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SOCIAL SCIENCE RESEARCH ON INTEGRATED RURAL DEVELOPMENT IN SOUTHEAST ASIA

By

Harry T. Oshima & Gerard Rikken*

Introduction

A host of technological advances in rural life during the past decades has opened up for the first time the possibility of substantially improving levels of living in the rural areas of monsoon Asia. For centuries, the Asian rural communities have been caught in the poverty trap of monsoon paddy farming with its enormously high labor requirements during peak seasons and long period of idleness during slack seasons. In Japan, there were steady increases in rice yields before the Second World War, but no substantial changes took place in the countryside. The rural transformation took place only in the past three decades but had to be preceded by fully two generations of institutional and technological changes.

Per capita incomes in rural Japan are nearing $2,000; mechanization on the farm, in the villages, and in the homes is extensive; high levels of general education and scientific agriculture prevail everywhere. Health services, amenities, communications and transportation in the villages have been largely modernized. Disparities in the distribution of incomes and of opportunities are minimal, and independent cooperative institutions and self-government exist everywhere.

No such rural transformation took place elsewhere in monsoon Asia, although in rural Taiwan significant changes are now occurring with per capita incomes surpassing the $700 level. In the South

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*Visiting Professor and Ph.D. candidate, respectively, at the School of Economics, University of the Philippines. The latter is largely responsible for the review of the literature and the bibliography. This paper was written for an inter-agency conference on Social Science Research on Rural Development, May 1 and 2, 1975 at the Rockefeller Foundation Conference Room in New York City. Numbers in parenthesis refer to interviews with persons listed in the Appendix.

Korean countryside, these changes may be about to begin. In Chin rural development with emphasis on equilitarianism is reported to b highly successful. In Southeast Asia, living levels have improve somewhat for the peasant but still remain substantially as of old.

Moreover, the roots of problems confronting Southeast Asia urban areas — underemployment, poverty, over-population, co gestion, underutilized industrial capacities, etc. — appear to lie in th countryside. A consensus is emerging that national developmen strategies must emphasize rural development if nationwide soci problems are to be solved. And perhaps if these are adequatel attended to, the frequency of economic crisis of balance o payments, inflation, and exchange rate, and political problems ma lessen, and the problems of growth and distribution of income ma be easier to handle.

It is therefore understandable that the countries of Southeast Asi the international agencies such as the International Bank fo Reconstruction and Development (IBRD) and the United Nation Development Program (UNDP), aid agencies in the U.S. and othe countries, and private foundations like Ford and Rockefeller, a turning to rural development programs. The World Bank, fo example, is planning to use about one-half of its total lendings durin the next five years for rural development projects, aimed especiall at the smaller farmers. With such a massive shift in lending and ai programs, rural development research is certain to come to the for as the leading area for social science research, especially because no much attention has been paid to this area, and our knowledge i relatively meager.

In this paper, we shall describe briefly the nature of some of th rural development programs in operation in Southeast Asia, the attempt to identify some of the gaps in our knowledge, and the conclude with suggestions for research. The literature is mountin but of uneven quality, scattered here and there, most of it buried i files. They are still no more than descriptive ad hoc reports. W found it necessary to interview various scholars and administrators i the forefront of rural development work.

A Brief Review of Rural Development Programs

In this section, we will first describe micro models of integrated rural development and then go on to the macro programs. In the

former a model is applied experimentally to a small group of villages while in the latter a governmental program on a nation-wide or regional basis is undertaken.

Perhaps the best known type of integrated rural development in Asia with a relatively long tradition is connected with the name of James Yen. The approach developed by Yen has been propagated in various countries, in and outside Asia, by the International Institute of Rural Reconstruction (IIRR). One of the characteristic features of the approach is its fourfold program comprising of (1) livelihood, (2) education, (3) health and sanitation, and (4) self-government. The territorial focus is a group of villages (10, 20, 50, 100) and, within the village community, the individual farm family (14). In its recent activities the IIRR and its Philippine counterpart, Philippine Rural Reconstruction Movement (PRRM), seem to have abandoned the individualized approach and are moving in the direction of the institutional approach which recognizes that an individual farmer can improve his condition only through the support of his fellow farmers and that a village community can develop itself only when it is supported by the surrounding village communities (18).

The studies in which the various models or programs are evaluated are mostly historical or descriptive; some are comparative analytical. The method most frequently used is the comparison of data from surveys conducted before and after the program but this method does not tell us much about the process of transformation itself. Another method frequently used in the appraisal and evaluation of rural development projects is the cost/benefit or the input/output analysis. However, no research method applied so far has been able to identify the necessary conditions for self-sustained growth in rural communities, and even less, the methods to bring about those necessary conditions. Most research studies on rural development in Southeast Asia originate from private or semi-private national or international development institutions such as the Joint Commission on Rural Reconstruction in Taiwan, the Social Science Institute in Thailand, the International Institute of Social Studies in Indonesia, the International Rice Research Institute and the International Institute of Rural Reconstruction in the Philippines, FAO, ILO, UNESCO, UNDP, ADC, ECAFE, USAID, and the institutions of higher learning in the various countries.

Some of the universities are connected with so-called social laboratories that are integrated facilities combining demonstration,

training, and research. Although the Philippines has presently such laboratories connected with higher institutions of learning, best known so far are the Social Laboratory of the University of Philippines College of Agriculture and the Southeast Asian Regio Center for Graduate Study and Research in Agriculture (UP SEARCA), established in July 1970. In Korea a similar so laboratory is operating under the auspices of the Seoul Natio University College of Agriculture. These social laboratories are recent origin and are carried out on a small scale with inadequ resources. A good number of interesting rural development exp ments are going on in various parts of Southeast Asia, small as wel large projects. Few projects, however, are under the close observat of social scientists.

As to macro-programs, there are similarities in the component these programs in Southeast Asian countries, perhaps more inspi by the example of Taiwan, and, to a much lesser extent, by so science research in the respective countries themselves. The comm elements, although differing in the details, are infrastructural reh litation, land reform, establishment of institutions, and attempts diffuse modern HYV's.

When in 1949 Taiwan started its planned effort toward ru development, it had the advantage of a series of favorable conditio namely: extensive infrastructure (good roads, a well-function railway, electricity, irrigation systems), and a motivated people w a high level of literacy (60%). Taiwan's rural development has be connected with the catalytic operations and activities of the Jo Commission for Rural Reconstruction (JCRR) which was amp funded by foreign sources.[1] JCRR has stimulated through financ and technical assistance nearly all aspects of rural development Taiwan. It started its work with emphasis on crop improvement a irrigation, and gradually expanded its scope to include land refor rural health, animal husbandry, forestry, rural economic fisheri farmer's organizations and credit. With respect to the organizatio and administrative set-up, Taiwan's model of rural developme demonstrates the importance of effective integration at the thr levels of decision-making: that of the government which provides t social overhead, the infrastructure and capital investment; that of t

[1] S.C. Hsieh, "The Joint Commission on Rural Reconstruction in Taiwan *Rural Asia Marches Forward: Focus on Agricultural and Rural Developme* Los Baños, Laguna: University of the Philippines College of Agriculture, 196 pp. 408-420.

mers through their organizations, which take care of cooperative rketing, water distribution, pest control and technical advance-nt; and that of individual farmers who decide on the adoption of available divisible inputs.[2]

Initially the Malaysian government adopted a paternalistic proach towards rural modernization. Quick and visible results with gard to the various aspects of rural modernization were the rriding goal. To convey the image of an effective and responsive vernment the bureaucracy was mobilized to produce a "develop-ent cover crop" of roads, bridges, schools, mosques, temples, mmunity halls, wells, clinics, and piped water stands.[3]

Towards the second half of the 1961-1965 Five Year Plan the olicy makers began to realize that the construction of physical frastructure by itself was at best a palliative to rural neglect. In the ive Year Plans that followed, the administrative control was shifted om the Federal and State government to the District Office. The lf-government aspect was emphasized through bottom-up planning.

The establishment of Village Development Committees was nother attempt to foster local involvement in decision-making and promote leadership. Furthermore, the rural development program r 1966-1970 went beyond the provision of physical amenities by mphasizing the priorities of agricultural education, extension rvices, research, modernization of farming techniques, increased ace of land alienation and development, and the setting up of arketing and credit institutions.

In the second Malaysia Plan (1971-1975) the modernization of griculture, the integration of the rural areas with the urban sector of ommerce and industry, land development and improvement, and the establishment of new agriculture-supportive institutions are the ore of the new development strategy.[4]

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[2] B.C. Hsieh, "Taiwan's Model of Agricultural Progress, Potentials of Small Family Farm and their Implications for Other Developing Asian Countries" in W.A. Douglas Jackson (ed.) *Agrarian Policies and Problems in Communist and Non-Communist Countries.* (University of Washington Press, 1971), pp. 381-397.

[3] Chee Stephen, *Rural Development and Development Administration in Malaysia*, SEADAG Paper on Problems of Development in Southeast Asia, 74-5, New York: The Asia Society, April 1974, 38 pages.

[4] Martin Rudner, "The Malayan Quandary: Rural Development Policy Under the First and Second Five-Year Plans", *Contributions to Asian Studies*, Vol. I, 1971, pp. 190-204.

Nevertheless, the administrative set-up for rural development the village level left much to be desired. Numerous governmen institutions sometimes operated at cross-purposes, and often ov lapped. It has been observed that the creation of modern institutio in the countryside has been all too often confusing to t peasantry.[5]

As in the case of Taiwan, the side by side existence of Farme Associations and agro-based cooperatives has been the source many conflicts. In 1973 the two institutions were amalgamated in a new body called the Area Farmers Organization (AFO) under t supervision and control of the Farmers Organization Authori (FOA). Another reason for this reorganization was that the Farme Associations became too powerful and thus a potential threat to t status quo.

The Saemaul Wundung (New Community Movement) is t Korean version of IRD. In the belief that immediate visible resu strengthen the people's self-confidence and develop their cooperati spirit, the government started with a nation-wide environment improvement program which included repair of river banks, widenir of feeder-roads, and repair of small water reservoirs.[6] The gover ment allotted to each village a specified quantity of materials (main cement and steelbars) while the village people themselves were provide free labor and whatever equipment and materials we available in the village.

The overall responsibility of the Saemaul Movement has be entrusted to the Central Coordination Committee composed twelve members representing different ministries and headed by t Minister of Home Affairs. Similar Coordinating Committees we established at the provincial, town and village levels.[7]

The Saemaul Movement is reported to have brought about a r markable change in the rural areas of Korea although comprehensiv

[5] Chee Stephen, *loc. cit.*,

[6] Sung Hwan Ban, *New Community Movement in Korea*, Part I, Gener Discussion, Korea Development Institute.

[7] "Topics for Discussion", paper submitted to *The Fifth General Session o the Aarro Conference*, The Republic of Korea, (Philippines, February 24-Marc 3, 1975).

and systematic studies, except for the reports of the government, are not yet available.[8]

The Accelerated Rural Development Program of Thailand was conceived in 1963 to improve the living conditions of the rural people and to encourage them to stay on the land instead of migrating to the urban areas.[9] To achieve this, the plan's main strategy was the modernization of agriculture through the provision of agricultural extension services, rural roads, marketing facilities and rural electrification.

To facilitate supervision the country was divided into five regions, each composed of 10 to 15 provinces. The activities in each region were coordinated by a Regional Development Committee. However, the existence of many competing development agencies, private as well as public, made coordination extremely difficult.

In Indonesia, various programs for rural development have been planned at various levels of government. However, the program that comes closest to the IRD concept is the Desa or village subsidy program. Under this program each village has been receiving a project subsidy of Rp. 100,000 (about $2,500) annually from the Central Government for the purchase of materials not available within the area. Together with the labor contributed by the villagers, these inputs were meant to form the beginning of a decentralized improvement program.[10]

The projects were to be relatively small, within the competence of the people, and located close to their homes so that there would be no need for work-camps. The village people themselves prepared the plans for the projects with minimal assistance from government technicians. Furthermore, the projects had to be timed to coincide with the off-season period when unemployment was most serious.

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[8] Ji Woong Cheong, ed., *The Development of Human Resources in Rural Korea: General Information and Case Studies*. Report by The Korean Delegation at the Development of Human Resources in Rural Asia Workshop, Thailand, August 4-26, 1974.

[9] Nipo Boonyapataro, *Rural Development in Thailand*, Fifth General Session of the Afro-Asian Rural Reconstruction Organization Conference, Manila, Philippines, February 24,-March 3, 1975. 13 pages.

[10] Dibyo Prabowo, et al. *The Impact of Government Subsidy Upon Villages* (Gadjah Madah University, Yogyakarta, 1973).

Since the projects had to be channeled through the bureaucrat machinery for approval, i.e., from the village through the Kabupat (county) to the provincial government and finally to the Cent Planning Bureau, the funds did not always arrive on time. The res was that some projects were undertaken during planting or harvesti time and absorbed the laborers who were badly needed in the fie Furthermore, it frequently happened that the projects, because their technical nature, did not absorb the idle laborers but the skill technicians who were already employed elsewhere.

The Kabupaten had their own independent program intended f the creation of employment in the rural areas more than for t rehabilitation of infrastructural facilities. They usually concentrat on projects which were beyond the competence of the Desas.[11]

Following the same policies as the Desa Program, it encounter problems similar to those mentioned for the Village Subsi Program. Part of the strategy of both programs was that t individual projects should supplement, and not complement, o another. In other words, each project should be a unit in itself a not be dependent on or a part of other projects.

The most recent development in the rural program of Indonesia the revival and strengthening of the village cooperatives which h been neglected since the coup in 1965. The rice self sufficien program, called BIMAS, is perhaps the program most publiciz outside Indonesia. It was a short-term impact project with rath disappointing results.[12] Besides the poor loan repayment, the proje has been criticized especially for dealing mainly with comparative well-to-do farmers who benefited most from the public irrigati system, the availability of institutional credit, the improved access input and product markets. This has widened the income g between the BIMAS farmers and the majority of their compatriots the rain-fed areas.

Rural development in the Philippines is a package of loose coordinated components conceived and planned at different poin in time by different government agencies, and in some way

[11] Y.B. de Wit, "The Kabupaten Program," *Bulletin of Indonesian Econom Studies*, Vol. IX, No. 1, March 1973, pp. 65-85.

[12] Rural Development Panel Seminar, September 18-20, 1972, SEADA Report, New York: The Asia Society, p. 7.

another made to fit together in the country's recent socio-economic programs. The rallying point of rural development in the Philippines today, however, is the Samahang Nayon (SN). The SN is a simple village-level organization governed by cooperative principles and practices which perform mainly educational, social, and cultural functions. It is the basis of the new cooperative system.[13] The program is under the auspices of the Department of Local Government and Community Development (DLGCD). The staff of the abolished community development agencies which the DLGCD replaced, together with the field personnel of the Bureau of Agricultural Extension, the school teachers in the rural areas, the field personnel of the Department of Agrarian Reform and a number of newly recruited and trained fieldworkers, are in charge of the organization and development of the SN.

The SN is conceived to be the channel through which vital services in technology, financing and marketing will eventually be brought to the small farmers.[14] The policy goal of the SN is to reduce income inequalities by replacing the existing exploitative structures and institutions of middlemen, private money lenders and landlords. The program is in its second year and not much can be said yet about its effects on rural life in the Philippines.

BIMAS-type commodity programs have also been adopted in the Philippines, the more important of which are the Masagana 99 and the Masagana Maisan. The main function of these short-term crash programs is the distribution of loans at easy terms. As in the Indonesian case, the results after two years of operation have not been as expected, especially in the poor repayment of the crop-loans.

From our preliminary review we have come to the conclusion that very limited research has been done prior to the planning of the various macro rural programs in Southeast Asian countries. Goals and policies set forth by governments sometimes seem incompatible with one another. For example, policywise self-reliance and active participation of the rural people is encouraged. On the other hand, it

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[13] Terso, Jr. and E. Clemente, "The New Philippine Cooperatives Development Program," paper presented at the Afro-Asian Rural Reconstruction Organization Conference (February 24-March 3, 1975, Philippines), p. 17.

[14] *The Philippine Community Development Program* (Department of Local Government and Community Development, Bureau of Community Development, 1974), p. 67 with charts and photographs.

has been observed that self-reliance and active participation of people could be promoted only through strong grassroots-ba people's organizations.[15] However, their promotion is conside undesirable because of the possible harmful effects on the polit status quo.

Problems and Gaps in our Knowledge of Rural Development

Many questions and issues emerge in surveying the present state knowledge, as is to be expected in any complex and broad area s as rural development research in Southeast Asia. Like business cy research at the time W.C. Mitchell started his work, even agreement on the *definition* of rural development is not discerni in the literature and the interviews. Studies on the above which be with a discussion of definitions stress the word "integrate referring to some kind of a package of programs, projects, and th inputs. The economists usually have in mind a package of inp (including institutions and technology) for a program of agricultu development. The non-economists think of integration as a mu bigger package of programs — development of health, education, a institutions, as in the case of James Yen's rural reconstructi movement. Nevertheless, not just any program (for example, pub works) for rural areas is sufficient. The word development integrated rural development, connoting the goal of sustaine long-term rural changes rather than transitional changes, will rule o programs such as the BIMAS in Indonesia and Masagana 99 in t Philippines which are intended to increase employment, or cer production up to self-sufficiency. And some of the land resettleme schemes of Malaysia, the Thai Northeast insurgency program and t past Indonesian transmigration and Kabupaten programs probab are not good examples of integrated rural development schemes.

There is no point in attempting to do research on the definition rural development at this early stage in our experience. It took W. Mitchell and the NBER three or four decades of research befo Mitchell was able to identify business cycles, isolating them fro short-term reasonal and stochastic movements, and from long-ter trends (growth). Even then, the identification was not complete, can be seen in the acceptance of long-cycles or Kuznets cycles whic

[15] Antonio L. Ledesma, Angelita Y. Ledesma (ed.) *Dialogue with Asi Rural Man: A Report of the Development of Human Resources in Rural A Workshop* (DHRRAW), Bureau of Asian Affairs, Thailand, August 4-25, 197

are neither trends nor business cycles. For present purposes, we may have to be satisfied with a definition of integrated rural development (IRD) as schemes with some kind of a package intended to bring about sustained, long-term changes in the rural areas, leaving the broader term, rural development, to refer to all kinds of programs (short-run, unpackaged, etc.).

To bring some order in thinking about the limitations in our knowledge, we need a framework for classifying the various problems and issues in IRD research. The goals of development will be thought of not only as the rapid growth and fair distribution of rural incomes but also as the broadening of educational, health, and political opportunities. The reasons for starting with this broader definition of IRD are heuristic: (1) it may be that per capita rural incomes in Southeast Asia are so low that whatever their distribution, opportunities for education and health may be severely limited; (2) a bigger package of programs may be suitable at the outset to study the strength of interrelationships between the outputs and inputs within and between each program and its various projects; and (3) in order that sequences, timing, and priorities within one geographical area and within one stage or planning period (say five years) can be studied. It is within the context of this framework of definitions and concepts that we propose to proceed with the discussion of research areas. The entire IRD package is conceived of as comprising three or four programs, with each program containing specific projects and goals (i.e., outputs) with inputs (including technology and institutions), these outputs and inputs interacting not only between projects within each program but also between projects and programs, during specified periods of time. Thus, since each program has more than one project and more than one goal (or outputs, e.g., rice, corn, fish, vegetables, handicrafts in the income program, and better nutrition, family planning, sanitation, etc. in the health program), there is not one equation in each program but several, and the interrelations are complex.

The first set of problems suggested by this framework is the identification and selection of the projects and their various goals, inputs, interactions, sequential ordering, time and place coverage. But so little is known about rural development processes, that not much can be said. Many of the persons interviewed by us felt that all these problems cannot be solved until we know much more about the detailed process of change in each aspect of life in the villages and linkages in the processes among different programs and projects

(1, 2, 3). How do we go about learning something about the proc of change? Before we can comprehend the whole, we need to kn the process of change in the various projects and programs.

An often cited cause for the failure of rural development progra is the indifference or lack of interest of peasants either participating in specific projects in the programs to increase incom knowledge, health or in decision-making.[16] Even if a project started, there is retrogression, relapse, backsliding. What is t indifference due to? Various reasons have been given: wro programs, poor designing and implementation; lack of appropri technology and institutions; inadequate resources (e.g., infrastruct construction) allocated for the program; the power of ves interests opposed to the program; ignorance, superstition, lack skills of the peasants, laziness, lack of energy (due to malnutriti and sickness), lack of motivation, etc. More specific pinpointing the reasons for indifference and disinterest is needed for pol decisions.

We know more about projects to increase incomes of peasants, higher yields per hectare, or multiple-cropping, diversification w secondary crops and inter-cropping, by home industries, home- gardening, by side-occupations such as poultry, piggery, fishing, a off-farm employment. The major constraints to raising incomes said to be lack of technologies, lack of systems of diffusing known technologies, lack of skills and training, lack of capital credit), shortage of water resources, absence of appropriate syste of purchasing inputs and selling outputs (prices, markets, infrastr tures, etc.)

Agricultural economists discuss ways of overcoming these de ciencies and constraints under topics such as systems of experime stations, extension agency, multi-purpose farmers associations a cooperatives for credit, marketing and water management. Talks wi IRRI economists, Barker (4), Hayami (5), Herdt (6), reveal a gr deal of dissatisfaction with the functioning of these institutions Southeast Asia. The IRRI economists, concerned with the low yie of HYV's in the field (as compared with yields in their experime fields), feel that a major innovation such as the HYV's (with th

[16] See *Rural Reconstruction and Development, A Manual for Field Worke* International Institute of Rural Reconstruction, Silang, Cavite, Philippin edited by Harry Bayard Price, 1967.

standard package of conventional inputs, to be designated as the HYV standard package) must be modified in almost infinite ways to farm conditions in the localities if high yields are to be obtained. To achieve this, there must be closely coordinated action between the experiment stations in the localities, the extension agent, the individual farmers in their associations, and cooperatives.

There is a need to learn more about why these institutions fail so often in Southeast Asia. Is it that conditions are so different from those in Western countries that drastic modification is needed? Off-hand, the means of communication, transportation, level of education and skills, and per capita incomes appear so poor or low in rural Southeast Asia when compared with the West in the early 1900's that new institutions may have to be devised. But how does one go about systematically researching for new institutions or adapting existing and traditional institutions? Comparative studies and observations of the latter in different areas of various countries of Southeast Asia may help. But after this, what else?

Japanese experience around the turn of the century suggests that Western models must be considerably modified to take into account some of the factors mentioned above: the use of more location-specific experiment stations, of veteran or leading farmers as extension agents, the employment of youths from villages in experiment stations for agricultural education, etc.[17]

Under Asian conditions of small farming units, low levels of education and per capita incomes, poor means of transport and communications, the discovery of new technology, the delivery of information, skills, credit, inputs, etc., are difficult, slow and expensive if these are not carried out through appropriate institutional arrangements. The use of indigenous methods via landlords, moneylenders and traders may be efficient but oppressive and not conducive to the ultimate development of self-reliance and independence of the vast majority of peasants. And without this, these countries can never grow into viable democracies. But how do we go about researching and exploring for institutions appropriate for technologies under existing Asian conditions?

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[17] Takekazu Ogura, ed., *Agricultural Development in Modern Japan*, Chapters 12, 13, 15, 16, 17, Tokyo, 1966. Also Y. Hayami and M. Akiro, "Organization and Productivity of Agricultural Research System in Japan," University of Minnesota, 1973.

Existing institutions appear to have failed to distribute irrigati water in appropriate ways. Is this due to the power structure in t villages? Existing methods of allocating credit have left the sm farmer with insufficient capital to take advantage of new techn logies. Is supervised credit the answer to this problem? If so, h does one get small farmers to repay loans? Why do small farmers f to repay? Is it that their incomes are so low that they cannot rep or is it that their values are so traditional that loans are regarded subsidies not requiring repayments? Sacay (3) points out that know very little of the propensity and ability of small peasants save, or the conditions under which they can or will save. It is n enough to know saving propensities, as in Western research; we ne to know whether different types of compulsory savings schem (e.g., insurance premium payments) can get small farmers to sa without this knowledge, it is difficult to set-up independent cre cooperatives whose assets are to be built-up through savings by t farmer-members and which are regarded by the farmers as their o property.

Will the farmer be willing to raise more crops other than ri during dry seasons and to grow chicken, pigs, goats, etc., beyond h own consumption during his spare time if he is assured of reasonable market for these products? Sacay (3) believes that this a critical issue to be studied. As long as a reasonable market can assured, the peasant will hustle to produce additional crops, getti inputs one way or another (through credit from relatives), save portion of his income for the next year, be willing to learn how raise these crops, etc. It is the uncertainty of market conditio controlled in part by the private traders that makes the peasa unwilling to take risks. If so, will a system of marketing crops in t villages linked with consumer coops in the town and cities be t answer, as Sacay seems to think? This hypothesis is wor investigating. It is not price per se that is involved; if 4 or 5 layers middlemen blow up farm level prices 4 or 5 times, even lo consumer prices with a good marketing system can bring adequa profits. On the other hand, it is asserted that private market trade are extremely efficient in processing and bringing the farmer's pr duct to the consumer. But efficiency may not be the main issue her If private traders have the power to take advantage of supply demand conditions, the short-term fluctuations of the market (e.g seasonal) may be penalizing the farmer unduly as against the trade and the consumers, with detriment to the long-term productio capabilities of the peasants. Sacay (3) believes this to be particular

pertinent to the smaller farmers who are slower in taking advantage of new technologies and new crops than the bigger farmers with their superior training and skills, greater capital resources, better information, better farms, wider connections with officials, etc. It is often the case that by the time the smaller farmer gets into the act, the market is over-supplied and prices are dropping. If so, studies of marketing of non-rice crops and products are badly needed. This may be the key variable in the package, as far as small farmers are concerned. For the big farmers, technology may be the key variable; for the poorest farmer it may be the availability of credit and know-how. Perhaps the interlocking process of change in the package for a given village may be different for different groups of farmers, and for different villages in the various regions of the rural areas. Can we expect it to be the same for villages predominantly subsistent and for those partially subsistent? For villages primarily producing coconuts, or sugar, or vegetables, or tobacco, or rice?

Perhaps for the poorer villages, or poorer farmers in richer villages, the problem is primarily inadequate health and malnutrition. Infectious diseases and inadequate food may be the factors behind the apparent laziness, lethargy, and indifference. But even if they are not, health, like income, is a desirable end in itself. A higher income farmer may be subject to the same intestinal diseases as the poorer farmers if the village water supply is impure. But with the cost of medical services so high, how can an adequate supply of health services be paid for in the villages? Flavier (2) points out that it is not tuberculosis that kills tubercular peasants but the cost of medical injection by doctors. Can villagers pay even for paramedic services or some kind of services of "barefoot" doctors when they repeatedly become ill? Preventive health services are needed in the long run. But do we have technologies cheap enough to detect at the village level impure water, unsanitary toilets, polluted springs, etc.? If not, how do we go about discovering such technologies?

The frequent chronic illness of villagers may also be caused by malnutrition leaving them easily susceptible to diseases. To what extent is malnutrition due to low incomes or to food availabilities, or to ignorance and tradition? Flavier (2) holds that the causes of village malnutrition are not sufficiently known for policy formulation even in the Philippines where nutrition research is most extensive in Southeast Asia. Some types of adult malnutrition may be due to low incomes, e.g. calorie and protein deficiencies. Others may be due to food availability, especially if villagers in mountain areas

are far away from the sea, or, if they live along the sea, far a
from soil for vegetable growing. Moreover, the causes of manutri
may differ for age groups, i.e., adult malnutrition may be due ma
to poverty and infant malnutrition to ignorance and tradition. W
nutritionists emphasize education as a cure for malnutrition,
may be thinking more of infant nutrition. The consumptio
infants is so little that even villages near the sea can grow vegeta
in empty cans, and working mothers can afford to buy the neces
nutrients, if they know the importance of various foods for
growth and future of the infant. But even with well educ
mothers, do they (or we) know the consequences of poor nutritio
whether for infants, children, adults? To what extent is
nutrition interacting with infectious diseases in rural Southeast A
To what extent is poor nutrition in infancy the cause of
performance later in schools, then still later in farms and facto
and to what extent is poor performance attributable to histor
ethnic, religious, social, or genetic forces? Village nutrition rese
methods may have to be drastically changed, if we are to b
making progress on these and other questions.[18]

What role can education and training play in the developmen
villages? Most of the young adults have had the benefit of 4 year
elementary education, at least in the Philippines and Malaysia. H
effective has this education been in raising levels of living in
villages? If ineffective, what has been the trouble? Irrelev
curriculum, poor methods, malnutrition of students, inadequ
teaching, wrong goals and cumbersome administration from
center? For those who are illiterate or near illiterate (and th
comprise the bulk of adults in the labor force even in
Philippines), what should be done? If they want to be educat
how and what should they be taught? Should the older adults
taught literacy skills first and then about the science of farmi
health, nutrition, etc.? Or should instructions be directed to
latter first and then literacy later? Or both simultaneously? W
should be the role of cultural education and other non-for
education in a rural development program?

The role of land reform has been studied mainly in its relation
agricultural productivity. And the conclusion has been that ten

[18] For example, if malnutrition of the pre-school child is only one of
factors responsible for poor school and work performance, shouldn't nutrit
studies be made in a broader frame, taking into account major aspects of c
care in the homes and home management?

productivity is as high as, if not higher than, owner-farmer productivity. But do these studies allow for differences in soil fertility, location, availability to tenants of landlord's credit, equipment, influences and connections, controls, advice, etc.? Shouldn't land reform be also studied in relation to institution building, self-reliance, independence, and in general, the modernization of village life? There appears to be some evidence that in many instances the undue influence of landlords, moneylenders, and traders in rural governments, associations, and cooperatives have prevented the development of these institutions. In the long run these institutions are even more important than dubious cross-section productivity differentials of tenants and owners before land reform, as the comparison of pre- and post-war experiences of Japan and also of Taiwan demonstrates.

With respect to village self-government and independence, what role should the central government play? One school of thought holds that too many controls exercised by the central government will ultimately curb the growth of independent, self-reliant institutions. Another view is that in the beginning the role of government should be a strong one, if only to offset, and hold down the influence of more powerful members of the village community. Granting the latter view, do we know how the influence of the central government can be lessened so that eventually it will act only as a guide and advisor? Is this to be accomplished by forcing peasants to save so that eventually the finances of the institutions will be in the hands of the members, as Sacay (3) has hoped?

The dependence of the villages on the central government is reenforced by the methods of delivering central government services (health, education, training, extension, banking, etc.). There is little coordination in the delivery with each central government department determining when and how and what villages are to be serviced. (The Philippines is trying to integrate about a half dozen extension services attached to various Departments.) This makes for inefficiencies, inconveniences, and ineffectiveness, a mockery of the concept of packaged delivery of inputs for the various programs. Often it is detrimental to IRD. This is a serious problem all over Southeast Asia: how to coordinate and integrate central government services to achieve integrated rural development. A coordination council can be formed but proves usually to be ineffective, as each department vies to be the coordinator. And a development authority

has its difficulties.[19] Are central government departments servicing rural areas unsuited to Asian rural conditions? How can central government be re-organized to be more serviceable to villages? Or is the solution to strengthen village institutions so they will manage the coordination as Sacay points out? [20]

One major drawback is the absence of evaluation studies. Whate studies exist are of uneven quality. There are now attempts to w out more elaborate and systematic benchline studies without wh evaluation studies are difficult. One obstacle faced in evaluat efforts is the lack of consensus about the goals of IRD, especi with respect to the long-run objectives. Also, since IRD is inten to improve living standards in the rural areas in a sustained fash for the long run, a final and definitive evaluation can only conducted a decade or so after the termination of the program. T is too late to be helpful for policy purposes. Some attem therefore, should be made in the evaluation to include questi which will give some indication of the probable permanency of changes in the villages.

Research Suggestions: Need for a New Research Approach

It is easier to talk about gaps in our knowledge than to sugg ways of researching to fill them. Of course some of the issues rais such as peasant savings and marketing, can be investigated conventional procedures. But for the more important issues such the study of the process of changes for determining program project sequence, the attempt to understand the causes of conditions underlying indifference, of retrogression and reversio and most important, the discovery of new institutions and th testing, the conventional research procedures and techniques do suffice.

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[19] See A. Gaitskell in *Agriculture and Economic Development*, JERC, 19 Tokyo, pp. 275-309.

[20] Dr. Orlando Sacay, *Samahang Nayon, A New Concept in Coopera Development*, Manila, 1974; this is the blueprint of the Philippines' r development program, now being applied nation-wide. In a conference in Tai December 1973, on Multiple-Cropping, one of the authors present jokin remarked that Taiwan's rural development succeeded because there was Ministry of Agriculture but instead there was the Joint Commission on R Reconstruction which coordinated the delivery of Government services. But was taken seriously by the participants.

It is only recently that social scientists have become acutely aware of the need for institutional change and their importance in facilitating and modifying technological change. There has been groping for ways of discovering and testing new institutions. One manifestation of this may be the various rural experiments such as Puebla, Comilla, the rural reconstruction institutes (of James Yen), the social laboratories attached to universities, and others. What we may need are institutions comparable to the international and national agricultural research institute and the national and local agricultural experiment stations bringing together many disciplines and facilities for the discovery, experimentation, testing and improving HYV's. We may need to experiment with some form of organization which will raise the efficiency of and speed up the discovery of new institutions and which will increase their effectiveness and also facilitate research on some of the unconventional problems noted previously.

The most interesting model for these purposes is that of the International Institute of Rural Reconstruction (IIRR) at Silang, Cavite, Philippines (and the PRRM). It has the longest history of all the models of IRD and, though judged to have been unsuccessful in its major effort, it has provided valuable insights and discoveries for the formulation of rural development projects in recent years.[2 1] In the Rural Reconstruction model, trained, multipurpose workers live in selected villages assisting peasants with problems of livelihood, education and training, health and family planning, and institution building, backstopped by a staff of specialized technicians. The objective is to try to help the villagers solve their more serious problems, but in the process, new ways, institutions, and organizations for delivering information and know-how to increase incomes, improve literacy, health, and family planning, are tried. The field workers are trained to study carefully every aspect of village life and the backstopping by the technical staff is well coordinated.

An institute like this with a field staff dedicated to improve village life can be the source of a wealth of vital information (impossible to collect by interview surveys). The information is obtained within the

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[2 1] Sacay during his years as vice-president of IIRR, appears to have worked out his ideas on village associations, credit unions, etc., which are discussed in his recent book, *Samahang Nayon, A New Concept in Cooperative Development, op. cit.* See also *Rural Reconstruction and Development, op. cit.*, and Juan Flavier, *Doctor to the Barrios*, 1970, Manila.

context of other forces and conditions so that the interrelations the process of change can be learned. The staff of technicians a professionals in consultation with the field workers and the villag then attempt to devise ways of solving the problems, even to extent of devising simpler technologies as in the case of public hea problems.[22] But the Institute does not emphasize research, exc what is called operational research.

In the search for new technologies experiment stations and labo tories are useful, but in the search for new knowledge about peas behavior and new institutions, experimental village families laboratory villages cannot be used since experiments in human a social behavior are of limited value. It has been found that nutrition surveys, families whose food intake is being measured be to change their consumption behavior. To be useful for social scie research, rural development organizations must be dedicated improve village life. Thus, it must have two sets of workers — one of action-oriented field workers in the villages who get to kn intimately life in the villages as they go about helping villagers, a another set of more research-oriented and technically trained fi workers whose job it is to gain more knowledge about villa problems and search for solutions. The problems tackled should beyond operational ones into some of the broader issues no above. The two groups will have to work closely together; and th may emerge a new type of research scholar with a great deal of fi and implementing experience.

To learn more about rural development organizations m suitable for research, a study may be conducted of villages wh field workers have been stationed by the IIRR and the Philippi Rural Reconstruction Movement in Cavite and in Nueva Ec (about 100 villages). Perhaps the villages can be classified into 3 o groups (in consultation with the professional staff), those which h progressed very well, those which have progressed moderately, th making very little progress and those retrogressing under the ru reconstruction program. These villages can then be intensiv studied on the basis of the records of the field workers, a consultations with them. Hypotheses with respect to the reasons

[22] Dr. Juan Flavier and his staff of health specialists have been able to dev sanitary toilets which the villagers can build for themselves and now have co up with inexpensive instruments to measure the degree of impurity of wa used by villagers.

the differential progress can then be set up, together with descriptions of the processes involved. These can then be checked with the field workers, and by interviews with villagers. What is implicitly being tested all along will be the strength and limitations of the rural reconstruction model as a source of knowledge on rural development and a method of discovering new institutions. The study may then reveal how best to organize rural development organization and research.

Sample surveys, especially nation-wide ones, cannot collect information and data necessary for the study of processes of village change and the linkages among these processes. The reason is that some of the important inputs are not quantifiable and those that can be measured have important qualitative dimensions. For example, in the case of rice production, the skill of the peasant in modifying the recommended package of inputs, the availability of water at the right time, the timing of fertilizer application, the extent of weeding, market information, etc., are difficult to approximate with any kind of proxy obtained from the usual surveys. Moreover, because of the strong interrelations among the inputs and their quantities and qualities, not to speak of non-quantifiable factors, the interactions can not be neglected. Regression analysis is, therefore, of limited value. To get at these for the study of processes and sequences, a micro-approach interweaving data at the village level, interviews with field workers and villagers, and observation must be resorted to. This approach may be useful for the investigation of problems such as peasant indifference in which non-quantifiable forces dominate (e.g., values and attitudes, ignorance, sub-clinical malnutrition, the degree of effectiveness of institutions, etc.).[2 3]

Macro research can be valuable for the study of development. The conventional types of surveys (agricultural censuses, household surveys of income expenditures, labor force, food consumption, all originating in the West) are not sufficient. A project to study the feasibility of new types of comprehensive surveys useful for rural development should include a survey of the social, economic, and natural characteristics of villages; the objectives are to generate benchline data for macro-evaluation studies and to make possible a typology or classification of villages and regions of the country.

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[3] All this implies that the answers are not going to be precise, nothing like measured parameters. But it is better to go after rough results than try for precise ones which may not exist in real life.

Rural areas vary a great deal, in income, in ethnic origin, in natu resources, in patterns of economic activity (e.g., in the Philippi predominantly rice-producing, or sugar-producing, or coco producing, or tobacco-producing, or fishing villages, etc.). Anot type of survey to be explored is one that attempts to collect data rural institutions and organizations, with the aim of measuring t effectiveness and efficiencies. A third type of survey to be studie one that attempts to collect information on needs, values, attitud expectations, etc., of villagers.

Rural development projects have raised the importance of eva tion research. An evaluation of some of the better rural developm evaluation studies, including a collection and analysis of questi naires and procedures used will be helpful in improving fut evaluation methods of rural development projects. We have impression that evaluation research needs to be developed m more than in the past.

Finally, valuable insights may be obtained from studies countries where rural development has been successful. These Japan, Taiwan, and perhaps Communist China in East Asia. The c of Japan is particularly interesting. To what extent did n technologies not only in agriculture but also in health, transport, a mass media play their part, and to what extent education, hea institutions, etc.? These studies should be historical, with part pation by a group of disciplines, not excluding social anthropo gists.[24]

Concluding Remarks

Integrated rural development appears to be a new movement w only a few roots in the past. There is much that we do not kn about it, and much needs to be known as soon as governm clamors for more guidance. Standard and conventional surveys not seem to be sufficient for studying IRD, partly because t problems to be investigated and the subject and object of resea are quite different. If the challenges are met by social scientists, ru development research may open new vistas in social science resear

[24] See studies by Chie Nakane for the light anthropological techniques c shed in comprehending rural social institutions: *Kinship and Econo Organization in Rural Japan*, London School of Economics, 1967; Garo a Khasi, *A Comparative Study in Matrilineal Systems*, The Hague, 1967; a *Japanese Society*, Penguin Books, 1970.

methodology and in procedures. The research must be cooperative with participation by a broad group of specialists, and if it turns out that the various aspects of rural life are closely integrated, the social sciences themselves may have to become integrated in order to study rural development. A new type of social science scholar may emerge whose training may have to include much field work and whose goal is less the publication of learned volumes and more the building of new institutions. (For an illustration, see Sacay's book, *Samahang Nayon*, *op. cit.*)

APPENDIX

List of Persons Interviewed

(1) Dr. Robert Evenson
Agricultural Development Council, New York
International Rice Research Institute, Los Baños, Philippin

(2) Dr. Juan Flavier
President
International Institute of Rural Reconstruction
Silang, Cavite, Philippines

(3) Dr. Orlando Sacay
Undersecretary of Cooperatives
Department of Local Government and Community Devel
ment
Quezon City, Philippines

(4) Dr. Randolph Barker
Chief, Agricultural Economics
International Rice Research Institute, Los Baños, Philippin

(5) Dr. Yuhiro Hayami
Associate Professor of Agricultural Economics
University of Tokyo
Agricultural Economist
International Rice Research Institute, Los Baños, Philippin

(6) Dr. Robert Herdt
Agricultural Economist
International Rice Research Institute, Los Baños, Philippin

(7) Dr. Sam-Chung Hsieh
Agricultural Economist, Director of Projects
Asian Development Bank, Philippines

(8) Dr. J.K. Chang
Economist, Director of Research
Asian Development Bank, Philippines

(9) Dr. R.W. Roskelly
Head, Livelihood Group
International Institute of Rural Reconstruction
Silang, Cavite, Philippines

(10) Dr. Sotero L. Lasap, Jr.
Project Coordinator
UPLBCA/SEARCA Social Laboratory, College, Laguna,
Philippines

(11) Dr. P.R. Sandoval
Professor of Agricultural Economics
University of the Philippines College of Agriculture,
Los Baños, Philippines

(12) Dr. N.R. Deomampo
Chairman, Dept. of Agricultural Economics
University of the Philippines College of Agriculture
Los Baños, Philippines

(13) Dr. Frank Lynch, S.J.
Director, Institute of Philippine Culture
Loyola Heights, Quezon City, Philippines

(14) Dr. Joel Rocamora
Institute of Asian Studies/Institute of Advanced Studies
University of the Philippines
Quezon City, Philippines

(15) Dr. H.C. Chen
Head Research
International Institute of Rural Reconstruction
Silang, Cavite, Philippines

(16) Atty. F. Claudio
Head, Self-Government Group
International Institute of Rural Reconstruction
Silang, Cavite, Philippines

(17) Mr. D. Cabacungan
Head, Education Group
International Institute of Rural Reconstruction
Silang, Cavite, Philippines

(18) Dr. J.R. Martinez
Training Director
Philippine Rural Reconstruction Movement
Gapan, Nueva Ecija, Philippines