External Evaluation of the Project on PROMOTING FARMER'S RIGHTS THROUGH STRENGTHENING COMMUNITY PLANT GENETIC RESOURCES CONSERVATION DEVELOPMENT AND USE (CPGR CDU) IN SOUTH AND CENTRAL MINDANAO, Philipines though a multistake holder analysis.

Vanaja Ramprasad

Tess Borromeo

Aurora Regalado

Initiated by SEARICE and Development Fund

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The Development Fund

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LIST OF ACRONYMS USED

AESA	Agro-Ecological System Analysis
AKKAP	Alternatibong Katilibanong Kalambuang Panglawas
BFAR	Bureau of Fisheries and Aquatic Resources
BUCAP	Biodiversity Use and Conservation in Asia (Program)
CBDC-Bohol	Community Biodiversity Development and Conservation Programme – Bohol
CONSERVE	Community Based Native Seeds Research Center
CPGRCDU	Community Plant Genetic Resources Conservation, Development and Use
CSB	Community Seed Bank
EPM	Ecological Pest Management
FARMS	Farmer's Rights Movement in Socsargen
FFD	Farmer's Field Days
FFS	Farmer's Field School
FVs	Farmer's Varieties
FGD	Focus group discussion
GMO	Genetically modified organisms
IPR	Intellectual property Rights
MASIPAG	Farmer-Scientist Partnership (as translated)
MC	Moisture Content
NGO	Non-Government Organizations
OFSPA	Organic Farmers for Seed Preservation Association
PGR	Plant Genetic Resources
PGRCDU	Plant Genetic Resources Conservation Development and Use
PhilRice	Philippine Rice Research Institute
PPB	Participatory Plant Breeding
PVS	Participatory Varietal Selection
PVP	Plant Variety Protection
PAKISAMA	
SA	Sustainable Agriculture
SEARICE	Southeast Asia Regional Initiatives for Community Empowerment
SKPSC	Sultan Kudarat Polytechnic State College
TOT	Training of Trainors
TVs	Traditional Varieties
UPLB	University of the Philippines Los Baños
USM	University of Southern Mindanao
USMARC	University of Southern Mindanao Agricultural Research Center

Map of the Philippines

Bukidnon Project is located

This is where SEARICE office Mindanao Project located (Pres.Roxas, Magsaysay,)

Sultan Kudarat project is located

Executive Summary and Recommendations:

SEARICE Mindanao programme covers the provinces of North Cotabato, Sultan Kudarat and Bukidnon of the island. The programme is a continuation of the work initiated by CONSERVE with its independent identity. Originally in 1991 conserve was a project of SEARICE with focus on collection of PGR, distribution of seeds to farmer partners training on rice breeding.

In 1994 CONSERVE emerged as an independent NGO. In its mandate CONSERVE included training of trainers, on station crossbreeding and evaluation along with season long Ecological pest management training. Along the way in 1996 added other components to its activities like alternative health care training, credit support to farmers and formation of People's organizations. While strengthening of the Pos was an ongoing activity CONSERVE also initiated with the POs work on Policy issues like GE, monitoring of banned pesticides and rice straw ordinance. In 1999 areas of operation were expanded and as part of strengthening of Pos community seed banks were established.

In the year 2001 Conserve expanded its work to the Sultan Kudarat province with a benchmark survey. During this phase of the programme much emphasis was given to socio economic support, farmer's exposure visits, capacity building and net working and linking for policy and advocacy work.

With ten years of work in North Cotabato, CONSERVE went through a phase of identity crisis as an independent project and was once again merged as a project of SEARICE as a part of its program in the island. This assessment basically reviews the progress of the work undertaken as Promoting Farmer's rights through strengthening community Plant genetic resources Conservation, Development and Use in South and Central Mindanao through a Multi Stake holder approach.

The report is divided into five major sections. The first section covers the history of the organization and the framework for assessment. This is followed by an assessment of the technical intervention that looks at the Plant genetic resource on farm conservation and the impact of the Farmer field schools and role of farmer breeders. The third section addresses the crucial importance of on the ground interventions as the principal basis of SEARICE"s Policy advocacy programme. The fourth chapter is devoted to looking at the social and economic impact of the programme . The organizational aspect of the Mindanao programme is assessed in the final chapter.

The project as a foundation to the work envisaged in this period had contributed substantially in PGR work with important lessons and implications for the future of the work. The priority crop was Rice and subsequently corn was included. With a decade of work on plant genetic resource conservation SEARICE had instilled confidence in farmers to emerge as breeders in their own right.

The contribution of the project has been substantial in increasing the intraspecific diversity in rice and inter specific diversity due to establishment of herbal gardens in the community. The distribution of materials for PPB is not systematic. For instance, F2 population is not advanced to F3, but a different set is distributed instead. The original populations of distributed materials and farmer developed varieties and selections are lost due to non adaptation , a biotic and biotic stresses. However, the achievements in developing farmer's varieties are remarkable.

The effectiveness of farmer field schools in enhancing the capacity of farmers in varietal development is reflected by the increasing number of FVS available in the communities in North Cotabato and Sultan Kudarat. This indicates that the farmer-partners are really keen and experienced selectors. The developed varieties are comparable to the modern varieties.

As part of initiative to expand conservation of biodiversity, herbal gardens to conserve medicinal plants were initiated. The training received by farmers at the FFS was acknowledged as useful and relevant. Farmers/breeders formed their clusters to share their experience.

Farmer's self reliance of the seeds has also led to practice of organic farming. The farmer partners and graduates of FFS also had the opportunity to practice organic farming. It was found that only 25% had put forth sustained interest in organic farming. Together with this only a small percent of the area was devoted to organic farming despite a large area of irrigated lowland. SEARICE also provided an opportunity through the regional Farmer's to share experiences to foster linkages among farmers in the region.

As for the returns from organic farming, farmers reported 60% reduction in yield. However, they also acknowledged the fact that this was compensated by higher net income due to reduction in use of external inputs. Technologies to provide alternative sources of organic fertilizer were provided by the project such as carbonized rice hull technology.

Some of the observations of germ plasm materials in medium storage reveal that there is loss of labels in foil packets, improper sealing of the aluminum foil and names and passport data did not match with the files. The 2000 evaluation team posed great concern to the status of germ plasm material at conserve. Many of the accessories were missing. In the 2002 germination test, seventy four accessions were found to be no longer viable (0% germination) and 36 with low percentage viability. Such state inadvertently eliminates potentially useful genotypes.

Seed inventory reports of 2002 and 2004 indicate that there were additional 25 accessions lost from 2002 to 2004. It was reported that due to tungro infection and rat infestation, no seeds were harvested. Therefore it is recommended to regenerate the varieties during dry season where disease infection is minimal.

As for the documentations there is no information management system in place. It was extremely difficult to determine the number of accessions held by the center-based gene bank. Therefore an urgent task is to revitalize the center based gene bank and protect the conserved materials from further loss.

One of the recommendations of the 2000 evaluation is the development of community seed bank system. Community seed banks were established in four barangays. It is observed that the Community seed banks serve as a meeting place of farmers. It was also observed that the community had difficulty in maintaining the CSBs since it is not a traditional practice in the community. The seed banking is such that seeds for planting are generally provided by two to four farmers in the community. The farmers keep the seeds important to the community. They are recognized as seed keepers.

Conservation, development and use of PGR has no doubt taken deep roots as established by the number of farmer breeders and farmer partners who have been trained in the farmer field schools.

It is also acknowledged by the partners in the government and NGOs, the role SEARICE has played in bringing the PGR issues such as the farmer's rights as addressed by the Government policies, the invasion of GMOs, role of the communities in access and benefit al sharing, Bio safety clauses, to the fore front.. The advocacy focused upon the link between indigenous communities and their biological and genetic resources and the legal mechanism to protect and promote the use of this knowledge, innovations and practices aside from assuring fair and equitable sharing of benefits to the communities when appropriated by external forces.

SEARICE advocacy efforts have covered a variety of issues on or related to farmers rights and plant genetic resources, conservation, development and use. These include agricultural biodiversity, IPR in food and agriculture, hybrid Rice, plant genetic engineering, genetically modified organisms / Bt corn, bio-prospecting, bio-piracy, sustainable agriculture, rice and corn breeding, PVS system, bio-safety protocol among others.

SEARICE has partial success in influencing some policies and government agencies through its policy advocacy and lobbying. In 2001 to 2202 SEARICE was engaged in intense lobbying against the PVP bill, SEARICE drafted a bill, a position paper and proposed amendments to the PVP bill. In spite of the persistent efforts of SEARICE and its partners the PVP bill was passed in June 2002.

With regard to campaign against Bt corn commercialization, the policy and field staff undertook a field trial to monitor multi-location field trials of genetically modified Bt corn. Despite the various efforts, the bill on Plant variety protection was passed in 2002, SEARICE followed it up with efforts like signature,

campaign, hunger strike, and strategies to articulate at the national level, and participation through technical working groups, drafting of bills, providing expertise on socio economic implications of IPR, genetically modified organisms and bio-safety.

Another key issue of importance to SEARICE and its partners and allies is the promotion of farmer's rights and its passage into law. At the local and regional level, various farmers' rights consultations had been carried out to amplify the issues. The draft bill prepared by the policy staff on farmer's rights was filed and introduced at the 13th Congress House Bill.

Through a variety of strategies and interventions, SEARICE was able to significantly reach a wide audience to promote PG-CDU and farmer's rights. SEARICE has made good use of campaigns, public forums and discussions, networks, publications, the internet and the media to promote its advocacy stand points/agenda and get them across to as many people as possible.

One of the notable outcomes of SEARICE intervention on the ground was the formation and strengthening of farmers and community organizations along the lines of organic agriculture and farmer's rights.

The former executive director and former policy officer of the PIU had formed a cohesive team during advocacy and lobbying work. Both were articulate communicators and have a passion for the work they were doing. The downside was that legislators, other government officials and even representatives of NGO's began equating SEARICE with the former executive director and policy officer. With the change of guard, there was a high expectation that those who continued the line of work for SEARICE would have the same capacity and presence as the previous team.

Of the current Mindanao staff one had a formal training on policy advocacy and lobbying. Of the eight staff six have been with SEARICE for less than a year. Being new to the organization, their knowledge and mastery over key issues related to PVP act, IPRs were rather low. .

SEARICE could do more to systematically encourage and guide local NGO networks to build lobby efforts. In the first year of its implementation of the CPGR CDU through a Multi stake holder approach an institutional scanning of organizations and institutions at the municipal, provincial, national and international levels were done to identify potential partners from research institutions, academe, local government universities as well as non governmental organizations.

As stated by one of the senior consultants and well wisher of SEARICE the project cycle should follow a certain
Trajectory from the stage of

EXPOSE

To

OPPOSE

To

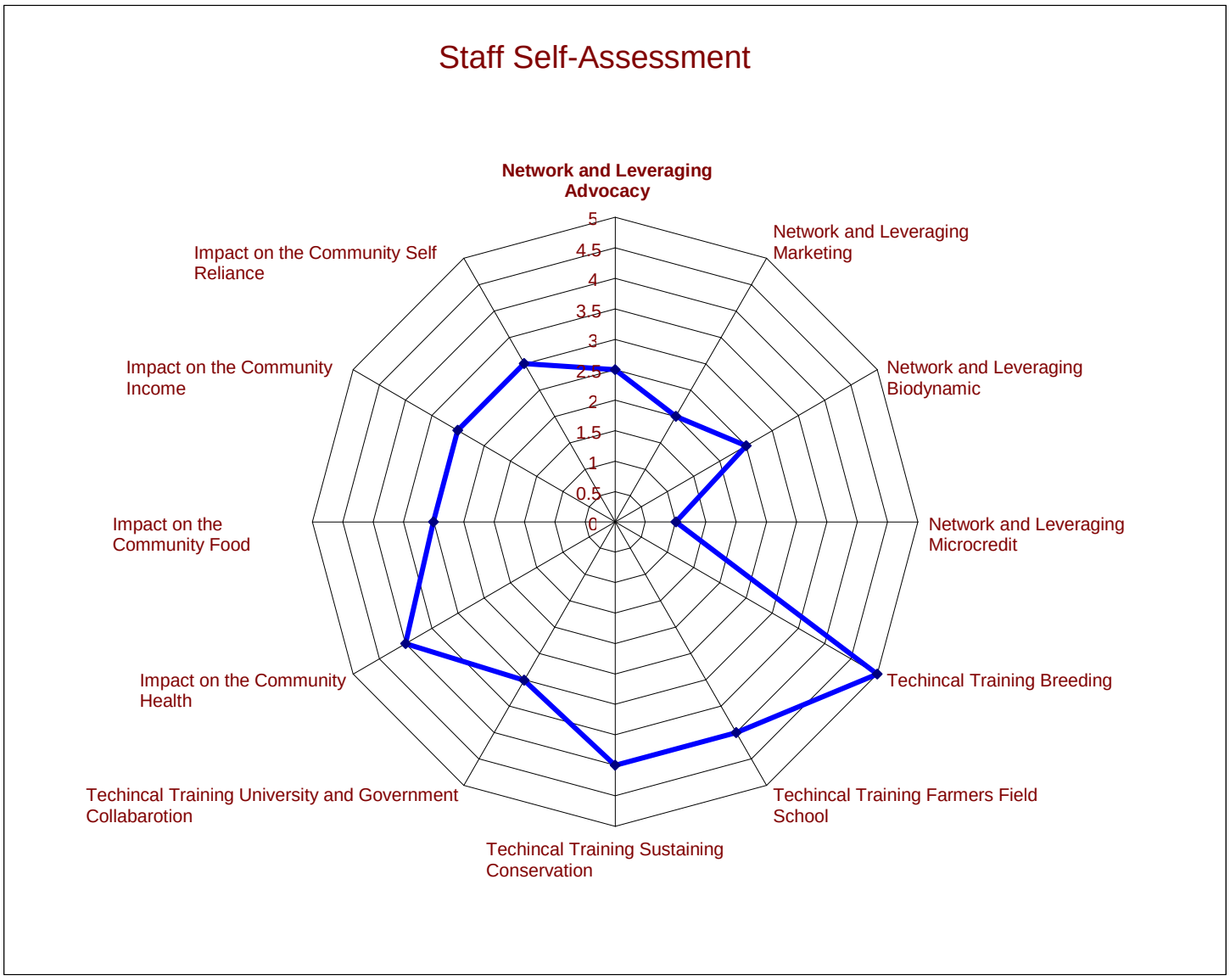
PROPOSE

In the three-stage progression, the first stage is when the issues and problems to be addressed are exposed in the context of the existing socio political environment. Following this is opposing the issues through campaigns and media attention. Unless this is followed by proposed alternatives and solutions to be implemented in the field the project cycle is truncated. All activities in between these stages are processes, which are very important. The work of SEARICE in the present phase has unintentionally stagnated at the second stage without progressing into the stage where the desired impact can be felt.

A brief conversation with Neth the former Executive director of SEARICE who was one of the authors of the present proposal also brought home the point that the Vision Mission Goal of the organization is an evolving one. During the evaluation of 2000 by a team of experts it was pointed out that the work between the Policy Information Unit and the fieldwork was very disjointed. The evaluation also emphasized the need for synergy between the planning and programmes. There has been a lot of effort in educating the technical staff about the policy advocacy work. The expectations were to involve farmer partners and other partners on policy aspects of the work.

Having defined the focus of the work around PGR issues Neth cautioned that it should not create the illusion of impacting on all the hierarchy of issues that affect the lives of farmers .Therefore the search for impact on the lives of farmers in terms of food security, economic levels ,access to credit should be done with caution.

To reinforce the fact that this review was aimed at providing SEARICE with a forward looking strategy the staff at the field level were engaged in a participatory assessment of how the project could have leveraged on the fact that it was a multi stake holder approach to conservation. The following table reflects the impact as seen by the field staff.



Breeding	5	5	Very Good
Farmers Field School		4	
Sustaining Conservation		4	
University and Government Collaboration		3	
Health		4	
Food		3	
Income		3	
Self Reliance		3	

Table 1. Self-Assessment by Field Staff

The scope for expanding the work of SEARICE lies in the opportunities that could be leveraged through the networking partners. It was pointed out during the discussions that the partnership with other institutions and organizations gives ample opportunities to expand the involvement in issues related to agrarian and land reform, fair trade, mining and land conversion. It was very succinctly pointed out by one of the senior consultants that policy work in agrarian reform should lead to Sustainable agricultural practices (**SA**) in the field and not the other way around which is arms struggle (**AS).**

Sustainable agriculture which includes a gamut of practices to bring equitable ways of conserving the natural resources providing adequate food for the present and future generations. One of the network partners Don Bosco had attained enough expertise to spread the concept of Biodynamic farming to an outreach of 3800 farmers in the province. However it is observed that SEARICE has not taken advantage of the network experience to bring the synergy between conservation of plant genetic resources and biodynamic farming. There was evidence to show that even the government at the local level had taken serious note of their achievement. It is not suggested that SEARICE has to whole hog take biodynamic farming to their farmers. But there could be ways of bringing the concept to their farmers through the network partners.

Don Bosco had also made inroads in marketing the produce as a niche market. Strengthening production and promotion was necessary before certification for marketing was sought. The question of bio safety as an issue used in campaigns has not been used to promote the indigenous varieties grown organically and a market using this as a selling point has not been developed. The advantage of such collaboration is seen as a selling point to project not only the chemical free safe food, but also a representation of diversity a heritage being preserved by farmers.

It was also evident from the interviews with government officials at the local level that there was a positive outlook from the concerned official at least in promoting the work of SEARICE. There was enough evidence of disillusionment of the present government programme by some one who was implementing it There was also enthusiasm from the university to collaborate on biodiversity based livelihood issues which SEARICE could tap into.

As for food security and economic issues SEARICE Mindanao programme is still far behind what they would like it to be. The reasons could be many. There is much scope for the programme to facilitate diversified farming systems which was observed by very few farmers. There were few farmers who had integrated fish farming , livestock like goat rearing with their rice cultivation. These farmers were few and far between.
Awareness about the introduction of Bt.corn was also observed when a farmer breeder in corn articulated the importance of maintaining the land races of corn and farmers developing their own variety.

Despite some of these observations , it is clear that to gain momentum to create a sustainable impact at the social and economic level SEARICE MINDANAO programmed lacked the leadership at the field level. The reflection by staff on the strengths weaknesses, opportunities and threat also revealed what the field staff saw as opportunities for strengthening the organization and its work. The staff looked at the organization as a platform for bringing in other issues as an opportunity to further its work. Some of the strengths recognized by the staff were the work of SEARICE in Policy advocacy and technical training given to the farmers. The networks were seen as opportunity to expand the work in the island. Some of the weaknesses as recognized by the team was the lack of regular internal evaluation, poor documentation systems, multitasking of the staff, lack of link between the local work with the national and lacunae in translating the international and national issues identified of relevance to the local level issues.

The organization in this crucial period has gone thru a massive turnover of staff both at the field and office level. This has lead to instability of the work, which was very obvious during the interaction with the staff. Much of the gaps in information were due to trained senior staff leaving the organization. Between the times when the former ED handed over to the present ED a smooth transition was envisaged which did not happen. Best policy persons were recruited, detailed planning month by month was done, but many of the second liners left and it resulted in leaving avoid in terms of executing the work that was planned. A lot reorganization of work by relocating the staff was inevitable and that also compounded the problem.

The role of the advisory board was not very clear. At this juncture only periodic reporting was done to update the board on the activities carried out. In fact one of the advisory board members also mentioned that it was over a year since a meeting of the advisory board was held. As for the board of trustees at the national level they had given the freedom of shaping the work at the field and policy level to the team. It was possible to have a telephonic discussion with the senior most board member Rene Salazar who was the founding trustee. He was of the opinion that issue of plant genetic resource conservation was not addressed seriously by the government and going to scale has not been answered by SEARICE. He also agreed that the importance given by the government to conservation and farmers rights were subsumed by many other issues that took priority .His vision for the future of SEARICE was towards a social movement for change and network with others who are like minded.

Some recommendations to take the concept forward;

1. .It has been observed that there is continued loss of germ plasm materials due to various reasons. This also leads to narrowing of genetic diversity and erosion. Priority attention should therefore be given to the germ plasm unit of the center to minimize further losses of existing materials and the newly generated germplasm material .For example to contain the loss of germ plasm due to disease/infection like Tungro virus damage regeneration of varieties during dry season could be undertaken

2. Widen the scope of conservation by including crops that are underutilized and uncultivated .. Attention could be given to conservation of the soil which takes care of the soil biota which form an important part of biodiversity. Conservation of livestock could be integrated with sustainable agriculture. Sheep penning and goat rearing with stall feeding could contribute to the organic manure apart from the chicken manure that is used by and large. Green manure plants could be identified to be conserved on the bunds which could serve the dual purpose of manure and soil binding. This is recommended to ensure food security from a varied source of food.

3. Multi tasking by strengthening the technical intervention of PGR conservation and participation with other networks related to land rights and allied issues .

4. SRI method of rice cultivation has been tried but not to the extent that it can be widely propagated . SRI has been found to be successful in increasing yields and this would be a good combination with rice varieties that are indigenous and are high yielding.This recommendation is made on the basis of the fact that SEARICE has not given itself an opportunity to fully exploit the benefits of this system of rice cultivation.

5. Biodynamic cultivation could be tried in a systematic manner in collaboration with Don Bosco. The SRI system of rice cultivation and biodynamic cultivation are recommended to ensure better yields which demystifies the belief that only chemical farming can boost yields

6. The system of documentation and monitoring could be made more reflective and analytical. The reports available are descriptive and need to pull all the activities together.
7. Staff capacity building is necessary by exposing the staff to other organizations that have successfully implemented sustainable agriculture programme.

8. Marketing of the organic products as safe and hygienic food could be promoted with a proper business plan. Whatever little attempts that have been made are rather inadequate.

9. The people's organisation can be strengthened with micro credit and other income generation programmes. This recommendation is made on the basis of success seen in other countries where communities have relied on their own resources rather than the dependence on outside sources to mobilize funds .

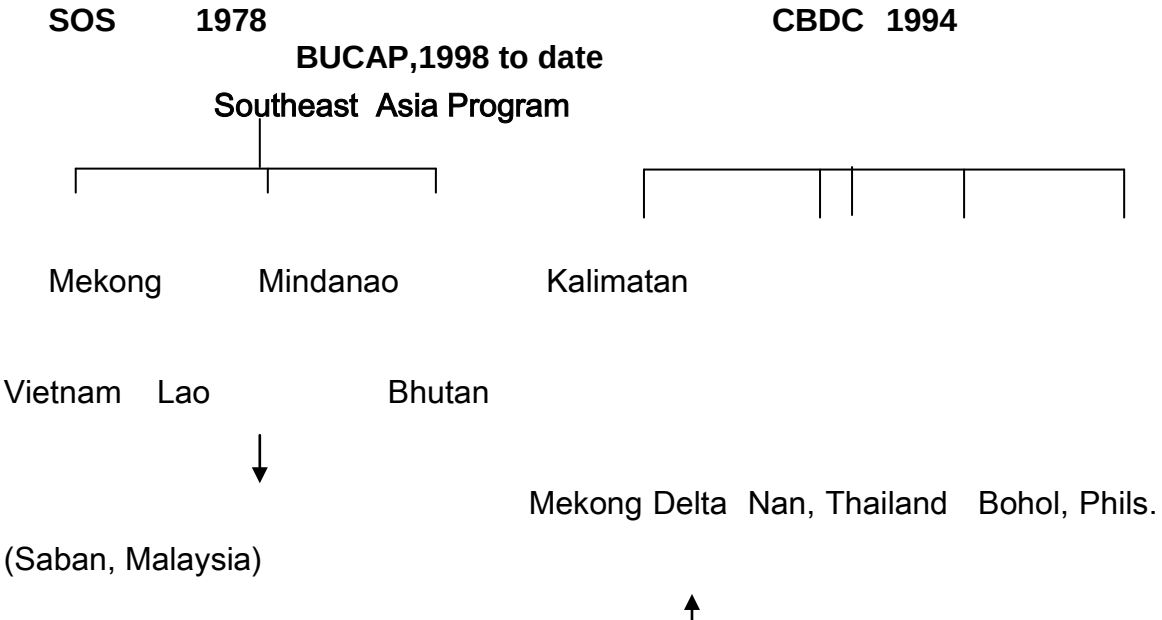
10. The Philippine culinary system offers a wide range of value added products with rice ,, popular with the consumers. This could be a way of conserving the ethnic culture by integrating with organically grown rice and value addition to it.

11. SEARICE could also need to rethink the level of participation in the networks. For example presenting their position in discussions and participate to listen to the other side of the arguments.

12. A culture of systematic monitoring and sustained reflection and critical analysis of PGR related issues should be instituted and a good knowledge of the key PGR related issues that SEARICE is focusing on is definitely an excellent preparation for doing good policy advocacy and lobbying.

13. Above all the team needs to take a sabbatical with some funding support to reflect on the organization's road map. It is unclear as to the overall direction where the organisation is heading. This would be a good opportunity for the team to build their capacities and get trained on aspects they identify as important. Whatever the evaluation recommendations may be it would be useful for the **team** to step back and reflect on what is the future of this programme. This will give **SEARICE** the space to plan for the future.

History of SEARICE



SEARICE was first established as a regional network in 1978, attended by development activists and rural development workers engaged with farmers, indigenous people, workers, urban poor, around issues like Appropriate Technology land issues and people centered development work. Between 1978-85 remained low profile.

Coming in of Executive Director Rene Salazar – brought the seed issue into focus. At that time the seeds issue had a limited understanding as appropriate

technology. In 1989 key linkage with RAFI provided SEARICE with its global research in formation and positioning of the issue.

SEARICE made the pioneering effort at that time to merge with the emerging PGR issues as the global agenda. From a multi development concern, SEARICE shifted focus to “seeds”. It was a crucial change from network to an institution. In other words, the shift was from issue based development activism to field based technical research.

The issue was redefined by the then Executive Director Rene Salazar as not merely conservation of seeds but the control over seeds by farmers as an empowerment process. Obviously this needed an approach based on societal analysis. The immediate need was to bridge the gap between global policy work and field based activity. It was realized that the PGR work was based on challenging the control over science and the knowledge systems. This introspection drew SEARICE into multiple dimensions

1. Redefining the seed issue from the perspective of farmer empowerment
2. To link policy work with field work
3. To combine community organizational approaches with technical research
4. To identify new linkages and to build new alliances around the seed issues

Due to the lack of precedence in experience SEARICE faced ideological conflicts and had to draw from experiential learning. Translating the vision and idealism into practical progress with necessary management structures and systems became the challenge. The important milestones were:

1991 – Conceptualization of Seeds of Survival (SOS) program and CONSERVE as its field project
1994 – Exploratory groundwork for CBDC in BOHOL and in South East Asia
1998 – SEARICE also implemented the Biodiversity Utilization and Conservation in Asia Program (BUCAP)

This was followed by greater visibility to the organization through new contacts, linkages and funding. Growing global concern for Environment, Biodiversity, Genetic Resources conservation, Sustainable Agriculture and Food Security brought SEARICE’s work to focus.

Given the political environment and known for the fact that Philippines had the presence of civil society groups. The work of SEARICE was well positioned, for obvious reasons. SEARICE was not part of any organized NGO network.

Some key decisions and initiatives that were taken were based on sound rationale. The conserve project was initiated as recognition of the need to link policy and field based works. Rice was identified as the focus of PGR activities, as an outcome of the recognition of genetic erosion. The clear distinction from

other conservation activities like preservation of exotic plant and animal species was that conservation of a food crop like rice was imperative considering its role in food security of small farmers. The choice to work with low land irrigated rice was to focus on areas where Green Revolution technologies were propagated. It was necessary to focus on integrating technical research with fieldwork. Community Organization was seen as a pre requisite for farmer empowerment.

To summarize, the Staff structure and perspectives of the Board at that time, SEARICE's role was defined as knowledge-based activism on biotech issues linking macro policy, advocacy with field based research empowerment of farmers to control their knowledge systems.

Staff turnover has been a common malady and at the time of evaluation in 2000 it was found that staff had limited experience, with few pioneering staff from the NGO's there were third generation staff, although some of the earlier leaders of political movements were in the board of SEARICE.

Policy & Advocacy work

The overall objective of SEARICE's policy and advocacy work was to address those core controversial issues around Seed Conservation and use. Some of the issues include Biopiracy, GMO, and IPR at local, national and regional levels.

Issues Identified

Promoting advocacy through networking
Establishing links between Policy and Field work

2000- 2002 – The Seeds of Survival program currently had operations in South and Central Mindanao, Philippines. The two programs implemented under the SOS program were namely CONSERVE and the Sultan Kudarat project.

History of Conserve

Conserve started as a project of SEARICE in 1992. It became an independent organization and registered as a non-profit organization in 1993. Its main concern since its inception was to address community PGR conservation, development and use in the context of sustainable agriculture.

To achieve this CONSERVE's interventions are focused on research, training and education. Participatory approaches such as PPB, PVS, EPM and ISFM. CONSERVE's development interventions are through people's organizations. CONSERVE's work since 1992 focused in North Cotabato in Mindanao.

The area represented both upland and lowland cultivation. The lowland areas in Arakan Valley complex are mostly small land holdings with an average size of 1

to 1.5 hectares. Conserve worked in these upland areas focusing on rice and corn in Barangay Luhong in Antipas, Barangay Lhong of Upper Pres. Roxas and Barangay Malatab of Antipas.

In the lowland areas conserve actively worked in Barangay Del Carmen, Kamarahan, Mabuhay, Cabangbangan and Idaoman in Pres. Roxas. Conserve also worked with a group of indigenous people, the Manobo in three upland communities maintaining upland varieties.

In 1998 – conserve expanded its operations to central part of Cotabato. The area represented intensive rice farming. Kabacan is a prime lowland rice area conserving a total of 10,512 hectare

2000-2001 – Focused on FFS with emphasis on rice and corn. The highlights on the FFS were participatory plant breeding participatory varietal selection. The graduates from FFS contributed to maintain individual researches. Center based activities contributed with the regeneration of the seed bank collections and adaptability trails. Seven people's organizations were formed with institutional strengthening.

In 2002 – CONSERVE underwent an overhaul. The weaknesses and problems were revisited and assessed. The Board of Trustees decided to dissolve CONSERVE and decided to revert it back to SEARICE in February of 2002. In the last quarter of 2001 SEARICE presented a blue print for new direction.

The SOS programme was initiated in Sultan Kudarat in 2000. Sultan Kudarat was selected as a project area because it was perceived as offering an opportunity in exploring new models for community based PGR conservation and development. The area has vast productive rice land and is considered as the rice bowl, where some of the poorest provinces in the Philippines are located. Prior to initiating the fieldwork a multi stakeholder consultation was held to gather information of the agricultural situation and the status of PGR in the province.

Several participatory data gathering activities were initiated. The following four factors were identified as affecting the communities

1. Seed Supply System
2. Dependency on external inputs
3. Strangle hold of traders
4. Influx of new technologies and mechanization

The Sultan Kudarat project and conserve merged as one project under SEARICE Mindanao in 2002. The project was envisaged in the four phases with the following components:

Core Components – FF School to be supported by the support components like

1. Participatory Research
2. Training and Extension

3. Information and Development Communication
4. Seed Banking
5. Academic Curriculum Development
6. Policy Advocacy
7. Linking and Networking

With each component having several sub components, the project was to have four phases namely exploratory streamlining, piloting, and consolidation and expansion phase. The project at present is in the exploration and streamlining phase.

Introduction to Overview of Agriculture in Mindanao

The Philippines is an archipelago of islands located between 4degrees and 21 degrees N latitude and 116 degrees and 127 degrees E longitude. The country stretches 1840 kilometers from North to south and spans 1,104 kilometers at its widest point. Eleven large islands take up ninety six percent of the total land area of 300,780 square kilometers. The two largest islands are Luzon and Mindanao.

The climate of the whole province of Mindanao is characterized by a rainfall regime wherein the wet and dry seasons are not sharply pronounced. The average yearly rainfall for the province is 1800mm.The dry period in the province starts in the middle of February until the month of April. The humidity is high ranging from 71% to 85% in September.

It is reported that there are 16 types of soil found in the province of Cotabato. The most prevailing soil types in the province are of the clay loam soil. These soils are best suited to cultivate crops like corn and rice. One of the main problems seen in the area is soil erosion due to extensive deforestation.

Cotabato province represents diverse cultural groups each having distinct values and practices. The population can be classified into two segments such as the Christian migrants and the local communities composed of Muslims and indigenous people. It is reported that the Christian migrants settled in the low land areas and caused the shifting of the indigenous people and the Muslim communities to the highlands. As a result, the Muslims and indigenous people live in relatively isolated areas without the interference of modern agriculture and loss of genetic diversity.

Traveling in the region it is found that the landscape unfolds itself with large tracts of rice cultivation interspersed by coconut, rubber, banana, palm oil and naturally occurring diverse flora of fruit trees. The conventional way of rice cultivation demands the use of insecticides sprayed into the seedbeds and with herbicides at the time of emergence of seedlings and topped with other chemical sprays to control pest and disease attack.

The study done by SEARICE in the Lamboyang area documents cultivation of Rice, corn, Mango, Durian, Banana, Palm oil, sugar cane, and root crops. it is also observed that in the last two decades there has been a transition from staple crop production to commercial crops. Massive conversion of land to plantations also indicated the helplessness of the small farmers weighed down by debt burden entered into contract farming with major agribusiness companies. This trend established the shift from diverse farming system to mono-crops of plantations.

The work of SEARICE on PGR conservation development and use for the year 2003 to 2005 has focused upon South and central Mindanao. Agriculture situation in the Philippines has been undergoing a massive transformation to conform to the pressures of globalization and policy changes at the national level. Subsistence farming practiced by the farming community largely cultivated rice and corn for household consumption. The changing agricultural scenario with the introduction of the green revolution technologies rendered Philippines as a gross exporter of rice in the early seventies. The illusory notions of high yield and response to the market conditions turned the rich rice diversity to a narrow genetic base .The major fall out of the green revolution paradigm was the inclusion of high external inputs in the form of chemicals there by creating a huge dependency of farmers on the credit system. As narrated by one farmer leader at present farmers in the island after a bountiful harvest have only “empty sacks” to fulfill their food security needs. It is not uncommon for farmers to sell all their harvests and buy inferior quality of rice for their consumption. The landowners, traders, govern the production of rice in Philippines, middlemen chemical companies loan sharks, agribusiness industries that has lead the situation to one of market tenancy. It is closely linked to the feudal relations surrounding land since most of the middlemen traders and loan sharks were former landlords.

By and large the farming community in the island consists of people who have migrated into the area and are dependant on the tenancy system for cultivating the land.

Framework for Assessment

The program on the promotion of farmer’s rights through strengthening community, plant genetic resources, conservation, development and use (CPGR-CDU) in south and central Mindanao, Philippines has been initiated through a multi stake holder approach
The funding to the program is due to end in 2005 and this assessment has been envisaged to provide the donor DF and SEARICE with a set of findings and recommendations to reflect the organizational challenges and as a forward looking strategy to identify the road map of SEARICE. In the framework for assessment three distinct areas have been identified apart from the Organizational and institutional issues. A major thrust area of SEARICE’s work has been with investigative research on current agricultural policies by the

Philippines government and the rest of the Southeast Asia that hinder or threaten the realization of farmer's rights and plant genetic resource conservation and development.

The second area of thrust is the community based technical intervention work as an essential component of the validation of the policy advocacy work.

Finally how the operationalization of farmer's rights through technical and policy interventions have contributed to a broader understanding of empowerment of the communities that the farmer partners belong to.

The program has been designed as a multi-stake holder involvement and hence the methodology of a MSA is in alignment with it.
{*A note on the Multi stakeholder analysis*.}

Stake holders are groups, constituencies, social actors or institutions of any size that act at various levels, have a significant and specific stake in a given set of resources. Stakeholder analysis involves anyone who is affecting or is affected by someone else's decision-making activity. Stakeholder attributes are a function of the social networks they belong to. To determine the impact of any intervention as positive or negative, sustainable or unsustainable depends on who is involved in the assessment.

Stakeholder analysis has the advantage of being a flexible, context specific paradigm that helps to focus attention on specific problems. This is particularly helpful in the context of NRM where complex and interdependent relationships of groups relying on common resources such as land water and forest typically prevail. Multi stakeholder analysis is needed where resources cross cut different administrative, social economic and political systems operating at micro and macro levels.

Stakeholder analysis must address 3 inter related dimensions.

1.) Nature of the problem
2.) Its boundaries
3.) Those actors who own the problem

The boundaries of an issue have to be to avoid the source of conflict/
Multi stakeholder relationships conflict wherever

1. The stake holders involved in a competition or conflict over natural resources;
2. Stakeholder values and views on NRM problems and conflict-management strategies;
3. The multiple interests and objectives of stakeholders in relation to particular NRM systems;
4. The actual resources, influence, authority or power that stakeholders can bring to bear on particular NRM initiatives;

5. The networks that stakeholders belong to and patterns and contexts of interaction between them, be they collaborative or conflictive;
6. The distributional and social impacts of NRM policies and projects (winners and losers, potential trade-offs and conflicts), hence the risks and viability of particular NRM interventions;
7. The appropriate type or degree of participation by primary and secondary stakeholders (internal, external) at successive stages of a project cycle
8. Feasible coalitions of project sponsorship and ownership aimed at efficient, equitable and sustainable livelihood strategies (based on compromises between public goals and divergent stakeholder interests)**.**

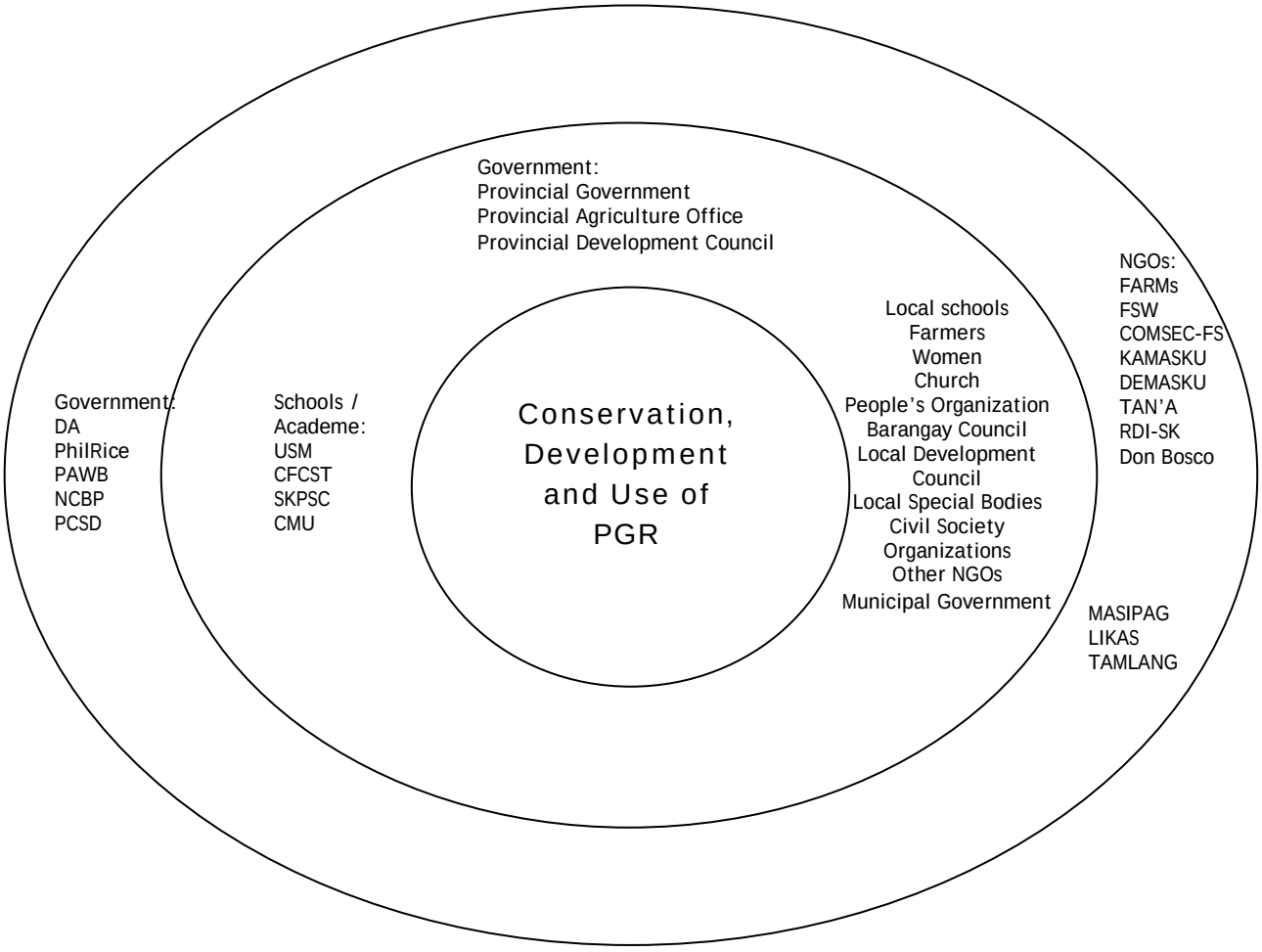


Diagram 2.Multistakeholder involvement

Steps Involved in Executing the Multi Stakeholder Analysis:

1. Identify the main purpose of the analysis.
2. Develop an understanding of the system and decision makers in the system.
3. Identify principal stakeholders.
4. Investigate stakeholder interest, characteristics and circumstances.
5. Identify patterns and contexts of interaction between stakeholders.
6. Define options for management.
7. Define the problem analyzing the constraints and opportunities.

GOAL OF SEARICE

SEARICE aims to contribute to farmers achieving access and control over resources particularly seeds. Thereby build the capacity of the farmers in technical issues and policy advocacy to increase bio diversity conservation, development and use leading to sustainable use of natural resources.

Combining the multi task of SEARICE Mindanao project and the multi stake holder approach the following matrix describes the issues. Some of the key questions that are addressed by the intervention, the type of indicators that can be used to describe the outcome and the methodology that is relevant to the context.

Table : 2

The **Major Issues**	**1. Key Question 2. Sub-questions**	**Indicators**	**Sources of Data**	**Method**
Loss of genetic resource	1. How has the lost genetic resources been retrieved to the farmers for conservation, use and development? 2. How do we ensure	1. Varieties identified 2. Increase in rice diversity 3. Farmer participation 4. Farmer bred	1. Secondary data reports and farmers	Scanning reports, interview with farmers, PRA with farmers and focus group discussion with farmers Land use analysis with PRA

	farmer participation?	varieties		
Knowledge erosion and Capacity building of farmers	1. How has the capacity for conservation and breeding, practice of sustainable agriculture been ensured? 2. How do we assess farmers' practices and indigenous knowledge for pest management soil fertility and knowledge of breeding? 3. What is the role of farmers in planning, participation and monitoring the activities 4. What were the methodologies /approaches?	1. Participation in FFS 2. Capacity for breeding 3. Adoption rate of indigenous variety 4. Identification of farmer scientist as resource persons 5. Some of the practices that have been restored by the farmers.	Reports and interview with farmers	Interviews, PRA and FGD
Global changes and policy in PGR issues	1. What were the strategies and approaches to build awareness amongst farmers and civil society groups? 2. What synergy/coherence 3. Linkages have been sought in technical and policy interventions? 4. To what degree are the recommendations of SEARICE and its partners included in Policy formulation of CPGRDU? 5. What is the credibility of SEARICE and its partners? 6. To what degree are SEARICE and its Partners seen as having sufficient knowledge on the issue of the social and political situation in the country? 7. Is there openness of the government officials? 8. Is there any official mechanism that exists where SEARICE is involved in the	1. Networking with other NGOs 2. Production of campaign materials for local and national level campaigns 3. Participation in the national and international events 4. Number of awareness campaigns	Publications and reports Interviews with stake holders at the local/provincial and national level	Interview with the Advisory Board, Board of Trustees, academics and other NGO networks

	policymaking?			
Capacity of SEARICE in Creating the political space.	Is there sufficient knowledge and capacity amongst the SEARICE staff to do lobby and advocacy work? Have their knowledge and capacity grown during the course of the work?		Interview of staff	Interviews, FGD and Participatory organizational Evaluation Tool
Unsustainable agriculture affecting the quality of the life of farmers	1. How do we identify the context of factors impacting farmers' lives and livelihood? 2. Do farmers' have the rights over the factors of production in agriculture; a) Land b) Internal inputs c) Seeds 3. Access to market for reaping the benefits of their production.	1.Effort pf SEARICE in resolving the land rights issue. 2. Use of diversity in agriculture as in diversified farming system 3. Access to market for higher price for their produce 6. Relief from debt 7. Abandoning the use of chemicals as inputs. 8. Higher income 9. Better food security	Reports and case studies and farmer participants	FGD, interviews, PRAs, Self-assessment by farmers Impact assessment by spider analysis.
Enhancing farmers ability in technical areas in PGR conservation, sustainable agriculture and food security	1. What opportunities were provided to enhance farmers' ability to conserve and bridge between economic gains and ecological concerns? 2. what was the process of engaging farmers in conservation and to enhance the spread effect of increase in diversity and ecological practices?	1. Farmers' awareness of the difference between short term economic gains and long term ecological benefits 2. Less debt burden 3. More food secure 4. Better health conditions 5. Ability to use alternative system of health care	Farmers, women, NGO networks, Advisory board And project reports	Case studies, interviews and FGD
The organizational/management and institutional capacity of SEARICE	How did the different staff contribute to the richness of the work? Does the staff have the clarity of tasks and responsibilities to carry out their work? What is the level of backstopping provided at the field level by the head quarters	Staff effectiveness in achieving the targets,	Staff, board of trustees	Participatory Organizational evaluation Tool with the field and office staff.

	How and to what degree have organizational aspects affected the quality of lobby and advocacy and implementation in the field? What is the leadership, implementation and monitoring capacity of field level staff?			

Technical Evaluation

The core component of the project is the Farmers' Field School on Community Plant Genetic Resources Conservation, Development and Use to strengthen the capacity of farmers to implement CPGR conservation, development and use towards increasing agricultural biodiversity. The evaluation team visited the project areas in North Cotabato and Sultan Kudarat on 19-26 January 2005. The project in Bukidnon started in 2004 so the team decided to focus on these two provinces. The technical evaluation was based on interviews with farmers, staffs, city agricultural officer and researchers from local universities. Likewise focused group discussions with the local NGO partners, namely the Food Sovereignty Watch and FARMS and the federation of farmers, OFSPA were conducted. Secondary information from minutes of meetings of the technical assistance unit of SEARICE and the local advisory board, technical reports, proceedings of conferences, progress and annual reports, publications, training modules and 2000 evaluation report were also used.

Overview of technical activities and outputs

Since 1992, CONSERVE-SEARICE has been involved in all activities in genetic resources conservation, development and use of rice. It has assembled around 982 accessions collected from farmers' fields, donations and introductions and conserve in a short-term facility at the center, 559 accessions are conserved in PHILRICE, a national rice research institution in black box arrangement since 1997. In response to the low intraspecific diversity among the rice varieties grown in North Cotabato, CONSERVE reintroduced traditional varieties to farmer curators. Simultaneously CONSERVE embarked on variety development with the end- in- view of empowering the farmers to develop and control seeds. In addition to the traditional rice varieties, F1 seeds generated by staff in the center and segregating and advanced generations from the center as well as from regional partners were distributed to farmers. This marked the beginning of the varieties and selections generated by farmers in North Cotabato. The famous rice variety 'Bordagol', a selection by Mr Eulogio Sasi of Poblacion, Pres Roxas is widely grown in Mindanao. PhilRice evaluated and seed increased the selection and registered 'Bordagol' as a Philippine Seed board-released variety, PSBRc-34. CONSERVE has conducted and published researches on SA technologies including ecological pest management (EPM), soil fertility management, community PGR conservation, development and use. The EPM intervention had remarkably reduced the use of chemical pesticides in the ricefields and also reduced rice production costs.

Objective: *to develop local capacities to implement CPGR conservation, development and use towards increasing agricultural biodiversity*

Findings

Increasing diversity

1. Since 1993, CONSERVE SEARICE has initiated the reintroduction of traditional varieties in response to the decreasing intraspecific diversity in rice in Mindanao. The project started seed distribution of collected traditional varieties for preliminary characterization and evaluation in several communities in Pres Roxas, North Cotabato (curatorship). Characterization was also done in the Conserve experimental farm. Many traditional varieties were discarded due to their non-adaptability and farmers also found conserving them in the field impractical since it reduced their effective production area. To increase utilization of the traditional varieties, training of farmers in rice breeding was started in 1993.

2. Based on the interview with farmers, varieties planted before the project consisted of farmers' varieties and modern varieties released by the National Seed Industry Council in lowland irrigated areas and mainly traditional varieties in the upland areas.

3. A total of 332 varieties (TVs, FVs, FRs and introductions) were distributed in 2002 –2003 (3 season data) for the PVS trials while1F1 and 31 segregating generations from F1 to F7 were distributed for PPB. In addition, 6 communal trials and 51 individual trials were set up in the communities (Table1). There is a definite increase in the diversity in rice in the communities. The contribution of the project has been substantive especially in introducing diverse rice varieties and lines, which provided them options to develop and control their seeds. This was corroborated by individual farmer interviews in the communities (Appendix Table1). The varietal performance evaluation including gastronomic (rice taste test) in the various trials were done during farmers' field days.

4. Many of the distributed materials including their own developed varieties and selections were discarded if they perform poorly in the observational trial. There is therefore a need to monitor and provide a systematic mechanism to assess the fate and extent of adoption of the identified promising varieties among the distributed germplasm materials. Adaptability trials were also set up but its importance cannot be assessed because of insufficient information provided, such as whether the adapted varieties were used by farmers' in variety development, or how many seasons were the adaptability trials conducted.

Table 3 : Number of PVS and PPB materials distributed

Germplasm materials distributed	Number
2002 2nd season	
Number of crosses generated	9 rice, 1 corn
PVS materials distributed	134 rice varieties,
PPB materials distributed	29 from 3 crosses (rice), 10 from 1 cross (corn)
2003 1st season	
Number of crosses generated	7
PVS materials distributed	54
Number of varieties in adaptability trials	94
Number of communal trials	6
Number of individual trials	51
PPB materials distributed	1 F2, 2 F3, 1 F4 , 7 advanced lines
2003 2nd season	
Number of crosses generated	9
PVS materials distributed	144
Number of varieties in adaptability trials	92
PPB materials distributed	1 F 1,8F2, 3 F5, 1 F6, 1 F7, 6 other generations (not specified)

5. The characterization and evaluation data on the PVS trials conducted in Lilit, Mamali, Matiompong, Midtapok, Maligaya Coop and Tumiao were impressive and complete. The varieties (TVs, FVs and advanced lines from UPLB) in the PVS were evaluated based on the criteria set by the farmers (no local check variety indicated). The criteria were different from each site although in general, yield, resistance to pests, tolerance to lodging and grain quality are the main criteria. The farmers were able to identify promising varieties like MASIPAG 33, FS21 X Masipag 10, MS B10, C5054-2B-1-2 among others. The trials could represent an advanced yield trial conducted by the national cooperative testing for rice though a local check was not included. The data gathered maybe too tasking on the part of farmers, the criteria set by the farmers at the onset of the exercise are the characters that the farmer should focus on and gather. An additional trial is however recommended to assess the seasonal performance. Despite the comprehensive one-season information on the varieties in the trial, the promising varieties/lines were not mentioned in the interview or included in individual trials (based on actual field visit).

6. Twenty-seven (27) varieties composed of 4 TVs, 16 FVs, 8 FRs and 3 center-based/introductions were used as parent materials in the hybridization (Table 2). This represents only 8.0% of the total number of varieties distributed. In general, these varieties have complementary trait, others though were products of their practical exercises during the FFS.

Table 4. Parentals used in hybridization (based on PPB materials distributed)*

Traditional(4)	Farmer's Varieties (16)	Formal Releases (8)	Center-based/ Introductions (3)
Dinorado	Bordagol	IR 64	CC13
Rubas	EDSA	IR 74	Basmati
Pilit	Tisay	IR 72	L 246-73
Hanubas	CON 350 sel3	Rc 10	
	CON 311 sel 1	Rc 18	
	Masipag	Rc 70	
	EERS	Rc 82	
	Nelcen	7 Tonner	
	Rubas sel		
	HN1 sel6		
	Tisay		
	FS 21		
	JRT		
	Ka Emil		
	IR 66 sel		
	HN1 sel 6		

*Excluding parentals of 3 populations distributed in 2nd season , 2003 and parentals of, Edsa

7. The most commonly used variety as parental is 'Bordagol' based on individual interviews, claiming that 'Bordagol' is a farmer's selection that is high yielding and of good eating quality. EERS and GIFTS for example are farmers' varieties developed by two different farmers with 'Bordagol' as one of the parents. EERS and GIFTS lines are therefore half sibs. The EERS and GIFTS were also used as parentals and therefore progenies produced were also related. Pedigree analysis may be pursued to determine the magnitude of rice genetic diversity among the farmers' developed varieties. The limited number of parentals used may similarly narrow down the genetic base of the varieties that farmers developed. The primary criteria of farmers are yield, maturity resistance to pests and quality. It is therefore necessary to evaluate existing collections especially the traditional varieties for these characters. Since the traditional varieties have very poor combining ability, the center should conduct pre-breeding/enhancement and distribute materials that may be acceptable to farmers. The center staff should consider results of adaptability trials or the PVS. This will increase the chances of adoption and ensures additional rice diversity as well as minimize elimination of early generations of segregating populations.

8. The distribution of PPB materials seems to be random (Table 3). It becomes so difficult to follow the fate of a population from season to season. The

effectiveness therefore of PPB as an approach to develop farmer's variety cannot be evaluated. The development of farmers' varieties was from individual farmer initiatives and not through PPB. The participation if any was limited to the last stage, which is the evaluation of advanced lines during farmers' field days.

Table 5. PPB materials distributed, 2002-2003

Site	2nd season, 2002	1st season, 2003	2nd season, 2003
Del Carmen	GIFTS 6 (F4) Masipag x FS 21 (F3) GIFTS 1-25	L246-7-3 x HN1 (F4)	
Poblacion	GIFTS 1-25		
Kamarahan		EERS x 7 Tonner (F2) EERS x 7 Tonner (F3) EERS x EDSA sel (F2)	EERS lines EERS x Masipag (F2) EERS x Dinorado(F2) Rubas x CC13(F2) 64 x Tisay(F2) 64 x Rubas(F2) Pilit x EERS(F2)
Kabacan	G11-1, G11-2, CC22-1, CC22-2, CC22-3, GIFTS20-1, GIFTS 20-2, MTL233-1		
Mabuhay			2F 2, 1 F6 (parentage not available)
Inac			Masipag x JRT (F1)
Matiompong			Hanubas x Ka Emil (F5), Rubas sel x Rc 70 (F5) Rubas sel x Rc 82 (F1)
Midtapok			Offtype IR 74
Lilit			Nelcen1 x HN1-sel6, L246-73 x CON 350 sel 4, Nelcen 1 x CON 311 sel 1, Rc 18 x IR 74 (F7)
Tumiao			L246-73 x CON 350 sel3, Nelcen 1 x CON 350 sel 3, L246-73x CON 311 sel 1,

9. Many of the distributed materials were totally lost due to rat infestation or rice tungro virus infection. The materials lost included the early generations of individual crosses and the varieties developed by farmers as well (individual interview). There was no duplicate of these lost materials in the gene-bank. The project should make all efforts to ensure that all materials generated by farmer-partners are documented, monitored and duplicated in the center-based gene-bank. Many FVs and selections had been generated but only those popular ones have known history and parentage like GIFTS and EERS.

10. The segregating generations are planted in a limited area (1m x 2m). The chances of selecting desirable type are also limited. As well, the potential of the

population cannot be evaluated. To maximize the chances, segregating lines should be distributed to several farmers (this however requires good record keeping to track the status of distributed population) or remnant seeds should be channeled and stored in the center gene-bank. Despite this limitation, there are still a lot of farmers' varieties that have been developed and some are preferred compared to modern varieties and hybrids and are widely grown in the province. In fact, the city agricultural officer of Tacurong City, Sultan Kudarat is growing a farmer's variety, 'RDC 1874' in his farm despite the program of government to grow hybrid rice (based on interview). This only indicates the growing adoption of farmers' varieties in North Cotabato and Sultan Kudarat.

11. The effectiveness of the FFS in enhancing the capacity of farmers in varietal development is reflected by the increasing number of FVs available in the communities in North Cotabato and Sultan Kudarat. It also indicates that the farmer-partners are really keen and experienced selectors. Their developed varieties are comparable to modern varieties. The farmer's variety, 'RDC 1874' had actually got into commercialization through the deputized seed growers who supply registered and certified seeds. This had been a lost opportunity for the community.

12. The establishment of the herbal garden as component of the community health care further contributed to interspecific diversity in the farm. The community became aware and knowledgeable on plants of medicinal value existing in the community, at least those known to cure common ailments like fever, cough, tooth ache and muscular/gas pains. The knowledge could protect these resources from possible bio prospecting.

13. Overall, the number of varieties and breeding lines distributed had increased the rice diversity in the communities. The community should gradually focus on corn and the indigenous vegetables to further increase interspecific diversity. Indigenous vegetables warrant similar focus to increase and diversify the Filipino food basket. Many weeds are eaten as vegetables in the SEA. As well, seeds of commonly grown vegetable crop species in the country are supplied mainly by private companies. This was also raised by one of the members of the Food Sovereignty Watch Network during the interview with the group.

Capacity Building

Table 6. Capacity of farmer partners

	2000-2001	2002	2003	
			1st season	2nd season
No of FFS graduates	138	55		
No of farmer-breeders/selectors		29 breeders/ selectors	9 breeders/11 selectors	7
No of TOT graduates		25		
No of farmer-trainers		12		
No of farmer- partners		243	140	

No of organic practitioners			58	55
Organic farms (has)		17.95	21.45	18.4

1. The core component of the project is the FFS-CPGRCU which was also used as the handle to develop the multi stakeholder approach of the project. The project envisions a farmer-led PGRCDU and the preparatory phase should therefore commence by strengthening the capacity of the community to manage PGR towards improvement of their socioeconomic conditions. There were 13 FFS-CPGRCU conducted from 2000 to 2004.

2. A total of 200 farmers graduated from FFS from 2000 to 2004 and graduates revealed that all topics in FFS were useful and relevant (based on individual interviews). The season-long training produced 45 breeders/selectors. Most of these breeders expressed that they have difficulty in doing hybridization due to waning eyesight due to old age, (55 yrs old and above). They will however still continue to do selections to generate varieties adapted to the community.

3. Of the 45 farmer breeders/selectors, only 14 from 6 communities had initially formed the farmer breeder cluster. The cluster aims to strategize the sustainability of their efforts as well, share their experiences. The group showcased the newly developed FVs in the center farm for evaluation of interested farmers. This is an opportunity to the center-based genebank to collect, characterize and evaluate the original FVs for conservation to minimize their losses once distributed in various communities.

4. Organic farming is key towards improvement of the socioeconomic conditions by eliminating the use of inorganic fertilizers and pesticides and having access and control over seeds. Among the -farmer partners and graduates of FFS, only 28% practiced organic farming (Table 4). Based on interviews however, the percentage is much less. For example in Poblacion, Pres Roxas, only 2 farmers practice organic farming despite the success of the farmer there. The area devoted to organic farming was only 57.8 hectares representing a very low proportion of the total area planted to rice in the two provinces. In North Cotabato, Kabacan alone has 10,512 hectares of irrigated lowland rice areas.

5. The TOT on PGR-Alternative Farm Management was the primary step to the collective implementation of the project. The TOT module is comprehensive and so intensive, conducted for 5 days. The farmer has to be really good to grasp and internalize the gamut of topics covered. A continuing program through group discussions to review and reinforce specific topics/issues is recommended to build confidence and mastery. Of the 25 graduates in 2002 only 12 were identified as farmer trainers and they were only occasionally tapped. There was really minimal participation of farmer trainers in the FFS (based on staff interview). Did the project really tap the farmer trainers? Was the TOT effective? Did it build the confidence of farmers to be the trainers? Unfortunately, there was no interview of farmer trainer to answer these queries.

6. To further capacitate the farmer partners, farmers' field visits were conducted to share and exchange experiences, technologies and seeds among farmers. The interviews revealed that FFD indeed achieved its objectives. Farmers had opportunity to visit the gene-bank at Conserve, USMARC and BFAR.

7. The Regional Farmers' Technical Conference on Rice Conservation, Improvement and Use in 2001 provided a venue to farmers to share experiences and foster linkages among farmers in the region. This was an enriching experience for farmers as well as an opportunity to boost their morale.

8. Two farmer partners, namely Melchor Dulatre and Charity Fordan attended and presented papers on Rice Breeding and Lagundi Syrup Preparation, respectively in the International Farmers Technical Conference held in Kuala Lumpur in February 2004. The exposure and interactions with farmers from other countries were enriching since it provided the gamut of possibilities that may be adopted in the community. The opportunity had raised Mr Dulatre's enthusiasm, commitment and confidence as a farmer to continue the activities towards uplifting the conditions of the farmers.

9. As high as 60% reduction in yield was reported by farmers practicing organic farming (based on interview). Organic practitioners however strongly stressed that lower yields was compensated by higher net income since inputs due to fertilizers and pesticides were eliminated. Practitioners did not resort to lending from input providers. Organic farming likewise reduced the farmers' exposures to hazardous chemicals

10. To minimize the reduction in yield, gradual conversion of the farmers' field was employed. Others eliminated the inorganic fertilizers and pesticides but used herbicide once (based on interview). This was done to sustain rice supply until the next harvest. The farmers are really faced in a dilemma between organic farming and economic returns or achieving food security in the household.

11. Technologies to provide alternative sources of organic fertilizer were provided by the project such as the carbonized rice hull technology. The project should continue to provide alternatives that are simple and economical for adoption by the community. A survey of leguminous weeds and recycling of community organic wastes may be pursued.

Biodiversity, Capacity Building and Self reliance

1. The seed is the primary input in production. Farmers' access to seeds through the project provided options to farmers to generate additional diversity as well as control over seeds in the community.

2. The capacity of farmers to undertake field research was greatly enhanced through FFS and various trainings. The varieties/selections generated by farmers provided them a sense of ownership and control over seeds. Since they no longer purchase seeds for planting, they felt that they could freely exchange and share their seeds to other farmers in the community. This therefore strengthens the informal seed supply system.

3. All farmers interviewed claimed that organic farming reduces yield by as high as 60% especially during the initial conversion. Still they practice organic farming together with other SA technologies since they are all aware of the ill effects of pesticides and other inorganic inputs to human health. The elimination of these inputs reduces the cost of rice production and indebtedness besetting most rice farmers in the country.

4. To increase organic practitioners, trainings on soap making and community-based health care (spearheaded by AKKAP) were conducted to improve health and economic status of communities. The community health care project had greatly reduced family expenses on medicines, thereby stabilizing the family income.

5. Innovativeness among farmers was also enhanced with the diversified options that were provided to farmers. It was usually an individual undertaking which was later shared to other farmers during community meetings, rather than participatory.

6. Access to and availability of sources of organic fertilizers and pesticides are still limited. There should be an active search and research on alternative sources of organic materials. Moreover, organic farming technologies in mountainous upland areas like Ilustre should be developed.

7. The economic gains of SEARICE interventions are not yet realized. One reason could be the absence of an operational market facility. There are however other long-term issues like land tenure, irrigation, access to credit, among others that should be addressed by the government with assistance from non-government organizations to achieve food security and improvement of the quality of life in the community.

8. Appendix Table1 presents the impact of the project's technical interventions based on interview with farmers in 9 barangays in North Cotabato and Sultan Kudarat. All interviewees were farmer partners, graduates of FFS and practicing

organic farming. As developers of rice varieties, the greatest impact was the strengthening of the farmer seed exchange system. They freely exchange their varieties since they did not buy them and the feeling of ownership is expressed. The seed exchange actually extended to other communities. The community health care program had substantially reduced family medical expenses. All interviewees expressed that the project had provided tremendous assistance for technologies and access to diverse rice and corn varieties including medicinal plants. Noteworthy is the development of farmers' self confidence especially for Mr Salvador Tabugan, a representative of the Manobo tribe, who with the assistance of the project had been actively participating in barangay affairs.

9. The rapport of staff in all communities visited is really remarkable. The support therefore of the communities in current and future interventions of SEARICE is greatly facilitated. SEARICE has built the most important partners.

Technical Trainings and Training Modules

The FFS-PGRCDU is the core component of the project. SEARICE senior technical staffs together with the project staffs conscientiously designed, evaluated, revised, refined and polished the modules and its implementation approaches to suit the conditions of identified FFS sites.

Table 7. Season-long FFS on PGRCDU Training

Preparatory activities	**Seedbed**	**Vegetative**		**Reproductive**	**Ripening**	
	Topic 1	**Topic 2**	**Topic 3**	**Topic 4**	**Topic 5**	**Post-FFS**
Pre FFS *FFS orientation *FFS rationale * Participatory action research	*FFS-PGR baseline *community PGR	*The rice plant *Soil and soil properties *Soil fertility mgt	*Introduction to pests *Disease and disease mgt *Common pests at *growth stage *defoliators	*Participatory crop improvement *PVS & PPB *Handling & management of segregating materials	*PVP bill Discussion *Health hazards of pesticides *Policy Discussions	*Evaluation and Planning *Farm planning and designing

1. The technical trainings on FFS-CPGRCDU evolve with the shift in focus on participatory approaches. The training provides a comprehensive technical coverage of the various topics and its integration to the social and political aspects of PGRCDU. The topics were perfectly designed to coincide with the major growth stages of the rice or corn plant (Table 5).

2. The technical inaccuracies and jargons in the first version of the training module had been corrected and simplified in the revised modules. The current approach used in the FFS facilitates a better understanding of the concepts presented. It allows active participation among farmer participants. The staffs collectively

exerted great efforts to deliver the technical topics in simple and comprehensible form.

3. The FFS module provides a clear and detailed description of the objectives, methodologies, and activities/exercises for clarity and understanding of each topic. The farmer participants gained technical aspects through use of meta-cards, illustrated visuals, role-play, games and action songs, group discussions and actual exercises.

4. The module does not however provide a clear picture of the link between the discussions and the identified field as the laboratory except for gathering data every session using AESA. There is no clarity on the field set up especially to appreciate participatory approaches such as PVS and PPB. Interviews to staff however provided the details but which was not sustained due to lack of available materials when setting up the FFS. In corn, field studies to improve the traditional corn variety, 'Tiniguib' was set up. Two farmer breeders were identified. They continued to develop the Tiniguib x Sta Rosa population (based on interview).

5. The farmers in Lambayong have better grasp of the principles on the topics covered in the FFS based on how the farmers discuss these topics during the interviews with them. This is a clear indication that the methodologies used by the project in FFS to simplify technical matters had been excellent and effective.

6. Understandably, the project in Sultan Kudarat is new and there had been many lessons learned from the North Cotabato experiences on FFS. Also, the farmers in Sultan Kudarat have higher educational attainment and have frequent interactions with providers of new technologies.

7. In addition, the assessment and evaluation of the implementation of the season-long FFS (pre-FFS to post-FFS activities) conducted and participated by all staffs including those from CBDC-Bohol, BUCAP and policy and information unit had contributed substantially to the improvement of the subsequent FFS. As well, the technical capacity of staffs is improved and the management skills are polished in the process. This also contributed to the refinement of the modules and modifications of the approaches of the current FFS.

8. The FFS training modules are written in English with some topics translated to the local dialect. There is also a plan to translate the module to Filipino.

9. The training modules for rice serve as a model for developing the module for corn. The corn module should also evolve with the experiences of staffs on hand. For example, inclusion of an exercise to demonstrate 'xenia effect' will make farmers aware of pollen contamination in the same generation.

10. The staff in charge of the area usually manages and provides the technical training in the FFS. Assistance from other staffs was requested if necessary. The

farmer trainers were rarely tapped as resource persons in the FFS. If tapped, they usually serve as resource person to demonstrate specific exercises like emasculation and pollination. Other stakeholders in the area were also not yet tapped in the conduct of the FFS. Essentially, the pool of trainers is not yet established to implement this intervention.

11. There is recognition of the capacity of some farmers to serve as trainers and facilitators for the FFS. The project however should exert efforts to develop training materials for farmer trainers in Filipino. This is an important undertaking to further build the mastery and confidence of farmer trainers on the technical, social and political aspects covered in the FFS modules. Continuous capacity building efforts towards a farmer-led program should be planned and pursued.

12. The number of participants who were not able to complete the FFS training or the TOT for various reasons is a concern that needs to be addressed.

13. The new project staffs expressed that they have insufficient technical capacity to discuss the various topics in FFS. Their commitment to the project and to the goal of SEARICE is however commendable. The training on PGRCDU will equip them technically which could compliment the good rapport of staffs in the communities.

Technical Publications

1. SEARICE would like to accomplish too much in three years as indicated in the proposal. The staffs have focused on field activities in the communities that other equally important activities are sacrificed.

2. One of the strengths of SEARICE is on technical researches on sustainable technologies and community plant genetic resources conservation and development. This is recognized by local/provincial NGO partners but not by the national scientific community. Seven technical handbook/reports were published in 2001 –2003 (Table 6). It can be noted that it took 3 to 6 years before a research is published from the time the research was finished. The value therefore of the research findings were not fully maximized especially in linking them to policy work of SEARICE and other institutions.

3. Writing technical papers for publication is one of the weaknesses of technical staffs of SEARICE. One reason could be that they are too focused on field activities in the communities. A workshop outside the station to write technical papers can be planned once or twice a year.

Table 8. Conserve technical publications, 2001-2003.

Title	Year research conducted	Year Published
Center-based and Community based Seedbanking		2001
Assessment of Lowland Rice Varieties Distributed by Conserve in Arakan Valley Complex, Cotabato Phillipines	1992-1996	2003
Impact of Ecological Pest Management- Farmers'Field School(EPM_FFS) Training in the Three Municipalities of Arakan Valley Complex, Cotabato Phillipines	1994-1997	2001
On-farm Trials for Integrated Soil Fertility Management	1995-1996	2001
Responses of Farmers to Breeding Lines Distributed in Arakan Valley Complex, Cotabato Phillipines	1995-1997	2003
Production Performance of Center-based Breeding lines Distributed to Farmers in Arakan Valley Complex, Cotabato Phillipines	1995-1997	2003
On-farm Varietal Evaluation of Farmers' Selections of Rice (*Oryza sativa* L) in Arakan Valley Complex, Cotabato Phillipines	1997-1998	2001

Center –based research

1. Three basic researches, namely Botanical Control of Golden Kuhol, Validation of SRI and Strip Cropping were undertaken by the center. All are in the exploratory phase. The research design should satisfy technical requirements to address its objectives. Replication and randomization are important statistical concepts in research design that needs to be addressed in implementing field research.

2. For kuhol control, other researchers have found the young shoots of kayos, *Dioscorea hispida* to be more effective compared to the storage roots, so this could also be included in the study.

3. In strip cropping to address disease problems, one should consider mode of disease spread. The Chinese success to control blast using this strategy was not replicated elsewhere. It was attributed to the unfavorable microclimate (for disease development) created by the mixture of tall and dwarf varieties. Current undertakings on this strategy reveal its effectiveness in minimizing lodging and not in disease control.

4. The more varieties or higher diversity in a mix always offer an advantage over a mix of fewer varieties, meaning higher chances of obtaining the desired effect. However the concept of functional diversity should also be addressed. A variety to be included in the strip cropping should be carefully evaluated.

5. Initial study on heterotic pattern in corn was started in 2003. The study maybe too ambitious since the study is technically and financially demanding. The process requires identification of the parents and subsequent production of inbred line and maintenance of the inbred. Crosses between two open pollinated varieties of corn produces an F1 whose performance may not be reproducible.

6. A traditional corn variety can be improved through mass selection. New variability can always be infused into the population in the process. This is the simplest and most feasible method that farmers in the community can easily implement.

Center-based genebank

1. The seed laboratory was constructed in 2002 for processing of germplasm materials for conservation. It also houses the cabinets containing germplasm materials (394 accessions) for distribution and an upright freezer for medium storage (400 accessions).

2. The seed inventory report in 2002 indicates loss of materials in both the short- and medium storage due to storage pests' infestation, improper handling and lack of regular checking of the status of the stored materials. Loss of labels, mismatch with the seed file and poor sealing of foil envelops were the cited problems for the refrigerator storage.

3. There is continued loss of germplasm materials due to observations in Tables 7 and 8. Paradoxically, the facility to safeguard loss of germplasm materials in the field also contributes to genetic erosion. Priority attention should therefore be given to the germplasm unit of the center to minimize further losses of existing materials and the newly regenerated/acquired germplasm materials.

Table 9. Observations and recommendations of germplasm materials in short-term storage

Short –term Storage	**Recommendations**
Presence of storage pests	Proper drying, seed cleaning
Materials are in paper bags, others in bottles covered with plastic	Bottles with airtight caps, materials in paper bags should be placed in bottles with airtight caps or tin cans with fitted cover, sealed with candle wax, silica gels may be placed to further reduced seed MC
Materials in airtight bottles	OK if properly dried
Labels written on paper bags	Labels should be placed in and outside the container date of storage is important
Silica gels pink (saturated)	Include pinch of indicator silica gel to check if replacement is necessary, reactivate saturated silica gel by heating
Random arrangement of materials in the cabinet	Arrange by types like TVs, FVs, etc or new or old accessions by type

4. Incoming seeds should be thoroughly cleaned. Debris, weed seeds, insects, soil particles and other quarantine objects should be remove after the initial drying to minimize storage pests infestations.

5. After air drying, further drying is achieved by placing the cleaned seeds in bottles with silica gel at 1:2 ratio *e.g.* placing one kilo seeds to half kilo silica gel in bottles with airtight caps for two weeks can dry palay seeds to 6% MC. Silica gel should be changed once saturated. Seed moisture content is the most critical factor in prolonging seed viability in orthodox seeds like rice. Dry seeds are also less prone to pests infestations.

6. The date when the material is stored is important to determine prioritization in monitoring viability and distribution. (First in, first out). The unit should set the amount of seeds that it can provide to users (10g or 20g). The materials for distribution should be packed based on the set amount.

Table 10: Observations and recommendations of germplasm materials in medium- term storage

Medium –term Storage	Recommendations
Loss of labels in foil packets	Labeling in and outside the packet
Opening of the aluminum foils	Use aluminum sealer rather than plastic sealer
Mismatch with seed file	Check the passport, characterization data and seed file
Uneven ice formation in the freezer	Check refrigeration system, freon

7. The 2000 evaluation team posed great concern to the status of germplasm materials at Conserve. Many of the accessions were missing/lost. In the 2002 germination test, seventy-four accessions were found to be no longer viable (0% germination) and 36 with low percentage viability. Such state inadvertently eliminates potentially useful genotypes.

8. Seed inventory reports of 2002 and 2004 indicated that there were additional 25 accessions lost from 2002 to 2004. Based on interview with the field assistant (Nong Net), no harvest was obtained due to rice tungro infection and rat infestation. It is advisable to conduct regeneration during dry season where disease infection is minimal.

9. Conserve Handbook No.1 on Center-based and Community Seed banking is useful guide/reference in gene banking. The handbook provides the steps from collecting to distribution, and also details the handling and processing of seeds for storage. Unfortunately, due to workload, the staff in charge did not have the time to refer to the handbook.

Regeneration

1. Materials for regeneration should come from the base collection to at least maintain the genetic structure of the original population. The materials used were the available seed lots of the accession and not from the base collection. Regeneration should be kept to the minimum to avoid mechanical errors and minimize genetic drift and shift.

2. All plants were harvested to constitute the accession. Most of the traditional varieties have higher percentage of out crossing compared to the modern variety. It is advisable to harvest the middle rows only to maintain the structure of the original population.

Documentation System

1. There is no information management and documentation system in place. Loss of materials could partly be due to the very poor documentation of the gene bank activities in the center. A documentation system should be constructed to facilitate all activities in the gene bank.

2. It is extremely difficult to determine the actual number of accessions held by the center-based gene bank since the three storage facilities (short-, medium-term and black box) seemed to be treated separately/independently. Theoretically, there are 559 accessions plus the additional collections from 1997 to date.

3. The production of the catalog of the germplasm holdings of the center can be facilitated with the development of a systematic documentation system.

Germplasm Distribution

1. A total of 203 varieties were distributed from 2001 to 2004 from the center-based gene bank (Figure 1). This means an average of 51 varieties are distributed by the gene bank per year.

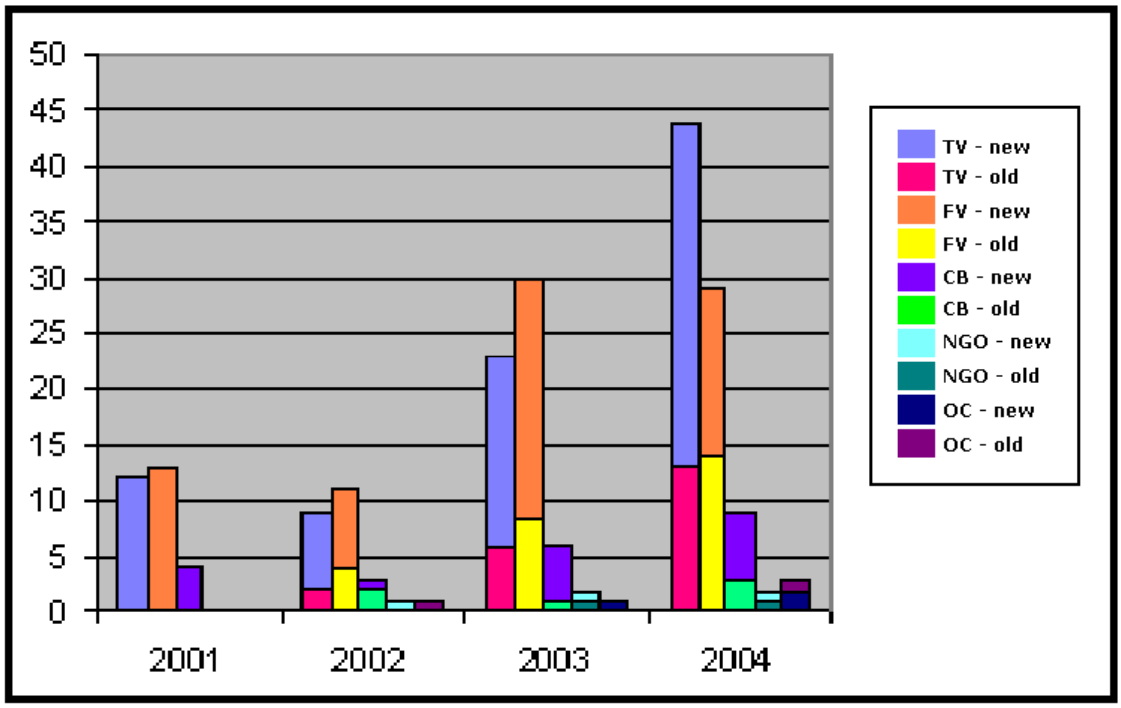


Figure 1. Number of varieties distributed, 2001-2004.

2. Figure 1 shows that there is an increasing number of traditional varieties distributed from 12 in 2001 to 44 in 2004. Thirty-one of these 44 TVs were requested for the first time. This indicates that traditional varieties conserved in center-based gene bank are slowly being utilized either as parentals or as varieties for adaptation trials like Ilon-ilon and Hubahib. Ilon-ilon and Hubahib were ranked first by farmers in the FFD in Brgy Alegria and Kamarahan, respectively.

3. The varieties distributed from the gene bank represent the varieties requested by farmer partners and other users. Once a farmer learned that a particular variety from the gene bank is good (meaning variety has characteristics that match the agro ecological conditions in the community) then other farmers within and outside the community will also request the same variety from the gene bank. There was an increase in the number of traditional varieties (6 to 13) that were often requested from 2002 to 2004 (Figure 1). The same trend is observed with farmers' varieties.

4. The most requested varieties from the gene bank in 2002-2004 included one TV, Ilon-ilon, two FVs, AS 54 and GIFTS 20 and one developed by the center, CC22. Regular publication of the '*Balitang Binhi*', a local seed bulletin, might increase public awareness of the varieties conserved in the gene bank and might increase usage of these varieties.

5. Despite the limitations and weaknesses of institutions to conserve the collected materials since 1992, there is increasing awareness of the communities to protect

and conserve the rice genetic resources in Mindanao in response to the Plant Variety Protection Act.

Management of the center-based facility

1. An urgent task is to revitalize the center-based gene bank and protect the conserved materials from further loss. This is an essential facility that farmers can refer to for the preparation of the community registry. A complete matching of the collections in PhilRice, in the freezer and the active collection should be immediately done to have a true picture of the holdings.

2. The key to prolong seed life of orthodox seeds like rice is the seed moisture content (MC). The lower the seed moisture content, the longer is the storage life. Conserve may use silica gel to dry the seeds to 6 to 8% MC. Placing freshly harvested seeds at a proportion of in 1kg silica gel for every 2 kg seeds for two weeks is sufficient to dry the palay seeds to 6 to 8%. This moisture content could maintain the viability for 5 years. This will minimize the expensive process of regeneration. Regeneration cycles should be kept to a minimum to minimize changes in the population structure of original population due to mechanical mixtures, mishandling and biotic and a biotic stresses among others.

3. Acquisition of aluminum foil envelops, tin cans, jars/bottles aluminum sealer and a computer is urgent to help the staff to implement the changes. Initially, all staffs should devote time for the germplasm unit.

4. A full time gene bank curator is necessary until all activities are in order. He/she shall also be in charge of developing documentation system. Training on gene bank conservation and management is highly recommended. In the meantime, the staff in charge of the gene bank should refer to the handbook on the center-based gene banking (Conserve Handbook No.1).

Community Seed bank

1. One of the recommendations in the 2000 evaluation is the development of a community seed bank system. The model proposed is one which can contribute to the seed supply system of the community to ensure seed security.

2. Again, the life of seeds in storage largely depends on seed moisture content. The lower the seed moisture content, the longer is the life of seed. Once desired moisture content for storage is attained, preventing the dry seeds to reabsorb moisture from the atmosphere is another problem, dry seeds should therefore be placed in airtight containers. There are traditional methods of drying and storing the seeds until the next planting season (farmers' saved seeds).

3. Community seed banks had been established in four barangays. Many varieties were lost due to non-germination of the stored materials in the CSB in del Carmen. The seeds placed in paper bags could absorb moisture because of the high relative humidity (70-90%) in the area. The seed MC could equilibrate at 14-16% but seeds could remain viable for 3-4 months. Similar problem of loss of viability may be faced by other CSBs except probably in Alegria where varieties are properly labeled and placed in airtight bottles.

4. The CSBs serves as meeting place of farmers and don't seem to serve the purpose for which they were established (based on actual visits) The farmer partners are aware and recognize the importance of the CSBs.

5. The community has difficulty in maintaining the CSBs since it is not a traditional practice in the country. The existing community seed banking in the Philippines is decentralized such that seeds for planting are generally provided by two to four farmers in the community. These farmers continuously grow seeds of crops important to the community. They keep and store seeds (using indigenous and traditional methods) and are recognized as the seed keepers. Essentially, they function like the CSBs. This traditional system exists since time immemorial in most communities in the country. Networking among seed keepers and monitoring the seed flow with the assistance of project staff may strengthen the decentralized CSB.

6. Farmer-developed varieties and selections stored in the CSB should also be channeled to the center-based gene bank prior to distribution for mass production to maintain the original population to serve as back-up in cases of loss in the production areas.

7. The relevance of CSB in the community needs to be assessed. Individual farmers usually keep their planting materials for the next planting season.

Academic Curriculum Development

1. Linkage with University of Southern Mindanao (USM) was established through the student internship program. Nine student interns were accepted in 2003. The students were exposed to community PGRCDU activities and center-based activities as well.

2. The linkage with USM and SKPSC (Sultan Kudarat Polytechnic State College) is limited to individual contacts. They serve the project as members of the local advisory board. The project could have tapped these academic institutions for curriculum development and technical backstopping.

3. USM has an existing course on PGR, possible revision of the course to include CPGRCDU could be the entry point towards the development of a curriculum on CPGRCDU. CPGR could be a potential growth point for USM.

4. Interview with the president of SKPSC offers potential collaborations in curriculum development and research in CPGRCU. SEARICE should forge an agreement with SKSPSC as soon as possible.

5. SEARICE made extra leap in exploring partnerships with schools around SEARICE's sites to mainstream PGRCDU in elementary and secondary schools. Initial activities that may be undertaken include appreciation of PGR through art works or in the school gardens.

Conclusions and Recommendations

Table 11: Conclusions and Recommendations

Conclusions	Recommendations
The contribution of the project has been substantive in increasing the intraspecific diversity in rice and interspecific diversity due to establishment of herbal gardens in the community	Interspecific diversity could be further increased by also focusing on corn and indigenous vegetables
The distribution of materials for PPB is not systematic, an F2 population is not advanced to F3 but different set is distributed instead	Monitoring should be done every season to trace the generation at which a line had been advanced noting reasons for discarding the population in any generation advance
The original populations of distributed materials and farmer-developed varieties and selections are lost due to non adaptability, a biotic and biotic stresses	Ensure that remnant seeds are stored in the gene bank. The center should conduct pre-breeding of adapted traditional varieties before distribution to maximize their utilization potentials
Most farmer breeders trained belong to the retiring age, most farmers are more interested in selection	Encourage younger farmers to carry out hybridization activities

The achievements in developing farmers' varieties and selections are remarkable.	▪ The parentage of the FVs should be determined. Selections from one TV could be sister lines like 'Rubas' selections. Pre-breeding could diversify the parental materials used by farmers. ▪ The project should initiate the establishment of seed stores (Vietnam model) for outstanding FVs and selections
The development of farmers' varieties strengthens the informal seed supply system. Farmer to farmer seed exchanges is encouraged.	
The farmers' varieties/selections were all generated through individual farmer's initiatives. The breeding skills of farmers have developed prior to the project, hence the formation of the farmer-breeders' cluster in the community.	The evaluation (based on the community's objectives) of the PPB populations should be undertaken by farmer partners in the community and not by one farmer. There should be a collegial decision on advancing or discarding a population The breeder cluster should be in charge of managing the PPB populations
Most FVs are based on 'Bordagol'	▪ Many upland TVs are aromatic and of good eating quality. Pre-breeding using these TVs could widen the genetic base of FVs ▪ Pedigree of FVs should also be pursued to determine the magnitude of genetic diversity among the FVs and selections
Farmer-partners have developed the skills in varietal improvement. It becomes automatic when diverse materials are available.	Provide materials with useful diversity.
There is minimal participation of farmer trainers in the FFS	Provide farmer trainers with a training module in Filipino, continuing education of farmer trainers
Few farmer partners adopt organic farming due to lower yields. Economic returns of the technical interventions are not yet realized	To put up an operational market facility for organic products. Establishing seed stores like that of Vietnam for outstanding farmers' varieties and selections
SEARICE have established strong linkages with other NGOs, limited linkage with academic institutions for research collaboration & curriculum development	Center-based research planning and identification of possible collaborations should be conducted.
There is a long gap between the time a research is finished and time of publication. No technical publication was completed during the project	To hold a 3-5 day workshop for center staff to write technical papers
There is genetic erosion in the center-based genebank. Utmost priority should be given for its rehabilitation.	A full-time staff should be trained in PGRCDU to manage the conservation of the valuable resources
The materials in the CSBs are not properly processed and packed for conservation hence many were lost due to non-germination. The CSBs are not effective in providing access to seeds for the community	A decentralized CSB can be adopted where seed keepers in the community are identified to provide the seed requirement of the community.
There is no effective monitoring system partly due to very poor documentation and information management	An effective & operational information management and documentation system should be established

There is increasing number of TVs from the center genebank utilized	▪ On-farm performance evaluation of TVs simultaneously assessed by staff. ▪ Conduct pre-breeding to enhance utilization of TVs
The new staffs requires training on CPGRCU	
SEARICE would like to accomplish so many activities within three years	Match staffs' technical capacity and activity, a balance of field and center-based research
SEARICE senior staffs have made considerable efforts to provide the technical backstopping for the project including the publication of the technical papers	
SEARICE has remarkable contribution to achieve access and control of seeds towards increasing diversity and building capacity of stakeholders	

Appendix Table 1. Impacts of the technical interventions of the project (based on individual farmer interview)

Site	Key Person	Salient findings	Opportunities	Impact
Barangay Ilustre, Pres Roxas (upland)	Salvador Tabugan	▪ Access to rice varieties from the project ▪ Conducts plant selection ▪ Still use inorganic fertilizers despite interest in organic farming ▪ Represent the community in local meetings ▪ Herbal garden established near brgy health center	▪ Generation of farmers' selections ▪ Development of technologies for organic farming in mountainous upland areas ▪ Farmer leader ▪ Formulation of herbal medicines by community thru training from AKKAP	▪ Increased no. of varieties planted for direct use and selection ▪ Improved quality of life thru the community health care encouraged ▪ Development of self –confidence
Brgy Ilustre, Pres Roxas (upland)	Cato Besañes	▪ Generated 15 rice selections and 5 crosses of corn ▪ Generated farmer variety named 'FB-1'from a cross between 2 TVs ▪ Most rice selections incl 'FB-1' and advanced generations of corn were lost due to rat infestation ▪ Inorganic fertilizers still being used	▪ Farmer –breeder and trainer in rice and corn varietal improvement ▪ Back –up storage in community or center ▪ Rat control measures Development of technologies for organic farming in mountainous upland areas	▪ Increased rice and corn diversity ▪ Farmer to farmer seed exchange strengthened
Brgy Ilustre, Pres Roxas (upland)	Roland Arculo	▪ Accessed rice varieties from the project ▪ Store portion of acquired seeds due to unpredictable upland conditions ▪ Label all varieties and selections properly Shared acquired technologies to other communities	Farmer scientist Farmer extensionist	▪ Increased rice diversity ▪ More farmers aware of SA technologies
Brgy Mabuhay, Pres Roxas	Roberto Pactao	▪ Developed 11 farmer's varieties incl from a cross between 'Bordagol' and TV ▪ Problem in maintaining farmer's varieties and	▪ Farmer-breeder ▪ Farmer trainer ▪ Back-up storage	▪ Increased rice diversity ▪ Control over seeds facilitates farmer to farmer seed

		selections ▪ Practice technologies learned from FFS incl organic farming ▪ Initial yield reduction observed with organic farming, compensated by minimal or no debts ▪ Community seedbank (rice, vegetables) established but requires proper handling, storage and documentation Herbal garden needs to be established		exchange ▪ Improved quality of life thru organic farming, providing safe and healthy farm produce ▪ Provision of community health care
Brgy Mabuhay, Pres Roxas	Nely Fordan	▪ Generated a cross between '90' and 'Bordagol' ▪ Evaluates varieties produced by other farmers ▪ Practice traditional method of processing and storing seeds thou was not able to maintain her generated materials ▪ Practice technologies learned from FFS incl organic farming ▪ Foliar fertilizer from muscovado and kangkong used Initial yield reduction observed with organic farming, compensated by minimal or no debts	▪ Farmer breeder ▪ Nutrient analysis of the foliar fertilizer used ▪ Improvement of the community seedbank ▪ Functional CSB	▪ Increased rice diversity ▪ Control over seeds facilitates farmer to farmer seed exchange ▪ Improved quality of life thru organic farming, providing safe and healthy farm produce ▪ Provision of community health care
USM	Dr Edwin Hondrade	▪ Planting materials are made available to all incl SEARICE farmer-partners ▪ Recognizes the efforts of SEARICE in providing technical assistance in PPB and PVS in Arakan Valley (Ilustre) ▪ Plan to establish a seedbank in Arakan to provide planting materials (upland rice) ▪ Pride Arakan Valley to be home of original Dinorado	▪ SEARICE – USM collaboration in Arakan	▪ Increased upland rice diversity incl formal –released upland varieties ▪ Dilemma among farmers, organic vs modern technologies

Brgy Katidtuan, Kabacan	Simplicio Almujela	▪ Identified 3 farmers varieties out of the 27 evaluated ▪ Seven farmers' varieties/selections are currently being evaluated in observational trial, continuous access of varieties from farmers thru field days, exposure visits ▪ Only 3 farmers practiced organic farming, lower yield observed but offset with lower inputs ▪ A certified seed grower hence following the recommended practices ▪ Starting to establish a community seedbank	▪ Production of certified seeds through organic farming ▪ PVS model ▪ Functional CSB	▪ Increased intra- and interspecies diversity through a diversified farming system ▪ Improved quality of life thru organic farming, providing safe and healthy farm produce
Brgy Katidtuan, Kabacan	Melchor Dulatre	▪ Employ knowledge gained from FFS in his farm ▪ Tried rice hybridization but was unsuccessful; with interest to generate a variety and had identified possible parentals from his new acquired materials ▪ Observed lower yields with organic farming	▪ Farmer breeder/trainer	▪ Increased rice diversity and replaced modern varieties with farmers' varieties/selections Improved quality of life thru organic farming, providing safe and healthy farm produce
Brgy Poblacion, Pres Roxas	Eulogio Sasi 'Tata Gipo'	▪ A quiet working rice breeder, selected an offtype, the popular farmer's selection, 'Bordagol' ▪ Generated several FVs named as GIFTS from a cross between 'Bordagol' and 'Basmati' ▪ A systematic farmer scientist, leaving a row vacant to minimize mixtures in his selections ▪ Noted a 60% yield reduction with organic farming but offset by a diversified farming system incl rice and fish ▪ Only 2 farmers practiced	▪ Showcase for a diversified farming system ▪ Venue for the field practicum for student interns ▪ Documentation of the innovations in a diversified farming system	▪ 'Bordagol is the first farmer's variety gaining national recognition as a commercial released variety, PSBRc 34. ▪ 'Bordagol is widely planted due to its excellent quality and aroma ▪ Bordagol is used as parentals in hybridization ▪ GIFTS, **G**enetically **I**mproved **F**armer **T**echnology of

		organic farming in the community		**S**eeds are widely grown by farmer partners ▪ Increased intra- and interspecies diversity Improved quality of life thru organic farming, providing safe and healthy farm produce
Brgy Alegria	Armando Catoliko	▪ Access varieties from the project and evaluate adaptability in the community ▪ Integrate technologies learned from SEARICE and other agencies ▪ An entrepreneurial diversified farming system ▪ CSB newly established , collections are well maintained	▪ Showcase of interspecies and intraspecies diversity ▪ Functional CSB	▪ increased intra- and interspecies diversity with rootcrops, fruit and lumber trees, vegetables, spices, medicinal plants, forage etc ▪ CSB provides planting materials esp for vegetables ▪ Increased farm income due to crop diversification realized
Brgy Kamarahan	Eduardo Edullantes	▪ Generated a farmer's selection, 'Tisay', which is currently evaluated in adaptability trials ▪ Generated 5 crosses using adapted farmers' varieties /selections as parents, first planting though were lost due to rat infestation ▪ Adopts SA technologies despite lower yields ▪ Stores remnant seeds by hanging panicles over traditional stove	▪ Farmer – breeder ▪ Farmer-scientist	▪ Increased rice diversity ▪ 'Tisay' is a promising late maturing selection which is aromatic and with good eating quality ▪ Improved quality of life thru organic farming, providing safe and healthy farm produce

Brgy Lambayong, Mamali	Alfredo Valdez	▪ Have a good grasp of PPB and PVS ▪ Parentals are evaluated before being used in hybridization ▪ The cross between EDSA and CC22 is in the F3 ▪ Employ SA practices ▪ Reduced yield is compensated by reduction in costs of inputs ▪ Limited number of organic farming practitioners	▪ Farmer breeder ▪ Farmer trainer	▪ Increased rice diversity ▪ Improved quality of life thru organic farming, providing safe and healthy farm produce
BrgyTumiao, Mamali	Istanislao de Lara	▪ A trial composed of 15 farmers' varieties was set up from which CC22 and EDSA are identified as potential varieties ▪ Documents results of trial systematically incl preliminary characterization ▪ Practice organic farming although herbicide was used once	▪ Farmer researcher	▪ Increased rice diversity ▪ The trial provided the farmers in the neighboring communities to select and identify best variety ▪ The trial serves as source of planting materials for selected varieties ▪ Improved quality of life thru organic farming, providing safe and healthy farm produce
Brgy Lambayong, Mamali	Samuel Peralta	▪ Just started hybridization, parentals used are with complementary traits ▪ Gradual conversion to organic farming to minimize abrupt reduction in yield, ▪ Zero pesticides use	▪ Farmer breeder	▪ Increased rice diversity ▪ sufficient rice in the household until the next season ▪ Exposure visits allowed for access to seeds and technologies, sharing among farmers

* All farmers interviewed are graduates of FFS, most of them had participated in farmers' cross visits and or farmers' field day.
* The old farmers (55 to 72 years old) interviewed can no longer continue to do hybridization

Assessmnt of Policy advocacy intervention

1. Methods Used

A sample of SEARICE's partners and clients (multi-stakeholders) in North Cotabato, Sultan Kudarat, Los Banos, Laguna and Metro Manila were visited..

Interviews were conducted with various stakeholders – local and national government officials, representatives of NGOs and academe. In addition, members of the Food Sovereignty Watch – Mindanao participated in a focus group discussion (FGD) where experiences and perceptions regarding SEARICE's involvement and performance with the network were discussed.

FGDs/discussion sessions were also conducted with the Organic Farmers for Seeds Preservation Association (OFSPA), Farmers' Rights Movement in South Cotabato, Sultan Kudarat, Sarangani and General Santos (FARMS - SOCSKSARGEN) and Mindanao staff. Two sessions with the current and former SEARICE executive directors and interviews with former senior staff were also undertaken.

The multi stakeholders visited and/or interviewed and those that participated in the FGDs are listed in Appendix 1.

Substantial time was spent in reviewing available documents. They included the 2000 SEARICE Evaluation, copies of project proposals, yearly plans and assessments, progress reports, and publications. It was attempted to capture in a condensed and consolidated manner the nature of SEARICE's policy advocacy and lobbying work through matrices provided. The results are presented in the Appendices.

2. Time Table

The evaluation including fieldwork, interviews, review of documents and write up were conducted from December 2004 to February 10, 2005.

3. Objectives and Key Components of the Policy Advocacy Program

SEARICE believes the crucial importance of on the ground interventions as the principal basis of its policy advocacy and lobbying. Policy advocacy is a support component to the core component of the program. As articulated in their proposal:

> *The Policy Advocacy component is envisioned to involve the community in knowing and influencing policies that directly concern their agricultural systems and practices, especially in community PGR-CDU. Through policy advocacy, PGR conservation and management Efforts at the community level can aim to secure support from the local government, as well as become a model for other communities in community involvement in policy development.*

The Policy and Information Unit (PIU) was tasked with “link(ing) identified policy issues on the ground to policy issues at the national, regional and international policy arena.”

The aims of its policy advocacy and lobbying work are:

a. To ensure the synergy and coherence in SEARICE technical and policy interventions by maximizing the documentation and projection of community-based experiences on impacts of agricultural policies on plant genetic resources conservation and operationalization of farmers’ rights;

b. To analyze current agricultural policies at the national and regional levels on how these affect the operationalization of farmers’ rights and community based conservation and development of plant genetic resources;

c. To develop popular materials on issues in current agricultural policies that affect community-based plant genetic resources conservation and development and farmers’ rights;

d. To lobby policy makers at the local, national, and regional levels to review existing policies that adversely affect farmers’ rights and community-based plant genetic resources conservation and formulate policies that promote these goals;

e. To develop and project community-based alternatives and mechanisms to promote farmers’ rights and community-based conservation and development of plant genetic resources; and

f. To project national and regional experiences and policy analyses in relevant international discussions on trade, intellectual property rights, agricultural technology and access to resources.

Key Components of the Program are:

a. Policy Analysis on Threats to Farmers’ Rights and PGR Conservation and Development
b. Policy Monitoring and Networking
c. On the Ground Investigative Research on Policy Hindrances to PGR Conservation and Development and Farmers’ Rights
d. Development of Mechanisms to Protect Farmers’ Rights at the Local Level
e. Popularization and Advocacy Work
f. Participation in Key International Negotiations
g. Lobbying at the ASEAN
h. Lobbying at the National Level

4. Brief Overview of Policy Advocacy Activities and Outputs

SEARICE advocacy efforts had covered a variety of issues on or related to farmers' rights and plant genetic resources conservation, development and use (PGR-CDU). These include agricultural biodiversity, intellectual property rights (IPRs) in food and agriculture, hybrid rice, plant genetic engineering, genetically modified organisms (GMO)/Bt corn, bio-prospecting, bio-piracy, sustainable agriculture, rice and corn breeding, plant variety protection system, bio-safety protocol, among others.

SEARICE (through its former executive director, policy officer of the Policy and Information Unit and senior technical officers) has established a widely recognized reputation with regard to being knowledgeable about PGR-CDU and related issues. Indicative of this expertise is the fact that its key people are regularly invited as resource persons in various forums at the local, national, regional and international level and their inclusion as official member of Philippine delegation to international negotiations.

The matrices in Appendix 2 and 3 provide SEARICE accomplishments in policy advocacy and lobbying. Output-wise, SEARICE had accomplished a lot.

5. Evaluation Findings

5.1 Influence in Policy Making (National and Local)

Civil society has and can make an impact on how the state governs and what policies and programs it enact and implement. Many civil society groups are skilled in opposing or confronting (expose and oppose mode) than proposing and negotiating (propose mode). It is important that as guardians and advocates, civil society groups should learn how to access and engage the state.

> The engagement of the state in the current democratic consolidation – fast becoming not only a choice but also a necessity – entails greater political adeptness and maturity in penetrating state policy-making institutions. this will require equipping civil society with the necessary understanding of state dynamics and processes and the tools for carrying out its multiple functions as critique, conscience, partner, or opponent, as the case may be, of the state in what effectively is a slow, evolutionary process of consolidating democracy.[1]

Engaging in a continuous dialogue with policy makers at the local and national levels is of utmost importance in the process of promoting farmers' rights and plant genetic resources conservation, development and use. It helps builds confidence and may have a positive effect on government's willingness to share information and openness

[1] Marlon A. Wui and Glenda S. Lopez, "Synthesis: State-Civil Society Relations in Policy-Making," Philippine Democracy Agenda, Volume II, 1997.

towards the lobby and adopting one's policy agenda. Frequent dialogues with policy makers may help in creating a situation of mutual understanding and respect.

Both formal and informal dialogues are important in the lobby process.

In contact with policy makers, it is vital to address the right persons at the right moment with the right questions and information. Excellent knowledge of and insights in the rules, the internal dynamics of government structures and policy making and a good use of formal and informal venues of interaction (Box 1) can contribute significantly to the success of lobby activities.

Over the last four years (2001 – 2004) SEARICE's policy advocacy and lobbying (with government) involved four major issues namely the Plant Variety Protection (PVP) Act, Bt Corn commercialization, hybrid rice and farmers' rights.

Box 1. Matrix of Formal and Informal Venues of Interaction	
Congress	(1) Individual senators/representatives, including sectoral and party-list representatives; (2) Political coalitions and alignments of senators/representatives; (3) Committees; (4) Sessions and hearings; (5) Bicameral conference committee; (6) The President through the Certification and Veto powers; (7) The Legislative-Executive Development Advisory Council (LEDAC); (8) The Judiciary through Judicial Review
Executive Branch	(1) The Chief Executive; (2) The Cabinet/Cabinet Clusters; (3) Departments, bureaus and offices [including line agencies, technical working groups within agencies and NGO desks]; (4) Specialized administrative agencies and executive bodies; (5) The Commission on Appointments and Concurrence power; (6) The Judiciary through Judicial Review;; (7) The Congress through Impeachment, Legislative Investigations and Power of the Purse
The Judiciary	(1) The Supreme Court; (2) The Court of Appeals; (3) The Regional Trial Courts; (4) The Municipal Trial Courts and Circuit Trail Courts; (5) Other Special courts; (6) The Judicial and Bar Council; (7) The President through the Appointment Power; (8) Congress through Impeachment
Local Government Units and Autonomous Regions	(1) Local officials [the Local Chief Executive, the Sanggunian and other local officers]; (2) Public hearings and consultations and other mandated activities; (3) Local special councils and bodies; (4) Congress through the Control Law; (5) The Executive through the Power of General Supervision
Informal Venues	(1) Media; (2) Public forums, dialogues and symposia; (3) Multi sectoral consultations, dialogues, summits and task forces; (4) Tripartite or multisectoral bodies and councils

	Source: Third World Center, Philippine Democracy Agenda, Volume II, 1997

SEARICE had partial successes (and failures) in influencing some policies and government agencies through its policy advocacy and lobbying.

In 2001 to 2002, SEARICE was engaged in intense lobby work against the plant variety protection bill. It drafted a bill on plant genetic resources conservation and development as an alternative to the PVP bill, a position paper, interpellation questions and proposed amendments to the PVP bill. It gave briefings to the legislative staff of key legislators on its position on and proposed amendments to the bill. Its policy advocacy staff also actively participated in public hearings and committee hearings. Some amendments it proposed were included in the Senate version of the PVP bill such as the community gene fund, inclusion of farmers as breeders and a provision allowing the registration of locally-bred varieties through the farming community's own seed registration systems. [2]

In spite of the persistent efforts of SEARICE and its partners to oppose it, the PVP bill was passed into law (Republic Act 9168) in June 2002. Further initiatives were carried out to oppose the new law such as approaching national organizations (e.g. PhilDHRRA and PAKISAMA) and networks (e.g. AR NOW!) and to support the campaign against the PVP Act. It also assisted these groups in crafting proposals for the draft Implementing Rules and Regulations of the PVP Act, proposals for exemption for the farmers' seed system and the recognition of the community registry system as at par to the plant variety protection system.[3]

With regard to the campaign against Bt corn commercialization, the policy and field staff undertook a collaborative effort to monitor multi-location field trials of genetically modified Bt corn. It has filed a case against the Pioneer Hi-bred for illegal field trails of Bt corn in Polomolok, South Cotabato but the Regional Trial Court in Polomolok dismissed the case. A signature campaign was also launched to support a moratorium call on the commercialization of genetically engineered Bt corn. Likewise, a hunger strike against Bt corn commercialization was also undertaken in 2003. Efforts by SEARICE and its partners and allies were not successful in preventing the commercialization of Bt corn.

At the national level, SEARICE made use of various platforms and strategies to articulate its positions on issues on or related to farmers' rights and PGR-CDU. They participated in technical working groups, drafted bills, provided expertise on socio-economic implications of issues like IPRs, GMOs, biosafety.

SEARICE has made a significant contribution to let some national government agencies (e.g. Department of Environment and Natural Resources) and legislators

[2] PIU, Annual Reports, 2001-2002
[3] Ibid.

recognize and appreciate that there are civil society groups that can engage them on the details of issues that involves complex subject matter such as IPRs, genetic engineering, PGR as well as contribute significantly to the formulation of proposed laws and regulations on these issues.

Another key issue of importance to SEARICE and its partners and allies is the promotion of farmers' rights and its passage into law. Both policy and field staff had been doing complementary efforts to promote farmers' rights. At the local and regional level, various farmers' rights consultations had been carried out to amplify the issues and gather support. SEARICE policy staff had prepared a draft bill on farmers' lights. This has been filed and introduced at the 13th Congress as House Bill No. 2532, An Act Providing for the Rights of Farmers to Land and for Other Purposes. The principal author is Anakpawis Party-List Representative Rafael V. Mariano.

There are some issues that SEARICE could reflect on if it wants to improve its policy advocacy and lobbying work at the legislative level. Seasoned chief of staff and personnel of legislators pointed out areas for improvement. One is the choice of main sponsor. They cited the case of the farmers' rights bill. With the main sponsor allied with the so-called radical left, the chance of the bill being enacted into law (retaining its substance) may lower as compared to other legislators who are perceived to be "moderates". The perception that one may have a hidden political agenda may hinder the ability to win supporters for your proposed bills. Other suggestions include befriending the committee secretaries as they are a good source of updated information (especially of pending bills you may be interested in).[4]

Also at the national level and to some extent at the regional (ASEAN) level, there is cognizance that SEARICE (through its former executive director and former policy officer of the Policy and Information Unit) had done research and advocacy exceedingly well. Without it, SEARICE credibility in the eyes of government actors would not have been the same. As one government official at the Department of Agriculture puts it, "Dati, banat lang ng banak basta lang may masabi. The issue analysis was not good. But they have studied the issues and I'm now very impressed (especially with the former executive director). Other government officials of the Protected Areas and Wildlife Bureau (PAWB) and the National Biosafety Framework Project are equally impressed and appreciative of the work done by SEARICE with them. They see SEARICE as valuable in ensuring public participation, in the drafting of the biosafety framework, in informing and educating the public about GMOs and other PGR issues. It should be noted that through the strong advocacy work of SEARICE, NGOs were included in the National Coordinating Committee (NCC) of the National Biosafety Framework. Before, only government officials were members of the NCC.

Tactics could also be improved. The executive Director of PCARRD commented that SEARICE is perceived as "just presenting their positions in discussions/forums and then disappear" and listen to the other presentations, which may be opposed to what their positions are. This means that even if they do not agree to the positions taken by

[4] Interview with Jessica Reyes-Cantos and Noli Mirafuente, House of Representatives, 31 January 2005

the policy makers, SEARICE should at least show respect by listening to the other side as well.

There were efforts at policy advocacy at the local and provincial level but generally these have not been sustained. Local policy makers and implementers interviewed (mayors, vice mayor, SP/SB members, provincial and municipal agriculturists) said that SEARICE should ensure better coordination and continuous dialogues with municipal governments even those that are already supportive of the work SEARICE-Mindanao and its partners. A very supportive SB member said they have not been receiving regular updates and no close monitoring of municipal government's plans and programs to ensure that good resolutions and ordinances do not get repealed or overturned. He also raised the fact that the quality of SEARICE's local advocacy had been hampered by the fast turnover of staff.

5.2 Increased Awareness of Other Stakeholders on Farmers' Rights and PGR-CDU-related Issues

Through a variety of strategies and interventions, SEARICE was able to significantly reach a wide audience to promote PGR-CDU and farmers' rights.

SEARICE has made good use of campaigns, public forums and discussions, networks, publications, the Internet and media (particularly print, press conferences) to promote its advocacy standpoints/agenda and get them across to as many people as possible.

Results of interviews and FGDs with various PO and NGO representatives show that SEARICE had played a key and leading role in increasing the awareness of POs, NGOs, and general public regarding various PGR issues as well as in promoting sustainable agriculture as alternative to modern rice technologies and championing farmers' rights, particularly seeds. Of course, other civil society groups such as MASIPAG, which contributed to this endeavor, were also mentioned and appreciated. As one international NGO puts it, "SEARICE (and MASIPAG) stood out in providing the technical content of IPR and popularization of IPR issues (Mang Gimo series – comics and primers)."[5]

Through networking and alliance building, it has increased its capacity to reach more people. Table 1 shows SEARICE membership in various networks at the local, national and regional levels. SEARICE is not only a mere member but it has played a leading role in the formation and management of these networks. For example, when the convenorship and secretariat work needed by the East Asia Rice Working Group EARWG) was not being done by the previous convenor, SEARICE ably took on the job and done well.

[5] Interview with Renee Velve, GRAIN International, Los Banos, Laguna, January 28, 2005.

Table 12. SEARICE Membership in Networks (Year Established)

Mindanao Level	
Food Sovereignty Watch – Mindanao (2004), Davao City	Initiator / Member
Cotabato Multisectoral Coalition on Food Security (2004), Kidapawan City	Founding Member - Convener
Civil Society Organizations' Federation (CSO Federation), President Roxas	Secretariat
National	
Philippine Rice Working Group (PRWG) (2002)	Founding Member – Convener / Secretariat
Task Force on Food Sovereignty (TFFS) (2002)	Founding Member
Stop the New Round (2002)	Member
Network Opposed to GMOs (NO GMOs!)	Founding Member/ Coordinator
Philippine Resistance to Agro-Chemical TNCs (RESIST) (2000)	Founding Member
Regional	
Asia-Pacific Network on Food Sovereignty (APNFS) (2002)	Founding Member
East Asia Rice Working Group (EARWG) (2002)	Founding Member – Convenor / Secretariat
Asian Network for Alternative Cooperation (ANAC)	Member

At the local level, however, SEARICE-North Cotabato/Mindanao (the current convener) has to improve its work in leading and managing the Cotabato Multi-sectoral Coalition on Food Security. So far, the network has been inactive although there are threats to farmers' rights and increasing biodiversity in the province which the network can anchor its work. The provincial government is aggressively pushing for four priority crops: rubber, hybrid coconut, oil palm and Cardava banana. If the provincial government is successful in pushing for crop conversions, the livelihoods of rice and corn farmers and biodiversity are at risk. The production of these crops promotes mono-cropping.

SEARICE would also need to rethink the level of its participation in these networks. Just attending meetings of these networks will already be a time-consuming work, more so if one is also providing the management and administrative services to these networks.

5.3 Increased Capacity of Small Farmers and SEARICE Staff

Small Farmers

One of the notable outcomes of SEARICE intervention on the ground was the formation and strengthening of farmers' and community organizations along organic/sustainable agriculture and farmers' rights and linking with existing farmers' groups.

Three formations have big potential in ensuring the capacity of communities to manage PGR (when SEARICE will phase out its operation the project areas). These include the Organic Federation for the Preservation of Seeds Association (OFSPA, North Cotabato), Demokratikong Magbubukid ng Sultan Kudarat (DEMASKU) and the Farmers' Rights Movement in South Cotabato, Sultan Kudarat, Sarangani, and General Santos (FARMS).

OFSPA is composed of 14 barangay-level farmers' organizations in the municipalities of President Roxas, Kabacan, Magpet and Antipas (North Cotabato). The membership are largely from the graduates/participants of SEARICE Farmers'' Field Schools. It has a current membership of about 310 farmers.

DEMASKU claimed a membership of 78 village-level organizations representing about 8,000 small farmers in nine municipalities of Sultan Kudarat (8) and South Cotabato (1). Initial cooperation with SEARICE was the joint advocacy on GMOs in 1999. It is a member of FARMS.

The leaders of these federations and networks are the natural advocates of farmers' rights and PGR-CDU. OFSPA has a policy advocacy committee and its leaders have been trained by SEARICE to do advocacy and lobbying. In an FGD with OFSPA, a member of the policy advocacy committee shared that they attended a policy advocacy training-workshop and have been invited as lobbyists in Congress and resource persons in various forums and assemblies (national and regional). Their criticism is that many of the resource materials are written in English. They suggested that more popular educational materials (preferably in local languages like Ilonggo, Ilocano, Cebuano and Tagalog) be developed as aid in making more farmers aware of PGR-related issues and concerns.

Farmers attending the Farmers' Field School are also taught about and made aware of PGR-related issues as well as study how to do policy advocacy and lobbying.

SEARICE Staff

The former executive director and former policy officer of the Policy and Information Unit had formed a cohesive team doing advocacy and lobbying work. Both are articulate communicators and have a passion for the work they are doing. They also did rigorous study of the issues and positions that SEARICE had taken. The downside was that legislators, other government officials and even representatives of NGOs have a tendency to equate SEARICE with the former executive director and former policy officer of the Policy and Information Unit. When the two left the organization, there was a high expectation that those who will continue that line of work for SEARICE would have the same capacity and presence as the previous team.

A two-year transition plan was developed precisely to ensure that SEARICE's policy advocacy and lobbying work will not be adversely affected. Second liners were developed and/or hired capable new staff to carry on the policy advocacy and lobbying

work. The plan did not work as envisioned. The second liners and new staff hired resigned right after the former executive director and former policy officer of the Policy and Information Unit left SEARICE citing differences with management and other personal reasons. The vacuum has not been filled yet. Officials of government agencies at the Departments of Environment and Natural Resources and Agriculture interviewed said that the current SEARICE staff does not have the same level of expertise and are very quiet in meetings and discussions. They also said that they missed the assistance rendered by SEARICE in the drafting of proposals, bills and administrative orders.

SEARICE has generously provided both formal and informal means of enhancing the capabilities of its staff in undertaking policy advocacy and lobbying work. SEARICE staff was exposed to various platforms and engagements. They were given the chance to attend and participate in conferences, public forums and discussions held at the local, national, regional and international levels. They also attended trainings and other capability building workshops, the costs of which were shouldered by SEARICE. In 2001, for instance, SEARICE sent its more junior policy staff (Loreto Palmaera) to attend the regional training for young activists. Another was sent to study website design and management. In 2002, another policy staff participated in a training on the United Nations Special Procedures and Complaint Mechanisms while another attended a two-day capacity building workshop on GATT-WTO agreement. Special trainings were also organized by SEARICE for its staff like the Gender Trainings (2002), Basic Biodynamic Farming Principles and Korean Nature Farming Technologies (2003) and Workshop on Appreciate Inquiry (2003) and Advocacy and Lobbying Skills Training (2004). SEARICE has invested a lot to enhance the capabilities of both local (technical) and national policy staff as they are expected to do policy advocacy and lobbying work. The return on these investments (investing in its people) had been low since most trained staff left the organization.

Of the current Mindanao staff (8), only one had a formal training on policy advocacy and lobbying. Of the eight staff, six have been in SEARICE for less than a year. They are also inexperienced in terms of doing policy advocacy and lobbying. When asked about their knowledge and mastery of key issues related to PGR-CDU (e.g. Plant Variety Protection Act, IPRs in food and agriculture, Cartagena Protocol on Biosafety), they responded that they have general knowledge but no mastery yet. Many have not read the reports and publications of SEARICE. Few have the confidence to do policy advocacy and lobbying with policy makers but felt that they could with farmers and some NGOs.[6] Given this situation, there is a need for SEARICE management to undertake a through stocktaking and analysis of existing capabilities and training needs of Mindanao staff (and national policy staff as well). The training program should be matched to what is needed to be done, especially at the field level. A culture of sustained monitoring and reading, reflection and critical analysis of PGR-related issues should be instituted and a good knowledge of the key PGR-related issues that SEARICE is focusing on is definitely an excellent preparation for doing good policy advocacy and lobbying.

[6] Focus Group Discussion with the staff in Mindanao, Beldent Star Hotel, January 26, 2005.

5.4 Other Effects: Increased Political Capacity and Political Space

The impact of policy advocacy and lobbying work should not be measured by the influence one had on policy formulation alone. SEARICE recognized the difficulty of policy making or influencing policy formulation given the nature of Philippine policy-making (controlled by the rich and landed). As the former executive director puts it, "we have no dream of changing policies given the political situation and the project term is too short. Our objectives are to raise consciousness [of PGR-CDU issues, especially controversial and prophetic issues] and provide the platforms for discussions and debate."[7] Other desired outcomes are the increase of political capacity (better skills, tools and capacity for doing similar actions in the future) and the increase of political space (increased credibility, more possibilities to be heard in the future).

Increased Political Capacity

Doing policy advocacy and lobbying is a learning process which could contribute to the capacity (of SEARICE and other NGOs and POs) of doing similar work in the future.

Recognizing SEARICE's expertise, credibility and capacity in doing policy advocacy and lobbying, it had been requested by several Philippine NGOS to assist their constituency in undertaking policy advocacy and lobbying on biodiversity-related issues.

In 2001, the Sibol ng Agham at Technolohiya (SIBAT) organized regional workshops on plant genetic resources advocacy in Baguio City and Cebu City (Philippines). It invited SEARICE to share its experiences and lessons learnt in policy advocacy and lobbying on GMOs and biopiracy. Another institution which benefited from SEARICE's insights and lessons in policy advocacy and lobbying on biodiversity issues was the Bird Life Philippines and its Southeast Asia partners.[8]

In 2002, SEARICE and the Center for Leadership, Citizenship and Democracy (CLCD) conducted training on legislative advocacy and lobbying for NGO and PO leaders, of which 12 PO leaders and 31 NGO representatives attended. In 2002 as well, Greenpeace – Southeast Asia organized a regional skills sharing and exchange on genetic engineering. Likewise, the Consumers International – Regional Office Asia and the Pacific (CI-ROAP) organized the Asian Conference of Food Security. In these initiatives, SEARICE provided the participants its experiences, insights and lessons

[7] Discussion with the former and current Executive Director of SEARICE, Elenita Dano and Wilhelmina Peregrina respectively, SEARICE office, 29 January 2005.
[8] Policy Advocacy and Information, 2001 Annual Report, pp. 19-20.

learned in the course of campaigning and lobbying against genetic engineering in food and agriculture.[9]

Increased Political Space

The following inter-related indicators were used in assessing the increases of political space:

- Increasing credibility can be measured by the degree to which SEARICE and its partners are invited to participate in further dialogues;
- Increasing recognition by policy makers to listen to and participate in activities of SEARICE to the establishment of formal mechanisms of participation.

Regarding credibility, there is a general perception[10] that the national policy advocacy and lobby work of SEARICE resulted in increased credibility of SEARICE. Credibility, however, accrued more to individuals (in particular, the former executive director and former policy officer of PIU) than to the institution they represented. National government officials tend to associate the output and the quality of advocacy work to former SEARICE key people. There is a general perception that the current national advocacy work of SEARICE was not at par compared to their previous engagement and participation. Indicative for this, for example, was that some contract(s) were given to the former executive director and former policy officer of PIU rather than to SEARICE because the institution that commissioned it has more confidence that the desired output can de delivered by the two. Another example was the incoming meeting of the Access and Benefit Sharing Working Group of the ITPGR where the Protected Areas and Wildlife Bureau (PAWB) wanted to invite and endorse SEARICE (read: Atty. Ping Peria) to the Department of Foreign Affairs as a member of the official Philippine delegation. PAWB Director Mundita Lim said that the participation of Atty. Peria would be a big help to the Philippine delegation.[11] Atty. Peria is now working with the Third World Network (Malaysia) and only members of the Philippine Council for Sustainable Development (of which SEARICE is a member) can join the official delegation. These also indicate that confidence about the capacity of the current policy advocacy staff at SEARICE is questioned. The former executive director said that sometimes they face a “moral dilemma [to accept or not to accept]” when contracts are offered to them instead of SEARICE.

To some extent at the local level (North Cotabato and Sultan Kudarat), credibility is accrued to CONSERVE-SEARICE as an institution. There were no standouts among local individual staff doing policy advocacy. This could be attributed to the fact that there was also fast over of staff doing local policy advocacy work.

As to increasing recognition of SEARICE and increasing openness towards its participation in policy-making in some government agencies and some legislators is

[9] Policy and Information Unit, Annual Report 2002, p. 15, 28-29
[10] From various interviews with POs, NGOs and national government officials
[11] Interview with Mundita Lim, PAWB, Quezon City, 31 January 2005.

the result of the willingness of SEARICE and its partners to engage in dialogues with them. The good track record built by SEARICE is also a factor, of which SEARICE does not only criticize but also present sound recommendations based on their researches and feedback from the field (small farmers).

6 Strengths and Weaknesses

6.1 *Effectiveness of approaches and principal activities to realize the policy advocacy and lobbying.* SEARICE has employed a variety of interventions to achieve its objectives. These include policy and action researches, direct and indirect dialogues with policy makers (local, national, regional), linkaging and networking, publications and popularization of issues done at the local, national, regional and international level.

<u>On research and identification of policy view points and recommendations</u>

Gathering background information and critical analysis of PGR-CDU issues and policies and about the broader socio-economic and political context (which may hinder or promote farmers' rights and plant genetic conservation and development) is vital if one wants to formulate sound policy recommendations and be credible as a lobby organization. At the national level and to some extent at the regional (ASEAN) level, there is cognizance that SEARICE (through its former executive director and former policy officer of the Policy and Information Unit) had done this exceedingly well. Without it, SEARICE credibility in the eyes of government actors would not have been the same. As one government official at the Department of Agriculture puts it, "Dati, banat lang ng banak basta lang may masabi. The issue analysis was not good.. Other government officials of the Protected Areas and Wildlife Bureau (PAWB) and the National Bio-safety Framework Project are equally impressed and appreciative of the work done by SEARICE with them. They see SEARICE as valuable in ensuring public participation, in the drafting of the bio-safety framework, in informing and educating the public about GMOs and other PGR issues. It should be noted that through the strong advocacy work of SEARICE, NGOs were included in the National Coordinating Committee (NCC) of the National Bio-safety Framework. Before, only government officials were members of the NCC.

The results of researches and the recommendations that have been formulated should be treated as inputs for advocacy and lobby (not as the final lobby document). Based on the results and recommendations of the research, SEARICE and its partners should formulate and prioritize a list of policy recommendations and plan further lobby activities. A good example is the work being done by the Philippine Rice Working Group (PRWG), of which SEARICE was the convener. The network undertook a collaborative research on public interventions in the rice sector in selected countries. Based on the results, it has drawn some lessons that the Philippines can learn from. They are now in the process of transforming key policy recommendations into clear messages for sustained lobby activities.

It is laudable that SEARICE had studied a number of national and local issues that affect the realization of farmers' rights and PGR-CDU. The results of these studies have put substance to the advocacy positions of the organization and its partners. SEARICE, may consider, however, to do follow up action researches and initiate some studies "gut" issues as perceived by small farmers through collaboration with other institutions working along the same issues. For instance, SEARICE did a study on hybrid rice in 2000. There seems to be no follow up on this. In our field visits, it was shared that there has been wide propagation of hybrid rice seeds use in its project areas. The common messages we got was that the results of using of hybrid rice seeds did not result to higher productivity as the proponents at the Department of Agriculture (DA) were touting. Such action researches could have been powerful weapons to shoot down the arguments of the promoters of hybrid rice in policy making while bringing to the fore the value of using farmer-bred rice seeds and promoting sustainable ways of farming at policy level. Another local issue that could easily be linked to national issues is the push for massive crop conversions (e.g. from rice to oil palm, rubber, hybrid coconut and Cardava banana) in central and north Mindanao, SEARICE's project areas. If these plans push through given the backing of provincial executives and policy makers, it will affect not only small (rice and corn) farmers' livelihoods but could lead to more loss of agricultural biodiversity.

Direct and indirect dialogues with policy makers (local and national)

SEARICE and its partners had established and maintained contacts with policy makers at various levels. The contacts with policy makers were both formal and informal. Some interactions had been based on good dialogues as in the case with the PAWB/DENR but acrimonious in some as with the Department of Agriculture. SEARICE explained that such a situation is due to opposing positions taken over issues like GMO/Bt corn commercialization and PVP Act.

However, it should be noted that the Department of Agriculture (the main agency that should be a target for both policy and field programs) is not a monolithic body. There are bodies within the DA that could be maximized such as the National Anti-Poverty Commission's sub-committees (e.g. Cereals). If SEARICE could not penetrate these bodies and install itself as member of these committees and task forces, SEARICE could backstop POs and NGOs represented in those bodies and utilize these venues to push for their policy agenda.

At the local level, it is unfortunate that the openness of local executives for reforms has not been maximized. SEARICE-Mindanao should give considerable attention at utilizing properly these opportunities already present at the local level.

Linkages and networking

Over the past four years, SEARICE have continued to put emphasis on protest-approaches (e.g. campaigns against PVP Act and GMO/Bt corn commercialization). The difference is that these issues had actual repercussions on local situations. Still, many local and national NGOs perceived SEARICE as mainly a policy advocacy NGO.

In fact, some NGOs and POs have approached SEARICE and initiated linkages because they see SEARICE as an organization that could help them in their lobby work. Some of the POs and NGOs having this perception include the Don Bosco Biodynamic Farming, DEMASKU, Rural Development Institute – Sultan Kudarat to name a few. There are efforts to project its field based alternatives but it has not been as widely recognized as that of its position on "controversial and prophetic issues."

It would also be good to revisit and rethink its criteria on linkaging and networking and prioritize which linkages and networks are vital to the realization of their desired goals. These could be maintained and enhanced.

Popularization of issues and alternatives

SEARICE have come out with lot of publications which are mostly written in English. They publish technical reports, proceedings of conferences, occasional papers (SEARICE Review, SEARICE Notes), primers, comics, handbooks and manuals and books.

SEARICE need to review and streamline some but consider other modes of propagating issues and as aid for awareness building. If their main constituency is the small farmers, then premium should be given towards coming out with more popular education materials. This need has been echoed in various interviews with farmers and NGO representatives alike. A good example is the popularization of the technical reports. The Mang Gimo comics and primers are highly recognizable and appreciated.

6.2 ***Organizational aspects.*** The SEARICE-Mindanao project is far from the main headquarters of SEARICE in Manila. As such, the SEARICE-Mindanao team has to have a certain level of autonomy and flexibility to carry out their tasks and responsibilities (although it should be bound by SEARICE's common goals and objectives and general plan). Expectations, clear tasks and responsibilities and sufficient authority to do so must be defined at the planning stage.

It was shared by former senior staff of SEARICE that many staff express fear of committing mistakes (maybe for fear of dismissal for committing such mistakes) or fear to show their ignorance on certain issues and that is why they are very quiet in discussions and planning sessions. One former senior policy staff expressed frustrations that there was no one to discuss and debate with.

SEARICE management should seriously study this culture of silence and the role management has played in maybe reinforcing this culture. Subordinates will make mistakes in carrying out their tasks. But they must be allowed to develop their own solutions to problems and to learn from their mistakes. Staff who are encouraged to use their abilities and who feel that their coordinators will back them up will be encourage to accept more responsibilities and initiate alternative actions which maybe better than what the coordinators have thought of.

7 Factors that Influenced the (Non)Achievement of Desired Results

7.1 *Fast turnover of PIU coordinators and staff* (local and national). The resignation of senior staff affected the quality of SEARICE policy advocacy and lobbying efforts. Even if they hired new people, it would take at least six months before they could have some mastery of the issues being tackled and establish rapport and credibility with those that are being lobbied.

7.2 *Lack of state support and incentives for SA and PGR-CDU*. Currently, agricultural policies are geared toward the use of hybrid seeds and other so-called modern technologies.

7.3 *Differing perspectives and mindsets*. Dichotomies come into play when state and civil society interact. Policy makers (legislators) are generally perceived as being concerned only about their retention of power while civil society's concern is about the distribution of power. The adverse impact of differing worldview also affects civil society groups' advocacy and lobby. Disunities among civil society because they subscribed to opposing worldview weaken their position on issues that they may agree on.

8 Conclusions and Recommendations

The following conclusions can be drawn with regard to SEARICE's lobby and advocacy work:

a. SEARICE advocacy and lobby efforts have been focused on national or international issues such as GMO/Bt corn commercialization, Plant Variety Protection Act, IPRs in food and agriculture, and hybrid rice which have important repercussions on the lives of small farmers but also on the lives of other rural people and poverty groups in the Philippines. SEARICE-Mindanao staff and farmers alike pointed the need to address "gut" issues (such as land tenure improvement, crop conversions, low prices of palay and other farm products) as perceived by the small farmers in North Cotabato and Sultan Kudarat.

b. Through a variety of strategies and interventions, SEARICE was able to significantly reach a wide audience to promote PGR-CDU and farmers rights.

c. SEARICE has made good use of campaigns, public forums and consultations, publications, networks and alliances, the internet and media (particularly print) to promote its advocacy standpoints/agenda and get them across to as many people as possible.

d. In the advocacy and lobby networks it initiated/co-initiated or of with it is a member (e.g. Food Sovereignty Watch – Mindanao, East Asia Working Group, Philippine Rice Working Group, Stop the New Round), SEARICE has played key leading roles (a) in terms of convening and doing secretariat work for the collective effort, (b) in terms of researching on and formulating advocacy positions, and (c) in terms of conducting and participating in actual lobby and advocacy.

e. Although all the efforts of SEARICE and its partners and allies may not have led to substantial changes in laws and government programs and policies, SEARICE has made a significant contribution to let government agencies (e.g. Department of Environment and Natural Resources) and legislators feel and appreciate that there are civil society groups that can engage them on the details of issues that involves complex subject matter such as IPRs, genetic engineering, PGR as well as contribute to the formulation of laws and regulations. As such, the advocacy and lobby work of SEARICE and the way they were undertaken are significant contribution to citizens' empowerment and to democratization of development.

f. SEARICE could do more to systematically encourage and guide local NGOs and networks to build lobby efforts that put pressure on their own representative in the House of Representatives. This can be done by linking with groups and NGOs doing this work and would make the overall advocacy and legislative intervention more effective.

g. Further, SEARICE should encourage its PO-partners to lobby and do advocacy of their concerns including finance generation for their initiatives on the basis of the provisions in the Local Government Code (LGU).

Appendices

Appendix 2. Policy Advocacy and Lobbying Output

Support Programs	2001	2002	2003	2004
Policy Monitoring and Advocacy & Lobbying Work	LOCAL & NATIONAL ADVOCACY: • Plant Variety Protection (PVP) Campaign ➢ Legislative Briefings • Anti-GMO Campaign ➢ Press Briefings and Conference on GMOs ➢ Philippine Government's Policy Statement on GMOs ➢ Draft Guidelines on Importation and Commecialization of GMOs ➢ IUPGR Briefings	NATIONAL: • Active participation in the PCSD • Active policy advocacy and lobbying against the PVP Act • Active policy advocacy and lobbying against GMO importation and commercialization • Organized three national level forums/policy discussions on Access and Benefit Sharing, Plant Variety Protection and Nanotechnology • Participated – Campaign on Rice and Trade Liberalization REGIONAL AND INTERNATIONAL ADVOCACY & LOBBYING: • Participated in the World Food Summit: Six Years Later	LOCAL-NATIONAL: • Anti-GMO/Bt corn campaign - Signature campaign - Hunger strike against Bt corn commercialization - Bt corn case briefing in Marbel & Polomolok - Marbel meeting - Sitio Kalyong, Brgy. Landan, Polomolok meeting LOCAL: • Participation in Local Council Meetings on Agriculture • Arakan Farmers' Day	LOCAL: • Initiated/Facilitated Farmers' Rights Consultations: ➢ North Cotabato ➢ Bukidnon ➢ Tagum, Davao del Norte ➢ South Cotabato, Sultan Kudarat, Sarangani and General Santos (SOCSKSARGEN) ➢ Davao City ➢ Mindanao • Co-organized the Rice Forum on Trade Liberalization (Kidapawan City, North Cotabato) NATIONAL:

	• Campaign Against Biopiracy • Campaign for Ratification of International Agreements – CBD's Cartagena Protocol and International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) ➢ WSSD Preparations <u>REGIONAL ADVOCACY & LOBBYING</u>: • Seminar on Public Awareness and Participation in the Cartagena Protocol on Bio-safety • Asian Seminar Workshop on New Technologies and Communities • Southeast Asian Farmers' Technical Conference • ASEAN-SOM-AMAF Exploratory Meetings • World Food Summit – fyl regional preparation • WSSD Lobby Work <u>INTERNATIONAL ADVOCACY & LOBBYING:</u> • Participated in ITPGRFA negotiations (Rene Salazar) • Presented a paper on mechanisms to promote access to genetic resources at the World Health Organization (WHO ASEAN Workshop on the TRIPS Agreement and Traditional Medicine • Contributed in	• Participated as Member of the official Philippine delegation to the 6th COP-CBD • Participated as Member of the official Philippine delegation to the World Summit on Sustainable Development (WSSD) and Preparatory Committees • Participated as Civil Society Delegate in the inter-sessional negotiations on Capacity Building in Access and Benefit Sharing • Provided official inputs to the Department of Environment and Natural Resources on the ASEAN Senior Officials on Environment (ASOEN) meeting (Bali, Indonesia) • Participated/Presented papers on IPR, PGR and Bio-safety situations in the Philippines and Southeast in various international and regional forums: ➢ Participated and presented a paper at the Regional Conference on Plant Variety Protection and Farmers' Rights (Bangkok) ➢ Participated in the Asian Dialogue with Syngenta on Sustainable Agriculture (Bangkok) ➢ Participated in the Asian Roundtable on TRIPS and Sustainable Development (Dhaka) ➢ Attended the Regional NGO/CS) Consultation Meeting as Asian preparatory meeting for the WFS:fyl and the Asian Ministerial Meeting on the WFS ➢ Participated as resource person, Asia-Pacific Conference on Ecological Debt		• Drafted House Bill No. 2532: An Act Providing for the Rights of Farmers to Land and for Other Purposes (13th Congress, House of Representatives)

	international Anti-GMO campaigns • Monitored and participated in discussions and workshops on the Convention on Biological Diversity (CBD)			
Linkaging & Networking	• Leadership role in the Philippine Council for Sustainable Development • Co-founded RESIST / AAATNCs • Active membership in the Inter-Agency Committee on Biological and Genetic Resources (ACBGR) and Philippine Institute for Traditional and Alternative Health Care (PITAHC)	• Established links with local organization involved in bio-dynamic farming • Strengthened links with these networks: ➢ NO GMOs! ➢ RESIST/AAATNCs ➢ ANAC • Established links and cooperation with: ➢ Philippine Rice Working Group (PWRG) ➢ East Asia Rice Working Group (EARWG) ➢ Task Force on Food Sovereignty (TFFS) ➢ Asia-Pacific Network on Food Sovereignty (APNFS) ➢ Asia-Pacific Network on Eco-Debts ➢ Stop the New Round (SNR)	Active Participation in Mindanao Development Issues: • Presentation on PPB-PVs in Rice and Corn • Participated in the formulation of the Provincial Health Code of North Cotabato • Participated s process observer in the drafting of the Environmental Code of North Cotabato • Explored potential research collaborations with Municipal Agriculture Office, President Roxas • Initiated and established links with consumer groups for marketing support (Sto. Nino Cooperative in Tacurong, Sultan Kudarat; staff and employees of the University of Southern Mindanao or USM and Konsumo Dabaw, Davao City)	• Co-founded/ Facilitated the establishment of: ➢ Food Sovereignty Watch – Mindanao ➢ Cotabato Multi-sectoral Coalition on Food Security (COMSEC-FS) ➢ FARMS ➢ OFSPA • Strengthened links and cooperation with: ➢ Philippine Rice Working Group (PWRG) ➢ East Asia Rice Working Group (EARWG)
Policy Researches / On the Ground Investigative	• Investigative Research on the Multi Location Field Trial of Bt Corn • Review of PVP Laws in Selected ASEAN Countries	• Research studies on: ➢ IPR on Rice in East Asia ➢ IPR on Farmers' Seeds Systems • Investigative studies on: ➢ Hybrid rice in the Philippines ➢ Certified seeds and small	• Bt corn monitoring and study in Banisilan, North Cotabato • Dr. Terje Traaviks' Research on Bt corn: Sample	Investigative study on Bt corn contamination incidence in Managok, Malaybalay (Bukidnon)

Research on Policy Hindrances to Farmers' Rights and PGR-CDU	• Policy Paper on SEARICE's Technical Interventions on the Field • Bio-Warfare and Marijuana Eradication in the Philippines • Public Awareness and Participation in Bio-safety Regulations in Southeast Asia	farmers • Research support to GDI on access and benefit sharing in the Philippines	collection in Polomolok	
Popularization / Publications	<u>Popularization of Policy Issues</u>: • Primer on Bt Corn Field Testing in the Philippines • Radio Spots on GMOs • Comics on the Bio-safety Protocol • Re-printing of Comics on GMOs • Workshop on the Sui Generis Schemes of Protecting Indigenous Knowledge • Rice Festival (World Food Day 2001)	• Occasional Papers on: Community Protocol • Marine Bioprospecting, PVP act, Role of USAID in the PVP Act • Primer on PVP Act • Lobbying Folder on PVP • Comics on Mang Gimo and the PVP Act • Political cartoons on GMOs • Media coverge of PVP campaign at major newspapers in the Philippines • Sustained information sharing on PGR issues, biopiracy, GMOs and PVP • Launching of SEARICE Website	<u>REGIONAL / Other Countries</u>: • Farmers' Technical Conference in Vietnam • CBDC Farmers Technical Exchange – Vietnam • Forum on Trade Liberalization / WTO in Hyderabad, India <u>LOCAL & NATIONAL</u>: • People's Jury in President Roxas (North Cotabato, Philippines) • Farmers' Field Day in President Roxas • Division Youth Science Camp • PGR Breakfast Conference • Brainstorming on School-based PGR Interventions • National Workshop on Farmers' Rights • Farmers' Assembly in Bukidnon • Farmers Forum on Trade Liberalization (WTO)	<u>LOCAL:</u> • Published Balitang Binhi (V1, Issue 1, Oct. 2004) • Participated/co-organized Farmers' Field Day in: ➢ Kamarahan, President Roxas, North Cotabato ➢ Alegria, President Roxas, North Cotabato ➢ Inac, Magpet, North Cotabato ➢ Midtapok, Lambayong, Sultan Kudarat • Participated in Hinumay Festival • Farmers' General Assembly • Updated/Improved the SEARICE Website (content and lay out) • Managed the rice listserves: usapang-bigas@yahoogroups.com and eastasiarice@yahoo.com

Note: Outputs, especially 2004, is incomplete as SEARICE is still preparing their 2004 Annual Report.

Sources: Policy Advocacy and Information, 2001 Annual Report; Policy and Information Unit (PIU), Annual Report 2002, Report on Project Activities 2003; SEARICE-Mindanao Project Mid-year 2004 Report, Interviews with SEARICE Staff.

IMPACT On the Community

Biodiversity as the basis of sustainable livelihoods of rural people - a conceptual understanding.

The role of biodiversity in sustaining livelihoods of the rural poor is fundamental to any other fact that determines sustainability. Agricultural biodiversity includes all components of biological diversity of relevance to food and agriculture and all components of biological diversity that contribute to sustaining the key functions of the agro ecosystem. Over a time period due to the neglect and over exploitation of biological diversity the very basis of agriculture and food security of the rural poor has been undermined. Agricultural biodiversity is the outcome of thousands of years of efforts by farmers in selection and breeding and in developing appropriate production systems and methods. . Women have been responsible for the greater part of food production and have been particularly dependent on the diversity of genetic resources. A rich diversity of native plant varieties and locally adapted animal breeds secured these farmers ' survival in the face of difficult climatic conditions and marginal locations. Indigenous genetic resources were grown without much external inputs and are well adapted to the local ecosystems. In addition the local genetic resources often played an important role in the culture of the rural population. To develop concepts and strategies that contribute to reducing the loss of genetic resources for food and agriculture over the long term multiple strategies are required.

The following guidelines have been adopted to assess the different strategies and their impact on the communities in the different provinces of Mindanao.

MANAGING AGROBIODIVERSITY is crucial for food security especially in marginal areas, where locally adapted crops are resistant to drought and other threats that make it possible to cope with adverse conditions. The Mindanao project dedicated to conservation development and use of plant genetic resources aims at improving the food security of the

people through conserving plant genetic resources in the area of a subsistence crop like rice.

SUSTAINABLE AGRICULTURAL PRACTICES based on TRADITIONAL KNOWLEDGE of the local communities linked to the genetic resources contributes to sustainable resource use. Indigenous people and traditional communities often have a deep understanding of their environment and ecology. Their immense knowledge of the flora and fauna as food , medicines or other uses have contributed to their survival. This knowledge forms an important basis for the conservation of global diversity and its sustainable use, which formed the core concepts in the Farmer Field schools organized by SEARICE.

DECENTRALISATION OF DECISION MAKING STRUCTURES and the creation of consensus through democratic processes is an essential aspect of the conservation, development and sustainable use. The formation of the Pos and federation of the organizations became the platform for disseminating technical training and policy issues. Protection of the biological resources and the traditional knowledge becomes a moot point in the face of the contradicting legislations of the WTO and the convention on Biological diversity. **National legislations following** the sui generis options provided by the TRIPS agreement have made many promises to protect the interest of the farmers right to their knowledge and genetic resources. Sensitizing the farming community on issues related to protection and sustainable use of the genetic resources through Policy advocacy becomes an important task for SEARICE

Land Use in terms of Diversity

The Distribution Of Villages Where SERICE Focused Its Work Is As Follows.

Municipalities	**Number of villages / barangays**	**Number of CONSERVE project areas**	**% of total Barangays**
North Cotabato (17 municipalities, 1 city, 543 barangays)			
Pres. Roxas		8 (Del Carmen, Kamarahan, Mabuhay, Ilustre,	
Arakan		2	
Matalam		1	

Antipas		5	
Magpet	35	3 (Tuael, Doles, Binay)	
Kabacan		2 (Upper Paatan, Katidtuan)	
Sultan Kudarat (11 municipalities, 1 city, 248 barangays)			
Lambayong	26	5 Mamali Matiompong Lilit Tumiao Midtapok	19%
Bukidnon (20 municipalities, 2 cities, 464 barangays)			
MalayBalay			
Valencia			

Table 13 :*SEARICE-CONSERVE AREAS Mindanao*

Two villages were chosen from the North cotabato province to meet farmers and understand the changing agricultural scenario in the light the PGR conservation and land conversion that was taking place in the larger context of agriculture in Mindanao.

Agricultural biodiversity and food security

The first communication with the community of farmers was established in Ilustre community in Pres.Roxas,Cotabato during the field visit. Barangay Ilustre derived its name from Bartolome Ilustre one of the first settlers in the area who together with another pioneering settler Antonio Requita Sr.started the initiative of converting the community into a regular barangay. The first settlers arrived in Ilustre in 1958 from rhe province of Antique in Visayas . Their intentions were to look for better opportunities and greener pastures.

Having discovered the fertility and abundance of the place they decided to settle and deveop the area. The original people who inhabited the place were the indigenous Manobo. The whole area of Ilustre is part of the reservation of the University of Soutrhern Mindanao a state owned university, in Kabacan Cotobato.Hence the land is not titled to the people. Ilustre's residents as well as those of the Barangays included in the USM have been petitioning the government for the acquisition of the land. The issue has reached a status quo and the struggle to own the land continues. The community has a total land area of 1387 hectares , a slopping terrain is being used for agriculture.The average land holding 1to 5 hectares and only 10% have land holding more than 10 hectraes. Ilustre is predominantly a corn producing area and accounts for 378 hectares of corn while upland rice production accounts for 100 hectares.

To understand the land use of the village participatory approach was adopted to have the map of the village drawn. The diverse farming systems were indicated and the rice fields were marked as on date. From the land use depicted in the village map it is observed that some of the remnants of diverse farming systems continue and very little land conversion

has taken place, though some rubber plantations have been introduced. Though there is a lot of indication of more land and crop conversion in the pipeline.

While people of Ilustre had reported the introduction of Bt corn in and round the village and also had heard about allergic reactions caused by the Bt.corn,one of the farmer partners shared his experience as a breeder and has in his custody 5 lines of corn that he had selected. He shared his experience in breeding a variety by crossing a Jumbo with a native variety. Some of the native varieties that he had grown were Tiniguib. Sta, Roxas,Miracle,His knowledge on the technique of hybridization maintaining purity of the native varieties was comparable to a university educated person. He recalled methods like isolation by time,and distance to maintain purity of the lines.

Farmer partners who had particpated in the appraisal shared their visions of continuing the maintenance of the germplasm in their custody. In an excercise on Participatory varietal selection farmers spelt out the criteria for selection of varieties which very cearly illustrated that these criteria were taken into account while breeding their own varieties**.**

Table 14 : Farmer Criteria for Upland Varieties

Characteristics	Dinorado	Mal-us	Asucena	Davao rice	Palaweno
Good eating quality	10	9	10	8	8
Aromatic	10	7	10	4	7
High production	10	7	9	10	5
Grain wt.	10	8	8	8	5
High price	10	5	5	5	5
High tillering	10	8	8	8	8
Lodging resistant	8	6	6	7	9
Long panicle	10	5	10	5	8
No chemical	10	10	10	10	10
Drought resistant	10	10	10	10	10
Pest resistant	9	9	10	9	8
Total	106	84	95	84	83

Farmer Criteria for Lowland varieties

Characteristic	*Masipag*	Tonner	C 4	Matatag 3	IR 72
Good eating quality	10	10	10	8	7
White grains	10	10	10	10	9
Grain Wt.	10	8	8	8	8
High price	10	10	7	7	7
Early maturity	10	10	10	10	5
High milling recovery	9	7	8	8	8
Pest resistant	7	7	7	6	7
High tillering	9	9	10	7	5
Lodging resistant	7	6	6	7	5
Total	82	77	76	71	61

Table 15

Selection criteria for the low land varities included a camparison with the highyielding variety which was popular in the area. It was obvious that the highyielding varieties were only satisfying the criteria of yield and scored much less on all other counts.

This lead to the discussion on the comparison between the highyielding varieties and the indigenous varieties with organic inputs**.**

It was also illustrated from the expression of cost benefit comparison between the native varieties and the high yieding varieties that the trade off between yield and cost had its benefits in the longterm in protecting the fertility of the soil.

Table 16 : COST BENEFIT analysis of organic vs inorganic cultivation

1 ha. Land

	INORGANIC	**ORGANIC**
INCOME (total yield)	**60 sacks**	**50 sacks**
EXPENSES		
Seeds	**2 sacks**	**2 sacks**
Land preparation **Turtle** **Plainer**	 **P1,500** **P150**	 **P1,500** **P150**
Transplanting **Pulling** **Planting**	 **P1,500** **P1,000**	 **P1,500** **P1,000**
Weeding		**P300**
Chemicals **Fertilizers** **Foliar** **Pesticide** **Herbicide**	 **P3,600** **P130** **P1,000** **P600**	
Harvesting & Threshing	**10 sacks**	**8.3 sacks**
Hauling fee	**(50 sacks) P750**	**(40 sacks) P595**
Loan interest	**4 sacks (P2,240)**	
TOTAL COST	**P10,362**	**P5,345**
NET INCOME	**P14,278**	**P15,935**

Cost comparisons by farmers very clearly demonstrate that the high cost of production by the use of inorganic inputs is due to the high cost of inputs like the fertilizers and pesticides. But farmers who do not own land are under pressure to put their land to increase production with high external inputs because of the pressure from the landlords who extract a percent of the production for renting their land. The farmers recalled some of the practices that lead to problems in cultivation. Generally farmers practiced monocropping and wherever they had planted corn in the sloping areas there was soil erosion and landslide. The traders who lend them money since farmers had no access to credit that were affordable determined the prices of their produce. The farmers lamented over the fact that their income was seasonal and their products suffered from poor quality due to lack of post harvest facilities in the area. The problem

was one of poverty since majority of the people in the area only farmed renting the land and they were exploited by the owners of the land and left little or no option for them to explore the possibility of diverse or integrated farming systems. . There was also an underlying fear that USM might ask them to leave their lands.

PGR Status in Illustre: Comparison of Different Seasons

	1st Season 2002	2nd Season 2002	1st Season 2003
Group formation	FAKANEM	FAKANEMA-66	FAKANEM
Number of FPs	20	Not identified	Not identified
Number of breeders/selectors	4 breeder (corn)	1	Not identified
Crosses made	Not identified	1 (corn)	Not identified
Rice varieties in mass production	Bogrets Ilon-ilon AS 54 Gifts 5 MTL 233 EDSA 1 EDSA 2 Dinorado Gifts 5 Tonner RC 78 RC 82 RC 80 Gifts 20	Not identified	Bogrets Ilon-ilon AS 54 Gifts 5 MTL 233 EDSA 1 EDSA 2 Dinorado Gifts 5 Tonner RC 78 RC 82 RC 80 Gifts 20
Varieties in adaptability trials (Rice)	UPLAND RICE; (Regeneration) TBS 98-01 Palaweño Kawatel B6-144 Magalitok TBS 98-02 TBS 98-03 Pulota Mantiak Tres Maria Makailot Kasagpi Buntot usa Laya Gadong Ugis salog Badtik Orarang	Not identified	Not identified
Rice PPB materials	Not identified	Not identified	Not identified
Corn varieties maintained	Tiniguib Sta Rosa USM Var 6 Miracle GSI 40 Pilit tapol Carribean	Not identified	Jombo (native) Pamela Tiniguib (Wao) Red Tiniguib

	Pamela (White)		
Number of organic practitioners	8	Not identified	Not identified
Total organic farms (ha)	2.25	1.25	Not identified
Number of Trainors	Not identified	Not identified	Not identified
Number of Organic Practitioners	Not identified	9	Not identified
PPB materials maintained	Not identified	10 (corn) Tiniguib x Sta. Rosa	Not identified
PVS materials maintained in mass production	Not identified	Gifts 5 TBS 98-1 TBS 98-2 TBS 98-3 Orarang B6-144	Not identified
Community Seedbanks	Not identified	Not identified	Not identified
Corn PPB materials	Not identified	Not identified	Tiniguib x Sta. Rosa (FFS cross) Pioneer 3014 x Bioseed 9900 Var 9 x Bioseed 9900 Carribean

Table 17

From the data being maintained at the conserve center an attempt has been made to compare some of the indicators during different seasons. It is difficult to track the progress of the work from the above data provided by the staff in the field. Information on the area under organic farming seems inadequate and does not reflect progressive increase the area under organic farming.

Barangay Mabuhay

Mabuhay consists of farming community with a total land area of 350hectares mostly under rice production. The irrigation for rice production comes from the Tuael River and two creeks near the barangay. Ninety percent of the people from this village cultivate rice. Of the total number of farmers engaged in farming more than 50 percent are tenants. Who were indebted to the owner of the land? As always the distribution of land was skewed with a small percent of farmers owning large holdings and a fairly large percent of farmers had less than 1.5 hectares.

As rice cultivating farmers they resorted to practices that demanded high external inputs. Farmers acknowledged the fact that they resort to acquiring huge loans to use chemicals that deceptively demonstrated higher output, since farmers failed to take into account the debt burden and the hidden ecological costs. Farmers resorted to a third crop in a year since water was abundantly available. The people's organization of Mabuhay functioned in the name of Mabuhay organic farmer's association. Formed in the year 1996. The early start of the PO focused on conservation for breeding. The Po was also one of the groups that were supported by HEKS for livelihood initiatives. It was obvious from the focused group discussion on the farmer's perception of changes concerning their lives, farming practices and biodiversity, food security qualitatively and quantitatively and other support

systems over a period of time. Farmers perceived that twenty years back with lesser population the pressure on the natural resources was much less and therefore the availability of diverse material for their sustenance was much better than what it is now. But as far as diversity in rice when they had lost most of the indigenous varieties due to the introduction of the high yielding rice varieties that were introduced during the green revolution period. But with the intervention of SEARICE in the last four years they have had access to these varieties. The farmers expressed their confidence in the use of ecological pest management and improving soil fertility. They were able to appreciate the merits of these practices especially because of the relief it provided from the debt burden, as for the quality of food they had access to, it had decreased in the days of green revolution due to the chemical pollution. The farmers expressed their inability to strengthen the sustainable agricultural practices due to the tenancy and land ownership in the hands of landlords. They were compelled to push themselves and the land to produce more to meet the demands of the landlords. As a result not many of the farmers could realize the benefits of shifting to organic agriculture. The MOFA association of farmers had organized a seed bank and there were some minimal efforts in women's involvement in preparation of herbal medicines.

TIMELINE of Barangay Mabuhay

		1980			2000			2004
	Poor	**Satisfactory**	**Good**	**Poor**	**Satisfactory**	**Good**	**Poor**	**Satisfactory**
Biodiversity			✓		✓			✓
Rice Diversity		✓				✓		
Food Security								
		✓				✓		
Quality		✓				✓		
Quantity								
Fuel			✓			✓		
Health		✓				✓		
Economic Level Inorganic to Organic		✓				✓		
Technical Choices		✓				✓		
Livestock			✓	✓			✓	
Support for Farmers								
Government	✓			✓		✓	✓	
NGOs/Coop/Self help	✓			✓				✓
Land Tenure		✓		✓				✓

Table 18

PGR Status in Mabuhay

	1st Season 2002	2nd Season 2002	1st Season 2003
Group formation	MOFA	KAMPO (sectoral), MOFA – 19	MOFA
Number of FPs	44	Not identified	30
Number of breeders/selectors	6 selectors	1	6
Crosses made	Not identified	Not identified	Not identified
Rice varieties in mass production	Not identified	Not identified	06 36 Tonner RC 10 Masipag Matatag Ilon-ilon MTL 233 MTL 233-1 Pilit tapol CC 22 Nelsen Gifts 20
Varieties in adaptability trials (Rice)	EDSA 1 EDSA 1-1 MTAL 233-1 CC 32 CC 50-2-2 MB Puwa Pilit tapol Masipag 14 Ilon-ilon Tonner Tinawon Ifugo Sinikbitan 06 Masipag 17 M 09 Elon peta	Not identified	Not identified
Rice PPB materials	Not identified	Not identified	Not identified
Corn varieties maintained	Not identified	Not identified	Not identified
Number of organic practitioners	Not identified	Not identified	9 Not identified
Total organic farms (ha)	Not identified	1.20	6. 74
Number of Trainors	Not identified	Not identified	Not identified
Number of Organic Practitioners	Not identified	2	Not identified
PPB materials	Not identified	Not identified	Not identified

maintained			
PVS materials maintained in mass production	Not identified	Dinorado Baraw Bordagol FS 21 Tonner Dwarf Kasagpe Palaweño Kawatil Ugis salog Pulota MAntika Laya Gadong Tres marias Makailot Magalitok Buntot usa Maksabpi Badtik AS 54 Gifts 5 TBS 98-1 TBS 98-2 TBS 98-3 Orarang B6 -144 Corn: Mimis Sta. Rosa Tiniguib Carrebean	Not identified
Community Seedbanks	Not identified	Not identified	Not identified

Table 19

Seasonal variations in adaptability trials are observed from the above table. It is evident that farmers try various trials before they could identify the variety suited to their conditions. From a discussion with farmers on choice of a variety it was not only the different characteristics that are visible in the varieties but also how stable a variety is when grown over a period of time. An appropriate monitoring system to track the changing choice of varieties. is missing. It is also to be noted that since water is available through the year farmers have no synchronized planting but as and when harvests are done.

A farmer friendly monitoring system would be useful in having the farmers monitor the varieties. It could also be monitored by community based seed banks that are supposed to be run by the Pos.

IMPACT ASSESSMENT by Farmers of Mamali Sultan Kudarat

Barangay Mamli is one of the biggest barangay in the municipality of Lambayong.The total land area spans 7,200 hectares. It is composed of small sub divisions. The name of the barangay was derived from the tree ”Maneli” characterized by having huge stems and found in abundance in the community.Both men and women are involved in the farming activity.Though it is said that the Illocanos and Muslims were the settlers subsequently christians composed of Ilangos, illocanos and cebuano became the major occupants of the area. Large part of the barangay is reached by irrigation .It was recalled by the farmers that there were traditional rice varieties like V3, C4,R20, R5, wag wag and miracle rice were grown by the farmers. The first IR variety IR36 was cultivated in 1970.subsequently other high yielding varieties were planted by the farmers. In the 50s and 60s there was no chemical application .From the base line data provided by the field staff it was evident that pesticide application was very common amongst the farmers. However farmers assessment of the social, economic, political and technical impact of the work of SEARICE has been perceptible.

TimeLine Of Pesticides Used In Mamli

	1950	1960	1970	1980	1990	2000
Chemical Spray	None	None	Posperno Polidol Azodrin Endrin	Thiodan Mepsin	Baylucide Fenom-D Cymbus Benlate Karate	Baylucide Fenom-D Cymbus Benlate Karate
Fertilizer	None	None	Urea 21-0-0 14-14-14	Urea 21-0-0 14-14-14 16-20-0 Crop Giant Agrowell Gromex	0-0-60 Urea 21-0-0 14-14-14 16-20-0 Crop Giant Agrowell Gromex	0-0-60 Urea 21-0-0 14-14-14 16-20-0 Crop Giant Agrowell Gromex

Table 20. Timeline of Pesticides and Fertilizer Usage in Barangay Mamali

1950	1960	1970	1980	1990	2000
Rat Locust	Rat Locust	Ulmog Rat Whorl Maggot Hoppers Borer Kuhol Tungro	Ulmog Rat Whorl Maggot Hoppers Borer Kuhol Tungro	Blackbug Ulmog Rat Whorl Maggot Hoppers Borer Kuhol tungro	Ulmog Rat Whorl Maggot Borer Kuhol Tungro Blackbug

Table 21. Timeline Showing the Pests and Diseases Occurrence in Barangay Mamali

Impact assessment by the farming community

	Assessment Indicators	Initial	Start of 2000	Start of 2004
Social / Institutional	Participation of women	3	4	4
	Percent of farmers participating	1	4	4
	Benefits to the community	1	3	5
Ecological	Soil fertility	1	3	4
	Use of external chemical inputs	1	4	5
	Occurrence of pests and desease	1	4	5
Technical	Increase in PGR Diversity	1	3	4
	Diversified and Integrated Community Farming System	1	2	3
	Adoption of Technologies from the Farmer Field Schools	1	3	4
Economic	Food security	2	3	3
	Market linkages	2	2	2
	Yields	4	3	3
Political	Linkage with other farmer networks	1	3	3
	Farmers rights campaign	1	3	3
	Awareness of global policies	1	3	3

Rating

5 = Very Good

4 = Good

3 = Satisfactory

2 = Unsatisfactory

1 = Poor

Table 22

Spider Analysis

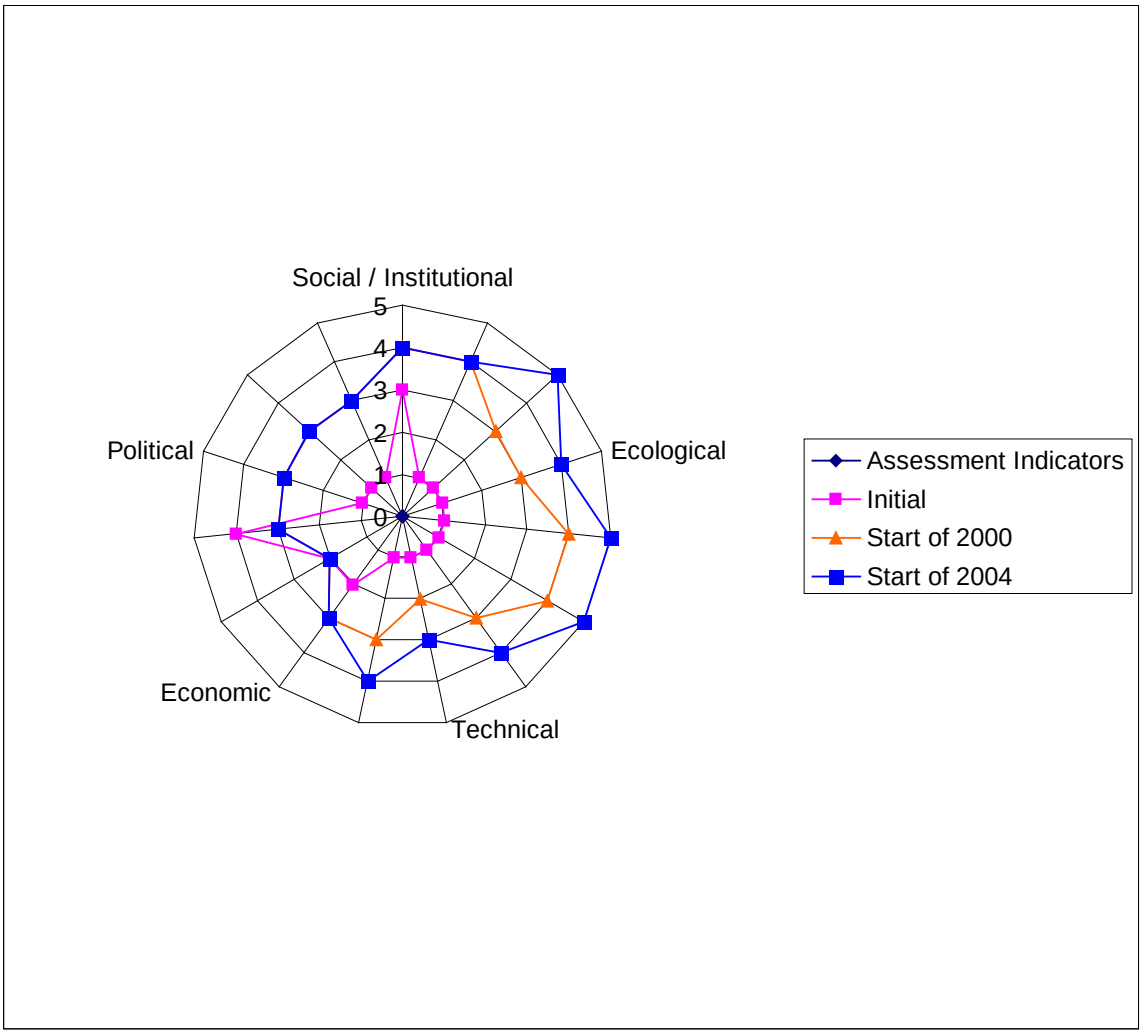


Diagram 3

There was good participation from more than 30 farmers who had come different barangays to share their experiences. It was evident from their discussions and rating of the situation they had gained considerably from the farmer field schools in managing pests and diseases without chemical inputs.

But as far as their food security and other economic issues they were still far bahind what they would like it to be. The reasons could be many .there was much scope for them to go into diversified farming systems. It was in these regions that land conversions and crop conversions were taking place.

Farmer community based institutions.

Meeting with OFSPA – an effort towards decentralization of decision making structures.

The meeting with the federation of people's organisation was intended to engage the farmers to probe into the capability of the federation to sustain the program of conservation, evelopment and use of plant genetic resources.

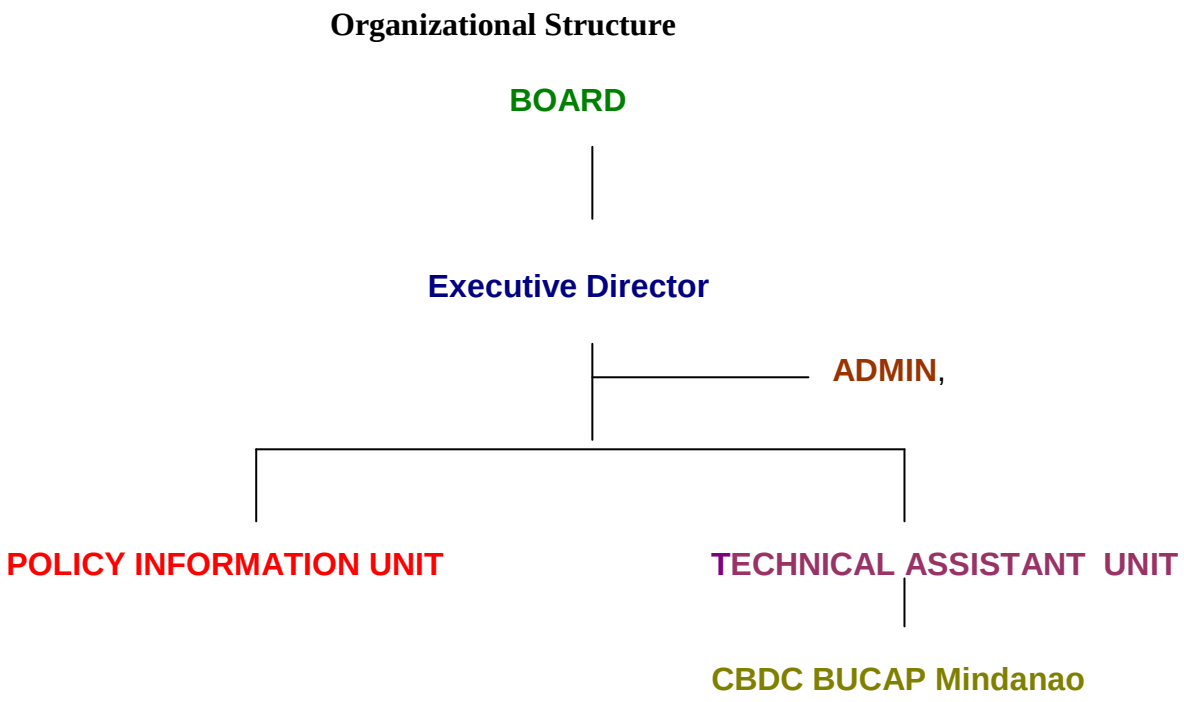
The meeting was attended by 7 representatives from the 13 Pos from North Cotabato. The members present represented different positions in the federation like the president, treasurer, vice chairman etc. The federation consisted of 310 members from 4 municipalities of North cotabato.

Their monthly meetings had a clear cut agenda of issues around research,marketing, policy advocacy and education. The committe was represented as marketing, health, research and Policy advocacy.The farmers were very matured in their exposure to the different issues.

Their awareness on issues of policy could be rated as high. One of the farmers was representing their federation in an international meeting in the ensuing month. The familiarity with which the farmer discussed the issue was noteworthy. The discussion around marketing and the problems faced by them reinforced the fact that SEARICE has to intervene to provide the backstopping to prepare a business plan to put the organic products to the consumer not only as a niche product but also as a conservation effort from an ecological, and political strategy.

There is potential to let the federation grow into a farmer led movement to take on the conservation work started by SEARICE which can. mature into a sustainable effort .It was obvious that the federation is not ready and SeARICE has to back up the federation and give them the confidence to grow into a farmer led multiple strategy for conservation.

Organizational Analysis



One of the objectives of the review was to understand the organizational structure and the role of the board of directors in guiding the direction of SEARICE.The organization of the Minadanao project is leveled off with an Executive Director and the head of the administration, POLICY Information Unit and the Technical unit who are answerable to the board of directors . The technical Unit co-ordinates the work in the CBDC areas and the Bucap project apart from the Mindanao project. At present there are eight members on the board along with an elderly farmer representative who is an honorary member. The members in a way represent different regions of south East Asia like Sarojeni Renggam from Malaysia, Vo-Tong Anh M. Sc from Vietnam, Dr. Daniel Breen and Chanetwallop Nicolas Khumtong from Thailand, Dr. Habib Chirzin from Indonesia, Antonio G. M La Vina (now in America), Antonio B. Quizon and Rene Salazar from Philippines.

It was not possible to meet the board members and responses to some very specific questions were requested from members via email, only one member was available for interview and his responses were valuable. He was of the firm opinion that SEARICE would have to emphasis its work in the field with the policy people coming down to the field for understanding the technical work being carried out. There is a need to contextualise and streamline the issues.

Any attempt to understand the changes in the organization especially in the last year was frustrating since there has been a huge turn over of staff. Despite the planned transition from the senior staff that have been with the organization for several years to the second line, for

various reasons several of the newly recruited left the organization. This left a big void in the organization, which has obviously disrupted the continuity of the work.

With most of the staff being new recruits the staff have a minimal understanding of the various aspects of the work. It is unfortunate that with best laid plans for transition from the old guards to the new many unexpected turn of events precipitated by the sudden exit of staff left a lack of clarity to link the past with the present..This is to be expected under the circumstances. Table gives an overview of the efforts to reorganise the staff during the period of transition.

Staff Reorganization

Area	2000	2001	2002	2003	2004	2005
North Cotabato	Gil Nonito Gilda Eric July Ann Christine	Gil Nonito Gilda Eric July Ann Christine	Gil Nonito Harlie Christine Lala Errol (end of 2002) Boboy (end of 2002)	Frank Gil (left Dec 2003) Gigi Harlie Lala Nonito	Frank Ian Bhing Vincent Nonito Pinky Lala? Harlie (left Oct 2004) Gigi (left Oct 2004)	Frank Ian Bhing Pinky Vincent Nonito
Sultan Kudarat	Che Ann Arma Sonny	Che Ann Arma Gigi	Che Ann Arma Gigi	Che Ann (left June 2003) Gigi (transferred in CONSERVE) Louie (1st quarter of 2003) Golda		Gil May
Bukidnon				John (has joined RCU on the last quarter of 2003) Pinky		Golda

The current staff are predominantly women . They are college graduates in an average age ranging between 27 to 35. Some of them are fresh from university , this being their first job, while others have very few years of exposure elswhere, Apart from the one or two pioneering staff the rest were new to SEARICE both at the office and the field.

As for the monitoring and reporting SEARICE has been regular with the annual reports and occasional briefing papers about their policy advocacy work.Methods of reporting and monitoring have been mostly descriptive and not very analytical which makes it difficult to discern the progress made from time to time. This was pointed out in the earlier evaluation done in 2000 . Since the work of SEARICE is divided between the technical and policy advocacy work there is a strong need to sytematize the data on seed distribution , trials done in the field, and ongoing insitu coinservation. Unless it is done

over a period to understand farmers acceptance of varieteis and the impact of the conservation efforts. In the interest of farmers it could be brought in as an activity of the seed bank to keep alive on farm small samples of the collections that are not accepted by farmers as popular.

The organisation has made efforts to go through a OD process during the transition period when a special effort was taken to expose the staff to the organisational priorities. These efforts to start the new phase of the programme have not materialised since the staff who benefitted out of the process left the organisation.

The location of the head office away from the field action also lends it a different set of problems. Given the distance and cost of transporation the two units function with very little co-ordination which is understandable.

Though now there is an effort to dissipate the division between the office in the main land as a policy advoacy unit and the field operations as technical, still it is observed that there is need to bridge the gap between the two units. However it is commendable how a modern technology like the mobile phone is used to its maximum through transferring messages for quick and inexpensive communication between and within the offices.

Organisational issues in the field were well defined by one of the board members- Tony Quezon. According to him he distinguished the focus between the work done in the different regions like Bohol, Bukindnon , Arakan valley and Sultan Kudarat. Bohol rpepresented a very technical interest of SEARICE while Bukhidnon was a blend with the interests of the local communities and Arakan valley focused on farmer led research , the exposure to Suktan kudarat opened new issues like the market to start with the market for seeds. He emphasised on the fact that there was a need for SEARICE to identify and document local level agricultutal issues like services offered and the kind of municipal budgets that were designated.

In his reading of the situation the Arakan valley was ideally suited to carry out the farmer led research and there was a vacuum in terms of leadership with a strong presence at the local level in the organisation.He was of the strong opinion that policy level staff need to spend more time in the field and not the other way around.

Interaction with the field staff and their responses.

The staff perceived the benefits of the program as increasing their knowledge and skills on Plant genetic resources, confidence to work with farmers. The program has also contributed significantly in providing a learning opportunity/ experience for farmers to select and develop seeds according to their preference. This has allowed farmers to “own” the technology to innovate and at the same time, develop skills especially on crop management.

-The program has indirectly caused attitudinal change on farmer-breeder who became more observant in managing the segregating lines. There was

an anecdote story where a young farmer in Sultan Kudarat, Mr. Teidy Toralba, who used to devote his past-time on game fowls, has changed his interest to seeds due to his participation in the farmer field schools. Although he has migrated to another community, he brought along with him some materials and the skills he acquired from PPB-PVS and has positively influenced his new community. He has become the source of local seeds. The program may not have caused a miracle but has inspired a group of farmers. The staff also added that

-The program because it has a policy component, has been able to translate problems we see on the ground to national and even international platforms (e.g. Farmers' Rights). Contextualizing the policy discussions from the national/international platforms to the ground has made the staff understand the bigger picture or situation of the community.

The staff perceived their role in Information*, Education and Dissemination* By translating policy issues and developments from the national/international platforms to the ground for farmers' discussions and awareness raising.

In Research, Documentation and Publication
-Conduct research studies.
-Design training modules
-Document farmers initiatives and experiences (on-farm researches and exchanges)

Facilitating
-Facilitate community meetings and PO projects, planning, implementation, monitoring and evaluation

Support
-help and support in the implementation of the project especially on plant breeding.

Conduct Training
-conduct training to the farmers on plant breeding.
-resource speaker in FFS

Networking
-coordinate with other groups.

Advocacy
conduct policy advocacy.meetings
-identify creative strategies to do policy advocacy and lobbying.
-provide technical backstopping to farmer-partners
-facilitate the issues of farmers, to push issues to the policy level, produce information materials and feed updates of the local issues in relation to the international concerns.

Expectation from the Organization

On staff development aspect
-to have staff development (i.e study grant)
-to have proper compensation (benefits and salary)
-to have more trainings, on-farm research and exposure trips on PGR CDU aspect.
-to provide management support.
-to enhance its documentation and monitoring
-to work with colleagues in planning and implementing programs
-to help facilitate in the implementation of programs in the community level.

On farmer development aspect
-to assist and strengthen the role of farmers in the development
-to assist farmers in research

Expectation from the Head Office as Support

-human Resource Development
-staff development
-training on the policy advocacy.
-moral and financial support

Communication and Data base Support
-updates on the arising issues on PGR.
-decentralization of reading materials
-provide (especially the PIU) with updates and status of policy issues (GMO Campaign, Hybrid Rice, ITPGRFA, etc) in the national and international arena.
-regular inputs on policy discussions
-updates with calendar of activities

Four Core Values in Working in SEARICE
-commitment
-have a “heart” for small farmers and to the environment
-responsibility
-patience
-work as a family
-sense of hope
-sense of mission
-sense of service
-justice
-Persevearance
-Flexibility
-Trustworthy
-competence
-wise use of resources (time, energy, money, materials)

-respect for other people's opinion, perspective and cultural and political affiliation and beliefs.
-read, ask questions
-treat everything as an opportunity for learning
-in order to relate to the issues on sustainable agriculture, we have value our environment .
-farmers should have the first and final say on matters concerning them.
-process is more important than output results and people matter most.

Trainings Attended as Preparation to work in SEARICE

-TOT in Plant Genetic Resources held in CVSCAFT, Bilar, Bohol conducted last August 2000.
-TOT on Participatory Plant Breeding on Rice conducted at Bautista Farm, New Isabela, Tacurong City last September 2000.
-TOT on Ecological Pest Management, Libungan, North Cotobato last March 2001.
-hands-on experiences (lessons learned)
-Policy Advocacy/Lobbying
-Basic Organizational Management Training

Have been invited as Resource Person by other Organization

-Youth science camp, National High School, Pres. Roxas, North Cotobato
-Consortium (Research and Development, Presented Participatory on Plant Breeding on Corn)
-Trainer on the TOT on Participatory Plant Breeding on Corn in Bhutan, September 2004
-A Dialogue with Farmers on GATT-WTO, PVP and AFMA
-Radio interview on Campaign against Hybrid Rice
-A Dialogue with NGOs and with farmers on PPB-PVS
-A Talk on Soil Fertility Management
-A Talk on CLA at Inac, Magpet.
-A Seminar on Mushroom Production at Ilustre, Pres. Roxas.
-A Talk on Carbonized Rice Hull at Ilustre, Pres. Roxas.
-A Seminar on FFS at Paglat, Maguindanao.
-A Seminar on Herbal Medicine Preparation at Ilustre, Pres. Roxas.
-A Seminar on FFS particularly on pest management, weeds management and soil fertility

Researches done as technical staff

-Comparative study on yield performance of different varieties of rice conducted at CONSERVE
-Started on the study on Heterotic pattern of different commercial hybrids in year 2002.

Lessons learned related to PGR CDU. How do you transfer?

-PGR CDU is a handle for community organizing. With this, community problems identified. Through FFS, trainings and informal discussion, FGDs, meeting with

the farmers are the strategies in transferring the lessons related on PGR to the farmers.

-Enhanced capacity of farmers to manage PGR CDU
-Increase awareness on issues related to PGR
-The conservation of PGR per se.
-The importance of PGR CDU as a project to farmers.
-Wise use of resources.
-The role of farmers in the development of PGR.
-Farmers have different selection criteria.

Conclusions

Bridging the gap between economic gains and ecological concerns?

"It is indeed a dilemma. It seems impossible to balance the two and hit both with a single stone like PGR-CDU. Yet, the evolution of the program and CONSERVE's history has shown concerns and recognition of this attempt to address both. Whereas conservation of genetic diversity basically addresses ecological concerns, it can also be linked with economic gains if we look at it from the perspective of systems yield and swings. How much is saved from prevention of disease occurrence attributed to the presence of genetic diversity? Or at farmers' level, how much is saved because one is not using synthetic pesticides?

The move of the organization to go into development of farmer's varieties through PVS/ PPB aims to address the concern of increasing crop productivity, which farmers at the community can most relate to as it is the most obvious parameter of measuring economic gains. Because farmers' varieties developed are not very distinct and quite heterogeneous, the diversity of materials are still maintained unlike in using in-breeds produced by the formal sector (IARCs and WARCs)".

"Furthermore, the utilization component of the program has provided a vast opportunity of meeting and balancing from both ends. Farmers can have economic gains if they market "diversity" as products of the diverse seeds itself. It is like adding value to the product at the same time addressing ecological concerns of increasing PGR diversity vis a vis bio-diversity." as recalled by the field staff

This requires widening the perspective of conserving diversity that includes uncultivated, underutilized foods in the ecosystem. Meeting the challenge of the market to bring economic gains to the farmers is essential .The selling points would rally around biosafety,health food, and environment protection.

SEARICE has a great opportunity to be a forerunner with regards to bridging the ecology and economy of conservation of PGR. Vital to the success of the intervention is the effective information management and mechanisms ,proper internal systems and structures that optimize the human resources to maximize the results of its engagement with the communities.

Appendix


BARANGAY ROAD
TUEL RIVER
SCHOOL SITE
Legend:
- mango
- rice
- vegetables
- coconut
- bamboo
- banana
- seedbank
- rice - organic
- fruit trees
- trees
- vegetables
- string beans
- okra
- eggplant
- ampalaya
- squash
- tomato
- sitaw


LEGEND:
MAIZE/CORN
BANANA
LOWLAND RICE
MANGO
BEANS/LEGUMES
RUBBER
VEGETABLES
ROOT CROPS
GMELINA
UPLAND RICE
DURIAN
COCONUT
COFFEE
NATIVE LEMON
BAMBOO
CHURCH
SCHOOL SITE
PUROK CENTER
PUROK A
BARANGAY HALL

DRAFT TOR

External Evaluation of Promoting Farmers' Rights Through Strengthening Community Plant Genetic Resources Conservation, Development and Use (CPGR-CDU) in South and Central Mindanao, Philippines Through a Multi-stakeholder Approach

I. Objectives of the evaluation:

An important backdrop to the evaluation is the phasing out of financial support from the Development Fund (DF) to the field interventions in Mindanao after 2005. While the evaluation is expected to address the standard questions of impact, relevance and efficiency, the focus of the evaluation should be forward looking in terms of providing guidance and direction. The focus of the evaluation should be on impact/outcome assessment, which will be useful for SEARICE in terms of looking forward with the implementation of the Mindanao project.

- ⇒ To provide SEARICE and the Development Fund (DF) with an understanding of the strengths and weaknesses of the program, looking at both the organizational challenges of the program, as well as results at the field level covering both the technical and policy aspects.
- ⇒ To provide SEARICE with an opportunity to reflect on its activities and functioning and with inputs for improving its strategies, plans, policies and ways of working in Mindanao.

The evaluation will cover the period 2000 – 2004 of the project.

II. Content of the evaluation:

1. Analysis of the field interventions in Mindanao

   Two important questions are what contributions the project has had on the conservation, development and use of local plant genetic resources and to what extent it has contributed to improving the situation of small holder farmers. The evaluation will also look into how the project has operationalised Farmers' Rights through capacity building for PGR conservation, development and use. The review will seek to answer the questions listed below.

   - Is the program making a positive impact on the field with the farmers, e.g. in terms of:
     - More diversity of crops in the farmers' fields?
     - Increased food security of farmers?
     - Better direct economic/social conditions of farmers?
   - How do the target groups/ stakeholders perceive the project – e.g. in terms of performance and relevance?
   - What is the socio-political benefit of the project to farmers? (covers increased socio-political awareness, if any, involvement of farmers' groups in local governance etc)
   - What were the major factors influencing the achievement or non-achievement of the objectives?
   - The role of the farmers in planning, participation and monitoring the activities

- Capacities at the local level to sustain the processes is important, which relates to the whole issue of people's/farmer's organizations
- Methodology/approach, e.g. the Farmer Field Schools, Field Studies, multi-stakeholder approach, Community Seed banks, evolution of processes and interventions, etc
- Opportunities, e.g. income generation, value added activities, marketing

2. Assessment of the impact of SEARICE's lobby and policy advocacy work at the program and policy level – (NB! policy interventions are not stand alone interventions but are interwoven in the whole Mindanao program). This part of the review will provide SEARICE and DF with a critical analysis of SEARICE's lobby and policy advocacy strategy and with lessons learned.

- How are farmers mobilized around policy issues at the local level?
  - Strategies and approaches
  - Impacts and outcomes
  - Synergy/coherence/linkages in technical and policy interventions
  - How local initiatives feed into national/regional policy efforts?
- How do national/regional policy efforts feed into the local initiatives?
- Intended Results:
  - To what degree are the recommendations of SEARICE and its partners included in policy formulation on plant genetic resources conservation, development and use and farmers' rights.
  - To what degree were the policy makers at the local and national level influenced by the lobby and policy advocacy work of SEARICE and its partners?
- Increased Political Space:
  - How big is the credibility of SEARICE and its partners? Has this credibility grown in the course of the project? Why/why not?
  - To what degree are SEARICE and its partners seen as having sufficient knowledge on the issues tackled and of the political and socio-economic situation in the country?
  - How big is the openness of government officials to listen to the ideas of SEARICE and its partners? Has this openness grown in the course of the project? Why/why not?
  - Which official mechanisms exist where SEARICE and its partners are involved in policy making?

- Increased Political Capacity:
  - Do SEARICE and its partners have sufficient knowledge and capacities to do lobby and policy advocacy work? What are their strong and weak points?
  - Have their knowledge and capacities grown in the course of the project? If yes, what caused this?
  - Have the experiences drawn from the lobby and policy advocacy work of SEARICE and its partners been used in other similar projects? If yes, to what degree did these experiences help improve the quality of other similar projects?
  - Which mechanisms have been established to guarantee that the lessons learned are used in similar projects in the future?

3. Organizational/Management/Institutional analysis of field/policy interventions in Mindanao.
   - Which people/actors have been involved in the project? What were they respective tasks and contributions?
   - Clarity of tasks and responsibilities of different people in Manila and in Mindanao
     - Level of involvement type of backstopping at field level by SEARICE HQ
     - Leadership, planning, implementation and monitoring capacity of field level offices
   - How and to what degree have organizational aspects affected the quality of lobby and advocacy and implementation in the field?
   - Which important actors have not or not sufficiently been involved?
   - Relationship between HQ and field offices?
   - Organizational set-up in Mindanao?

4. Recommendations, lesson learned and conclusions to SEARICE and DF.

   - Conclusions of the findings of the evaluation, based on the above analysis (pt. II. Above) formulated in terms of strengths and weaknesses, effectiveness of the programme, cost-effectiveness and sustainability.
   - Conclusions of the evaluation process (how the evaluation proceeded).
   - Recommendations, addressed to SEARICE and DF.

III. Composition of team and division of tasks

The evaluation team will consist of two members. One member of the team will be mainly responsible for looking at the Field Interventions (c.f. pt II 1. above). This member will also be the Team Leader. The second member will be mainly responsible for assessing the policy interventions (c.f. pt II 2. above). The team will travel and work together in the field.

The Team Leader has the final responsibility for the evaluation process and reporting to the Development Fund.

IV. Organization of the evaluation / methodology

- Archival work: review of SEARICE's organizational documents and outputs
- Key informant interviews: staff, local and national government officials
- Open ended interviews with stakeholders
- Focus group discussions with farmers' and NGO representatives/leaders
- PRAs with communities
- Holding of a round table discussion (involving 10 people max) on how to go about organizing farmers into groups.

V. Timeline for the Evaluation

December/January 2005	Desk review of reports, publications and documents
16. – 31. January, 2005	Field Visit (including debriefing SEARICE)
5. February	A draft report circulated to DF and SEARICE for comments*
20. February	Final report submitted to DF by team leader**

*This deadline depends on Policy Consultant
**DF and SEARICE will provide inputs to the draft no later than 1 week before the deadline.

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