solve the conflict between pro-major cereal policies and poverty reduction in rural areas. "Since land is owned by the state, in some areas, farmers are forced to grow summer rice which needs fossil fuel for pumping water for irrigation, a high level of inputs such as chemical fertilizer, and relatively high level of cost of cultivation even though the farmers would prefer to grow pulses which are environmentally more friendly because of their utilization of residual soil moisture without any irrigation water, low external inputs, less risk and greater profitability (Myanmar)."

### **Challenges in Phase II Study**

The policy recommendations which were shown in the phase I study are mainly based on literature reviews and statistical analysis. In the phase II study, to be conducted from August 2004 to May 2005, we will be focused on case studies to collate first hand data that will strengthen the policy recommendations of phase I. We

will try to evaluate the effect of current and previous policies concerning agricultural diversification and identify the best experiences of poverty alleviation through agricultural diversification by investigating the background of its success. We will pay much attention to the industrial importance of CGPRT crops and products in the market and diversified ways of consuming them. We will analyze constraints and opportunities faced by farm growers, households and small-scale establishments to enhance diversification in the production and consumption of CGPRT products. Agricultural diversification is very site specific, therefore our challenge is to propose policy options which will be constructed on the appropriate understandings of local socio-economic conditions. The expected products of the AGRIDIV project should be strategic proposals and measures to counter the inhibiting factors of poverty reduction through agricultural diversification based on secondary crops including CGPRT crops, not only at the national level but also at local level. ■

**(References available upon request.)**

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# **Prioritization of CAPSA Programmes in the Context of Poverty Reduction and Rural Development in Asia and the Pacific**

*Robin Bourgeois\**

This article is the last of a series of three. It presents the rationale, approach and results of a participatory priority setting exercise conducted in Jakarta with the participation of several representatives of member countries. For more details please refer to "Report of the Workshop on Prioritization of Research and Development Themes in the Context of Poverty Reduction and Rural Development in the Region", 2004.

## **Background**

As part of the process of its realignment within the UNESCAP reform, CAPSA has refocused its activities in order to address more clearly the priorities of UNESCAP, the needs of the member countries and the orientations of the international community. CAPSA has elaborated its new logical results-based framework with a stronger emphasis on poverty alleviation through the use of secondary crops for improving the

livelihoods of rural poor populations concentrated in marginal areas (see Palawija News Vol. 21, No. 2: "Structuring CAPSA Activities with a Results-based Logical Framework Approach"). The direct target group of CAPSA consists of high level research managers and policy analysts/planners who are able to contribute to the elaboration of pro-poor policies for rural development, while indirect ultimate beneficiaries should be the poor, via policies and actions designed and implemented by this primary target group.

As a result of the thorough process of reviewing UNESCAP priorities, member countries' needs and international community orientations, CAPSA came up with six programme proposals (see Palawija News Vol. 21, No. 1: "Revisiting the CGPRT Centre's Programme: Poverty Reduction and Sustainable Development") that were discussed during the most recent TAC meeting. Support for the proposals was forthcoming from the TAC members.

Since funding and human resources are factors limiting the Centre's capacity to implement its programme, prioritization of the proposals is necessary. According to the key principles of good governance and in order to raise the commitment of the member countries, the prioritization exercise was proposed to take place in the form of a workshop involving member and associate member countries via one representative of CAPSA's target group. The Government of Indonesia agreed to provide financial support for the organization of this workshop

and helped the Centre to implement it.

Invited participants came from 12 different countries and represented 14 different organizations, including three international organizations. Most of the participants are high-level researchers, research managers and policy makers.

## **The Priority Setting Methodology**

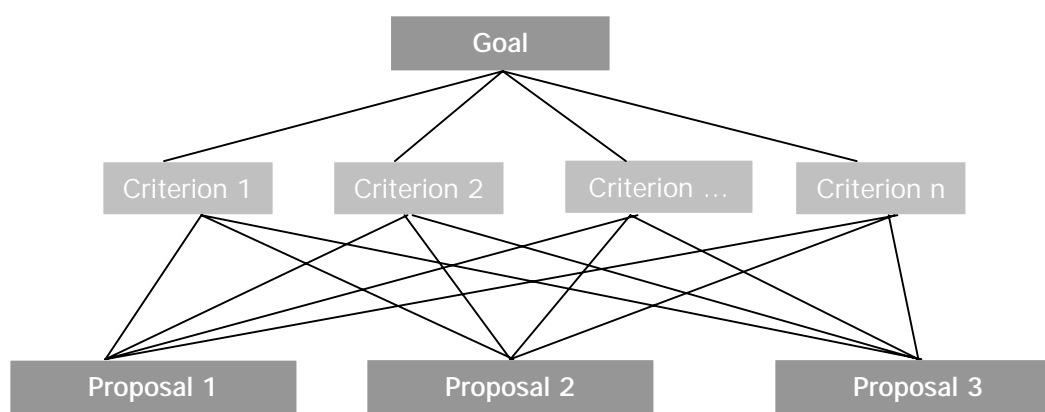
The priority setting was performed through the application of the Analytic Hierarchy Process (AHP) methodology to the six programme proposals. AHP allows improving the understanding of complex decisions by decomposing a problem in a hierarchical structure<sup>1</sup>. Since multi-criteria decision problems are typical of R&D project selection, AHP is useful to compare relevant decision criteria and determine trade-offs among objectives. Furthermore, it incorporates the knowledge and expertise of the participants in the priority setting process by making use of their subjective judgements, a particularly important feature when the information for decision-making is poor. AHP consists of three steps:

- i) Decomposition of the decision problem,
- ii) Comparative evaluation of the elements, and
- iii) Synthesis of the priorities.

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<sup>1</sup> Saaty, T., 1994. Fundamentals of Decision-Making and Priority Theory with the Analytic Hierarchy Process. RWS Publications.

Figure 1. The basic structure of the hierarchy



The **decomposition of the decision problem** into a hierarchy is depicted in Figure 1. The goal of the decision is at the top level. The next level consists of the criteria that are relevant to this goal. These criteria serve as screening tools for the evaluation of priorities. At the bottom level are the alternatives, projects, proposals, options (for example research proposals) to be evaluated.

The **comparison of criteria and alternatives** consists first in the establishment of relative weights. Since the required qualities or characteristics of the alternatives may not be of equal importance in relation to the goal, this evaluation of criteria provides a way to decide on their relative importance. Criteria are then compared in pairs with respect to the goal, answering the question: *Which of these two criteria is most important for assessing alternatives with respect to the achievement of the goal?*

A verbal scale is used and corresponding values are entered into a matrix. Results are computed as to obtain

coefficients for all criteria. Usually, coefficients are calculated so that their sum equals one.

For each criterion, the same procedure is repeated by comparing pair-wise the alternatives. The question is: *Which one of these two options rates more in relation with this criterion?* Here again, a verbal scale and corresponding values are used. After entering results into a matrix the respective values of each alternative are computed so that their sum values equal to one.

In the **synthesis of priorities**, the results for each criterion are combined into a final matrix. The proposal that receives the highest value is considered as highest priority. A ranking of proposals can be established based on these final values and this ranking must be discussed. As there is an unavoidable part of subjectivity in the establishment of the verbal scale and assessment by participants, this discussion phase is of utmost importance.

### Application to CAPSA Programme Proposal and Results

In the **structure of the decision problem**, two structural elements are given. These are the CAPSA goal and proposals. The goal is defined in the Centre's mandate, as proposed during the 60<sup>th</sup> Session of the UNESCAP Commission: "The objective of CAPSA is to promote a more supportive policy environment in member countries to enhance the living conditions of rural poor populations in disadvantaged areas, particularly those who rely on secondary crop agriculture for their livelihood, and to promote research and development related to agriculture to alleviate poverty in the Asia-Pacific region."

The proposals to be evaluated with regards to this goal have been presented to the TAC and GB and consist of the six integrated R&D-HRD-IS/DB proposals as indicated in an earlier article. These are:

- Valuing secondary crops' biodiversity as a source of

- poverty alleviation in Asia and the Pacific (**VALBIO**)
- Poor and marginal farmers' access to value adding utilization of secondary crops in Asia and the Pacific (**VALAD**)
- Comparative advantage of secondary crops for trade deficit reduction in Asia and the Pacific (**COMPAV**)
- Consumption trends and market prospects. Secondary crops' contribution to growth and equity (**COMAP**)
- Secondary crops' contribution to the substitution of fossil fuels by renewable biomass products (**RENEW**)
- Socio-economic assessment of biotechnology for secondary crops' development and poverty alleviation (**BIOTECH**)

The first task of the participants was to identify the criteria to be used for pair-wise assessment of the proposals. Using visualization techniques they brainstormed on a list of possible criteria. Then, a grouping process and further discussion helped to reduce the number of criteria to five. For each criterion, participants

agreed upon a single and clear definition to which one could refer to in the subsequent steps. These criteria are indicated below:

**Workability ("Work"):** To what extent the proposal is within the capacity of the participating countries from a scientific point of view.

**Benefit to target population ("Benefit"):** To what extent the proposal improves the welfare of rural poor populations in disadvantaged areas in Asia and the Pacific.

**Likelihood to attract support ("Support"):** To what extent the proposal is able to attract support/funding from donors and member countries in Asia and the Pacific.

**Usefulness to policy makers ("Policy"):** Self-explanatory.

**Environmentally sound ("Environ."):** To what extent environmental conditions are incorporated in the proposal.

#### *Setting coefficients for the criteria*

The verbal scale and corresponding values used by the participants are indicated in Table 1 below. The selection process consisted of a two-step procedure, voting first about the relative importance of the criteria

or alternatives, selecting between three options (more, equal or less) and then selecting the corresponding value (below one for less, one for equal, above one for more). The results of the pair-wise comparison of criteria are also given in Table 1.

Participants found a high level of consistency in the attribution of coefficients. The fact that "Benefit" ranked highest reflects both the ultimate purpose of the Centre and a key concern of the member countries. "Support" ranked second, as without resources CAPSA would be in no condition to implement its programme. The surprise came essentially from the ranking of the "Policy" criterion in last place.

#### *Ranking of proposals*

After setting coefficients, participants assessed the proposals two by two with regard to each criterion respectively. The results are displayed in Table 2 below.

According to the participants the most "workable" proposals are COMAP and COMPAV. These two proposals rely on economic analysis methods

Table 1. Verbal scale, values and results of the pair-wise comparison of *criteria*

<b>Legend:</b>	1	means	equally important
add ± 10 per cent	if	somehow more or less important	
add ± 30 per cent	if	more or less important	
add ± 50 per cent	if	much more or less important	
add ± 20 per cent or 40 per cent	for	intermediate values if needed	

<i>This with</i>	Work	Benefit	Support	Policy	Environ.	Value	Weight
Work		0.9	0.7	1.0	1.0	3.6	0.180
Benefit	1.1		1.3	1.3	1.0	4.7	0.235
Support	1.3	0.7		1.3	1.0	4.3	0.215
Policy	1.0	0.7	0.7		0.9	3.3	0.165
Environ.	1.0	1.0	1.0	1.1		4.1	0.205

Table 2. Proposal values according to the five criteria

	Work	Benefit	Support	Policy	Environ.
VALBIO	0.163	0.150	0.150	0.133	0.203
VALAD	0.200	0.217	0.203	0.180	0.153
COMPAV	0.183	0.157	0.157	0.183	0.123
COMAP	0.210	0.163	0.160	0.180	0.133
RENEW	0.123	0.157	0.167	0.177	0.213
BIOTECH	0.120	0.157	0.163	0.147	0.173

and tools that are considered within the capacity of the member countries given the current level of knowledge and education of the related scientists. In contrast, BIOTECH and RENEW are rated as difficult proposals in terms of methodology and approaches since they involve rather new concepts and are closer to the most cutting edge of science.

A clear consensus emerged also that the proposal that had the possibility to more significantly impact the welfare of the rural poor is VALAD. This proposal intends to improve the socio-economic and policy environment of rural populations so that opportunities for reaping benefits from the potential of secondary crops are directly targeted at them. Other proposals ranked almost at the same level, except for the VALBIO proposal, considered by the participants as somehow disconnected, in its implications, from the concrete improvement of rural livelihoods in marginalized areas.

The values given to the proposals according to the "Support" criterion are very similar to the values for the "Benefit" criterion. The VALAD proposal is considered as the most attractive for donor funding

and support for member countries. However, the absence of many invited donors casts some reservations on these results as far as the attractiveness to international donors is concerned. Participants suggested approaching donors directly, and consulting more closely their agenda in order to refine this appreciation of the proposals' attractiveness.

In relation with the "Policy" criterion, four proposals appear to be more or less of equal value, ahead of BIOTECH and VALBIO. Participants felt that the latter were more alien to the world of policy makers and more distant to their immediate concerns as they relate with more scientific and technical issues. The values given to COMPAV and COMAP highlight participants' perception that the outputs of these proposals may be directly understood and used by policy makers. Indeed, demand within member countries is very high for information on comparative advantage and competitiveness, as well as information about future evolutions of their economy.

Two proposals, RENEW and VALBIO, emerged as those that most incorporate environmental concerns in the design of the planned activities. This is a

logical result given the focus of these proposals. On the other hand, COMAP and COMPAV have a stronger focus on competitiveness and economic analysis that is felt by the participants as somehow antagonistic to the inclusion of environmental concerns.

#### *Final ranking*

The final value of each proposal was computed in a synthetic matrix as indicated below (Table 3) where the individual value of each proposal for each criterion was multiplied by the coefficient of this criterion and finally summed. The final results represent the relative value of each proposal, calculated so that the total sum of the values equals one. Then criteria were ranked according to their final value as shown in Table 3.

The final results show that the participants considered VALAD as the proposal that holistically deserves the highest priority of implementation by CAPSA. This result is consistent with the high scores given to this proposal for high coefficient criteria such as "Benefit" and "Support". In addition, it also scores well in terms of

Table 3. Final values of the six proposals and ranking

<i>Criteria</i>	Work	Benefit	Support	Policy	Environ.	
	<i>0.180</i>	<i>0.235</i>	<i>0.215</i>	<i>0.165</i>	<i>0.205</i>	<i>Final</i>
<i>Proposals</i>						<i>Value</i>
VALBIO	0.163	0.150	0.150	0.133	0.203	0.161
VALAD	0.200	0.217	0.203	0.180	0.153	0.192
COMPAV	0.183	0.157	0.157	0.183	0.123	0.159
COMAP	0.210	0.163	0.160	0.180	0.133	0.168
RENEW	0.123	0.157	0.167	0.177	0.213	0.168
BIOTECH	0.120	0.157	0.163	0.147	0.173	0.153

VALAD	0.192
RENEW	0.168
COMAP	0.168
VALBIO	0.161
COMPAV	0.159
BIOTECH	0.153

workability and usefulness for policy makers. Following this, two proposals are equally ranked, RENEW and COMAP but for rather different reasons. RENEW has a strong environmental focus and usefulness for policy makers, while COMAP has high workability and usefulness for policy makers. BIOTECH is the proposal with lowest priority due to its complexity that makes it less workable in the context of the member countries and relatively unappreciated as far as usefulness for policy makers is concerned.

Participants felt comfortable with these results. A sensitivity test was performed to assess the influence of the “Environment” criterion, as some participants expressed concerned about the relevance and affect of its rather high coefficient. It showed the robustness of the results since a variation of 30 per cent in the value given to “Benefit” and “Support” compared to

“Environment” induced maximum variations of 1 per cent magnitude.

### Implications for CAPSA

The results of the prioritization exercise provided useful insights for the development of the Centre’s programme from various aspects. First, the participants agreed that the set of proposed topics should be considered as the backbone of the Centre’s programme. In that sense, they acknowledged that even if some proposals ranked higher with respect to the Centre’s goal and criteria used, none of these proposals should be discarded as irrelevant.

The six proposals form, therefore, an appropriate reference framework for the Centre’s activities, in which the VALAD theme should be further pushed and developed into a comprehensive work programme

to be actively submitted to the donors and member countries. In parallel, donors should be approached more thoroughly and vigorously in order to explore opportunities that are consistent with the general framework. CAPSA, in this strategy, has to pay attention to the risk of spreading resources into too many subcomponents. To avoid such a risk and in consistency with the principles of the new approach as described earlier, donor support and member countries’ participation will be sought so that enough resources can be concentrated to the proper implementation of the proposals. As such, opportunities appear and the corresponding themes can be further developed into more comprehensive programs and strengthened according to the results of the priority setting exercise. ■

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# CAPSA News and Activities

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## FEED-SEA

The UNESCAP CAPSA will organize a regional workshop on "Prospects of Feed Crops in Southeast Asia: Alternatives to Alleviate Poverty through Secondary Crops' Development" on 14-15 September 2004, at the UNESCAP CAPSA office, Bogor, Indonesia. The aim of the workshop is to discuss, to review and to improve the reports of the country studies of the research project "Prospects of Feed Crops in Southeast Asian Countries (FEEDSEA)". The workshop will be participated by the national experts and commentators from four participating countries (Indonesia, Malaysia, the Philippines and Thailand), the regional advisor, resource persons from Sri Lanka and Viet Nam, observers from the Ministry of Agriculture and many research and development centres and institutes within the Indonesian Agency for Agricultural Research and Development (IAARD), and the officer-in-charge and staff of the UNESCAP CAPSA. ■

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## IS/DB

### "Agricultural Technology Innovation Week", 3-8 August 2004

UNESCAP-CAPSA participated in an exhibition held for a week in commemoration of the 30th anniversary of the Indonesian Agency for Agricultural Research and Development. The event this time had a specific theme: "Agro-innovation for national agricultural development " with the objectives:

1. To inform a wider audience of the 30 years of achievement of the Agency, with the emphasis on innovation of technologies with market competitive advantage.
2. To give better understanding and socialization for future governance regarding the existence, role, function and contribution of this agency in national development over the next five years.

The above objectives were realized through a variety of events; among others were exhibitions, seminars, workshops and symposiums.

UNESCAP-CAPSA was the only international organization that participated. The aim was to familiarize the Centre to its audience in Indonesia, with the new name of the centre, programme, objectives and function. The booth was visited by hundreds of visitors during the

week and lots of information was disseminated through several media: brochures, leaflets, a catalogue of publications, newsletters and bulletins.

### The signing ceremony of UNESCAP-CAPSA new signboard:

On the second day of the "Agricultural Technology Innovation Week" (4 August, 2004), the Minister of Agriculture of the Republic of Indonesia, Prof. DR. Bungaran Saragih, came to officially open the event. On that occasion, the minister had a chance to look around the exhibition site and visited some booths. The minister also officially signed eleven commemorative signboards from different research institutions, including UNESCAP-CAPSA.

### New URL and e-commerce:

The new URL of UNESCAP-CAPSA is now in use. Users can access: [www.uncapsa.org](http://www.uncapsa.org) to get information about the Centre. If people are interested in the Centre's publications, they can visit the Centre's new e-commerce site at:

[www.panaseanemall.org/shop/uncapsa/](http://www.panaseanemall.org/shop/uncapsa/), to browse and purchase the Centre's publications and products. This e-commerce site is made possible by the support from IDRC-Pan Asia and ASEAN Foundation. ■

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## New Publications

Two working papers have been published by UNESCAP-CAPSA recently. One is the outcome of an 8-day training course on Information and Communication Technologies in Relation to CGPRT Crops' Agriculture (AGRI-ICT), organized by the Centre with participants from six Asian countries (Bangladesh, Cambodia, Indonesia, Lao People's Democratic Republic, Nepal and Viet Nam); and the other is an integrated report of a three-year research project, "Stabilization of Upland Agriculture and Rural Development in El Nino Vulnerable Countries (ELNINO)," which was conducted from April 2000 to March 2003.

Below is a brief outline regarding the two publications. If you are interested in acquiring either or both of these titles, you can visit our e-commerce site at: [www.panaseanemall.org/shop/uncapsa/](http://www.panaseanemall.org/shop/uncapsa/).

**A Preliminary Assessment of the Potential Role of Information and Communication Technology in Support of Poverty Alleviation Policies for Rural Populations – AGRI-ICT Project Report**  
*Bourgeois, Robin. Working Paper No. 76. 2004. 52 pp. ISBN 979-9317-39-8.*

This Working Paper summarizes the results of a structured collective exercise within the framework of an 8-day training workshop. After a presentation by the participants of their country reports and experience, a cross-country comparison was conducted, item by item in order to identify common and specific problems. A brainstorming approach enabled to

discuss possible solutions and strategies to be further tailored for each country. Finally, these strategies were synthesized into a more comprehensive framework intended to provide basic guidelines for other Asian and Pacific countries in the field of ICT to support decision-making for poverty alleviation in rural areas reliant on the CGPRT sector.

Following the Opening address and Introduction chapters, Chapter three briefly details ICT in relation with strategic information. Chapter 4 focuses on the participation of stakeholders, gender issues, governance, natural resources, and markets. The fifth chapter deals with initiatives for the development of ICT concentrating on government, local initiatives and donors. Then, in Chapter 6, the report develops policy implications of this preliminary assessment providing a more comprehensive and strategic view on how ICT could contribute to enhance the capacity of scientists and analysts to link with the policy decision-making process and therefore achieve greater impact. Finally, Chapter 7 presents the results of a double evaluation process. ■

**Integrated Report of the Project "Stabilization of Upland Agriculture and Rural Development in El Nino Vulnerable Countries"**  
*Yokoyama, Shigeki ; Conception, Rogelio N. Working Paper No. 77. 2004. 99p. ISBN 979-9317-40-1.*

This integrated report consists of five chapters. Chapter 1 introduces the framework of the project and summarizes the project's implementation. Chapter 2 presents the results of regional studies, showing the historical occurrence of El Nino and its impacts at a regional level. The study covers the period of 1961-

2000 and eleven countries in Asia and the Pacific, namely, Myanmar, Thailand, Lao People's Democratic Republic, Cambodia, Viet Nam, Malaysia, Indonesia, the Philippines, Australia, New Zealand, and Fiji. Analyzed crops were Total Cereals (aggregation of wheat, rice, barley, maize, rye, oats, millet, and sorghum), rice, maize, soybean, groundnut, sweet potato, and cassava. Chapter 3 is an overview of the socio-economic characteristics and agricultural structure of the project's participating countries. Chapter 4, firstly, overviews chronologically how the weather events of each country were identical with the regional El Nino. Secondly, a conceptual framework of climatic risk is presented. Thirdly, the four dimensions of risk are illustrated and categorized by their magnitude of possible damage and probability, and the final section shows how small farmers cope with climatic risk. Various strategies are classified according to timeframe and level of application. The last section summarizes the results of each country study. Chapter 5 concludes the report with policy recommendations. ■



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BY AIRMAIL

## New Publications

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### **CAPSA**

The Centre for Alleviation of Poverty through Secondary Crops' Development in Asia and the Pacific (CAPSA) is a subsidiary body of UNESCAP. It was established as the Regional Co-ordination Centre for Research and Development of Coarse Grains, Pulses, Roots and Tuber Crops in the Humid Tropics of Asia and the Pacific (CGPRT Centre) in 1981 and was renamed CAPSA in 2004.

### **Objective**

CAPSA promotes a more supportive policy environment in member countries to enhance the living conditions of rural poor populations in disadvantaged areas, particularly those who rely on secondary crop agriculture for their livelihood, through socio-economic and policy research, training and dissemination of information. In its activities, the Centre aims to serve the needs of its primary target group, high level research managers and policy analyst/planners, concerned with the role of agriculture in poverty alleviation.

### **Programmes**

1. Co-ordination of socio-economic and policy research on secondary crops, networking and partnership with other international organizations and key stakeholders, conduction of research and analysis of trends and opportunities with regard to improving the economic status of rural populations.
2. Production, packaging and dissemination of information and successful practices on poverty reduction, and the dissemination of information and good practices on poverty reduction measures.
3. Training of national personnel, particularly national scientists and policy analysts and provision of advisory services.

### **Palawija News**

Contributors are invited to submit summaries that cover recent socio-economic or policy aspects related to research or development of secondary crops and rural poverty alleviation in Asia and the Pacific. Submitted summaries should be sent by e-mail to [library@uncapsa.org](mailto:library@uncapsa.org) or by regular mail. Articles must be in English.

Submitted summaries should not exceed eight pages, including graphs, tables, references and author information.

*Palawija News* is distributed free of charge to interested individuals and institutions. Please send address corrections and additions to: Publications Section, UNESCAP-CAPSA, Jl. Merdeka 145, Bogor 16111, Indonesia.

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