Southeast Asia Today

Development Paradigms, Reflexive Engagements

Proceedings of an Alumni Conference of the
Graduate Degree Program for Southeast Asian Development Practitioners
held on 2-4 April 2008 at the Ateneo de Manila University

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Graduate Degree Program for Southeast Asian Development Practitioners
• Institute of Philippine Culture
• Department of Sociology and Anthropology
School of Social Sciences
Loyola Schools
Ateneo de Manila University

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PREFACE

Funded by The Ford Foundation and implemented jointly by the Department of Sociology and Anthropology (DSA) and the Institute of Philippine Culture (IPC) of the School of Social Sciences, Ateneo de Manila University, the **Graduate Degree Program for Southeast Asian Development Practitioners** (nicknamed "DSA-IPC Program") celebrated 20 years of presence in development research in Southeast Asia by gathering its alumni to a homecoming-conference on 2-4 April 2008. Held 10 years since the first conference 1998, the 2008 homecoming-conference culminated two decades of graduate training in sociology, anthropology, and social development for 20 batches of development practitioners (and 147 graduates) from Indonesia, Thailand, Vietnam, and the Philippines.

With the theme "Southeast Asia Today: Development Paradigms, Reflexive Engagements," the conference brought together program alumni to share and critically reflect on their experiences and engagements in development work. In sharing and critiquing their involvement in development practice in their respective countries as well as the Region and elsewhere, the conference paper presenters either focused on or highlighted the following thematic areas: household and community asset building, social capital formation, state-civil society dynamics, local and regional networking, and social change and sustainable development.

Even as the papers were classified under specific themes, which reflect major preoccupations in PCD, the interrelationships were recognized and addressed in the papers and at the discussions.

This volume emerged from the post-conference consensus among organizers, presenters, and participants to refine and publish the papers as a contribution to development literature and social science discourse. With the assistance and

coordination of the DSA-IPC Program staff, the editors (Filipino alumni from different batches) reviewed the papers and suggested ways, alongside the comments from the conference, for refining the empirical rigor, reflexive disposition, and expository form. Most of the authors obliged to revise their papers according to the comments and suggestions and shorten them to the prescribed length. Two papers were withdrawn owing to institutional publication embargo; a few were left unrevised. For the latter, the editors took the unenviable initiative to redact, making sure not to alter substance and style. Some papers, though requiring more exposition and empirical rigor, were included for the illustrative cases of PCD and the discussion they generated in the conference. After editing, the papers were returned to the authors for review and approval. With a few minor additional editing, this last version of the papers is now what appears in this collection.

Aside from their direct contribution to knowledge generation (through data and discourse), the papers in this volume offer themselves as corpus for the exercise of reflexivity in development practice. For such purpose, the introductory essay, "Critically Engaging 'Participatoriness' as a Development Paradigm: A Reflexive Interrogation of an Ideology," serves as an invitation to readers to join in the examination and critique of development practice, including their own. The essay provides the rationale, framework, and samples of reflexivity in the papers and in the conference aerobics. As an exercise in reflexivity in itself, the essay attempts to be integrative and critical at the same time, citing specific papers to illustrate the prevailing discourse in PCD and highlighting the emergent reflexivity in participatory development practice. Unfortunately, because of limitations in space and the challenge of conciseness, not all the papers could be cited.

We seek only to be constructive. For any lapses in the editing and the essay, we take sole responsibility and offer our sincere apologies.

For the success of the conference and the merits of this volume, we attribute to the contributions of the following:

- the paper presenters for offering their work for discussion and critiquing at the conference and for review and publication in this volume;
- the panels of discussants for their reactions and insights on the papers;
- the Ateneo de Manila administration and alumni association for warmly welcoming us back;
- our teachers and advisers for their continued guidance and companionship;
- Dr. Ricardo G. Abad, in particular, for reviewing and commenting on the introductory essay;
- Ms. Cynthia C. Veneracion, program coordinator, for the past decade's unwavering leadership of the Program and its allied endeavors;
- the DSA and IPC staff through the years for their caring assistance and friendship;
- the Program's Ms. Lorraine S. Mangaser and Ms. Valerie Ria C. Rivera, in particular, for seeing through the completion of this volume;

- the conference organizing committee for making the homecoming-conference an enriching and fun-filled endeavor;
- the Program alumni who attended for the comments, insights, stories, laughter, and active participation as a whole; and
- those who were not able to join but were certainly with us in spirit.

We hope that the desire to share, learn, and see each other again continues to animate our personal and professional lives.

Lastly, we thank you, readers, in advance for obliging to our invitation to reflexivity.

Angela Desiree M. Aguirre
Emanuel C. de Guzman, Ph.D.
Jon Michael R. Villaseñor

TOWARD SUSTAINABLE AGRICULTURAL DEVELOPMENT: LESSONS FROM A PROJECT ON SUSTAINABLE DEVELOPMENT OF IRRIGATED AGRICULTURE IN BALI PROVINCE

Gede Sedana

One of the constraints of dryland farming development in Bali, particularly in its northern part, is the scarcity of irrigation water. Farmers are only able to cultivate their lands for annual crops during the rainy season. This brings about limited crops and lowland crop production; thus, farmers' incomes remain relatively low (Sedana 2003).

In order to overcome these conditions, the government had carried out the Sustainable Development of Irrigated Agriculture in Buleleng and Karangasem (SDIABKA) Project along the coastal area of northeastern Bali, through a grant from the European Commission in 2003. The predecessor of the project is the North Bali Groundwater Irrigation and Water Supply Project (NBGIWSP ALA/91/19) which had to be redesigned during its implementation (August 1993-September 1999) due to a number of external factors ("Six Monthly Report of Sustainable Development of Irrigated Agriculture in Buleleng and Karangasem" 2004).

The general objective of the SDIABKA Project is to reduce the poverty of low-income rural households through sustainable development and management of natural resources. Specifically, it aims to increase agricultural productivity through an efficient, economical, and environmentally sustainable management of groundwater irrigation facilities and improved capacity of organizations concerned including farmers' groups (tube-well users' groups or TUGs) and women's groups (WG) within the project areas ("Six Monthly Report of Sustainable Development of Irrigated Agriculture in Buleleng and Karangasem" 2006). The areas covered by the SDIABKA Project are scattered in 12 villages of two subdistricts: Tejakula in the eastern part of Buleleng Regency and Kubu in the western part of Karangasem Regency (SDIABKA Project 2006).

In consonance with its objectives, the project includes: (1) survey, investigation, and design (SID) process for irrigation schemes and water supply system for domestic use; (2) construction of groundwater irrigation schemes and their facilities; (3) construction of water supply system and availability of materials for the water tank; and (4) agricultural development programs to optimize irrigation water use.

Meanwhile, the agricultural development programs include institutional development; research and development; extension and training; and monitoring and evaluation integrated in every process of a system.

The project closed with 15 complete and operational groundwater irrigation systems. The SID process had been partially completed while the deep wells had been constructed for the remaining 15 locations. Through the SDIABKA Project, nine additional groundwater irrigation systems had been constructed based on the available groundwater potential in the project area. However, the 15 units which had been operated through the NBGIWSP were still covered by the SDIABKA, especially in terms of strengthening the organization and operation and maintenance (O&M) of irrigation systems, agricultural activities, and the like.

This paper describes how the project realized its objectives and made agricultural development sustainable in the target areas and their surroundings.

SUSTAINABLE AGRICULTURAL DEVELOPMENT

Briones (2000) elaborates on three important components of sustainability which interact with one another:

1. Social sustainability refers to structure functions and management designed for society to use and develop resources in a sustainable way. Among the resources, those for agriculture and food production are of foremost importance. Social sustainability also reflects the capability and character of a society which stems from the capability and character of its individual members. This human capability also pertains to human capital (social capital) that largely contributes to economic sustainability.
2. Economic sustainability is defined as keeping the capital intact to generate economic growth. However, the concept of capital did not give equal importance to the four forms of capital (i.e., human-made, natural, social, and human).
3. A common knowledge about natural resources is that they provide for the basic needs and welfare of society. Society relates to the wisdom of using natural resources for sustainable food production and sustainable development.

Sustainability in this project refers to a sustainable guarantee of efficient irrigation system management concerning the quantity and quality of irrigation water in line with the needs for agricultural development on the basis of socioeconomic, cultural, physical, and environmental aspects (Sedana 2006). Sustainability has five integrated and guaranteed principles: (1) water availability; (2) improvement of farmers' income; (3) sustainable irrigated lands; (4) irrigation management (operation and maintenance); and (5) ecological sustainability.

Therefore, a sustainable agricultural development is a program that farmers should be able to implement and control by themselves. Apart from this, farmers will also share with other farmers by developing networks and cooperating with local authorities and government services to provide other farmers with support and technical services. In this way, advanced farmers become experts to other farmers (Sedana 2005).

WAYS OF REACHING SUSTAINABLE DEVELOPMENT

In responding to sustainable agricultural development as earlier mentioned, the project conducted some integrated activities using a participatory approach: (1) updating of the schedule of beneficiaries for the new TUGs, selection of nine new sites and farmers for the rehabilitation schemes, and defining of system boundaries; (2) establishment of TUGs and WGs at SDIABKA sites; (3) selection and training of TUG leaders, pump operators, and WG leaders at SDIABKA sites; (4) carrying out of SID; (5) elaboration and ratification of TUG internal regulations and bylaws at SDIABKA sites; (6) establishment of an efficient irrigation organization and management systems at all TUG sites; (7) identification and promotion of appropriate commodities and production and marketing systems for private sector agribusiness enterprises; (8) support for initiatives to develop TUGs and WGs' agribusiness cooperatives; (9) support for TUG-area WGs' off-farm income-generating family or social, nutritional, and health projects; (10) coordination with the Government of Indonesia's (GoI) agricultural E&T partner agencies; (11) facilitating of signing of legal contract, O&M, and handing-over facilities to SDIABKA TUGs; and (12) continuous recording of market prices of potential crops and livestock at local, district, and provincial markets.

These activities were implemented parallel with each other. It was first necessary to update TUG memberships in the 15 existing schemes which were drilled under NBGIWSP, but did not have irrigation systems installed yet. Following a number of meetings and preliminary surveys, the TUG membership composition was reviewed and updated at the 15 sites where irrigation systems were installed. The process of adding new members and land involved close participation of the existing TUGs and the respective dusun and desa village heads. Cadastral surveys were also required for the proposed new plots.

Of the many applications received from farmer groups in Buleleng and Karangasem, nine new potential sites were selected based on several technical and social criteria. These nine underwent further socioeconomic screening to determine sufficient intent and interest in active irrigation as well as the appropriate socioeconomic composition of farmers (i.e., background, landownership status, and others). The final selection of the bore-hole locations was done and approved by the local authorities (camats and kepala desas). An important aspect of the selection procedure was to ensure that only "active" farmers were included.

This activity entailed initial tubewell users' group building, followed by regular inputs into group strengthening. The project's Rural Institutions Development section took the lead in facilitating the establishment of the 24 new TUGs and WGs. The groups' establishment was initiated by the project before the construction of the

irrigation and water supply systems. The TUGs' formation was aimed at making more effectively the preparation of irrigation design, implementation of irrigation installation, and strengthening of the beneficiaries in anticipation of their management of irrigation systems.

In addition to assisting in the establishment and strengthening of the 24 new TUGs, it was observed that the 15 NBGIWSP TUGs operating from 1997 until 1999 had experienced various management and organizational problems. They still needed intensive assistance to reform their TUGs. The overriding sustainability aim was to develop the capacities of the TUGs to manage their own development projects. To assist with, and speed up the TUG (and WGs') development, a leader-farmer in each TUG was recruited and called "TUG facilitator." This move was considered to be sustainable in that the TUGs would inherit a capable, well-trained person when the project closes.

Following the formation of TUG memberships, the project assisted in the selection of the respective leaders and pump operators. The leaders of each group consisted of a chairman, secretary, treasurer, and chief of block. The project then trained these leaders and pump operators in the skills required to manage and operate their schemes efficiently. Training was conducted by the E&T and O&M sections of the project. The trainings dealt with operation and maintenance of irrigation systems, installation of pipes, water management, and agricultural technologies such as nursery, crops diversification, plant diseases control, livestock development, and agribusiness.

The Survey Investigation and Design (SID) gave much attention to the participation of the farmers in the design work. Meetings were held between the farmers, the design consultant, the project management unit (PMU) design engineer, and the PMU institutions development specialist. It took some time before the design consultant fully understood this approach and assumed his responsibilities in this matter. It is worthy to note that the design of irrigation must be understood and approved by the group in order to avoid the problems encountered at the construction phase.

The TUGs were facilitated to establish their internal rules and regulations (*awig awig*), and register with local authorities as legal entities in accordance with local bylaws. These bylaws were signed and ratified by relevant authorities (i.e., head of village, head of subdistrict, and regent). The final stage was the institution of the formal legalization process with the Regency Court of Justice and registration as legal entities.

The project aimed to establish and demonstrate efficient irrigation organization and management systems at all TUG sites, both in general as well as tailored to the specific circumstances of each site. This activity entailed the combined inputs of the projects' irrigation engineers and agriculturalists. The engineers demonstrated efficient organization and management of the systems up to field application, and the agriculturalists provided expert inputs in water management for specific cropping systems. This activity involved intensive training for TUG managers, operators, and individual members equipped with O&M manuals.

The potential for private commercial production and marketing enterprises in the project area was substantial. The major commodities identified and promoted for

agribusiness development included mango, melon, banana, papaya, and cattle. In the contract arrangements, the traders provided the seed and other inputs. In return, the participant-farmers agreed to sell the produce solely to the trader concerned.

In order to both improve water use efficiency and prepare the TUGs for agribusiness enterprises, the project assisted the 24 SDIABKA TUGs in preparing development plans for the agricultural crops. The project converted these aspirations into detailed land use maps which could be used for the guidance of TUG members, and for progress monitoring.

In September 2004, the TUGs cooperative *Koperasi KPSP Dwi Tunggal Tirta Sari* was formed. The cooperative is registered with the *Dinas* of Industry, Trade and Cooperatives, Buleleng Regency. The legalization process was completed on 14 July 2005 with the issue of Decree No.11/BH/DISPERINDAGKOP/VII/2005 for Ratification of Establishment of Cooperative, *Koperasi KPSP Dwi Tunggal Tirta Sari*. The cooperative recruited a manager, purchasing clerk, and administrative clerk, and commenced implementing its long-term business plan (2005-2009). The cooperative is engaged in a number of activities, including providing agricultural inputs such as livestock feed, sourcing markets for farmers' produce, and operating a microcredit facility for its members. The cooperative also plans to operate a workshop facility to provide the TUGs with essential spare parts and regular servicing of the irrigation systems.

Project experience showed that the key to assisting the TUG women's groups (KWSPs) engaged in income generating activities was to first ensure that the groups themselves were able to identify, plan, and implement their activities. In this regard, the PMU continued to assist in strengthening all 39 KWSPs. Training and development in group organization and management, fund raising and management (such as microcredit), and small business skills constituted the core activities. Aside from these, the groups were also empowered to access information, capital, and technologies for their organizational, technical, and financial sustainability. The groups were assisted to draft a proposal for gaining credit.

An overriding aim of the project was to support GoI agencies responsible for development activities in the project area. An early task to achieve this was to ensure that the project's rural institutional development and agricultural extension and training activities were well coordinated and in sync with the policies, strategies, and work programs of the local extension services. The project established strong coordination linkages with relevant GoI extension agencies at the national, provincial, and district levels, as well as with the PSC and PCC technical committees.

In a coordination meeting with the PU (Province and *Kabupaten* levels) in June 2005, it was agreed that the assets of the 39 irrigation systems, as well as the responsibility for the operation and maintenance of these systems should eventually be transferred to the regency but executed by the TUGs. The first step, namely, the transfer from SDIABKA to PU Province with the documentation for all 39 units, commenced in November 2005 and was completed in mid-2006. Certificates for the execution of the O&M were signed between the project and the TUGs, endorsed by the PU at the provincial level.

Concerning the TUGs' willingness and capacity to be responsible for maintenance of their facilities, it is worthy to note that several TUGs have already undertaken servicing of their irrigation systems. The maintenance/repair works were undertaken by the TUGs.

The service and repair works incurred high costs, especially the replacement of broken pump, corroded tubes, and pump safety slings. In all cases, the TUGs paid for the materials and labor costs. Guidance in undertaking these works was provided by PMU/PAT seconded staff. For nonhazardous works, the PAT staff trained the TUG pump operators on how to undertake similar tasks in the future. This serves as excellent examples of O&M sustainability and capacity-building achievements.

Essentially, the selection of technology introductions was market driven. As a major concern of TUG farmers was cash income, this factor was the ultimate criteria for cash crop technology introductions. The project tracked market prices of potential crops and livestock at local and district markets in Buleleng and Karangasem. The market opportunities, trends, and fluctuations assisted in the selection of crops, varieties, and livestock that could take advantage of optimum market opportunities, especially in niche, off-season production. Market prices at producer, wholesale, and retail levels from local, district, and provincial sources were collected monthly, and continuously throughout the project period. This information was disseminated to TUG farmers.

CLOSING REMARKS

The components of sustainable ground water management are: (1) guaranteed adequate water availability; (2) improved farmers' income; (3) guaranteed irrigated lands; (4) guaranteed irrigation management (operation and maintenance); and (5) guaranteed ecological sustainability. This sustainability could be achieved by bringing farmers' groups' minds to focus on the strong need for water. Therefore, empowerment of groups is very important in the management of irrigation water (distribution and allocation water, operation and maintenance of irrigation facilities), and conservation of water availability (limiting the drawing of water from wells). This could be successfully achieved by employing a participatory approach. Some activities conducted for it were: (1) improvement of the capacity of groups in terms of organizational management and administration; (2) increase in the technical capability of groups; (3) increase in their business farm works; and (4) monitoring and evaluation. Aside from these, the coordination and involvement of all stakeholders had been very useful in achieving sustainability.

The implementation of groundwater irrigation projects should integrate two systems, namely, irrigation and agriculture (crops and livestock). Therefore, project programs should consist of irrigation management, institutional development, research and development, extension and training, and monitoring and evaluation.

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