COLLECTIVE ACTIONS AND RURAL ORGANIZATIONS IN A PEASANT ECONOMY IN INDONESIA

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I. INTRODUCTION

In peasant societies in Asia, especially in marginal areas, community members are subsistence oriented to some extent. Farmers persist in planting rice for home consumption, even though their farming environment is not suitable for rice cultivation. This, however, does not always mean that they are subsistence farmers in terms of their production and living standards.¹ Peasants who are completely isolated from markets and allocate resources only for subsistence without regard to price signals [10] are very rare today in Asia. Even in remote villages, peasants are integrated with the market economy to the extent that market prices determine their farming decisions, just as they determine the decisions of modern business entrepreneurs [20]. In most cases, markets for farm produce, especially for most upland crops, are highly commercialized, even if the crops are planted in very small amounts by small farmers.

However, this does not mean the farmers always rely on market transactions in their farm operations, because their activities are interdependent on other members of the same community. They often cooperate in farm operations to internalize production externalities, such as coordination in the distribution of irrigation water. They also take collective action to supply public goods essential for the security and welfare of the community members, because the market, especially for some resources such as labor and capital, remains underdeveloped. In a small rural community which comprises small farm producers the potential market size is too small for specialized agents to engage profitably in the marketing of various goods and services [20, p. 14]. Labor and farm equipment are often exchanged without relying on a market transaction. Thus, transactions are done reciprocally within small groups of neighbors and relatives and scarce capital is mobilized within a community without relying on a formal financial market. In

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¹ The term "subsistence" is often ambiguous and confusing. See [32] for conceptual issues of this term.

this respect a community is not only a place where people live, but it provides a cooperative and mutually dependent production system of traditional agriculture.

The purpose of this paper is to identify characteristics of rural organizations and group activities at the village level and examine the underlying factors which affect farmers' participation in group activities. The analysis is further extended to investigate the conditions of group organization and how collective action is undertaken by village members. This study is based on a field survey of a rain-fed lowland village in West Java, Indonesia.² In the next section social, economic, and agronomic conditions of the study site are summarized. Section III describes the structure and function of various rural organizations and groups in the village. Section IV investigates traditional mutual help activity (gotong royong) and explores the nature of this type of collective action in a rural community. Section V summarizes the major findings.

II. CHARACTERISTICS OF THE STUDY SITE

The study site³ is a typical village in the Sunda region, located in the district (kabupaten) of Majalengka in West Java, Indonesia (Figure 1). This village is hereafter referred to as the study village.

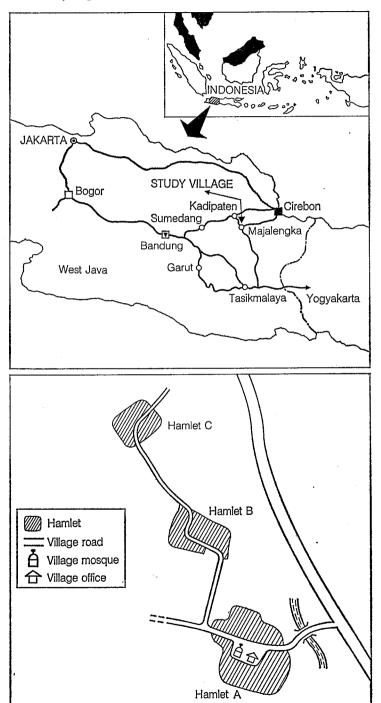
The study village is connected by about 5 km of paved road to the highway, connecting Bandung, the capital of the West Java province, to Cirebon, one of the major ports in this region. The village is also connected by about 6 km of road to the town of Majalengka, the district capital. The study village is on a slightly hilly plateau, 70 to 100 m above sea level. A major area of the village consists of gradually undulating rice terraces. The houses are clustered in three hamlets (kampung). A map of the village is also shown in Figure 1. The first hamlet from the main road is the largest with 186 households (Hamlet A) and the village office and the main village mosque are located at the center. An unpaved village road passes through this hamlet to the second hamlet of 117 households (Hamlet B), and continues on to the third hamlet of 100 households (Hamlet C) which is isolated from the first two hamlets.

Almost all inhabitants in the study village are Sundanese and practicing Moslems. Sundanese, the regional language of West Java, is used as daily communication. The total population in 1988 was 1,710 persons in 403 households. Farming is the main occupation of the majority of household heads with as many as 90 per cent of the 403 households engaged in farming, while another 10 per cent make a nonfarm living as traders, government employees, teachers, etc. There is no nonfarm industry in the village, and although there are several local brick or roof-tile factories in the neighboring villages, they provide few job opportunities for the village members. Farm produce is rarely processed at the farm household level, but sold directly through village-based traders. This contrasts with an upland

² The field survey was conducted from January to July 1989. See [21] for more details of the project activities.

³ See [21] for more details of the study site.

Fig. 1. Location and Map of the Study Village in the Majalengka District of West Java



village in Garut, where processing activities of farm produce are extensively performed at the village level [19].

Although data are not available to estimate changes in the natural growth of population for the past several decades, a deceleration in the population growth rate seems to have occurred. During the past three years, fifty-five births and thirty-six deaths were recorded, from which the natural growth rate of the population can be calculated as 0.4 per cent per year. Population increase by immigration also seems to be limited. During the same period, only nine persons settled in the village while nineteen persons left. As a result, only nine persons have been added to the total population of the village during the past three years. Besides these changes recorded in the village statistics, the younger generation seeks employment in urban areas, such as Bandung and Jakarta, working mostly in the urban informal sector. Although the population growth has decelerated, the population density in the village still stands at 13.5 persons per hectare of farmland and the population pressure on land is placing severe constraints on resource endowments in this village. These demographic conditions of high population density and limited immigration to the village indicate that the village members are closely connected by locational affinity.

According to the village statistics, there are 290 ha of arable land in the village, of which 61 per cent is used for lowland agriculture. Since the greater part of the lowland is under rain-fed conditions, rice is planted only once a year and traditional upland crops, such as soybeans, corn and cassava, or vegetables are planted in the lowland during the dry season when there is insufficient water for growing rice. However, the most popular pattern in this area is a combination of rice followed by soybeans in monoculture. In the uplands, soybean, corn and cassava, or vegetables are widely planted.

The farmland owned by a farm household is very small, averaging only 0.28 ha. Half of the farmers have less than 0.2 ha of farmland, while only 5 per cent of the farmers own more than 1 ha. Operational farm sizes are slightly larger than the owned areas but are still only 0.35 ha on the average. Nearly 80 per cent of the farmers cultivate less than 0.5 ha of farmland. Most of the farmers in this village are owner cultivators. Among the farm households, more than 90 per cent own farmland. Among them 64 per cent of the farmers cultivate only their own land; another 27 per cent cultivate their own land as well as leasing land from neighboring farmers. Tenant farmers are relatively rare in this village with only 9 per cent of the householders having no farmland and cultivating leased land as tenant farmers.

Landless laborer households are rare in this village. This contrasts with the irrigated lowland areas where half of the households are landless laborers. Absentee landlords are also rare. Although nearly half of the lowland in this village is owned by non-village members, most of them are farmers in the neighboring villages who cultivate their land themselves. The farmers in this village also own

⁴ A village in a neighboring subdistrict and only 10 km distance from the study village, where the lowland is fully irrigated, as many as 50 per cent of the households in the village are landless laborers.

land beyond the village boundary. This complex distribution of land holdings is due to the local administrative unit of the village which was divided into two village units some years ago.

III. ORGANIZATIONS AND GROUPS IN THE VILLAGE

Many economic as well as noneconomic activities in a village are carried out not only by individual villagers but also collectively by village members. There has been a long tradition of collective action, called gotong royong in Indonesia. Gotong royong (literally, "mutual help") is cooperative work among neighbors. Help is offered reciprocally in such cases as house raising, weddings, funerals, etc. Public works in the community, such as the repair of roads, bridges, or mosques are undertaken as collective actions. Villagers often form a group to achieve individual interests. These collective activities are carried out through formal and informal organizations and groups. Some institutions carry out purely economic activities while others carry out noneconomic activities. Some groups have flexible membership. Other groups may have limited or even exclusive membership.

In this section characteristics of rural organizations and group activities in the village are outlined. This is followed by a detailed investigation of the activities and functions of three major institutions; two are official organizations: farmers' groups (kelompok tani) and women's clubs (PKK), and the third is a privately organized group activity carried out by rotating credit associations (arisan).

A. Rural Organizations and Group Activities

There are various types of organizations and groups in the study village. Some organizations are established and authorized by the government, while others are formed privately by villagers. There are many variations in structure, rules, purpose, and membership. Examples of typical rural organizations in Indonesia, authorized and supported by the government, are farmers' groups (kelompok tani), women's clubs (PKK), youth societies (karang taruna), and village unit cooperatives (KUD). The administrative unit of the village (desa)⁶ may be interpreted as one of the officially established institutions because collective actions for public works are undertaken by the members of the unit, i.e., village members. There are also private groups in the village which do not have any written rules and the members interact together through tacit understanding. The most popular group activities in Indonesia are rotating credit associations, called arisan. Village members also form groups for amusement or self-improvement. Pengajian, a study group for Islam, pencak silat, a dancing club, are examples of these types of activities in the study village.

These groups and organizations may be classified according to their purposes and functions. It is useful to separate groups involved in economic activities from those for noneconomic activities. The groups of economic activities can be further

⁵ PKK is an acronym of pendidikan kesejahteraan keluarga, which means "family welfare and education."

⁶ For details of the organization of a village administrative unit, see [4].

	TABLE I			
Major Organizations and	GROUPS IN	THE STUDY	VILLAGE,	1989

	Formal (Officially Organized)	Informal (Privately Organized)
Economic activities:		
for public goods	Village administrative unit (desa) ^a	_
for private goods	Farmers' groups (kelompok tani)	Rotating credit association (arisan)
	Village unit cooperatives (KUD)	Mutual help (gotong royong)
Noneconomic activities:	Women's club (PKK)	Study group for Islam (pengajian)
	Youth society (karang taruna)	Dancing club (pencak silat)

^a Community works (kerja bakti) are done under the control of village administrative units (desa).

classified into two categories, those for public purposes and those for private purposes. Major organizations and groups in the study village are categorized in Table I.

Groups of economic activities for public purposes aim to provide "public goods" to the community, or more broadly aim to attain national policy targets. At the village level public works, such as village road, bridge, or mosque construction and repair cannot be supplied as a consequence of individual transaction by the villagers through the market. Instead, they must be provided by public institutions or by collective action of the beneficiaries. In this case, all the members in the community would be better off if they had common interests, and if the objectives of the group were achieved. However, it does not necessarily mean that they would act to achieve the group interests. Individuals often have few incentives to act for group objectives if they can acquire benefit as a consequence of others' collective action. If such opportunistic (i.e., free ride) behavior is pervasive among members, groups would not be viable and the welfare of individual members would suffer, and the situation of each individual would be worse than the situation where all cooperated. This is a condition known as the "prisoners' dilemma" [24].

Thus, in order to attain group interests, communities need some system which enables the members to achieve their common interest. In peasant societies, especially in tightly structured and demographically stable communities, cooperative action tends to be done more easily than in modern societies. "Free ride" behavior tends to be rare because villagers live together and interact repeatedly in their daily lives. In order to maximize expected utility in the long run, every member of the community needs to behave as a good Samaritan. In their daily lives, as described by moral economists, they behave as well-to-do villagers who "avoid malicious gossip only at the price of an exaggerated generosity" [28, p. 41].

However, we do not necessarily assume they are true altruists. As described by Popkin, even if we assume rational peasants who are egoistic and primarily concerned with self-interest [26, p. 31], it does not contradict their apparently altruistic behavior [16]. Egoists can have incentive to act as if they were altruists in order to maximize their expected utility [6].

In this respect peasant societies have a system which mitigates against the threat of free riders, although they cannot avoid the problem fully. Collective actions can be well organized because the advantage of non-market institutions is larger than that of the market which is underdeveloped and thus characterized by high transaction costs. For example, a villagers may prefer to employ neighbors under their mutual-help relations rather than employ outsiders through the labor market even if the nominal wage rates for the former are higher, because the cost of supervision to prevent shirking may be lower for the neighbors. "Thus, to conform to village norms and institutions can be an efficient way to economize on the cost of policing and enforcement" [16, p. 31].

Community works (kerja bakti), often referred to as gotong royong in the broad sense, are typical activities which fall into this category, i.e., economic activities for public purposes. Village members work together doing minor public works in the community under the control of the village authorities. Activities are designed by political leaders "to be consistent with traditional norms and to appeal to villagers for cooperation on the grounds of traditional moral principles" [20, p. 36] for mutual help.

Although private goods can be acquired through market transactions by individual members of a society, collective action is often taken to seek the self-interest of the members. Benefits of scale economies may be attained if the action is taken collectively. In other words, group activities are likely to be undertaken, if joint use of inputs, including labor services, yield a larger output than the sum of the products of the separately used inputs [3]. Transaction costs may be saved among the economic agents through collective action [11]. In these circumstances, collective action rather than individual action would attain more benefit for each participant. Examples of group economic activities for private purposes in the village are farmers' groups and rotating credit associations. Farmers' groups (kelompok tani) are official groups established by the government as channels for diffusing improved technologies to farmers. Although we have classified kelompok tani as private purpose groups at the village level, they also has a public aspect at the national level. Village unit cooperatives (KUD, koperasi unit desa) are also officially supported groups for private purposes. A KUD in the sub-district (kecamatan) where the study village belongs carries out several activities, such as the procurement of rice, the purchasing and distribution of fertilizer and chemicals, etc.7 However, no one in the study village now participates in the activities of the KUD.8 Rice, fertilizer, and chemicals are now always traded through private

⁷ There are many studies which discuss the function of KUD. See, for example, [23] [29].

⁸ Under the BIMAS program, credit was provided through KUD. At that time twelve farmers in the study village, mostly village officials and large farmers, had joined KUD to receive credit.

TABLE II
DISTRIBUTION OF THE MEMBERS OF THE FARMERS' GROUPS
(Kelompok Tani) in the Study Village, 1989

		Study Village		F 6	
Farmers' Groups	Hamlet A	Hamlet B	Hamlet C	Farmers from Other Villages	Total
No. 1	22	6	1	4	33
2	13	8	5	6	32
3	13	0	0	25	38
4	17	6	4	16	43
5	5	7	2	21	35
6	42	23	0	7	72
7	26	21	10	0	57
8	24	0	0	3	27
9	0	9	19	0	28
10	21	8	2	0	31

marketing channels. The villagers have realized that there is no economic benefit in the KUD. Unlike these officially supported institutions, rotating credit associations (arisan) are typical informal groups for private purposes.

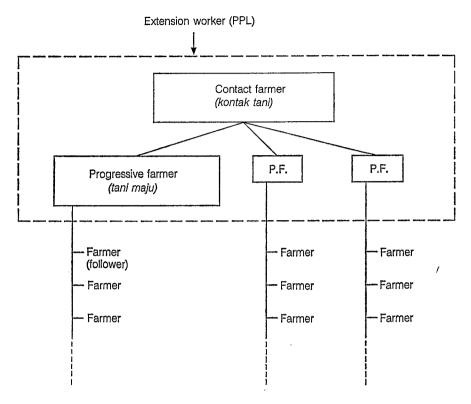
There are also various groups of noneconomic activities in the village. The most popular group activities are women's clubs (PKK) and youth societies (karang taruna) which were established by the government to carry on non-pecuniary social welfare in local communities. Privately organized noneconomic groups are more varied in purpose and organization. A study group for Islam (pengajian) and a dancing club (pencak silat) are found in the study village (Table II).

B. Farmers' Groups (Kelompok Tani)

The farmers' groups (kelompok tani) were first introduced in 1968 under the BIMAS program as a channel for extension services. Under this program extension workers (PPL, penyuluh pertanian lapangan) contact farmers and provide guidance on improved technologies. At one time improved technologies, fertilizer, chemicals, and seed were provided as a package through the kelompok tani. At that time most of the farmers' groups were organized on a hamlet basis (kelompok rumahtangga) and extension workers provided guidance to farmers at the hamlet level without any instructions or demonstrations in the field. In 1975 the extension system was modified and farmers were able to receive such guidance in the field.9 To enable the farmers to receive such guidance, the organization of the kelompok tani was rearranged into groups based on blocks of farmland (kelompok hampiran). Thus the members of a kelompok tani were reorganized into groups of farmers who cultivate paddy fields in the same area as the block of farmland and work under similar farming conditions.

⁹ At the same time, a training system for extension workers has been started. This training system together with guidance for farmers in the field is called the LAKU (*latihan dan kunjungan*) system.

Fig. 2. The Organization of a Farmers' Group (Kelompok Tani) in Indonesia



Farmers within a kelompok tani are organized hierarchically (Figure 2), and an extension worker works through an kontak tani (a contact farmer) whom the extension worker contacts and advises. Under the kontak tani several farmers are nominated as intermediaries to act as channels to the rest of the farmers in the kelompok tani. These intermediaries are called tani maju (progressive farmers). All other farmers in the block are regarded as members of the kelompok tani. In the study village, the farmers' group was introduced in 1980 and reorganized in 1987. At present lowland in the village is divided into ten blocks and each kelompok tani is assigned to one block of the farmland. In the upland no kelompok tani has been established. Thus there are ten contact farmers (kontak tani) in the study village. They were nominated by the extension worker, who also covers a neighboring village, in consultation with the village officials. Each group comprises around thirty to seventy farmers, and within each group three to thirteen farmers were nominated as progressive farmers (tani maju) by the extension worker and the kontak tani.

TABLE III

NUMBER OF STEERING COMMITTEE MEMBERS OF THE PKK BY

OCCUPATION, STUDY VILLAGE, 1989

Occupation	No.	Occupation of Spouse	No.
Housewives	17		
		Officials	9
		Teachers	3
	•	Farmers	2
		Traders	3
Teachers	3		
Traders	1		
Total	21	***************************************	

The extension worker visits the village several times a week and consults with the village officials. Then he/she visits the *kelompok tani*'s field, assembles the farmers who are working and gives them oral guidance. Although the contact farmer and all progressive farmers are requested to join these guidance sessions, they do not always participate. In this village only 20–30 per cent of the member farmers gather for guidance, except during the period of land preparation when 60–70 per cent of the members participate because most of the farmers are usually working in their fields during this peak period.

As shown in Table II the members of a group are scattered around several hamlets and other villages since the organization of a kelompok tani is based on a block of farmland and not on a residential area of the village. This type of organization may be an efficient extension channel for providing guidance in the field; however collective action can be hard to organize because the member farmers are widely scattered over hamlets and villages and hard to contact (i.e., the decision-making processes and enforcement can be costly). A lack of interest among the members, exemplified by the low rate of participation in the guidance sessions, may reflect these difficulties within the group activity. According to our survey, of fifty-one sample farmers who cultivate fields in the lowland, only twenty-nine of them answered that they are members of the kelompok tani. It appears that many farmers do not recognize their kelompok tani as a worthwhile group to join.

In order to assure member participation in collective action, large groups often have complex means for coercing participation by providing benefits [25]. The kelompok tani may be interpreted as organization which works to implement national programs while providing benefits to farmers, such as information on improved technologies, as a device to coerce them into participating. However, in the study village, the information extension workers provide to farmers is limited to rice and soybean technology. As most farmers have already attained the recommended level of current input application for these crops, there is no attraction for farmers to participate in the activities of the kelompok tani.

C. Women's Clubs (PKK)

Women's clubs, popularly called the PKK, are officially supported organizations under the Ministry of Home Affairs for improving the social welfare and status of women in local communities. One PKK usually covers an entire village and all women in the village above the age of seventeen are obliged to be members. The women who are government officials themselves or wives of such officials are obliged to join the PKK and work as members of the steering committee. The steering committee plays an important role in decision-making and implementing of PKK activities. In the study village the steering committee has twenty-one members (Table III), seventeen of them are housewives whose husbands are mostly officials and three are teachers at the elementary schools in the village. With fifteen of the twenty-one steering committee members obliged to participate, there would seem to be little room for the group to be flexible in organizing its leadership.

The executive members of a PKK, such as the secretary, treasurer, and chiefs of programs, are elected from the steering committee. The government automatically nominates the wife of the village head as the head of the PKK. The steering committee has regular meetings in order to implement the work programs. Although the work programs are decided at the meetings, they follow the guidelines given by the government and must be approved by the village committee. In the study village, steering committee meetings were held eight times during 1988 and about 75 per cent of the members participated in each meeting.

The major activities of the PKK in the study village are listed in Table IV. The working programs can be classified into two categories, official programs and autonomous activities. The official programs are directed by government policy and are related to welfare work for women and infants, such as preventive inoculations for babies and medical checkups for pregnant women. Most members participate in these activities.

Another important activity is the credit program for women. The government provides a subsidy of Rp 100,000 annually to the PKK which is used to provide credit to members. Most of the borrowers are petty traders and the money is used as working capital for their trade. Petty trading is the most typical job opportunity for the women in the village. They work as marketing agents, such as bazaar vendors, pedlars, and grocery keepers, while engaging in farming and household chores. This credit system helps women participate in the job market.

Besides these activities directed by the government, the PKK has autonomous activities, such as providing mutual help and credit among the members. For example, PKK collects a spoonful of rice from the members every day and uses this to build up a source for relief work. Five to ten liters of rice can be collected every month which can be made available to members in the case of death or hospitalization. Women also work together periodically to clean the village roads and to help in village wedding ceremonies as is the custom in Indonesia. It is not always apparent which activities are done under the framework of the PKK and which are done as traditional service (gotong royong) in the rural community. Gotong royong will be explained in a later section.

TABLE IV

Major Activities of the Women's Club (PKK) in the Study Village, 1989

Type of Activities	Frequency of Activities	No. of Participants
Official programs:		
Health improvement for women and babies: —measurement of baby weight	Monthly	120 per year
—preventive inoculations—medical examinations for pregnant women		10
-implementation of family planning		50
 Training/extension services: —training for house keeping —extension for family health improvement and 	Monthly	50
family planning	Quarterly	100
3. Credit program:—credit for women's economic activities		10 per years
Autonomous activities:		
 4. Mutual help among women: gotong royong (road cleaning, assisting with cooking at wedding ceremonies) relief work 	Monthly	
5. Mutual financing:—savings groups among members (arisan uang)	Monthly	20

a Number of women who received the credit in 1988.

D. Rotating Credit Associations (Arisan)

In rural communities there are various informal financial institutions for mobilizing scarce capital. These are relied on to such an extent that the formal financial market remains underdeveloped. Villagers ordinarily rely on informal credit such as loans from informal lenders and from traders, or they borrow money from relatives and neighbors. There are also informal credit associations called *arisan* in Indonesia.

Arisan are rotating credit associations and are the most widespread institution for mutual saving. They can be found everywhere in rural and urban Indonesia. Rotating credit associations have a long tradition and are found widely in developing

These informal credit institutions have often been criticized. The prevailing image that informal lenders exploit peasants through usury is so pervasive that the necessity for a rural credit program supported with funds provided by governments is stressed. However, this stereotyped view of usury has been attacked in recent studies [2] [9] [13]. The borrower's costs for acquiring formal loans, such as transportation costs, legal and title fees, and paperwork expenses, can be substantially larger than the nominal interest payments [2]. For example, under the BIMAS program in Indonesia, credit had been provided to farmers, however, the non-formal loans have a lower real cost than the formal loans through the BIMAS program [13, p. 72].

economies of Asia and West Africa, such as the *hui* in Central China and *ho* in Vietnam [14]. In Japan such activity, known as *ko* or *tanomoshi*, was reported in a thirteenth century document [12]. Although there are variations in the rules and functions, the basic principle is remarkably similar.

A lump sum fund composed of fixed contributions from each member of the association is distributed, at fixed intervals and as a whole, to each member of the association in turn.... Whether the fund is in kind or in cash; whether the order the members receive the fund is fixed by lot, by agreement, or by bidding;...and whether the association is composed of urban traders or rural peasants, of men or women, the general structure of the institution is constant" [14, p. 243].

In the study village, several arisan have been organized privately by village members. The system is simple. No interest is calculated. Membership is limited to a small group and no specialized accounting staff exists. Each member of an arisan contributes a fixed amount of cash or paddy at the regular meeting and rotation is determined by lot. One or two members draw the fund, i.e., the sum of contributed money or paddy. If the lot falls to a member once, he/she will not participate in future lots but will continue to contribute until the last member draws the fund and then the arisan is dissolved. Thus each arisan has exclusive membership once it has commenced.¹¹

There are four arisan which are currently running in the village. One is an arisan uang which mobilizes cash, while the other three groups are called arisan padi, which mobilize paddy in kind. Compared with officially organized groups, like the PKK, arisan are small groups having only ten to twenty members. Even the arisan uang, which has the largest memberships in the village, has at most forty members (Table V). Another striking feature is the narrow distribution of membership, as most of the members are close neighbors. In the arisan padi, the members are villagers from only one hamlet, or an even smaller area, such as from one RT¹² unit (See middle section of Table V).

The three arisan padi have similar membership and rules. A meeting is held once a year just after the rice harvest, and each member contributes 100 kg of paddy. Although there is no explicit restriction on membership, most of the members are full-time farmers; nonfarmers are rare (Table VI). They are all household heads and are upper- or middle-class farmers; no small farmers are included. This may be understandable since the average production of paddy per farm in the village is only 807 kg. The contribution of 100 kg of paddy would be too heavy a burden for small farmers. Lots are drawn at the meeting whereby one or two members are selected to draw 600 to 1,000 kg of paddy. The major disposition of the paddy obtained is storage for emergency use or to purchase gold as savings, to purchase raw materials for farming, such as fertilizer or chemicals, or to purchase durable goods. Some farmers used the paddy to pay rent for leased land. These farmers have now expanded their operations in the lowland.

This type of arisan is widely found in West Java [15] [30] and was seen in a Central Javanese Village in the early 1950s [14].

¹² RT (rakun tetangga), which means "neighborhood association," is an administrative unit under a village. Normally each hamlet comprises several RTs.

TABLE V

ROTATING CREDIT ASSOCIATIONS (Arisan) IN
THE STUDY VILLAGE, 1989

	Avisan Ilanos		Arisan Padi ^b	
	Arisan Uanga	No. 1	No. 2	No. 3
No. of members:			,	
Male Female	11 29	22	10	12
Occupation of the group head	Wife of the village head	Full-time farmer	Full-time farmer	Part-time farmer
Location of the group	Hamlet A and B	Hamlet A	One RT in hamlet A	Hamlet B
Contribution	Rp 2,500 /month	100 kg of paddy/year	100 kg of paddy/year	100 kg of paddy/year
No. of winners each	4			2
drawing Amount per winner	1 Rp 100,000	2 1,000 kg	1 1,000 kg	2 600 kg

^a Money savings group.

TABLE VI
OCCUPATIONAL DISTRIBUTION OF THE MEMBERS OF
THE Arisan Padi IN THE STUDY VILLAGE, 1989

		Arisan Padi	
	No. 1	No. 2	No. 3
Farmers:			
Full-time farmers	12	9	7
Part-time farmers	9	1	4
Nonfarmers	1	0	. 1
Total	22	10	12

The characteristics of arisan uang differ from arisan padi in terms of membership and activities. Most of the members are nonfarmers and full-time farmers are rare (Table VII). About 75 per cent of members are women, mostly from part-time or nonfarm households. More than half of the members or spouses of the members are traders. The members are scattered over two hamlets. They have a gathering once a month and each member contributes Rp 2,500 in cash. Then they choose a winner by lot, and the winner draws Rp 100,000 (U.S.\$57) in cash. There is a tacit rule that the members should not ask the winner how she/he uses the fund. However, judging from the fact that many traders are enrolled in the group, the fund is most likely used as working capital for their trading activities.

b Paddy savings group.

¹³ One U.S. dollar was equivalent to 1,750 rupiah in May 1989.

TABLE VII
OCCUPATIONAL DISTRIBUTION OF THE MEMBERS OF
THE Arisan Uang IN THE STUDY VILLAGE, 1989

		Male	Female	Total
Farmers:	Full-time farmers	2	0	2
i aminors.	Part-time farmers	4	0	4
Nonfarmers:	Traders	2	3	5
1,01111111111111	Other jobsa	3	6	9
	Housewives ^b	0	20	20
Total		11	29	40

- ^a Officials, teachers, a construction worker, etc.
- b Occupations of their husbands are 4 full-time farmers, 12 part-time farmers (all have side-jobs as traders), and 4 full-time traders.

The simple structure of arisan in the village minimizes the risk of default. Since the money collected at the meeting is immediately drawn by the winners, the possibility of default by an organizer is limited. Since the membership is limited to neighbors who are tightly connected by locational affinity and kinship in their daily life, the possibility of default by the members is also limited [8] [5] [7]. In a densely populated society, cooperative action can be formed more easily [31]. If the society is demographically stable, like the study village, collective action can be more cooperative and the threat of free riding is limited [27]. Their function as savings-deposit facilities is especially important since informal lenders exclude savings-deposit facilities, because it is difficult for informal agents to offer liquidity, privacy, and security [1].

Although arisan in the village as a credit institution is so elemental that it cannot be compared with sophisticated modern banking systems, the arisan with its local popular appeal is one solution for easing financial constraints on villagers in rural communities where the formal financial market remains underdeveloped.

IV. COLLECTIVE ACTION AND MUTUAL HELP

As described in the previous section, gotong royong are traditional activities which cover a wide range of collective action in local communities. Gotong royong in the broad sense may be classified into three categories: public works at the village level (swadaya), public works at the hamlet or RT level (swadaya murni) and mutual help for private purposes at the household level (Table VIII). The first two categories are directed at doing public works, while the last is concerned with private interests. The last category is also called gotong royong in the narrow sense, while the first and second categories are referred to as kerja bakti, community work [34].

Although gotong royong are traditional activities which have been organized privately, they are now used as a device for village administration and for conducting minor public works at the village level. These public works are done as

				Village Members
Typ	Types of Activities	Decision Made	Financial Sources	Obligated to Participate
 Public works at the village level 	—Construction and repairs of the village roads, bridges, school buildings, village office, and main village mosque	by village commitee (LMD)	Village finance	All household heads in the village
2. Public works at the hamlet or RT level (swadaya murni)	—Construction and repairs of minor paths, bridges, and small mosques in the hamlets and RTs	by village committee (LMD)	Cash or in kind contribution, or labor service by members	All households in the hamlet or RT
	-Purchases of durable goods for public use, such as loud speakers, tents, glasses, etc.	at RT meeting	Imposition on each household	ditto
3. Mutual help for private purposes at the household level (gotong royong and sumbangan)	House raisingAssistance to neighbors for wedding or funeral ceremonies	personally	Cash or in kind contribution and labor services by neighbors	Volunteers (mostly neighbors and relatives)

collective action by groups of villagers who belong to the village administrative units (desa). The first category, public works at the village level, is the largest collective action in terms of group size and target. It is directed at the construction or the repair of public facilities in the village, such as village roads, bridges, the village office, the village main mosque, etc. The activity plan is decided by the village committee (LMD) and the cost for construction materials is borne by the village. All household heads in the village are obliged to participate in the public work. The heads of the hamlet assign the date and number of participants for the work. For example, the participants are requested to work for half a day. Although a wage is not paid for this activity, a snack and a cup of coffee are provided. If a nominated villager cannot participate in the activity, he has to ask someone to replace him, or he has to provide snacks.

The second category of activity is similar to the first, but it is directed at minor public works within the hamlet or RT. Thus the collective action is done only by villagers in the hamlet or RT concerned. Compared to the first category, these are autonomous activities for villagers since no financial support is provided by the village. They have to provide the labor and all materials required for the construction or repair work. For example, if the activity is done at the hamlet level, the head of the hamlet decides on a plan and gets approval from the village committee (LMD).¹⁴ Then he shows a list of required materials to the villagers in the hamlet. The villagers can choose from several alternatives: cash, materials in kind, or labor service. In terms of value, contribution in cash is the most expensive, followed by contribution in kind and finally the provision of labor which is evaluated by using the typical wage rate for farm work in the village. In general, relatively wealthy members are requested to provide cash and others choose materials in kind or provision of labor service.

In short, the first and second categories of gotong royong are typical collective actions for public purposes. Villagers are requested to act as a group in order to construct or improve the public infrastructure in their communities. Although these activities are not organized privately, they are adroitly coordinated by the village authority while conforming to the traditional custom of mutual help, gotong royong. These activities are carefully organized as simple hierarchies, a combination of the village administration as a political leader and a peer group of village members who are tied by the mutual help tradition supported by affinity and kinship.

Peer groups are simple non-hierarchical associations of villagers which offer prospective advantages in indivisibility, risk-bearing, and associational respects [33, p. 42]. However, collective decision-making processes are often costly in the case of peer groups, especially if the group size increases. To mitigate size problem, peer groups can be supplanted by simple hierarchies. If the scale of collective action is larger, such as with the first category of gotong royong, the village authority acts as an organizer and thus "efficiency will be served by reserving the

¹⁴ The LMD (lembaga masyarakat desa) is the governing board within the village administration and comprises a village head and officials, heads of hamlets and other major figures who are nominated by the formers.

central information collection and decision-making position to the one or few individuals who have superior information processing capacities and exceptional oratorical and decision-making skills" [33, p. 52].

In this respect, the gotong royong activities are well designed, having a more flexible structure than that of other official groups. If the target of the collective action is small, a small group is organized by the members of one hamlet or even in one or two RT units. The larger group can be organized at the village level when the target to be attained requires a bigger group. Even in this case, the group usually is divided into several sub-units and the action is undertaken by small sub-groups which consist of the members from individual hamlets. This flexible and simple structure of larger groups helps assure effective action which economizes the transaction costs such as organizing group members and monitoring the action while avoiding shirking among the participants.

The last category of gotong royong is the smallest group activity, privately organized for private purposes and always takes the form of peer group activity and is simply called gotong royong in narrow sense. A typical example is private house raising. When a villager plans to build or repair his house, his neighbors voluntarily help him by supplying building materials. Ordinarily around twenty village members participate in the action of contributing materials. Most of them are neighbors in the same RT and participation beyond the hamlet is very rare, except in the case of close relatives. The total value of materials provided by the neighbors and relatives is usually between 15 per cent and 50 per cent of the total cost. The recipient of the materials keeps a record and when a contributor builds a house in the future, he receives in return the same value of materials. The neighbors provide materials and also work together during the house raising. Although the major construction is done by professional artisans, such as carpenters (tukang kayu) and plasterers (tukang tembok), the relatively simple jobs are borne by these neighbors and relatives.

This type of collective action, i.e., mutual help among the neighbors, also takes place on ceremonial occasions, such as for weddings, and religious or funeral ceremonies. Neighbors gather and help with the ceremony. These close relationships among the neighbors are also observed in farming activities. If additional labor is required for farm operations, labor is exchanged among the neighbors. Labor for harvesting is first sought among the neighbors. If a village member wants to rent a plot of farmland, he will first inquire at this neighbors. Thus an implicit group comprised of neighbors and relatives seems to form a very tight relationship among the village members in a community. They are inter-linked on the basis of neighborliness and kinship. The tightly connected structure of the group enables them to save transaction costs by enforcing collective action [8].

There are many of these implicit groups in a rural community and they are not exclusively of each other. Individual village members may have many group connections with the neighbors or relatives of other village members. A hamlet itself may be considered a traditionally generated unit in which many implicit groups are gathered and connected to each other nebulously. *Arisan padi*, discussed in the previous section, is also considered to be based on these implicit neighbor groups.

V. CONCLUSION

There are various types of organizations and group activities in peasant societies. Some organizations are officially organized by the government, while others are arranged privately by villagers. In Indonesia, farmers' groups (kelompok tani), women's club (PKK) and youth societies (karang taruna) are typical examples of official organizations. The administrative unit of the village (desa) itself may be considered one of the officially established institution which organize collective action for public works at the village level. These rural organizations have rigid structures. They are organized in hierarchies, have written rules and the membership is clearly defined. On the other hand, most of the private groups do not have written rules and the members relate with each other through tacit understanding. One of the popular group activities in Indonesia are rotating credit associations (arisan). In the study village, various groups also exist for amusement or self-improvement, such as a study group for Islam (pengajian), and a dancing club (pencak silat).

In peasant societies villagers live communally and have to cooperate in many aspects of their daily life. Markets are often underdeveloped and individual farmers are too small to internalize production externality which is inevitable in densely populated peasant economies. They have to cooperate to attain both public and private interests. They would be better off if they have a common interest and if the objectives of the group were achieved. However, if members' individual actions do not directly reflect the benefit accrued to each of them, they would have no incentive to act, unless there was a means of coercion.

In this respect, privately organized groups give us more straightforward implications. Private groups can be viable only when individual members can attain more self-benefit by participating in the group than they can be attain by their individual action. Thus transaction costs—the costs for organizing groups and enforcing the members to act—must be covered by the expected benefit from the collective action. In order to reduce the transaction costs, the size of private groups tends to be small and the membership is limited to neighbors in one hamlet. The groups are organized as peer groups. Arisan and gotong royong in its narrow sense are examples of these types of group activities. Group size for arisan padi in the study village was ten to twenty members and most of the members reside in the same RT unit in one hamlet. Mutual help activities (gotong royong) are also done among neighbors and close relatives.

Although these small peer groups are one solution to save transaction costs, collective decision-making processes are often costly if the group size becomes larger. To mitigate the size problem, peer groups can be supplanted by simple hierarchies. Community works in the form of kerja bakti or gotong royong in its broad sense are typical collective actions of this type. Village members work together for minor public works in a community under the control of the village authority. Action plans are well designed and have a more flexible structure than that of other official groups. If the target of the collective action is small, a small group is organized by the members of one hamlet or even of one or two RT units.

A larger group is organized if necessary at the village level when the target of the activity so requires. But even in this case the group is usually divided into several sub-units and the activity is carried out by these small units which consist of members from one hamlet. This would be especially effective if there is a communication gap among the hamlets in a village [21]. This flexible and simple structure for organizing groups helps assure effective action which economizes the transaction costs while avoiding shirking among the participants.

Compared with privately organized groups, the membership of officially organized institutions is much larger. For example, the PKK in the study village covers the whole village, which is made up of three hamlets, and has a membership of about 400 women. The KUD covers an entire sub-district or several villages. In the case of *kelompok tani*, though the group size is not so large, the members are scattered around several hamlets and are even in other villages. Although the transaction costs may not be observed explicitly, these official institutions may have to overcome organizational difficulties in order to sustain activities. Since governments have the power to coerce, institutions may be organized and viable with official support. However, if the institutions cannot provide any personal benefit to members, the collective actions will decline and the institutions will be inefficient, nonviable, and non-sustainable.

REFERENCES

- 1. Adams, D. W. "Effects of Finance on Rural Development," in *Undermining Rural Development with Cheap Credit*, ed. Dale W. Adams, Douglas H. Graham, and J. D. Von Pischke (Boulder, Colo.: Westview Press, 1984).
- 2. Adams, D. W., and Graham, D. H. "A Critique of Traditional Agricultural Credit Projects and Policies," *Journal of Development Economics*, Vol. 8, No. 3 (June 1981).
- 3. Alchian, A. A., and Demsetz, H. "Production, Information Costs, and Economic Organization," *American Economic Review*, Vol. 62, No. 5 (December 1972).
- 4. ARIEF, B. "Social and Administrative System of the Two Villages in West Java," in An Economic Study of Rice Farming in West Java: A Farm Household Survey of Two Villages in Bandung and Subang, ed. Akimi Fujimoto and Toshiro Matsuda (Tokyo: NODAI Research Institute, Tokyo University of Agriculture, 1986).
- BECKER, G. S. "A Theory of Social Interactions," Journal of Political Economy, Vol. 82, No. 6 (November-December 1974).
- 6. ———. "Altruism, Egoism, and Genetic Fitness: Economics and Sociology," *Journal of Economic Literature*, Vol. 14, No. 3 (September 1976).
- 7. ———. "Altruism in the Family and Selfishness in the Market Place," Economica, Vol. 48, No. 189 (February 1981).
- 8. BEN-PORATH, Y. "The F-Connection: Families, Friends, and Firms and Organization of Exchange," *Population and Development Review*, Vol. 6, No. 1 (March 1980).
- 9. BOUMAN, F. J. A. "Informal Saving and Credit Arrangements in Developing Countries: Observations from Sri Lanka," in *Undermining Rural Development with Cheap Credit*, ed. Dale W. Adams, Douglas H. Graham, and J. D. Von Pischke (Boulder, Colo.: Westview Press, 1984).
- CHAYANOV, A. V. "Peasant Farm Organization" (1925), in The Theory of Peasant Economy, ed. Daniel Thorner, B. Kerblay, and R. E. F. Smith (Homewood, Ill.: Richard D. Irwin, 1966).
- 11. Coase, R. H. "The Nature of the Firm," Economica, Vol. 4, No. 16 (November 1937).
- 12. Embree, J. F. A Japanese Village: Suye Mura (London: Kegan Paul, 1946).

- 13. FAISAL, K.; MAKALI; SALEH, C.; NASUTION, A.; and SINAGA, R. S. Institutional Change and Its Effects on Income Distribution and Employment in Rural Area: Case Study in Four Villages in West Java, Indonesia, Rural Dynamics Series No. 21 (Bogor: Agro-Economic Survey, 1982).
- 14. GEERTZ, C. "The Rotating Credit Association: A 'Middle Rung' in Development," Economic Development and Cultural Change, Vol. 10, No. 3 (April 1962).
- 15. HARDJONO, J. Land, Labour and Livelihood in a West Java Village (Yogyakarta: Gadjah Mada University Press, 1987).
- 16. HAYAMI, Y. "Economic Approach to Village Community and Institution," Journal of Rural Development, Vol. 3, No. 1 (April 1980).
- 17. HAYAMI, Y.; KAWAGOE, T.; and MOROOKA, Y. "Middleman and Peasants: The Structure of the Indonesian Soybean Market," *Developing Economies*, Vol. 26, No. 1 (March 1988).
- 18. HAYAMI, Y.; KAWAGOE, T.; MOROOKA, Y.; MAYROWANI, H.; and SYUKUR, M. Agricultural Marketing in a Transmigration Area in Sumatra, CGPRT No. 19 (Bogor: ESCAP CGPRT Centre, 1989).
- 19. HAYAMI, Y.; KAWAGOE, T.; MOROOKA, Y.; and SIREGAR, M. Agricultural Marketing and Processing in Upland Java: A Perspective from a Sunda Village, CGPRT No. 8 (Bogor: ESCAP CGPRT Centre, 1987).
- 20. HAYAMI, Y., and KIKUCHI, M. Asian Village Economy at the Crossroads: An Economic Approach to Institutional Change (Tokyo: University of Tokyo Press, 1981).
- KAWAGOE, T.; FUJITA, K.; YOKOYAMA, S.; SUDANA, W.; and ZAKARIA, A. K. Role of Secondary Crops in Employment Generation: A Study in a Rain-fed Lowland Village in Indonesia, CGPRT No. 23 (Bogor: ESCAP CGPRT Centre, 1990).
- 22. KAWAGOE, T., and HAYAMI, Y. "Farmers and Middlemen in a Transmigration Area in Indonesia," Bulletin of Indonesian Economic Studies, Vol. 25, No. 3 (December 1989).
- 23. Mears, L. A. The New Rice Economy of Indonesia (Yogyakarta: Gadjah Mada University Press, 1981).
- 24. Nash, J. F., Jr. "The Bargaining Problem," Econometrica, Vol. 18, No. 2 (April 1950).
- 25. Olson, M. The Logic of Collective Action: Public Goods and the Theory of Groups (Cambridge, Mass.: Harvard University Press, 1965).
- POPKIN, S. L. The Rational Peasant: The Political Economy of Rural Society in Vietnam (Berkeley, Calif.: University of California Press, 1979).
- 27. RADNER, R. "Monitoring Cooperative Agreements in a Repeated Principal-Agent Relationship," *Econometrica*, Vol. 49, No. 5 (September 1981).
- 28. Scott, J. C. The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia (New Haven: Yale University Press, 1976).
- 29. SHIRAISHI, M. "Role and Problems of the Village Unit Cooperatives in Relation to Rice Production and Marketing in Two Villages of Different Structure in West Java," An Economic Study of Rice Farming in West Java: A Farm Household Survey of Two Villages in Bandung and Subang, ed. Akimi Fujimoto and Toshiro Matsuda (Tokyo: NODAI Research Institute, Tokyo University of Agriculture, 1986).
- 30. SINAGA, R. S.; MINTORO, A.; SAEFUDIN, Y.; and BENJAMIN, W. Rural Institutions Serving Small Farmers and Labourers, Rural Development Series No. 1 (Bogor: Agro-Economic Survey, 1977).
- 31. Wade, R. Village Republics: Economic Conditions for Collective Action in South India, Cambridge South Asian Studies 40 (Cambridge: Cambridge University Press, 1988).
- 32. WHARTON, C. R., Jr. "Subsistence Agriculture: Concepts and Scope," in Subsistence Agriculture and Economic Development, ed. C. R. Wharton, Jr. (Chicago: Aldine Publishing Co., 1969).
- 33. WILLIAMSON, O. E. Markets and Hierarchies: Analysis and Antitrust Implications: A Study in the Economics of Internal Organizations (New York: Free Press, 1975).
- 34. WIRADI, G. Rural Development and Rural Institutions: A Study of Institutional Changes in West Java, Rural Dynamics Survey Series No. 6 (Bogor: Agro-Economic Survey, 1978).