ASPECTS OF AGRARIAN STRUCTURES

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Agrarian Structure

The term Agrarian Structure denotes all of the existing and lasting production and living conditions found in a rural region. It comprises social, technological, and economic elements and determines the achievable productivity, income and its distribution, and the rural population's social situation.

The agrarian structure includes the system of land tenure (social agrarian structure) and the system of land management (technical and economic agrarian structure).

Systems of Land Tenure
(Social Agrarian Structure)

The system of land tenure governs the traditional or legal rights individuals or groups have to land and the resulting social relationships among the rural population. Its components are the system of land ownership and system of labour organization.

In accordance with the existing conditions, many different land tenure systems have developed throughout the world, whereby both natural conditions (climate, soil conditions, topography) as well as social factors (sociocultural values, political ideology, level of technological development, population trend, changes in the cost-price relationships, etc.-) played a role.

Systems of land tenure are not immutable. On the contrary, they are subjected to a continual process of change. Changes in the natural growing conditions and economic factors, technological innovations, changes in the size of the population, and influences emanating from the political power structures bring about changes in the land tenure system. As in recent times these factors have been changing more and more rapidly, the system of land tenure frequently lags behind the new situation and does not adjust to it on time. Land tenure systems are institutionally established and are, therefore, difficult to alter. Political power structures; cooperative ties; and class, cultural, and ethnic interests and motives all work towards maintaining the established forms.

As a result of the continual changes in the factors that govern and form the land tenure system, an ideal land tenure system cannot exist. The momentary, specific land tenure system is the institutional framework within which the agrarian production and way of life are carried out under the existing circumstances and conditions. It is interrelated with the natural, economic, social, and political conditions. As these change, the land tenure system has to continually adapt itself to the changing situation.

1.1 System of Land Ownership

The system of land ownership regulates the relationship of the people to the land, specifically the power of disposition over land and the right to use the land. As it is practically impossible, on the one hand, to increase the amount of land while, on the other hand, it is the basis of agrarian production, living, and recreation - in other words, the basis of existence for a rural society. The amount of land controlled and the type of distribution determine the social conditions. Rights in land bring with them work and income, prestige, and influence. Anyone
without rights in land is dependent in an agrarian society. He is forced to work on someone else's land in order to earn his livelihood.

There are two forms of rights to the land - the right of disposition over the land and the right to use the land. The owner has the right of disposition. He has the right to decide whether to sell, lease, bequeath, give away, or lend, etc. a piece of land. The occupier has the right to use the land. This right regulates the cultivation of the land. In the case of an owner-cultivated family farm, the family has both the right of disposition and of use. A tenant, in contrast, has no right of disposition over his land but can only use it.

**On the Question of Land Ownership**

Private ownership of land is a Western concept that was first introduced into many developing countries by Europeans. It arose under a specific legal order by original acquisition of land (occupying and making the land arable) or changes in ownership (conquest, contract, inheritance). Until today, some societies have still not developed any forms of personal, private rights to land that would grant a right of disposition. Instead, the individual is allotted land for his own usage that reverts to the hands of the group (tribe) as soon as it is no longer used.

It is not unusual that laws governing the land exist at several levels, e.g., government laws and traditional tribal laws. If a conflict arises between these two levels, it leads to considerable breakdowns and obstructions in the legal guarantees and, thus, the usage of the land.

The question of the private ownership of land is strongly affected by the ideological point of view. On the one hand, it is argued that the owner's interest in his land turns "sand into gold." In contrast to this argument is the experience that especially increasing population pressure has fairly often resulted in the economically weak losing their land and that the land has become concentrated in the hands of a few people. According to the socialistic viewpoint, private ownership of the production factor land has led to exploitation and should, therefore, be abolished.

Practical experience has shown that agricultural and social development are possible with or without private ownership of land. A recent tendency in the industrial countries has been to stress the farm unit and its preservation while the significance of land ownership is diminishing.

Land becomes property by state (tribe, clan; etc.) guaranteeing an individual this right to a scarce factor and, thus, warranting him the possibility of harvesting the fruits of his labor in the production process. Property rights, in other words, are granted to the individual by the society and always include certain limitations. Such restrictions and/or obligations are imposed upon the owner by custom, private rights, or public law. Among these are, e.g., the obligation to maintain and expand the farm, creditors' claims, rights of access and transit, services, taxes, market regulations, etc.

In developing countries, - landed property is usually bequeathed by parceling it among the children. If the farm is passed on to one heir, a practice in parts of Europe, it guarantees the existence and survival of the farm; however, it also presupposes alternative possibilities for the remaining heirs to earn a livelihood, a precondition that is frequently not present in such countries. A son sometimes receives a larger share under the condition that he has to take care of his parents, or sons receive larger shares than daughters. When the farms become so small that they are no longer profitable, the children sometimes operate the farm together and only split the yield. Usually, the traditional form of passing on the farm results in it becoming
smaller with each generation, even if this is sometimes balanced out by the women's dowries. If job opportunities are not created outside the agricultural sector, it cannot fail to result in a drop in the standard of living among the rural population as soon as all of the land is taken under cultivation.

Types of Land Ownership

Various systems of land ownership have developed throughout the world under the influence of historical, cultural, and economic factors. These systems are exposed to a continual process of change.

State Ownership of Land

As a consequence of conquest, purchasing, gifts, and seizure, land belongs to the state in many countries in the same way as other areas belong to private people. In the USSR, the majority of the land has been turned into state property - in other socialist countries, only a part until now. This was done to prevent exploitation resulting from private ownership of the land as well as unearned income derived from ground rent. Otherwise, state ownership plays a large role if public interests cannot be satisfied by private ownership, or if the land is not of interest to private people from an economic standpoint (catchment areas, waste land, forest, marginal lands, experimental farms, etc.). The state partially cultivates its own land (government farms, government forests) and also partially leases it out. In some countries, the church likewise has a great deal of landed property. The process by which the church gained possession of the land and its function is similar to that in the case of state land.

Land Grants

In Islamic countries, land is granted to schools, mosques, orphanages, and similar institutions. This type of grant is often called a 'waqf'. The beneficiary receives an irrevocable right of use that is carried out by government organizations, generally in the form of being leased out. The institution that is granted the right of use receives the profit. The lands are frequently in very bad condition as hardly any investments are made.

Land is sometimes established as a private waqf. The irrevocability of the grant, that is established in court, prevents eventual changes in ownership and protects the family against property losses. The family receives the income derived from the yield. This type of grant is also found in the south of Europe and existed in Eastern Germany until 1945 where it was called 'Fidelkommis.'

Collective and Communal Ownership

In this type of ownership, the right of disposition is in the hands of kinship or political groups that are larger than a single family. In the forms of communal ownership found in Africa (a widespread phenomenon south of the Sahara), the land rights are generally controlled by the tribe, and the use of the land is regulated by the chieftain or priest serving the land and earth deities. Every member that is born into the group has a lifelong right to a piece of land for his own usage. The tribes regard themselves as custodians of the land for future generations rather than proprietors.
In Mexico, former latifundia were transferred into a form of communal land called ejido. The members of the community are granted land on a heritable basis for their usage, while pasture land and waste land are used commonly. In various countries such as Taiwan, India, and Jamaica, land belongs to minorities in form of common land. The purpose behind this is to give protection against loss of the land.

In socialistic countries, land was collectivized in accordance with the political doctrine in order to prevent exploitation resulting from private ownership of land. At the same time, this measure simplifies controlling agricultural production and the process of adapting to the goals of rapid industrialization and overall development. Based on a different ideology, but with similar motives, various religious communities have also abolished private ownership of land and collectivized it. Physical and/or psychological coercion and pressure or a critical situation have always played a great role in collectivization.

Private Ownership of Land

In non-socialistic countries, the right of disposition is often in private hands - regarding agricultural land, less so in the case of forests. In face of the positive experience in European history and its great ability to adapt to changing economic and technological systems, private ownership of land was introduced in many of the former colonies. In the process, however, it became obvious that the positive outgrowths of private ownership were dependent upon certain specific preconditions that were not always present. The decrease in the size of the farm resulting from population increase and the differences in the success achieved in the process of adaptation to changing conditions - especially of an economic nature - led in part to property losses, whereas other people were able to gain control of large areas and, thus, economic and -consequently - political power. As a result of this process, today there are several widely differing forms of private ownership.

Small-scale agricultural property, or smallholdings, is a widespread form throughout the world and is the target of most of the non-socialistic agrarian reforms. Family farms have proved to be an expedient form of agricultural organization, both regarding agrarian production as well as the social conditions, as long as the farm size is large enough. The incentive ensuing from the farmer's freedom to make his own decisions and the knowledge that he will receive the fruits of all his labour and investments have always been a tremendous inducement, especially if the attitude towards work and investments was positive and the concomitant institutions (extension services, credit system) were advantageous. In order for family farms to guarantee the continuation of yields from their land, it is necessary for them to observe the preservation of the ecological balance. As soon as the precondition of sufficient farm size no longer exists, the situation becomes less favourable and the living standard of the farmers' families drops, the farms become indebted, property is lost, and the ecological balance is endangered.

Large holdings are in many cases not farmed by the owner himself. If there is a large demand for land, the owner is in a position to let others work for him and still receive a sufficient income. He, therefore, leases the land out, and, although he exercises his influence regarding farm management, this is more to control the farm rent payments than to foster agricultural production. The rent is usually not reinvested, but rather used by the owner to cover his own living expenses as well as other purposes. Thus landed property becomes a source of rent while the agricultural economy remains static.

As soon as the owner becomes more interested in the cultivation of his land, he generally switches to centrally controlled farming as this makes it possible to control the cropping more
closely and, thus, guarantee economic success. This form is not only found on plantations and commercial farms. In the course of the Green Revolution, many former lessors started cultivating the land themselves as this appeared to them to be more profitable under the new circumstances than the traditional forms of leasing the land to tenants.

1.2 Farm Tenancy

An increasing population, while at the same time the job opportunities outside the agricultural sector develop only slowly, has forced a growing number of people to look for land that they can rent from someone for their usage for a period of time. In densely settled countries with private land ownership, in some cases more than half of the land is cropped today by tenants. One can differentiate between various forms of renting the land according to the type of payment that is demanded.

**Occupational tenancy**: in way of payment, the tenant works for a specific number of days on the landlord's farm in order to pay for the land he rents. In some cases, he uses his own draught animals and implements. This form is particularly found in Latin America where it is called a colonate. Until a few years ago, it also existed in Westphalia, Germany, under the name Heuerling.

In the case of cash tenancy, the tenant pays a fixed rent for the land he rents and, thus, bears the full cropping and marketing risk himself; however, he also receives all the proceeds growing out of his labours. This form demands the ability to face a risk and is, thus, found in the case of tenants who are economically sound.

**Rent in kind** is a form of tenancy in which the tenant pays a fixed quantity of produce and, therefore, does not have to take the marketing risk himself. This form is found especially among landowners who rent out small parcels of land and who consume the rent in their own household.

**Share tenancy** is a specific form of rent in kind. It is widely spread, particularly in the developing countries. In this case, the gross output is divided between the landlord and tenant. While the original size of the share was determined by the reciprocal obligations and the productivity of the land, the great demand for land has led increasingly to shares equaling 50/50. Under these conditions, each side receives only half of any proceeds resulting from additional inputs. There is little incentive, therefore, to increase productivity by means of working harder or making larger investments. Moreover, the contract is often drawn up for only one year. Even though it is often prolonged by tacit agreement, it leads to insecurity and a state of dependence. This has, along with the normally extremely small size of the plots under tenancy, resulted in many farmers being indebted and living in very poor economic and social conditions.

Although tenancy can fundamentally bring about flexibility in the structure of land ownership and allows making adaptations to changing economic and social (family) conditions, under the circumstances in the developing countries (with a one-sided advantageous position on the market for land available for tenancy in favour of the landlords), tenancy leads to stagnating agricultural production, dependence, and an economically poor situation for the tenants and their families.
1.3 Systems of Labour Organization

The system of labour organization-regulates the relations between the people carrying out the work on the farm, particularly the method of dividing the work and the yield - i.e., the wages. There are considerable differences between the cases in which these relations exist among family members alone (family labour organization) and those cases in which the farmer's family employs hired labour (labour organization with hired hands). The working relations in collectives of various kinds fill in an intermediate position.

Family Labour Organization

At all times, members of a family have pooled their labour in order to cover their needs. This system of family labour organization has existed since time immemorial and is spread throughout the world. Each member of the family is willing and ready to do his best because he is aware that he only has to share the fruits of his work with the members of his own intimate family. The fluctuations in the family's labour capacity resulting from the family's life cycle influence the organization of the farm; bottlenecks are compensated for by overworking, changing the cropping intensity, or leasing out or renting additional land. Within the family, the method if dividing the work among the members and sexes is often influenced by custom.

This system of family labour organization can also be confronted with problems if the farm unit becomes too small and not all of the members are needed to carry out the work. As long as no alternatives for earning a living are available, the family usually remains together and splits the work and yields. This leads to rural underemployment and low living standards in the agricultural sector. As soon as alternative job opportunities are created, there is a transition to sideline activities and part-time farming.

Labour Organization with Hired Hands

Whereas in industrial countries there are only few hired agricultural labourers and these are mainly found on the large farms, there is a large number of wage labourers in the rural areas of the developing countries. This is partly the result of the low level of mechanization in agriculture in the developing countries. What is even more important, however, is the fact that after all the land has been settled, there is no more land available to the growing population. Since only a small number of non-agricultural jobs exist, the landless are forced to offer their labour to the landlords for a wage in order to receive part of the crop yield and, thus, establish a basis to subsist upon. This on-sides shift in the conditions on the labour market has resulted in the fact that many of the landless live in poor economic and social circumstances. It must be mentioned, however, that the labour relations and living conditions vary greatly. The following types of agricultural labourers are widely spread throughout the world.

Permanently hired labourers: These farm hands, who have a regular job, are usually found on somewhat larger farms that are in a position to finance a permanent worker. They are often paid on the basis of an annual wage. The working relationships are long standing, sometimes lifetime. These results in a close, patriarchal relationship that is not only limited to the obligations regarding work and pay, but rather includes a personal relationship and loyalty as well as an obligation on the side of the employer to protect and help his employees. Some of these develop into skilled labourers such as tractor drivers, maintenance men for pumps, etc., one a higher level of development has been reached.

Casual labourers usually find employment in agriculture only during the time of the labour peaks. During the rest of the time, they try to find work in road construction, building
construction, or similar jobs. They are, in other words, not agricultural labourers in the real sense of the word, but rather offer their labour to anyone who can use it. They are in many cases unemployed for several months in a year. They are only able to earn a modest existence because of the relatively high piecework wages paid during the harvest time and because the women and children also work frequently. This group of hired labourers, which is numerically the largest, is the outcome of the rapid population growth without a simultaneous development of the job opportunities.

**Agricultural labourers who own small farms:** If through inheritance or property losses the farm becomes too small, a farmer has to look for an additional source of income in order to supply the needs of his family. In many cases this is only possible as a hired hand on a large farm. Because of the large number of marginal farms, this form is widely spread although it is hardly mentioned in statistics as these farmers are classified as either farmers or tenants.

**Coloni:** A special form of the above-mentioned type are the coloni, farm hands who are given a piece of land that they can cultivate themselves in way of payment for their services. This form is found in Latin America.

**Migratory workers:** The labour peaks during certain seasons, which are particularly prevalent in monoculture regions, are partly met with migratory workers from distant areas. In some cases, the same gang of workers appears annually at specific farms or villages. The emergence of the national states in Africa created problems for the traditional migratory worker routes since the borders can no longer be so easily crossed. Part of the migratory workers belong to ethnically or religious minorities.

**Plantation workers:** The employment situation of the plantation workers has several characteristics in common with that of industrial workers: rigidly organized work, work regulations, union organization. Despite this, the living conditions of this group are frequently poor: low payment, poor accommodations, monotonous work, a lack of opportunities for advancement. Because of this situation, plantation workers are likewise frequently members of minorities or aliens. In some regions, plantation workers are allowed to cultivate a subsistence plot.

**Rural craftsmen:** In some societies, work carried out by handicraftsmen is paid with a wage. In other cases, however, a reciprocal relationship has developed such as the jai jmani or sep relationship in South Asia. In these instances, the handicraftsmen carry out all of the necessary work that belongs to their occupation for a lump sum paid in kind by the farmers they have an agreement with. In this way, the handicraftsmen are protected against unemployment, and the farmers have their skills available at all times.

**Bonded labour:** Sometimes known as economic slavery, this form emerges as a result of economic obligations, specifically debts. In some cases, people enter this relationship voluntarily in order to obtain protection and a basis of existence. Usually these people enter a contract upon drawing credit in which they agree to work for the creditor until the sum is paid back. Low wages and high interest often result in these relationships turning out to be of along duration, sometimes lifelong or inheritable. Such contracts are indeed illegal, but in their situation there is little chance that the workers can do anything against it. A milder form is a contract under which a creditor can demand services from a debtor at any time. The creditor has, thus, labourers at his disposal without the obligation of employing them and paying them continually.
Collective Labour Organization

Workers labouring in the various forms of production cooperatives and collectives have both characteristics of family and hired labourers. They are expected to show self-serving interest and care, much as in the case of family labourers, while simultaneously having the chance to specialize as found on large farms. Regarding the competence to make decisions, working regulations, and pay, their position is closer to that of hired labourers. Contrary to the theoretical goals, the problem of creating motivation without pressure and material incentives has not been solved, and some of the advantages have been outweighed by the bureaucratic apparatus.

1.4 Special Topics

1.4.1 The Farm Size - Productivity Issue

During the discussion of the pros and cons of land reform, the old debate on the relation of farm size to productivity experienced a revival.

After World War II, the consensus was that small farms exhibited the highest productivity while physical output and labour investment decreased with increasing farm size. This assumption corresponded with the empirical findings. It is worth mentioning that at the time landlords, large farms and smallholders employed - with only a few exceptions - traditional technology.

There are indications that this opinion no longer holds true to an increasing extent. The many technological changes and the expansion of commercial farming seem to have changed the picture. Using the same technology as employed on the large farms, the smallholder was more productive in the past because of his greater labour input. During the 70s, however, progressive and commercial farmers started to employ a higher level of technology. The small farmer was frequently unable to compete, especially as the rapid sequence of new technological inputs required investments that went beyond his capacity. During the initial years, in particular, the new technology was not accessible to him, and the low level of information led to false investments resulting in financial losses which prevented future investments.

An indication of this process is the sequence of rapid technological inputs within the process of the so-called ‘green revolution.’ The new varieties required the purchasing of expensive seed at the beginning. Soon the existing irrigation facilities had to be improved by the addition of tubewells in order to ensure the availability of a timely and adequate supply of water. The low resistance to insects and pests necessitated the use of chemicals. Once seed and water were under control, the traditional bullock plough proved to be the next bottleneck in the attempt to increase productivity, and thousands of tractors with machines were bought within a short time. This made it unnecessary to employ great numbers of tenants who owned bullocks, and very many were dismissed. This, once again, led to the substitution of herbicides for manual labour, and the introduction of mowing and threshing machines to carry out the harvest work.

It is obvious that most of the smallholders could not cope with such a large volume of investment requirements within a short time. Quite a number had to give up farming following financial losses due to failure, or because they realized that they could not cope with the new requirements.
This was at least in part due to the absence or imperfection of institutions for assisting smallholders to overcome their limitations. A more efficient cooperative system of credit, supply and marketing as well as of supporting production by group activities, the use of machinery etc., "could have led to other results than those which we experienced during the 80s.

But most likely the process will go on; perhaps it will even increase on the basis of a second 'green revolution' caused by biotechnical development. Who will be able to pay for the improved seed that will be primarily offered by private firms?

Today it appears as if middle-sized farms turn out the highest productivity, while smallholders are increasingly unable to provide their cultivating family with a decent living. Due to shrinking farm size, they have to look for additional income, thus taking labour input away from the farms. The younger generation in particular is losing interest in cultivation, a process that will be discussed in detail later.

One can certainly still find traditional landlords with all of the consequences of the system, but more and more frequently they (and their sons) take up intensive commercial farming instead of extensive cultivation employing small tenants. By doing so, they increase, or at least maintain the size of their standard of living even after the size of their landed property has been reduced. At the same time, they do what governments have always asked them to do: increase the production of food in order to satisfy the needs of the urban population. As a result, an important argument in the land reform discussion - the low productivity of large farms - ceases to exist.

1.4.2 On Ownership and Tenancy

After World War II, the overwhelming opinion was that the personal interest the private owners had in production and profit would suffice to 'turn sand into gold.' An exception were the socialist countries where the prevailing opinion was that private ownership of the scarce production factor land leads to exploitation and should be abolished. There are enough examples to prove both arguments empirically. Alternatives do certainly exist, such as the communal control of land in Africa and the Mexican ejido with hereditary rights of use, but they are too unique to exercise much influence on the debate.

Unfortunately the 'sand into gold' argument, which has more than one grain of truth in it, has become an ideology. In the debate, the fact was often forgotten that the positive results cannot be taken for granted, but rather that they depend on the existence of certain prerequisites. If these do not exist, it is unlikely that positive effects ensuing from private ownership of land will take place, and unfortunately these prerequisites do not exist in many regions.

The prerequisites of positive effects of private ownership of land are:

1) Sufficient size of land. If the land available to a cultivator for cropping becomes too small, as is the case in many developing countries due to partitioning of land as a result of inheritance, indebtedness and poverty are the consequence.

2) A certain attitude towards work, saving and investment is necessary, i.e., qualities we usually admire in family farmers.

3) Institutional support by the public sector in those areas in which the individual cannot help himself such as cooperatives or similar institutions for providing credit, supplying inputs, marketing and advisory services.
4) Freedom for the peasant to make the decisions on farm management, who at the same time carries the burden of all of the risks.

The major alternative, state or socialistic ownership of land, has proved to have sever limitations. Production suffered in particular, partially because state planning and intervention in the details of land management caused many mistakes. This was mainly due to what Otto Schiller had already called ‘human failure’ around 1950. The system gave little incentive to the work force because extra efforts caused any increase in benefits for the individual. An example were the ‘household plots’ on which the individual families were able to cultivate vegetables, fruit and small animals for their own consumption as well as for selling privately. In this case, labour input and production were much higher than on the large estates.

This situation was important for the recent changes in socialistic countries. The transformation is not yet finished. It has resulted in some openings for the market and its incentives - although incomplete. Several countries hesitate to introduce private property in land again. The process is still being debated and is made difficult by the fact that collective workers have had no experience in independent farming for three generations and have no buildings, machines or other capital. Furthermore, no supporting institutions exist for small farmers, and - last but not least - dismantling the collective estates would erode the basis of social security for all of the people belonging to them who in the past drew their pensions from the estates.

The experience of the last 50 years has led to a more differentiated point of view on the issue of private land ownership. Property, including property in land, is a basic element of the economic order. Its clear definition, which is uniform for all of man, is a basic requirement and usually regulated in the constitution. It is necessary to differentiate between property as such - which may be held by various institutions (state, collectives) - and private property in land. The latter is one possibility that has developed historically and culture specifically. It gives the owner security, provides a planning horizon, provides incentives and, thus, makes investments possible as long as the prerequisites mentioned above exist. In many countries, private property in land has led to long-lasting and remarkable progress in the development of agriculture. In a number of cases, some of the private landowners became too successful and exploited others, a development which resulted in dependency and poverty on the part of the masses.

In many countries, private property in land is an important basis for farmers to receive credit. Land as collateral for easy credit for landowners is listed as an important argument in favour of private property and privatization.

However, this argument is frequently overemphasized. While mortgages are an easy and successful instrument for assuring credit for middle and large size farms, it has severe limitations in the case of smallholders. Loans granted on the basis of what you have and not according to the needs for making a specific investment are detrimental to a good credit policy. The fact is more important that mortgages - the instrument for guaranteeing institutional credit - are hardly granted in the case of small farmers. Banks do not usually deal with small farms, and - with variations between the countries - probably three-quarters of all of the cases of loans or credit are granted by informal lenders, even more so in the case of smallholders.

These informal lenders are relatives, neighbours, merchants, traders and other personal acquaintances of the borrower, and they do not usually request a formal mortgage to cover the limited amount of money borrowed to pay for final inputs such as fertilizer of chemicals (crop loans), or for the consumption needs during the last weeks before the new harvest is brought in. One’s ‘reputation' and ‘social sanctions' are used as alternative forms of collateral in
agrarian societies with close social relations. A person who defaults on a loan risks becoming an `outcast.'

Even in the case of banks, mortgages are, more of a threat than reality. Banks frequently have difficulty selling land in remote villages because of the solidarity among the villagers. Cooperatives likewise hesitate to take land away from members because of the negative effect on the `cooperative spirit.' More recent developments in the field of credit such as the Grameen Bank and similar institutions also do not rely on mortgages.

While mortgages are definitely an established instrument for granting credit to medium and large size market-integrated farms, it does not suffice as a sole argument for the private ownership of land. This has its place in societies which have a tradition of private property in land (which in most cases is only 200 to 300 years old). One should be careful transferring it to countries with another historical background.

Changes in land-use rights are related to the question of ownership of land. In many countries, land-use rights played a significant role in the history of the countries, but under the influence of the Europeans, they became limited to the various forms of tenancy.

The period following World War II saw a trend to prohibit tenancy. This was considered the correct answer to the lasting difficulties in regulating tenancy in a way that would do justice to both partners. It was not only the unequal position of the partners on the leasing market which made it easy to circumvent regulations. The regulation of tenancy requires annual control, while the abolition of tenancy is a one-time process.

However, enforcing the laws abolishing tenancy proved impossible because the institution of tenancy had already been rooted in the society for generations. Furthermore, tenancy was necessary as an instrument to easily adjust the requirements of the landowners with respect to labour capacity, which could change over time and in the case of unforeseen personal calamities. Therefore, the laws were never strictly enforced. Sometimes management contracts which provided for payment in the form of a share of the harvest - an arrangement that has existed for centuries - presented a completely legal opportunity to circumvent the laws.

A serious impact on tenancy took place around 1970 in the `green revolution' regions. Many landlords dismissed their tenants and used the ensuing potential to make money by means of the new technologies by cultivating the land themselves in the form of centralized farms. Many others transformed the traditional share-tenancy into cash-tenancy, a change which brought some improvement in the relation between both partners. This change in the characteristics of tenancy was further influenced by a widespread change in the characteristics of lessors. Today it is often not the large landowner who rents out land - he has frequently begun to cultivate the land himself - but rather increasingly the smallholder who wants to give up farming, especially with the change of generations. As non-agricultural jobs are insecure in the beginning, the family often keeps the land in order to be able to return to farming if the choice of a new job should prove to be a failure. In the meantime, the land is partly cultivated in the form of part-time farming, while other parts are rented out in order to reduce the workload. As a result, the lessor is in reality frequently not a large landowner, but rather a neighbour, a relative, or a person of a similar status. This has certainly not eliminated all of the problems in the lessortenant relation, but it is definitely an important step in the type of tenant-lessor relations.

All of these developments increased the need for the institution of tenancy to allow easy adjustment of land and labour. In more recent times, the abolition policy has hardly been enforced. Instead the trend has been to advocate a new form of tenancy under a different name such as the 'entrustment of land' in Taiwan. This development will and must spread. With
progressing economic development, more and more people will change their occupation and lose interest in farming, especially with the change of generations. This requires a functioning land market in order to facilitate a smooth transfer of land to people who are interested in cultivation. As the sale of land is unlikely due to the high land prices and the desire to retain land as security is prevalent, forms of leasing land are necessary.

Changes also occurred with respect to the type of lessee. Many 'progressive farmers' and 'economic holdings' increase their acreage today by renting land in order to economize the use of machinery and enlarge the scope of their activities. Entrepreneurs partly invest in agricultural production based on rented land.'

For a long time, sharecropping was regarded as being inefficient, following Alfred Marshall's argumentation. More recent studies come to the conclusion that sharecropping can be regarded as a compromise between work incentives (when seen alone, fixed rent would be better) and the sharing of risks for risk-adverse peasants. The costs of supervision also appear to be lower.

The most recent impact on tenancy originated in Vietnam and a few other transformation countries which maintained the ownership of land in the hand of the state. At first, land was leased to cultivators for a period of 6 years, but later the rights of use were granted for 20 or 50 years, with an option for renewal. They were also made inheritable and transferable. This arrangement provided a level of security and a horizon for planning and investment similar to the case of private ownership of land. It proved to be a strong incentive, respecting tradition. These long-term transferable leases were even accepted as collateral for loans. This system, which resembles the historical tradition in many countries, is still rather new, but it should be observed careful for it might prove to be a model for other countries.

1.4.3 Changing Notions Regarding Property in Land

The need for the institution of property in order to guarantee smooth processes in the economy and society is hardly disputed and, therefore, has a constitutional rank in most countries. On the other hand, the question of the pros and cons of private property in land has been the subject of long-lasting discussions. The debate has become more intense recently. The reason for the development are the changes that have taken place socialist countries which widely discuss, but only rarely introduce private property in land: In regions in which communal rights in land still exist, the elite in particular request the introduction of private property in land, and the request is not unsuccessful, although with all likelihood to the detriment of the backward sections of the society. The discussion was always accompanied by strong ideological undertones and still is today.

The intention here is not to join in the argument in favour or against private property in land. The focus here will be on the historical development of the notion of property in land in order


to understand the changes that have taken place over the last 50 years and put them in perspective.

From an historical perspective, private property in land is a rather recent concept. Originally, tribes exercised control over the area they had taken possession of by the right of a conqueror. Land was space and territory, available in abundance and of no social relevance. The tribes allotted land for cultivation to the individual families to give them a basis for their subsistence. Whoever cleared a piece of land allotted to him gained the right to use the land permanently, but only as long as it was actually cultivated. If it was abandoned, the power of disposition reverted to the tribe. In some parts of the world in the course of time, the need for mutual help and increased population led to the formation of villages which assumed the right to regulate the land in question.

The land assigned to the individual families was not property. Land was regarded as a commodity, available to all to be used under the condition that the interests of the community were duly taken into consideration.

Primarily to meet the needs of defence, authority became concentrated in the course of time and states were formed in many regions with a ruler as their head. These rulers controlled the land on behalf of the group in various ways.

It was not long before taxes were introduced to cover the costs of governing, usually a share of the yield in grain. The right of the king was limited to this share of the yield and did not include rights to the land and its utilization. However, as the custodian of the people, he was entitled to the uncultivated land lying between the villages. Soon a need arose for a hierarchy among officials to collect taxes. This led to a new system; i.e., land was allocated as a form of remuneration for services rendered. Again, this transfer pertained only to the right to use the land which could be leased to others.

In the beginning, the ruler was a sort of custodian for the state and the people, but as there was no clear separation between the state's and the ruler's rights. His rights already resembled property. This superior right was inheritable, could be restrictively transferred and leased to cultivators.

Hence, if there was anything like property in land in feudal societies, it was semi-property that belonged to the ruler and the nobility. The fact that the political power and control of the land was combined in the hands of the elite perpetuated this situation for a long time because it was in their interest.

During the feudalistic period, the nobility received land grants from the ruler in return for their commitment to provide military services and deliver commodities. At a later period still, government on the basis of the instrument of land went through a transition to become government by those who held land, i.e., the nobility.

Absolute property rights in land with respect to the actual cultivator are a much more recent phenomenon, following the emergence of centralized states: in Germany during the first half of the 19th century, in France during Napoleon's time and in England at an earlier date. The European colonies followed suit. Lord Cornwallis introduced private property in land in India.


with his Permanent Settlement in 1793, while the Japanese occupation brought it to Korea first in 1910.

The British concept of fee simple was the most complete bundle of rights in property in land, restricted only by the crown's tax privileges. Hence, in the beginning, the fee simple gave the landowner great autonomy, i.e., the right to

- use the land,
- make a profit,
- improve the land,
- not to improve the land,
- benefit from development,
- sell or bequeath the land to others, or
- use it as collateral, etc., as long as the rights of others were not infringed upon.

Soon, however, land in the form of property became more and more restricted by custom and private or public laws. The state found it easier to intervene after private ownership rights had been transferred to the cultivators and no longer rested solely in the hands of the elite. At the same time, the need to intervene increased as a result of population growth, industrialization and urbanization.

The restriction of absolute powers on the part of the owner began with the need to regulate urban development. Planning streets and railways and drainage and sewerage and protection against fires and pollution of the atmosphere were areas in which public interest intervened in the decision-making power of the landowner.

This was an important step in the development of the notion of property in land. It was the introduction of the concept that landownership and land use have a social function. Ownership from that point on was exclusive, but not absolute. Furthermore, in the course of time the landowner's rights became restricted to surface rights, while other rights such as mining and water rights were separated and frequently transferred to the hands of the state as state rights.

Financially, the state restricted the owner's rights in the course of time not only by means of the old land tax, but by means of other taxes and fees in order to at least partially recover the expenses of maintaining private property, i.e., by establishing land registers, land evaluation, land surveys etc.

The intervening increased continually, at first mainly with respect to urban land in the form of

- the right to compulsory acquisition in public interest,
- the imposition of restrictions in land use,
- zoning,
- the introduction of licenses for certain forms of use and
- land use planning.

While these measures also already affected agricultural land in part - mainly in the areas near the cities - a number of other regulations affected primarily agricultural land and intervened in the disposition rights of the agriculturists. The goal of a number of regulations was to assure optimal use of the land for production - especially during times of war - such as
• compulsory cultivation,
• restrictions forbidding the cultivation of inappropriate crops and
• compulsory cultivation of certain crops.

Following the end of World War II, radical land reforms intervened in the established rights of landowners in some countries such as Russia, Mexico and Ireland.

Elsewhere in the world, the conservation of the existing conditions and the improvement of the agrarian structure and framework conditions served as a justification for intervening in the rights of landowners. These measures included:

• the regulation of legal categories of holdings,
• the regulation of tenancy,
• the regulation of inheritance,
• the regulation of indebtedness
• settlement laws,
• land transfer laws,
• land consolidation laws,
• land reform laws,
• social legislation respecting the agricultural population and
• regulations concerning the maximum and minimum size of farms.

While some of these measures were never enforced very strictly, many others signified a strong emphasis of the social function of private property in land at the cost of the owners' rights.

Towards the end of this century, we are experiencing another step in the intervention in the private landowner's property rights. This is a consequence of the increasing concern with respect to the environment which led to the recognition of an ecological function of land in the form of private property. Examples of the intervening measures are:

• limitations in the use of chemicals,
• limitations in the number of animals,
• limitation in crop cultivation and produce acceptance,
• limitations in liquid manure emissions,
• environmental protection and
• regulations pertaining to water-catchment areas.

In the interest of the public, they all restrict part of the bundle of rights which form property. It is of great relevance that this development is taking place at a time when the agricultural society is becoming an ever decreasing part of the society at large. Land is much less important today as a basis of the economic existence of a society; however, its relevance with respect to the non-economic aspects of life has become all the more significant. We are presently experiencing the same development at the individual level. Will land play much of a role in the future regarding income generation if the agricultural population continues to decrease and the share of the factor contribution of the land to the created food value keeps shrinking?

This process will continue and probably increase. It has already progressed to quite an extent in some countries, and in others it will follow suit. It is a generally accepted truth today that no
generation has a freehold on the earth, but rather only a life’s tenancy with a full repairing and renewing lease.

The next step in the continuing process limiting the landowners’ rights is already approaching. Until now, horizontal and vertical integration took decision-making rights out of the hands of the farmers only in the case of specific branches of the farm such as hog fattening, tobacco cultivation etc. The fact that their incomes were often higher made this development bearable for the farmer. But today, we are experiencing a concentration of bio-technology companies into large corporations which include seed breeding, the production of chemicals, veterinary services, storage and wholesale all in one hand. It is not unlikely that in the end these food chains decide what animals and crops are to be produced, by whom and in which way. In all probability the final outcome will be an expansion of contract farming under the control of these big corporations, and the farmer that owns land might become little more than the janitor of his own farm - to use a phrase taken from an important newspaper.

Our brief historical oversight has show that there is great variation today among the countries as to the real meaning of private property in land. One has to look at the constitution and the relevant laws of each country in order to define what private property in land means in that country.

But the concept of private property has been emptied more and more, sometimes to such an extent that in the end there is not much more left than strong rights of use. Is this a process taking back a development which gave, despite all its positive aspects, too much to the individual, and this in the case of a factor in short supply?

Under this circumstance, it seems increasingly useless to speak of a dichotomy consisting of ownership versus rights of use, as usually done in the discussion. It makes more sense to think of a continuum with private property (fee simple) at the one end, and strong inheritable and transferable long-term rights of use at the other. The laws of each country tell where at a certain time the country can be found along the continuum.

If this fact is accepted, the issue of pros and cons regarding private property in land can be discussed less ideologically and with more attention paid to the history of the individual countries, the values of the people and the socio-economic changes expected in the near future.

2. Systems of Land Management
(Technical and Economic Agrarian Structure)

Agriculture - cultivation and use of the land - is a form of production based on the process of growth of animals and plants. In its original form, man creates food and other articles of consumption by using his labour to cultivate a piece of land. At a very early stage, he attempted to make this work easier by making simple implements and, thus, form capital. Traditional cultivation of the land utilizes, in other words, the conventional production factors labour, land, and capital.

In the modern world - and in rudimentary forms even much earlier - the farmer runs a type of enterprise. His goal is of an economic nature: he produces in order to cover his own needs, to

barter, and in modern times, to sell. The modern farmer is tied to the overall society by his enterprise. He is dependent upon supplies and buyers and has to fulfill their wishes and conditions. Modern agriculture is not only an interplay between the soil, solar energy, and labour, but is rather determined by a number of modern factors that originate outside agriculture.

In the endeavour to cope with these factors and achieve as productive cultivation as possible, requirements emerge that cannot be met by the individual farmer. The success of his farming depends, therefore, upon the extent to which his efforts are supported by social institutions that help him in the areas in which he reaches the limits of his own possibilities.

Conventional Factors of Production

The basis of agricultural production and the most important production factor for the farmers is land. By means of it, they can use their labour (and capital) in order to earn their livelihood. In traditional agriculture, more land also means more income and a better life, and increasing the size of the farm was a simpler way of improving the living conditions than farming the existing land more intensively. This was the source of the inclination to buy land that is still found in agrarian societies.

The possibilities of increasing the area of land are, however, limited. Land cannot be enlarged or increased. Land cannot be enlarged or increased beyond that which it is, and when all of the land has been put under cultivation, growing populations lead to continually smaller farms. This is why land has the reputation of being a scarce production factor.

However, „scarce” and „abundant” are relative. Since mankind first began settling, land has changed in its role as production factor. While at the beginning only the natural fertility of the previously untilled soil was present, it was then put under cultivation. The soil has improved over the centuries through the work of man so that more products can be grown on the same amount of land, or ruthless exploitation and negligence have ruined it. In many regions, the productivity of the soil has been greatly improved by artificial irrigation systems, or the crop intensity was increased. These measures reduce the scarcity in the sense that on a given piece of land as much can be grown as previously only on a larger area of land. That this process has not remained without success even in densely populated areas can be seen from the frequently deficient utilization of the soil that can, in some cases, be called wastefulness. The prevailing land and land use laws may play a role in this context as well as the limited technical possibilities in traditional agriculture. This does not change anything in the fact that land in the scope of traditional agriculture is indeed limited, but that this can be overcome to quite an extent. In other words, if the system of land management is improved, the scarcity of land is reduced by more intensive cultivation. An improvement in the agrarian structure creates the precondition for appropriate management and land use systems, a purposeful integration of animal husbandry and much more.

The farmer's major instrument for achieving a good output is labour. Labour has a direct effect if by means of investing a greater amount of it the output is increased. Indirectly, labour can have an effect on the production via capital formation.

In densely populated agrarian societies, labour is an abundant production factor, especially in relation to land and capital. This results, in extreme cases, in land being substituted for by labour. In the case of a scarcity of land, e.g., fodder is not grown as the entire land is needed for growing crops to feed the people. The necessary fodder for the animals is collected by foraging weeds which demands the investment of a great deal of labour. A further consequence
of the often unproportionally large supply of labour is rural underemployment. Manpower that is actually not necessary in the agricultural production process is nevertheless retained in the family members. By remaining together, the family supplies a basis for all of the members to exist upon, even if at a lower level. It must be mentioned, though, that that which is produced is consumed, and there is little left for investments.

While quantitatively abundant labour is available, narrower limits exist qualitatively. This has an effect when traditional agriculture is no longer practiced. One peculiarity of an occupation in agriculture is its many sidedness. In his function as a labourer, the farmer cares for his crops and animals in order to achieve a larger output. In his function as farm manager, he chooses between alternative crops and methods, whereby the people in his surroundings influence the type and possibilities of the choice. The family - along with the existing norms, traditions, and religion plays a particularly important role.

With their ability to work, learn, think, and strive for something, the farmers have continued to develop the cultivation of the soil from the digging stick culture of earliest times up to modern agriculture. The rapid introduction of innovations today, however, often takes them to their limits because the existing abilities are not adequate to comprehend the consequences of the changes and to plan and carry out the measures purposefully.

Under these circumstances, the productivity of the labour would be raised if the agrarian structure could develop a more balanced ratio between labour and land. One precondition for this would be to raise the abilities of those cultivating the soil to a higher level.

According to the general opinion, traditional agriculture utilizes little capital. This is also true if one thinks of modern forms of capital. However, if one looks at it more closely one finds that traditional forms of capital are indeed abundant so that a greater use would only lead to a slight increase in productivity. Soil amelioration, buildings, leveling fields, and other forms of capital that are created by the work of the farmer's family are examples. In the single cases they are only small increments in capital stock; however, they add up to significant quantities over the generations and on the many farms.

The need for capital created by work is large - and the chances of capital formation are correspondingly great - if the level of the individual farms is abandoned. However, this leads to unsolved organizational and allocation problems. At the village or regional level, the yield resulting from the invested labour no longer flows automatically to the labourer's own family.

The capital stock is even smaller when new forms of capital are considered, e.g., implements that have to be procured through the market. Adequate agrarian structure forms cannot only reduce the organizational problems involved in non-monetary capital formation but also create paths for the introduction of new forms of capital that could make a larger contribution to production.

Preconditions for Modern Agriculture

The conventional production factors land, labour, and capital are able to provide the farmers with a subsistence, especially if the population is not dense. However, if a noticeable and rapid increase in production is desired, they do not suffice. To do so, further factors are necessary, and these are those production factors that are actually scarce. They cannot be provided by the farmers themselves, but rather must be produced by the society in processes involving a division of labour. Agricultural development is not only dependent upon land, labour, and capital, but rather an interplay between these traditional factors of production and the new
factors produced in other sectors of the economy. If agricultural production is to develop beyond the stage of self-sufficiency, an external demand as well as new technologies and inputs that are produced outside the agricultural sector are necessary.

A strong effective demand for agricultural products gives the farmer an incentive to increase his production beyond the level of subsistence. The achievable prices have to be high enough to cover the costs of production and be a satisfactory reward for the involved efforts. Especially the latter is dependent, among other things, upon the existence of functioning markets.

In early stages of development, an effective demand for agricultural products - not the desire for more food - is often limited because the number of buyers (due to the widespread self-sufficiency in rural societies) is small and because of the limited purchasing power of the purchasers. Furthermore, the demand in most regions is limited to cereals. Perishable goods can, on account of the underdeveloped transport and storage systems, only be produced in the close vicinity of cities. In case no opportunities exist for exporting the produce, the size of the domestic demand sets the limits of the development in agricultural production.

Before the domestic demand can be stepped up, the non-agricultural sectors have to be developed in order for the necessary purchasing power to be there. This development in industry, trade, and crafts is, on the other hand, the precondition for an increase in agricultural production because inputs are necessary that are produced outside the agricultural sector such as commercial fertilizer, implements, and services. To quite an extent the modernization of agriculture is concerned with supplying energy. Fossil fuels play a particularly important role in production increases.

Modernizing agriculture always means an increased interfacing of agriculture with the other sectors of the economy. In order to achieve lasting increases in agricultural production it is necessary to leave the level of an economy based on self-sufficiency and enter a stage of agricultural production interfaced with the market. In this process, the market prices are the incentive and orientation for the farmers; these, however, simultaneously raise the involved risk. Although farmers always had to face production risks, which could be mitigated if needed by tightening one's belt, the modern producer of agricultural products is additionally faced by a marketing risk and technical risks owing to the new procedures that are ill-adjusted. The risk is also much larger since the externally purchased inputs have to be paid. Functioning markets are a precondition to make the risk bearable. The agricultural commodities markets will have to be expanded and made more dynamic in order to fulfill the conditions of a demand backed by strong purchasing power that is needed to develop modern agricultural production.

A higher level of agricultural production, stimulated by the increasing demand, is the result of new technologies in agriculture, in other words, new methods of „how to do it“. Techniques, methods, and varieties have to change continually in modern agriculture if stagnation is to be avoided. Such innovations can be copied from other farms and other regions. First and foremost, they are the result of research and experiments. The development of fertilizers and pesticides, new high yielding varieties, machines, implements, and irrigation methods are examples of new technologies in agriculture. Since in agriculture production there is a close interrelation between various factors and practices, changes should be made together if possible. The simultaneous introduction of a package of innovations has a greater effect. On the other hand, sometimes only one factor has a limiting effect and changing it can raise the productivity of the entire system. Frequently it is the question of new inputs that have to be purchased, and since these are often nondurable goods it is necessary to continually buy them. Usually it is necessary to simultaneously employ a whole package of new inputs. Therefore,
many goods have to be purchased so that it results in a strong interlacement with the rest of the economy. Modern agriculture is no longer simply the result of the farmer's struggle with his land, but rather it is also influenced by the activities of factory workers, scientists, and merchants who make their contribution to agricultural production indirectly through the division of labour. Modern agricultural production is part of a closely knitted all-inclusive economic system.

For new inputs to be successful, it is important that they are available everywhere; in other words, that there are functioning supply markets. They also have an effect on the conventional production factors. If the innovations are lumped together, they often bring about a change in the entire production process and cropping system, e.g., as a result of economic and organizational considerations or conditions of crop rotation. The agrarian structure has to give the incentive for the development of such new technologies and for acceptance of innovations. The creation of an institutional framework that facilitates the interlacement of the agricultural sector with the rest of the economy is an important aspect.

Institutional Support for Agriculture

The incentive created by a demand backed by purchasing power results in the modernization of agriculture on the basis of the existing technological innovations. In this manner, a slow but steady increase in agricultural production has taken place over the centuries. If - as today all over the world - rapid development is the goal, it is not enough to leave this process to itself. Instead, it is necessary to intervene in this process by forming and promoting it. In order to do so, a number of service and support institutions are necessary.

The new technologies that are needed in order to modernize agriculture will only evolve and be developed to the extent needed if the agricultural research facilities are adequately developed. Traditionally, research has mainly been concerned with the problems of large farms and crops for export. The tasks and goals will have to be changed. In addition to central research facilities, an infrastructure of experimental stations that study the applicability of the innovations under local conditions is also necessary. The system character of agricultural production makes it necessary for agricultural research to not only study single smaller problems, but also to deal with the combination of individual results into applicable procedures that can be employed for practical purposes.

The more intensively new technologies are presented to the farmers, the sooner they are accepted in practical agriculture. Agricultural extension services are the indispensable tool for this purpose. Their organization and methods have to be adapted to the type of farm. Their content should not remain limited to the agricultural production aspects, but should also include economic and management questions and - as the farmer - keep the entire farm in mind. The more formal education the farmers already have, the easier the extension service personnel's job will be. School education accelerates the learning process, especially if it is relevant to development.

New technologies cost money. Industrially fabricated inputs that have to be bought play a role frequently. This creates a financial problem. The speed at which they are accepted and applied depends on how much credit is available to solve the financial problems and how easy it is to receive credit as well as whether the conditions of the loan meet the farmers’ needs, especially regarding the important short-term credit loans. Credit, though, can only accelerate the process if the goods that have to be financed are available on the market.
Thus we come to the market for inputs and agricultural products. The existence of marketing and supply facilities; a system that allows mediation between producer and consumer; and an unproblematic, trustworthy market not only animates the farmers to take advantage of the potential in modern agriculture. Efficient distribution channels have an indirect effect on the prices and, thus, on the incentive to develop beyond the stage of traditional agriculture.

In view of the large number of fairly small producer and buyers in agriculture, group activities are frequently necessary. At the least they present a good opportunity to offer services less expensively. Internationally, therefore, the various types of cooperatives have a good reputation. The more help in organization, management, financing, and technical aid granted to activities without the help being dictated from above or having a paralyzing effect on initiative, the sooner the joint activities will be accepted.

The form the support institutions take is in each case specific to a particular culture and dependent upon the historical development. The extent to which this support is given has an important influence on farming. The promotional institutions make up, therefore, an essential element in the agrarian structure.

3. Agrarian Systems

The system of land tenure (that is, land ownership and labour organization) and the technological and economic conditions are not independent factors. Their concrete form is interlaced with the natural and social conditions found in each specific area.

The natural conditions not only influence the production factors - generally good and poor soil, enough precipitation, and temperatures favourable for growth and working - but also influence what types of ownership are found in an area: large farms are seldom found, for example, in regions where the soil conditions are poor and the topography is mountainous.

Even more important is the relation between the agrarian structure and the existing social conditions in the individual countries and regions. Feudal, capitalistic, and socialistic social orders result in very different conditions of land ownership, systems of labour organization, and forms of cultivation. The social system, in other words, makes up the framework within which agrarian structures can evolve. In this process the state as well as tribes, landlords, communes, and colonial powers can determine the conditions. Within the framework of social conditions, the agricultural sector's economic goals, the function land fulfills, and the political and social system play significant roles. The economic goal can be vary from self-sufficiency and satisfying one's needs, maintaining the farm, earning rent or interest on capital, production for the market, maximizing profits, or meeting economic plans. In doing so, land can function as a basis for earning one's livelihood, home, means of production, a commodity, an asset, annuity, power basis, or prestige object. Several functions can be combined.

The above-mentioned factors are not independent, but rather are embedded within a system; that is, a change in any factor results in a change in all of the other factors. The term „agrarian system“ has been coined in order to conceptualize this complex system. The „agrarian system“ consists of the „institutional, economic, socio-organizational, and ethical patterns found in the agricultural sector and rural areas that are oriented towards the superordinate economic and social system“ (ROHM).
The following brief summary of the most important agrarian systems is by no means exhaustive and stresses in particular the most significant agrarian systems found in the developing countries.

**Tribal and Kinship Agriculture**

**Migratory pastoral Herding**

In this form of livestock industry, the animals are periodically driven to the pasture grounds. There are several types. In the case of mountain razing or alpine cattle keep, the livestock is kept in stables located in the valley during the winter; in the summer they are driven to the mountains by hired hands or family members who tend them and keep them there to graze. Transhumance characterized by periodical migrations with herds that belong to owners who live in a permanent settlement. The herds migrate between two climatic zones that have very different conditions (e.g., mountains and lowlands). Therefore it is not necessary to feed in stables during the winter. This form is found in all parts of the world and makes use of marginal areas. Pastoral nomadism is the wandering of social groups (clans, extended families) with their herds through tribal territory that serves them as pasture lands and that is often theirs more on the basis of tradition and domination than legally defined.

The insecurity involved in an existence in marginal regions forces the groups to be strongly tied together in order to protect grazing and water rights. The leadership of the group, therefore, demands strictly observed loyalty on the part of the group members, while the leader gives patronage and protection. The individual families are principally equal. Social differentiation is the result of a process of superior position of permanently settled cultivators with whom the nomads avoid integration by means of a special code of honour and closed marriage circles.

The right of use for the grazing areas is in the hands of the tribes, while the animals belong to the individual families. This differentiation results easily in the land being overgrazed if grazing land grows scarce. The tendency exists, namely, to won a herd with as many animals as possible and not to try to achieve high performance. The livestock is not only the basis on which the group's own needs are met and a security against times of crises, but it is at the same time the only form of maintaining a food buffer stock in a nomadic way of life. It creates, furthermore, prestige; serves as a source of gifts needed to meet social obligations, and to pay the bride price for the purpose of tying social relationships that, once again, serve as a means of securing the existence of the group.

In many cases, there are economic ties to the settled population. This is necessary to meet the demand for non-animal products. In recent times, cereal cultivation by tenants and farm hands has increased.

Migratory herding is of great importance for reclamation of desert and marginal regions as well as transport and trade routes. The production is, however; low and the land is frequently devastated by being over-grazed. It is difficult to motivate the tribal groups to change their mode of production. This is namely at the same time their way of life, and a change would include settling. Efforts taken in this direction have, however, little success as this transition would mean the necessity of taking up field cultivation, which is not respected, and giving up their elite position in other words turning away from the traditional culture.
**Shifting Cultivation**

Shifting cultivation is a type of farming in which the land under cultivation is periodically shifted so that fields that were previously, cropped are left fallow and subject to the encroaching forest. It is an original method of making use of land and can still be found today in the tropical rain forests. Shifting cultivation in the narrower sense means shifting both the land under cultivation and the settlement. More recently, however, the tendency has been to shift only the land that is cropped while the settlement remains permanent due to the increasing population density and influence of the state.

The land is common property and is controlled by social groups, usually tribes. The chieftain or land priest designates land to the individual families for their use. The land is cleared by cutting down the trees and burning the land. This land is cropped for several years and then left forest fallow while another piece of land is cleared. The regeneration period maintains the fertility of the land if it lasts long enough - in other words, if the population is very small. In this case, such extensive usage suffices, with limited input, to enable a meager, self-sufficient existence.

Labour is carried out by the family and is designated according to a culturally specific division of labour. Usually, the men clear the land whereas the women are responsible for planing, cultivation, and - in modern forms - marketing. This basically egalitarian social system is restricted to small groups, particularly families and tribes in which all needs can be satisfied and there is a strong solidarity. The groups practicing shifting cultivation have little contact with the new national states. At a time when the land was only sparsely settled, this system allowed a secure and lasting existence at a low level. There was no landless class, no land speculation and exploitation on the basis of private ownership, and the fertility of the land was maintained.

In recent times, the population increases in many regions have made it necessary to clear land more and more frequently and cut down on the time when the land is left fallow and, thus, endangered the fertility of the soil. An adjustment through tribal wars between tribes controlling a lot of land and tribes with little land is hardly possible today. The continual shifting of the settlements and fields hinders building up an infrastructure. The growing cities' demand for foodstuffs can only be satisfied with difficulty as it is hardly possible to intensify production while using this system.

A transition of this system that no longer complies with today's demands, however, would meet with tremendous problems. It would necessitate the new states intervening in the traditional rights of the tribes. There is also a lack of suitable concepts. The concept that has been most frequently discussed to date is the individualization of rights in land. This, however, is a Western model that is so alien to the indigenous culture that it is only practiced hesitatingly.

**Feudalistic Agriculture**

Feudalism is not considered here under the aspect of an historical period in the development of society, but rather as a form of social stratification characterized by marked differences in property, income, power, and prestige. Between the minority consisting of large landowners and the majority made up of landless or people owning only very little land, there are mutually binding rights and obligations that are, however, very unbalanced.
Rental Feudalism

Fiefs, tax lease, or economic hegemony are the basis upon which the upper class of landowners (landlords) basis its domination over the dependent farmers and landless. As the latter have no other alternative means of earning their livelihood, they have to accept high rents, forced labour, and in some cases even personal dependence in order to find a livelihood as tenant or labourer. Even if agrarian reforms and economic development have brought about some changes, this system still exists in many parts of Asia as well as in the Mediterranean countries and Latin America.

Essential for the formation of this agrarian system is the concentration of the ownership of land and water in the hands of a few landlords whose interest in the land, however, is limited. They segment the land into small parcels to be farmed by sharecroppers. The duration of the contract often lasts for only one vegetation period. They are, indeed, frequently prolonged by tacit agreement, but the insecurity leads to a state of dependence. The gross output is divided between the landlord and tenant in the case of sharecropping. The tenant must obey the landlord's orders on cultivation. Because of the small size of the plots they rent, the economic situation of the sharecroppers is critical and they frequently lose even more freedom to the landlords as a result of debts. The landlords try to gain higher incomes by means of high rents while investing little effort instead of trying to reach the tenants to crop more intensively. The land is a source of rent for them that at the same time gives them prestige and power since the tenants' dependent state covers even their personal living conditions and forces them to be loyal in all situations. The system takes from the poor and gives to the rich. Profit is derived by siphoning off as much as possible, not by increasing production.

The large landlords do not control the tenants personally, but rather leave the job up to overseers (formerly to sub-lesasers as well) who increase the exploitation. Although restrictions limiting the amount of land that can be owned have been introduced through agrarian reforms in the post-war period, they have been introduced through agrarian reforms in the post-war period. They have often led to only a replacement of the large, landlord by the petty landlord. Since the latter lives in the village, the control is even stricter. In areas in which the Green Revolution took place, the system has disintegrated because the landlords evicted the tenants and began to cultivate the land themselves. Under the new wage and earning ratios this proves to be more economical.

Latifundia (Hacienda)

Latifundia are overdimensional pieces of landed property covering tremendous areas. Today, they are only found in Latin America. The most widely spread form is the hacienda (facenda) that originated under colonial law allowing forced labour recruitment and through land grants for military services. A hacienda is an economic and social entity that, similar to a small state, strives to be self-sufficient and autarkic and is centered upon the „patron“. The hacienda is not a farm but rather an area of land on which several different forms of labour organization and land utilization exist simultaneously, e.g., plantations and sharecropping. The intensity of the cultivation is very different on different parts of the hacienda, although low all in all. The haciendas include forest and waste land in their property.

The various economic units on the hacienda are tied together through labour relations. Cash is used as little as possible. The patron receives work performance from the labourers, tenants, coloni, herdsmen, the management, and other personnel and provides - even if with very low standards - schooling, medical aid, subsistence, old-age benefits, and stores. Wages, credit, and purchases are calculated together in an account in the store.
For the haciendero, the land is above all a source of respect, power, and speculation. Its significance as a basis of agricultural production is only secondary. The large landowners are the financial aristocracy in the countries and have a large influence on the government. A change in the government often only means that another family takes over. Despite their political interest, the hacienderos strive to uphold regionalism and, this, hinder the construction of an infrastructure in the country. There is a distinct class structure with landed property and race as the most important characteristics determining the strata. The patriarchal structure determines the life of the people from birth to death. It is hardly possible to break out of the system as there is nowhere else to find work. The coexistence of latifundia and minifundia (marginal farms), abundance and destitution, is hardly as marked in any agrarian system as this case.

**Family Farming**

In the case of family farming, the property and usage rights are in the hands of the individual families. The management and labour are carried out by the family that owns the farm and, thus, are independent of larger social groups. This type is found in Europe, in the European settlements as well as in many other parts of the world.

Land is the integrating factor in this rural social system. It is simultaneously the basis of existence, production factor, wealth, and home. In accordance with time-honoured custom, the land is not sold, but rather used and then passed on to the next generation. The economic goal is to satisfy the economic and social needs of all of the people living on the farm. Being a longterm goal that lasts for generations, farming must be carried out in such a way so that the fertility of the soil and the environment are not harmed.

There is a correlation between farms size and labour capacity. The ideal situation is when the farm is only large enough for the family to be able to carry out all of the work itself while meeting all of its needs. If the farm size is adequate and can satisfy these requirements, family farming is a stable system whose social stratification is limited and, therefore, is especially suited for cooperative work. In this case, the economic performance is remarkable. A decrease in the farm size as a result of being distributed among the heirs or loss through debts can endanger the system and sometimes leads to a transition to a feudal agrarian system. By educating and providing heirs who leave the farm with a start, the system renders considerable benefits for other economic sectors.

In Europe as well as in some developing countries, the farms have shifted their orientation towards the market, capitalization, and the employment of modern farming methods under the guidance of extension service. This was accompanied by an increase in the size of the farms as an effect of the higher capitalization. Depending on the concomitant circumstances, this was connected with some of the farmers changing their occupation and taking up jobs outside agriculture or merely losses of property and a drop in social status. Since the latter is frequently the result of mismanagement and the inability to adapt to changing conditions, the attempt is sometimes made to take the key farm management decisions away from the previous farm manager through a system of „production under supervision” and achieve better results by means of central control. This can either be brought about by vertical integration or coercion and is especially widespread in the case of settlement projects.

As soon as an increased number of non-agricultural job opportunities are available in a region, various types of sideline activities and part time farms crop up. In other words, one or several members of the family take up a non-agricultural occupation.
Modern commercial farms are a derivative of the traditional family farm with a more commercial character. In the case of market-orientated, capital intensive family farms in Europe and the developing countries, however, the difference between commercial farms and family farming of a more peasant nature is becoming increasingly smaller.

**Capitalistic Farming**

Various forms of farming with characteristics of capitalistic management exist in the world. Examples are the farming corporations in North America, the ranches in Latin America, and the agroindustrial kombinats in Eastern Europe. The most important type of capitalistic farming in the developing countries are the **plantations**. A plantation is a large scale farm that primarily grows perennial crops, e.g., trees or bushes or shrubs, frequently in a one-crop system. The produce is usually processed industrially in the plantation' own processing plant and is destined for export (sugar cane, bananas, tea, coffee, cacao, sisal, oil palms, coconut, etc.). The plantation are often owned by foreigners.

The industrial processing **demands** consistent quality and an uninterrupted delivery of a quantity sufficient enough to **make full** use of the plants' capacity. The management is, therefore, characterized by strict control and a rigid hierarchy. By employing top-level personnel for the management, the productivity is very high. The plantation, however, serves first and foremost foreign interests and, as an enclave, is often of little benefit to the domestic economy. The countries receive large sums from the export taxes, indeed; however, the economic and political influence is sometimes considerable. Furthermore, the social conditions are often poor, although this varies. The working mass has a very low income, few prospects of a better job, and often miserable living conditions. The plantation supplies living quarters, indeed, but they are frequently of the poorest quality. Nutritional and health conditions are poor, partly due to the lacking subsistence production. Labourers are often recruited from other regions, countries, or population groups, which leads to even greater problems. Plantations that are owned by the domestic elite have the same characteristics, with the only difference being that the productivity is frequently lower.

**Collectivistic Agriculture**

According to the degree of collectivization, it is possible to differentiate between several basic types within this greatly varying agrarian system. In the case of socialistic agriculture, the means of production have been put into the hands of the public and the production is planned by the state. Communist agriculture is not only an economic system, but rather an entire way of life. This can be politically or ethically/religiously based.

**Socialistic Agriculture**

According to the socialistic ideology, private ownership of land leads to exploitation. The socialization of the means of production is, therefore, an essential element of this agrarian system that is predominantly influenced by the political ideology. Belonging to this is the conception that small farms have been passed up by technical progress and should be combined into large economic units, therefore. The third component is the rigid state planning of the agricultural production. The actual long term goal - abolishing the difference between agricultural and industrial ways of life - has not been achieved to date. In fact, there are great differences between the individual East European countries and Cuba regarding the extent of their presently achieved socialization. Thus the extent of the socialistic sector in agriculture fluctuates between 96 % in the USSR and only 31 % and 15 % in Poland and Yugoslavia,
respectively. The rest is split among small private farms and household plots that are allowed to the members of the collectives in all of the countries.

Regarding the farm organization in socialistic agricultural forms, a differentiation must be made between state farms (sowkhoz) and collective farms (Kolkhoz). The latter is often given preference because although it is subjected to complete state control, the state does not have to bear the economic risk. This is shifted onto the shoulders of the members. Furthermore, the state can influence and direct wage levels as well as capital formation and capital transfer by means of delivery quotas and fixed prices. In other words, it can use the agrarian sector for its own economic policy goals. In this system, the individual household plot production plays an important role. In this case, labour intensive production is carried out in order to improve the farm members’ own supply while simultaneously producing crops that are difficult to grow on a large farm unit. Animal husbandry also plays a certain role in the household plots. The profits allow an improvement in the otherwise partially low incomes.

The system has a few elements that have to be regarded as weak points from a production performance viewpoint. The collection has to employ anyone looking for work owing to the right of employment, even if they are not needed. The percentage of controllers and idle time resulting from red tape on government farms is high. This, together with difficulties with the supply of inputs, results in relatively low production performance that, even over a longer period of time, cannot measure up to the productivity of Western industrial countries. It must be mentioned, however, that this is only one possible judgment criterion. The picture would be different if one took the factor contributions - the capital and labour transfer in other sectors - and contribution towards the political goals in these states into consideration.

Communist Agriculture

Communist agriculture can be based on a political and an ethical-religious syndrome.

In contrast to kolkhozes, the Chinese people's communes are a form of collectivization comprising all economic and living sectors - in other words, not only agriculture. The entire population in a region belongs to it, not only the agricultural population. This entity that can be as large as a rural district organizes within the area it covers agricultural and industrial production, services, education, health services, cultural programs, the administration, and political matters as well as some aspects of consumption and personal life.

Work is rigidly organized in a fashion similar to in the military and is disciplined. Internally, they are divided into three levels that carry out the work (Production groups, production brigades, and communes), whereby the relationships between state-commune and communebrigade are regulated by contracts. The economic activities take place within the framework of state planning that, however, leaves room for local decisions.

The basic needs are regulated in an egalitarian manner and met with a basic cash wage and pay in kind in the form of staples as well as free education and health services, etc. In addition, it proved necessary to introduce bonuses in order to increase productivity as well as to allow private small-scale farming. Thus the society is in principle classless, but bonuses and private household plots as well as the existence of functionaries led to the formation of new social strata. However, the differences in income are no longer the result of differences between persons and/or families but rather between communes with different production and marketing conditions. These, in some cases, considerable differences are not directly noticeable.
The system is still in a process of change and has also led to important transformations in the society, e.g., the old family system no longer exists and women have been granted equality. It is particularly the success in organizing the population to build up the economy and form capital that makes this system attractive for other countries. It must be mentioned, however, that the possibility of, and conditions for, successfully introducing the system in other countries have not been adequately analyzed.

Since 1978, the socialist countries increasingly changed their policy concerning agriculture. The main features are:

- Dismantling the commune. While the property of land remained public, management and utilization rights were given back to the households, each of which was given a piece of land according to family size and labour availability. In time, allotment was extended to 15 and even 40 years in order to give incentive and security.

- Stopping state planning for agricultural management. The individual household were free again to cultivate according to their preference and decision (household responsibility system) as long as they fulfilled their quotas - which were phasing out in time - and paid their taxes. Decision making in the households was guided by free markets and prices.

- Surplus labour was free to transfer to non-agricultural activities in the emerging Township - Village Enterprises, which were founded, first as collective, later as private enterprises.

- The administrative role of the commune was assumed by the township government.

These changes, which had a remarkable production effect, are still in progress. Different countries experiment with different forms around the general strategy.

Collectivization has not been limited to socialistic systems. From of old, philosophical and religious communities have tried to create a way of life devoid of social differences, property, and mutual exploitation - in other words, under the signs of fraternity, equality, and justice. Usually they were small groups. In durability and significance, the kibbuz in Israel stands out among the other groups. This is a voluntary community comprising people, land, and capital for the purpose of collective production, distribution, consumption, and living. In all communistic forms, coercion played an important role in making the people take part. This took place either in the form of political pressure or an acute state of distress for the population that could be more rapidly overcome in a collective.

4. Socioeconomic Differentiation of Agriculture

Increasing Socio-economic Differentiation in Agriculture

In spite of the widespread dissatisfaction with the rather limited achievements of 50 years of development efforts - which is certainly justified in view of the still existing and even increasing poverty among millions of people - one cannot overlook many important changes in the general framework conditions in most of the Third World countries. Without going into detail or striving to achieve completeness, these changes can be described by the following key terms: the transition from stagnation to a dynamic situation; industrial, commercial and
agricultural development in many regions; emerging non-agricultural jobs; world market integration; increasing population growth; political instability; poor administrations; and institutional vacuum in many cases. With all that in mind, one can say that the expectations of the 50s have not been fulfilled, but at the same time the situation in these countries today is not comparable with that of some 50 years ago.

These changes have had repercussions on the character of the farms and the socio-economic situation of the agricultural households. The people to land relation has been differentiated considerably.

Types of Farm Households in the 50s

In the middle of this century, agriculture consisted of a limited number of socio-economic types of farm households. Leaving out some special types that existed in only small numbers as well as the collective organization of farming in socialistic countries, one has to differentiate primarily between three types:

• large landowners (landlords),

• small farmers (family farms),

• marginal farmers.

The landlords as a rule did not cultivate their land themselves; instead, decentralized cultivation carried out by tenants was common. For, the landlord, his property was primarily a source of prestige, while production was of lesser importance. The main strategy they employed for achieving a high income was skimming off a high rent rather than increasing the yield. The comparatively stagnant agriculture resulted in a low standard of living for the small share-tenants.

Small farmers had 'family farms' on which the family members employed all of their labour and lived off the produce of the land. Cultivation was carried out in accordance with local customs and controlled by the village society. The larger the farm, the more surplus could be sold, but even in this case the requirements of the dependent households and self-sufficiency determined the cropping pattern.

Marginal farm households had too little land at their disposal in relation to their needs and the given soil quality. These households tried to improve their living by at least working partly as labourers on larger farms or in public works. Many tenants belonged to this group.

The decrease in farm size caused by inheritance, population growth and land reforms; the introduction of new technologies in agriculture - leading to a close interweaving of the agricultural sector with others; the creation of employment opportunities through nonagricultural development; increasing migration; the influence of mass media and mobility integrating the rural population into the overall society; all of these factors led to increasing differentiation among the agricultural households. This may have been more marked in one region that in another, but it certainly influenced all countries. Variations had less influence on the emergence of new types that will be described below than the scope of their existence.
Farm Household Differentiation until the End of the Century

Today, farm households can be differentiated according to the following types.

1) Households with enough land to enable them to earn their living by land cultivation. The members usually concentrate their efforts on farming and take advantage of the possibilities offered by the new technologies. They try to increase their income by practising good cultivation and good husbandry. This group consists of

- large landowners (landlords),
- `progressive farmers,'
- `economic holdings.'

2) Households which do not have enough land to be able to earn their living by cultivating the land. The members try to improve their condition by taking up non-agricultural activities, but are often not successful. Their goal is to achieve a better income by using all of the resources at their disposal - land, labour and, sometimes, some capital. Their interest in agriculture is sometimes limited, often imposed by a lack of alternatives, and the younger generation in particular, often looks forward to a life outside agriculture. This group consists of:

- households with multiple employment,
- households with household production,
- holdings of older people,
- marginal existences.

In detail, the different types can be characterized as follows:

1) Households with sufficient land

- large landowners (landlords)
  The size of the land available to them decreased considerably due to inheritance, land reforms and preventative measures to limit the impact of future reforms. The wish to maintain their standard of living even after the reduction of the size of their land led to the employment of modern technologies and the intensified land use. Many petty landlords became `progressive farmers' although it is still possible to find feudalistic landlords of the old type who have hardly been influenced by the developments around them.

- `progressive farmers'
  This group emerged as a new phenomenon at the point when the technology introduced by the 'green revolution' made it possible to earn a high income by practising modern market integrated agriculture on adequate land. They recruit themselves from the higher strata from among landlords whose estates have become too small in the course of the inheritance process, and from below from among the active family farmers (or their sons) who try to increase the size of their farms by renting land and practising modern farming.


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often successfully. Their economic power frequently led to political power, and this group has many representatives in district and provincial assemblies.

- economic holdings

These family farms, which have sufficient land at their disposal, experienced considerable increase in income brought about by the opportunities made available by the new crop cultivation technologies and, partly, by engaging in modern market-integrated animal husbandry. Household members are frequently interested in farming along modern lines, which is considered to offer perspectives for the future. When they eventually realize that only a farm size which provides sufficient land can guarantee a decent income, it is not unusual for the second son to take up training with a view to obtaining a non-agricultural job.

2) Households with insufficient land to provide a living

The number of households in this group increased considerably in the past, mainly because of reduced farm size following partition in the course of the inheritance process. The members have to earn additional income, often by activities outside agriculture. Hence, the households do not employ all of their labour on the farm and live off the farm proceeds, i.e., they lack the characteristics of atypical small family farm.

- Households practising multiple employment

Differences in the family and farm structure, in resource endowment in the region and the level of economic development have brought about different types of multiple employment:

- Individual Income Combination

In this case, the cultivator himself takes up non-agricultural work as a main or sideline occupation, or works as an agricultural labourer on other farms. This type is necessary if there are no children in the family who are old enough to work. Difficulties are particularly due to the daily care that livestock needs. Hence it is only possible to take up a second job locally in areas in which job opportunities are limited, with the exception of the vicinity of cities. An alternative would be to give up husbandry and change to using hired draught power.

- Household Income Combination

One or more sons - and/or daughters in some societies - take up non-agricultural employment, or work as agricultural labourers. The job can be local, or in a distant place - even abroad - on a permanent basis, or whenever work is available.

In other cases, the working life of the people is divided into two stages. Until the age of about 45, the men work outside the village, while their father manages the small farm. When their father becomes too old, the son takes over the farm. By this time, however, the son's children have reached working age. This form can be found in remote areas in particular where it is difficult to find employment. In quite a number of cases, men have long-term contracts with the army and receive severance pay, or a pension later on. A precondition for this type of household is the fact that the children are willing to donate at least part of their income to their family, which is frequently the case. The amount they give varies greatly.

- Extended Family Economy

Nuclear families maintain close social and economic ties even after they have migrated. A network of cooperating families emerges with the farm at the centre. The
urban branches of the extended family receive food from their parent's farm as a form of support, or for sentimental reasons. The urban families sometimes let the preschool children live on the farm in order to save rent in the city, and they have the right to return to the farm, an important form of security. In return, they offer their services as help during the harvest, or they remit money to their parents. This does not have to take place regularly, but rather whenever money is needed for investments or repairs.

- **Households with Household Production**
  It is not possible for everybody to find a non-agricultural job, and sometimes there is no suitable person in the family. The strategy for improving income is then to produce whatever is possible within the household, using all available resources, in order to satisfy the family's own needs and sell the other products. This may comprise the production of charcoal, gathering firewood, weaving mats, renting out animals, producing ropes, collecting herbs and honey. The families also avoid expenses by doing maintenance and repair work themselves rather than hire paid workers. The activities the women carry out such as processing, food preparation, tailoring and mending clothing **play an important role in** such cases. The income is generally rather low, and the cultivation of the land has, therefore, to be extensive. Many households experience a downward trend.

- **Holdings of Older People**
  It is not unusual for all of the children of smallholders who have little land to migrate from remote dry areas to towns in order to find a better living. The head of the household, the father, tries to cultivate his land as long as possible and adjusts his work to suit his capacity by renting out land, or be practising more extensive cultivation, often accompanied by considerably reversing investments. In the absence of other forms of old age security, he has to continue cultivating the land in order to secure his subsistence.
  The `holdings of older people’ are residual farms. They do not exist because the owners are primarily interested in farming, but rather because they are the only form of social security they have. The income they earn only has to suffice for an older couple, not for a family. The cultivation is extensive, and modern technology is not employed. The number of such holdings is small, but it is growing with the increasing mobility and industrialization.

- **Marginal Existences**
  Some households that do not have sufficient land cannot find any means of earning additional income. Remote locations or personal circumstances such as illness or disability play a role. These households live in extreme poverty and often have to gradually sell their land. The land is cultivated without any investments being made, and the yields are low.

**Implications for Development Policies**

The socio-economic differentiation that was described above shows that agriculture today is not the same as it was 50 years ago. The cultivation of land cannot be regarded as being primarily cultivation carried out by small farms employing all of the labour available in the cultivating family and providing subsistence for these people.
Perhaps it would be necessary to explain the different types of land cultivating households by using a different paradigm. Instead of farms, it might be better to speak of households that utilize all of the resources they have available to them (land, labour and - perhaps - some capital) to secure their survival and raise their standard of living.

Depending on the specific resource endowment, this can take place in various ways. If sufficient land is available, the household might concentrate on farming, and agriculture is their sole activity. But if there is a shortage of land, people have to make other arrangements in order to earn their living. They either try to find additional non-agricultural employment and, thus, increase their total income, or they engage in household production and avoid expenses. Another possibility would be that only an older couple lies off the land instead of a family.

Naturally the functions of land cultivation vary between these different socio-economic types of households. For household which have adequate land, the key function is to create a reasonable means of existence for the members and to produce food and raw materials in order to achieve self-sufficiency as well as to sell on the market.

For household which do not have enough land, some of these functions play a minor role only, while others become more important. Partial self-sufficiency is still a goal, but old-age security, financing the costs of training and migration and security in case of unemployment become more important.

With changing functions of land, the goals which people have regarding their cultivation will change. Households which have sufficient land will increase their production and productivity as a means of increasing their income. Thus, they take advantage of the possibilities offered by modern technology and the market. Side-goals they have are to facilitate the work and provide security for their old age. Households which do not have sufficient land are much less interested in increasing their yields. Their experience has been that if they have only a small amount of acreage at their disposal, an increase in yields will not make much of a difference in the end. Instead of producing the highest possible yield, they are more interested in the investing the least possible labour input and the smallest possible investment in agricultural production. This makes it possible to engage the existing labour force outside agriculture. If one is successful in securing a permanent non-agricultural job, the financial outcome is much better than all efforts invested in agriculture. Traditional agriculture provides them with self-sufficiency and keeps the land in the hands of the family. This is an important form of security for the household. One has a rural home and a place to live in one's old age in familiar surroundings. In some cases, the land functions as the family's savings bank.

The changing functions of land and land-cultivating families' goals have consequences for suitable measures for development policies. In view of the large differences in agriculture, it is impossible to develop a uniform policy for all household types.

For households which have sufficient land - i.e., large landowners, progressive farmers and economic holdings - agricultural policies are a suitable policy instrument. Price policies, structure policies and innovation policies are a help to such farms and their cultivators. They would probably profit the most from a liberalization of the produce and factor markets and 'globalization' as they are already market integrated and, in some cases, export-oriented and experienced in reacting to changing policies.

Especially in the case of the smaller farms among this category, the supporting institutions (cooperatives, extension services and credit facilities) are of great importance and have significant effects and, at the same time, generate increases in the food production and food
security. Whatever changes in the agrarian structure have still not taken place in the case of the landlords must be provided by agrarian reform measures.

But only about one-quarter of all of the land cultivating households belong to this group, while three-quarters of the households do not have enough land and have to rely on multiple employment and/or household production for their existence, or belong to an older couple, or are marginal. To them, agricultural policy measures are of lesser interest. Structural policy measures or agrarian reform can, indeed, provide a possibility for increasing the size of the farm and, thus, cause an 'upward' development on the farm. Most of the agricultural policy instruments, however, have little impact for these households and, therefore, hardly represent their interests. This includes supporting institutions for agriculture. A marginal farmer has nothing to sell through the cooperative because he needs all of his produce for his own home consumption. Multiple employment households are not those which regularly consult extension services, and no bank of cooperative will grant a loan or give credit to the holdings of older people. One cannot help these people by means of agricultural policy measures with perhaps the exception of some cases at the margin between both types.

Any promotion of the households which do not have sufficient land has to take into consideration the fact that the long-term focus of these people's interest is usually outside agriculture and that the small size of their farms necessarily limits the quantitative effects of all agricultural measures. The regional development policy measures (which to some extent include agricultural policy measures) provide better prospect for these groups. The promotion of employment, diversification of the economy in rural areas and smoothening the transition from farming to non-agricultural jobs by means of appropriate professional training help these people. In certain areas in which the relation between the population and resources has become too narrow, a certain degree of outmigration is necessary in order to preserve the ecosystem from damage due to overuse.

The discussion showed that the socio-economic differentiation among land-cultivating households has had a strong impact on man - land relations. Today, instead of households that employ their labour on land of varying size and live off the yields of the land, we have a broad differentiation in the kind of relation of people to the land. Whereas in former times the focus of all of the household members was on the land and differences in access to land resulted in differences in income, today these differences concern not only the control of land, but the source of livelihood and the interest in agriculture as well. Not every young man hopes that he can continue to cultivate his father's land. He may want to if the land is adequate in size and of good quality and has access to irrigation. But if the size is small, the soil poor and irrigation possibilities limited or non-existent, then he may only feel forced to continue farming in the absence of alternatives. However, many of these young men will continue to look for alternatives, or at least a mix of income sources, and hundreds of thousands of them will be successful sooner or later.

Under such conditions of differentiation in man - land relations and in the cultivators' interest, a transition from sectoral to a more regional approach in development efforts would seem to be indicated. Moreover, a careful analysis of the target groups regarding their conditions, interests and requirements would be a precondition if the policies are to be successful.

There is an urgent need to integrate this differentiation in man - land relations in our development policies. Applying it would provide the opportunity to concentrate resources and agricultural policy instruments where they are needed, wanted and affective for increasing the income of cultivators and the production of food. With respect to the other households in which agricultural policy measures cannot be effective due to different circumstances and
requirements and interests of the people, let us not waste the scarce resources of agricultural policy, but rather employ other policies for the people whose main focus is outside agriculture.

5. Changing Functions of Land

In addition to the changes in the relations of individuals and households to the land, the last 50 years have brought considerable alteration in the functions of land for the society at large.

Of extreme pertinence is the issue of the rapid conversion of cropping land for non-agricultural use. It has been estimated that about 500,000 ha of land are annually lost to agriculture in developing countries due to urban expansion. In addition, land is used for roads, factories, sport and recreational facilities etc. - frequently in an unplanned, uncoordinated way. It is no exception when fertile, irrigated plains are used for new factories while nearby slopes remain in the hands of the agriculturists. In this context, land-use planning must receive a much higher priority. Not only within the cities but in the regions surrounding the metropolitan areas as well, new man - land relations are emerging. Migrants from rural areas often settle in such regions, legally or illegally as squatters, without planning, water or sanitation facilities, and hope to find employment in the cities. Livestock owners reside there with their animals with the hope of earning good money by producing milk to be sold to urban consumers, often based on purchased roughage. Brick kilns emerge there in order to profit from the low transportation costs and the great demand from the construction companies. They convert the land into sand pits and quarries. Services open shops in these areas - last but not least automobile businesses - and a great deal of land is wasted for garbage dumps, whether legal or illegal. All of this takes place mainly on public land, but farmers who want to profit from the increases in the price of land in the peri-urban areas might sell or lease their property.

While population growth and increasing urbanization definitely require more land for nonagricultural use, the unplanned and uncoordinated way this process is allowed to proceed shows a change in the man - land relations and would not have been possible without an increasing part of the population losing interest in cultivation of the soil.

The same holds true in the case of a related development, the growing ecological problems which have been the subject of several important international conferences. In part, they are a consequence of the above-mentioned developments in the peri-urban regions and require a rapid introduction of land-use planning. But they are widespread, in the rural areas as well as on the land used for agricultural purposes. The overuse of chemicals, the absence of drainage systems to prevent salinity and waterlogging, the ploughing of slopes unsuitable for arable cultivation and deforestation are just a few examples of a process which would have probably not been possible without changes in the attitude of man towards land - in particular the end of the eta in which the cultivator understood himself as the custodian of the land he had received from his father and had to transfer to his children as the basis of their living. This last phenomenon was a consequence of the transition for a peasant farmer to a commercial farmer. The modern goal of sustainable development requires broadening the discussion surrounding the old conflict between efficiency and equity to make a triangle which includes the environmental aspects.

The problems in the man - land relations are of a somewhat different character in areas in which there is extreme outmigration. The youth tend to outmigrate, frequently followed by others, from remote mountain regions where the quality of the soil is poor, transportation is
difficult and there is a lack of other resources. In the end, only a few older people remain residing in the village, too few to cultivate the poor soil and too few to maintain a service structure. At the same time, this frequently signifies that the necessary labour in not available to protect the landscape, to act in case of calamities such as forest fires, etc. Whereas in the past such situations were the exception, they can now be found with increasing frequency.

6. Important Developments in Land, Tenure, Land Management and Man-Land Relations

6.1 Changes in Human Relations

6.1.1 Reduction of Dependences

Families who had no or a limited access to land as their basis of livelihood in the rural society were dependent on those who controlled resources. If the landlord leasing some land, the employer offering wage labour to the landless, a family member and a moneylender are one and the same person, multiple dependence is particularly conspicuous.

In most countries, such dependences still exist, but it is evident that a number of developments reduced them to a certain extent.

Today, landlords take care not to exploit and oppress too much their tenants and labourers in order not to call for more discussions than is necessary. Multiple dependence, especially, is less frequent nowadays because formal credit sources are more often available. Mass media provided information to every village, thus limiting the landlords' arbitrary actions, and the laws being increasingly enforced also served the same purpose.

Besides, the transition from traditional labour relations involving mutual obligation and a feeling of responsibility - however small - to mere contract relations often meant a loss of security in contrast to a loss of the basic existence. Moreover, as far as qualifications are concerned, those who had specific skills (e.g., tractor drivers) experience that these make the landlord dependent upon them and give them freedom and security.

While dependences and despotism have probably been generally reduced in Asia, great differences exist from country to country and from region to region. The countries in which land reform is strictly enforced progressed most, while in typical landlord regions, change still has to occur. The prevailing situation is far from being ideal.

6.1.2 Establishment of the "Progressive Farmers" Stratum

Until recently, the rural society consisted of a number of strata which have remained relatively constant in their characteristics and relations over time: landlords, family farmers, tenants, and agricultural labourers in most cases. As an outcome of the 'Green Revolution,' a new stratum which is distinct from all the existing ones has emerged. This stratum consists of 'progressive farmers': young educated farmers (or farmers’ sons) who have a new attitude towards land and farming. They have discovered that engaging in agriculture on a more scientific basis can be an income-creating activity which is equal to or better than the current alternatives.
They engage in farming in a modern way, using the available modern technologies, and try to cultivate productively and with high yields. Thus, they are rather successful under the economic aspect. They achieve a high level of output and income and introduce into the rural areas an amount of affluence which was unknown until now. Even landlords usually had a lifestyle which did not differ much from the villagers', but they accumulated their wealth. It is typical that they are referred to as 'owning so much land' and not as 'being rich.'

The emergence of the new stratum of progressive farmers had consequences at the local as well as at the national level. At the local level, they changed the traditional labour relations. First, they dismissed some of the labourers to increase labour productivity. Then, in their business-like attitude, there was no place for the traditional mutual work relations with their labourers, to whatever low degree these relations might have existed with their fathers. In former times, this involved, for the labourers, the obligation to work and to be loyal whereas the landlords were responsible for paying the wages due and for looking after their labourers in need and represent them against outsiders. This tradition was taken rather seriously by the landlords and was the basis of leadership recognition, on the one side, and a security for minimal existence, on the other side. The progressive farmers put an end to this and replaced it by contractual relations involving work for wages. Both at the regional and national levels, the economic power of this new stratum soon led to political power. Progressive farmers are members of district councils, of the provincial assemble and even of the national parliament and agitate for a policy in their favour and not necessarily in favour of agriculture as a whole. For instance, this is the main reason why, hardly any share of the higher income achieved as a result of the 'Green Revolution' - which, to quite an extent, was due to public investments - was ploughed back to the public in the form of taxes. It is rather difficult to take political measures against this stratum since the progressive farmers achieved just that which the government had asked them to do: increase food production by applying the available modern technologies and invest in order to raise the productivity. They had been rather successful in doing this, even beyond that which is tolerable from a general standpoint. This stratum introduced early capitalistic behaviour into the rural areas.

6.1.3 Increasing Organization of Target Groups

Asia is experiencing a slow but steady increase in people organizing themselves to reach a common goal or represent their interests.

In most cases, the initiative came from above, usually from the government, in an attempt to revitalize panchayats, irrigation associations, cooperatives, etc. This top-down approach often had little success and was misunderstood as government patronage or as outlet for government financial assistance. The impact was usually long-lasting when the organizations received guidance, not only for their formation but also in running their activities over the years. Besides, the more the people had the feeling that they really had a task to perform, the greater the success was over time. Irrigation associations and tenants' associations are examples of organizations that were successful as long as they were given some guidance.

There are examples of independent organizations, in which people joined to fight for their interests. Even in these cases, the initiative often came from an already existing organization in another area. They are sometimes in opposition to the government. Very often, the government mistrusts these organizations and suppresses them or, at least, observes them suspiciously. This creates a feeling of lack of freedom and of illegality which, in addition to the lack of funds and lack of knowledge in technical as well as in organizational matters, renders
organization difficult. The Philippines probably have the largest number of voluntary organizations of that type, but other countries follow suit. Women, especially, organize themselves in this way.

6.2 Changes in Income and in its Distribution

6.2.1 Reduction in Farm Sizes

For a long time, Asian countries have experienced a steady reduction in farm sizes due to the prevailing inheritance custom of dividing the holding among all children or among all sons in Moslem countries. The effect is emphasized by the current high birthrate. The actual reduction in farm sizes is lower than that which a mathematical calculation would suggest since, after marriage, a wife's share is combined with her husband's land. Besides, not all the children engage in farming, some go into business, join the army, find employment in government service, etc. Despite this, farm sizes are ever decreasing and, in many cases, the farms are below an economic size allowing productive cultivation or even below the minimum required to earn livelihood.

<table>
<thead>
<tr>
<th>Average Size of Holding (ha)</th>
<th>Share of Holdings below 1 ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>1.3</td>
</tr>
<tr>
<td>India</td>
<td>2.0</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1.0</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>1.1</td>
</tr>
<tr>
<td>Pakistan</td>
<td></td>
</tr>
<tr>
<td>Nepal</td>
<td>1.2</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>1.5</td>
</tr>
</tbody>
</table>

These figures include the numerous holdings which are located in non-irrigated areas. Some countries issued floor legislation, i.e., they fixed a minimum size which cannot be further diminished by partition. However, such laws that are contradictory to the people's interests and feelings are difficult to enforce.

In a few exceptional cases, specialization in fruit cultivation, gardening or fowl raising, etc. might offer a solution, but, in most cases, some family members have to find a non-agricultural job to reduce the pressure on land. Either a brother rents his land to his brothers and is free to look for a job, even in distant places, or he and his brothers operate the farm jointly on a part-time basis. If it is not possible to achieve such an additional income, the very small holding provides only a meagre subsistence, and the owner's family lives in great poverty.

Fortunately, in a number of countries, more and more non-agricultural jobs are created and offer such opportunities, even if not in a sufficient number, and thus help to reduce the pressure on the land. For instance, the number of jobs increased
Pakistan from 1981-90 by 3 million  
Indonesia 1982-89 by 6 million  
Philippines 1978-90 by 4 million  
Thailand 1981-88 by 2 million  
Bangladesh 1974-85 by 9 million  
China 1981-90 by 23 million  
India 1981-89 by 3 million  
Korea 1981-90 by 5 million  

(Source: Yearbook of labour statistics, ILO, Geneva 1988)

In addition, some countries send thousands of workers abroad, and their remittances are a welcome  
contribution to the livelihood of the remaining relatives, even if it is earned at high social costs.

Whenever the development of the on-agricultural sector reaches a certain momentum, this has implications  
for the farm sector and the reduction in the traditional size of holdings. The East Asian countries, where  
industrialization has been rapid, experience that the size of holdings remains more or less constant. In this  
case, the availability of work outside agriculture and the income earned there are so much higher than the  
proceeds from the cultivation of the small holding that many people do not attach much value to farming.  
The land is usually cultivated by a relative; in poor locations, it is sometimes left fallow.

Farm size reduction, employment alternatives, agricultural development and multiemployment have led to a  
differentiation within agriculture that was formerly unknown. In the past, the majority of farms were 'family  
farms' so that they became the prototype of agriculture in most past of the world. Exceptions (landlords,  
commercial farmers, plantations, etc.) were few. These family farms employed all family members and  
provided livelihood for all of them. Consequently, the interest of all was centered on the farm. Everybody  
worked hard for the family's common welfare. This was the basis of the high productivity - which has often  
been quoted - of small farms.

Today, there is a wide socioeconomic differentiation among agricultural holdings. While some, usually  
large, farmers limit their activity to farming, a large number of smallholders have a variety of attitude  
towards and interest in land. Among family members and even among owners of large farms, a difference  
exists: some manage in the traditional way with a limited productivity, other apply modern technology.  
Usually, the more income is earned from nonagricultural sources, the less is the family members' interest in  
farming or they are split in their interests. The role of the holding may be limited to production for  
self-sufficiency or part of it. The owner family may not be interested in high yields but in the lowest  
possible labour requirement so that much time remains for non-agricultural work. Other ones invest their  
nonagricultural earnings in agriculture and try to expand the farm and turn it into a viable economic unit.  
Other holdings are cultivated extensively by old couples for their own support, since there is no social  
security, while all their children have migrated. All these different types of holdings require different  
policies that support and improve them. The usual agricultural policy, especially, is not useful to most of the  
smaller farms earning their income from multiemployment and where the centre of interest lies outside the  
farm. Even those leading marginal existences, i.e., those who have no means of earning a non-agricultural  
income, usually have no use for the offers made by agricultural policy. In this case, new policies are  
required and the more so, since only about 1/4 of all holdings in Asia belong to those who engage fully in  
agriculture, while 3/4 are too small and only subsist because the family members combine their sources of  
income or are in great distress. These figures vary greatly according to countries and regions.
6.2.2 Phasing Out Agriculture

In former times, one could take for granted that a farmer's son would take up farming and follow his father's profession. This is no longer the case. The reduction in farm sizes, nonagricultural development, the new alternatives for those seeking jobs, and the experience showing that, often, non-agricultural activities supply a higher income than small-scale farming have brought about a change. In general, the young people are sceptical as far as the future of small-scale agriculture is concerned and they are reluctant to continue farming. Most young men from small holdings envisage their future outside agriculture. Some of them may change their mind, while others will have to stay on the farm because they cannot find a suitable non-agricultural job.

A generation ago, while the cry was 'access to land' at the time of the land-to-the-tiller reforms, today, the young people want 'access to income, wherever it may come from. If land is available in a sufficient amount, irrigation reliable, and access to markets is assured, they are willing to engage in farming along modern lines. If this is not the case and cannot be realized, their preference goes to a non-agricultural life. This varies greatly from region to region. Usually, whenever some change their life style in a village, other will follow without much hesitation. The situation should be carefully assessed in order to avoid activities and investments which are not in line with the future generation's outlook and which might turn out to be useless after a few years.

One of the measures required is the organization of a land market to enable a smooth transfer of ownership and usufruct rights according to the owners' preference.

6.2.3 Increasing Regional Differentiation

Traditionally, agriculture has been dependent upon the quality of the soil and the climate, upon infrastructure, markets and similar factors which had consequences for land management and land tenure. Usually, the poorer the conditions of production were, the more widespread was small-scale agriculture, while, in the fertile plains, large-scale ownership was prevalent.

This traditional pattern has changed in both directions. On the one hand, some of the prevailing conditions proved to be more suitable for modern technologies than others. Irrigated plains, especially, have been the centre of the 'Green Revolution.' This trend means that traditionally richer areas became even richer and experience the consequences of the 'Green Revolution' on land management and land tenure: intensification, tractorization, trend to larger cultivation units.

On the other hand, economic and technological progress makes it sometimes possible to change the traditional approval or disapproval of a location, for example, the introduction of irrigation in an arid area, industrialization, the development of tourism, the opening up of new areas by constructing roads. Usually, this had consequences for land use and land tenure within a short time because some people develop a new interest in land due only to the changed conditions.

Such changes are partly the consequence of public policy and it should be assured that the impact of development policy on land is assessed and taken into account. Certain projects (relocation of the capital into a poorer region, construction of an airport at a new site, building a new road, etc.) will invariably cause an increase in land prices, the purchase of agricultural land by non-agriculturists, etc. Even for the remaining farmers, they will cause changes in the
type of cultivation, since the new situation will offer different market opportunities and call for different requirements. Thus, poor areas may suddenly prosper, landowners become rich, underemployed labourers experience a great demand for their work, etc. Often, in the end, the agriculturists are the losers while non-agriculturalists make the profit.

6.3 Changes in Production and Productivity

6.3.1 Increase in Production and Productivity

Certain - not all - areas in Asia experienced a remarkable increase in production and productivity in the past. This is not only, but to the greatest extent, a consequence of the 'Green Revolution' (new seeds, fertilizer, irrigation, mechanization). The degree to which agriculturists could apply these new technologies depends on the availability of the prerequisites, water in the first place. Non-irrigated areas are more or less excluded. In some regions, irrigation has been made possible due to the construction of tubewells, etc., but, by and large, dry areas are omitted.

Besides water availability, the following factors are mainly concerned:

- **Access to Services**
  Farmers require information and advice on the new technologies, cooperatives for delivery and marketing of products, credit to purchase the expensive inputs, etc. All of these were unevenly available to tenure groups. Usually, the factors were at the disposal of the large owners while the smallholders and the tenants were not provided the required services. Thus, applying modern technology entailed more risks and the incentive and possibility to participate in farming along modern lines were reduced.

- **Freedom of Management**
  Tenants, especially sharecroppers, are often not free in making decisions regarding management but are rather workers restricted by their landlord's instructions. The lease of some of them was terminated because the landowner wanted to change to self-cultivation. Prices and changes in prices and subsidies caused the unknown technology to entail more risks still and reduced whatever incentive there may have been.

The 'Green Revolution' is considered a proof that agricultural development is possible without costly land reforms under the financial and the political aspects. This is correct as long as agricultural development is understood as being equal to production increase. Even then, it is rather a lift to a higher level than a real development. In view of the regional limitation to irrigated areas and to the more prosperous sections of the rural society, one can hardly speak of development. This does not intend to limit the positive impact on production which put an end to the period of food shortage. In addition, the strata-specific impact of the 'Green Revolution' mentioned above shows the limitation of the technological innovations.

Another consequence concerns the question of productivity of different farm sizes. According to the prevailing dogma, small holdings have a higher productivity than larger farms. But it is doubtful whether this holds true under the conditions of a technologically advanced cultivation. Experience shows that modern agriculture requires not only the application of one modern technology, but constantly changing technologies. These are available, but the owners of small holdings have difficulty in coping with them, intellectually and financially. Today, it seems that the medium farms have the highest productivity. This is partly influenced by the fact that some
of the small farms belong to families employed not only on the farm but also in non-agricultural work, and which have various interests. However, this varies much between regions.

6.3.2 Importance of Freedom in Land Management

According to the traditional belief, when the land is owned by the cultivator, this provides incentives for hard work, land improvement and investments. A real ideology generated from the 250 year old saying, according to which the cultivator who owns land can change 'sand into gold.' There are numerous examples of peasants who act in accordance with this saying, and much of our present landscape, compared with original conditions, result from activities incited by the feeling of being the owner of the land.

The enthusiasm about land ownership led to this experience being applied to other countries and societies and to the preconditions for the positive impact of land ownership being neglected:

- Farms of a sufficient size to support the owner's family in the long run. Marginal existences provide no incentives but urge on hunger.

- Institutional support such as extension service, marketing and supply organization, credit facilities, etc. provided to help the smallholder when he himself cannot tackle these activities because of the scale limitations of his operations.

- A positive attitude towards work and saving which considers the farm to be the basis of livelihood at long term and not as source of quick earnings.

- Freedom of decision so that the owner can act as an entrepreneur who risks his money but who also has the chance to improve his living standards by achieving higher earnings.

The ideology of land ownership was so pertinent that, even in our own society, an example of the opposite has been forgotten. The prototype of a productive modern cultivator has always been the tenant of public land, i.e., someone who does not own the land but leases it for a fixed term, usually 12 or 20 years.

A lesson regarding these questions has been taught in recent years by the formerly socialistic countries when they put an end to communes and distributed the land to smallholders. They did not foster land ownership. Instead, land ownership by the state was maintained, and the households were given rights of use and management on condition that they pay taxes and practice 'good cultivation.' This alone brought about tremendous increases in production and productivity as well as in investment.

However, this had not been the case from the very beginning. While some increase in output could be realized as soon freedom of management was granted to the peasant, the full upswing in output was only achieved when land was allowed to be transferred for a longer period, usually for 15 years together with the possibility of renewing the lease, and when the usufruct rights became transferable and inheritable. These two regulations provided the security that, whatever investments they made, the cultivators themselves or their family would reap the benefit.
Here, it seems that a system has been developed which prevents exploitation, speculation, and unearned windfall profits on the basis of control over land, but which provides the necessary incentives for productive cultivation.

It is too early to assess whether the increase in production is just a reaction to the new opportunities which the peasant seize to improve their livelihood or whether the system initiates a permanent, steady increase in production. The decision thereon will perhaps depend upon the quality of supporting services.

6.3.3 Decline in Settlement Activities

By and large, economically cultivable land in Asia is already under cultivation. A few exceptions are limited to Malaysia, Laos, Indonesia and Thailand which undertook large-scale settlement or resettlement activities to move people from densely settled areas to the frontier. In addition to spontaneous settlement, Malaysia and Indonesia had more organized activities that were performed by a state agency, while, in Thailand, the initiative rested more with the individual. However, even in these countries, the magnitude of settlement activities is ever decreasing for a number of reasons. First of all, the land reserves are almost exhausted. In recent years, some disadvantageous ecological side-effects have been discovered which are mostly the consequence of mistakes made during the settlement process. Above all, settlement projects prove to be very expensive. The amount of money spent to settle families is not proportional to government support for other people. If one tries to reduce the costs of settlement, the percentage of failures increases much. Settlement is an activity which should be performed to the very end or not undertaken at all.

When settlement activities still go on, they are usually incorporated in regional development schemes foreseeing the settlement of skilled workers in areas which are planned for development. In such cases, the settlers are the people that are needed to implement development in order to make other investments such as roads, schools, etc. worthwhile. In contrast, this infrastructure provide to these people the basis for a satisfactory life.

6.3.4 Increasing Ecological Degradation

Ecological degradation is increasing in most countries. This observation is partly the consequence of a great awareness of the problem. In former times, people just did not pay so much attention to these phenomena. In addition, there are numerous new developments which multiply the harmful effects on the environment. Population increase with all its consequences, the mechanization of agriculture, the use and misuse of chemicals, and an increasing cultivation of steep slopes are examples.

All of these are man-made, and most of them are related to tenure. Dire poverty may require an excessive use of the land, even of fields that are unfit for cultivation. The eagerness to increase production may cause an excessive use of chemicals. In general, the people holding secure rights to land are careful not to cause any damage. In this case, only the lack of knowledge may play a role. The less permanent the rights to land are, the less there is an incentive to practice careful cultivation. On the contrary, an attitude of ‘après moi le déluge’ easily develops, often has to develop, because there are no other ways to make ends meet. This careless attitude may be emphasized as a result of the stage subsidizing inputs such as chemicals and thus making them so cheap that their excessive use is programmed.
There is a great discrepancy between awareness and public discussions on environmental problems, on the one hand, and knowledge as to what to do and how to behave, on the other hand. This is a gap which should be filled by proper training, but this is still to come.

6.4 Development of Land Markets

6.4.1 Markets for Land Ownership Rights

In most countries, land markets are very modest. Whoever owns land tries to keep it, at least within the family. Whenever transfer is effected, this usually takes place in the form of inheritance or exchange. An important factor which is responsible for this, here, is the extremely high price of land which is far beyond any economic profitability of the land used for cultivation. This is due to a number of reasons: the limited availability of land, the high cultural value attached to land and to particular plots of land (temples), speculation; the need to construct houses for the children, the non-agriculturists' interest in purchasing land, etc.

In areas where economic development is progressing, there are indications that land transfers are increasing in the market as a result of the declining importance of agriculture and the phasing out of part of the farming population, usually with the change of generations. As a preparatory measure to cope with this, land market regulations slowly emerge, however, they are not as numerous as is necessary. They involve registration procedures for purchase, sale, inheritance, mortgage, lease, donation and especially for the conditions of transferring agricultural land for non-agricultural use.

A prerequisite is a clear record of ownership, for which most countries organize land measurement and cadaster, which constitute lengthy and expensive undertakings if they do not already exist. Even then, they are often not up to date because the peasants do not have changes registered to avoid paying fees or to leave the actual situation unclear in anticipation of reform measures.

6.4.2 Markets for Usufruct Rights

The market for usufruct rights - called tenancy rights in most countries - is very imperfect. In agricultural countries, especially, as a result of the many people wanting to rent and the few ones who own the land which they want to rent out, the market is to a large extent one-sided. It is not so much a 'market' but rather a distribution of land rights by the owner to people to whom he gives preference. As the price is usually SO % of the output according to custom, the decision concerning the selection of the tenant concentrates on such factors as family or other relation to the tenant, his loyalty, history of honesty and hard work, etc. In many cases, lease contracts are renewed annually, often for a lifetime, as long as the tenant 'behaves well.'

However, there is a slow but steady trend towards cash rent. Since the landlord can no longer reduce the number of his tenants as much as in former times, cash rent represents a guarantee and, in the long run, perhaps a higher income than share rent without strict supervision.

This is partly a consequence of the gradually changing type of lessees. While in former times the large landlords rented their land to small tenants, the small owner is becoming more and more the typical lessor. Inheritance has reduced the amount of land owned by one man, and many largeholders have opted for self-cultivation, especially with the change of generation. Besides, smallholders are increasingly leasing their land or part of it. It may be that they feel
incapable of meeting the requirements of a technologically advanced agriculture or that the family engages in multiemployment and limits its agricultural interest to self-sufficiency. They are interested in earning a fixed steady income which they obtain by renting their land for cash. The change in the type of lessor has consequences for the relations between lessor and tenant. The lessor is no longer the more or less exploiting landlord, but a smallholder who has almost the same status than the tenant himself. This change has a greater impact than many fruitless attempts to regulate tenancy by law.

In the formerly socialistic countries, the usufruct right has become long-lasting and transferable. These two aspects have created a new land market for usufruct rights which have been priced and can be sold to other people. It is too early to assess the consequences of this new development.

6.4.3 Land Market Regulations

In most countries, land markets are only partly regulated. There are stipulations for recording changes in ownership and sometimes lease as well. Inheritance and mortgages are usually registered. But there is a great difference between the legal requirements and that which is actually done. Often, registers are not up to date. It is noteworthy that the requirements cover mostly facts which are of interest to a colonial administration intent on collecting taxes and maintaining law and order.

The regulations concerning the transfer of agricultural land for non-agricultural purposes are very few and often weak as they allow special permissions to be applied for. The situation concerning the transfer of land to non-agriculturists is similar.

While the owners are usually forbidden an obvious misuse of land that would damage its fertility, there is no 'code of land use' limiting excesses in cultivation which have damaging effects on the environment such as excessive fertilization, misapplication of chemicals, etc. So far, such influence is only exercised by regulations concerning the quality of products and not by limitations of land use rights.

7. Land Rights of Specific Groups

Towards the end of this century, we are experiencing the emergence of two issues which received little attention in the past, i.e., women's rights to land' and the land rights of indigenous people. In both cases the discussion is still in full swing and no conclusion has been reached.

• Women's Land Rights

There are definitely marked differences between the economic situation of men and women. They are difficult to classify and evaluate because they vary among individuals, families, strata, religions and countries.

They are partly the result of differences in the control the sexes have of land and other assets. Women seldom own land. It is usually registered in the name of the head of the family, a man. Even if the land or other assets are inherited by women, they are rarely registered under the name of the women. It is not unusual for the men to make the decisions with respect to women's assets in their role as a custodian. In some cases they need the consent of the women in order to dispose of the goods, but conditions vary greatly. The great religions, Islam, Christianity, Buddhism and Hinduism, prefer partition in inheritance, but there is a tendency to show preference in the treatment of sons who have to care for their parents when they grow old.

State laws regulating inheritance have interfered with traditional religious systems, often with only limited success. In addition, local customs play a role. As a result, the actual inheritance process is frequently a mixture of customs, regulations and personal behaviour. Women sometimes inherit equal shares, sometimes only half shares and sometimes nothing at all. It is not unusual for girls to "feel ashamed to take from their brothers what belongs to them," i. e., they do not accept land in spite of the state laws. They believe that by doing so they will improve their social security because the land remains within the family, and if they marry and the marriage does not prove successful or their husband should die after only a short time, they can return to live with their brothers more easily.

Another factor apart from inheritance is the issue of the actual control of the resources, and in this context the situation differs ever more extremely, depending on the personalities concerned. There may also be differences between ownership rights and user's rights. The entire situation is very complex.

The increasing number of households that are headed by women makes this problem a serious matter. Access to land under such circumstances is often crucial for survival and escaping poverty, not only for a widow herself, but for the children as well.

Any change in existing conditions is a very delicate affair to introduce from without, and all the more so if the influence comes from members of a different culture and historical development. There is a close connection between inheritance laws, customs, family law and the arrangements dealing with land ownership. Changing one aspect means changing all the others.

Perhaps the problem is not so much a question of land ownership in the hands of women, but rather of guaranteeing their participation in the yields derived from all of assets and their rights in case of the death of their husband. For this, there are alternative solutions. One example is the historical tradition in parts of Russia according to which the land belonged to the adult family members and was inherited within this group.

• Land Rights of Indigenous People

The most recent issue in man - land relations is probably the 'native land' question.' This issue is presently a subject of intensive discussion in countries such as Canada (particularly in British Columbia), the USA, Australia, New Zealand, South Africa and a number of other countries and is expected to increase in the future. It is a question of competing property rights between natives and non-natives. The aboriginal population claims that it has an aboriginal title which is held collectively. In many cases, the title was never ceded in treaties.

to the crown or the settlers' governments. The aboriginal title is based on the original indigenous occupation.

Under European law, the principle of discovery gave the discoverer sole rights. In addition, colonial authorities could claim land, either by purchasing it or conquest. It is unclear whether discovery gave the right to shut out all other European interests, or whether it was the basis of ultimate property rights.

The disputes are pending in several courts, and its importance is reflected in the Declaration of Indigenous Rights passed by the United Nations. A final solution will have to cater to legal as well as moral aspects. Many questions will have to be solved: what will happen to individual non-native rights if the aboriginal titles are recognized; how long do natives have to reside on the land before they have the right to a native title - 200 year, 500 years, 1000 years? In parts of the world during the process of historical development territory was occupied and the former occupants suppressed or amalgamated. If the land was ceded in treaties, the conditions varied sometimes. Does that mean that native rights do not exist? Where do justified claim for recognition of aboriginal titles end and unjustified request begin?

8. Towards the Next Century

The above - abridged - review of the changes in man - land relations that have taken place during the last 50 years presents us with a tool to look ahead at the near future. History, it is true, does not deliver blueprints revealing future developments, but one can draw some conclusions with respect to the likely requirements in the future.

First, changes in man - land relations will continue to take place, and the need to adjust to them will increase in speed because the changes in the conditions will be more rapid. Whereas in some countries old-fashioned agrarian reforms are still necessary, the higher level of the general social and economic development in many countries calls for measures that are more highly sophisticated that can be achieved only by small steps in structural policy. This has to take into consideration:

- the regional differences within the countries themselves;
- the different interests and conditions of the various population groups within the countries;
- the increasing socio-economic changes that can be anticipated with respect to the future, including technological impacts;
- the increasing urbanization and rural - urban interlacing;
- the increasing occupational and regional mobility of the population;
- the society and youth's decreasing interest in agriculture; and
- the need to harmonize production, living and the ecology.

This requires

- the incorporation of man - land problems in the general social and economic development policy;
- an expansion in policy from land-tenure policy to a broader resource-tenure policy;
- making such an approach manageable so that it will be possible to implement such a rural-development policy in a regional development approach;
• aiming at the greatest possible flexibility in man - land relations because there is no ideal land tenure system, but only one in line with the current economic, social, political and technological requirements, and whenever these change, the relations of man to land will also have to change.
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