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RURAL DEVELOPMENT AND RURAL INSTITUTIONS:

A Study of Institutional Changes In West Java

Gunawan Wiradl



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"If a professor thinks what matters most Is to have gained an academic post where he can earn a livelihood, and then Neglect research, let controversy rest, He's but *a* petty tradesman at the best, Selling retail the work of other men."

Kalidasa
Poems from the Sanskrit Trans. John Brought Penguin. London, 1968

FOREWORD

Mr. Gunawan Wiradi, a staff member of Indonesia's Agro-Economic Survey (AE5), participated in the AES' Rural Dynamics Study in West Java from mid-1574 until August 1975 when he left to begin his studies for the Master of Social Science degree at the University Sains Malaysia. Before leaving Indonesia he was able to join in the first major data-collection activity of the Rural Dynamics Study, a survey of all the 795 villages in the Cimanuk River Basin. These data form the basis of the analysis carried out by Mr. Wiradi in his thesis "Rural Development and Rural Institutions".

It gives me great pleasure to make Mr. Wiradi's thesis (in slightly revised form) available to a wider audience as a publication of the Rural Dynamics Study. The topics of changing agrarian institutions in Java has previously been examined primarily through more intensive case-studies in smaller numbers of villages. As Mr. Wiradi notes, the more extensive data analyzed in this report present certain problems both of measurement and of interpretation; but when compared to the findings of case-studies regarding the extent and causes of institutional change, they provide confirmation for some of these conclusions and throw some doubt on others. Through such continuing interaction between extensive and intensive research we may hope eventually to arrive at a better understanding of the processes of agrarian change, both in Java and elsewhere.

Rudolf S. Sinaga
Project Leader
Rural Dynamics Study

RINGKASAN

Didalam rencana pembangunan lima-tahun Indonesia yang pertama dan yang kedua (1969-1979), pertanian telah diberi prioritas yang utama. Untuk mencapai swa-sembada dalam pengadaan pangan, pemerintah telah melancarkan suatu program intensifikasi padi sawah (Bimas) dimana unsur-unsur baru dari teknologi pertanian diperkenalkan. Beberapa studi yang dilakukan oleh sarjana-sarjana Indonesia maupun oleh sarjana-sarjana asing telah melaporkan adanya perubahan-perubahan dalam aspek-aspek tertentu kehidupan pedecaan.

Tujuan studi ini adalah untuk meneliti perubahan-perubahan dari institusi-institusi tradisionil di pedesaan dan menguji suatu asumsi bahwa rencana-rencana pembangunan mempengaruhi perubahan-perubahan itu. Institusi-institusi yang diamati dalam studi ini adalah semua institusi yang ada hubungannya dengan produksi pertanian, yaitu: sistem panen dan pemasaran padi, sistem kredit pedesaan, institusi gotong-royong, institusi tenaga kerja, dan berbagai jenis hubungan penyakapan dan sewa-menyewa (tenancy relations). Dalam mencari dukungan terhadap asumsi itu, hubungan-hubungan yang mungkin terdapat antara unsur-unsur rencana pembangunan dan arah perubahan institusional diperhitungkan, Rencana pembangunan dinyatakan dengan kekerapan partisipasi desa dalam Bimas, dengan penanaman jenis-jenis padi yang bermutu tinggi, dan dengan perkembangan organisasi baru yang dibentuk oleh pemerintah (BUUD/KUD).

Hasil studi ini menunjukkan bahwa "segala-galanya berlaku serentak" di pedesaan Jawa. Sementara teknologi baru yang diperkenalkan bersama-sama rencana-rcncana pembangunan umumnya sedang diterima oleh rakyat desa dan organisasi-organisasi baru yang diciptakan pemerintah sedang memperkembangkan diri, sebagian dari institusi-institusi tradisional mengalami kemunduran dan sebagian yang lain sedang bertahan atau bahkan berkembang. Lagi pula, hampir *semua* institusi-institusi tradisional mengalami perubahan-perubahan kedua arah yaitu kearah berkembang: dan kearah berkurang. Tetapi meskipun demikian perubahan semacam itu, tiga dari institusi-institusi itu dilaporkan "ada" dalam lebih dari 80 persen dari desa-desa didaerah yang diteliti. Tiga institusi ini ialah lembaga gotong-royong, sistem kedokan, dan sistem maro, Namun berbeda daripada dua yang tersebut pertama, sistem maro nampaknya menjadi kurang nyata, karena mungkin telah dipengaruhi lebih oleh keadaan tertentu yang berkaitan dengan undang-undang nasional (UUPBH 1960) daripada oleh ciri-ciri rencana pembangunan.

Penemuan lain yang nyata ialah adanya sedikit petunjuk, tetapi penting, tentang huhungan antara perkembangan BUUD/KUD dengan berkurangnya praktek-praktek ijon, Demikian juga nampaknya perkembangan koperasi simpan-pinjam ada hubungannya dengan berkurangnya ijon.

Mengenai institusi tebasan, hasil studi ini menunjukkan bahwa di kawasan yang diteliti tebasan kurang umum dilakukan didesa-desa yang mempunyai satuan-satuan usaha tani yang relatif luas. Ini adalah bertentangan

dengan apa yang pernah dilaporkan oleh studi-studi sebelumnya di Jawa Tengah dimana tebasan lebih banyak dilakukan didesa-desa yang mempunyai satuan usaha tani yang relatif luas.

Dan akhirnya satu penemuan lain yang penting ialah meluasnya sistem kedokan. Pertumbuhan ini nampaknya sebagai satu "response" oleh pemilik-pemilik tanah terhadap jumlah penduduk yang makin bertambah dan jumlah buruh-tak-bertanah yang lebih banyak. Sistem ini agaknya dipergunakan sebagai satu cara untuk nengurangi biaya dan jumlah tenaga kerja. Praktek-praktek yang, menbatasi dan memilih buruh, mungkin menunjukkan bahwa program intensifikasi padi sawah yang diharapkan dapat memberi faedah kepada semua lapisan penduduk desa, membiarkan pekerja-pekerja yang tak bertanah dirugikan.

ABSTRACT

In the first and second five-year development plans of Indonesia (1969-1979), agriculture has been given top priority. To seek self-Sufficiency in food supply, the government launched a rice-intensification program $(BIMAS)_s$ by which new Elements of agricultural technology were introduced. Several studies of these development programs by both Indonesian and foreign scholars have reported changes in certain aspects of rural life.

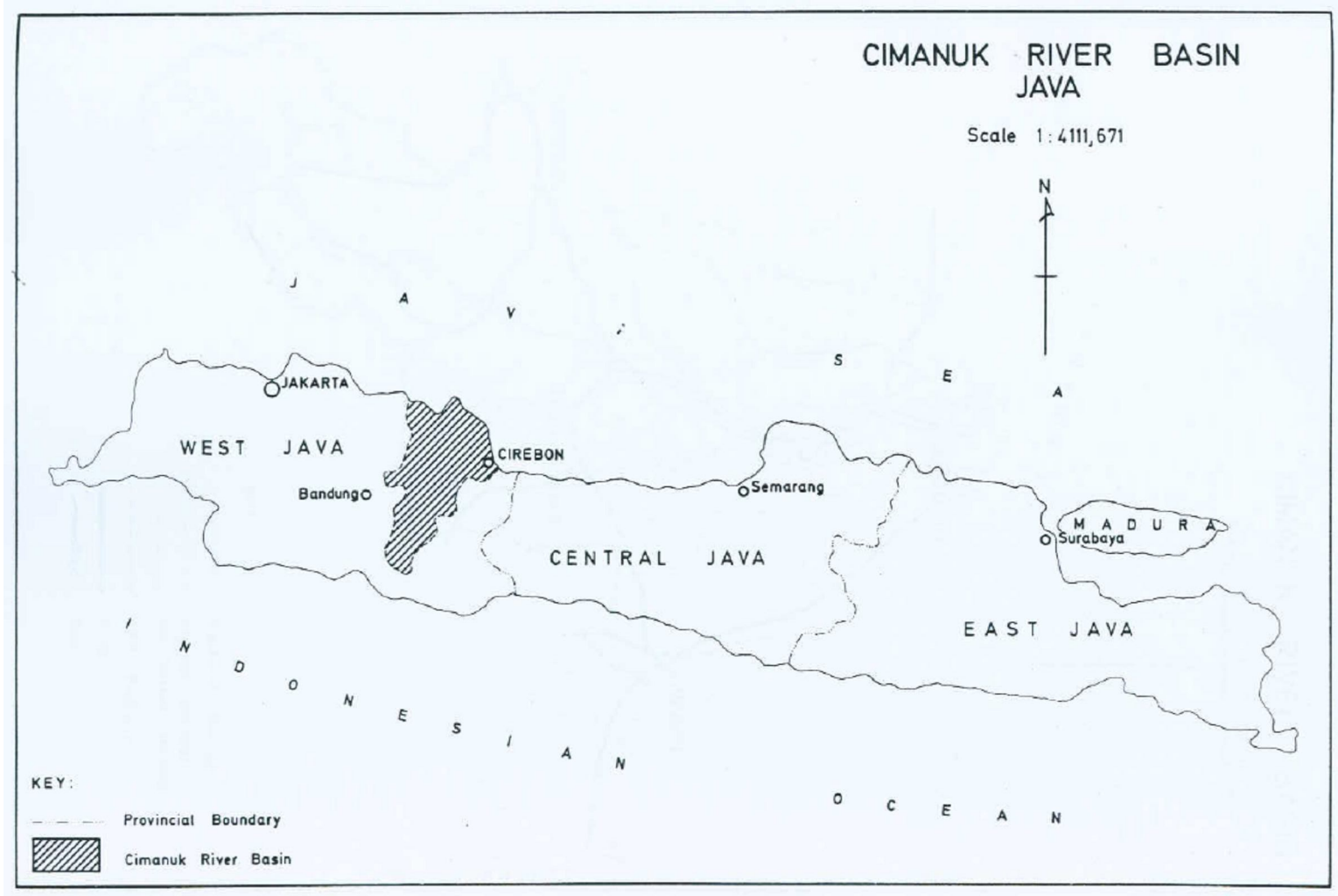
The purpose of this study is to examine changes in traditional rural institutions and to test an assumption that the development programs influence these changes. The institutions observed are all related to agricultural production: rice harvesting and marketing systems, rural credit systems, the institutions of mutual assistance, labour practices,, and various types of tenancy relations. In seeking confirmation of this assumption, possible associations between elements of development programs and trends in institutional change are considered. Development programs are indicated by the frequency of village participation in the rice-intensification program, by the cultivation of high yielding rice varieties, and the development of the new government-created organization (BUUD/KUD).

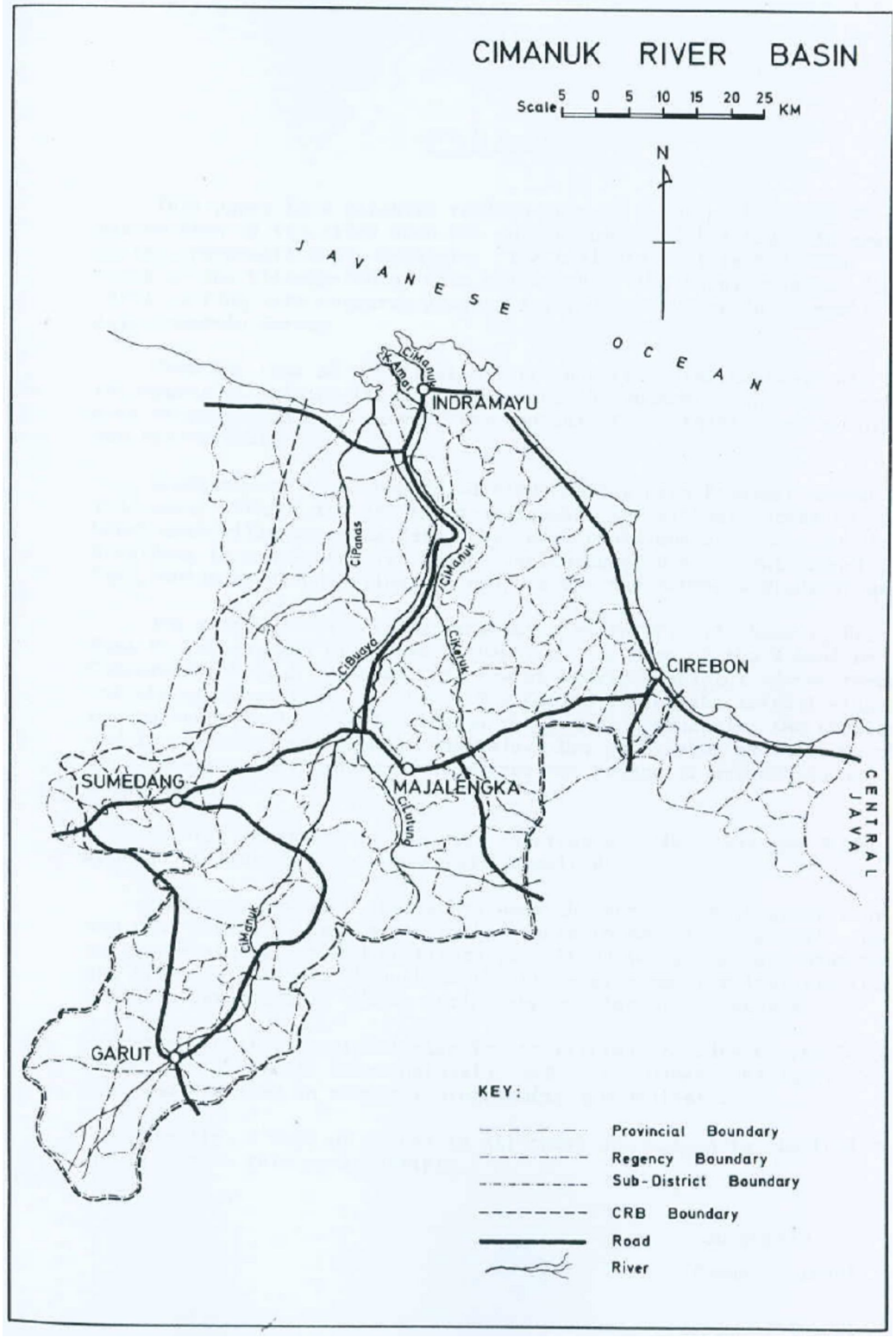
The findings of this study suggest that "everything was happening at once" in rural Java. While the new technology introduced with the development programs was generally accepted by the villagers and the new government-created organizations were becoming established, some traditional practices were declining and others were persisting or even spreading. Moreover, nearly all of the traditional institutions underwent changes in direction 3 of both growth and decline. Despite the changes, three of the institutions were reportedly present in more than 80 percent of the villages in the area studied. These are the mutual assistance institutions (gotong-royong), the labour-harvest share exchange system (kedokan), and the share cropping, system with fifty-fifty division (maro). However, unlike the first two, maro system appears to be becoming less prevalent having probably been affected more by special circumstance related to national laws (the Sharecropping Act 1960) than by features of development programs.

Another notable finding is the slight but important indication of association between the development of the cluster-of villages area cooperative (BUUD/KUD) and the decline of the practice of pre-harvest loan against the crop (ijon). It appears also that the growth of saving-and-credit cooperatives will lead to the decline of ijon.

Regarding the practice of tebasan, this study indicates that in the area surveyed tebasan is less common in rice villages with relatively large farms. This is the opposite of the situation reported by earlier studies in Central Java where tobasan was more common in villages having relatively large farms.

And finally, another important finding is the expansion of the kedokan system. This growth seems to be a response of landowners to the increasing size of the population,, and the larger number of landless workers. The system appears *to* be used as a method of reducing costs and labour Practices that limit and select labourers may indicate that the rice-intensification program, which it was hoped could benefit all segments in the rural population, leaves landless workers at a disadvantage.


CIMANUK RIVER BASIN
JAVA
Scale 1 : 4111,671
N
JAVA SEA
JAKARTA
WEST JAVA
CIREBON
Bandung
Semarang
CENTRAL JAVA
MADURA
Surabaya
EAST JAVA
INDONESIAN OCEAN
KEY:
Provincial Boundary
Cimanuk River Basin


CIMANUK RIVER BASIN
Scale 5 0 5 10 15 20 25 KM
N
JAVANESE OCEAN
INDRAMAYU
CIREBON
SUMEDANG
MAJALENGKA
GARUT
CENTRAL JAVA
CiManuk
Ci Amat
CiPanas
CiManuk
CiBuaya
CiKeruh
Ci Lutung
CiManuk
KEY:
Provincial Boundary
Regency Boundary
Sub-District Boundary
CRB Boundary
Road
River

P R E F A C E

This paper is a slightly revised form of a Master's thesis which was written in 1977/1978 when the author completed his graduate course at the University Sains Malaysia. The analysis in this paper was based on the Village-census data collected by the Rural Dynamics Study (RDS), a long-term research project carried out by the Indonesia's Agro Economic Survey.

From the time of the first effort to express the central idea to the moment of writing the last sentences the author has had the assistance of many people. However, the content of the thesis remains his own responsibility.

Indebtedness is acknowledged first to the Agro Economic Survey of Indonesia; without the AES study-assignment and without access to the bench-mark village census data, this work would not have been possible. Gratitude is expressed also to the Agricultural Development Council, Inc., which provided fellowship support for the author's study program.

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Finally, a word of thanks to all those who helped in clerical work and have made this work possible.

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Gunawan Wiradi

CHAPTER 1

INTRODUCTION

1.1 Background and Concepts

During the last few decades, empirical studies on rural development have been carried out in various parts of the world and there is already an enormous amount of literature on the subject. A precise definition of development, however, is hardly possible or would be adequate, because in the social sciences sociology of development is relatively new. It is commonly proposed that development refers to economic change with Gross National Product (GNP) and Per Capita Income as its indicators. With Per Capita Income as the indicator, for example, cross-national comparison can be made by allowing all nations to be placed on a single development scale. Arbitrary cuts on the scale may then distinguish the three categories of underdeveloped countries at the bottom, developing countries in the middle, and developed countries at the top. The process of development is viewed as upward movement along the scale. This implies that development processes in all nations follow similar patterns.

Recently, GNP and Per Capita Income are considered as only rough indicators, and different criteria have been proposed to measure not only economic but also social development (Stavenhagen, 1975: 3, 4). These cover demographic structure, education, health, employment, housings communication, industrial production, and other areas[1].

Another view of development starts from a model which examines developing countries as having dual economies each composed of a capitalist also called modern - sector-, and a subsistence - also called traditional - sector.

The capitalist sector consists of corporate enterprises or government agencies organized as in developed nations. The subsistence sector is composed of household-scale enterprises that follow pre-industrial commercial and production techniques, in communities of peasant farmers, petty traders and artisans where usually there is surplus labour. In this model, rural development may be defined as "the set of economic and social development activities peculiar to the process of transforming the traditional sector as a whole". (Kulp, 1970: 13,14).

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[1] An attempt at synthesis by the United Nation Research Institute for Social Development includes seventy-three indicators. These were reduced to eighteen “core-indicators” used in combination as a "socio-economic development" index. (Granahan *et al*., 1972)

It is not the immediate interest of this study to discuss the different concepts of development. In this thesis, "rural development" simply refers to program actions *as* outlined in the first and second of Indonesia's Five-Year Development Plans; REPELITA (Rencana Pembangunan Lima Tahun), which express broad social economic developmental objectives.

In the first REFELITA (1969-1974)$_s$ it was stated that the development plan "is not just an input-output programme emphasizing GNF calculation, but it is primarily a programme of action in which the Government expects to hold the leverage of the economic sectors to be braced". (R.I., 1969: 9)

The Plan had simple objectives in view, namely, the provision of food and clothing, the improvement of infrastructure, the improvement of housing for the common people, and the provision of more employment and spiritual welfare.

Though the Plan maps out not only physical aspects but also spiritual and social aims, Indonesia has adopted a policy of development which gives top priority to the agricultural sector, because agriculture plays such an important role within the whole national economy. The greater part of the people live in rural areas, and most of the labour force is working in the agricultural sector. In 1968, for example, agriculture produced about one-half of all exports, contributed about one-half of the nation'''^ Gross Domestic Product (GDP), and provided employment for about 70 percent of the total labour force. (Birowo, 1972:31).

In both REFELITA I (1969-1974) and REPELITA II (1974-1979), agricultural development is thus a dominant objective. At the time when the first REPELITA was initiated, more than US $100 million were being spent annually to import rice. Since expenditure of such an amount would be more effective if switched into productive sectors, the primary aim of the agricultural development plan was to increase food production, especially of rice, in which it was expected that the country would become self-sufficient. However, it was also stated that the main purpose of agricultural development are: 1) to increase per capita income, 2) to increase employment opportunities in both new and existing fields, and 3) to increase the equality of income distributions both among regions and among socio-economic groups in the population. (REPELITA II, Book II; 33)

The aim to increase rice production is implemented through the Bimas program. Bimas, an acronym for Bimbingan Masal or "Mass Guidance" is known essentially as a rice-intensification program in which new rice varieties were introduced (such as PB-5, P3-8, C4, Pelita I/I, Pelita I/2 and PB-20), and various bodies were organized[2]. The introduction

[2] More detailed description of Bimas and its supplementary organization is presented below, in Chapter 2.

of these varieties, which are also caller! "High yielding varieties" or HYVs requires certain conditions. They need much more fertilizer than the customary varieties they are susceptible to pests; and because of their short stalks and their heavy easy-falling ears, the old method of harvesting with ani-ani (a small rice-knife) is replaced by the use of sickles. Apart from these, water, essential for increased production must be supplied abundantly. Fulfillment of these requirements depends most importantly on the attitude of the rice producers themselves. In other words, the desired production increase can occur only to the extent to which the farmer's are willing *to* use the new varieties. In this connections land is a basic productive resource. Hence, the adoption of new rice varieties hinges on the attitudes of the farmers who actually control or operate the land, as evident in land tenure institutions. Landownership and tenancy relationships are linked to labour arrangements. This means that in rural Indonesia, as in all agrarian countries generally "not only their economic activities but also their social institutions, political power structure, value system, cultural traditions are directly linked to the use and exploitation of land as productive resource". (Stavenhagen$_s$ 1975: 4).

The problem of development therefore, implies not only economic activities but also rural institutions. Various definitions of the concept "institution" can be founds the following, by McIver and Page (1957: 15-22) is useful for the purpose of this study. Institutions are "established forms or conditions of procedure characteristic of group activity". Sometimes confusion arises between this meaning of institution and another attributed to the term association because these concepts in different references may be used interchangeably. Association refers to an organized group whereas an institution is a form of procedure (family is an association„ but marriage is an institution). Association denotes membership; institution denotes a mode or means of service. We belong to association, but we cannot belong to institutions.

In this study, "rural institution'[1] simply refers to traditional practices which are central in rural life, as in sharecropping, rice marketing labour arrangements, harvesting practices; and government-created organizations such as co-operatives. The term "traditional" here refers to elements of practices which have been followed since the beginning of the 20th century.

1. 2 Frame of Reference

Clifford Geertz (Agricultural Involutions 1963) has described a perspective on the implications of the impact of the Dutch government's economic policy during the colonial period. The term "agricultural involution" refers to the adaptive ability of the Javanese rural society

to cope with the growing number of population, the process of which involved an internal elaboration of agricultural practices into more and more labour-intensive farming. In the attempt to cope with population growth the Javanese villages applied the increasingly "hair-splitting" techniques at all levels of cultivation which enabled them to increase output per hectare without a serious fall in output per capita. Hence, after the middle of the 19th century, the whole rural economy was characterized by a trend in which "tenure system grew more intricate, tenancy relationship more complicated, cooperative labour arrangements more complex — all in an effort to provide some niche, however small in the overall system", (Geertz, 1963: 82).

In other words, in responding to innovational elements which came from outside, rural institutions did not change but adjusted, in an effort to absorb the growing number of people, Just because of these adjustments that gave rise to the "internal-complexity" of Javanese villages. Geertz viewed the Javanese society a "static" economy.

> "The basic pattern of village life was maintained, in some ways even strengthened, and the adjustment to the impingement of high capitalism effected through the complication of established institutions and practices", (Geertz, 1963: 90).

Since it is assumed that substantial increase in per capita productivity is the basis for economic "take-off" these "self-defeating" processes, i.e. the involution way of response, may have become a brake in the way of growth because it prevented the technological and social changes that might have opened the way for developmental change.

Despite its probable validity for the colonial period, in recent times this view has come under several criticisms.

> "It would seem rather that one should look at involution — that is, at the alterations, which according to Geertz, were made in the village social system — as a dynamic process occurring overtime. That the 'basic framework' of the rural economy remained, is hardly surprising, for it is difficult to imagine, given the historical conditions, a radical alteration in the structure of village economic life.
>
> ..... Some of the elements which constitute part of the framework as defined by Geertz were not fundamental to Javanese rural society but were in themselves relatively recent phenomena, the results of historical processes of development and change, Hence, 'established institutions and practices' were not in fact static entities". (Lyon, 1970; 8)

Collier and his colleagues suggested that the expansion of the tebasan system[3], which is thought to be the effect of the new technology (the use of HYVs), is an indication of the limit of involution. (Collier et al., 1374: 181-182). Tebasan is *a* rice-selling practice in which the rice crops are sold in wholesale lots while still on the field just before the harvest, and to be harvested by the buyer at his own expense.

It is a traditional practice that the Javanese and Sundanese rice farmers do not turn away anyone who wishes to participate in the harvest of their rice fields. This method of harvesting allows people to *get* a share in kind, called bawon, instead *at* money wage. To give opportunities to everyone who wants to join the harvest is considered a social obligation; hence, the farmer as patron gives a "share" to any in the village who need it. This patron-client relationship, found in many rural societies, is "3 special case of dyadic (two-person) ties involving a largely instrumental friendship in which an individual of higher socio-economic status (patron) uses his own influence and resources to provide protection and/or benefits for a person of lower status (client) who, for his part, reciprocates by offering general support and assistance, including personal services, to the patron." (Scott, 1972:8).

Thus, to get a share in rice, one should offer his service reciprocally as harvester. However, as the number of peculation increases and rice production is commercialized, the obligation begins to be felt by the farmers as a heavy burden, and they want to reduce or avoid it. One way to do that is by sailing their rice to a penebas or "tebasan buyer". Thus according to Collier, the farmers' preference for selling their rice by the tebasan system is motivated by an effort to limit the number of harvesters? Traditionally, the harvesters, who are mostly women, use a hand-held rice-knife (ani-ani). The paddy is cut stalk by stalk, bundled together, and carried out of the field. Because the HYVs shatter easily, however the villagers realize that sickles are better tools for cutting the paddy than ani-ani. This change of tool involves a change in labour relationships and employment opportunities. When sickles are used, fewer people are needed because the harvest can be finished very quickly and sickles are said to be more suitable for men than for women. Farmers cannot force the people to use sickles, but the penebas can. He usually brings his own limited number of people to harvest the rice. In a previous study, it was shown that the number of workers in the rice harvest was reduced by half because of the use of sickles. (Wiradi, 1974:17). The penebas is able to limit the number of harvesters, in other words to turn away the unnecessary people, because it is an accepted value that *he* is functioning as 3 trader. He is engaged more in commerce than in farming hence there is no obligation for him to share the rice.

[3] Broader description of tebasan practice is presented in Chapter 2.

If the farmers begin to leave the old established values and to think commercially, there is a reversal of the involution process. Instead of being always able to "work one more man in", as Geertz described it, the shift to tebasan leads to releasing many labourers out of the job. Collier stated:

> "if agricultural involution did once exist, the tebasan system is one method .... to not only prevent further involution, but also reduce the already existing involuted nature of wet-rice cultivation in Java" (Collier et al., 1974: 181).

A probable shortcoming in the work of Collier and his colleagues, which they have implicitly stated, is that there does not yet seem to be enough evidence that the HYVs caused the expansion of the tebasan system. The limited number of villages studied makes it difficult to say whether and how much tebasan practice is generally expanding. These are questions which await more extensive examination, and one purpose of this study is to explore further the applicability of the preliminary finding.

1.3. The Objectives of the Study

The Government of Indonesia is facing two important questions in relation to rural development in the country, namely how to increase total production in the rural areas on a rapid and regular basis, and how to assume that the great majority of the rural population will participate in the benefits of development[4]. To achieve these goals, improved programs and policies are needed, and these depend on the extent to which processes in rural areas can be understood.

For that reason, the objectives of this study are:

a) To identify the various kinds of rural institutions that exist in the villages and that contribute to productivity, or that are related to employment opportunities.

b) To analyze the probable associations between selected elements of rural development programs and particular rural institutions and thus to find whether technological innovation is really one of the forces behind the changes in institutional practices.

[4] It is stated in "A Proposal for the Study of Rural Dynamics in Indonesia", The AES, Jakarta, 1974: p.6, (The AES or "Agra Economic Survey' is described briefly in Chapter 3).

c) To provide base data and preliminary descriptions of the interassociation among the variables observed, which may be used for further research and possibly for policy **making.**

1.4. The General Setting of The Area Under Study.

The islands of Java and Madura are divided administratively into three provinces: West, Central, and East Javas and two Special Provinces (Daerah Istimewa or Daerah Khusus): Yogyakarta and Jakarta Raya. The area observed in this study, the Cimanuk River Basin (CRB), is located in West Java.

Each province in Indonesia is divided into regencies (Kabupaten), then sub districts (Kecamatan) and finally villages (Kelurahan)[5]. The province is headed by a Governor; each regency is headed by a Bupati, each sub district by a Camat, and each village by a Lurah. Constitutionally, the provincial and the Kabupaten Governments are autonomous in the sense that the Governor and the Bupati are elected for Central Government confirmation by the respective People's Assemblies (Dewan Perwakilan Rakyat Daerah or Regional Parliament) whose members have been elected by the public. The Kecamatan, however, is not an autonomous unit. It is a division of the Kabupaten Government.

Before the Dutch colonial periods most of today's Kabupaten in Java were essentially principalities. The Bupati were "raja-kecil", princes who had their *aim* armies. Being subject only to the control of the Central Kingdom, they were powerful rulers in their own territories. After the Dutch came, the colonial ruler used then to control the people. Gradually these one-time political units became administrative units of the colonial government, "Below the provincial level, residencies were interposed; the Residencies were Dutch, and each governed several Kabupaten. Each Kabupaten was then divided into several Kewedanaan (Districts) which were further divided into Kecamatan (Subdistricts).

For a few years after Indonesia's independence, this system remained. But later the residency and district levels of administration were abolished. Thus now, between the national Government and the Village (Kelurahan), there are only the three intermediate levels as noted above: Province, Kabupaten, Kecamatan (State, Regency, and Sub district).

The governmental function of the Kabupaten is to execute national government policies through the directives of the provincial government. The office-branches of the national ministries at the Kabupaten level are subject to the Bupati. These office-branches at the provincial

[5] Broader description of "Village" is presented in Chapter 2.

level, coordinated by the Governor, specify the outlined national policies adjusted to local conditions, and make a plan for implementation. The Kabupaten government is to execute the plan. In the implementation of national policies the Governor is, thus, coordinating the Bupati.

The area under study (CRB) includes 795 (nearly all) of the villages in five Kabupaten namely, Cirebon, Indramayu$_s$ Majalengka, Sumedang;, and Garut[6]. These Kabupaten are in the eastern part of West Java at the border with Central Java. (The city of Cirebon is located in 06^o 11' S and 103°3O' E). The CRB area stretches from the plain and lowland areas of Indramayu and Cirebon on the north coast, to the highland areas of Garut in the south. All villages in Indramayu and most villages in Cirebon lie below 35 meters above sea level. In Kabupaten Majalengka and Sumedang the greater part of the area is hilly, 300-850 meters above sea level. Whereas in Garut, all are highland villages (500-1750 meters above sea level). In the southern part of the CRB, Mount Galunggung stands high, and from it the river of Cimanuk flows northward to the Sea of Java with its estuary located near the town of Indramayu. In the northern part the temperature fluctuates between 22^o and 33^o Centigrade. The highlands in the southern part are colder, with temperatures ranging between 15^o and 28^o Centigrade. The average rainfall is more than 2000 millimeters per year, slightly higher than the average of East Java but lower than the average of Central Java (around 3000 millimeters in Semarang). The area in CRB, which constitutes about 11 percent of *the* total area of West Java, or about 3.8 percent of the total area of Java and Madura, has an estimated population density of 701 persons per square kilometer[7].

Being part of West Java, the CRB area is inhabited predominantly by Sundaness ethnic group. In Cirebon, however, more often than not the people identify themselves as Orang Cirebon (Cirebonese) and speak a language rather different from that of the Sundanese. They call this language Jawa Cirebon. It is transitional, or a mixture of Sundanese and Javanese, This is because Cirebon was historically a Sultanate.

Generally speaking, the whole CRB area is predominantly agricultural the northern part is comparatively more industrialized then the southern part. In Kabupaten Cirebon and Majalengka, for example, there are several sugarcane factories, whereas Kabupaten Sumedang and Garut are more characterized by plantation estate (rubber, tea, etc.)

[6] The reason for choosing this area is presented in Chapter 3.

[7] Rural Dynamics Study Village Census, 1975.

Along the north coast of Indramayu and Cirebon, fishing from the sea or from brackish water ponds is the main source of income. Fresh water fishing however, in Kabupaten Garut (thus in the upstream area of CRB), is the first or second source of income in about 10 percent of the villages.

As a whole, rice farming is predominant. Forty nine percent of the area of the villages is used for rice cultivation (sawah), of which more than half, an average of 54 percent, is double-cropped (two rice crops annually). (Appendix B, Table B.7) In Cirebon and Majalengka areas, sugarcane is cultivated in rotation with rice.

The capital towns of the five Kabupaten are linked by asphalt main roads, and sub districts can be reached by motor vehicles. But only 53 percent of the villages in CRB have asphalt roads. The rest have only gravel (jalan batu) or earthern roads, (Appendic 3, table B.3). Some **villages** can be reached by motor vehicles only in dry season. Cirebon, the biggest city among the five Kabupaten capitals, is connected to Jakarta in the west and to Semarang in the east by railroad.

In recent times, the traditional transportation by horse or buffalo wagon is being gradually replaced by modern machines. During the period 1970-1974, the number of wagons declined by seven percent, and the number of pick-up vans and trucks increased by 150 percent and 99 percent respectively. In the plain areas, bicycles and Pedi cabs (becak) are still popular. During that period^ in the JRB as a whole, the number of bicycles increased by 21 percent, and the number of Pedi cabs increased by 114 percent. In the hilly areas, i.e. in Kabupaten Sumedang and Garut, there are some villages which cannot be reached by any vehicles, so that to go to these places one should walk. (Appendix 3, Table B.4).

To promote rice intensification under recent development programs, irrigation is vital because $rice_3$ especially the high yielding varieties needs much water. The CRB area is the site of a major irrigation project in which the government has planned to build a dam at one point along the River Cimanuk; Jati Gede, Kabupaten Sumedang. It is expected that an area of 115,000 hectares of rice fields (sawah) will be watered after the dam is in function. This may be expected to influence further changes in rural life.

In view of the possible future impact of the irrigation project on rural practices, this study of rural institutions nay serve as a bench-mark against which further changes may be studied in the years to come,

CHAPTER 2

RURAL AREAS IN JAVA

References to rural Indonesia usually apply mainly to rural Java, because the island of Java is one of the major rice areas, and agricultural production is predominant. The island; which is only about seven percent of the total area of Indonesia, contains around 65 percent of the country's population, and more than 80 percent of its people live in rural areas. Most of the agricultural land in Java is cultivated annually and although several other crops are also grown, rice is the chief enterprise. In most of the irrigated regions especially, double- or triple-cropping systems are followed, either with more rice or with secondary crops (palawija) depending on the availability of favorable conditions, such as soil fertility, water supply and climate.

2.1. The General Features

Javanese villages generally include one or more hamlets, surrounded by rice fields where most of the rural people depend on agriculture- especially rice growing - for their livelihood. What the Javanese call desa or village community refers to this settlement and the group of people who live in that area with their own simple system of government.

Where groups of people lived together, cooperation was needed for survival. Hence, to govern behavior and relationships certain rules or norms were necessary. In the course of time, once simple rules became customs to be obeyed by nil, and the community impused sanctions. Conformity would be rewarded and deviance punished. To guarantee order and conformity, a form of governance and leadership was inevitable, J3y tradition, then, the Javanese village people elected their own leader who, in turn$_s$ selected his staff from among. the villagers. This leader, who was called Lurah, and his staff constitute the Pamong Desa or Village Government which, in the past, was autonomous. All decisions concerning village problems emerged from discussion by the Musyawarah Desa or Village Assembly. This consisted of selected prominent figures and the nucleus villagers who were entitled to plots of land to cultivate and reciprocally were obligated to perform certain tasks for the village such as ronda or night-watch, and working en certain village projects[8].

[8] Nucleus Villagers are those whose ancestors settled the area in the distant past

The village Executive basically consisted of seven positions. The terms used for each position and the number of position holders varied from village to village. In central Java, these were Lurah, Vice-Lurah, Carik or *Secretary,* Kebayan or Communicators Jagabaya or Security Officer, Ulu-ulu or Water Controller, and Medin or religious Officer whose duties concerned matters relating to Islamic law.

The autonomous nature of village government existing to day seems to have been derived from the prevailing pattern of territorial division in the royal realm in early East and Central Java, i.e. "the parceling of land into diverse holdings in the hands of or controlled by a variety of officials appointed by the King or his subordinates". (Pigeaud,1960; 525). These parcels were not owned by the officials, because there seems to have been no concept of ownership in any Western sense, even for the ruler. Customary law was the basis. The officials depended on the King as a source of power and authority in maintaining their positions in the countryside, whereas the King needed support and food from them. To maintain this relationship, control over land by the ruler was crucial. Thus, "there necessarily existed a close relationship between land and the political organization of early Java because agricultural production and control of land were the bases of support for the superstructure of nobility". (Lyon, 1970: 2). Until to day, in most villages of Java, members of the Pamong Desa, especially the Lurah, do not earn money salary, but instead, they have the use of, and income from, land provided for then by the village.

The usual way of handling village' affairs by the Javanese rulers in the past had some autocratic features. In the long history of authoritarian rule, an attitude of unquestioning obedience to numerous demands made by the Javanese princes or their representatives became a habit of the villagers. The villagers wire expected to accept or approve all orders and instructions because answering back was considered as murang tata (''contrary to good manner"). Viewing this trait the Dutch rulers made use of the simple village government to reach the people during the colonial period. As stated by Wertheim:

> "When, about the turn of the century, a new welfare policy was initiated, the same lower officials had to be relied upon for introducing all kinds of innovations into the Javanese village communities. It was not surprising that these innovations were largely introduced in the same aloof, authoritarian way those officials had been accustomed to, in transmitting new regulations on taxes or services. Perintah halus (gentle command) became the usual method for promoting welfare", (Wertheim, 1964: 213-214).

Hence, the village government gradually became an apparatus in the hierarchical structure of government administration, the more so after Indonesian independence. To-day, despite the reduced autonomy of the village, the Lurah is still an elected leader and in most villages the members of the Pamong Desa still have the right to use the assigned land in payment for their services.

In the government hierarchical structure of to-day, the Village Government is the lowest level of the Ministry of Home Affairs' subordination. The national government administration operates through a series of ministries which have branches at all levels except in the Desa. The Ministry of Home Affairs is of primary importance in rural administrations the services of most ministries must work through its offices and most officials at the Desa level are subject to it.

More than twenty thousand villages spread over the islands of Java and Madura, Due to ecological and cultural differences; however, the size and nature of these villages vary. As noted before, the islands of Java and Madura are inhabited predominantly by three different ethnic groups, Sundanese, Javanese and Madurese. These ethnic groups have distinctly different languages unintelligible to each other, and within each ethnic group's area, local dialect varies from place to place.

Except for language, the cultural differences, however, had by no means totally differentiated the Javanese villages from each other, because they were subject to overlapping influence. In traditional agricultural institutions like sharecropping systems, for example, local variation was more evident than ethnic-based differences. In religion, in most of Sundanese and Madurese villages the people were strict Moslems. In Central an East Java they ware generally considered as having been more influenced by Hinduism. In the latter areas, however, there were some villages which were, and still are, the stronghold of extremely orthodox Moslems. Customary law, or adat, as a patterned set of norms controllom[1] conduct, varied from village to village because of differences in religious orientation. In community solidarity there were some differences, as Sudarmadi stated:

> "Javanese-types of villages were relatively more cohesive than the Sundanese or Madurese villages. The Javanese individual accepted the villages as natural, necessary, and autonomous. To him, the possibility of the community's dissolution was unthinkable. The only way an individual could break off from his group affiliation was by moving out of the village". (Sudarmadi$_s$ 1964: 6).

Thus, in Central Java, village communities were, and still are, territorially, not kinship based. In this connection the concept of communal rights over land was important. Such land, which generally

Consisted of arable rice fields, was assigned to individual villagers by common consent of the members of the community. These villagers might cultivate the land, or they might transmit the assignment to their heirs, but they had no right to transfer or sell it outside the village. Nor could they pledge it as. security, because they could only practice the custom of nggaduh[9]. If a member left the community, the village might take back the land and issue it to someone else, or it might be confirmed that the land would pass to his heirs or descendents who remained in the village. (Ter Haar, 1948: 85, 97, 113, 119; also Boeke, 1953: 31, 65).

This feature of social organization in Central Java has been epitomized in Eric Wolff's reference to "closed corporate communities":

> " .... they are corporate organization (because they are) maintaining a perpetuity of rights and memberships" and they are closed organizations, because they limit these privileges to insiders, and discourage close participation of members in the social relations of the large society". (Wolff, 1957, in Potter, et at., 1967: 231).

One manifestation of membership in the community was participation in the traditional religious rituals which in Central Java were, and still are, called slametan. The Javanese word s1amet literally means "safe". To make life safe, each community should maintain proper relations with its spirits and ancestors, and slametan served this function. There were several kinds of slametan: bersih desa or yearly purification of the village land; sedekah bumi or a festivity for the spirit of the community; nyadran or making offerings to the souls of the dead. Slametan were also offered to ward off evils or difficulties, to celebrate special events In the life cycle, to mark holidays, and to emphasize stapes in the production of rice. (Ter Haar, 1948:: 24, 23, 91-92; also Geertz, 1956: 138-140).

In general these traditional religious rituals were practiced throughout Java and Madura, though with some variation, In Central Java, however, despite the penetration of Islam and Christianity, this tradition was more persistent than in any other regions. Nowadays, when the village conducts a slametan, the religious official prays in Arabic.

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[9] Nggaduh is a Javanese concept which roughly means "to borrow something by the grace of the owner". The owner is of higher status than the borrower (net the reverse). The 'borrower' might use it life-long, with nothing paid in return to the 'owner'.

One important trait in Javanese village communities was the traditional process of decision-making in village affairs. As mentioned before, all matters related to village problems were discussed in the Village Assembly. In this assembly, instead of being settled by a voting system, all decisions were made by means of musyawarah and mufakat which literally mean ''deliberation" and “unanimous” respectively. Unanimity, however, does not mean compromise. Nor does it mean some opponents' overriding others. Rather, it is a result of a flexible deliberation in which all efforts are made to reach a consensus, *or,* in the words of Geertz, it is the "sense of the meeting".

Another well-known trait in rural Java was and still is, the practice of gotong-royong or mutual assistance[10]. This is as a manifestation of a moral principle of reciprocity as Scott put it:

> "It is based on the simple idea that one should help those who help him or (its minimalist formulation) at least not injure them ..... The gotong-royong, forms; of mutual assistance in Java are a celebrated example of structured reciprocity and they are ritually reinforced by a neighborhood communal meal (slametan) which marks crucial junctures in the life of peasant households". (Scott, 1976: 167-168).

While village government and the gotong-royong principle seemed to be general throughout Java it was not so with respect to agricultural and land tenure patterns. West Java was characterized by cattle breeding rather than food crop production as in Central Java. In East Java, small hamlets were scattered among individually held rice-fields. (Furuival, 1944: 386). In many of the Sundanese and Madurese villages, there is little indication that communal tenure patterns ever existed.

In the long course of history, all these traits underwent changes, A money economy and "individuation" brought about by Western influence contributed to the weakening of community solidarity, and to some degree to the breaking down of. the once "closed corporate" nature of the village community[11] . During the Dutch colonial period, three "systems' of policy introduced by the Dutch ruler — well known as the Culture System, the Liberal Systems and the Ethical Policy — were considered as significant contributors to the changes in many aspects of rural life.

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[10] Broader description of gotong-royong; institutions is presented below, in the later section of this Chapter.

[11] There is a counter-argument at this point which proposes that the "closed corporate" nature of Javanese villages was just because of alien conquest (Dutch colonization). (See Eric Wolf, 1957, in Potter et al, 1967: 231-242).

The Culture System[12] was introduced in 1830 by Governor-General Van den Bosch. This system was aimed at increasing exports of certain crops, because there was expanding demand in the international market (e.g. sugar, indigo). Under this system, villagers were forced to cultivate these crops on their own holdings; which led to the use of sawah or irrigated rice fields for cultivation of sugar, controlled by the Government. "Practically speaking, during this period the government was the sole planter". (Lyon, 1970: 6).

In 1870, when the Agrarische Wet or "Agrarian Law" was enacted, a new economic policy was introduced. This system, often referred to as "Corporate Plantation System", was also called "Liberal System" favouring private enterprise. Under this system, private companies could obtain Indonesian land (through government) on cheap long-term lease (erfpacht). This policy was aimed at stimulating rural economic development based on the assumption that the efficient management given by the European plantation estates would be followed by Javanese farmers. (Lyon, ibid: also Wertheim, 1964: 211).

Realizing that economic welfare in Java had declined rather than increased despite the rapid increase in exported products of the plantation, in 1900 a new policy known as the Ethical Policy was, in turn, introduced. Advocated by the main initiator, C. Th. Van Deventer, this policy aimed at an improvement of the material conditions of the Javanese villagers. These improvement efforts included irrigation, reforestation, education, credit system, provision for public health and resettlement of peasants from Java to the Outer Islands. (Wertheim, ibid; 212),

It is beyond the immediate interest of this study to describe these systems in detail. It is necessary to mention, however, that despite these "systems" the Dutch rule in Java seemed to have a strong tendency to conserve some degree of the communal nature of the Javenese villages, as Furnivall described it:

> "Under the Culture System, the village was used to promote cultivation for the state; Under the Liberal System, it was adapted to the requirements of planters; under the Ethical System, it was used to promote welfare along Western lines. But the Dutch never abandoned the principle that, so far as the interest of Government allowed, the village should be left to manage its own affairs". (Furnivall, 1956: 241).

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[12] The Dutch term '''Kultuurstelsel" is more appropriately translated as "Cultivation system" rather than "Culture System". But the usage of the latter is now well known and common. In view of its content it is sometimes called "Compulsory System".

2.2 Land Tenure Before and After 1960

The choice of 1960 as s "milestone" for describing the development of land tenure in Java has a certain significance, because it was in l96O that the Undang-Undang Pokok Agraria, hereafter UUPA, or the Basic Agrarian Law and the Undang-Undang Perjanjian Bagi-Hasil, hereafter UUPBH, or the Sharecropping Act, were enacted.

First it must be emphasized that the indigenous traditional terms used for the forms of land title or possession are different from the concept of "property" in the Western or modern sense.

Basically, before the enactment of the Dutch colonial "Agrarian Law 187O", in Javanese villages there were four titles of land, the terms for which varied from region to region. They were:
(1) Tanah Yasan. Tanah means land, and the Javanese word yasa or yoso means "to build" or "to establish", Tanah Yasan, thus, refers to land which is obtained by the efforts *of* individuals who clear new lands or bring waste lands under cultivation. In other words the right of someone over the land derives from the fact that he or his ancasters cleared this very land. In some villages in West Java, it is also called milik. But milik (the word is of Arabic origin) is used simply to mean “to possess” or "to be made one’s own". Thus,

> "......Yasa or yoso embrases three concepts of laboring to clear waste lands the state of actually controlling (or occupying) the land, and the right of the occupier over the land, with no separation of the meanings among them, while the term milik signifies a more clearly abstract concept and as such, is much closer to the modern concept of ‘property’." (Kano, 1977: 12)

In the concert of yasa, the right to sell, pawn, or lease, is not included; these were introduced first through contacts with foreigners. (2) Tanah Norowito refers to arable lands, of which a villager gets a share for his use. (3) Tanah Bengkok or Salary Land is land provided for, or assigned to pamong Desa members who have the right to cultivate it in payment for their' services during the incumbency of their positions. And (4) Tanah Bondo Deso. The Javanese word bondo literally means "wealth" or "property" or "treasure". Thus, this land is owned by the village and sharecropped by the landless labourers who usually receive half of what is produced. The village income from this land is used by the village for various expenditures like serving quests, repairing village roads, bridges, ets. (see also, Sudarmadi, 1964; 7).

Since land was one of the basic factors in agricultural production, within the Javanese villages one of the bases of social stratification was landownership, The larger the area one had, the higher his social status, Besides that, the more rights over land one had,

the higher the status. In other words, those who owned tanah yasan, had higher status than those who did not. Thus, generally speaking, these criteria were applicable to tanah yasan and tanah norowito ownership, but not to_ tanah bendo deso. As for tanah bengkok, the high status obtained by the holders derived more from the fact that they were village officials rather than from having the right to cultivate this land, this right derived from their positions.

Thus, the first layer was the group known as gogol or kuli kenceng who owned their own pekarangan or compound (garden land) and held sawah or rice field in the village. They were also called "full peasant" or "full citizens", having full communal rights and obligations that 3 member of the village may have. The second layer was the setengah gogol or kuli kendo, or “half peasant". They owned pekarangan and houses, but no fields. The next lower layer was the group of those who owned houses but no land of any kind so that their houses stood on the pekarangan of others'. These were called menumpang or magersari. And the lowest one was the group of those who had nothing but their labour. They lived in others' houses, worked for the owners of the houses they lived in, or as sharecroppers and harvest labourers. They were commonly called nusup, bujang, or tlsor. (Pelzer, 1948: 165-166; also Ter Haar, 1948; 72).

By the middle of the nineteenth century, the Dutch "liberal" politicians began to look at the good prospect of industrialization at home in relation to the "booming world market for tropical primary goods". There were strong tendencies, then, to replace the old Culture-System with "colonization" of Java by a Corporate Plantation System, thus favouring private enterprise. In order to make land more available for private planters, legal measures concerning new arrangements of Javanese land utilization were necessary. Two important measures demanded by the "liberals" were:

> "(1) to recognize as property (eigendom) the land occupancy of Indonesians to enable sale and lease of land, and (2) to establish as state-owned land all land whose "property" would not be proved, and allow private enterprise to obtain it on cheap long-term lease as erfpacht”. (Kano, 1977: 5)

When the "liberal" views were finally adopted by the Dutch government, these measures found their expression in the two related Laws of 1870 (The Agrarische Wet or Agrarian Law and the Agrarishe Besluit or Agrarian Decree). Such modern terms as "individual possession” and "communal possession” were then being used in classifying land status. Broadly speaking, five categories of land title were then distinguished:
(1) Erfelijk individueel bezit or "Heritable individual possession",
(2) Gemeen bezit or "Communal possession"; (3) Ambstvelden or "Salary land", (4) Eigendom or "absolute ownership" or "property", and
(5) Government Grond (Tanah G.G.) or "State-owned land".

The first three categories included, and were applied to, the four types of traditional land rights already mentioned, whereas the last two were introduced by the Law of 1870. Thus, practically speaking, the heritable individual possession was the tanah yasan; the communal possession was the norowito and the bondo deso; and the salary land was the tanah hengkok. Since the traditional concept of land rights is distinct from the Western concept of land titles, in some places there were overlapping applications.

The heritable individual possession is "a form of land tenure in which a particular individual occupies a plot of land perpetually, can hand over the land to the heir either through transfer of the title prior to his death, transfer of the title by will, or transfer of the title at the time of death .... and .... can freely dispose of it in such ways as selling, leasing, or pawning". (Kano 1977:11).
However, in many places, it was subject to communal regulation especially concerning the selling of land. In some places, selling was completely forbidden, and "possession" is only the right of the possessor over the land definitely based on actual control of land, and once this control is no longer effective, the land is under direct control of the desa ... " (Kano, 1977: 15).

On the other hand, in many places, tanah norowito which was considered as "communal possession", was heritable for the desa-sharers. By definition, "communal possession is a form of tenure in which an individual (or family) uses the definite land that is only a share of communal land of the desa (or of the hamlet as desa component), i.e. the individual is not authorized to dispose of, or hand over the land, and usually a periodic rotation of shares takes place", (Kano, ibid). In some places, however, there was no rotation. In Malang Regency, according to Kano (and in Pekalongan Regency according to the writer's own personal experience), "the distribution is fixed and no change in shares has taken place (communal possession here then can be equated with heritable individual possession, except that the former lacks freedom of disposition)", (Kano, 1977: 17).

By a certain legal procedure, in accordance with the Agrarian Law of 1870 the heritable individual possession could be transformed into eigendom or "property", thus making selling and leasing more possible. It was actually aimed at creating a condition more feasible for private enterprises to obtain land. Under this Law, private companies could obtain long-term (usually up to 75 years) leases on Indonesians' land through government. Beside the possibility of selling or leasing the eigendom lands, State-owned lands may be leased to private enterprises. In any case, the Government controlled the terms of the leases. As mentioned before, this long-term lease right was called erfpacht. (Furnivall, 1944: 178-181).

The "State-owned" land, according to the Agrarian Decree, was all land that was not in private ownership (eigendom), Thus, it also covered land held by native rights. Therefore, two kinds of State owned land were distinguished. The "Unfree state land"$_s$ and the "Free state land". The latter was state land which was free from native rights.

The colonial Agrarian Law of 1870 thus gave rise to a dual system in the sense that the traditional land rights for Indonesians based on adat, existed side by side with rights over land for investors based on Western concepts.

After the arrival of Indonesian Independence, more than ten years had to pass before the idea of conducting land reform programs came into expression, and five more years were needed before the actual written laws were promulgated in 1960. Two related laws formed the basis of the program of land reform in Indonesia. The UUPA aimed at unifying the dual system, and thus abolishing the colonial Agrarian Law of 1870; and the UUPBH aimed at creating a more just condition of sharecropping relationship in the village[13].

The UUPA 1960 was based on heritable individual possession which, since then, is called hak milik recognizing, thus individual rights over land, freeing the holder from communal restrictions. This hak milik, however, is distinguished from hak railik mutlak (absolute ownership or eigendom), because the latter is considered as unconstitutional. In the Undang-Undang Dasar 1945 or 1945 Constitution of the Republic of Indonesia, it is stated that the philosophical basis concerning land rights is that "land had social function". (Article 33 and its explanation). The eigendom form of land right, therefore, became one of the warm issues during the late 1950's when the UUPA was still in preparation. Slogans like "Corat hak eigendom dari bumi Indonesia," or "Abolish the eigendom right from the Indonesian motherland", became very popular at that time[14].

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[13] Several references can be mentioned. Concerning the land reform laws, see Selosoemardjan, 1962; 7.3-3O; also Loebis, Land Reform Indonesia (n.d)s 7-50; or, Dept. of Information, "Peraturan Dasar Pokok-pokok Agraria Pan Land Reform" (Basic Agrarian Law and Land Reform), Special Issue no. 169; and also Karl Pelzer in McVey ed. 1963: 128-30 . For the social and political implications of this law, see **Mar-go** Lyon, 1970; 18-72; also Rex Mortimer, 1972.

[14] See, Department of Information R.I. Special Issue no.76: Manifesto Politik Republik Indonesia, more well known as Manipol a Presidential Speech of 17 August, 1959.

Within the framework, of UUPA, land ownership is limited to holdings of certain size. Maximum limits were set in accordance with the population density of the area involved. For areas classified as "very densely populated" as in Java, the maximum limit that may be owned is five hectares of sawah[9] or six hectares of dry land. A minimum size of two hectares of agricultural land is also promised in the long run. This was aimed at providing land for the landless peasants through redistribution.

The UUPBH among other things emphasizes that in the practice of sharecropping the minimum division of the rice harvest must be one to one, or maro (separo means "half"), in favour of the cultivator.

As it happened, the implementation of the program of land reform in Indonesia encountered many difficulties. Before any problems arising from it could be solved completely, a new government came to power (following the "affair of 30 September 1366"[s] an abortive coup).

Today, though legally valid, practically the UUPA and the UUPBH are "silently" suspended, in acknowledgement of the remaining suspicion that the preparation of these laws was dominantly influenced by the communists. Despite the fact that this was a mere suspicion, for many observers, questions of land reform after 1965 become politically taboo. Students have been reluctant to deal with land tenure problems that involved questions of land reform, even though the changes intended may be inevitable.

It is difficult, therefore, to describe clearly the present situation concerning land tenure because of the limited amount of up-to-date data available.

Prior to 1966, under UUPA, 0.7 million hectares of land were distributed to less than 0.9 million recipients (or five percent of rural households), This indicates, on average, that less than one hectare of land per recipient was distributed. In Java, the average was even much less —- only 0.4 hectare of land per recipient. (Sajogyo, 1975: 17).

With the UUPA being practically suspended, since 1966 there has been no further land distribution, and there are indications that even the already distributed lands have been illegally retaken by their onetime owners. (Sajogyo, 1975: 18).

The same fate was suffered by the UUPBH, and "the most widespread type of sharecropping in Java remained as the one in which the landowner is still the decision-maker and investor in farm inputs, with share croppers supplying part of the labour getting only one-fifth of the product, in the case of rice after harvest costs", (Sajogyo, 1975: 18).

2.3. Tenancy Relations

Closely related to the land tenure system in general are the tenancy, or land-rental relations among peasants. In Java, there are variations of two main forms of tenancy distinguished by the kind of payment made. The first main from of tenancy is the relation in which a fixed amount of rent is paid either in money or in kind usually as unhulled rice or paddy. This is commonly called "leasing". The second is a relation in which ail agreed proportion of the harvest is paid as rent. This is commonly called "sharecropping".

The first form is manifest in the practice of gadai or pawning, and sewa or rental agreement. It is complicated practice of tenancy relations which prevails throughout Java. A small farmer, due to the limited size of his holding, and having no money or capital with which to operate, pawns (menggadaikan) his land to another person who is often a wealthier farmer and who can provide the necessary production inputs; seeds, fertilized, etc. The small holder himself then works this very land as a sharecropper or as a normal farm labourer employed by the farmer to whom he has pawned it. Thus he becomes a labourer on his own land. The practice of sewa is somewhat different from the practice of gadai. It is also complicated in terms of time, because the transaction is carried out on a seasonal basis. A farmer may hire or menyewa land from a small holder in one or more seasons. Another farmer may do the same for the next season, and in succeeding seasons still another person may hire the same land. But all these transactions may occur at the same time or season, so that several farmers must queue, awaiting their time, before they actually control the land. Hence, the rent payable immediately at the time of the agreement decreases with the length of the waiting period. The longer the penyewa or" hirer" has to wait (sometimes up to 5 seasons, or two and a half years), the lower the price of the rent, or the payment to be made at the time the agreement is made.

In this form of tenancy it is the land owner who is poorer; in the second form, i.e. sharecropping; it is often the sharecropper who is poorer. The landowner is usually called "the landlord", but in Java, the term must be used carefully. Because of the small size of landholdings in Java it appears that many landlords are poor farmers.

For the salary lands (bengkok) which for the Lurah alone amounts to 5 to 15 percent of the total communally possessed paddy fields (Kano, 1977: 31), large numbers of workers are needed since it cannot be cultivated by the members of the Lurah's family alone. In the past, it was cultivated mostly by "compulsory labour service" charged to desa members. Today, usually it is operated through private arrangements within the sharecropping system.

The terms used for sharecropping differ from region to region, but in common; terms which reflect the proportionate share are used.

These are, thus, maro, mertelu, merapat, maralima, denoting the share received by the tenants, as half, one-third, one-fourth, and one-fifth respectively.

In the past, this ratio was determined in accordance with the share of the cost borne by the landowner and the tenant (animal power, tools, seeds, fertilizers, taxes, etc.). But at present, this is not always so. "Key money" or wang kunci which is tailed sromo is often demanded by the landowner from the sharecropper before he can actually begin cultivation of the land.

According to the provisions made in UUPBH (mentioned above), sharecropping agreements should be based on maro basis meaning fifty fifty division, at least. The word "at least" implies that it allows the possibility of other ratios such as 60:40 in favour of the sharecropper. Since the de facto suspension of the implementation of the UUPA and UUPBH, the nature and amount of sharecropping payments has not been clear. In the group-interview in this study, questions were asked about trends in the practice of the different forms of tenancy relations, and their reports are discussed below.

2.4. Kedokan System

The word kedokan is derived from the Javanese word Kedok which means a plot, or a diked-off section of a sawah. Kedokan is a system, as described by Van der Kolff,

> "where by an agreement is entered into between the owner of the ground and some second party amounting to this$_3$ that in one or more of these sections or kedoks the latter agrees to attend to certain definite jobs against payment in the form of a fraction of the product that is grown on the land he works. This system is differentiated from that of share tenancy .... in that in the later case all work done on the particular piece of ground must be done by the tenant". (Kolff, 1936: 14 - 15)

It is, thus, an oral agreement that the labourers will do a particular stage of work during the rice cultivation without being paid in money. They are, however, the only persons who have the right to harvest the rice and receive a certain share of the product. The common harvest labourers cannot join the harvest unless they are admitted by these kedokan workers. It is the kedokan worker$_s$ and not the landowner, who decides who may join the harvest. In other words, the kedokan system is an agreement by which a limited right to harvest is granted to designated workers in consideration of their performance of specified tasks (hoeing for men, transplanting for women, weeding for both).

It is an old system, but how long it has been practiced in Javanese villages cannot be known exactly, According to Van der Kolff, in the last quartet of the nineteenth century this system had been encountered in pesantren areas, East Java (Kolff, ibid). Pesantren means an area where Moslem disciples, called santri, had come to settle nearby or around their religious teachers' residence. Since generally they came from far away, in order to live they offered their services as labourers in the rice fields of their teachars. Nowadays, the kedokan system is operating in many parts of Java, and the term used for it differs from one region to another.

In this system since there is no cash payment, less money is needed during the period of cultivation. In addition, because the right to harvest is granted to the kedokan workers, the farmers can indirectly limit the number of harvesters thus avoiding the risks of dropping loss and stealing loss. For the common harvest labourers, this means a decrease in job opportunities, but for the kedokan workers on the other hand, this system appears to be acceptable, if not beneficial, because it ensures them a larger share than would be usual.

Since the amount of the normal share, or bawon, as well as the amount of kedokan share, varies widely from village to village, the comparison between normal harvesters' and kedokan workers' incomes varies accordingly. In some areas in West Java and Central Java, for example, while a kedokan worker receives one-fifth of the rice yield, a normal harvester receives only one-fifteenth. When a normal harvest-labourer joins the harvest in a kedokan field (by the permission of the kedokan worker), she will receive one-third of the share received by the kedokan worker. In East Java, however, the normal harvesters receive one-tenth of the gross yield. This means that when a normal harvester joins the harvest in a kedokan field, she will receive 50 percent of the share received by the kedokan worker, the latter's share being one-fifth of the yield. (Wiradi, 1974: 4-5). In this case, the kedokan system is more beneficial to the normal harvesters than to the kedokan workers themselves. Hence, the kedokan workers always try to limit the number of harvesters. Participation in the harvest is usually limited to close family members and friends. (Soentoro, 1973: 11).

According to Soentoro who studied the kedokan system in 1973, the income of the kedokan workers in one season is at least 20 percent higher than if they were to work as regular daily workers for a money wage. (Soentoro, ibid: 18). The money equivalent value of their earnings, of course, depends on the price of rice at the time. And despite their higher income they have to wait three to four months before they receive their share. For them, however, being assured that they will have rice is more important than the money equivalent. The fear of food shortages is the remnant of what James Scott proposes to call the "subsistence ethic" in most pre-capitalist societies:

> ''A tenure system which provides the tenant with a minimal guaranteed return is likely to be experienced as less exploitative than a system which, while it may take less from him on the average, does not rate his needs as a consumer as primary". (Scott, 1976: 7)

In the past, the kedokan system appears to have been used to ensure that the farmer had enough harvesters for his field, but in recent years it has been used instead by the farmers to limit the number of harvesters. (Sinaga **&** Collier 1975: 28). Thus, despite its survival, this institution has undergone change in its function.

For the farmers operating the land themselves and applying the usual method of harvesting, allowing large numbers of people to join, would result in various kind of losses: stamp-down loss, dropping loss, left-over loss, stealing loss, losses during transportation, and losses due to the distribution of shares. (Utami & Ihallauw, 1973: 53). In the kedokan system, these losses become the responsibility of the workers. As a result, almost 25 percent of the gross return to farmers can be saved. (Wiradi, 1974: 32).

Thus, it must be these losses that account for what is otherwise a paradox in that the farmers have a greater return and at the same time the workers have higher income. Having the responsibility to manage the harvest and wanting to have more rice, the workers are more careful in handling the harvest. One way to be sure that greater care is taken is to limit the number of people joining the harvest and to include only close friends and family members.

In recent years, where the HY.V seeds are used, the kedokan system appears to encourage the use of sickles which are necessary to harvest these varieties. Using the traditional knife (ani-ani) will result in more dropping loss. Since the use of sickles is considered to be more suitable for men than for women, they reduce the opportunity for the common harvest-labourers who are mostly women to participate in the harvest. For the kedokan workers, however, by changing the tool from ani-ani to sickles, there is nothing to lose because they will receive the same total amount of rice whatever tool they use. But something may be gained, that is to reduce the loss and to save time.

Even if we take into account the problem of higher loss or higher return for both the farmers and the workers, and acknowledge the functional change of the kedokan system, the survival of this institution .appears to be closely related to the two moral principles in Javanese rural life, the norm of reciprocity or gotong royong$_a$ and the right to subsistence.

> "The right to subsistence„ in effect, defines the minimal needs that must be met for chambers of the community within the context of reciprocity", (Scott, 1976: 167)

For the landowners, the kedokan system provides labour at leas cost than would otherwise be necessary. For the workers, it provides rice, the basic need to subsist.

In this study, the continuation or discontinuation of the practice of kedokan is examined in relation to the application or implementation of the present development program.

2.5. Gotong-Royong Institutions

The two words are Javanese. Literally gotong means "to carry" or "to shoulder" **a** big or heavy thing, and royong means "together" or "done by many people". Gotong-royong, thus, means to carry a heavy thing by a group of people together.

The general meaning of the phrase today is mutual assistance and institutionally it refers to “the practice of voluntary communal efforts in working for a purpose benefitting the community or some members of it". (Sudarmadi, 1964: 8).

The words are not news but the term gotong-royong is not so old as the concept itself. The term became popular during the struggle for Indonesian independence end after, especially during the Sukarno era, being spoken of very frequently by the national leaders to promote the spirit of cooperation among, and the unity of, the people. According to Koentjaraningrat, in the old Javanese literature such a term seems not to have existed. This, of course, does not mean that it may not be found in the daily language of rural people. But its derivation has not been traced exactly. In various regions the terms used for the concept are different (Koentjaraningrat, 1974: 59).

According to Koentjaraningrat, gotong-royong in the past was a system of labour mobilization, assembling workers from outside the family to fill the shortage of labour during the busy period within the rice cultivation cycle, For this purpose, a farmer asked in a "proper manner" which was fixed by customary rules, several other villagers to help him. He had to provide food when they worked and no other compensation was necessary. But the farmer must return their services by helping them when needed.

When the money economy began to penetrate rural areas in Java, it was reported that some farmers began to drop this practice of gotong-royong in rice cultivation, because employing wage labour was becoming much more practical (Van de Kolff, 1936: 3-72). This does not mean, however, that gotong-royong entirely disappeared.

There were, and still are, many other activities that are implemented by the gotong-royong system.

One other form of gotong-royong which is still closely related to agricultural activities is what is called sambatan. The Javanese word sambat literally means "to sigh" or "to complain", thus asking for help or advice. In the sambatan system, somewhat different from the practice described above, the number of people who are asked for help is small, usually only one or two, and the duration of work is also shorter.

Gotong-royong principles were, and still are, also practiced in other than agricultural activities like building houses in arranging for funerals, in preparing wedding ceremonies, or in cleaning the village grave-yards yearly, with different terms used for each[15].

Besides those traditional forms of gotong-royong, in terms of labour mobilization in general, three types can be distinguished:

The first: certain activities in which labour was mobilized to work on projects for the benefit of the public and the government, like building roads and bridges without any compensation at all. The people even bring their own food. This derived from the "compulsory work" system during the ancient Kingdom and later in the colonial period. The local terms used for it varied, like: kerigan, gugur gunung, rodi, kompenian. The term kompenian means “like the Company", being derived from the word 'company’ in the "Dutch East Indian Company". This compulsory work system, of course, was abolished and the terms rodi and kompenian are no longer in use. But the other terms are still applied to gotong-royong sometimes in different context.

The second: gotong-royong which is really voluntary in nature. This is usually labelled kerja-bakti or voluntary work, or service work. The activities are exactly the same as in the first type above but the people are not compelled to participate, and the village (government) provides food. Sometimes money incentives are also provided. The people are willing to participate because they want to contribute some public service. It is for this type of gotong-royong that the above mentioned words: kerigan and gugur-gunung remain in use.

The third: gotong-royong as an obligation. This was related to the existing customary landownership structure before the enactment of UUPA 1960, Since the reciprocal of "right″ is "obligation", the nucleus villagers entitled to cultivate plots of communal land, had to provide their labour without compensation for certain work, for the

[15] Further detailed explanation can be found in Koentjaraningrat: "Kebudayaan, Mentalitet$_3$ dan Pembangunan"- (Culture, Mentality and Development), P.T. Gramedia, Jakarta, 1974: 62-63).

benefit of the community, such as regular night-watch (ronda malam)$_a$ or repairing village water channels. After the UUPA 1960 was enacted the structure of landownership was rearranged, but the practice of gotong-royong of this type persisted in many villages. One of the reasons for this seemed to be that the once communal land allocated to the nucleus villagers was being transformed into, individually owned land. The same nucleus villagers became the owners within the size limits as established in the UUPA. This, of course, was considered as being advantageous for the nucleus villagers, and consequently they had to carry on their obligation as before. Today, whatever the situation of landownership structure, this type of gotong-royong continues to be practiced.

In today's atmosphere of change, a question often raised is whether gotong-royong stimulates, or is an obstacle in promoting development. In seeking an answer to this question, it seems necessary first to understand the general Javanese world view, within which the meaning of gotong-royong is embedded.

According to the Javanese view of the world, the cosmos is not merely teeming with life and living energy, but is also elaborately ranked and ordered. Each order is dependent on all the others, and the failure of one to function will make all the others also suffer. This notion is also projected in the Javanese view of society. One manifestation of this hierarchical conception (or "structural functionalism") is the fundamental and unique structure of the Javanese language which employs two radically different vocabularies — krama and ngoko — according to whether the persons addressed are higher or lower than the speaker on the social ladder. (see Anderson, 1965: 1-6). This view, unlike that of the Westerners who view nature as being an analytical object of human reasoning, implies that for the Javanese men are only parts of nature.

The value of gotong-royoni, is closely related to the Indonesian cultural value system, as Koentjaraningrat described it[16].

> "This value (of gotong-royong) .... belongs to the category of cultural value systems which concern human relations. In the Indonesian system, this value contains four concepts, i.e. (1) Man does not live alone but is embedded in his community.... his natural environment. Within the macro-cosmos, he feels as merely a small element, carried away in the process of the rotating Universe. (2) Hence, in all aspects of his life ht is dependent upon others. (3) Therefore, he should always

[16] This is a free translation from the Indonesian language publications "Kebudayaan, Mentalitet, dan Pembangunan" (Culture, Mentality, and Development), P.T. Gramedia, Jakarta, 1974: 62-63.

> strive to maintain good relationships with others, motivated by the spirit of sama-rasa-sama-rata, and (4) he should always strive for conformity, doing the same as, and together with, other members of the community, motivated by the spirit of sama-tinggi-sama-rendah." (Koentjaraningrat, 1974:64)

The first and second concept may lead to strengthening of the concept of nasib or fate. And since man is only part of nature, it is felt difficult for him to exploit nature, contrary to the Westerners who can place themselves as subject against nature as object.

It is thought by some that this value element may become an obstacle in the implementation of development. According to Koentjaraningrat however, it does not necessarily follow that this is the case. In the Westerners' view, the concept of nasib is almost absent. But on the other hand, the macrocosmic view makes it easier for us to accept suffering, sadness, difficulties, and even disaster. The sense of dependence, each upon others, can provide consistent and deep feelings of spiritual security. This in turn leads to an attitude of being ready, sincere, and prepared to contribute or do something for the sake of all. This follows, and is supported by, the third concept sama-rasa-sama-rata or roughly: the feeling that we are the same. If one suffers, the others will share his feeling. So, as long as the orientation to the concept of nasib is not too extreme, the first three concepts should not become obstacles in the implementation of development. The last concept, however, is the only negative element of the gotong-royong values which, according to Koentjaraningrat, may become a hindrance for development. The concept of sama-tinggi-sama-rendah or equal position/status may prevent individual talents or abilities to develop, allowing some persons to surpass others.

The last concept, many people may think, seems to contradict the overall macrocosmic view in which the presence of hierarchical order is predominant. Perhaps, this is an example of the explanation upon which Benedict Anderson based his conclusion that an attribute of the traditional Javanese world view is its "sense of tension between opposites"[17] On the one hand there is a feeling of rank and order with an acceptance of the concept of ascription; on the other hand there is the view that men are equal. Actually it may be concluded that sama-tinggi-sama-rendah is an ethical code by which men can, or should, respect each other in order to maintain good relationships

[17] This world view has been epitomized by Claire Holt (cited by Anderson), as that of "a **stable** world based on conflict". (Anderson, 1965: 1-6).

among them. Having recognized that some position is ascribed to everyone, if one person thinks that another person is ascribed to lower status, the code gives him guidance to behave, by always thinking of "if I were he". Only then mutual respect can be realized.

If in terms of value, the last concept can be considered the negative element in relation to development, in terms of practices, Kerja-Bakti might sometimes be seen as an exploitation of cheap labour. If really voluntary, however, it clearly supports rather than hinders development.

Except in the sense of raass labour mobilization (like kerja-bakti),gotong-royong as mutual assistance between rural families, or a labour exchange system among farmers, has nothing to do with (national) development in general.

In connection with the recent implementation of rural development plans, there have been some reports that several government projects in villages were carried out by gotong-royong of the kerja-bakti type, and that despite the provision of food and money incentives, "silent" compulsions (or perintah halus) were being imposed. The data analyzed in this study concern gotong-royong as labour mobilization. It must be kept in mind, however, that as in the case of ijon (see explanation below) questions concerning gotong-royong are sensitive", but this sensitivity is in another directing. While ijon has a negative image among villagers, gotong-royong values have been highly respected. Hence, there is a tendency especially among the village officials, to report that in the village gotong-royong activities are increasing. It is difficulty therefore, to identify the possible underreporting of ijon and over reporting of gotong-royong. Participant observation would no doubt provide better information than general survey.

2.6. The Ijon System

Ijon, drawing its name from the Javanese word ijo for "green", is in essence a traditional rural credit institution. Despite the wide variety of transactions this tern covers, it is more popularly understood as a practice by which a buyer who is also a money lender purchases a farmer's rice before it ripens (variably long before the harvest — when the rice is still ijo), at a very low price. The money is paid in advance and the farmer continues to be responsible for maintenance of the field, harvesting, and delivering the crop. The low price set by the buyer takes into account his estimate of yield, quality, and prices at which he himself can sell later. The amount paid is also discounted in advance by the buyer's calculation of interest, an amount not made known to the farmer because the transaction is recognized only as a sale and not as a loan.

The farmer agrees to advance sale by this ijon procedure only because he needs money for which he feels that he cannot wait any longer. And this places him in a weak bargaining position. Indonesian Government policy considers the practice of ijon to be disastrous for farmers, and an ijon money lender is usually called as lintah darat or usurer. Hence, the world ijon has a bad connotation.

The ijon system, however, has survived for many decades and it is still practiced in many regions especially in Java, the small farmers follow this practice without prejudice. In effect, a repayment to a farmer on the security of his crops binds the farmer to his buyer lender in a patron-client relationship. If the farmer sells his crop elsewhere, the buyer-lender will riot extend any more credit since the farmer has shifted his collateral Security from his old buyer-lender to someone else. Buyer-lenders tend to respect each others' clientele, and farmers have no choice hut to continue selling their crops to the same purchaser.

The nature of ijon, therefore, makes it difficult to investigate because rural people are sensitive to its connotations and implications, and prefer not to discuss it. In an effort to eliminate the bad image, village officials are usually reluctant to confess its existence in their village. For the farmers involve, refusing to tell the truth is a safety factor, protecting them from possible threat by the ijon-lender with whom they want to maintain their relationships.

Despite the possibly injurious consequences to farmers, the ijon system has survived because of the flexibility of its procedure, a feature typical of patron-client bonds:

> "The most striking feature of ijon credit is the informality of its procedures. The arrangement may be made at any hour of the day, at any place. No forms of signature or even written documents are needed since the basis of the transaction is personal acquaintance and mutual trust. The transaction itself takes little time. The perspective borrower comes to the lender, or a merchant approaches a farmer, and after a few minutes' bargaining, the transaction is completed. The borrower gets the money (or at least an installment), and the lender gets a promise of repayment in kind.
>
> There is also great flexibility in the lending period. Borrowing and repayment may take place at any time of the month, and the interest will be the same".
>
> (Partadireja, 1974: 66).

Though the popular meaning of ijon is credit in the form of sale of rice (at the time when the crop is still green on the field), it appears that the term is also applied to a wide variety of transactions. This was encountered by a team from Gajah Mada University which, in 1973, conducted a study of ijon in West, Central, and East Java. According to Ace Partadireja who led the team and edited the reports, though the most important "ijon-commodity" is undoubtedly rice, repayment is not always in agricultural produce but may be in processed food stuffs, handicrafts, or even labour[18].

In summary, three kinds of transaction to which the term ijon is also applied, can be distinguished. The first is the money lending, which involves very poor people who borrow very small amounts of money at very high interest, and who have no security to offer other than some produce of their own labour. The second is a form of credit which is "incidental to the sale of produce by a farmer to a trader". And the third is a type which amounts to leasing out of land or fruit trees for the season by the farmer-borrower to the buyer-lender. (Partadireja, 1974; 65).

Despite the variety of transactions, there are three features in common which distinguish ijon from other credit institutions.

> "First, the only security enjoyed by the lender is his knowledge that the borrower has a growing crop (or in his last resort his labour) with which to repay the loan. Secondly, while borrowing is usually ... in cash, repayment is in kind. Thirdly ijon credit dispenses with all the formality and rigidity of organized credit. For all these reasons, ijon offers, admittedly at hi(?h cost, rural credit facilities to people who would not have access to bank credit". (Partadireja, ibid).

How costly is ijon credit to the farmers? In answering this question, the study cited above indicated that if repayment (of any kind except money) were converted into money, the interest was never less than 8 1/2 percent per month, and in most cases, it was around 25 to 30 percent per month. From the buyer-lender side, however, the risks of practicing ijon cover the uncertainties of prices, and the yield and the quality of the produce. Thus the actual cost to the borrower-seller and the actual return to the buyer-lender depend on the market price of the produce or labour at the time of delivery.

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[18] This case, in which money lending is repayable in labour, has become well known recently as ijon-kerja (kerja means "job" or "work").

Efforts have been made by the Government to replace the ijon system by creating new substitute institutions, among which cooperatives are particularly important. But in the meantime, hidden or overt, it appears that ijon system is practiced continuously. This suggests that ijon really plays an important role in the structure of the rural economy of Java. And it seems that this is one of the traditional institutions that is unlikely to change or disappear quickly.

2-7 The Tebasan System

The Javanese word tebas literally means "to cut (away)". To sell agricultural crops by way of letting the buyers to tebas or harvest the crops themselves, is called tebasan. In the past, it was a "cash-and-carry" transaction, but in recent times, especially for tabasan in rice, the payment may be made a few days after the harvest though a certain amount of down payment may be necessary just to confirm or guarantee that the transaction has been agreed by both the buyer (penebes) and the farmer.

Sometimes confusion arises between the meaning of tebasan and the meaning of ijon because these terms in different regions may be used interchangeably by local villagers to indicate an "overlapping" in practice. The essential difference lies not in the time at which the transaction takes place, but rather in the sense that ijon is a credit system and tebasan is a sale. The word tebasan refers, essentially, to the practice by which the crop of a rice field is transferred to a buyer at the price based on the unit of land size. Thus the price is not accounted per kilograms, per quintal, per liter or per other units, but per acre, per hectare, per bau (= 0.7 ha). In other words, tebasan is a marketing system by which crops are sold in wholesale lots while still, on the field and to be harvested by the buyer at his own expense. In pure tebasan practice the transaction takes place just before the harvest. However, when a farmer sells his rice crop by tebasan system in the sense that is just mentioned, but the transaction takes place long before the harvest allowing the fanner to receive full payment in advance, this practice may also be called ijon. The word "also" is used just to indicate that ijon is not necessarily practiced in that way. The ijon-farmer may, in other cases, control the harvest of the crops himself and repay the loan in money later. Thus for the above case, the proper statement should be the farmer sells his rice by "tebasan through ijon", or "ijon through tebasan" system. This is what is meant by "overlapping" practice noted above. Local villagers sometimes simply call it either tebasan or ijon, interchangeably, and this may confuse an observer.

The tebasan buyers (penebas) are middlemen from nearby towns or villages, or even from within the village. There are also penebas who are farmers. These are usually within the village. If the penebas is from the farmer's own village, he will usually pay the farmer within a week after selling the rice. If he is from different village and not well known to the farmers, he will pay at harvest time, usually

before the rice is carried out of the farmer's field. Ordinarily four or five buying groups will approach each farmer. Being not tied to any one buyer, the farmer will select the one who gives the highest price. This negotiation usually takes place five to fifteen days before harvest, and once the agreement has been settled the penebas begins to prepare the operation of the harvest. The mechanism of the system has been described by Collier, as follows:

> ".... the penebas who have purchased a crop send letters to their selected harvesters in the village, giving them a right to help harvest the crop. The appointed harvesters gather at the house of the penebas before going to the fields. They wear distinctive coloured hats, or put their letters in their hats, so that the penebas can distinguish their own people. If the harvest is to he in another village, each penebas brings his own harvesters from his own village. The harvesters must carry the paddy to the penebas' home or to the specified rice-hullers as part of their task. The penebas then sells the rice to buyers in the village or nearby towns and only then does he complete his payment to the farmer". (Collier, et al., 1973: 40)

Tebasan is an old institution, but how long it has been practiced in Java cannot be known precisely. It was reported that in 1905, tebasan had been practiced widely throughout Java. (LIPS, 1976: 38-39)[19]. It was reported that at that time the farmers sold their rice by the tebasan system apparently because of three factors: (1) The farmers were reluctant to take home their rice because of transportation problems; (2) The urgent need of the farmers for cash money; and (3) The relatively higher price received.

Traditionally in normal harvest, after being cut stalk by stalk and bundled together, the rice was carried out of the field by the harvesters and brought to the farmer's house or other specified places. In this place of delivery the farmer distributed the shares (bawon), the proportions of which depended on local custom. In places where the customary bawon proportion was 1:4 (one to the harvester, four to the farmer), for example, the harvester who brought five bundles of paddy would receive one bundle. It was the harvesters who bundled the paddy in the field. Though it was subject to the approval of the farmer, each harvester usually chose a bundle or bundles for his or

[19] LPIS (Lembaga Penelitian Ilmu-Ilmu Sosial) or Research Institute of Social Sciences, is a department of the University Satya Wacana, in Salatiga, Central Java.

her share, purposely taking more than was expected to be their share. Since in the past there were not enough labourers at harvest time, farmers were compelled to give them larger shares. To find enough labourers without being troubled by this bawon problem, the farmers then sold their rice to a penebas.

The second factor which motivated tebasan selling was the need of the farmers for money. For the larger farmers generally there would be no problem. The small farmers, however, normally kept their harvested rice in their rice-barn (lumbung) as a food reserve, selling only little by little when they needed money. But an urgent need would force these farmers to sell their rice in wholesale lots. To repay debts or to get capital for the preparation of the next season's cultivation, they usually considered no alternative to letting the penebas buy their crops.

The rice price was another factor which stimulated tebasan selling. In some areas, the harvest times within one village were not the same. There were some plots of land on which the crops were to be harvested earlier than in the village general harvest. At that time the price of rice was relatively high, so that by selling the crops to a penebas the farmers expected that they would get larger payments. If these farmers harvested the crops themselves and sold the rice later they had to accept a low price because at the general harvest time the price usually dropped.

As mentioned earlier (Chapter 1), during-the implementation of the first Five-Year Development Plan, it was reported that there were expanding practices of tebasan especially in Central Java. The main reason the farmers then practiced the system, however, was reported to be to reduce the number of harvest labourers. This was a functional change in the system. Formerly tebasan has been used by farmers as a means of finding enough labourers. At present, this system is used to avoid an excess of labourers. The farmers' motive continues to be economic: avoiding loss, and getting money quickly.

With the coming of the HYVs, the use of sickles to harvest the rice becomes necessary. But more important, possibly, is the fact that when the rice is cut by sickle, it is threshed in the field and carried in sacks to the penebas' house and the harvesters are paid there in cash according to the weight of their harvest. Thus, instead of paddy bunches, when the penebas began to use sickles and when the threshed gabah (unhulled rice) was taken to his home, scales began to be used to weigh out shares due to the harvesters.

With sickles, only about 75 man-days are needed to harvest one hectare (25 people for three days), while with ani-ani[5] 200 or more man-days may be used (Collier, _et al., 1973: 42). Most farmers have no idea how many people join their harvest. It is difficult to count the number of people in the harvest because in traditional harvest,

people were moving continuously into and out of the field until the harvest was finished. The penebas_ have a better idea than the farmers because they partly select and invite some of the harvesters.

Even if the farmers and the penebas both use sickles in the respective harvest, the comparative numbers of traditional harvesters and tebasan labour still show great difference. In one case in Central Java, the penebas used only 46 percent as much labour in the harvest with sickle as did the farmer. (Collier, et.al_., 1974: 178).

Clearly, tebasan has an impact on employment and the effect is compounded by the change of harvesting tool from ani-ani to sickle. Moreover, in some regions the penebas are not only limiting the number of harvesters but also use the same persons in each harvest, which thus severely reducing the number of people who may benefit from harvesting.

In a study conducted by the University Satya Wacana in Central Java, 1974, it was indicated that tebasan system was practiced more frequently by relatively large landowners. The larger the land the farmer controlled, the larger the part of his crops that was sold by the tebasan system. (LPIS. Op. cit.: 95) Stated in another way, tebasan is more prevalent in villages where there are large farm-sizes. It was also proposed in that study that the Bimas program and the formation of BUUD (explained below) leads to a commercialization of rice marketing, thus stimulating the expansion or persistence of tebasan (LPIS, ibid: 3).

Despite the changing circumstances (the use of HYVs, the use of sickles, and the increased population), the two traditional institutions, namely tebasan and harvesting with ani-ani and bawon, are still persisting side by side. Any change which would destroy the bawon system is likely to be resisted by the landless harvesters for whom their shares of rice are important, unless alternative sources of income can be found.

2.8. BIMAS and BUUD/KUD

The embryo of the Bimas model was developed in 1963/1964 on about 100 hectares of land In Krawang, West Java, when a group of students and staff of the Bogor Agricultural University came up with the idea of personally aiding the farmers. These students were setting up a plan to go into villages where they would live together with the farmers for a certain period of time (a few weeks) during which they would both teach and learn from them, taking their experience back to prepare a following group of students who would do the same. With enthusiasm and dedication these students worked in the fields together with the farmers, offered suggestions for improved cultivation techniques, and listened to farmers' points of view, overcoming the prediction that farmers would not listen to youth. One important

factor was that they were working with locally-bred improved seeds in trial plots. In the first year of the program the result was evident. Per acre yields rose about 50 percent over regular plots.

Looking at this success, by the next rainy season the Department of Agriculture had taken over the program from the University and more than 400 students from different universities were sent into more than 200 villages. Winning the confidence of farmers, the program achieved another success. After that, the Krawang example became wide-spread throughout other provinces under the name of Detnas (Demonstrasi Masai or Mass Demonstration). The next season the name of Demas was changed into Bimas (Bimbingan Masai or Mass Guidance). It became well known as the rice intensification program. Bimas is thus a new institution created by the Government aiming at increasing food (especially rice) production, and at promoting the rural people's standard of living.

The executive body of the Bimas program was established by Presidential Decision No. 95/l969. At the national level in Jakarta this body is called Badan Pengendali Bimas (Bimas Steering Board or Board of Directors). It was followed by Badan, Pembina Bimas in the provinces and Badan Pelaksana Bimas in the regencies.

Passing through several modifications, in 1970/1371 Bimas was adopted as a national model in the form of Bimas Yang Disempurnakan (Perfected Simas) or Bimas Unit Desa, the unit comprising an area of 600-1000 hectares of rice fields. This acreage is called WUD or Wilayah Unit Desa (Village Unit Area), comprising usually six to ten villages. The activities of Bimas include planning, implementation of the planning, information and instruction, supply and distribution of means of production, credit provision, processing and marketing. In the implementation of the planning, Bimas combines various activities of Government agencies, banking and farmers.

The assumption is that improving the farmers' standard of living and increasing food production will be undertaken, in practice, by the farmers themselves. However, the fanners generally have small amounts of land, limited capital, and restricted mobility. It is the task of the Government, therefore, to guide the farmers in order to make them capable and willing to increase their production. The Government thus seeks to create conditions favourable for development. In order to guarantee that what is done at the national level can be of benefit to the rural people, it is necessary to carry out certain activities in rural areas; these activities — usually known as "agri-support" activities — include research and extention distribution of farm inputs, the provision of production credit for farmers, and, processing and marketing of farm produce (see Mosher, 1971: 8). To implement these activities, the Government established a supplementary organization which is called Badan Usaha unit DQS.I (ISUUP) or Village Unit Enterprise, an action body for the Unit Desa.

Before 1968, responsibility for these activities was shouldered by primary-cooperatives in the villages. Since these cooperative organizations were still young, small and weak, however, the agri-support activities were found to be a heavy burden. Moreover, the reputation of cooperative organization in Indonesia had been blemished historically by instances of corruption and failure. In adjustment to this circumstance, in 1969/1970 the organization of Bimas was changed to become Bimas Gotong Royong. Under this new name, the agri-support activities were carried out "arm-in-arm" by government and private agencies, domestic as well as foreign. But here again, several difficulties were encountered because at the village level all these activities were laid on the shoulders of the village officials (Lurah and his staff), who were already overburdened with other administrative tasks. In reaction to this situation, in 1970, for the second time Bimas underwent a structural change and became Bimas Yang Disempurnakan (mention-ed above), in which the provision for agri-support activities was based among other things, on the following principle:

> "The implementation of these four activities at the village/rural level should not be carried out by one institution or organization, but by several agencies that are considered capable and experienced in the field". (Soedarsono, 1973: 34).

Accordingly, three working units were created, namely:

(1) The PPL (Penyuluh Pertanian Lapangan) or Field Agricultural Extension Agent, charged with conducting research and extension activities. PPL is an officer of the national Dinas Pertanian Rakyat (Agricultural Service), but he is specially assigned to a Village Unit Area.

(2) The BRI (Bank Rakyat Indonesia) or Indonesia People's Bank within the Village Unit Area. Officers of the national BRI were assigned to Village Unit Areas, to arrange credit facilities to farmers, with a procedure as simple as possible.

(3) The BUUD (mentioned above): to carry out the other two activities namely, the distribution of farm inputs and the processing and marketing of farm products. Although these tasks were open to any agencies or individuals that were considered capable and experienced, BUUD was established to assure that they would be performed in all areas.

The Bimas program is thus undertaken cooperatively by Government agencies and institutions to develop the autoactivity of the farmers' community through Panca Karya or Panca Usaha (Five-Efforts), namely;

(1) improving irrigation systems, (2) the use of improved quality seeds, (3) fertilization (4) prevention and eradication of insects

and deseases, and (5) soil maintenance by applying improved techniques of cultivation. (*see* also Focus on Indonesia, July 1977: 6-7)

Credit for production is rendered by BRI to farmers in the form of fertilizers, pesticides, seeds, and the additional cost of intensification. From 1970/1971, credit has been channeled individually to the farmers by Village of Mobile Units of BRI. The interest rate is one percent per month and **the** credit is repayable one month after harvest or in seven morifchs.

In the structure of the last form of Dimas, i.e. the Perfected Bimas (mentioned above), the HUUD which was organized In accordance with Presidential Decree No. 4/1973, is actually a cooperative organization with a different name. Having a bad image due to improper performance in the past, however the name Koperasi or cooperative was avoided in the hope that it might thus be removed from the farmers' memory. In the initial stages, BUUP is a federative body of the primary-cooperatives within one WUD. Once it is successful in conducting its tasks, and when the situation is favourable, it is expected that BUUD will be transformed again into a unitary body which is called KUD (Koperasi Unit Desa) or Village Unit Cooperative. When that stage is reached', instead nf one cooperative in each village, there would be only one primary-cooperative in each WUD.

The leadership of HUUD consists of a Board of Directors comprising the Chairmen of all primary-cooperatives in the villages within the WUD, from which the daily-executives, i.e. the managers are elected. This Hoards of Directors is supervised by a Board of Control which consists of the Carat or Head of Subdistrict, as a chairman and all Lurah within the WUD as members.

Although BUUD is essentially a cooperative, the conversion of it into KUD is not only a change in name but also a change in its organizational structure and its "legal-status" (KUD) establishment requires **a** notarial certificate). In the structure of BUUD the individual farmers are "indirect" members, the primary-cooperatives being the members. Whereas in KUD, the individual farmer are "direct" members from whom (and not from the representatives of the primary cooperatives as in BUUD) the managers are elected. While in BUUD several government functionaries are involved in the leadership, KUD is, at least officially, independent.

For Indonesia, to be self-sufficient in staple-food means to have enough rice. To overcome food shortage during the eventual poor harvests, a national rice stock is necessary. This rice is used to subsidize the areas that undergo famine, to provide allowances for military personnel and civil servants, and sometimes to be dropped to the market to prevent price increase. Provision of this national rice stock **is** the task of **a** Government agency called BULOG (Badan Urusan Loqistik) or Logistic Agency. During successful harvest,

to prevent the farmers from getting low prices for their products, the Government has guaranteed a "floor" (minimum price) to be taken care of by BULOG which will buy at that level to avoid a drop in price. In this connection, an organization which can help the Government to provide the national rice stock is the BUUP. Thus, BUUD can sell by contract to BULOG (Depot Logistik) or the regional branch of BULOG. By this way, at the same time BUUD has facilitated the marketing of farmer's products.

Thus in the initial stages, when BUUD was still young, it was charged with the task of buying rice from farmers in accordance with the projected amount of the national stock. This task was carried out successfully until 1972.

What happened in the wet season in 1973, however, was beyond expectation. At that time, in adjustment to the market price prediction, the Government had decided to increase the floor price (from Rp. 13.20 to Rp. 15.00 per kilogram of paddy[20]. Yet, in many regions the rice prices in the market were still unexpected higher than the floor price. In this situation, the Bupati (Heads of Regency governments) who had the task of getting the rice projected as needed from their regions for the national stock (but having no right to change the floor price), required the farmers to sell to BUUD at the floor price that had been determined by the national Government. As a consequence, the farmers suffered a loss, and the BUUD was under severe criticism as having viclated cooperative principles. In reaction to the people's protest, since then the farmers have been freed from that obligation and are allowed to sell their rice to any buyer. BUUD then found it necessary to find some way to procure the needed amount of rice if most of the farmers did not sell to BUUD. A possible procedure, in this event, could be the employment by BUUD of a penebas. The penebas could buy the rice from the farmers by the tabasan system, and the rice would be, in turn, sold by the penebas to BUUD. If this were the case, it would mean that BUUD would affect positively the expansion of the tebasan system. But if the farmers by their own free will, were still willing to sell their rice directly to BUUD because they thought it would be more advantageous (the price being higher than that by tebasan system, for example), then it could be expected that BUUD might shut-out the expansion of tebasan system. It will be useful, therefore, to examine in this study the possible association between the development of BUUD and the practice of tebasan. (See Chapter 4).

[20] US $1.- = Rp. 415.-

CHAPTER 3

THE METHODOLOGY

3.1 The Preparation.

This study was incorporated into the first stage of the Rural Dynamics Study (RDS) which was conducted by the Agro-Economic Survey of Indonesia (AES)[21]. The RDS is a long-term research project which began in 1975, to make comprehensive studies of trends, diagnose problems and evaluate programs. In its first phase, to be completed in five years, an area of five Kabupaten (Regencies) in the Cimanuk River Basin (CRB), West Java, which is the site of a proposed major irrigation development scheme, was chosen for observation. The broad scope of the RDS and its extensive coverage of many subjects led to the choice of sample survey procedure. The RDS research Framework provided that samples would be drawn after completion of an initial bench-mark census in which nearly all (795) villages within the five Kabupaten would be the units of enumeration (as distinguished from a census of households, farms, persons, or other units). A purposive sampling procedure was preferred to random sampling because of the pronounced local and regional diversity of environmental condition. The choice of the CRB as area of observation was partly based on this consideration. It was expected that sample villages would represent broad ecological regions (based on physical characteristics, particularly relief, soils, and water availability)[22]. Administratively, the CRB encompasses the Regencies of Garut, Sumedang, Majalengka, Indramayu$_s$ and Cirebon, in the eastern part of West Java.

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[21] The Agro Economic Survey of Indonesia is an "inter-ministerial research organization for the formulation and evaluation of Government policy on the agricultural economy of Indonesia". Established in 1964 by Executive Order, it is a continuing national research program, performing an inventory of agricultural resources, and monitoring change. Situated near the Agricultural University at Bogor, its headquarters is attached to the Ministry of Agriculture in Jakarta. A number of topical studies have been conducted and there is an extensive literature of AES research reports.

[22] The complete RDS research framework is outlined in: "A Proposal for The Study of Rural Dynamics in Indonesia", Unpublished paper, AES, 1974

Before the actual bench-mark census started, pre-designed questionnaires were tested in several villages and revisions were made. There were 1045 questions (which the RDS called "variables") among which several concerned developments or changes in rural institutions. The census questionnaires were predesigned to obtain a general description of the area. Most of the questions, therefore, were in binary form, to elicit "Yes" or "No" answers, and nearly all were objective in character. For questions that demanded information about changes in, or development of particular phenomena; inquiry was structured as follows:

> "Were the following sharecropping systems present in this village? If they were, how have they changed during the last five years ?"
>
> One of five responses was checked, as follows:
>
> 1 = formerly present, but have disappeared
>
> 2 = now present, but decreasing
>
> 3 = now present, and more or less constant
>
> 4 = now present, but just beginning
>
> 5 = now present, and expanding

For institutions that were assumed to have been present only regionally (such as tebasanj, another response option — "never present" was added. This response option was not included among those listed for the question on sharecropping (the above example) which was assumed to be practiced in all areas throughout Java.

For intensive study, this kind of categorization would no doubt require supplementation by questions probing for additional data. For the purpose of collecting base data from which further research could be projected, however, the question form and response options were appropriate, and it is from the information they have provided that this study has been designed.

3.2. How the Census Survey was done

Since the census enumeration units were villages, the village, rather than households, farms, or persons, is the unit of analysis. The unit of response, as distinct from the unit of analysis, was a group of people, consisting of:

- Pamong Desa (Village Government) members;
  ten to fifteen persons;

- Nucleus villagers (descendents of original settlers):
  five or more persons;

- "Middlemen"' (traders, businessmen): three or more persons;

- Others who were considered to be key persons in the village: two or more persons.

Thus, in total there were at least twenty people in the group. The group-interview method is considered important to overcome misunderstandings and language problems, and it may provide counterchecks of individual bias by eliciting response from several members. Also, except for statistical figures available in the village office, questions concerning processes and events need discussion in order to elicit the best possible replies. Questions of recall imply capability of individuals to remember, and responses from several people enhance validity and reliability. There is the counter-possibility, of course, of informal group collusion in some exaggeration of responses involving embarrassment or prides, which villagers wish on the one hand to conceal or on the other hand, to flaunt. Interviewers could only be alert to this possibility, and seek to circumvent distortion.

The collection of data was carried out by fifteen members of the RDS staff who stayed in the villages and travelled from one village to another. They conducted direct interviews, one or two fieldworkers in each case, using the pre-coded questionnaires. Because of the long time required to complete the interview, field-workers had to stay in the villages. Usually the meetings were held at night, in an informal situation. Time-breaks were always made possible, and if the work could not be finished in the first night, the interview would be continued the next day or the next night.

The data collected (in response to the 1045 questions mentioned above) includes information about population, system of agriculture (cropping pattern), distribution and use of resources, and changes in rural institutions. Data were brought from the field, edited and their reliability was considered systematically by reference to a three unit scale as follows:

1 = weak, unreliable

2 = moderately reliable

3 = strong, relatively reliable

Each variable was rated by the mean judgment of the fifteen members of the field team, and only those with 'strong' reliability were retained for analysis.

3.3. The Problems Studied

As implicitly stated above, a primary assumption of the study is that rural development programs influence rural institutional change. Relevant variables available from the census of villages have, therefore, been screened and analyzed to see whether or not they confirm certain specific hypotheses which stem from this basic assumption.

The important elements in Indonesian rural development programs are the application of new agricultural technology and the introduction of organizations to serve and supplement the new technology. These elements, thus, serve as two sets of independent variables.

The new agricultural technology comprises several techniques to improve rice production, among which one of paramount importance is the use of high yielding rice varieties (HYVs). In this study "new technology" refers explicitly *to* the use of the HYVs.

The second constituent element, new organizations, will not be summarized in a single index (like HYV), but will be studied with each observed organization as a case, and all will be examined.

The institutional changes refer to the continuity or discontinuity of the existing traditional practices in the villages. These are the dependent variables. Several possible relationships between these elements as pairs of dependent and independent variables will be examined for confirmation of hypotheses which can be stated as follows:

Table of Hypotheses

A. Hypotheses about the association of trends in traditional practices with the use of HYVs:

1. The use of HYVs will lead to the expansion of tebasan[23] Practices;
2. The use of the sickle to harvest rice will lead to the expansion of tebasan practices[24] ;
3. The use of HYVs will lead to the expansion of Kedokan practices;

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[23] For definitions (explanations) of Tehasan, Kedokan, Bimas, Ijon BUUD/KUD, Gotong-Royong, see Chapter 2, above

[24] The sickle is not new technology, but its use is an indicator of the use of HYVs.

B. Hypotheses about the association of trends in traditional practices with the inauguration of new organizations:

4. The more frequently the villages participate in the Bimas programs the more likely that the tebasan practice will be expanding;

5. Frequent participation of Villages in the Bimas program will lead to the declining practice of *I*jon;

6. Frequent participation of villages in the Bimas program will lead to the expansion of Kedokan practices;

7. The development of BUUD/KUD will lead to the decline of ijon and tabasan practices;

8. The activity of Saving-and-Credit Cooperatives will lead to the decline of the ijon practice;

C. Hypotheses about the inter-association of trends among traditional institutions:

9. The increase in getong-royong activities will lead to the decline of tebasan practices.

It is assumed that the Bimas program always includes the use of HYVs. Therefore, aside from exploration of the above-stated hypotheses, possible association between village participation in Bimas and the use of HYVs will be examined. In the presentation of data (in Chapter 4, below), this will be discussed first preceding the exploration of the above-stated hypotheses.

3.4. Data Analysis.

First it must be kept in mind that in this study each case is a village, not a person, and the data for each village are consensual perceptions of several persons.

At first inspection of the village census data, out of 1045 variables, 71 of high estimated reliability were selected for the purpose of the study. At the final observations 29 of the 71 variables were selected for possible relevance to institutional change, and 13 of these 29 were selected for analysis in the search for evidence that would question or support the hypotheses that had been formulated[25].

In this study the simple one-way frequency distribution and two-way association tabulations are the primary exhibits of data.

[25] The list of these variables is presented below in the appendix.

The "no-data" eases are not included in the tabulations, on the assumption that their distribution would follow the pattern of distribution for all eases.

In the village interviews, questions about tebasan did not distinguish different crops which may be sold by this system. As noted above, however, tebasan may be practiced in other crops than rice. To analyze tebasan in rice, therefore, villages identified as rice-monocultivation areas, (hereafter rice-villages), were selected. These are the 145 villages in which at least 90 percent of the total sawah were double- or triple-cropped. It is assumed that in these rice-villages (as distinct from all 795 villages in the CRB area), tebasan system was practiced only for rice. Several analyses there-fore, are presented comparatively for "all-villages" and "rice-villages".

The variable "Village Participation in Bimas" is represented by summarizing it in four intervals: never, one-to-four times, five-to-eight times, and more than eight times (during the years: 1968-1975). Institutional change is in terms of expansion or decline as described above (during the years: 1970-1975)[26].

"The use of HYVs" is represented by the change in the number of HYV growers, ordinally indicated as; No growers. Declining, Constant, and Increasing. All variables which concern change are classified in the tables into these four categories. The questionnaire lists of five or six categories were compressed for analysis into combinations that merged the "never" response with the "formerly present but now disappeared" response, and the "now present just beginning" response with the "now present sad expanding" response. The first combination is made because "disappeared" means also “now absent". The second combination is because the frequency of "just beginning" response was too small to be separately important. Despite this simplification, in some cells in the two-way association tables (especially for rice-villages), there are still entries for only small numbers of cases.

The development of BUUD/KUD is in terms of village-inclusion in the BUUD/KUD organization, classified into three categories as follows:

Not yet included in the BUUD; already included, but the BUUD is not yet transformed into KUD; and already included, and the BUUD has been transformed into KUD.

[26] The period 1970-1975 was chosen because 1970 was the time when the Perfected or Improved Bimas was introduced.

The situation with respect to the Saving-and-Credit Cooperatives is indicated by the number of active cooperatives reported.

Finally, villages which had - and had not - practised tebasan were compared by an indicator of farm size, the ratio of farm labourers to farmers.

It is recognized that this methodology, especially the procedure in data collections, measurement, and analysis, is subject to certain well known limitations which must be taken into account in weighing the findings. In the group-interview technique at the village level the data gathered rely on the recollections and reports of respondents. And also, a period of five years may not be long enough to allow trends to become significantly identified. However, these are common problems of census and survey research, whether units of observation are villages^ households, or individual persons. Other shortcomings will be noted in the discussion which follows, but as base data, from which hypotheses may be developed and further research may be designed, the data are of considerable importance.

CHAPTER 4

THE FINDINGS OF THE STUDY

4.1. Village Participation in Bimas and the Use of HYVs.

Bimas includes among its constituent programs the promotion of HYVs. A first concern of this study is to see, therefore, whether repeated village participation in Bimas had been accompanied by increase in the number of farmers who cultivate high yielding varieties of rice.

One major purpose of Bimas, as noted above (p. 62), is to generate auto activity of the farmers and their communities. Basically, villages and villagers are free to participate or not in Bimas as they choose. However, attention has been called to qualified exercise of this freedom prior to 1970.

> "In Java it is known that large scale Bimas paddy-package-credit programs at the village level put pressure on farmers to plant new varieties, to use fertilizers, and to accept credit. Even with pressure, however, many farmers clearly did not saw all their rice plots with the new varieties". (Sajogyo and Collier, 1973: 86, 87).

In other words, there were many farmers who received the Bimas credit but were still unwilling to adopt the new seeds. Nevertheless it continues to be expected that in the long run Bimas will influence farmers to such an extent that even those who do not receive the Bimas credit, or those who are "outside the program", will also adopt the new varieties, thus exercising farmers' auto activity. To see whether this expectation will be really met, it is necessary to examine the possible association between village participation in Bimas and the spread of the HYVs.

In this study, Village Participation in Bimas is indicated as the frequency of participation during the period 1968-1975. Since the Bimas program is implemented seasonally, each single-cropping village could have participated seven times during that period; each double-cropping village could have participated 14 times. In the classifications; used here, "once" means to participate in one season, "four times" means in four seasons, and so on, but not necessarily in sequence,

Village participation in Dimas was reported for almost all villages. Only two percent in CRB as a whole had never participated in the program, and most of them (48 percent) had participated more than eight times (Table 1). It was also reported that most of all the

table 1: Distribution of All-Village by Frequency of Their Participation in Minas, sod by Trends in the Number of MVV Growers, 1968-1975. Cimanuk River Basin, Java, 1975.

Reported Trends in the Number of HYV Growers 1968-1975	Villages Distributed by Frequency of Participation in Bimas: 1968-1975								Total	
	0		1 - 4		5 - 8		More than 8			
	No.	%	No.	%	No.	%	No.	%	No.	%
No HYV Growers	4	27	7	5	6	3	40	8	57	8
declining	0	0	13	10	29	13	41	12	83	12
Constant	6	40	13	10	12	6	14	7	45	7
Increasing	5	33	96	75	166	78	228	73	495	73
TOTAL No.	15	100	129	100	213	100	323	100	680	100
%	2		19		31		48		100	

NOTE: Villages for which the two variables were not reported: 115 (14 percent).
In the interpretation of this and each subsequent table of data it is assumed that the distribution of "no-data" cases would follow the pattern of distribution for all cases. (See Methodology, p.40 above)

villages had increasing numbers of HYV growers (73 percent). In the rice-villages the trend is seen to be more or less the same, and all rice-villages were reported to have participated in Bimas. (Table 2).

There were still some villages with no HYV farmers (eight percent in al1-villages, and 19 percent in rice-villages). Furthermore, non-adoption of HYVs was actually slightly more evident in villages with high frequency of Bimas participation than in villages with low frequency. This, if confirmed, would be the opposite of what has been expected, but cases are too few to be convincing.

Table 2: Distribution of Rice-Villages by Frequency of Their Participation in Bimas, and by Trends in the Number of HYV Growers, 1968-1975. Cimanuk River Basin, Java, 1975.

Reported Trends in the Number of HYV Growers 1968-1975	Villages Distributed by Frequency of Participation in Bimas: 1968-1975								Total	
	0		1 - 4		5 - 8		More than 8			
	No.	%	No.	%	No.	%	No.	%	No.	%
No HYV Growers	0	0	1	7	2	6	21	27	24	19
declining	0	0	3	20	7	21	8	10	18	14
Constant	0	0	2	13	2	6	4	5	8	7
Increasing	0	0	9	60	22	67	44	58	75	60
TOTAL No.	0	0	15	100	33	100	77	100	125	100
%	0		12		26		62		100	

Clearly, the adoption of high yielding rice varieties has been reported to be spreading in most of the villages, about as much in those of low and middle frequency as in those of high frequency Bimas participation. Even in the handful of non-participant villages there have been increasing numbers of HYV cultivators. Conversely, in a few villages the numbers of HYV farmers have been declining - to about the same extent in those of low and medium *as* in those of high frequency Bimas participation.

All the rice-villages were reported to be participants. However increasing numbers of HYV cultivators were reported in a larger majority of all-villages than of rice-villages (73 percent and 60 percent respectively). These are interesting observations the complete explanation of which, however, would require further study.

In general, it appears that there is not enough evidence to confirm that frequency of village participation in Bimas makes a difference in the spread of HYVs. One possible explanation is that though the Bimas programs introduced the HYVs, the further spread of these seeds does not necessarily depend on repeated participation of the villages but that the adoption process contains its own momentum, having been introduced initially by the extensive and intensive instructions and activities of the extension service within Bimas.

The following sections will present and discuss the data as analyzed for possible confirmation of the hypotheses listed above.

4.2. Trends in the Number of HYV Growers and Trends in the Practice of Tebasan

It was thought that expansion of the tebasan system would accompany wider adoption of HYVs (hypotheses no. 1). The adoption of HYVs was measured in this study by reported changes in the number of HYV growers, and by reported changes in the size of area planted to HYVs. However, the two measures were identically distributed, and for simplicity only one indicator - changes in the number of growers - is analyzed. The tebasan system is also practiced in the production of other crops, so trends are here studied only for the rice-villages. (Table 3)

First it must be noted that in this area tebasan was reportedly not increasing. (This appears to be the opposite of what has been encountered in Central Java). It was reported never to have been practiced in the majority of the rice-villages (63 percent), even in those with increasing numbers of HYV growers. Antony those villages for which tebasan was reportedly practiced (37 percent), it was declining in twice as many villages as reported expansion - a ratio of two-to-one. There is no indication, therefore, that the spread of high yielding rice varieties in these villages has promoted an increase in the practice of tebasan.

Table 3: Distribution of Rice-Villages by Trends in the Number of HYV growers, and by Trends in Tebasan practice, 1970-1975, Cimanuk River Basin, Java, 1975.

Trends in Tebasan Practice 1970-1975	Rice Villages Distributed by Trends in The Number of HYV Growers: 1968-1975								Total	
	None		Decreasing		Constant		Expanding			
	No.	%	No.	%	No.	%	No.	%	No.	%
Never Practiced	15	63	10	50	6	75	57	66	88	63
Decreasing	6	25	3	15	0	0	8	9	17	12
Constant	1	4	5	25	1	12,5	19	22	26	19
Expanding	2	8	2	10	1	12,5	3	3	8	6
TOTAL No.	24	100	20	100	8	100	87	100	139	100
%	17		14		6		63		100	

As mentioned above, the new varieties are easier to harvest with sickles than with the traditional knife, ani-ani. The use of sickles, which is actually not new, then becomes familiar to farmers not only in harvesting the HYVs, but spreads also to the harvesting of local varieties. Thus it may be hypothesized that the use of HYVs would expedite the expansion of tebasan, even though only indirectly by its stimulation of the use of sickles and consequent displacement of the traditional technique of harvesting. The following section is to see whether there is any association between these two variables, the use of sickles and the spread of tebasan.

4.3. Trends in the Use of Sickles and Trends in the Practice of Tebasan

It is clear that the use of sickles has been introduced in all but 21 percent of the villages for which reports were given and was declining in only seven percent. The use of sickles was reportedly holding constant (23 percent) and increasing (49 percent) in a large majority of the villages, whether or not tebasan was on the increase. Thus the use of sickles appears not to influence tebasan, although one slight indication of association is noted: all the "non-sickle" and "decreasing sickle" cases were villages in which tebasan was absent or declining; there was no "non-sickle" case in the villages where tebasan was constant or increasing. (Table 4).

If there is any association between these variables, it is almost completely concealed by the influence of other factors.

Table 4: Distribution of Rice-Villages by Trends in the Use of Sickles and by Trends in Tebasan practice, 1970-1975, Cimanuk River Basin, Java, 1975

Trends in Tebasan Practice 1970-1975	Rice-Villages Distributed by Trends in the use of Sickles, 1970-1975								Total	
	Never Used		Decreasing		Constant		Expanding			
	No.	%	No.	%	No.	%	No.	%	No.	%
Never Practiced	16	80	5	71	14	64	32	68	67	70
Decreasing	4	20	2	29	2	9	5	10	13	14
Constant	0	0	0	0	4	18	6	13	10	10
Expanding	0	0	0	0	2	9	4	9	6	6
TOTAL No.	20	100	7	100	22	100	47	100	96	100
%	21		7		23		49		100	

4.4. Trends in the Number of HYV Growers and Trends in the Kedokan System

Kedokan, as explained elsewhere, is an agreement by which a limited right to harvest is granted to designated workers in consideration of their performance of specified tasks. To the landowner Kedokan provides labour, to the worker it provides rice. It is an old system, and in the past has prevailed widely throughout Java.

It was reportedly prevalent, that is continuing without change or practiced with greater frequency in two-thirds (67 percent) of all villages in CRB; - in almost three-fourths (72 percent) of rice villages. There was no clue in the survey data as to why Kadokan was reportedly absent or disappearing from one-third of all the villages, or two-sevenths of the rice villages, (Table 5 and Table 6).

The production of high yielding varieties (HYV) is a new feature of rice growing in Java and has come to be fairly general in the villages studied. The number of HYV growers, as noted also above, was remaining constant or expanding in more than four-fifths (83 percent) of all villages, — about three-fourths (73 percent) of the rice villages. Villages where HYV growers were absent or declining in number were a minority.

Expansion of Kedokan was reported for 23 percent of all villages; 27 percent of the rice villages. Corresponding indications of a counter trend, decrease in Kedokan, are 19 and 14 percent. The ratios of expansion-to-loss (23 : 19; 21 : 14) suggest a slight net gain for Kedokan in all villages, a more substantial net gain (2 cases of expansion for 1 of decrease) in rice villages.

When villages with increasing numbers of HYV growers are singled out for observation, the expansion-to-decrease ratios for Kedokan are 28 : 22 (all villages) and 35 : 18 (rice villages). A conclusion is that the practice of Kedokan has achieved net expansion in all villages, but no more rapidly in the HYV-increase villages than in the others.

So Kedokan, an old practice, and HYV production, a new practice, are now both conspicuous features of rice growing in these villages, but there is no indication that a trend in either is dependent on a trend in the other.

Table 5: Distribution of All-Villages by Trends in the Number of HYV Growers 1968-1975, and by Trends in the Kedokan Practice, 1370-1975.
Cimanuk River Basin, Java, 1975.

Trends in Kedokan Practice 1970-1975	Villages Distributed Trend in the Number of HYV Growers : 1968-1975								Total	
	No Growers		Declining		Constant		Increasing			
	No.	%	No.	%	No.	%	No.	%	No.	%
Never	17	44	16	27	4	13	48	10	85	14
Decreasing	2	5	3	5	5	16	99	22	109	19
Constant	17	44	33	57	21	65	185	40	256	44
Just Begun / Expanding	3	7	6	10	2	6	128	28	139	23
TOTAL No.	39	100	58	100	32	100	460	100	589	100
%	7		10		5		78		100	

Table 6: Distribution of Rice-Villages by Trends in the Number of HYV Growers 1968-1975, and by Trends in the Kedokan Practice, 1970-1975. Cimanuk River Basin, Java, 1975.

Trends in Kedokan Practice 1970-1975	Rice-Villages Distributed Trend in the Number of HYV Growers, 1968-1975								Total	
	No Growers		Declining		Constant		Increasing			
	No.	%	No.	%	No.	%	No.	%	No.	%
Never	8	57	3	20	0	0	4	5	15	14
Decreasing	2	14	0	0	0	0	13	18	15	14
Constant	4	29	8	53	6	100	31	42	49	45
Just Begun / Expanding	0	0	4	27	0	0	26	35	30	27
TOTAL No.	14	100	15	100	6	100	74	100	109	100
%	13		14		6		67		100	

4.5. Village Participation in Bimas and Trends in Tebasan Practice

The tebasan system is not a new institution but as noted above, some studies indicate that tebasan practice, had shown a remarkable expansion in Central Java, and this expansion was concurrent with the wider adoption of the HYVs. (Collier, *et. al*. 1974).

It was assumed that Bimas promoted the use of HYVs. The possibility explored above indicates that the adoption of these varieties appears to be independent of the frequency of village participation in Bimas. It might *be* true that the wider adoption of HYVs is partly due to the activities of the extension service within the Bimas institution, but it seems to be not necessarily dependent on the frequency of participation.

It has been shown also that there is no direct relationship between the spread of HYVs and the trends in tebasan practice. But possibly through the use of sickles, indirectly, the acceptance of HYVs may have had some influence on the expansion of tebasan.

It is now further presumed that Bimas may have affected the spread of tebasan practice. Accordingly, the data are examined for evidence of direct association between the frequency of village participation in Bimas and the trends in tebasan practice, in CRB rice villages. (Table 7).

Table 7. Distribution of Rice-Villages by Their Participation in Bimas 1968-1975, and by Trends in Tebasan Practice 1970-1975, Cimanuk River Basin, Java, 1975.

Trends in Kedokan Practice 1970-1975	Distribution of Villages by Frequency of Participation in Bimas				Total	
	Less Than 8 Times		More than 8 Times			
	No.	%	No.	%	No.	%
Never Practiced	38	74	52	58	90	64
Decreasing	3	6	14	16	17	12
Constant	8	16	17	19	25	18
Expanding	2	4	7	7	9	6
TOTAL No.	51	100	90	100	141	100
%	36		64		100	

It was reported that in most (64 percent) of the rice villages in CRB, tebasan has never been practiced. One-fourth of them were reportedly practicing tebasan constantly or with a slight expansion (24 percent). But there was also a considerable number of villages in which tebasan practice was declining (12 percent). It was also reported that nearly all of the villages have participated in Bimas, about two-thirds (64 percent) of them more than eight times.

There is a slight indication here that in cases where participation in Bimas was most frequent, the number of villages with expansion of tebasan was also larger. However, there was conversely a decrease in tebasan in ether villages. In fact, the reported decrease in 12 percent and increase in six percent of the villages - a ratio of two losses for one gain - indicates a net shrinkage in the practice of tebasan, whether all rice-villages are examined together or those with most frequent Bimas participation are examined separately. It appears, therefore, that there is no marked relationship between the frequency of village participation in Bimas and the expansion of tebasan. Thus the data suggest in general that in CRB, West Java, the tebasan system is a declining rather than expanding institution. And this is of course, contrary to what was encountered in Central Java by the studies carried out previously (noted above). Without rejecting the validity of their findings it can be proposed here, that the expansion or decline of tebasan seems to be not a uniform trend throughout Java, and that, thus, there is diversity in the experience of villages on this island in their response to the changes involved.

Why the tebasan system in CRB West Java is declining remains a question to which data in hand do not provide any ready answer. There is **a** slight indication, however, that this decline may be associated with the coming of KUD, to be discussed below. (in Section 4.8b)

4.6. Village Participation in Bimas and Trends in the Practice of Ijon

Another question in the minds of rural development workers is whether the fate of ijon as **a** traditional institution has been affected by the innovation of Bimas. The data on these variables have accordingly been examined for any possible evidence of a relationship.

Clearly, _ijon_ persists, but only in about one-fifth (21 percent) of all the villages surveyed, and in about one-fourth *(*26 percent) of the rice villages. In four-fifths of all, and three-fourths of rice villages, ijon has never been practiced, has disappeared, or is decreasing (Table 8 and Table 9). The percentages of villages with decrease and increase indicate ratios of 11 : 5 (all villages), and 11 : 4 (rice villages), or more than 2 losses for each gain.

Table 8: Distribution of All-Villages by Frequency of Village Participation in Bimas Program 1968-1975, and by Trend in Ijon Practice, 1970-1975
Cimanuk River Basin, Java, 1975.

Trend in Ijon Practice 1970-1975	Villages Distributed by Frequency of Participation in Bimas: 1968-1975								Total	
	0		1 - 4		5 - 8		>8			
	No.	%	No.	%	No.	%	No.	%	No.	%
None/ Disappeared	19	73	101	72	152	66	252	69	524	68
Decreasing	2	8	10	7	32	14	39	11	83	11
Constant	2	8	21	15	32	14	64	17	119	16
Expanding	3	11	8	6	14	6	12	3	37	5
TOTAL No.	26	100	140	100	230	100	367	100	763	100
%	3		18		30		49		100	

Table 9: Distribution of Rice-Villages by Frequency of Participation in Bimas, I960—1975, and by Trends in Ijon Practice, 1970-1975.
Cimanuk River Basin, Java, 1975.

Trend in Ijon Practice 1970-1975	Villages Distributed by Frequency of Participation in Bimas: 1968-1975								Total	
	0		1 - 4		5 - 8		>8			
	No.	%	No.	%	No.	%	No.	%	No.	%
None/ Disappeared	1	100	12	70	18	52	57	66	88	63
Decreasing	0	0	1	6	6	18	8	9	15	11
Constant	0	0	3	18	9	27	19	22	31	22
Expanding	0	0	1	6	1	3	3	3	5	4
TOTAL No.	1	100	17	100	34	100	87	100	139	100
%	1		12		24		63		100	

The extent to which ijon survives or has disappeared, however, seems not to be associated with frequency of Bimas participation. Evidently ijon is a declining institution that prevailed more widely in the pre-Bimas years than now. One possible conclusion is that the disappearance of ijon and the introduction of Bimas are different responses to common underlying influences on change in agriculture. Another possible conclusion is that the introduction of Bimas, having provided farmers with alternative ways of financing their production of rice, has hastened the demise of ijon. These two conclusions are not incompatible, and both are reasonable hypothetical explanations.

The persistence of ijon in 20 to 25 percent of the villages, regardless of the frequency of their participation in Bimas remains a question that data in hand do not answer. Does it persist merely because of some inertia or cultural lag, rooted in the habits of villages? Does it persist because the buyer-lenders have responded to competitive threat and raised their prices and lowered their interest ? Does it persist only in exceptional villages where unusual circumstances might be uncovered by special investigation? Or, does ijon actually persist more widely then reported by informants not wanting to confess its practice? These questions all deserve attention but the answers are beyond the reach of data available in this study.

One probability is that this circumstance is an example of the long time that may be required, in the replacement of an old institutions by a new one.

4.7. Village Participation in Bimas and Trends in Kedokan Practice

As demonstrated before, kedokan was reportedly prevalent in two-thirds (67 percent) of all the villages; in almost three-fourths of the rice villages (72 percent). And it was absent or disappearing from one-third of all villages or two-sevenths of the rice-villages (Table 5, 6, 10, 11). Data of the present study show no clues as to why kedokan is disappearing from a number of villages. No doubt, it is absent in several villages just because no such custom (adat) ever existed there.

The trend toward expansion of kedokan in some places was a little more prominent than the counter trend toward disappearance in other places. The expansion-to-decline ratio (or percentages) was 23 : 18 in all villages and somewhat larger 27 : 14 in rice villages (Tables 10 and 11 respectively). In the latter case, the ratio is nearly two to one showing, two instances of increase to one of decline.

At first inspection, it appears that kedokan growth is relatively independent of the frequency of village participation in Bimas. However, in the rice-villages, the ratios were even larger in the villages with low or medium frequency of Dimas participation (35 : 6; 41 : 15) than those with high Bimas frequency (20 : 16). The number of cases is not large, but each case — as previously argued — is a village and not a person, and the data for each village are consensual perceptions of several persons. These ratios must be accepted, therefore, as evidence, though slight, of some negative association:
kedokan's rate of gain is slower in the high frequency Bimas villages than those of low and middle frequency of Bimas participation.

Table 10: Distribution of All-Villages by Frequency of Their Participation in Bimas, 1968-1975, and by Trends in the Practice of Kedokan, 1970-1975. Cimanuk River Basin, Java, 1975.

Trend in Kedokan Practice 1970-1975	Villages Distributed by Frequency of Participation in Bimas: 1968-1975								Total	
	0		1 - 4		5 - 8		>8			
	No.	%	No.	%	No.	%	No.	%	No.	%
None/ Disappeared	3	22	15	13	30	15	45	15	93	15
Declining	0	0	22	19	42	22	48	16	112	18
Constant	9	64	55	47	75	39	139	46	278	44
Expanding	2	14	24	21	47	24	70	23	143	23
TOTAL No.	14	100	116	100	194	100	302	100	626	100
%	2		19		31		48		100	

Table 11: Distribution of Rice-Villagas by Frequency of Their Participation in Bimas, 1968-1975, and by Trends in the Practice of Kedokan, 1970-1975. Cimanuk River Basin, Java, 1975.

Trend in Kedokan Practice 1970-1975	Villages Distributed by Frequency of Participation in Bimas: 1968 - 1975								Total	
	0		1 - 4		5 - 8		>8			
	No.	%	No.	%	No.	%	No.	%	No.	%
None/ Disappeared	0	0	2	12	2	7	11	16	15	14
Declining	0	0	1	6	4	15	11	16	16	14
Constant	0	0	8	47	10	37	32	48	50	45
Expanding	0	0	6	35	11	41	13	20	30	27
TOTAL No.	0	0	17	100	27	100	67	100	111	100
%	0		15		24		61		100	

Clearly, kedokan, an old institutions is still prevalent, and probably tends to expand when the Bimas program is implemented. But the impact of Bimas on its growth seems not to be reflected very strongly by the frequency of village participation in the program. There may be other factors for which data in this study cannot provide. One possible explanation is that Bimas influences the growth of kedokan indirectly. Here again, the clue could be the use of sickles to harvest the rice, as Sinaga and Collier have stated;

> ".... it (kedokan) is important at the present time because it facilitates the introduction of sickles in the rice-harvest ...."
> (Sinaga and Collier, 1975: 28).

4.8a The BUUD/KUD and The Tebasan System

In fulfilling the task of buying rice for the projected national rice stock, as mentioned in Chapter 2, the BUUD/KUD might employ penebas, the tebasan rice buyers. This could lead to expansion in the practice of tebasan. However, when the Bimas participants were not obliged to sell their rice to BUUD/KUD, the farmers would have their own choice in selling their rice. If BUUD/KUD really bought the farmers' rice at the floor price determined by the Government and this price were competitive with the price offered by independent penebas, then it is likely that the farmers would prefer to sell to BUUD/KUD. There is a possibility therefores that the BUUD/KUD development might influence the growth of the tebasan system, either positively or negatively.

Nearly all (89 percent) of the villages surveyed in CRB had been included in BUUD, and more than half (58 percent) were in the KUD stage. In only about one-third (36 percent) of them, however, had tebasan ever been practiced. Would the cooperative purchasing of paddy under BUUD/KUD bring a decrease in the practice of tebasan which involves pre-harvest sale of the growing crop? As noted earlier and confirmed here, the data suggest generally that tebasan is a declining institution in the villages studied. (Tables 12, 13). The ratio of decrease-to-increase was reportedly about 2 to one, whether of all villages or rice villages.

In general these relationships are observed in all categories of villages regardless of BUUD status, with one slight though important indication of an exception. In KUD villages which have the most advanced stage of BUUD, only 4 percent show expansion of tebasan. The corresponding percentage (13) is three times as large in villages which never had BUUD; it is twice as large in villages having BUUD but not yet in the final form of KUD (7). The corresponding ratios in rice villages are even greater (15 : 2 and 11 : 2).

This indication is confirmed by the ratio of decreasing-to-expanding cases. In the KUD classification, there are 3 "decreasing" for every "expanding" village (12 : 4). This is larger than in the "no BUUD" class where "decreasing" and "increasing" trends nearly balanced each other (15 : 13 percent), or in the BUUD but pre-KUD class, where there are about two decreasing villages per one in which tebasan is expanding (16 : 7 percent). In rice villages there are more convincing. There are five "decreasing" villages for everyone "expanding" (10 : 2 percent). It is much larger than in the "no-BUUD" class where decreasing and increasing trends are exactly balanced (15 : 15 percent), or in the BUUD but pre-KUD class where the two trends nearly balanced each other (13 : 11 percent).

Table 12: Distribution of All-Villages by Status in the BUUD Organizations and by Trends in Tebasan Practice. Cimanuk River Basin, Java, 1975.

Reported Trend in Tebasan Practice 1970-1975	Villages Distributed by Status in BUUD organization, 1975						Total	
	Not BUUD		Not Yet KUD		KUD			
	No.	%	No.	%	No.	%	No.	%
Never Practiced	54	61	139	57	308	68	501	64
Decreasing	13	15	40	16	55	12	108	14
Constant	10	11	48	20	70	16	128	16
Expanding	11	13	18	7	19	4	48	6
TOTAL No.	88	100	245	100	452	100	785	100
%	11		31		58		100	

Table 13: Distribution of Rice-Villages by Status in the BUUD Organization, and by Trends in Tebasan Practice. Cimanuk River Basin, Java, 1975.

Reported Trend in Tebasan Practice 1970-1975	Rice-Villages Distributed by Status in the BUUD Organization, 1975						Total	
	Not BUUD		Not Yet KUD		KUD			
	No.	%	No.	%	No.	%	No.	%
Never Practiced	9	70	22	48	62	74	93	65
Decreasing	2	15	6	13	8	10	16	11
Constant	0	0	13	28	12	14	25	18
Expanding	2	15	5	11	2	2	9	6
TOTAL No.	13	100	46	100	84	100	143	100
%	9		32		59		100	

Thus, there is some slight suggestion of a possible association of the coming of KUD with the going of tebasan. The differences noted, however, allowing for errors of reporting are not large enough to strongly confirm a decline of tebasan practice where "UUP/KUD" becomes established. The differences are large enough to justify a recommendation that further observations be made.

4.8b The BUUD/KUD and The Ijon System

The ijon system is in essence a rural credit institution (as noted before) and BUUD/KUD is a cooperative body whose function is among other things, to help the farmers in marketing their farm products. In the Bimas organization, the task of managing credit provisions for farmers is assigned to BRI-Unit Desa (Village Unit People's Bank). Thus it seems there is no direct linkage of BUUP/KUD with the ijon credit system; it is the BRI, and not the BUUD/KUD, which provides credit for farmers and expectedly replaces the ijon system. However, since the common recognition of the ijon transaction is actually that of a sale rather than a loan, the rice-buying role of BUUD/KUD might affect the practice of ijon. Data on these two variables are therefore examined for any possible evidence of an association (Table 14, 15).

Evidently, as described before, ijon is a declining institution. It persists only in one-fifth of the villages surveyed, and in one-fourth of the rice villages. There is a slight indication that its decline is associated with the coining of KUD. In KUD villages, only 4 percent show expansion of ijon. The corresponding percentage is twice as large in villages which never had BUUD and in the villages having BUUD but not yet in the form of KUD (7 : 4 percent). (Table 14) These observations are further confirmed in the rice villages. There, only 2 percent show the expansion of ijon and the corresponding percentage is seven times as large in villages which never had BUUD (15 : 2 percent). In villages having BUUD but not yet in the form of KUD the number of villages which shows ijon expansion is nil. (Table 15)

This indication is supported by the ratio of decreasing-to-expanding cases. In the KUD class, there are 2 "decreasing" villages for everyone "expanding" (9 : 4 percent). The same ratio is found in the BUUD but pre-KUD class. These ratios are larger than in "no-BUUD" class, where decreasing and increasing trends nearly balanced each other (9 : 7 percent). (Table 14). In rice villages, this is re-confirmed. In the KUD class, there are 5 "decreasing" villages for everyone "expanding" (10 : 2 percent). In villages which never had BUUD, there are no villages which show decreasing practice of ijon but there are 15 percent which show expansion of it. (Table 15).

Thus, the data suggest generally that the decline of ijon is associated with the coming of BUUD/KUD. 3ut, here again, the differences in the figures noted are subject to probable errors in reporting, and indicate need for further study.

Table 14: Distribution of All-Villages by Status in BUUD Organization, and by Trends in Ijon Practice. Cimanuk River Basin, Java, 1975.

Reported Trends in Ijon Practice 1970-1975	Villages Distributed by Status in BUUD Organization, 1975						Total	
	Not BUUD		Not Yet KUD		KUD			
	No.	%	No.	%	No.	%	No.	%
Never Practiced	59	68	145	60	333	74	537	69
Decreasing	8	9	39	16	40	9	87	11
Constant	14	16	45	17	59	13	118	15
Expanding	6	7	12	7	17	4	35	5
TOTAL No.	87	100	241	100	449	100	777	100
%	11		31		58		100	

Table 15: Distribution of Rice-Villages by Status in BUUD Organization, and by Trends in Ijon Practice. Cimanuk River Basin, Java, 1975.

Reported Trends in Ijon Practice 1970-1975	Rice-Villages Distributed by Status in BUUD Organization, 1975						Total	
	Not BUUD		Not Yet KUD		KUD			
	No.	%	No.	%	No.	%	No.	%
Never Practiced	9	70	23	50	60	72	92	65
Decreasing	0	0	7	15	8	10	15	10
Constant	2	15	16	35	13	16	31	22
Expanding	2	15	0	0	2	2	4	3
TOTAL No.	13	100	46	100	83	100	142	100
%	9		32		59		100	

4.9. The Saving-and-Credit Cooperative and the Ijon System

As mentioned earlier, the ijon system is considered by the Government as & practice which is disastrous for farmers, and attempts have been made to eradicate it. One effort is to encourage activities which are considered useful and beneficial to farmers, and the formalization of which is recommended. Kurapulan Simpan Pinjam or "Saving-and-Credit Collection" was a traditional rural practice in which at harvest time farmers put aside some of their paddy as savings. The paddy thus collected was kept by the organization and provided for those who had need during masa paceklik or the difficult period of shortages when the farmers were waiting for the crops to ripen or were waiting between crops, having no more work in the fields. During this period some farmers could find additional income from work outside of agriculture. But those who could not find other work had to depend on the food reserve of the last harvest, it is during this period, when the food reserve is diminished that many farmers suffer. To help them the organization allows them to borrow paddy at low interest repayable in kind from the next harvest. The government has encouraged formalizing this practice by making it into a cooperative as a legal body. Some villages followed this suggestion, others did not. Though the activities of saving and borrowing paddy continued without being transformed into *a* legal body, the name cooperative was adopted. Thus, this practice is now popularly known as Koperasi Simpan Pinjam or Saving-and-Credit Cooperative (SCC).

To what extent this practice can help the village people seems to depend on the amount of the paddy stock collected and kept by the organization. Since the ijon system usually operates also in the paceklik period, the question arises as to whether this cooperative can compete with the ijon practice. The data on these variables have accordingly been examined for any possible indication of association.

It was reported that only eight percent of all the villages surveyed have one or more SCC, thus nearly all (92 percent) still have no such cooperative, or, if any, they have not been active. In the rice villages, the percentage of those that have active SCC is twice as large (16 percent). (Table 16, 17).

As for ijon, as mentioned above, the practice is declining. There is a rather strong indication of an association between this decline and the presence or absence of SCC. In the "one-or-more" class of all villages surveyed, only 2 percent show the expansion of ijon. The corresponding percentage is more than twice as large in villages which have no cooperative (six percent). This indication is confirmed by the ratio of decreasing-to-expanding cases. In villages where active SCC are present, there are nine "decreasing" villages for everyone expanding (18 : 2 percent). This is much more than in the class of villages which have no cooperative (11 : 5 percent). (Table 16).

Table 16: Distribution of All-Villages by Number of Active Saving-Credit Cooperatives (SCC), and by Trends in Ijon Practice, 1970-1975.
Cimanuk River Basin, Java, 1975.

Trends in The Practice of Ijon 1970-1975	Distribution of Villages by Number of SCC, 1970-1975				Total	
	None		One or More			
	No.	%	No.	%	No.	%
Never	468	70	39	64	507	69
Decreasing	73	11	11	18	84	12
Constant	97	14	10	16	107	15
Expanding	32	5	1	2	33	4
TOTAL No.	607	100	61	100	731	100
%	92		8		100	

This relationship appears also in rice-villages. In villages where SCC are present, 24 percent show the decline of ijon practice, and none shows its expansion (zero percent). Whereas in the class of villages that have no SCC, while only nine percent of them show the decreasing practice of ijon, there are still three percent that show its expansion. (Table 17).

Thus, so far as these data are reliable, Koperasi Simpan Pinjam appears to be able to compete with the ijon system. It may be conjectured that in the long run this cooperative could replace the role of ijon, not necessarily in terms of money-credit but in terms of meeting the needs of the people during the period of difficulties (paceklik).

One thing which remains in question is why in most of the villages (92 percent of all the villages surveyed, and 84 percent of the rice-villages), the practice of Simpan-Pinjam never existed, or the organization exists but is not active. The probable explanation is that in many villages the traditional practice of Simpan-Pinjam was simply unknown or alien. In the villages where the organization formally exists but is not active, poor management may be the cause that had brought the activities to **a** stop. In this case, effective guidance from the Government is indeed necessary if the formal organization of such activities is still wanted.

Table 17: Distribution of Rice Villages by Number of Saving-Credit Cooperatives (SCC), and by Trends in Ijon Practice, 1970-1975, Cimanuk River Basin, Java, 1975.

Trends in The Practice of Ijon 1970-1975	Distribution of Villages by Number of SCC, 1970-1975				Total	
	None		One or More			
	No.	%	No.	%	No.	%
Never	77	68	11	52	88	66
Decreasing	10	9	5	24	15	11
Constant	23	20	5	24	28	21
Expanding	3	3	0	0	3	2
TOTAL No.	113	100	21	100	134	100
%	84		16		100	

4.10. Gotong-Royong in Various, Activities.

Most of the villages in CRB were reported to have had Gotong-royong during 1970-1975 in the activities of maintaining or building bridges and roads, irrigation channels, and religious places (90 percent or more in each Kabupaten - Table 18). Gotong-royong for maintaining or building health facilities was reported for 'fewer villages: 42 percent of the whole CRB, one-fourth in Indramayu one-third in Garut, slightly less than Half in both Cirebon and Majalengka, and more than half in Sumedang.

These data reflect on the one hand the high development priority given during the five-year period to activities related to economic production, religious expression, and education for village children, and on the other hand the generally low priority indicated for the provision of health facilities. Or, another probable explanation is that in the people's perception, activities in the building of health facilities are not seen as gotong-royong, though the nature of labour mobilization is the same as in activities for maintaining or building bridges and roads; irrigation channels, and religious places. This is because the activity *of* building a clinic, for example is seen by many people as a response to something projected "from above". Whereas for the other activities mentioned, though at present actually they are also projected from above, the people are familiar with the traditional practice of gotong-royong. So that when they are asked about the existence of gotong-royong of kerja-bakti type, they will refer more to activities of building bridges and roads, irrigation channels, and religious places and their maintenance than to other activities.

The foregoing description is of gotong-royong as labour mobilization. What about the growth of gotong-royong in its more general meaning ? As mentioned earlier, the village people are sensitive to its implication because the value of gotong-royong is highly respected. To report that there is no gotong-royong practice in their village they feel would project a "bad image".

It was reported that almost all villages (90 percent) have constantly or increasingly practiced gotong-royong, and in only 10 percent was gotong-royong decreasing. No village was reported to have been entirely without gotong-royong (Table 19). One possible explanation for reported decline is that respondents, in answering the question, refer to gotong-royong of kerja-bakti type i.e. activities in working on some project. In these villages, where old projects are nearly finished if no new projects are initiated, informants will consider the practice to be declining.

TabIs 18: Percentage of Villages which were reported to have Gotong Royong in various building or maintenance activities, in five Kabupaten Cimanuk River Basin, Java," 1975.

Kabupaten	No. of Villages %	Bridges & Roads %	Irrigation %	Religios Places %	School Facilities %	Village Govt. Building %	Health Facilities %
Cirebon	163	96	94	88	73	61	47
Indramayu	169	92	89	86	70	64	28
Majalengka	258	97	97	93	83	70	45
Sumedang	94	94	97	96	87	70	55
Garut	111	90	95	95	91	60	36
Total CRB	795	94	94	91	80	65	42

If gotong-royong in the general sense is considered as an indicator of togetherness" or the spirit of mutual assistances and tebasan is an indicator of commercialization and individuations it is of interest to compare their trends during the five-year period in order to see whether the growth in one nay be accompanied by decline of the other.

It is found, however, that reported decrease and expansion of gotong royong is apparently unrelated to change in the practice of tebasan. (Tables 19, 20).

Table 19: Distribution of All-Villages by Reported Trends in Gotong-Royong and Tebasan Practice, 1970-1975. Cimanuk River Basin, Java, 1975.

Trends in Tebasan Practice 1970-1975	Villages Distributed by Trend in Gotong-Royong Practice, 1970-1975						Total	
	Declining		Constant		Increasing			
	No.	%	No.	%	No.	%	No.	%
Never	50	63	135	69	311	62	496	64
Decreasing	11	14	26	13	68	14	105	14
Constant	11	14	25	13	91	18	127	16
Expanding	7	9	11	5	30	6	48	6
TOTAL No.	79	100	197	100	500	100	776	100
%	10		26		64		100	

Table 20: Distribution of Rice-villages by Trends in Gotong-Royong Practice and by "Trends in Tebasan Practice. Cimanuk River Basin, Java, 1975.

Trends in Tebasan Practice 1970-1975	Rice-Villages Distributed by Trend in Gotong-Royong Practice, 1970-1975						Total	
	Declining		Constant		Increasing			
	No.	%	No.	%	No.	%	No.	%
Never	3	43	29	69	60	65	92	65
Decreasing	0	0	5	12	10	11	15	11
Constant	1	14	7	17	17	19	25	18
Expanding	3	43	1	2	5	5	9	6
TOTAL No.	7	100	42	100	92	100	141	100
%	5		30		65		100	

Whether gotong-royong was gaining holding its own, or declining, the proportion of villages with no tebasan was the same (_± two-thirds). The proportions were the same also for decrease, no change, or expansion in tebasan. A conclusion suggested by these data is that gotong-royong; is becoming more prevalent and tebasan less prevalent **in** the villages studied, but neither appears to directly influence the other.

4.11 Farm Labour-to-Farmer Ratio and Tebasan System

As mentioned earlier, in some reports of previous studies which observed tebasan phenomena especially in Central Java, it was indicated that the tebasan system was expanding (Collier, et. al. 3 1974: Utami dan Ihallauw, 1973). It was further noted that this system was more frequently practiced in villages where farm size is large (LPIS, 1976: 95).

The findings of this study, however, as demonstrated before, show that the tebasan system in the CRB area of West Java was declining rather than expanding. Why was this system expanding in Central Java, whereas in West Java it was declining?

Because there may be many factors which determine trends in the practice of tebasan it is realized that an in-depth study would no doubt provide better information than the village census survey data on which this study is based.

The survey procedure in this study was such that statistics on the areas of individual farms are not known - as they were in the earlier studies, cited above, which related farm size to the practice of tebasan- However, from the village-census data there is one indirect but important indication which may be assumed to be related to farm size and may therefore help to explain the difference observed between Central Java and West Java in the trend in use of the tebasan system. This indicator is the ratio of the number of farm, labourers in a village to the number of farmers (FL/F = number of farm labourers per 100 farmers[27]. The assumption that this ratio reflects farm size is reasoned from the relatively large labour demand of larger farm.

The data available for study are the responses to two questions asked of the village groups which were interviewed. One was, "What proportion of the population in this village arc farmers ?". The other was "What proportion of the population in this village are farm labourers ?" The proportions reported by the respondent-groups, applied to the village count of population, produced an estimated number of farmers and an estimated number of farm labourers^ which made possible the calculation FL/F.

The number of farm labourers as reported however, cannot be a complete measure of labour supply because workers on rice farms in any village include, among other constituent categories; unpaid

[27] Measurement applying these ratios has been used by the AES staff. It is also outlined in the code-book at the RDS research framework. (see references above to AES and RDS).

family workers; mutual exchange work groups; occasional, temporary, seasonal migrants from other places; sharecroppers who get supplemental income from occasional work for wages neighbour women Who come into harvest fields for shares of the rice they cut; groups or gangs of workers brought in by the penebas (if any) - and these persons will not have been in mind as "farm labourers in this village" as the group-interview estimate was formulated.

Nevertheless, what the FL count excludes as well as what it includes may be helpful in examining the relation of farm size and tebasan in CRB villages. The FL/F ratios, accordingly, were calculated, and are presented for the "tebasan" and "non-tebasan" villages of the five kabupaten (Tables 21, 22).

The data presented below indicate that in the rice-villages the average FL/F ratios, hence average farm sizes, are consistently higher in the non-tebasan than in the tebasan villages within each kabupaten (Table 21), Thus, it can be concluded that tebasan is less -not more - common in rice villages with relatively large faros. This is the opposite of the situation reported by earlier studies in Central Java where tebasan was more common in villages having relatively large farms (as noted above).

Since, if farmers sell their rice to a panebas, they do so among other reasons, in order to reduce the number of labourers, it is understandable that with the larger farms (thus, relatively larger numbers of labourers) in Central Java, the tebasan system was reportedly generally expanding (LPIS, ibid).

Assuming that in West Java the farmers have the same interest in reducing the number of harvest-labourers, why should the FL/F ratios be lower, and farm size smaller in the tebasan villages ? A possible explanatory hypothesis may be that in West Java the number of labourers has already dropped in an acceptable level, and it is not necessary any more on the part of villagers with larger farm to try to reduce their number by practicing tebasan, so that tebasan declines rather than expands.

A related consideration is that the small and large farmers might have different reasons for tebasan rice selling. Instead of seeking to limit the number of harvesters, they may have some troubles in finding then. While the larger farmers may be able to wait for the harvest to be accomplished slowly (two or three days),the smaller farmers may need money quickly and thus may be inclined to sell their rice to penebas. A further reasonable explanation here lies in the circumstance noted above, that many of the members of the "labour-supply" of harvesters here are not “farm-labourer” by chief occupation, but are of the other categories; especially migrants, sharecroppers, and unpaid family workers. In this case, tebasan might grow up as a means not so much of reducing the number of farm labourers, but of limiting the flow of outsiders coming to harvest.

Table 21: Rice-Village Farm labour-to-farmer Ratios by the Presence or Absence of Tebasan Practice in Five Kabupaten, 1975. Cimanuk River Basin, Java, 1975.

Kabupaten	Number of Villages and FL/F Ratios				Total Number of Village	
	Tebasan Village		Non-Tebasan Village			
	No.	FL/F	No.	FL/F	No.	FL/F
Cirebon	4	283	18	324	22	317
Indramayu	9	232	24	415	33	365
Majalengka	13	149	28	262	41	226
Sumedang	4	94	8	291	12	225
Garut	3	148	25	152	28	152
CRB	33	181	103	284	136	259

Note: FL/F = Number of Farmlabourers per 100 Farmers.

Table 22: Village Labour-to-Farmer Ratios by the Presence or Absence of Tebasan Practices, in Five Kabupaten, 1975 Cimanuk River Basin, 1975

Kabupaten	Number of Villages and FL/F Ratios				Total Number of Village	
	Tebasan Village		Non-Tebasan Village			
	No.	FL/F	No.	FL/F	No.	FL/F
Cirebon	36	542	124	325	1690	374
Indramayu	38	204	129	363	167	327
Majalengka	53	196	194	335	247	305
Sumedang	23	214	69	148	92	165
Garut	26	193	76	147	105	158
CRB	176	270	595	292	771	287

Table 23: Rice Village Labour-to Farmer and Labour-to-Land Ratios, by Trends in the Tebasan Practice. Cimanuk River Basin, Java, 1975.

Trend in Tebasan Practice 1970-1975	Avarage Ratios of Labour-to-Farmer and Labour-to-Land		TOTAL Number of Villages
	FL/F	FLS	
Never	291	885	85
Decreasing	278	1104	13
Constant	210	814	25
Expanding	91	753	8
CRB Rice- Village	232	855	131

Note: FL/F = Number of Farm Labourers per 100 Farmers

FL/S = Number of Farm Labourers per 100 Hectares of Sawah (rice field).

The prevalence of sharecropping is no doubt also a factor, because it makes the land-owner responsibly for harvesting arrangements, and thus more disposed toward the adoption of tabasan which relieves him from the task of personally overseeing harvesters. These are all reasonable hypothetical explanations, but data to support them firmly are beyond the reach of the study.

When the data for all CRB villages (not just the rice-villages, as above) are studied, however, exceptions are noted (Table 22). In three of the five Kabupaten, tebasan villages have larger FL/F ratios than do the non-tebasan villages. Here the influence of crops other than rice appears. The package of factors bringing tebasan to non-paddy crops is not identical with that encouraging tebasan in paddy. If the non-paddy tebasan is in fruit crops, the situation is similar to that of ijon in paddy. In West Java, fruit usually is sold to the penebas some time before it is ripe, and the practice is still called ijon. But the marketing of perishable fruit is not such an easy process as that of paddy, and farmers may be more willing to leave its risks in the hands of the penebas.

The finding that in CRB rice-villages tebasan is more common in those with relatively small farms is confirmed by another measure, the ratio of fare, labourers per 100 hectares of sawah (FL/S) and the values of these ratios in the different categories of trends ii tebasan practice (Table 23). Tebasan practices are seen to be decreasing in the villages with relatively larger farms - as indicated by both measures (FL/F = 278; FL/S = 1104). Tebasan practices are "holding their own" in villages with lower ratios (FL/F 2 210: FL/S = 314). Tebasan is expanding only when the indices are the smallest (FL/F = 91: FL/S = 753).

Clearly, in West Java, farm size appears to be linked to the prevalence of tebasan, but in a reverse direction compared with that observed in Central Java.

4.12. Tenancy Relations

Land tenancy practices as described above are prominent traditional institutions in Java, and observations were made in this study to identify directions of change that might have appeared in the years between 1970-1975. During the course of analysis, however, it became apparent that tenancy probably was affected somewhat more by the special circumstances related to the national land laws (UUPBH) than by features of the rice-intensification program. The discussion of change in tenancy-relations, therefore, does not follow the outline of the above reports on Bimas, HYV, Ijon, Kedokan, Gotong-Royong and Cooperatives. Movement with respect to tenancy relations appeared to have been more-or-less on dead center because of the ambiguous role of UUPBH. Whether development programs have more influence on tenancy relations in **the** future than they had between 1970-1975 must be left as a question for further studies.

The data on changes noted, however, are reported here without any attempt to relate them to the foregoing information on other institutions. Three of the special patterns of tenancy-relations on which observations can be reported in all CRB villages and in the rice-villages are Maro, Mertelu, and Gadai[28]. (Table 24-25).

Table 24: Distribution of All-Villages by Trends in Various Practices of Tenancy Relations Cimanuk River Basin, Java, 1975.

Trends 1970-1975	Villages Distributed by Trends in the Tenancy Relations					
	MARO		MERTELU		GADAI	
	No.	%	No.	%	No.	%
Never Practiced or Disappeared	144	18	523	66	495	63
Decreasing	243	31	76	9	194	25
Constant	314	39	180	23	91	11
Expanding	94	12	16	2	10	1
TOTAL	795	100	795	100	790	100
"No-Data" Cases	-	-	-	-	-	-

Note: MARO = Sharecropping system in which the tenant receives half of the yield.

MERTELU = Sharecropping system in which the tenant receives one-third of the yield.

GADAI = Pawning of ricefield.

[28] Difficulties in group interview discussion lad to the conclusion that reports on other forms of tenancy relations although described above (p. 34-36), were not reliable enough for analysis.

Table 25: Distribution of Rice-Villages by Trends in Various Practices of Tenancy Relations.
Cimanuk River Basin, Java, 1975.

Trends 1970-1975	Rice-Villages Distributed by Trends in the Tenancy Relations					
	MARO		MERTELU		GADAI	
	No.	%	No.	%	No.	%
Never Practiced or Disappeared	20	15	58	45	50	35
Decreasing	37	28	16	13	37	26
Constant	58	43	50	39	36	25
Expanding	19	14	4	3	22	14
TOTAL	134	100	128	100	145	100
"No-Data" Cases	11	8	17	12	-	-

It was reported that the maro system was more prevalent than the other two. It has never been practiced or had disappeared in only a minority of villages (18 percent in All-villages, and 15 percent in rich-villages). In more than half of the villages this system was "holding its own" or slightly expanding (51 percent in all-villages; and 57 percent in rice-villages). However, in about one-third of all-villages (31 percent) and more than one-fourth of the rice-villages (28 percent) the maro system was reportedly decreasing. The ratio of decreasing-to-expanding cases indicates that in all-villages there were five "decreasing" cases for every two expanding. (31 : 12 percent). The corresponding ratio in the rice-villages is two-to-one. The maro system therefore, appears to be a declining institution. The more so were the mertelu and the gadai systems, especially in all-villages. These two systems were not to be found in about two-thirds of **all** the villages surveyed. In the rice-villages, mertelu and gadai systems were reportedly absent or had disappeared in "about half (45 percent) and about one-third (35 percent) respectively. The ratios of decreasing-to-expanding cases, both for mertelu and for gadai, in all-villages as well as in the rice-villages, indicate *a* net loss.

Thus in general, all three of these forms of tenancy relations appear to be declining practices. The decline of the maro system especially, draws attention to the question of alternatives.

As noted above (Chapter 2) under the Sharecropping Act of 1960 (UUPBH), sharecropping agreements should be based on at least fifty-fifty division of yield (maro) between landowner and sharecropper. Since 1965, however, this Act seems to have been practically suspended. Thus, a possible explanation of why maro was reportedly declining, is that the landowner, feeling somewhat less constrained than before 1965, persisted in practising, or began to reimpose the old system of sharecropping with only one-fifth of the product given to the sharecropper[29].

[29] cf Sajogyo, 1975; *18* (cited above, in page 33)

CHAPTER 5

CONCLUSION

In accordance with stated objectives (Chapter-1), this study has described institutions that existed in Javanese villages, and has explored the possible association between selected elements of rural development programs and particular rural institutions. The growth of the new government-crested organization has been examined and directions of change in particular traditional practices have been analyzed.

From the foregoing discussion it appears that "everything was happening at once" in Javanese rural areas. Institutional changes occurred in directions of both growth and decline. In some villages to some extent, certain traditional practices were disappearing, whereas others were persisting and even spreading. The pre-harvest sale of the crop (tebasan) and the pre-harvest loan against the crop (ijon) are both examples of declining institutions. Despite their persistence (or even expansion) in a number of villages, in general they are becoming less prevalent. Another notable decline is in the practice of the system of sharecropping with fifty-fifty division (maro). Conversely, the traditional agreement to exchange the performance of specified tasks for a portion of the harvest (kedokan) appears to be practiced widely throughout the area studied, and even to show a considerable expansion. The more so was the practice of mutual assistance (gotong-royong). Both are thus enduring institutions. (Table 26, below).

In the meantime, the new technology introduced with the Mass Guidance programs (BIMAS) was increasingly accepted by the villagers. The adoption of the new seeds (HYVs) spread widely throughout the area surveyed. The use of sickles, which is required to harvest the new rice varieties, was also reportedly spreading. Compared with mechanical tools (machines), of course sickles are "traditional" rather than "modern". But their use to replace the traditional knife (ani-ani) in harvesting rice signals a process of technological innovation. Another important element in rural development programs is the formation of the village-unit area organizations or group-of-villages area organization (BUUD) which in its growth expected to be transformed into a new area-cooperative (KUD) as distinct from the old village-based cooperative.

Thus, clearly, the new elements: Mass Guidance programs, the new agricultural technology, the group-of-villages area cooperatives and the old elements: the various kinds of tenancy relations, the traditional rural credit system (ijon), the traditional pre-harvest marketing system (tebasan), the mutual assistance practices (gotoag-royong), the labor-harvestshare exchange system (kedokan) , are all

Table 26: Trends in Traditional Institutions, 1970-1975 Cimanuk River Basin, Java, **1975.**

Traditional Institutions		Percent[1] of Villages in which Institutions is		Percent of Villages in which Institution is Constant[4]	Ratio[5] of Change	
		Absent[2]	Present[3]		Decline greater than growth	Growt Greater than Decline
Kedokan:	AV	14	86	44	-	(23:19)
	RV	14	86	45	-	(27:14)
Ijon :	AV	68	32	16	(11:5)	-
	RV	63	37	22	(11:4)	-
Tebasan:	AV	64	100	18	(12:6)	-
	RV	63	100	19	(12:6)	-
Gotong- :	AV	0	82	26	-	(64:10)
Royong	RV	0	85	30	-	(65:5)
Maro :	AV	18	34	39	(31:12)	-
	RV	15	55	43	(28:14)	-
Mertelu :	AV	66	34	23	(9:2)	-
	RV	45	55	39	(13:3)	-
Gadai :	AV	63	37	11	(25:1)	-
	RV	35	65	25	(26:14)	-

Note:

1. Percent of villages for which data are available.
2. Absent = none, or disappeared.
3. Present = 100 less percent absent.
4. Constant = percent, and remaining unchanged.
5. Ratio in percentages of villages.
6. AV = All Villages (Total 795),
7. RV = Rice Villages (Total 145).

conspicuos features of rural life in Java. However, there is no firm indication — that this study can endorse — that development of the former determines the changes in the latter.

It has been shown in the discussions above, that only two out of the nine hypotheses listed have any indication of support. These are first, the hypothesis which assumes that the development of the BUUD/KUD will lead to the decline of ijon and tebasan practices; and seconds, the hypothesis which assumes that the activity of the Saving-and-Credit cooperatives will lead to the decline of ijon. The other hypotheses are not confirmed, if not rejected.

Despite these findings, however, it is recognized that there may be many factors which this study cannot identify and that operate as intervening variables. Thus the lack of firm evidence of relationship between rural development programs and institutional change is by no means a rejection of assumptions that the former influence the latter. The slight but important indication of support of the two hypotheses noted is more than a suggestion that new elements have affected the old established practices.

The shortcomings of the methodology itself are most probably a factor which has constrained the analysis and the formulation of conclusions. Certain variables nay not have been adequately operationally defined, classification of trends may not be complete, or a period of five years may be just not enough to reveal essential changes. There is the possibility also that other factors, lying outside the field of observation in this study night prove relevant, if they were to be included in more intensive research covering longer intervals of time: changes in the population of villages, changes in water supply; changes in the use of land.

The operational definition of Bimas employed in this study, for example, is the "Frequency of Village participation in the Bimas programs". It appears that account should be taken of the various types of cropping pattern (single cropping, double-cropping, various mixed-cropping systems), because since the program was conducted seasonally, the number of times a village could participate would differ among these patterns.

The classification of trends is another example. Perhaps, beginning points or base lines should have been specified, by which to define changes? "Constants" at what level ? "Increasing" or "Decreasing" from what base? And finally, in observing a complex agricultural setting like Java, the household or the farm as unit of analysis would no doubt yield information more flexible or sensitive in analysis than group estimates or summaries.

However, it has been pointed out that the purpose of conducting the Village-census with “Village” as the unit of analysis, was to obtain a general description from which further in-depth studies might be designed to be conducted in the next stages of the Rural Dynamics Study research project. The village-census was planned to provide bench-nark data, and it is in this context that the value of the findings in this study may be assessed.

In relation to the frame of reference and the general description *of* rural Java presented above (see chapters 1 and 2), there are four indications in the findings of this study which are of important implication, both in evaluating current changes in rural institutions, and in planning research in rural development.

First the decline in the practice of pre-harvest sale of the crop (tebasan) . As noted before, this practice was reportedly expanding in selected areas in Central Java. The only general conclusion that can be drawn from the different findings of this study therefore, is that the directions of changes in this practice *are* not uniform though out the island. This is precisely what should be taken into account in observing rural processes in Java since the island is characterized by regional differences in social and economic structure. Besides that, villagers may vary in their responses to the economic situation within a particular region at any one time.

If the tabasan system is seen as an indication of commercialization and individuation which lead to a reversal of agricultural involution as argued above, does its decline means that this reversal process will come to a stop? It seems to be premature to venture such a conclusion, because there *is* another finding of this study which indicates an alternative labor saving tendency in agricultural activity. This is:

Second: the expansion in practicing the traditional agreement to exchange the performance of specified tasks for a portion of the harvest (kedokan). In this system, the kedokan worker, having the sole right to harvest the rice of the field worked, is inclined to limit the number of harvest participants (as described above). And, as Collier has described it, this institution "may be evolving into a form of sharecropping that very effectively reduces cost and labourers"[30].

[30] William L. Collier, Agricultural Involution in Java: The Decline of Shared poverty and Involution. Draft, to be published) p. 37-311.

Third: the decline of the fifty-fifty division sharecropping system (maro). As discussed earlier, this trend might be the result of the de-facto suspension of the Agrarian Law of 1960 (UUPA) and its related law: the Sharecropping Act (UUPBH). If this were the case, and other sharecropping systems favoring landowners became widespread then the objective of the rural development programs to promote welfare of the common people (the poor) would seem to be circumvented. If re-enactment of the above laws were to be unlikely, new arrangements of tenancy relations would await consideration.

Fourth: the decline of the practice of pre-harvest loan against the crop (ijon). The important though slight indication that the growth of the cluster-of-villages area cooperatives (KUD) is associated with the decline of ijon, suggests that this new element in the development program could, in the long run, directly or indirectly, reduce this traditional "bad-image" credit system. A similar prospect could be anticipated for the saving-and-credit cooperatives.

Fifth: the apparent widespread increase in the communal mobilization of labour (gotong-royong) in village development projects suggests that commercialization of agriculture does not necessarily imply the weakening of traditional practices of "working together for the common good".

In conclusion, a few suggestions may be offered on some aspects of rural development policy.

First, it is evident that small-scale, autonomous savings-and-credit cooperatives (Kumpulan Simpan-Pinjam) continue to exist alongside the larger, government-sponsored BUUD/KUD cooperatives in a small but significant number of villages (rather more commonly in the rice-growing villages). These two types of cooperative organization — one small-scale and "growing from below", the other larger and dependent on uniform guidelines from the central government — are not necessarily substitutes for each other, but may serve quite different functions and should therefore be considered complementary. Increased government: attention to the promotion of BUUD/KUD's should not restrict the parallel encouragement of smaller-scale cooperative associations, or their continued autonomy.

Second, if we make an exception for the data on gotong-royong which may be "value-system" biased, the kedokan system is the only one of the seven traditional institutions studied that is not only enduring but significantly expanding. In view of the possible implications of kedokan practices for employment and income-distribution, an in-depth study of this interesting phenomenon should be conducted.

Finally, limitations of *the data* haves unfortunately not permitted any analysis of land-tenure and its relation to changes in other agrarian institutions, except for the limited analyses of sharecropping practices and labourer/farmer ratios. Data on land-tenure on **a** national level are also not available, since the Agricultural Census of Indonesia is concerned only with farm-size rather than land-ownership. It is widely acknowledged, however, that under conditions of such acute pressure on agricultural land as are to be found on Java, the structure and distribution of access to land (both ownership and tenancy) are fundamental determinants of the distribution of rural incomes and therefore require continued government attention. Land tenure is s sensitive issue which must be approached with caution, particularly in view of the troubled political history of the 196O's and its close relationship in rural areas with the issue of Land Reform. Given the existing lack of information on the present situation and recent changes *in* patterns of land tenure, it is not possible to determine the nature and extent of the land-tenure problem or the appropriate types of policies required to deal with it. It may therefore be suggested that as a first step, there is a need for several kinds of studies, bath large- and small-scale, extensive and in-depth, on the land-tenure situation in Java and its implications for the welfare and prospects of the rural population.

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APPENDIX - A

LIST OF VARIABLES

No.	ITEM / LABEL	VARIABLE CODE NO.
1	Elevation (above sea level)	V0001
2	Location: Lowland near the coast	V0002
3	Location: Lowland far from the coast	V0003
4	Location: Hilly near the coast	V0004
5	Location: Hilly far from the coast	V0005
6	Location: Hilly and plain area near the coast	V0006
7	Location: Hilly and plain far from the coast	V0007
8	Road condition: Asphalt road	V0008
9	Road condition: Gravel road useable only in dry season	V0009
10	Road condition: Gravel road useable only in dry season	V0010
11	Road condition: Earthen, useable for motor vehicles throughout the year	V0011
12	Road condition: Earthen, useable only in dry season	V0013
13	Number of trucks (1974)	V0041
14	Number of trucks (1970)	V0042
15	Number of pickup vans (1974)	V0043
16	Number of pickup vans (1970)	V0044
17	Number of motorcycle (1974)	V0049
18	Number of motorcycle (1970)	V0050
19	Number of bicycle (1974)	V0051
20	Number of bicycle (1970)	V0052
21	Number of pedicabs (becak) (1974)	V0053
22	Number of pedicabs (becak) (1970)	V0054
23	Number of horse / buffalo wagons (1974)	V0057
24	Number of horse / buffalo wagons (1970)	V0058

25	Number of resident in (1971)	V0081
26	Number of resident in (1974)	V0099
27	Number of farm labourers	V0122*/**
28	Number of farmers	V0126*/**
29	Bangkok land area	V0225
30	Titisara land area	V0229
31	Individually owned land area (total)	V0233
32	Total irrigated ricefield (sawah)	V0249*
33	Total Village land	V0252
34	Number of sawah owners	V0259
35	Total sawah owned by village residents	V0260
36	Number of outsiders who own sawah within village	V0267
37	Total sawah owned by outsiders	V0268
38	Water supply : Sufficient throughout the water	V0281
39	Water supply : Sufficient only in wet season	V0282
40	Water supply : Sufficient of too much in wet season	V0283
41	Water supply : insufficient even in wet season	V0284
42	Crop rotation patterns : padi-padi (double-crop)	V0379*/**
43	Crop rotation patterns : padi-padi-padi (triple)	V0399*/**
44	Village Participation in the padi normally sold	V0445*/**
45	Number of hullers (1974)	V0608
46	Number of hullers (1970)	V0609
47	To whom is the padi normally sold	V0660
48	Existence of BUUD	V0778*
49	Development of BUUD-KUD	V0779*/**
50	No. of non-active saving-and-credit cooperatives	V0784
51	No. of active saving-and-credit cooperatives	V0785*/**
52	Existence of gotong-royong	V0789*
53	Gotong-royong in: irrigation facilities	V0790*

54	Gotong-royong in: Building roads & bridges	V0792*
55	Gotong-royong in: school building	V0793*
56	Gotong-royong in: health facilities	V0794*
57	Gotong-royong in: religious places	V0795*
58	Gotong-royong in: building village hall	V0796*
59	Kedokan trends (change during the last 5 year	V0854*/**
60	Maro system (absent or present)	V0861*
61	Maro trends (change during the last 5 years	V0862*
62	Mertelu system (change during the last 5 years)	V0863*
63	Mertelu trends (change during the last 5 years)	V0864*
64	Gadai system trends (changes during the last years)	V0872*
65	Tebasan trends (changes during the last years)	V0873*/**
66	Ijon trends (changes during the last years)	V0874*/**
67	The Use of HYVs (Yes/no)	V0875*
68	The Use of HYVs (Change in area Planted)	V0877*
69	The Use of HYVs (Change in the number of growers)	V0878*/**
70	The use of sickles (Yes / no)	V0957*
71	The trends in the use of sickles	V0959*/**

Note :

*/ These are variables which were finally selected for possible relevance to institutional change.

**/ These are variables which were selected for analysis in the search for evidence that would question or support the hypotheses that had been formulated.

TABLE - Bl: The area of the Cimanuk River Basin; the number of Kecamatan, and the number of villages surveyed. Cimanuk River Basin, Java, 1975

Kabupaten	The Area, Number of Kecamatan, and Number of Villages under Study		
	Area in sq. km	Number of Kecamatan	Number of Villages
Cirebon	406,02	13	163
Indramayu	1360,74	15	169
Majalengka	953,92	17	258
Sumedang	1126,45	11	111
Garut	1240,38	16	94
TOTAL	5087,51	72	795

TABLE - B2: Distribution of All-Villages by Topographical Conditions in Five Kabupaten.
Cimanuk River Basin Java, 1975

Kabupaten	Distributions of Villages by Topographical conditions (%)			Total (%)
	Lowland	Hilly	Hill & Plain	
Cirebon	88	6	6	100
Indramayu	100	0	0	100
Majalengka	48	34	18	100
Sumedang	15	53	32	100
Garut	20	43	37	100

Source: A. Rozany Nurmanaf, The Distribution of Various Forms of Transport in Villages of The Cimanuk River Basin, Research Report No.3, RDS, AES, July 1976.

TABLE – B3: Distribution of All-Villages (in %) based on Road Conditions by Kabupaten Cimanuk River Basin, Java, 1975.

Kabupaten	Percentage of villages based on road conditions				
	Ashpalt Road	Gravel Road[1]	Gravel Road[2]	Gravel Road[3]	Earthen Road[4]
Cirebon	59	51	22	38	57
Indramayu	58	29	22	13	69
Majalengka	39	55	33	33	56
Sumedang	59	66	31	29	52
Garut	62	69	54	40	53
CRB	53	52	31	30	58

Source: A. Rozany / Nurmanaf, The Distribution of Various Forms of Transport in Village of the Cimanuk River Basin, Research Report No.3 RDS, AES, July 1976.

NOTE : 1. Usable by motor vehicles all the year.
2. Usableby motor vehicles only in dry season.
3. Usableby motor vehicles all the year.
4. Usableby motor vehicles only in dry season.

TABLE - B4: Changes in Numbers of Various Forms of Transportation, in 1970-1974 Cimanuk River Basin, Java, 1975.

Transportation Vehicles	Number of Vehicles		Difference between 1970-1974			
	1970	1974	Increase		Decrease	
			No	%	No	%
Horse/Buffalo Wagons	3.516	3.250	-	-	266	7
Pick up Vans	553	1.385	822	150	-	-
Trucks	328	654	326	99	-	-
Pedicabs (Becak)	4.081	8.741	4.660	144	-	-
Bicycles	143.948	174.545	30.597	21	-	-
Motorcycles	2.683	5.818	6.135	288	-	-

Source: RDS Village Census, CRB, 1975.

TABLE - B5: Average Village's area of Sawah, Dry land, and Fishponds, in five Kabupaten.
Cimanuk River Basin, Java, 1975.

Kabupaten	Sawah		Dry Land		Fishponds		TOTAL AGRICULTURE LAND	
	(ha)	(%)	(ha)	(%)	(ha)	(%)	(ha)	(%)
Cirebon	233	74	81	25	2	1	316	100
Indramayu	571	69	237	29	19	2	827	100
Majalengka	212	48	232	52	0	0	444	100
Sumedang	247	27	685	73	1	0,1	933	100
Garut	249	17	1234	83	7	0,4	1487	100
Average CRB	308	49	312	50	6	1	626	100

TABLE - B6: Average Total Village Land Owned by Insiders, Average Number of Landowners in the villages, and Size of Land per Owner.
Cimanuk River Basin, Java, 1975.

Kabupaten	Total Village Land Owner by Insiders		Number of Owners		Average Size	
	Sawah (ha)	Dry Land (ha)	Sawah (person)	Dry Land (person)	Sawah (ha)	Dry Land (ha)
Cirebon	164	54	274	679	.60	.08
Indramayu	427	106	635	977	.67	.11
Majalengka	171	142	383	550	.45	26
Sumedang	203	312	949	1072	.21	.29
Garut	240	439	1123	1230	.21	.39
CRB	236	175	599	844	.39	.21

Source: Memed Gunawan, Landuse and Farming in Cimanuk River Basin, Research Report No.6, RDS, AES, July 1976.

TABLE - B7: Percentage, of Sawah areas by Crop Rotation Patterns in five Kabupaten, Cimanuk River Basin, Java, 1975.

Crop Rotation Pattern		Average Percentage of Village's total sawah area					
		Cirebon	Indra-mayu	Maja-lengka	Sume-dang	Garut	CRB
1	Padi-Padi	48	49	54	59	77	54
2	Padi-Fallow	21	37	22	19	9	23
3	Padi Palawija[1]	9	5	9	19	8	9
4	Padi-Padi-Palawija	6	2	6	2	3	4
5	Padi-Vegetables	2	3	5	3	3	4
6	Padi-Padi-Padi	8	0	1	2	2	3
7	Padi-Padi-Sugarcane	5	1	4	0,1	1	3
8	Padi-Palawija-Palawija	2	1	3	4	4	2
9	Padi-Palawija-Padi	0,2	1	2	3	3	2
10	Padi-Tobacco	0,3	0,1	0,3	4	3	1
11	Other Paterns	1	0,3	0,2	0,3	2	1

NOTE: 1/ Palawija (or Polowijo) is *a* secondary crop: Maize, Peanuts, Legumes.

Source: Soentoro, System of Agriculture in the Five Kahupaten of the Cimanuk River Basin, Research Report No.4, RDS, AES, 1976.

TABLE - B8: Distribution of All-Villages by Sawah area in five Kabupaten. (in percents) Cimanuk River Basin, Java, 1975.

Sawah Area Interval (ha)	Percentage of Villages					
	Cirebon	Indra-mayu	Maja-lengka	Sume-dang	Garut	CRB
0	0,6	0	0,8	0	2	0,6
0 - 250	73	30	73	65	57	60
251 - 500	18	26	19	29	39	24
501 - 750	3	18	6	6	0	7
751 - 1000	3	9	0,4	1	2	3
1001 -1250	2	10	0	0	0	3
1251 +	0,4	7	0,8	0	0	2,4
	100	100	100	100	100	100