EAST AND SOUTHEAST ASIA REGIONAL PRIORITY SETTING WORKSHOP

Plenary Session

The East and Southeast Asia Regional Priority Setting Workshop was held at the International Rice Research Institute (IRRI), Los Baños, Laguna, Philippines, from 27-28 June 2001. The workshop is an initiative of the Asia Pacific Association of Agricultural Research Institutions (APAARI) in order to harmonize and program the activities conducted in the East and Southeast Asian Regions. The workshop is co-hosted by the Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD), as the regular member of APAARI, IRRI (as an associate member of APAARI) and the Southeast Asia Regional Center for Graduate Study and Research in Agriculture (SEARCA). The welcome remarks were rendered by the three heads of agencies which co-hosted the workshop namely: Dr. William G. Padolina (Deputy Director General for Partnerships, IRRI), Dr. Patricio S. Faylon (Executive Director, PCARRD) and Dr. Ruben L. Villareal (Director, SEARCA).

Welcome Remarks
Dr. William G. Padolina
Deputy Director General for Partnerships
and Convenor for CG Centers
IRRI

At the onset, Dr. Padolina welcomed all the participants in behalf of the IRRI Director General, Dr. Ronald P. Cantrell. He thanked APAARI for selecting IRRI to be the venue and for the other organizations who have assisted in organizing this workshop. He appreciated the importance of the meeting and expressed hope for the participants' meaningful and productive stay in the Philippines. He stressed that the regional approach for this activity has been proposed by the CG for the following reasons: (1) many

countries do not have the necessary resources to reach the critical mass of research and to address relevant issues, therefore the need to help each other, (2) where the countries are homogenous, there are strong positive externalities from research that can be at least be partially captured through a regional approach, made more efficient and cost effective, (3) the CG is desirous of making sure that there is greater participation in the process of priority setting, (4) this is seen as an opportunity to better customize technology to the specificity and heterogeneity of poverty in particular regions, (5) capitalize on the role of participatory research in mobilizing information only available at the local level and adjusting technology to the demands of heterogeneous potential users, and (6) improve on what we are doing by gaining a better understanding of regional development needs, identify what each stakeholder can do by coming up with opportunity of complementarity among stakeholders in order to develop a critical mass of researchers and achieve greater impact.

Current efforts at the CG System is characterized by low level of participation of regional and sub-regional organizations, fewer projects in fisheries and agroforestry, and lack of focus, meaning many activities are not really honed into regional priorities. We can revisit these issues in this 2-day meeting. Determine which areas of interest can be identified with the stakeholders, provide the focus around which a participatory process can be organized. We hope that we will have an opportunity to proceed with the process further and move it forward.

Welcome Remarks
Dr. Patricio S. Faylon
Executive Director and Convenor for the NARS
PCARRD

Dr. Patricio S. Faylon welcomed the participants in behalf of the Philippine NARS. As the coordinating council of the Philippine NARS, PCARRD fully recognize the importance of this exercise as an approach to meet the emerging needs, opportunities and challenges that the NARS faces. This welcome is also in behalf of the APAARI

Chairman Dr. Dhruva Joshy who is not able to join the activity. This activity is the manifestation of the importance of regional research priority setting in the context of the prioritization of global research agenda that the CG centers and GFAR are looking at. A few years back, it was rather difficult to imagine the stakeholders of such diverse area of specialization would sit together and discuss their participation in setting the agenda for agricultural research. With the globalization of agriculture, many changes are taking place in the front of agricultural research and natural resource management. The attendance in today's meeting very well recognizes the change that is happening globally and suggests that APAARI is heading into the right direction.

Welcome remarks
Dr. Ruben L. Villareal
Director, SEARCA

Dr. Villareal welcomed the participants and convenors especially to the first time visitors of Los Baños. SEARCA express its gladness being one of the organizers of this meeting. It is hoped that this will result in synergy of programs and activities.

SEARCA is the oldest regional center of the Southeast Asian Ministers of Education Organization (SEAMEO). SEAMEO is an international treaty organization which aims to promote regional cooperation in education, culture and science.

SEARCA is committed to strengthen institutional capacity in sustainable agriculture for a food secure Southeast Asia through human resource development, research, knowledge exchange and policy support. SEARCA has very modest funding, because of this, it aims to put the resources where they would best draw closer to the goal of sustainable agriculture and rural development. This pushes on to collaborative stance requiring to form strategic alliances and partnerships as well as forward and backward linkages, working in the context of complementation of strengths and resources.

It is encouraged that everyone actively participate in the discussion, particularly the NARS because they are the ones in the frontline of development work, and they are the ones who experience first hand how the programs hit the ground and impact the people we aim to serve.

Collaboration and consultation are the buzz words of this meeting. Processes that no matter how long, it is time to be engaged in them - a time of learning.

Presentation of Donors, Regional Organizations, NGO and the NARS

ARD Priorities in the Asia-Pacific: APAARI's Initiatives by Dr. Patricio S. Faylon

The Asia-Pacific Association of Agricultural Research Institutions (APAARI) was established a decade back primarily to strengthen National Agricultural Research Systems (NARS) and to enable the sharing of expertise and experience among national partners and other regional and international stakeholders. It is a neutral regional forum which facilitates and coordinates agricultural research for development in the Asia-Pacific region by catalyzing the NARS, and involving diverse partnership to include CGIAR Centers, private sector and NGOs.

Currently, 17 NARS are members of APAARI. These represent the different sub-regions namely: West Asia, South Asia, Southeast Asia, East Asia, Pacific Island Countries and Australia.

APAARI Vision 2025 provided a step forward over the earlier perspective plan, and outlines five strategies namely: (1) strengthening regional cooperation and partnership, (2) publication enhancement and dissemination, (3) human resource development, (4) advocacy for ARD, and (5) improvement in strategic thinking.

The expert Consultation on implementing APAARI Vision 2025 placed top priority on undertaking ARD priority setting exercise at the national, sub regional and regional level. CGIAR agenda have to be integrated into the regional priority setting. APAARI has already taken up this initiative and is presently engaged in facilitating three sub-regional meetings for ARD Priority Setting namely (1) West and South Asia, (2) Southeast and East Asia (3) Pacific Island.

APAARI will hold an Expert Consultation on Regional Priority Setting for ARD in its 6th Executive Committee meeting in November 2001 so as to develop an action plan that focuses on poverty reduction, food security, better environment, and overall sustainability of agriculture in the Asia-Pacific region.

Managing and Coordinating Research in Southeast Asia: The SEARCA R and D Program
by Dr. Ruben L. Villareal

At present SEARCA focuses its R and D programs on important issues that fall within the five priority themes indicated in its Seventh Five-Year Strategic Plan. These are on food security, biotechnology, biodiversity conservation, water resources management, and environmental risk management. Hand in hand, the Center also concentrate on two areas, knowledge management and policy support as vehicles for its research results.

The true worth of SEARCA as a regional Center for Agriculture lies in its capacity to address the needs of the region it is mandated to serve. It is for this reason that it cannot set its R and D agenda in isolation of the priorities expressed and indicated by its various partners in the individual countries of Southeast Asia and the region as a whole. These include the academic institutions, development organizations, donors, and

most specially the NARS, which are logically the most effective guides for setting directions in research as well as in other programs.

R and D priority setting in consultation with the very target beneficiaries themselves is what gives institutions like SEARCA both relevance and credibility.

The Center strongly endorses and would support efforts at strengthening national, regional, and international consultations. The process of determining research priorities in an efficient and accurate manner should be on the agenda of all development-oriented institutions working in the region.

Current Agricultural Cooperation Priorities and Programs of ASEAN, China and Japan

by Meynardo LB. Montealegre
Department of Foreign Affairs

The recent financial/economic crisis that engulfed many ASEAN member countries forced them not only to enhance their cooperative economic efforts but also to accelerate the planning and implementation of new initiatives aimed at consolidating and strengthening the economic fundamentals of the region. This is seen to ensure that ASEAN will not only recover from the crisis but to re-emerge stronger and more consolidated than before.

In this light, ASEAN endeavors to sustain and enhance long-term growth through continuous efforts to increase the productivity and efficiency of the region. Asean member countries need, as a grouping, to continue to exploit the resource complementarities and synergic strengths that they have to increase the region's competitiveness vis-a-vis other regions in the world. Cooperation in food, agriculture and forestry is an active platform for ASEAN to launch its cooperative endeavors, considering the importance of these sectors to the economies of member countries. In this regard, the strategic plan emphasizes strengthening of food security arrangements in the region,

enhancing international competitiveness of the food and agriculture sectors and enhancing ASEAN's joint positions in international fora. With this in mind, the strategic plan's thrusts are:

1. strengthening of food security arrangements in the region
2. enhancement of international competitiveness of ASEAN food and agriculture products/commodities
3. enhancement of ASEAN cooperation and joint approaches on international and regional issues
4. development and acceleration of transfer and adoption of new technologies
5. enhancement of private sector involvement, and
6. management, sustainable utilization and conservation of natural resources.

Asian NGO Coalition for Agrarian Reform and Rural Development (ANGOC) by Roel R. Ravanera

ANGOC was represented by its Executive Director, Mr. Roel Ravanera who informed the group that he and his fellow NGOs have second thoughts/doubts on the outcome of this activity. There should be a broader consultation at the national level to get inputs from the farmers and local NGOs before it is elevated to the regional level. Second, it is expected that there should have been more participants from the farmers' organizations and NGOs in this meeting.

ANGOC is a network of NGOs established in 1979 to address issues of access to land. So far, there are 23 members located in 10 countries, with an effective reach of some 3,000 NGOs. Two major issues were put forward, these are poverty and food security, each one related to the other. Statistics show that following the World Bank figure of $1/day, ¾ of the world population are poor and most of them in Asia. To

convert this statistics, 1 out of every Asian is poor. The second indicator is that most of the poor are in rural areas. Third is the rising inequality.

To address these issues, ANGOC is currently working with Asian rural communities in a project called "Datuhan Red Village Project." They are currently working with 200 villages and linking with some institutions as SEARCA, UPLB and FAO. The aim of the project is to come up with statistics/data for the communities to plan for themselves in addressing poverty and food security issues and to come up with policy proposals which will be submitted to government and inter-government institutions such as ADB, WB to come up with proposals to address household food security. Currently, ANGOC is focused on the forthcoming world food summit to be held in Rome.

Another focus is on programmatic intervention where it emphasizes three areas, agrarian reform and resource rights, participatory local governance and sustainable agriculture and resource development.

To sum up ANGOC's priority areas, there are just two, focus on small farmers for food security and poverty reduction and participation of stakeholders for access to information, mechanisms for dialogues and joint undertaking.

ADB Assistance to Agriculture and Natural Resources Research in Asia and Pacific Region
by Dr. Antonio T. Perez

The Asian Development Bank (ADB) has supported agriculture and natural resources research (ANRR) since 1975 to benefit its developing member countries, whose development objectives cover agricultural production, related value-adding activities, agricultural exports, and the sustainable management of natural resources such as forests, fisheries, land and water. By 1990s, ADB and its developing member countries were faced with increasing concerns on persistence of poverty and population pressure. This led ADB to formulate its Medium-term Strategic Framework (1992-1995).

ADB's priorities and emphasis to fund agricultural research became more focused in 1995 when its policy on agriculture and natural resources research was approved. ADB have intensified its support for ANRR based on six main agenda: (1) sustainable and remunerative farming systems for poor farmers, (2) enhancing the incomes and living standards of women, (3) sustainable management of agricultural and natural resources, (4) enhancing the productivity of agriculture, (5) enhancing the capacity of national research systems, and (6) public policy and socioeconomic research.

Over 25 years, ADB financed 124 projects for $73.4 million. Of the total, $54.2 million or 74% of the total supported 76 projects by providing funds through the CGIAR to 14 IARCs. The $19.2 million, supported 48 projects awarded to non-CGIAR centers.. ADB considers its role as a catalyst by providing financial support to agricultural research to attract additional counterpart funds from its partners. The 24 projects with $27.7 million funds from ADB provided to 14 CGIAR centers, mobilized additional counterpart financing of $33.6 million.

Feedback from officials of IARCs and NARs have identified the following research needs in the future: (1) more support for research on less-favored environments, (2) strategic research involving collaboration between IARCs and NARs, (3) more regional research networks, (4) support for cutting-edge research, such as biotechnology, and (5) research on sustainable natural resources management.

The next 25 years, Asia will be faced with a serious challenge of feeding 1.4 billion more people and meeting the demand for increased production of foodgrains, livestock and fisheries. There is also the overarching challenge of reducing poverty in Asia by reaching out to poor people living in marginal lands and unfavorable environments. The new crop varieties to be targeted must be able to tolerate drought and low nitrogen soils and possess high levels of resistance to pests and diseases, and contain high protein content and high nutritional levels in the grains. Reduction of production

costs will be important as world commodity prices are to remain constant or even decline over the next 20 years. Modern science such as biotechnology should be harnessed to speed up the breeding and improvement of cultivars.

National governments should reverse the past trend involving reduced investments in agriculture and examine their priorities for supporting agriculture and natural resources research. ADB's experience showed that its assistance to ANRR contributed significantly to agricultural productivity increases and poverty reduction in the region. ADB also found that its investments particularly to IARCs yielded very high returns and the highest returns came from less-favored environments. Continued support to ANRR is key to the future of Asian agricultural and rural development.

FAO's Priorities in Agriculture and Natural Resources Development in Asia and the Pacific Regionas Based on its Strategic Framework and Medium-Term Plan by Dr. Sang Mu Lee

FAO's Strategic Framework for 2000-2015 provided the fitting foundation for the formulation of FAOS's Medium Term Plan for 2002-2007. The Plan's significance was enhanced by the slow pace of reduction in the number of undernourished people in the world, coupled with the unrelenting incidence of natural disasters and conflict situations. It also aims to assist the members in achieving the target set at the World Food Summit in 1996.

The following are the identified priority areas for the Medium Term Plan grouped into six strategies of the Organization:

A. Contributing to the eradication of food insecurity and rural poverty
    - local institution building to improve capacity for achieving sustainable rural livelihoods
    - disaster prevention, mitigation, and preparedness and post-emergency relief and rehabilitation

B. Promoting, developing and reinforcing policy and regulatory frameworks for food, agriculture, fisheries and forestry
   - biosecurity for agriculture and food production
   - WTO multi-lateral trade negotiations on agriculture, fisheries and forestry
   - climate change issues in agriculture

C. Creating sustainable increases in the supply and availability of food and other products from the crop, livestock, fisheries and forestry sectors
   - organic agriculture
   - food for the cities
   - integrated production systems
   - biotechnology applications in agriculture, fisheries and forestry

D. Supporting the conservation, improvement and sustainable use of natural resources for food and agriculture
   - integrated management of biological diversity for food and agriculture
   - strengthening capacity for integrated ecosystem management

E. Improving decision-making through the provision of information and assessments and fostering of knowledge management for food and agriculture.
   - definitions, norms, methodologies and quality of information
   - spatial information management and decision support tools
   - global perspective studies

F. Other thematic areas
   - gender mainstreaming
   - ethics in food and agriculture

East and Southeast Asia Regional Priorities: Perspective of the NARS by Dr. Patricio S. Faylon

The NARS has often emerged as mainly a government's institutional response to address poverty and hunger through growth in agriculture within a country. Each NARS has its own uniqueness and specialization, but almost all operate under the dictum that development objectives can best be achieved through strong linkages in R and D management. Where there is so much to be done and very little resource to do with, the need for partnership becomes vital primarily to generate resources to augment limited funds for R and D, and to link the different NARS, as well as regional, sub-regional and national institutions to international institutions and organizations toward bringing the best of advanced research to each country.

The promotion of resource productivity in the region is largely the work of transnational research and technology policies and agenda. But this condition impinges on possibilities for cross-fertilization of ideas, experiences, learning and gains from advancing the technological base of the different concerned nations' agricultural research systems. The challenges of bringing the ills of development at bay require organized efforts. This is possible by decisive identification of common goals and priorities of the members of the regional agricultural research systems. This is where the complementation of efforts of the regional agricultural research systems come into play.

As a unified system under the guidance of APAARI, the NARS in the region is now tasked to enhance priority setting capabilities. The end in view is to build on the strengths and milestones of some NARS while enhancing the capabilities of the weaker ones. The exercise is also aimed to focus resources to priority and more pressing concerns of regional proportions.

The campaign for regional priority setting has assumed many forms in the past. However, a number of areas for improvement can be identified to highlight the efficacy of

these exercises. The weaknesses of the present efforts in determining priorities in the East and Southeast Asian Regions are as follows:

1. participation in the process of determining priorities mainly comes from the NARS with limited participation of other stakeholders such as, non-government organizations (NGOs), private sector, and the donors
2. regional priority exercises mainly refer to crops and livestock sectors with limited attention given to forestry and fisheries sectors
3. there is rather lack of focus of regional priorities to the program orientation of various stakeholders.

The following table presents the inputs provided by the NARS on current national agricultural research priorities.

Agricultural Research Priority of Selected Countries
In East and Southeast Asian Region, 2001 and Beyond

Country	Research Priority
Cambodia	1. Ways to maximum reduction gap between potential and attainable yield of rice 2. Flood-drought prone environment • Breeding, varietal development • Management 3. Fruit tree research • Germplasm collection and conservation • Varietal development • Varietal testing • Seed production • Post-harvest handling/home made production 4. Vegetable research • Germplasm collection and conservation • Varietal development • Varietal testing • Seed production • Post-harvest handling 5. Quality improvement for agricultural product to marketing 6. Cropping intensification • Farm household economy • Impact on pest population • Impact on soil fertility and structure 7. Post harvest handling for major agricultural crops 8. Pest management in crop production 9. Toxic chemical application in crop production • Ways to reduce the use of toxic in crop production • Low toxic dose • Environmental toxic free • IPM • Training and toxic hazard awareness 10. Land suitability assessment for crop production 11. Soil fertility improvement • Acidity • Salinity • Sandy

Country	Research Priority
	12. Farm machinery • Small farm household 13. Irrigation system improvement • Small scale • Family scale
Lao PDR	• Emphasize integrated farming systems with food and cereal production taking place in appropriate agro-ecological zones • Develop more intensive production systems appropriate to the potentials of the different agro-ecological zones and sustainable use of the natural resources • Promote commercial crop production in different areas of the country to generate cash savings for socio-economic growth • Develop agricultural production infrastructure to take advantage of the potentials of natural and other resources • Increasing productivity, quality and efficiency in national development • Creatively combine knowledge on scientific and technical progress with traditional techniques and indigenous knowledge in the different agricultural production areas • Efficiently implement policies and measures to ensure the supply of sufficient food for demographic growth • Increase people's capacity at all levels in order to more efficiently implement the plan of increased productivity of priority crops, livestock and fisheries within an integrated farming systems and agroforestry framework • Efficient use of agricultural and industrial by-products and natural grasslands towards increased livestock production of ruminants • Increased capacity to ensure continuing food security and increased commercial production (biology, biotechnology, socio-economics and agro-industrial processing) • Ensure food security and increase in commercial products (rice, maize) tubers (cassava, potato, sweet potato, indigenous tubers), crop legumes (peanut, soybean, other beans), vegetables, fruit crops, aquaculture, livestock, NFTP's and industrial crops • Ensure the production of sufficient food with surplus for reserve and sale (research in crop improvement, animal and fish breeding, tree species improvement, intensification of agricultural production and socio-economics)

Country	Research Priority
	• Increase smallholder production by individuals and communities to ensure sufficient supply of meat, fish and food for society
	Natural resources management • Classification of agricultural and forest land • Appropriate balance between rice and other food crops, food and industrial crops, short- and long-term industrial crops, agricultural and forestry crops and agriculture, forestry, livestock and fishery • Define technical measures for maintaining and improving soil fertility in relation to soil type • Develop techniques in forest management and planting of different forest types to ensure the adequate supply of timber for timber mills and the development of integrated business operations in focal and potential sites of the country • Identify suitable temperate and tropical crops and fruit trees for selected areas, and investigate the impact of variable climatic conditions on crops, livestock and tree species • Research on management of natural and irrigation water resources to establish an efficient water use management system for crops such as rice, industrial crops, fisheries, grasslands, fruit tree orchards and forests ➢ natural drainage systems: flood prevention and potential negative effects and damage to crops and livestock, etc. ➢ farming systems research on crop diversification in irrigated lowland areas ➢ surface and underground water resources
	Animal breeds • Selection and crossing between indigenous breeds of chicken and pigs and introduced breeds • Research and recommend improved management practices for the breeding and production of cattle, goats, pigs, chicken, and ducks under extensive conditions • Research on improved management practices for cattle and buffalo used for draft and milk and meat production in association with the planned research on breeding improvement

Country	Research Priority
	Fish species • Research on fish integrated with farming systems, fish nutrition and feeding • Research and introduce food processing techniques for fish products as a source of protein for livestock production • Research and identify ways to manage fishing in water catchment areas of the Mekong and its tributaries to preserve and develop existing resources ensuring long-term food supply
	Forestry • Research on tree species and production forest areas to supply raw materials for processing industries • Research on trees and technical inputs for planting different tree species, e.g. for mountainous areas, to ensure rapid coverage and prevent soil erosion and soil fertility improvement. • Identifying tree species and management inputs for planting different tree species • Identify forestry products and non-timber forest products
	Research on technical inputs • Introduce technical improvements in producing organic fertilizer and compost from various sources including animal manure, crop wastes and green manure crops • Improving the utilization of locally available feed resources such as industrial and agricultural by-products from different agricultural and horticultural crops, as feed for pigs, cattle and buffaloes • Integrated pest management that is coordinated and supported form national to local levels with projections of crop and animal diseases to ensure efficient use of protective measures against epidemics
	Research on agricultural mechanization • Mechanize agricultural production to reduce labor input and costs of production and ensure timely cultivation to increase productivity and process different products

Country	Research Priority
Japan	1. Strengthening of the structure of agriculture, forestry and fisheries • Increase productivity, improve product quality, secure more comfortable labor conditions and to promote environmentally-sound agriculture 2. Developments and utilization of bio-functions for generating new industries • Conduct basic studies for the development of food products with new functions, development of new bio-materials and promotion of bio-remediation technology through the elucidation of various bio-functions 3. Upgrading of processing and distribution systems for agriculture, forestry and fisheries products • Upgrade processing distribution and quality evaluation technology to carry studies for developing a more efficient marketing system 4. Revitalization of rural communities and enhancement of multiple functions of agriculture, forestry and fisheries • Development of technology to upgrade the infrastructure in order to improve the production and living environment, draft comprehensive regional plans, develop techniques for the promotion of regional products and mixed farming systems 5. Conservation of the environment and appropriate management of national research for sustainable development of human beings • Develop techniques for environmental conservation of oceanic and forest resources, appropriate management of biological resources, and to address environmental issues on a global scale 6. Contribution to the development of agriculture, forestry and fisheries and international perspective • Undertake collaborative research projects to stabilize the supply and demand of food commodities 7. Development of crosscutting basic research strategies • Upgrading of information sciences and development of new technology for the gene manipulation, sensing and the conservation and evaluation of genetic resources

Country	Research Priority
	JIRCAS new set of priority 1. Development of production and utilization systems in sustainable agriculture, forestry and fisheries in harmony with the environment by carrying out research on development of stress-tolerant crops, technologies controlling arable land environments, a new farming system for ensuring the profitability of producers and technologies for efficient post-harvest management and utilization, and 2. Rehabilitation, maintenance, improvement and utilization of the natural environmental resources specially focused in tropical forest and coastal ecosystems Activities a. The creation and building up of the development research division which selectively gathers, analyzes the overseas information the developing regions and plans the research strategy b. The system establishment for the promotion of integrated project research c. The organization of an efficient research structure in individual study field d. The emphasis on post-harvest research e. The tune of the Okinawa Subtropical Stations as the research base for subtropical agriculture f. The creation of the stronger system for international information activities g. The reinforcement of liaison offices for the support of overseas research activities
Philippines	1. Research and development activities on high-end sciences: - biotechnology in agriculture and natural resources – information and communications technology (ICT) – Thematic programs, such as varietal improvement, enhancing productivity, site-species compatibility, controlling pests and diseases
	2. Technology management aimed at developing, promoting and initiating modalities that facilitate flow of information from S&T sector to the end-users
	3. R&D capability and governance aims to provide more resources for capability development both in human and

Country	Research Priority
	improvement of facilities and infrastructure of the centers of excellence.
	4. Policy advocacy for S&T development aimed at ensuring the efficiency, effectiveness and relevance of R&D programs to the productivity of farmers and the overall economy to justify the current and future investments in R&D
	5. Areas to address agricultural modernization such as development of farm machineries, implements and standards for the evaluation and testing of these technologies; soil and water conservation strategies and varietal and animal stocks improvement
Korea	• Ensure national food security by keeping high production of main crops ⇒ Maintain higher production of major crop for food security ⇒ Provide high quality safe food and other agricultural products to fulfill the nutritional needs of Korea
	• Strengthen international competitiveness of our agricultural products ⇒ Develop sustainable and cost-competitive agricultural products including main crops, horticultural products, and livestock using new concept and high techniques ⇒ Improve the value of agricultural products to meet domestic and global market needs
	• Create and magnify the public function of agriculture ⇒ Ensure conservation of the natural resource base such as soil, water and air, essential for future needs ⇒ Maintain and expand traditional culture originated from rural life and make people feel comfortable
Thailand	1. Human Resource Development 2. Re-structuring of rural and urban development towards a more sustainable development 3. Management of natural resources and environment 4. Management of the overall economic system 5. Enhance global competitiveness of the country 6. Strengthening the potential of science and technology 7. Good governance

Country	Research Priority
Indonesia	• Globalization and free trade • Changes in community socio-cultural and national institutional services • Re-orientation of the agricultural development policy • Economic fluctuation and reformation effort • Rural-urban migration • Utilization of natural resources • Exploitation of science and technology • Reorientation of agricultural research and development
Vietnam	Management and governance • Increase the capacity in management and governance of research system, create the condition for full play of research capacity of each institute and researcher Funding for research • To increase fund for research and technology transfer • Improve the funding mechanism Reorganise the research system • Reorganisation of the research system following the direction of a clearer determination of research tasks, more and better targeted funding and increasing the management of efficiency Strengthen the linkages between research, extension and production • Strengthen the linkages between research, extension services and producers so as to make research more demand-driven and to facilitate technology adoption Strengthen linkages between the research and education institutions • Strengthen the linkages among the research institutions and universities under and outside MARD Development of information network • Building a documentation system and information network that easy to access for everybody

Priority Research Areas in Fisheries, 1998[1]

Research Area	Regional Issues	Research Topics
1. Coastal Resource Management	Coastal/offshore fisheries assessment	Ecosystem management and modelling • Contribution to and from national database to build/test models • Assemblage analysis • Simulation to clarify management/policy direction
	Marine protected areas (MPAs)	• Information needed on: (i) how to select areas; (ii) their effect/impact on fisheries • Stock status/delineation needed to select MPAs • Community-based activities needed to support management of areas surrounding MPAs
	Pollution/environmental degradation	• Identification of sources of pollution and possible mitigation measures • Control/management of red tides • Sedimentation
	Resources/habitat enhancement/rehabilitation	• Habitats - Coral harvesting/farming • Resources - "multitrophic" seed production and other hatchery technologies for restocking/stock enhancement programs
	Maintenance of	• MPAs

[1] Australia, China, India, Indonesia, Republic of Korea, Malaysia, Nepal, New Zealand, Pakistan, Philippines, Sri Lanka, Thailand and Vietnam.

Research Area	Regional Issues	Research Topics
	biodiversity	• Responsible restocking • Invasive and introduced species - Ballast water - Hull fouling
	Stock delineation/ management	Morphometric and genetic analysis of stocks in the region
	Cost effective monitoring and surveillance system	Mainly a policy issue but includes diagnostic capacity of cyanide detection
	Reduction of post-harvest losses	• Extent of losses due to spoilage and when/where these occur • Cost effective storage systems modified to suit local fleets • Quantification of by-catch including species composition (including juveniles of valuable species) • Gear modification to reduce by-catch
	Improvement of fish processing technology	• Safety of seafood products • Product development
2. Aquaculture	Genetic improvement	• Genetic improvement for: - growth enhancement - disease resistance • Regional expert consultation on breeding for disease resistance
	Fish health management	• Capacity building in available disease diagnosis • Further research/standardization of techniques on disease diagnosis and control

Research Area	Regional Issues	Research Topics
	Environmental friendly aquaculture	Impact/Interaction of non-aquaculture activities on environment and aquaculture
	Other issues	• Shrimp culture systems: economics and improvement; • Aquaculture management and practices improvement; • Aquaculture to replace live fish collections; • Small-scale aquaculture; • Mariculture/seaweed farming/high value species; • Species introductions; • Aquaculture planning/typologies; • Post-harvest issues: quality, safety; • Extension/dissemination; and • Use of marginal environment for aquaculture
3. Policy and Social Science	Economic and social analysis of aquatic resources in developing countries	• Analysis of employment, excess capacity and alternative livelihoods • Economic valuation of resources and social and environmental cost-benefit analysis • Demand-supply and trade analysis: integration of fish into World Food Model • Socio-economic profiles of aquaculture technologies
	Aquatic resources planning and impact assessment	• Ex-ante analysis of potential impacts of MPAs and other measures of management • Development of monitoring and evaluation of criteria and indicators • Adoption of ex-post impact

Research Area	Regional Issues	Research Topics
		assessment
	Legal and institutional analysis of fisheries management	• Multiple use of water bodies • Research on sustainable, equitable, efficient and responsible institutional arrangements • Models of co-management, CBFM and CBCRM monitoring and evaluation • Increased community awareness of the values of natural resources and increased understanding of resource ownership and property rights • Management of conflicts among resource users • Legal and institutional frameworks

Presentation of Selected Cases of Multi-institutional Collaboration

The SANREM CRSP Southeast Asia: Healing Nature, Sustaining Life by Dr. Rogelio C. Serrano and Ma. R. Baltazar

Among the lessons that emerge from the program, two stand out above all others. The first is that while participation is a term with multiple shades of meaning, the probability of a project achieving success depends heavily on the extent to which its objectives and methods are aligned with community interests and institutions.

The second outstanding lesson is that it is not safe to assume that solutions to environmental degradation or unsustainable use of natural resources depend on efforts to alter behavior of the residents of the affected area.

Ultimately, the responsibility for sustainable development of Southeast Asia's upland areas is shared between farmers, communities and community groups, and political jurisdictions from local all the way to the national level.

SEARCA's University Consortium: A Model of Successful Networking in Higher Education by Soekartawi

After 12 years of operation, several factors emerged to be contributory to the success of the SEARCA-coordinated University Consortium. First, the members are very active in participating in most of the activities. The right selection of members is critical. Second, the members have the physical, financial and manpower resources to sustain their activities and operations and their willingness to share these resources. Third, the members perceive benefits derived from the network/collaboration such as strengthening of graduate students and faculty through exchange programs, establishment of broad equivalency of admission standards for graduate programs among member universities,

and development of cooperative programs in instruction, research and extension and information exchange. Fourth, the members have common interests or problems that should be addressed cooperatively and efficiently. Fifth, the members have a very good planning and problem framing process. Sixth, the members have in place a good coordinating and communication system that facilitates the implementation of the programs and activities with the presence of a strong secretariat at SEARCA. Lastly, the members identify a unit or person who is responsible for daily activities of the network.

Synergy through Partnerships: Asian Maize Biotechnology Network
by Ma. Luz George

Maize in Asia is the third most important crop. Growth in demand for maize is projected at 5% annually through 2005. Against this backdrop, the Asian Maize Biotechnology Network (AMBIONET) was conceived. The major objectives are three-pronged namely: (1) capacity building of maize improvement programs in biotechnology, (2) collaborative research on the development of improved maize varieties with the use of biotechnology tools, and (3) information exchange, serving as a regional node for biotechnology resources/information.

The collaboration is a success because of the perceive benefits that the members gain from the network. Since one of the major aim is capacity building, the NARS partners have upgraded the laboratories and established communication links through the project. The second is the development of its human resources. The highlight is the inter-team exchange visit where inter-team interaction is strengthened to foster cooperation.

Despite its initial success, there are evolving needs for AMBIONET. These are (1) maintain focus and quality of research activites, (2) delivery of impact to maize farmers, (3) involvement of the private sector, and (4) sustainability of the NARS laboratories.

Presentation of the CG Centers

Opportunities to Collaborate
by Dr. William G. Padolina

Look at proposals for collaboration and what the propose opportunities are. These documents were derived from a series of meetings which started in February 2001. It is understood that priority setting exercise is a complex undertaking and that we need to put together our collective wisdom to enhance collaboration and understand regional priorities. However, there are set of assumptions on how these information were derived. These are as follows:

1. the Centers had their priorities already established in the region
2. we do not expect any new money. We are looking at existing and current center activities in the region that could be enhanced, expanded where we can identify additional growth points.
3. assuming that it is possible to use existing activities as a platform to refine, expand regional involvement
4. there will be varied modalities and a wide array of menus by which we can interact
5. interaction/putting together of minds allow us to achieve critical mass at the shortest possible time to accelerate impact of activities in the region.

Some World Bank data on the profile of East and Southeast Asian countries. Here we have chosen selected indicators such as population, %urban population, land area, and %GDP attributable to agriculture value added. A very wide variation in terms of population specially in Southeast Asian region. From the CG viewpoint, the region is a geopolitical clusters. In terms of competitiveness, a recent data shows that the case of the Philippines is a downward trend and in some countries the same trend is observed. Korea maintained its standing.

The goals as identified by the CG System are three prong, greater competitiveness, poverty reduction and sustainable development. And as suggested by the TAC last March 2001, the prioritization criteria include: (1) international public goods nature of CG products, (2) CG comparative advantage, (3) alternative sources of supply of knowledge, and (4) probability of success.

What was done was that the activities were grouped according to the categories proposed by the CG. GNRM stand for germplasm natural resource management, TDFE technology dissemination and farmer empowerment, PR is policy research, and CB is capacity building. A total of 357 activities are being undertaken by the centers in the regions. Activities were used because some of the projects may fall in either one or more of the categories. Mongolia and Brunei are not involved in any of the activities implemented by the centers. Evident also from the work of the center, they all subscribe to multi-lateral access to information and new knowledge. Allow for materials to move freely and safely, allow for the technology to be accessible to the productive assets of the rural poor and for information to enhance productivity using productive assets for income generation.

Information submitted by the centers for collaboration and the countries where they can collaborate. In some instances initial discussions were made, others centers will still have to pick up this information and discuss with their principal. Whether these proposed activities fit the NARS and other stakeholders' priority concerns and whether they will be used for a regional undertaking.

The classification of synergistic and complementary activities comprises the bulk of the activities. Taken on its own, there are only 33 different projects, but they can have different activity as to the level of involvement of the centers. If you go by the classification of crops, livestock, fisheries and forestry, the bulk is in crops, that is why it has been observed that the fisheries and forestry sectors are undersubscribed. In the

classification of the CG system, bulk of the activities are under the germplasm and natural resources management.

Taking into the CG documents, these projects should be evaluated in terms of its greater contribution to competitiveness, poverty reduction, and sustainable development. In terms of prioritizing these activities the Technical Advisory Committee of CGIAR suggest the following criteria: (1) international public goods nature of CG products with regard to their being freely accessible, (2) the comparative advantages of CG, whether there are alternative sources of the supply of knowledge, and (3) struggle to reduce poverty, non-agricultural factors. It is suggested that the linkages be made with the non-agricultural factors of poverty which is critical in providing solution to the reduction of poverty.

Framework for the Process of Setting Regional Research Priorities and Collaboration

Dr. M. M. Rahman

The proposed priority setting process is not intended to halt the on-going process, but to formalize and refine it to guide us in the next step. The on-going process has taken us close to identifying the major areas of priority. The next step will be to identify priority research projects within the identified priority areas that will serve the needs and common interest of many countries of the region.

It is to be recognized that the proposed regional priority setting process is not a fixed prescription. It only defines the steps in general term that can be selectively used or used by adjusting to specific circumstances for setting regional priorities. The steps include:

1. Formalization of collaboration among partner organizations. The partner organizations need to agree on formal collaboration, based on common principles and interests.

2. Identification of a focal point and establishment of a working group. It is important to identify an institution that has the capacity and administrative resources, and is willing to be a focal point for coordinating and managing the priority setting process. To assist in this effort, a small but effective working group, consisting of members from key partner organizations, should be established.
3. Setting mechanisms for collaboration and processing of information. The working group collects information from national, international and private sector organizations and process as an input to the regional priority setting exercise.
4. Establishment of workplan, timetable and budget. The working group will have to develop a workplan with timetable and estimated budget to meet the operating costs of activities like regional workshops, working group meetings and information gathering and processing.
5. Identification of broad priority areas. The working group carries out an exercise to identify and prioritize broad researchable areas, based on its analysis of the information collected and processed.
6. Selecting criteria and priority setting method for identifying priority research projects. The working group identifies priority setting criteria and adopts or develops a priority setting method for identifying research projects. These are presented to a regional workshop for validation and approval.
7. Organizing the priority setting exercise. The working group establishes a mechanism to capture inputs from a wide range of stakeholders, present the results to them in a workshop for review and approval.
8. Validation of priorities and allocation of projects. The forum discusses and agrees on the allocation of projects and mode of operation. Decisions are taken based on the criteria defined by the working group. Criteria could be as follows: (a) nature of the problem, (b) type of research to be carried out, (c) time required to tackle the problem, (d) physical facilities, human and financial resources available to deal with the problem, and (e) need for shared investments to deal with certain problems
9. Feedback mechanism. The working group must develop suitable mechanisms for receiving feedback from all partners.

Presentation of Workshop Outputs

The Workshop Process

Group I : NARS

Facilitator : Dr. Rafael Guerrero

Rapporteur : Dr. Leah J. Buendia

Participating Countries : KoreaCambodia Laos PDR
PROC Malaysia Philippines
Thailand Myanmar
Vietnam Indonesia

1. The workshop began with the agreement of the group on the procedure in identifying the priorities. Each country representative of the NARS identified areas of priority in their country. After putting the list in a matrix, the country representative were requested to put two checks in areas of high priority and one check in areas of lower priority. Areas of concern identified by most NARS as high priority (5 countries and more) were identified as possible areas of collaboration in the region.
2. Outputs in the form of matrix are now being revalidated by the NARS.

Group II : CG Centers and Regional Organizations and NGO

Facilitator : Dr. Francisco P. Fellizar, Jr.

Rapporteur : Ms. Nyhria Rogel

Participating Organizations : IWMI CIMMYT ICLARM
ADB AVRDC INIBAP
ANGOC ILRI SEARCA
CIAT GFAR
IRRI ISNAR

Definition of roles. The workshop began with the facilitator asking the group to decided on the role of each member of the group. Though he was assigned to facilitate the workshop, another member of the group might have wanted to be the facilitator.

Statement of Objectives. The group agreed on the objectives of the workshop: to identify common concerns and activities across organizations and to suggest possible modes of cooperation/collaboration among and between organizations.

Agreement on the Procedure and Framework for Discussion. After some discussion, the group agreed on development goals, strategic objectives, and activities as the basic framework. Some of the priorities that were stated had to be reclassified/redefined into either of these three.

Sharing of Priorities. Once it was clear what development goals and strategic objectives were, each organization briefly shared with the group its priorities, objectives and activities.

Convergence. After putting the goals, objectives and activities in a matrix, the commonalities/areas of convergence were culled and listed as possible areas of collaboration: information sharing; complementing resources; policy analysis; institutional capacity building; and development of participatory methods and approaches.

Group II Output

SEARCA

Activities	Strategic Objectives	Development Goals
I. Pilot on farm trials II. Graduate scholar and specialized training III. Information networking and putting information centers (BIC, IPM) IV. Agro-enterprise development	I. Increased adoption of sustainable farming systems II. Building capacity in agriculture research III. Increased dissemination/access to information	I. Food security II. NRM and sustainable agriculture

*CLVM

ANGOC

Activities	Strategic Objectives	Development Goals
I. Community organizing II. Public policy and socio-economics research	I. Maximum participation of end-users in technologies developed II. Sustainable and remunerative technologies	I. Food security II. Poverty reduction

INIBAP

Activities	Strategic Objectives	Development Goals
I. Variety development and dissemination II. Conservation of germplasm III. Development of production systems for bananas IV. Biotechnology program V. Regional information system for bananas VI. Training/Workshop	6 main agenda of ADB	Food security

GFAR

Activities	Strategic Objectives	Development Goals
I. Promotion of local innovation II. Database made accessible to farmers	I. Facilitate and promote innovative partnerships	I. Food security II. NRM and sustainable agriculture III. Poverty reduction

ICLARM

Activities	Strategic Objectives	Development Goals
I. Introduction of technology	I. Sustaining fisheries resources	I. Food security II. NRM and sustainable agriculture III. Poverty reduction

AVRDC

Activities	Strategic Objectives	Development Goals
I. Peri-urban agricultural production	I. Crop improvement II. Improvement of production systems	I. Food security II. NRM and sustainable agriculture III. Poverty reduction

ILRI

Activities	Strategic Objectives	Development Goals
I. GIS/modeling		I. Food security II. NRM and sustainable agriculture III. Poverty reduction

ISNAR

Activities	Strategic Objectives	Development Goals
I. Institutional reform, network building and management II. Improving research management quality and strengthening stakeholders' capacity III. Research policy studies IV. IT and knowledge management V. Biotech policy and management, including IPR VI. Evaluation of capability-building projects	I. Enhancing research capacity of NARS and other stakeholders	I. Food security II. NRM and sustainable agriculture III. Poverty reduction

CIAT

Activities	Strategic Objectives	Development Goals
I. Technology adoption II. Community development and interface III. Germplasm research IV. Agro-enterprise development V. Participatory development VI. Method and guidelines development VII. Technology application	I. Reversal of resource degradation	I. Food security II. NRM and sustainable agriculture III. Poverty reduction

Activities for Future Action

- Revalidation priorities - both NARS and CG Centers/Regional Organizations to revalidate priorities listed and presented after revalidation and confirmation, APAARI to develop a sub-regional priority listing which will be made into regional collaborative program.

- APAARI to organize a working group to do the sub-regional program.

- CG Centers to gather collaborators again to review the list and agree among themselves where to start (short list of collaborative activities in the region).

- NARS are encouraged to support how to coordinate CG activities in their respective countries.

- APAARI to print the proceedings

- The output of the regional prioritization exercise shall be compared and shared with other regional prioritization exercise

- Continue the dialogue between NARS CG Centers and other agencies.

- ANGOC to present the outcome of this workshop to the NGO meeting in Bangkok in August 2001 while output of the August NGO workshop to be incorporated to the APAARI priorities for East and Southeast Asian.