RIGHTS OF WOMEN TO THE NATURAL RESOURCES LAND AND WATER

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I. INTRODUCTION

1.1 Background and purpose of the study

The concluding document to the Fourth World Conference on Women in Beijing, Platform for Action (September 1995), cites the need to secure women's rights to land and other resources as a major action point. A letter from the Dutch Minister for Development Cooperation to the Lower House of Parliament (December 1995) presenting new policy plans states that attention for this theme will concentrate on "removing legal obstacles in the form of legislation and abolishing discrimination against women arising from the application of laws, religious observances or other customs relating to the law of persons and inheritance law".

This document is a literature study exploring women's rights to the natural resources of land and water. Its purpose is to:

- describe the problems surrounding women's rights to natural resources and to devise an analytical (conceptual) framework to analyse the status of women in terms of their rights to the natural resources of land and water.
- suggest ways of strengthening these rights and of encouraging the application of law in favour of women.

1.2 The importance of women's rights to natural resources

The increasing scarcity of the sustainable natural resources of land and water is having a severe impact on categories of individuals and households whose rights to these resources are being eroded. Rights to natural resources, especially land, water, fish, livestock and trees, are an important - if not the most important - prerequisite for meeting basic productive, household, social, cultural and religious needs. Access to land and water is vital for crop cultivation, horticulture and stock-breeding, as well as for gathering wood, fruit, medicinal plants and other essentials. These products are both privately consumed and sold for essential financial income. Men and women thus both contribute to their family's welfare, often in complementary ways, and each type of contribution is indispensable, especially within poor families. In general, women make a bigger contribution to the welfare of the household as a whole than men. Moreover, in many regions, a third or more of households is regions, a third or more of households is de facto headed by a woman. This is especially true of poor families, e.g. where migration from marginalised areas is a factor or where marital expulsions are a serious problem. Each natural resource plays a multifunctional role in the survival strategies of women. Not only are natural resources a crucial production factor, but they also help to provide social security. Natural resources are additionally valuable in combination, for example, in situations where land or water alone is a limiting factor in agricultural production.

Women must be granted independent rights to natural resources if they are to achieve autonomy. The belief that women should share these rights on an equal footing with men is now gaining wide-spread international acceptance. This is reflected, inter alia, in the International Covenant on Civil and Political Rights and in the International Covenant on Economic, Social and Cultural Rights (ESC Convention), both of which were adopted in 1966 and took effect in 1978, the Convention on the Elimination of all forms of Discrimination Against Women, which was adopted in 1979 and took effect in 1981 and the 'Peasants' Charter', which contains a number of basic principles on agrarian reform and rural development formulated in 1981. Agenda 21 (UNCED, 1992) also contains various references to fair and equitable access by women to natural resources.

The importance of independent rights for women to land and water can be divided into three broad categories of argument (Agarwal, 1994) based partly on the points raised above:

a. The welfare argument

Land and water rights for women can substantially reduce poverty and the threat of poverty, especially in poor households. However, they can also help women and households with higher incomes to reduce the risk of poverty if the family unit disintegrates following divorce or the death of a husband. Land and water rights are an important source of social security for the various categories of individuals and households, while uncontaminated drinking water and sanitation are by far the most important prerequisites for health and welfare.

b. The efficiency argument

Generally speaking, if women are given the same quantity and quality of land, the same 'inputs' and technology and the same education and information, they can produce as much, if not more, than men. Women are already responsible for a sizeable proportion of agricultural output, but due to their lack of land rights they cannot obtain sufficient access to these facilities. Improved land rights for women can give them access to the facilities they need to boost their productivity. Improved water rights will also raise productivity. The resulting increase in agricultural production will give people a better diet, and this will in turn lead to a further improvement in productivity and higher financial incomes.

Women's motivation and scope for investing in land for sustainable production will increase as they are given better and more secure rights to land.

The fear that, if women are allowed to inherit land in their own right, smallholdings will diminish in size and become so fragmented as to reduce agricultural productivity is largely unfounded. There would only be a slight average reduction in the size of smallholdings, and this would in any case be offset by the aforementioned rise in productivity. The composition of smallholdings would, however, change. Married couples would be able to cultivate each other's land and households consisting of only one adult woman would be able to cultivate their own land.

All this would benefit the rural economy and probably help to stem emigration to urban areas.

c. The equality and empowerment argument

Gender equality is a measure of an equitable society. Equal rights for men and women to productive resources are an important aspect of gender equality. In addition to being enshrined in UN treaties, gender equality is also often part of a country's constitution. India's 1950 constitution states that equality before the law in terms of religion, race, caste, gender etc. is a basic right. However, this is contradicted by many federal, state and local laws on land rights, which discriminate against women.

Equality between men and women in securing and retaining land rights gives women economic empowerment, while at the same time opening the way to their social and political empowerment. It affords women greater respect and improves their bargaining position, not only within individual households but also vis-à-vis landowners, employers and in the political arena. Empowerment should be seen as a process in which disadvantaged individuals or groups develop a growing capacity to question the existing power relations and to tip that balance in their favour. Land and water rights are an important, though not the sole, prerequisite for empowerment.

These arguments show how important it is for women to gain independent rights to natural resources, especially to land and water. Obviously, the uses and needs to which natural resources will be put will be very different for different categories of women and must therefore be defined in more detail for each situation. This will help to reveal conflicting claims to natural resources by women,

based primarily on age, marital status, ethnicity, class and/or professional activity. Within this last group, the classic conflict of interests between farmers and smallholders, between farmers, tenant farmers and landless individuals, between farmers and fishermen, between farmers and nomads and between primary producers and intermediaries will also have a substantial influence on the relationship between men and women in both categories.

It is now more urgent than ever before to address the importance of women's rights to these basic resources, since competition for the use of natural resources is growing in intensity all over the world and in some cases has already led to the irreversible degradation of the resources themselves. Not only are populations expanding, but in the current global economy, many actors from other regions are staking newer and bigger claims, both direct and indirect, to natural resources such as agricultural land, forests, wastelands and water. This is leading in some cases to increasing expropriation without compensation. Both men and women, especially from poor households, are adversely affected by this. As a result, women's claims to land have been further weakened in relative terms, the more so since formal titles to land, which are often incorrectly seen as a panacea for all the problems linked to land degradation and management, are usually only granted to men - even though the already crucial role played by women in food security is still growing in significance due to the rising number of women in agriculture (Saxena, 1993; Quisimbing, 1995).

1.3 Structure of the study

This paper will not explore the reasons for the increasing pressure on renewable resources any further. Instead, it will concentrate purely on rights of access to those resources. For some time now, the legal aspects of these rights have been inadequately addressed. In many analysis frameworks, they are simply presented as a black box without any indication of how the frameworks should be used to analyse women's rights to natural resources. Examples of such analysis frameworks are the *Gender Analysis Framework* (Overholt, 1985) and the *Socio-Economic and Gender Analysis* (SEGA) model (Thomas-Slayter, 1995). As they stand, these models do not provide a sufficiently effective framework to analyse women's rights to natural resources or a proper basis to formulate activities for strengthening those rights.

This paper will focus specifically on the legal aspects of women's rights to natural resources and their practical effects. It will also illustrate the links between these legal aspects and their socio-economic and political context. It will examine not only processes with a direct and explicit bearing on the rights of women to natural resources, but also processes whose primary aim is to achieve a more productive, intensive and/or sustainable use of natural resources. Governments and NGOs are responsible for many of these latter activities, mostly in the context of development cooperation. And although this aspect is often neglected, these 'purely' agricultural projects can have particularly significant indirect and implicit legal implications for the changing rights of women to natural resources.

This paper will confine itself to examining relatively stable situations, since little is known about how the law and legal provisions affect access to natural resources during armed conflicts or life-threatening natural disasters. It will focus primarily on situations and regional emphases which are relevant to Embassy staff working in the sphere of development cooperation. Consequently, the overview provided will not be exhaustive but will highlight only key aspects. This paper is structured as follows. It will begin by identifying, defining and explaining a number of key legal terms and compiling a legal analysis framework (chapter 2). This will be followed by a description of the legal status of women in relation to the two most important natural resources, land (chapter 3) and water (chapter 4). The final chapter (chapter 5) will summarise the analysis framework and suggest ways of strengthening women's rights to natural resources.

2. A SOCIO-LEGAL ANALYSIS FRAMEWORK

2.1 Elements of rights to natural resources

Rights to natural resources are central to the entire socio-economic structure of rural areas. Social units such as village communities and kingroups are generally organised around natural resources, and social relationships between groups and individuals are largely expressed in terms of natural resources. Economic activities can only be undertaken with the help of natural resources. The social relationships in which women operate and into which they are admitted, their status within these relationships and the economic activities they are permitted to undertake are strongly influenced by their rights to natural resources. These rights are therefore embodied in a wide range of social and economic relationships, and must be seen as an integral part of the structure of the socio-economic system. The analysis framework below can be used to analyse rights to natural resources in their social context.

Throughout the world, rights to land, water, trees and livestock are 'gendered'. In other words, what is generally referred to as the 'disposal of' and 'access to and control over' these resources is usually different for men and women. Age and status create further differentiation. These differences may not be identical for all aspects of rights. For instance, men and women may both be entitled to family land, yet women may be given less to cultivate than men. It is therefore very important to distinguish between different aspects of rights to natural resources, to study in each case to what extent rights are gendered, and to establish how far they are influenced by age, life cycle phase and status. This is especially important in the case of communal rights. Rights to natural resources can cover the following aspects:

- 1. establishing and maintaining a right, i.e. the basis for entitlement to use and exploit a natural resource (e.g. ancestry, marriage, cultivation, purchase, construction and maintenance of infrastructure);
- 2. use this refers to both the type of use and its extent (e.g. May women themselves decide which crops to cultivate? Do women have access to water all year round or only during certain periods? Must income be shared?).
- 3. management activities relating to the maintenance and improvement of the resource (e.g. Can women take part in the construction and maintenance of irrigation channels?).
- 4. disposal decisions concerning the aforementioned issues, transactions (e.g. mortgage or purchase) and representation of rightholders (e.g. Do women have a say in decisions on whether to grant water to individuals? Can women sell land? Can they register land in their own names?).
- 5. regulation drafting and amending rules governing the aforementioned aspects (e.g. Can a woman gain access to family councils discussing the sale of family land? Can women join the executive of a water users' group with authority to alter the system of water distribution?).
- 6. sanctioning enforcing rules following infringement (e.g. Can women ensure that rights are upheld?).
- 7. ritual and socio-political roles which can be linked to the right to a natural resource (e.g. land chief (chef de terre); 'altar groups' (see section 3.1)).

These aspects cover what in Western legal systems are referred to as the public and the private domain. Families may be entitled under private law, for example, to decide whether or not land can be sold. Yet governments usually also have an entitlement under public law to act in a regulatory capacity. This can take the form of laws or the administration of justice, or it can take the form of administrative measures such as the issue of licenses. The state can also own natural resources.

All these aspects of rights will bestow a different status on each individual, depending on whether they are male or female, old or young, wealthy or poor or of higher or lower status. These elements

will produce very different bundles of rights, and an individual's status vis-à-vis one aspect cannot be used to determine his or her position in relation to another. Yet if these differences are overlooked, an individual's entitlements can be misinterpreted. Too often, the external right to dispose of land enjoyed by the head of a family is interpreted as meaning that he also has sole disposition over the land within the family unit. This is by no means always the case. What may be seen externally as communal or common property can be highly differentiated, stratified and sometimes strongly individualised within a group, which may allocate different bundles of rights to different members. The differences in legal status between individuals with communal rights usually reflects the fact that they each have divergent and opposing interests and needs. Women are especially adversely affected by the misinterpretation of entitlements. This is partly due to the fact that rights relating to certain aspects are less well-defined than those relating to others. And women's rights are often the least visible and clearly outlined of all.

The size and nature of groups sharing communal rights differs enormously, and varies from village communities to kingroups, extended families, close family units and hearthholds (Ekejiuba, 1995:51), as well as women's groups or groups of poor farmers. The state is in some respects the largest entity capable of having rights to natural resources. Large groups of rightholders may consist of smaller groups, each with their own specific rights or bundles of rights. The structure of such communal rights can be far more complex than is suggested by the terms 'communal' or 'common' law. A careful analysis of the various aspects of rights is therefore needed in order to identify the various types of dependencies and autonomous positions, and to use these to evaluate the bargaining positions of women.

2.2 Abstract rules, concrete rights

The question of whether women actually use and manage natural resources depends in the first instance on the broader rules governing what women can and may do. For example: Can women enjoy independent rights to land or are they only granted access to it through their husbands or fathers? Can women inherit land? Can they buy, rent or lease land in their own names? Is all the land commonly owned by kingroups - and if so, by which kingroups - or is some of it owned by the whole village community? How do individuals become members of a kingroup and a village community? How are management rights, rights of tenure and use rights arranged within these structures? What role do women play in these structures? Is individual ownership of land possible? Can women be registered as rightholders to land?

Abstract rules say nothing about what actual rights women enjoy and how strong their bargaining positions are. Abstract law takes concrete form in legal relationships, and it is these relationships which are relevant to women's rights. Is the woman married or single? To which kingroup does she belong? Does she have children? If she has no relatives, even strong inheritance laws will not help her to acquire land. And if she is divorced, she may forfeit the right to use land belonging to her former husband's kingroup. On the other hand, in a matrilineal kinship system such as that in Minangkabau on West Sumatra, divorce does not affect a woman's access to land. The woman's relationship with her husband and his family does not alter her access, and divorce has no legal bearing on her entitlement to land.

Which relationships are relevant depends on how rights to natural resources are embedded in the wider social and economic structure. Among the nomadic herders of the Sahel, there are often no explicitly formulated rights to pasture, hunting or gathering lands; instead, these rights are implicitly derived from membership of a particular kingroup (Cashadan, 1983; Shostak, 1981; van Dijk, 1996). Within these social units, married women occupy a fundamentally different position from men, and this restricts their opportunities to use this land.

Rights to a resource are frequently linked to a whole complex of rights to other resources. Entitlement to one resource is therefore often not enough. Nomadic herders, for example, must have livestock and access to water if they are to use pastureland (van Dijk, 1996). Irrigation farming requires access to irrigation water as well as entitlement to land. Yet the owner of a piece of land need not have a right to the water flowing alongside it. This is also true of trees: sometimes a landowner has a right to the trees on his property, but not always. Sometimes trees which are planted automatically revert to the landowner, while elsewhere the planting of trees implies a claim to the land. On Ambon, there is a fundamental distinction between rights to land and rights to trees. A tree can be individually or collectively owned by a different individual or group of individuals to those who own the land on which the tree is standing. These rights can be defined in different ways by different legal systems, which makes the situation even more complex. However, it is the combination of rights which, for example, defines the consequences of a particular investment. Helping to maintain an irrigation system or to plant trees can afford an individual rights to water and land. To prevent such rights from being established, the original rightholders sometimes oppose such investments, even if they would result in improvements to the resource itself.

Rights to natural resources can differ depending on how they are used. Drinking water and irrigation water are governed by different rules. In regions where the caste system plays a major role, individuals from different castes can use the same water for irrigation without any difficulty, but this does not always apply to drinking water. The *naulas* - covered drinking wells in North Uttar Pradesh and Nepal - cannot be shared by Brahmins and the lowest caste or casteless individuals. Consequently, women from the lowest castes use their own sources of drinking water and generally have to walk further to do so than women of higher castes. In some regions, a technical solution has been found for this religious-legal problem: by supplying water from a tap, it becomes possible for women from different castes to share the same water supply.

Rights to natural resources are often linked to a whole system of rights to resources which permit or prohibit certain types of agricultural production. It is not simply a question of improving the women's rights to a particular natural resource, but of examining a whole range of interrelated issues. Negotiations about land and water and competition for these resources cannot be isolated from other transactions and existing exchange relations within families (Bassett, 1988:453). The result is a permanently shifting 'negotiated order' which determines whether - and which - women can ultimately obtain rights to land and water (Berry, 1988).

The law as a framework for negotiation

The law creates frameworks for negotiation, imposes limitations and opens up opportunities. These frameworks consist of a complex of principles, specific rules and legal relationships. Inheritance law specifies whether women can inherit and how large a share of the estate they will get. The woman's relationship to the deceased determines whether and how much she may inherit under family law, yet does not specify what she will actually receive. The rules on divorce determine whether a woman will retain her right to land, but do not say whether in practice she will be removed from that land once the divorce takes effect. Rights are part of a social and economic order. Some rules allow more scope for negotiation than others. Certain rights to natural resources make it possible to mobilise a wide range of social relations, while others do not.

Only very exceptionally does the law dictate precisely how individuals should behave. This means that there is almost always some room for negotiation. A stronger legal status does not automatically afford women more independence. It merely provides a stronger bargaining position.

The frequency and level of these negotiations not only depends on the legal rights which women have compared with other women and men. Ecological conditions sometimes also make it necessary to regularly renegotiate positions, rights and room for manoeuvre. The extreme fluctuations in rain-

fall and productivity in the Sahel frequently force married couples and kingroups to redefine their rights and obligations. The geophysical instability of the land in Nepal regularly necessitates the rebuilding of irrigation facilities. Each time this is done there are fresh negotiations concerning the distribution of water, and men and women, rich and poor and indigenous and immigrant populations are constantly forced to redefine their respective positions. These negotiations not only involve local populations but also project implementers and government officials.

Conclusion:

The legal status of women is governed by general rules on access, use, management, disposal, regulation and sanctioning of natural resources, and by the relevant legal relationships. The law merely provides a framework within which these specific relationships must be negotiated. Rights to certain resources are usually part of a wider system of relationships and rights to other resources.

Most rights and obligations are governed by a variety of legal systems and widely divergent laws and decrees, as well as being implemented by very different organisations.

Whether or not a women actually obtains or asserts her rights to land, water, trees or livestock also depends to some extent on whether these resources are available in sufficient quantities.

2.3 Legal pluralism

Types of law which may be relevant

In most developing countries, however, rights are derived not from one legal system but from several concurrently (K. von Benda-Beckmann, 1990-91). In these countries, the legal status of women visa-vis natural resources is governed by a situation of legal pluralism in which statutory law, local law and frequently also religious law are simultaneously applicable. Statutory law covers all law made by governments, ranging from legislation issued by different levels of administration and judicial rulings to regulations, directives and informal provisions and decisions issued by government agencies or officials. The term 'local law' covers a whole range of rules based partly on tradition and custom. They are usually referred to as 'traditional law' and 'customary law' because they derive their legitimacy from custom or tradition. However, these terms suggest a greater level of continuity and homogeneity than is actually the case. In fact, traditional and customary law are usually flexible and contain many rules of recent date. Many rules are not referred to by any legal system, such as those in slums, where people of divergent backgrounds are obliged to reach consensus with each other and to develop a system of rules which can be highly imperative, but which cannot strictly be regarded as customary law. To do justice to all this variety, it is therefore better to use the term 'local law' rather than the more usual terms 'traditional law' or 'customary law'.

Religious law, especially Islamic law, incorporates the official teachings of one of the schools of law and local versions of Islamic law. These local versions of religious law are sometimes regarded as part of traditional law, from which they cannot be separated. Usually, however, the distinction is clear and they form part of a separate body of law alongside the official law of ethics, deriving an independent legitimacy from God. In Minangkabau, for instance, although the property acquired by a man through his own efforts is governed by Islamic law for inheritance purposes (i.e. it passes to his children), sons and daughters nevertheless obtain equal shares.

Due to the influence of international trade, laws relating to trading partners sometimes play a significant role in many countries. However, this usually has little effect on people in rural areas. These populations are confronted instead by a different type of law, the law governing development organisations, introduced under the influence of bilateral and multilateral development cooperation projects. Although development projects are formally required to abide by the national law of the host

country and usually adopt a legal form which derives from it, the procedures they use are frequently based on the law of the donor country. Development organisations are usually governed by *project law*, which consists of separate procedures governing internal and external decision-making, accountability, budget allocation and possible appeals. Projects also apply their own special technical standards and operate their own categories and definitions governing inclusion and exclusion; these are based on the law of the donor country and can therefore diverge widely from other existing procedures and definitions. These categories and definitions are sometimes explicitly - though far more often implicitly - 'gendered' in line with the division of labour in the donor country rather than that of the recipient country.

International law is also beginning to play an increasingly important role in the form of treaties and conventions on human rights, environmental protection treaties and other bilateral and multilateral agreements. These are rarely directly applicable to specific situations, yet they do sometimes play an indirect role. Hence ideas and concepts which have been developed and discussed within the framework of international law can play an independent role in development cooperation. Equal treatment of men and women, participation, democracy, 'good governance' and sustainability are just some of the concepts being developed in both spheres. However, the extent to which these concepts are given a 'gendered' application in specific projects will largely depend on how they are interpreted.

Each type of law is 'gendered' in its own way and has its own implicit and explicit distinctions according to gender, age and status. Different legal systems define rights to natural resources in very different ways and also recognise different categories of objects of these rights. Many traditional legal systems, for instance, draw a fundamental distinction between property which individuals have acquired through their own efforts and inherited property which has been in the family for some time. Inheritance is therefore regarded as an integral aspect of the right to natural resources within these systems, where it is responsible for major differences in the nature and extent of rights to such property. These distinctions do not play a fundamental role in Western legal systems, where inheritance is merely one of several ways of acquiring property.

These different ways of defining categories have created many problems in the recognition of local rights. Rights to land and water acknowledged by many local legal systems are either difficult or impossible to formulate in statutory legal terms. Yet this is imperative if these rights are to be recognised in statutory law. However, local laws are usually only recognised under statutory law if and in so far as they resemble ownership or derivative forms of ownership such as tenure, leasehold and rental.

Interrelationships between legal systems

The composition of legal pluralism varies from country to country and region to region, but particularly from context to context. To begin with, not all systems of statutory law are as ready to recognise or tolerate local and religious laws as others. Some countries, such as Malawi, are specifically trying to develop a system of statutory law which harmonises with or even reflects traditional law, but this does not mean that statutory law can be equated with local law. Other countries accept the authority of local law for some areas of society, notably family and inheritance law. Rights to land are often governed by a dual system. In Indonesia, for example, local populations can choose between prevailing local land laws and the Western land rights enshrined in the Basic Agrarian Law. Other countries have taken measures to radically distance themselves from customary law, which they regard as 'primitive'. These countries have either developed a completely new system or have simply adopted Western models. In all variants, however, the authority of local law is at the very least tolerated for certain spheres of activity.

However, local law does not apply simply because it has been recognised by statutory law. Whereas statutory law derives its legitimacy from the nation state or its people, local law derives a separate legitimacy from the local community and also sometimes from custom, tradition, ancestry or the cosmic order. Local law is applicable in so far as it is accepted by the local population as a legitimate order. This is known as a 'social field', and it is here that rules are generated, developed and enforced (Moore, 1973). Social fields can be of varying sizes and scope. They can cover almost all aspects of social life, as with the traditional legal systems of ethnic groups, or they can cover more limited areas, such as slums. Slum-dwellers also make their own rules, yet these rules only cover certain aspects of socio-economic life, such as the right to transfer land. Each legal system provides an idiom - a way of speaking and reasoning - in which claims and behaviour are expressed and legitimised. Each legal system also has its own mechanisms for decision-making (including amending rules), settling disputes and sanctioning infringements of accepted behaviour.

Interpretations of law

The influence of these different forms of law varies markedly depending on the context or social field involved. For example, local law has a far smaller influence in situations where only government agencies are involved than it would have in situations where the government has little or no involvement. This means that development projects can be governed by completely different rules to those governing relations between the target group and others. Local law cannot be entirely swept aside by project law any more than it can be replaced by statutory law. Each development programme therefore brings with it an element of legal pluralism (usually unconsciously and inadvertently) consisting of its own concepts and categories, its own rules governing inclusion and exclusion, and its own decision-making procedures (Vel, 1992; K. von Benda-Beckmann, 1990-91).

The various contexts and social fields in which law is applied are only to some extent mutually independent. They are semi-autonomous, or semi-permeable. Semi-permeable, in that they have a limited effect on each other (de Souza Santos, 1987). Semi-autonomous, in that the social field itself decides which outside rules are relevant and how they are to be applied (Moore, 1974). The law applied in one field can only penetrate another field to a certain extent. Central government, the courts or development organisations, for example, can only exercise limited influence over other fields, such as a local village community or a factory. Decisions taken in one context, e.g. by a court or administrative body, are often interpreted and approached differently in the context of ordinary village life. For example, an Indonesian court in North Sumatra may uphold a woman's right to inherit land from her father, since state inheritance law does not accept a distinction between male and female inheritance rights (Slaats & Portier, 1988). However, if nobody except the winning party in the village where the dispute has occurred accepts the ruling because it does not accord with local law, it will effectively remain invalid and local interpretations of inheritance law will prevail, even though jurisprudence clearly takes a different line. In other words, it should not be assumed that a study of legislation or jurisprudence is enough to reveal which law is actually relevant in a given situation. Instead, it is necessary to look at how - and whether - regulations are applied in the relevant social fields. Several interpretations of state, religious or local law may be current at one and the same time. Local officials may give an entirely different interpretation to a piece of statutory law from the legislative body, yet the local population will usually only be familiar with the former's interpretation. Conversely, judges may often interpret local law differently from ordinary villagers, yet higher authorities will only be acquainted with the judge's interpretation of local law (F. von Benda-Beckmann, 1989). These different interpretations can influence one another. The more government intervention there is in a village and the more contact male and female farmers have with government officials, the more influential state interpretation of laws will become and the more this interpretation will impinge on local laws. Yet this process is by no means inevitable and it should never be assumed that convergence will always occur. There are many hybrid forms of law, each of whose characteristics are derived from different legal systems. This sometimes leads to confusion when a term is lifted from one legal system, such as local law, and applied in a completely different

way. It is therefore crucial to study precisely how a particular concept is being interpreted in a specific context, so as not to obtain a totally incorrect picture of a particular law (Razzas, 1993).

In order to obtain an accurate picture of the legal status of women in a particular context, it is therefore often necessary to consult very divergent areas of law and different statutory provisions. For example, to establish whether women can claim rights to land in rural areas of Indonesia, it is first necessary to study local customary law, then Islamic law, the *fiqh*, and its local interpretations. Statutory law must then also be consulted. In some cases, it may additionally be necessary to study the chapter on inheritance law and married property law in the civil code, as well as marriage laws and the Basic Agrarian Law, plus their implementing decisions, for information on land laws. Finding out how equal rights are regulated in a given situation will also mean consulting the international treaties to which a country has acceded, in order to find out how and where these treaties have been transposed into national law. Some topics also require a study of other administrative laws, implementing decisions, circulars or decrees. Furthermore, the relevant statutory regulations can be implemented by a range of very different institutions, each of which gives them its own weightings and even sometimes uses different interpretations of local law (see e.g. the chapter on water rights).

However, the mere existence of statutory provisions and administrative organisations does not in itself indicate whether or not they play a significant role in the lives of rural women. Men and women at all levels of society are ignorant of a great deal of statutory law, and the same often applies to low-ranking officials.

Conclusion:

Women's rights are frequently governed by more than one legal system, in which statutory law, local law, religious law, project law and international law all play a role. Each legal system has its own basic categories of rights and objects of rights, most of which apply very different definitions and therefore lack interface with the categories employed by other legal systems. The correlation between these systems is never consistent, and depends on the location and context in which they occur. The effective dominance of one type of law cannot be assumed in advance but must be empirically tested. Several interpretations of the same law may be current.

2.4 Rights and obligations

Rights and obligations are interdependent

To obtain an accurate picture of the existing rights of women to natural resources, it is necessary to distinguish between the rights and obligations attached to specific resources. The obligations as well as the rights of women can differ from those of men. For instance, it is not enough simply to know whether a woman has a right to a piece of land. It is just as important to know what obligations she may have for which that land may be vital. It is one thing to know that married women in many West African countries have a right to grow vegetables among their husband's grain. But unless it is also known that these women are obliged to provide vegetables for family meals, the impact of a possible switch to monoculture on that land will not be sufficiently understood.

The rights and obligations linked to natural resources are negotiated in the light of ecological, demographic and socio-economic developments, usually in situations where there is intense competition between men and women. However, men are often able to mobilise more external support than women. They also tend to have a better understanding of statutory law, to which they usually only appeal if it is in their interest. And they also have better access to government agencies. As a result, men acquire stronger rights and women are left with heavier obligations (Baerends, 1994: 82 et seq; see also section 3).

The functions of natural resources: rights and obligations

Land and trees are not just a means of production for commercial gain. They are used by local people to provide food for immediate consumption, and as something to fall back on in times of need. These resources may also have a ritual significance, as well as providing somewhere to live. Often, then, they play a part in providing social security. The sago forests on Ambon, for instance, are grown to provide food in the event of emergency. Consequently, a family with communal rights to sago trees can give permission to a needy relative to cut one of them down.

The functions associated with specific tracts of land usually depend on the types of rights which apply to them. Land inherited commonly by a kingroup has various functions. Such land is governed by the notion that deceased ancestors, living family members and future generations all belong together and must live off the same land. The land is thus seen as a source of life for the entire family, and those holding it are obliged to consider the needs of current and future generations.

The individualisation of rights to land and livestock is reducing the diversity of land rights and weakening the social security value of these rights. In many regions, the chain of exchange relations associated with kinship and land rights has been broken. Those who give and receive help cannot call on as many people as before to perform work and to provide the necessary resources, and the claims they have over these people are also diminishing. The division of commonly-held land into individual plots almost always means that the land is either no longer or far less able to fulfil this function. As a result, land rights are being divorced from the traditional obligations attached to them. These obligations must then be fulfilled in other ways; they rarely disappear altogether. They tend to be passed on to women, even though women derive fewer benefits from the trend towards individual ownership.

The right to land, however tenuous it may be and however small the plot involved, is vital, not only because of its economic value but also primarily because it paves the way to other economic activities, gives people the right to settle or return to a place, gives access to other social relationships which can provide social security, and generally strengthens a women's bargaining position vis-à-vis her husband and relatives.

The functions of land, forests and water do not have the same value for all individuals. Communal rights can have a different significance for each gender. Whereas men usually concentrate on commercial farming, women's priorities tend to focus on the need to grow crops to feed their families and to provide some form of social security (Shiva, 1989; van de Ven, 1994). The distribution of water and the regulation of water quality often involves different priorities for men and women, in that women, for example, must provide drinking water for their families while men must water livestock or irrigate land (Cleaver, 1995).

Conclusion:

the functions of natural resources vary widely and are location and context-dependent. Within local legal systems, rights are often linked to obligations. The function of social security, which is embodied in these rights and obligations, is neglected by many development projects.

2.5 Having rights, securing rights, retaining rights

Having rights and securing rights

Rules are infringed in all societies. Yet not all non-normative behaviour is punished, either under statutory or local law. Obviously this is not to imply that the law in question is invalid: that would only be the case if it were widely contravened and no sanctions were applied. However, non-normative behaviour is not evenly distributed, any more than punitive measures are evenly applied. Some

individuals succeed in flouting regulations without incurring any punishment, while others are severely punished and thus deterred from repeating the offence. This raises the question of how rights can be realised.

The question of whether women can use land, water or trees in practice depends firstly on whether, and within which relevant legal systems, they are granted rights to these natural resources, and on whether the legal relations within which they operate permit them concrete rights. Another important factor is whether - within these legal relations - there is enough land, water or trees available to validate these rights. A woman who is part of a landless family can in theory inherit land, but she will not gain access to any in practice. Rights to water are equally meaningless if there is no water to be had.

Whether or not women can make use of the opportunities afforded by rights also depends on whether they have access to other vital means of production. Land cannot be cultivated without labour. A sick, elderly woman will have little use for rights to land located in the mountains far from her home. Physical strength and above all conventional ideas about what is appropriate 'man's work' and 'woman's work' decide whether women require help from third parties and whether this makes it possible for others to put pressure on them. In cultures where women are forbidden to plough, they can be pressurised by men who may threaten not to come and plough for them, despite the fact that the women are landowners. Other relevant factors include access to loans, farming advice and other government services.

A further factor is whether women are genuinely able to assert their rights. Various conditions must be met before this is possible:

- Women must often resist enormous pressure if they are to avoid 'voluntarily' relinquishing their rights (Agarwal, 1994:260 et seq). Support from women's groups or NGOs can be vital here;
- Women have to acquire the information they need by their own efforts, and if necessary establish the contacts needed to obtain that information. Compared with men, women often have fewer direct and indirect contacts with those who can provide them with the information they need on statutory law (Molokomme, 1990-91; Griffiths, 1990-91);
- The authority before or in respect of which a certain right must be exercised must also have the right information. Because these bodies are largely staffed by men, they tend to know more about the rights of men than about those of women, and therefore have a tendency to neglect or minimise the importance of women's rights. Nor is the problem simply due to a lack of women in official posts. Often there is also a class and age barrier. In the socialist state of Mozambique, for example, a reasonably large number of middle-aged women are members of local tribunals. These women hold more conservative views on conjugal ethics than many of the younger women who appear before the tribunals, as a result of which the latter tend to lose their rights to their land and homes (Gundersen, 1992);
- Women must be allowed to make a full contribution to negotiations concerning important decisions, such as rotating access to irrigation water, and their interests must given the same weighting as those of men. This frequently does not happen. In the Terai in southern Nepal, although widows are included in a rotation system for irrigation water, they are often only supplied at night. They therefore have to make additional efforts to get their seed sown and properly watered on time. During negotiations, their needs and wishes are given less weighting than those of men. Nor do they have the political clout to defend their rotation rights in every respect;
- Women need enough influence to obtain decisions from (semi) judicial authorities and to get these decisions implemented. It is often difficult enough for women to get an order for the conveyance of land implemented against the wishes of more powerful individuals. Recognition of a specific status, for example the right to participate in decisions concerning land, trees and water, is far more difficult to get enforced, because a single ruling will not suffice;

- Women must be allowed to stand up for their own rights. In cases where they are unable to do so in their own names and are officially dependent on a guardian, the head of their family or their husband to represent them, the self-interest of the representative often plays a negative role. In Minangkabau, women are not allowed to apply to the state court on their own behalf to claim their right to inherited property. The courts have interpreted customary law in such a way that women are forced to rely on their official male representatives;
- Since all forms of law are implemented by specific agencies, it is vital for women to obtain access to those agencies which enable them to exercise their rights. A right to land under statutory law is of no value whatsoever if a woman is not given access to land registers or is refused access to state courts. Women must effectively be allowed to 'forum shop' among the available authorities so that they can apply to the authority which grants them the strongest rights;
- Political lobbying and, where necessary, class action, are now recognised as important ways of getting rights recognised. Women, less well-educated individuals and people from lower classes generally have less access to these tools compared with men, better-educated individuals, and people from higher classes.

Securing rights and retaining rights

Agarwal (1994:260 et seq, 486 et seq) stresses the importance of using a dynamic approach when analysing rights to natural resources. Simply accepting that women can secure rights at a particular moment is not enough. It is also important to examine what they can subsequently do with these rights, whether they can retain them, and who will inherit them after they die. Individual ownership does not always afford the best protection against the authority of male relatives. In India, although women can sometimes obtain entitlement to small plots of land from the state, most are later unable to ward off attempts by their brothers to wrest this land away from them. And in regions where female endogamy is not accepted within villages, women will in any case be reluctant to leave their land to their daughters. In the long term, this will stand in the way of a structural improvement in women's rights. Agarwal suggests that the establishment of communal rights by a group of women gives them better protection against pressure from their brothers. Such rights also give widowed or divorced women returning to their native villages the opportunity to rejoin the group and thus to reacquire land.

Conclusion:

In order to be able to exercise their rights, women must be given sufficient support in standing up for their rights, including being able to resist strong pressure to relinquish those rights. Women and the authorities before which they wish to assert their rights must have the right information. Women usually also need to gain access to the right contacts; they must have sufficient authority and influence to elicit decisions and to get these decisions accepted by the relevant authorities. Political lobbying and class action can be useful under some circumstances. Individual ownership does not always offer the best long-term protection for women. Sometimes they can derive more benefit from establishing communal rights on a group basis.

3. RIGHTS TO LAND

This chapter will discuss a number of specific case studies relating to land rights in order to illustrate the practical relevance of the analytical framework described in the previous chapter and to give some idea of the enormous variety of rights to natural resources found in different parts of the world and in different countries and communities. The purpose of this chapter is to show how firmly land rights are embedded in socio-economic and political structures. It will also discuss the implications of the fact that women's rights are usually derived from men and/or from kingroups and that these rights are generally weaker and less clearly defined than those of men. Finally, it will show how, if government interventions take too little or no account of the specific characteristics of the rights of different categories of women and of their social and economic status, they can inadvertently create social and economic stratification.

The illustrations in this chapter will be taken mainly from Africa, with a few examples from Asia and Latin America (the situation in these continents is of course just as complex as it is in Africa). The discussion will focus primarily on women's access to arable and horticultural land, since these are the main categories of resources required for food production and the cultivation of cash crops which provide the main source of income for women in the south.

In addition to looking at arable and horticultural land (section 3.1), this chapter will also discuss pastureland, fishing grounds and forest land, and the products derived from them (section 3.2). Rights to these resources vary from private ownership to communal ownership, state ownership and public ownership. This land can be managed by individuals, either on their own behalf or for a collective, by groups of people, by the state or by a mixture of all these types of management. If land is managed by a group of people, access or use by outsiders is often restricted or prohibited. These communally managed lands are referred to in studies as 'common property resources', as distinct from resources to which everyone has free access, which are known as 'open access resources'.

Finally, this chapter will briefly look at land for settlement (section 3.3). Women's ability to secure rights to building plots also permits them to undertake new economic activities and thus to establish a household of their own. Building plots generally also include an allotment; these allotments make a vital contribution to food production and are a major source of income for women, especially in urban regions of Africa and in densely-populated areas of Asia. In urban areas, the problem of access to arable land is very different to that in rural areas.

3.1 Arable and horticultural land

3.1.1 Elements of rights in practice

An example of complexity

Women's rights to land vary in accordance with time and location, social group (ethnicity, class and age), the nature of the land involved, the functions it fulfils and the legal systems applicable at local level. A good example of how complex such a situation can be is the role of women in arable farming among various groups of Jola people in Senegal in relation to Islam, the cultivation of cash crops (peanuts) and interethnic relationships. It also shows that land ownership must be viewed in a historical perspective as part of the overall structure of power relations between the genders, e.g. as regards the division of labour and in the area of ritual (see also Shipton, 1994).

Linares (1992) describes the differences between three Jola groups. Within the first group, both men and women have access to the altars and holy places which house the spirits from which they derive their power. This group has not yet rejected its traditional animistic spirits, which play a crucial role in the construction of gender relations. Women can use the symbolic power they derive from these spirits to defend their rights and economic interests. For instance, women have access to 'traditional' cash crops such as the collecting of palm wine, and they also sell some of the rice harvest. Although the roles of men and women are not equal in this community, they are nevertheless equivalent and complementary. Resources managed by women are not set apart because they are seen as less important; rather, the male and female domains are strictly segregated to maximise the power of each gender (Linares, 1992: 51).

The second group of Jola people has been heavily influenced by the introduction of a local version of Islam and the cultivation of peanuts. As a result, women have lost the symbolic functions they enjoyed in the first group. Their right to use their husbands' land is restricted, they may not sell the crops grown on their fields and peanut cultivation is entirely monopolised by men. The women in this region are less independent and must work far harder than the women in the first region. Women are thus forced to accept a different (hierarchical) relationship to men and to land in the name of Islam.

This is due to the fact that under the influence of Islam, ancient rituals designed to maintain family and social ties have disappeared. These ties were also designed to establish reciprocal economic ties, e.g. providing mutual aid, lending and borrowing tools and exchanging labour. Islam has imposed a completely new structure for administering social relations and labour relations.

The members of the third Jola group have adopted many of the customs of their Islamicised Manding neighbours. In this society, hierarchical ties between generations and genders is the main organising principle for access to land. In this system it is the forefathers, not the family or individuals, who own arable land. Male and female tasks are completely segregated and each gender also cultivates different plots of land. This segregation re-invests women with some degree of freedom to pursue their own activities, which is lacking in the second group.

The case of the Jola shows that while women do not have direct opportunities to establish their rights to arable land or to directly dispose of land, their ritual and socio-political status does nevertheless grant them substantial and extensive use rights to this land and the ability to sanction such rights (group 1). However, women can also lose most their say in how the land is used, together with their ritual function, due to the influence of Islam or through interethnic contacts (groups 2 and 3).

Securing rights to land: inheritance law

Rights to arable and horticultural land are almost always part of larger complexes of rights and obligations relating to inheritance and marriage, and also to other resources, e.g. the redistribution of food and other products via social networks. Religion often plays a key role in this. Income derived through social networks can also be referred to as 'informal social security', since it is acquired not by individuals through their own production but through kinship and cooperation relationships.

In some communities in southern Asia, land is inherited through the matrilineal or bilateral kinship line under local law. In these communities, women generally enjoy a substantial degree of economic and social security, freedom of movement and interaction outside the home, as well as relative equality within marriage. After marriage, they can continue to live in their parents' house or return there in the event of divorce. This gives women considerable bargaining power, even though they have no formal say in the regulation and sanctioning of rights to arable land under local law, nor are they allowed to participate in public decision-making (Agarwal, 1994).

Among the Tonga in Zambia and Zimbabwe, rights to land are inherited bilaterally, with sons and daughters obtaining equal shares of the land from the kingroup (Newman, 1981). Hence a woman has the right to use and manage land inherited in this way and she can pass it on to her children or to other members of her kingroup without consulting her husband. She can also refuse to share its production with her husband or her co-women. These rights bring with them the obligation to tend a specific plot of land belonging to her husband's kingroup. The claims of Tonga women to these plots of land are very different and more restricted than those relating to their own land. They therefore prefer to marry men from their own locality who own inherited land and land which they themselves have reclaimed. These men are free to dispose of the land they have reclaimed as they see fit; they can leave it to their wives and children without their relatives being able to claim it when they die.

Where women settle after marriage also appears to be a crucial factor determining their legal status in relation to land. If women continue to live with or near their families, they generally enjoy much stronger rights to land than if they move far away from their own families. Women living far away from their families are usually unable to assert any inheritance rights they may have.

Finally, the freedom of movement afforded to married women is also essential in determining the degree to which they can claim and assert their rights. For example, *purdah* limits the ability of women to use any land they may own.

An analysis of local matrilineal and bilateral systems of inheritance law in South Asia found that in most of the region, rights to land are mostly, though not exclusively, awarded to men under local law and that women's rights are usually tenuous and derivative. Women appear more often to be granted rights to arable land in situations where marriage customs limit the risk of land being passed to non-relatives. However, once the congruence between these two spheres is removed under the influence of statutory law, there is often opposition to women being given rights to land (Agarwal, 1994).

Religion frequently has a strong influence on the extent to which women are granted rights to land and on the form these rights take. The Hindu religion does not recognise the concept of common property within marriage. In the event of divorce, the woman has no rights to any economic contributions she may have made to her husband's wealth during the marriage, either directly or indirectly (Agarwal, 1994).

Islamic law, by contrast, awards substantial inheritance rights to women. A daughter has the right to inherit half the share awarded to a son. A widow has the right to a quarter of all her husband's land if the marriage is childless, and to an eighth of the estate if there is a living son or descendant of a son. In the same circumstances, a widower is entitled to inherit half or a quarter of his wife's land (Agarwal, 1994).

However, there are many departures from these rules at local level (F. & K. von Benda-Beckmann, 1993; Agarwal, 1994; de Bruijn & van Dijk, 1995). In Pakistan, for example, women were previously prevented from inheriting under local law (Patel, 1991) because they had received a dowry on marriage. This made women entirely economically dependent on their husbands. This practice was abolished in 1962 by the West Pakistan Shariat Application Act. Even so, this did not lead to full inheritance rights for women. Local law still has considerable influence, with the result that most women do not inherit land. Those educated and uneducated women who are aware of their inheritance rights are demanding them. Others, however, are put off by the costs associated with legal proceedings, the difficulty of obtaining the necessary official papers, the cost of land registry and the social stigma attached to involvement in a court case. Moreover, women are not always aware of the existence or location of land which they have inherited. The imposition of an upper limit on the acreage of land held by individuals following recent land reforms has now led to women from major landowning families being given titles to land (Patel, 1991).

Securing rights to land: marriage, reclamation, leasehold

Apart from inheritance, there are various other ways of acquiring rights to land. Guiziga women in North Cameroon are granted use rights to their husbands' arable land for the duration of their marriage. They can also cultivate land in their own right or lease land from landowners or from the village headman. They do not, however, have the right to inherit land. These various methods of obtaining land afford different rights. Although a woman is free to decide how to manage and use the arable land she has been given by her husband, she is never granted disposal rights over that land. It is always the man who has the final say, which means that he can claim the land back if he wants to. Even if land has been cultivated by the woman during her marriage, her husband retains the rights to that land, despite the fact that the woman has invested labour in it. In the event of divorce, the woman will forfeit her rights to this land, and can only hope that her next husband will give her some more. In view of the high incidence of marital instability (4 to 5 marriages per woman), leasing land is the only real option open to divorced and widowed women. However, leased land is often inferior in quality, and remains in lease only for as long as the rent can be paid. Women require political skills to obtain permission from village headmen and the authorities to cultivate and/or lease land. Moreover, leased land offers relatively little security (van den Berg, 1994).

Social inequality

Class and social status can influence acquisition of rights to arable land in various ways. Sometimes women from higher classes, e.g. from wealthy patrilineal households in certain regions of South Asia, have more rights to land, although in most cases the extent and types of rights are unclear (Agarwal, 1994). One example of a society in which rights to land can differ according to social status within a single ethnic group are the Fulbe in Central Mali. The Fulbe recognise various categories of social status, including an (aristocratic) political elite, a group of nomadic herders and a group of former slaves now engaged in sedentary farming. In this society, women from the political elite and the herder group do not enjoy rights to land. However, women belonging to the group of former slaves are granted use rights to land. These distinctions are entirely a function of the differences in status. Aristocratic women are not regarded as needing to cultivate land for subsistence, since they are entirely supported by their husbands. If they do engage in business or in cottage industries, they are not doing so to feed themselves. The wives of nomadic herders have a right to the milk produced by their own and their husbands' livestock, which they use for their own subsistence (de Bruijn & van Dijk, 1995; de Bruijn, 1996).

Migration

Official reports also sometimes establish a link between the fact that women secure, or try to secure, land rights and their marginal economic and social status due to the absence of men as a result of labour migration, violence, the drugs trade, etc. (FAO, 1992). However, the relationship between migration from rural to urban areas and women's rights to land is often extremely complex. In Burkina Faso, growing demand for land is leading to problems, especially for women, since they continue to be dependent on their husbands for use rights. This situation does not change if the men emigrate, since their role is simply taken over by their patrilineage (Konaté, 1992). The same is true of Guiziga women (van den Berg, 1996) and Mafa women in North Cameroon (Zuiderwijk & Schaafsma, 1996). Women often work the more inferior tracts of land.

Yet rights to arable land are evolving for practical reasons in response to male migration. There is however no single dominant trend; each situation has its own dynamics (Ruthven & David, 1995). If women obtain more land, they then have more difficulty in making it productive due to the shortage of labour - which results in a heavy workload - (Ruthven & David, 1995) and due to the lack of other resources, most of which belong to the male domain. Aids is another reason why women in some parts of Africa cannot properly cultivate the land at their disposal. The Aids epidemic has in some cases wiped out men and women of the most productive generation, often leaving their elderly parents to

care for a large number of grandchildren. Producing enough food to feed all these mouths is often too much for them. Hence the availability of, or rights to, arable land is not always the main problem.

These examples show that rights to arable land can vary widely in time and space, even within a single community. Even so, the examples discussed only reflect a small proportion of all the possible variations. This diversity relates not only to the nature of the various rights but also to other aspects, such as social status, age, social roles, historical background and the income which women can derive from land. The prominent place occupied by use rights in all these permutations is particularly striking. In communities where women do not have full rights to land or only limited scope to establish such rights (quite apart from the right to regulate or sanction these rights) they often enjoy fully-fledged use rights, that is, the right to generate their own income. It should be realised that in Africa, Asia and Latin America, certain aspects of rights to resources are not entirely self-evident even for men, given that land rights are not usually held by an individual or household but by a collective such as the patrilineal kingroup, the village or local political structures. This shows that Western notions of ownership are too limited. Land rights can be derived from other socio-legal imperatives than statute law alone. Nor do these local legal systems always allow less control of the resource in question. Rights, as understood by local law and as influenced by religious law, are granted in a specific context and form part of wider complexes of rights, obligations and gender relations. They therefore evolve with their context, and often assume a highly dynamic nature in the interaction between local and religious law, as shown by the examples discussed.

Yet in the vast majority of cases, women's rights to arable land are subordinated to those of men and generally address different aspects, if only because it is men who are usually granted powers of disposal, regulation and sanction on behalf of the collective. This means that projects designed to strengthen women's rights to arable land must look at the whole spectrum of aspects of rights. It is also advisable to look at the dynamic nature of the evolution of rights at local level, for example in response to male emigration or rapid switches in religious faith, e.g to Islam or Christianity, as occurred in many African countries during the colonial period. This dynamic nature is described in over-simplified terms by many studies as 'colonial intervention' (see e.g. World Bank, 1991, 1992a to e; Anon, 1995), or as a standardised version of access to and control of land. A frequently recurring theme in literature on the subject is the influence of the colonial period on the status of women in the legal system. These studies maintain that the colonial authorities neglected women's rights, which had existed in pre-colonial times, as a result of which women have now lost all their rights (see Martin & Omer Hashi, 1992a,b,c). Yet the example of the Jola shows that this is too simplistic an interpretation of the actual situation in rural Africa. A greater influence on the power relations between the genders has often been the ecological, economic and associated socio-cultural changes occurring before, during and after the colonial period. Rights to arable land are only one of the arenas in which this visible and invisible power struggle between the genders has been played out.

Although women's rights to arable land are usually subordinated to those of men, this need not apply to access and rights to social resources. These rights are often inversely linked to rights to natural resources, since the latter also embody the obligation to provide others with food and income. Rights to arable land must be seen in this context in order to evaluate the social security of women, certainly if they themselves draw attention to the importance of doing so. In a recent study in Ghana, women not only drew the location of natural resources on their village maps, but also the locations of social resources, i.e. where they could go for loans, support etc. (Noble, 1996).

Conclusion:

In almost all developing countries, women's rights to arable land are weaker than those of men, and their rights tend to address other aspects than those of men. In many situations, especially in Africa, most women are granted only use rights to land, although sometimes they may be able to establish rights to land through leasehold or reclamation. Women's rights to land are often derived from the socio-political and religious status they enjoy in

their communities. Yet, within individual households, they may be organised differently. Although use rights may sometimes appear tenuous, they can have a very secure foundation under local law. Women often forfeit their use rights following divorce or the death of their husbands, and in some cases these rights can even be withdrawn before the marriage has ended. Rights to land generally bring with them greater obligations for women than for men, especially as regards the provision of food for their husbands and children and the provision of social security. Inheritance law, married property law, the place where a woman settles after marriage and freedom of movement are all important factors influencing the strength, extent and types of rights to arable land.

Land rights are always embedded in a specific socio-economic, political, ecological and religious context. Any developments in these areas usually have far-reaching effects on rights to arable land.

3.1.2 Land reform laws and other legislation

The creation of modern states has led to many changes in land rights. The state is also the main implementor of agrarian reforms. It is therefore important to examine the legal implications of converting one form of land use to another within a development scenario, such as the expansion of rice cultivation. Land that is incorrectly assumed to be lying fallow is often converted into arable land. However, women and poor people generally use such land to gather firewood, fruit, wild grain and fodder (see also section 3.3). It is also frequently used as an emergency reserve in times of need, which in the past enabled people to survive longer. If some of the reallocated land is not given to these groups they will be doubly disadvantaged, in that they will lose their emergency reserve, thereby depriving them of their source of firewood and other products, and they will be unable to cultivate their own grain.

Most policy documents recommend legal reforms to improve women's access to and control of arable land. Although legal reforms are essential, it would be naive to assume that statutory law reforms are the only way of giving women's rights a stronger basis. In fact, the impact of such reforms on women's rights is often not encouraging.

In 1964, a land reform plan was implemented in Senegal. It was based on equal participation by all members of society in development programmes and an equitable distribution of generated income. This objective was repeated in 1972, when the rural communities which were to implement these reforms were established. Yet in spite of this, there was no improvement whatsoever in the status of women. Men succeeded in entirely dominating the process of land reform, and women were only appointed to rural councils following strong outside pressure. Increasing emigration further worsened their status. Local law continued to apply, thereby preventing women from inheriting or owning land (Ba et al, 1984).

The issuing of titles to land is frequently used as a way of achieving land reform. Often it is seen as a means of enabling women to establish claims to land, since in principle they should have equal opportunities to do so under statutory law. Among the Luo in Kenya, however, the situation turned out differently. Under local law, women were only granted use rights to land belonging to their husbands or sons. They were therefore unable to claim ownership rights to this land, which their husbands and sons had inherited from their forefathers. This allowed the men to consolidate their rights to land, since they were granted formal titles to the land they inherited from their ancestors (Lee-Smith, 1995:77).

In Cameroon, a similar land reform programme has had the same adverse effects for women. To obtain a title to land, women in Cameroon must demonstrate that they have a claim to land under local law. These rights for women are often very tenuous, especially as land is becoming increasingly scarce (van den Berg, 1996). Only wealthy and educated women appear to be able in practice to reg-

ister their land. As a result, this particular type of land reform is allowing wealthy and educated people to register village land as their own private property. The female (and male) peasants living on this land now face the risk of becoming illegal occupants of their own ancestral lands, and of being forced to pay rent, both now and in the future (Fisiy, 1992).

Sometimes land reform laws themselves contain discriminatory provisions. In Honduras, Article 79 of an earlier Land Reform Act (1975-1991, Ley de la Reforma Agraria) contained a discriminatory clause against women which stated that women were only entitled to land if they were single (unmarried or widowed) and had to care for dependent family members. No such restriction applied to men. Furthermore, Article 84 specified that sons automatically assumed their deceased father's land rights (Fundación Arias - CMD, 1995). In 1991, a new Land Reform Act was introduced (Ley para la Modernización y Desarrollo del Sector Agrícola (LMA)) which stated that titles to land must be registered in the name of the family or household (husband and wife) and that such titles must in the first instance pass to the surviving partner. Titles to land can only be registered in the name of the woman if both she and her husband agree to this. The Act also states that if women wish to register titles to land in their own names, they must be active in farming and must live in a rural area. What exactly is meant by 'active in farming' is unclear. Again, this restriction does not apply to men.

From 1981, a positive change took place in Nicaragua after women and men were recognised as equal before the law. Women began to become directly involved in agricultural policy, and membership of cooperatives was opened to wives and daughters. However, by 1984, women were still making very few claims to land, prompting the realisation that additional measures were needed in addition to legislation (FAO, 1992).

In India, women's rights to arable land are highly susceptible to external forces such as changes in the law and the growing scarcity of land, over which women have little direct control, even in communities with matrilineal or bilateral succession and inheritance rules (Agarwal, 1994). There are also substantial differences between men and women, and between different social strata, when it comes to the ability to appeal to statutory provisions. Despite the fact that four decades ago, the 1956 Hindu Succession Act gave Hindu women in India substantial rights to inherit immovable property, most women still do not own land. There are still very few female landowners in India who exercise genuine control over their land. In other countries in South Asia (Sri Lanka, Pakistan, Bangladesh and Nepal), women now have better statutory ownership rights to land than in the past. However, there are still gender inequalities within legislation and laws are not always implemented, making the situation for women even more adverse than the law itself would appear to suggest.

Statutory law sometimes contains internal contradictions. For example, in the absence of a will, the *Hindu Succession Act* allows widows and daughters to inherit equal shares of the property acquired by their parents or husbands through their own efforts. However, India's patriarchal culture also allows wills to exclude women as beneficiaries (Kelkar, 1992).

Local legal systems and women's rights to arable land have been given far less attention in Latin American countries than they have in Africa and Asia. This is presumably because in these countries, statutory law has had an important influence on local legal systems for far longer. Yet in Latin America, local law often provides for the bilateral inheritance of land, and, as shown in the study by Nuñez Palomino (1995), it would be wrong to assume that these local legal systems no longer play a significant role. Nevertheless, they have undergone major changes under the influence of statutory law. In most Latin American countries, the civil code is based on Napoleonic Law coupled with a paternalistic ideology. Women have no legal capacity to act in their own right. In El Salvador, for example, wives are obliged to obey their husbands. In a number of countries (Bolivia, Guatemala, Mexico, Paraguay), there are statutory restrictions on the freedom of women to establish businesses to or to perform work outside the home if their basic needs are already being provided for or if their

husbands believe this would have an adverse effect on their children. Although it is not possible to illustrate the extent of this problem by statistical means, there are indications that women in Latin America are systematically being denied rights to arable land and control over other means of production (FAO, 1992).

3.1.3 Land rights and the political arena

The history of women's land rights has been one of dispute and struggle, which is and will continue to be pursued at every level: legal, administrative, social and ideological. This struggle does not end with formal ownership rights - that is, the award of a title to land. It is also crucial for women to be able to dispose of land. Women who live a long way from their parental homes, who are forced to rely on the support of brothers or other relatives, or who are unaware of their rights will not claim them. Some women are prevented from using the land they own due to *purdah*, patrilocal marriages, lack of control over agricultural technology or threats and violence from their male relatives.

The struggle of women to secure better rights to land should also be seen in the light of the pressures attached to population growth, the decline in natural resources, the widespread reduction in soil fertility and highly variable climatic conditions. Competition for arable land is intensifying, with the result that vulnerable groups such as women, the poor and the elderly are finding it increasingly difficult to defend their rights against the rise of modern farming methods. Outside development activities (whether or not they are specifically designed to benefit women) are often used as an opportunity to 'renegotiate' rights and obligations relating to every aspect of natural resources, from establishment to sanctioning. As a result, women are more frequently entering into direct competition with their husbands and male relatives. Any analysis of the status of women in this regard and the planning of development projects must take account of this complexity. Obviously such a process of 'renegotiation' also provides opportunities to strengthen the rights of women.

One way of protecting women's interests more effectively is to set up women's groups, both independently of development organisations and in response to their intervention (see e.g. Deuss, 1995; Dankelman & Davison, 1988). These groups provide opportunities for demanding greater attention for women's rights. Opposition to such groups within local communities can be very considerable. Moreover, little is known about the effect of such groups on the status of women and on their social security. They are more likely to succeed in 'modernised' situations, either in an urban context or under the aegis of new development projects involving the reparcelling of existing land or the cultivation of new land. Yet even in these circumstances, a whole range of restrictive conditions can be imposed on women e.g. in the form of internal social relations within the group to which they belong, differences in status between social categories (including women), religious convictions or the inability for individual women or women's groups to obtain loans.

Even so, change is unlikely to come about without strong collective pressure from women. Gender relations are the result of a process of dispute and negotiation at household, market, community and state level. Moreover, these arenas are all interrelated: a stronger bargaining position at community level will lead to a stronger bargaining position at household level (Agarwal, 1994).

Conclusion:

The issuing of titles to land in the context of land reform can be counterproductive and can reinforce the subordinate position of women, since in practice, land reform laws cake little account of the multiplicity of rights governing arable land under local law. Titles are generally issued to those with the strongest claims under local law, i.e. usually men. This tendency is strengthened by the fact that men and women are increasingly in direct competition for land. It is therefore important for land reform and registration programmes to make more effort to issue titles to the actual users of land. These programmes must take into consideration the socio-economic and political

context of rights to arable land. Also, far more attention should be given to the practical opportunities for different categories of women to benefit from proposed land reforms and other government interventions. Collective pressure from women is essential, and this cannot be achieved without the creation of interest groups.

3.2 Pastureland and livestock, forest lands, fishing grounds

3.2.1 Rights to communal land

The importance of communal land

Rights to pastureland, forest lands and fishing grounds are usually organised very differently to rights to arable land. These differences occur in the establishment, management, disposal, regulation and sanctioning of these lands. The establishment, regulation and sanctioning of rights to pastureland, forest lands and fishing grounds is often organised at the level of a collective, that is, a village or group of villages, a kingroup, an ethnic group, a ritual group or a professional group (fishermen, nomadic herders, hunters/gatherers). Depending on the level of organisation involved and the type of rights being defined, these communal resources can be referred to either as 'common property resources' if outsiders can be refused use rights, or as 'open access resources' if no restrictions are imposed on outsiders. Generally speaking, rights to communal land are far less strictly defined than rights to arable land. This is partly due to the way they are used, i.e. for nomadic livestock production, hunting or gathering, all of which involve such extensive tracts of land as to make any individual form of land management or exploitation impractical. Fluctuating ecological conditions and the seasonal and geographical spread of the resources used (grass, game, tree-fruits, tubers, roots, wild grains, (fire)wood and surface water) also make it more difficult to impose strictly defined rights.

The importance of these natural resources to women is immense. Use of communal land is often inextricably linked to other land-use activities. An obvious example is the daily activity of foraging for firewood (Moore & Vaughan, 1994; Monimart, 1989). Other examples include collecting tree-fruits and wild grains, and hunting game. Often this land, or part of it, consists of uncultivated fields. In many societies, communal land is used by the poor. In times of need and famine, the forest and bush provide them with an alternative source of income and food (Scott, 1976; Leach & Chambers, 1989). Sometimes status leads to internal specialisation. Among the Fulbe, nobles look down on their former slaves who have become gatherers, while the latter accuse nobles who forage of stealing from the poor. For women belonging to the former slave group, gathering and selling a wide range of bush products is often a major source of food and income (de Bruijn & van Dijk, 1995). Among the Tuareg, former slaves satisfy almost all their own subsistence requirements through foraging; nobles also sometimes feed themselves in this way (Spittler, 1992).

Pastureland

For marginalised groups, which often include women, the poor, nomadic herders and hunters/gatherers, communal pastureland is frequently of crucial importance. The ability to use communal land as pastureland often depends on ownership of livestock and a controlling influence in access to water sources. Although in most cases it is men rather than women who tend the livestock and who consequently require access to pastureland, women nevertheless often have rights to livestock and therefore associated rights to milk and other animal products, regardless of whether these animals belong to them or to their male relations (by marriage). Women in both sedentary farming and nomadic herder communities are often responsible for tending small livestock, which in some cases they also own. In many communities, livestock is the only natural resource to which women have autonomous rights. However, in order to obtain a secure supply of fodder they must also have use rights to pastureland, private land or communal grazing land (Chen, 1993).

In the past, access to pastureland in West Africa was often exacted by groups of (semi) nomadic herders who exploited their military strength and the changes resulting from the creation of new states. The Diina on the inner delta of the Niger is a good example of an Islamic state in which rights to all types of land were very strictly regulated (Gallais, 1967, 1984). Even today, 19th century systems of rights to pastureland, arable land and fishing grounds are still largely valid. The state of Mali is basing its programme for improving the way pastureland and fishing grounds are regulated on this old system of rights. However, this system was fundamentally altered during the 20th century (Moorehead, 1991), making nomadic herders far more vulnerable by depriving them of their controlling influence over pastureland. In East Africa, by contrast, there is a growing tendency towards the privatisation and fragmentation of pastureland (Rutten, 1992). The effects of this on women are as yet unclear, but they are unlikely to be positive (Rutten, personal communication).

In West Africa, access to pastureland appears in many cases to be unrestricted ('open access'). This is often the case when water is not a limiting factor, for example during the rainy season. However, in many other areas, access to pastureland is dependent on the availability of water, at least for much of the year (Thebaud, 1990). In the dry season, access to water and pastureland must frequently be negotiated. This negotiating role is mostly reserved for men, since it is they who generally have rights to the water infrastructure. This puts women in a dependent position. If land surrounding water supply points is divided up for arable farming, women are often denied access to it because they are not co-owners of the water infrastructure.

Although in such situations, women have almost no right of disposal over land and very little say in the management, regulation and sanctioning of rights, and although they are only granted indirect use rights through their livestock or their rights to the milk, blood and meat produced by these animals, they still have a direct interest in how the pastureland is managed. For example, low density livestock farming is better for fattening livestock in that it maximises meat production. Higher density livestock farming maximises milk production (Behnke & Scoones, 1993). Yet most development programmes and many environmental measures are specifically designed to reduce livestock density through management schemes which frequently include a legal component.

Livestock and milk

Livestock is a crucial natural resource, especially within (semi) nomadic societies. Although livestock is not a common property resource, livestock by-products (milk, mear, blood) are directly dependent on access to, control over and management of communal land. Changes in the management of, or rights to, communal land are therefore indirectly relevant for women and their rights to livestock. In most (semi) nomadic communities, women have almost no ownership rights to livestock, although in some communities they do. Often these ownership rights for women are based on Islamic inheritance law. Yet they always remain ambiguous because they conflict with rural customary law (van Dijk, 1994). By contrast, rights to livestock by-products in the form of milk and blood are often clearly defined. The rights are often organised around hearthholds, in that each woman is allocated milk rights from part of the herd. However, livestock is not a stable resource. In semi-arid regions, livestock numbers can fluctuate sharply. Women currently lose their rights to livestock during droughts (Talle, 1988; Horowitz & Jowkar, 1992; Joekes & Pointing, 1990). The livestock rhey own is also managed differently to that of their brothers. It is more readily sold if money is needed to buy grain, it is less likely to survive a drought, and women are generally given fewer animals when the herd is divided up among the children (van Dijk, 1994).

Women's rights to livestock and milk are also changing in response to economic reforms. In (semi) nomadic communities, milk and blood are the most important livestock by-products. However, they are very difficult to market. Governments and development organisations are generally more interested in encouraging livestock fattening for sale in urban centres. As a result, the rural economy is becoming increasingly dependent on fatstock production at the expense of dairy farming.

Development programmes for livestock production devote very little attention to the interests of women (van Dijk & de Bruijn, 1988). As a result, men tend to try to erode women's rights to livestock by taking over the milking of livestock themselves in order to give the calves more milk to speed up their growth. This leaves the women with less milk and consequently less income (Waters-Bayer, 1988). Another reason behind the move towards livestock fattening is that men regard it as less labour-intensive than growing grain to feed their families. Selling livestock is thus an easier way to acquire grain, but it involves the erosion of women's rights to livestock. This situation is often reinforced by state jurisprudence. For example, the rights of Tuareg women to certain categories of livestock, which were part of the property inherited from their matrilineal group and a fallback in times of need, were restricted by French colonial courts which had a tendency to settle disputes between men and women through Islamic law, which in this case weakened the status of women (Oxby, 1990).

Hunting and gathering

Two other key activities carried out on communal land are hunting and gathering. These activities are not only vital in normal circumstances (see above) but also during times of shortage. Hunting and gathering territories frequently overlap with other land uses, such as livestock grazing and commercial tree felling on forest lands. The rights governing hunting and gathering are often extremely difficult to define. Rules governing land for hunting and gathering are largely omitted from statutory law, and only vaguely formulated in local law. Instead, the rights of individuals are largely defined through membership of a group (see Cashdan, 1983; Shostak, 1981) or through the organisation of ritual groups (Schlee, 1992). During periods of scarcity, group boundaries tend to shift (see Spittler, 1992). Rights to hunting and gathering territories are covered neither by statutory law nor by regional law. However, certain rights do come to the fore during times of shortage, in that access to these lands are denied to certain groups. Individual and communal rights frequently cut across one another.

The absence of legally-defined boundaries and the relatively 'open' nature of the groups who use hunting and gathering land makes it difficult for rightholders to defend their rights against outsiders. Wasteland can usually quite easily be converted into arable land by simply cultivating it. This often irreversibly cancels existing rights to these lands, which are usually established under local law. In many countries, forests, fishing grounds and wastelands are nationalised because the often loosely-defined rights pertaining to them are not recognised under statutory law. In French-speaking West Africa, for example, the state only recognises traditional rights to land if that land is under active cultivation. Moreover, nationalised resources can later be released to concession-holders for commercial exploitation.

Fishing

Fishing is generally regarded as an open profession, granting unrestricted rights to use a common aquatic resource. However, studies have shown that in many inland waters (rivers, lakes and flood plains), lagoons, mangrove swamps and coastal waters, fishing is or has been regulated by traditional systems of fisheries law. In principle, individuals who belong to a specific group with a shared economic base and social structure are granted the right to fish waters collectively owned by that group. Women, for example, may be given the right to gather fish in tidal estuaries, mangrove swamps, flood plains and rivers. Although fishing itself is largely the preserve of men (due to the harsh conditions involved and the lengthy periods spent at sea), the right to purchase, process and sell fish appears in most fishing communities to be reserved for local women. With a few exceptions, in which women are actively involved in the catch, women's rights are effectively derived from the access rights awarded to men (their husbands or relatives). Widows, unmarried or divorced women have a separate status within these communities. These women are given purchasing rights, not only because of their obligation to act as 'providers' but also because the fishermen are aware that these women are more likely to make extra efforts to sell fish at a good price due to economic need.

Population growth, technological developments, improved transportation and demand for fish are now putting these traditional systems under increasing pressure. The right afforded women to buy, process and sell fish under these traditional systems is being widely replaced by open auction schemes, while the management of fishing grounds on behalf of communities is making way for commercial systems designed to maximise short-term profits. The issuing of loans to fishermen for investment purposes or to bridge a difficult season also affects women's rights, since it also gives them the right of production. In addition to this right, which they can obtain through relatives or by going into debt, the right to trade and access to trading networks is also of crucial importance.

Conclusion:

Rights to pastureland and fishing grounds and the rights governing hunting and gathering are usually organised differently to rights to arable land. Outsiders often incorrectly see these lands as open access resources, whereas in fact they are more accurately described as common property resources with a complex internal structure. Some of this land is freely accessible during periods of adequate rainfall, though not during periods of drought. The absence of clear boundaries and the relatively 'open' nature of the groups who use these communal lands makes it difficult to defend this land against outsiders.

Communal land is particularly important for women, especially those belonging to poor groups. Yet the rights granted to women are usually derivative, weaker and of a different nature to those of men, as a result of which they are less clearly defined. Women's rights are frequently set aside by agricultural programmes, the award of concessions to lumber companies and nationalisation. This is due to a failure to take account of the complexity of internal land-use structures, in which women's rights in particular are ignored. Fisheries and livestock programmes can also have a major indirect impact on women's rights, although women themselves often do not have autonomous rights to pastureland or fishing grounds. Women usually enjoy different rights to livestock, trees and fish stocks than men. They are also more apt to lose these rights during periods of drought.

3.2.2 The state, development projects and the sustainable use of communal land

Because communal land is often regarded as state property and rights to such land are frequently illdefined, its use and management are usually considerably influenced by statutory law. This removes control from the land-users, although it rarely restricts their access to it, given that it is state-owned and therefore accessible to all. Nevertheless, the use of this land is often statutorily regulated. Traditional uses for trees, forests and pastureland are generally rejected as 'irrational' because they do not respect 'modern' agricultural divisions between arable farming, livestock production and forestry. Indigenous forestry practices, such as random felling and forestry cultivation, the burning of fallow land, etc. are regarded as 'damaging' for forest sustainability and likely to lead to desertification. These arguments are often used to justify divesting local populations of their rights, even though there is little scientific evidence to support them. And even if there are signs of overexploitation and ecological degradation, this cannot always be blamed on indigenous populations, since they can no longer feel any responsibility for land that has frequently been appropriated by the (colonial) authorities (Thompson et al, 1986). Indigenous populations are now forced to stand by and watch while the government gives other users access to their communal land, thereby removing the right of the original rightholders to regulate its use by outsiders (Shepherd, 1988). In semi-arid regions in particular, the security of users is further eroded by the fact that this communal land is subject to sharp fluctuations and degradation in productivity.

Moreover, many governments lack the effective means to ensure that the land is managed in accordance with statutory provisions. As a result, it is the lumber merchants who can randomly exploit trees used for firewood, timber fellers who are free to destroy tropical rainforests - the traditional habitats of hunters and gatherers - and sedentary arable farmers on the look-out for fresh land to

cultivate land who can unreservedly exploit land previously used for extensive grazing by (semi) nomadic herders and gatherers. Until recently, the main task of government agencies responsible for managing communal land was chiefly a repressive one, i.e. restricting use by local populations, often women (Wiersum & Lekanne, 1995). Today, the reform of this policy and the decentralisation of government powers is a key theme in all developing countries (Hesseling & Ba, 1994). Yet the danger here is that local rulers may set themselves up as traditional administrators of these lands, thereby gaining control of the income generated in these often marginal territories (van Dijk & de Bruijn, 1995). On the other hand, it also opens up opportunities for strengthening the claims of women and marginalised groups.

In projects designed to promote the sustainable use of scarce natural resources, especially in arid regions, enclosure is often a highly effective way of allowing the natural vegetation to regenerate itself over a period of years. Enclosure is always linked to land-use regulation, and this can in turn restrict the use rights of women. In Niger, for example, women were previously able to gather wood freely and graze goats on a particular tract of village territory. Now that the land has been enclosed under a development project, its use is strongly regulated and even subject to a small charge. Access is controlled by a (male) supervisor (only during official office hours!) who answers directly to the village headman. The headman holds the keys to the enclosure and manages the income from access fees entirely on his own account. This land has thus effectively become the village headman's private business (personal communication).

There are several programmes designed to encourage local populations to assume management of forest areas and communal land, notably in Asia. In general, women are poorly represented on management committees, although there are one or two initiatives aimed at increasing their participation in decisions on forest management. In India, for example, the government launched a scheme granting women ownership rights in order to involve them in the private management of communal land. The Tree Patta Scheme was devised by the National Wasteland Development Board to achieve this aim. At least 30% of this land had to be registered in the woman's name or as a joint patta in the name of both husband and wife. In the event, only 5% of the land was brought under female ownership due to the reluctance of local officials to handle women's interests separately from those of the family as a whole (Saxena, 1993). Other attempts to involve women in the joint management of communal land have been more successful, notably those run by NGOs and also government-administered schemes. These projects have granted women the same rights as men by allowing them to conclude contracts with the forestry agency and the Forestry Development Committee (Chen, 1993). Whether in practice this will give women a genuine say and controlling influence in the management process remains to be seen. The SARTHI (Sarin, 1993) and SEWA (Dhagamwar, 1993) projects and activities in the Bankura District (Singh, 1988) of India are three examples of initiatives specifically geared towards the development of wasteland by and under the management of women's groups.

After two and a half years of working with women's groups, the SARTHI project found that prior consensus between all parties concerning the selection of land and group members could be highly effective in reducing traditional opposition to women's involvement in such activities. Men were not interested in paying for improvements to be made to their own land, partly because they feared it would be taken away from them. The project therefore focused exclusively on women. Male opposition was pre-empted by a village meeting to explain that women were being targeted because they would be worst affected by the growing shortage of firewood and animal feed. The *sarpanch* duly awarded a 29-member women's group use rights to 4 hectares of wasteland for a 10-year period, with a pledge to renew the leasehold after this time, and the *panchayat* issued a certificate of non-objection without demanding any part of the income generated. Initially, however, the status of the wasteland was unclear. In order to be certain of reaching the poorest individuals, the organisers added the stipulation that women who wanted to be members of a group had to cultivate the land

themselves. This led to the self-selection of poor women. The crops, firewood and feed produced was for private consumption and not for sale.

In an older SEWA project to develop unused communal land, the panchayat granted the usufruct of 18 acres of land for 15 years to a group of landless women to begin a tree nursery. When in 1985 the project began with 10 hectares, the problem of water supply had yet to be solved. After a number of years, however, half the land was successfully cultivating neem (Azadirachta indica), tamarind (Tamarindus indica) and fruit trees, and vegetables were grown between the trees. Although the income generated by the project was lower than it would have been outside the SEWA project, income was expected to rise in the future. After three years, a third of the profits would be handed over to the panchayat, a third would be divided between the women themselves and a third deposited in their savings account. The long leasehold has given the women sufficient security to plant trees.

Conclusion:

All the aforementioned development initiatives address the role of women in the sustainable use of natural resources. This role is often neglected. For example, in a recent collection of conference papers on local environmental management in Africa (van den Breemer et al, 1995), the word 'gender' was never mentioned, and rights were also largely ignored. Although studies on women and their use of natural resources have been published (for a recent overview, see van den Homberg, 1993), they often discuss management in isolation from its legal aspects. As has been shown, women have certainly been adversely affected by environmental changes, not least in terms of their rights to land and livestock. The environmental measures introduced so far have also clearly done little to improve the status of women; rather the opposite. One reason is because the use of natural resources is often regulated and restricted for environmental reasons. Another is because environmental projects, including those which should benefit women, such as improving the firewood situation, are mostly male-biased due to the frequent absence of a gendered approach in analyses and in policy relating to environmental problems. Attention to legal aspects and women's rights when implementing environmental measures, and the proper integration of a gendered approach in environmental policy could therefore be a major step forward (Dankelman & Davison, 1988; van den Hombergh, 1993; Harcourt, 1994). This is still not happening as often as it should.

3.3 Building plots, settlement and allotments

Land for settlement is generally governed by other rules than agricultural land, pastureland or forest land. This is true of both rural areas and land in and around towns and cities.

In patrilocal rural communities, the (male) head of household holds clearly-defined rights to the dwelling plot under local law, and the rights of the women living there (wives, sisters, daughters) derive from him. The gardens adjoining the dwelling plots, on which the women grow vegetables and herbs, are usually small and rarely lead to disputes (although the internal allocation of these plots between the women can cause problems, which are settled by the male head of household).

However, an increasing number of households, including in rural areas, is now headed by women. If a woman is the effective head of household because her husband has migrated to the city or gone abroad for some time, the local rule of law remains applicable and the woman is granted only derivative rights. Single (i.e. unmarried, divorced or widowed) women often find it difficult to secure autonomous rights to a dwelling plot. In rural Africa, women with newly-registered rights to dwelling plots are still in an exceptionally small minority. Fisiy (1992:96-97) gives the following percentages for western Cameroon: in the North-West Province, a mere 0.1% of titles to land is registered to women, compared with 7.2% in the South-West Province. He attributes this disparity to the fact that in the south, single women usually have their own income and also encounter fewer social obstacles to land ownership than women in the north. Also, most of the women with titles to land are educated and are 'incomers' to the region. If women want to obtain their own land and

dwelling under local law, they are forced to rely on social and political networks, and, as explained earlier, their access to such networks is usually limited. Since population growth is intensifying demand for building land, even in villages, and since at the same time more and more women are becoming heads of households, it is soon likely to become increasingly difficult for them to acquire their own dwelling plots.

Ongoing urbanisation is intensifying demand for building land in and around cities. Much of this increasingly scarce land is therefore subject to market forces. In a study on access to land in Third World cities, Durand-Lasserve (1986) uses numerous case studies in Asia, Africa and Latin America to convincingly demonstrate that under the influence of market forces, more and more poor urban dwellers (men and women) are losing any rights to land they may have (his book is significantly entitled 'L'exclusion des pauvres dans les villes du Tiers-Monde').

There are many more female heads of household in urban areas than in rural areas. Coquery-Vidrovitch (1994:154) estimates that in some large African cities, they account for at least a third and often even as much as half of all urban households. Some of these women have enough money to buy a building plot (e.g. prosperous businesswomen such as the Mama Benz in Nigeria); however, most single urban women belong to the lowest income categories.

Although Monimart (1989) and others argue that rural women who migrate to the cities find it easier to gain access to land because they can claim 'modern' rights without interference from traditional and religious law, their problems relating to dwelling rights should not be underestimated. Although it is true that statutory law has far more influence in cities than it has in rural areas, most city dwellers (including women) still manage to obtain dwelling plots without state intervention. And even in cities, access to land is heavily influenced by social relationships, political networks and patronage systems.

Generally speaking, women can acquire autonomous and more or less secure rights to building plots in cities in one of the following ways:

- 1. In the suburbs and in the immediate vicinity of cities, access to dwelling plots is still usually regulated through district or village headmen, who demand payment for these rights. Even if women are able to obtain a dwelling plot from these local administrators, their rights to this land are still extremely tenuous. If they cannot fall back on local social networks, which most migrant women cannot, local law will do little to help them if problems arise.
- 2. They can try to convert their 'traditional' rights to dwelling plots into private ownership rights or to obtain the land on leasehold. However, the official procedures for registering land as private property or for taking out a long lease are protracted, complicated and costly. Here, too, women are at a disadvantage due to their often limited knowledge of the law and their difficulty in obtaining loans and mortgages.
- 3. Buying land on the formal or informal property market. This is often extremely difficult for women on low or irregular incomes. They are excluded from the formal market by the fact that they often find it difficult or impossible to obtain loans or mortgages, and from the informal market by the high price of building plots, due partly to speculation.
- 4. Finally, there is the option of renting accommodation in cities. However, in most Third World cities, the rental sector is poorly regulated. There is often no rent protection, and where there are official rents, they are rarely supervised. Once again, if women have no access to political networks and if their social networks have become weakened, they stand to lose out when problems arise.

The often radical steps taken by governments when building new infrastructure (such as roads) and regularising 'informal residential districts' in places where the interface between statutory and local

law makes rights to dwelling plots unclear and therefore difficult to uphold in the event of disputes is a major aspect of the ongoing expansion of cities. Both forms of intervention involve evictions and the expropriation of dwelling land. Since the rights to these plots are ill-defined, the government has considerable latitude either to evict residents without payment of compensation (they may or may not be promised a new plot elsewhere, usually at their own expense) or to reduce the size of their plots. Corruption and patronage systems subsequently ensure that wealthier individuals, people with political influence or officials with inside knowledge of how the new, regularised residential districts will be laid out can reserve the best plots for themselves. This deprives the weaker social and financial groups, which include many female heads of households. Moreover, the criteria governing the award of new or reparcelled plots once again mainly favour male heads of households and their adult sons. For example, in the wake of a land redistribution operation in a suburb of Ziguinchor, Senegal, an arbitration committee ruled that widows did not have any right to own their own dwelling plots but had to live with their adult sons. A sentence from the minutes of the committee meeting reads: 'La vieille Cécile peut valablement habiter chez son fils' (Hesseling, 1992).

Finally, for many women, especially those living in small towns, a vegetable garden adjoining the dwelling plot or in the immediate vicinity of the town is a vital supplement to their diet or even a major source of income. Land reallocation operations and the regularisation of residential districts almost always result in the disappearance of these allotments due to the fact that the new plots have fixed, smaller dimensions. If women cultivate land outside urban areas, their rights to that land are rarely formalised. Often they must pay an annual fee to the local 'land administrator' and must renew their 'contract' each year. As soon as the city expands, they lose their allotments to speculators, officials with privileged information or new land reallocation operations.

Conclusion:

Women's rights to dwelling plots are generally extremely tenuous in rural areas, and even more so in cities. In urban contexts, although there are fewer social constraints preventing women from establishing autonomous rights to dwelling land, their status is nevertheless weakened by the absence of strong social relationships.

Suggestions for improvements:

- recognition of the rights women have acquired to dwelling plots, especially during land reallocation operations and the regularisation of residential districts.
- land reallocation criteria must grant female heads of households the same rights as male heads of households.
- payment of compensation for evictions and expropriations, including to women.
- proper independent appeals procedures against government decisions relating to dwelling plots (different categories of women must be represented on appellate bodies).
- simplification of procedures and rules for establishing ownership rights and leasehold rights to dwelling land.
- improving rent law.

4. RIGHTS TO WATER

4.1 Characteristics of rights to water

Water rights are closely linked to the vital function of water, its specific ecological characteristics and the crucial role of the water infrastructure in delivering the right quality and quantity of water to the right place at the right time.

Use of water

Water has many uses, and these are often reflected in water rights. Water can be used:

- for drinking, watering livestock, and for domestic and sanitation purposes;
- as a production factor in agriculture (field and homestead cultivation, cultivation of fodder and grassland, wetlands supporting rice cultivation and forage products). Irrigation and soil and water conservation improve the availability of water and prevent water-induced soil erosion;
- as a production factor in (cottage) industries;
- for fisheries and navigation;
- for generating electricity.

Water also has negative use values. An excess of water creates a need for drainage and flood protection. In addition to its use values, water also often has a social, cultural and religious significance.

A single water source can be used for several purposes simultaneously. This chapter will focus primarily on the first two uses listed above and will discuss rights to drinking and irrigation water.

Ecological characteristics of water and the role of the water infrastructure

The ecological characteristics of water affect rights to water in several ways, including as follows. Water as an element in the ecological environment occurs as precipitation, surface water and groundwater. The supply of water often fluctuates sharply over the short term and is difficult to forecast, mainly due to the unpredictability of the climate. Water regulation is particularly important if water is in short supply or if there is a risk of serious flooding; it is less so or even irrelevant in situations where water is in adequate or abundant supply. In theory, water is a renewable resource. Yet although the natural water cycle eventually replenishes global supplies, fossil-based groundwater reserves and clean water have become finite in recent decades.

Water flows downhill, an obvious characteristic which has major implications for the regulation of water use, in that people living upstream (and thus closer to the source) can use it first. This physically determined advantage can also be legally underpinned, with those upstream being granted unconditional rights to water from a given source. Elsewhere, however, the rights of downstream users are also recognised, e.g. in the form of rights to a quantity of irrigation water proportional to the surface area of land downstream, or rights to clean water. Yet when these rights are not respected by those upstream, effective sanctions are difficult to apply. The physical interdependence of people sharing the same catchment area or groundwater reservoir requires local and administrative forms of governance which accommodate all users and can reconcile a range of conflicting water-related interests. However, the most desirable organisation from a hydrological point of view almost never directly matches existing organisational forms, even on a small scale.

Last but not least, water in its natural form is seldom suitable for human use. Water infrastructure (or water technology) is needed to deliver the right quality and quantity of surface water, groundwater and rain water to the right place at the right time. This requires a whole complex of measures: wells, collecting basins or reservoirs, dams, dykes, canals, locks and sluices, water collection and dis-

tribution networks, pumps (previously driven by human or animal draught power but now increasingly mechanised), systems to operate all this hardware, and so on. The investment needed to build or install infrastructure is frequently far greater than the effort needed to operate and maintain it. Sometimes infrastructure has to be constantly readapted to changing natural circumstances.

The distinction between naturally available water and water supplied through infrastructure is of vital importance for water rights. The use of naturally available water can be regulated by dividing off certain areas or by issuing fishing and navigation permits. Often, however, naturally available water is an open access resource (e.g. small surface water reservoirs for watering livestock). Rights to groundwater are usually granted to the owner of the land above it, if he owns a pump. These restrictions need not be applied if groundwater is in plentiful supply. The rest of this chapter will however discuss the most common and - in the context of development cooperation - the most relevant form of water rights, namely rights to water supplied through the infrastructure.

Establishing rights to water

Rights to water supplied through the infrastructure, in the right quality and quantity and to the right place at the right time, are generally granted to those who have built and who maintain this infrastructure. Practically everywhere, investments in infrastructure strongly legitimize claims to the water supplied through it. It should be realised, however, that these rights are granted not to those who have actually performed the work but to those to whom the work is attributed. Hence labourers employed by a landowner will not acquire rights to the water for themselves. Similarly, work done by women is often attributed to the family as a whole or to the head of the household. Where water is used collectively, the distribution of the available water is also stipulated in the water rights. Water can be distributed in many different ways, e.g. by fixed proportions, by volumes or through sequence or rotational systems, each of which has its own advantages and disadvantages. A third aspect of water rights, which generally only affects a few individuals, is the expropriation of land on which the water infrastructure is to be built. These people are usually paid compensation. A final aspect, which only applies to irrigation, is the link between water rights and agricultural land in the 'command area' of an irrigation scheme. Water rights can be very closely tied to land, and consequently can only be transferred with that land. However, the relationship can also be less direct and further weakened over generations by independent and unrelated land and water right transactions. This separation of water rights and land rights can benefit those who lack (strong) land rights, such as women, yet who can find alternative ways of exploiting their water rights, for example through exchange.

The availability of irrigation water increases the value of land. This often affects the land tenure. Landlords may, for example, decide to start cultivating their own land or they may revise the terms of the lease contract. Men may claim back the use rights they have given to their female relatives in order to start farming the land themselves. The building of irrigation systems can also go hand-in-hand with land reform, in which the state expropriates the land in order to redistribute it, usually to a larger number of producers than before. Under these programmes, land title holders are automatically afforded water rights. Examples include the settlement schemes implemented all over the world and small-scale irrigation systems in West Africa.

Social fields

The various parties involved in investments in, and maintenance and rehabilitation of, water infrastructure comprise the 'social field' in which water rights are established. Decision-making on rules and how they are to be implemented is almost always institutionalised and structured to some extent, e.g. in water users' groups. It is therefore essential for women (or their representatives) to obtain a voice in this field.

Continuity between the original initiative, planning, design and construction, and ultimate operation and maintenance of water infrastructure is essential within this social field. Use rights to water can only be understood in the light of rights established during the earlier phases of the project. In local law there is a clear continuity between the actors involved and decision-making structures in the investment phase and in the use phase. However, in almost every project receiving outside aid, this continuity is more problematical. By making large initial investments in the construction of infrastructure, governments and/or other external agencies themselves establish ownership rights to the water. Yet these donors do not subsequently use the water themselves. In some cases, the government retains exclusive control of the management and maintenance of the infrastructure. This applies to most large-scale irrigation projects, although small systems may also remain under government control. Users are only granted rights to the water when it enters their land. Governments can also delegate responsibility for operating and maintaining water infrastructure to private or semi-private organisations, as in the supply of urban drinking water. Even then, users are only granted rights to water when it enters their house or land. In many rural drinking water and irrigation projects, however, the project largely withdraws once construction has been completed, transferring responsibility for operation and maintenance to the 'users'. The transition from the construction phase to the use phase is often referred to as the 'handover'. It is then often left to the users to establish a structure for the distribution of water within the system. This can generate many problems and can lead to misappropriation of the resource by more powerful groups. Women frequently emerge as the losers from such negotiations. The concept of 'handover' should not be confused with the 'turnover' to users' groups of operational and maintenance tasks which governments have sometimes carried out for many years, especially in the main canal system of large-scale irrigation networks. This type of privatisation is partly prompted by the need for governments to cut costs and partly by the growing realisation that irrigation systems managed by their users work better and are more effectively maintained.

In addition to continuity (or lack of it), the complexity and size of the social fields in which water rights are established are also important. Use of a water source by an individual or small group is usually a straightforward matter: ownership of the infrastructure gives them full and exclusive rights to the water, as in the case of privately-owned drinking water wells or small mechanised irrigation pumps.

More often, however, water infrastructure is large-scale and therefore requires complex concerted action. The extensive nature of these structures can be dictated by the hydrological and topographical nature of the water supply problem, e.g. damming a remote river for irrigation and drinking water (as in the Andes), land reclamation, the construction of sea dykes, and so on. Extensive systems can also bring with them major benefits of scale, as in most urban drinking water supply systems. State-built irrigation systems may also be extensive, but their theoretical benefits of scale often prove not to be very substantial in practice. The social fields involved in the construction, operation and maintenance of large-scale infrastructure systems are both extensive and complex. Participation by interest groups, such as women, in decision-making bodies can therefore only be achieved through multi-layered representation.

Gender dimension in water rights under local and religious law

In arid and semi-arid regions in particular, individuals have very strong formal rights to drinking water. The amounts involved, however, are relatively small. Islamic law even extends this right to outsiders who are in no way connected to the construction or maintenance of the water infrastructure. Although Islamic law also extends this right to animals, West African customs only permit animals to drink freely from open access surface water, but not from privately-owned wells without prior permission, and not without the payment of some compensation, e.g. in the form of manure (Toulmin, 1992). Watering livestock requires larger amounts of water near to where they are being kept.

In Mali and in many other regions, the task of sinking wells for drinking water and for watering live-stock is reserved for men, sometimes exclusively for the village headman. If other men were to sink wells this would be regarded as an attempt to establish a claim to the land, thereby challenging the headman's authority (Toulmin, 1992). However, neither infrastructure built by male relatives nor natural reservoirs bring drinking water permanently close enough to the dwelling. Women and children are responsible for the remaining transportation and storage of drinking water. Male family members rarely help in this often heavy and time-consuming task, and then only if there is a considerable distance between the water source and the dwelling and if they have bicycles or carts. Hence women often make a disproportionately high contribution to the provision of water for family consumption compared with men. This makes it vital for women to have access to permanently available, clean water near their homes or workplaces, and thus to a suitable water infrastructure (see also van Wijk et al, 1996). In the Office du Niger in Mali, groups of women spend a considerable proportion of their joint savings to have new wells sunk (Klaver, personal communication).

Far greater quantities of water are required for irrigation. Water consumption varies between and within cropping seasons, and the choice of crops and their varying water requirements is matched to the quantity of water which can reliably be expected to be available at a given time. The quality of water for irrigation and for watering animals is less important than that for human consumption. If the same water source is used for both drinking water and irrigation, this can create competition. In such cases, drinking water usually takes clear precedence under local law. These days, drinking water wells can dry out temporarily or even permanently in regions where the water table drops due to the extraction of too much groundwater from the reservoir by powerful modern irrigation pumps. Women's rights to water for agricultural production vary enormously. In the Andes, for example, women are allowed to participate in the construction of irrigation systems and thus to establish rights to the irrigation water. Their daughters can inherit these rights, which may or may not be linked to land, much of which is passed on bilaterally. However, men still dominate the written registration process and decision-making bodies (Lynch, 1991; Krol, 1994; Prins, 1996). In Tanzania, by contrast, women are prohibited from operating water infrastructure facilities under local law (van der Grift, 1996).

Women's rights to irrigation water are inevitably related to their role in agriculture. Safiliou (1988), for example, classifies wetland rice cultivation in the valleys of South-west Burkina Faso as a 'female cropping system'. All the decisions are taken by women: they own the land, mobilise labour and other inputs and manage their own income. Women are responsible for the construction of small infrastructural facilities and the actual water management under the supervision of female land chiefs. There is a taboo on some male land chiefs entering these paddy fields, since it is believed this will cause flooding. In Bangladesh, by contrast, rice cultivation is a 'male cropping system'. The recently developed system of private mechanised pump irrigation is therefore almost exclusively a male preserve. It is pointless for women to acquire these pumps simply for their own agricultural activities. In the few instances where women do acquire and operate such pumps, they sell the water for commercial gain (van Koppen and Mahmud, 1996).

In male cropping systems, women often work as unpaid labourers in their husbands' fields. Their duties can include irrigation, more often at field level than at main system level. In such cases, women derive water rights from their husbands. However, irrigation can also fall outside these duties. Rocheleau (1991) reports a case where women are not obliged to water trees planted by their husbands on the homestead.

In contrast to the wide variation in women's water rights under local law, governments and external development organisations have always adopted a markedly uniform and male-biased approach. Because these interventions are so relevant to development cooperation, the rest of this chapter will focus on statutory law and project law, and on the legal obstacles and opportunities for projects to strengthen the rights of women to water.

Statutory law and project law

Throughout history, regional and national governments (previously in cooperation with colonial powers and latterly in partnership with international organisations, donor agencies and NGOs) have always played an important role in water management. This role has been further strengthened in recent decades. In almost every country, water has been formally declared state property. The practical importance of this declaration varies considerably, however. The government's task in relation to water management is, on the one hand to regulate and to coordinate. For example, it may issue licenses for the installation of pumps or the use of water during a certain period, or it may set standards for acceptable levels of pollution from industry and agriculture. Often, however, governments lack the power to implement or enforce these regulations. On the other hand, governments are water 'producers', supported by other organisations. In the past, this consisted largely of building new infrastructures. The emphasis is now shifting towards rehabilitation. The government has very concrete ownership rights in these situations, as explained above.

Project law is more prevalent in water infrastructure development than in almost any other area of government intervention. This is because existing national legislation leaves many issues uncovered or unspecified, especially in countries where statutory law is also still evolving in other areas. One reason for this is that rapid technological developments are opening up entirely new forms of water and land use for which no rules yet exist, either in statutory law or in local or religious law. Only when sufficient experience has been acquired can regulations be developed and organised into a coherent body of statutory law. Regulation therefore lags behind practical developments. Another reason why statutory law is less influential in this area than project law is the high level of foreign donor involvement. Each donor agency brings its own procedures and interests to infrastructure projects. As a result, each project takes important decisions about rights to water more or less autonomously, often unintentionally or even unconsciously.

One important aspect of the establishment of water rights by projects is their formal and de facto choice of target group, i.e. the identification and selection of future rightholders. To this end, projects often devise selection procedures of varying levels of detail which are only finalised within the social field formed between the project and the local population. These selection procedures are not usually launched until the design and construction phase are well under way. They take various forms. For example, water rights can be established through participation in construction work: i.e. local populations can be asked to carry out a larger or smaller proportion of the construction work in exchange for rights to water. At the same time, other types of compensation can also be provided in the form of money or Food for Work, which in practice often creates confusion. All these contributions must be carefully registered.

Alternatively, and only in the case of irrigation, water rights can be acquired by association with land rights in the command area. As explained above, the government can expropriate such land, declare it state property and then redistribute it to selected title holders who are given the right to use it, dispose of it or manage it. Previously held rights to land, where known, can be designated as priority rights under the new system, but this is by no means always done. Most projects prefer to start with a clean slate and to establish equal rights for everyone in the command area. Alternatively, projects can restrict their role simply to registering existing land rights in the selected location, without transforming land tenure. This often means only registering ownership rights, thereby neglecting use rights held by leaseholders and women.

The wide range of available support measures, such as agricultural extension, the provision of loans and the supply of inputs or marketing facilities, is frequently only offered to officially registered rightholders. Since women rarely fall into this category, they often fail to benefit from this support.

4.2 Legal restrictions in projects to water rights for women

Exclusion processes within social fields

The social fields in which water rights and the procedures governing their acquisition are established begin to form during the very first contacts between governments or other external agencies and local populations. Although both parties have very different interests, the result is often the same: the (male) elite monopolises rights to water and/or shares these rights almost exclusively with other men, thereby excluding women and individuals from lower classes.

Project teams tend to focus mainly on the technical design of the water supply system (in so far as this has not already been decided upon in advance), the search for a suitable site, the expropriation of the land required for the infrastructure, the expropriation of agricultural land throughout the command area in some irrigation projects, and finally, the construction itself and mobilisation of the necessary labour. All this is done under considerable pressure of time. It is therefore in the project's interest to contact only those local people who can help to arrange these matters as quickly and efficiently as possible. This will be the (male) elite, who have the authority to make land available and/or to arrange compulsory expropriation where necessary. The same applies to the mobilisation of labour. Only at a much later stage, usually when construction work is already well advanced and under even greater pressure of time, do many project teams start to more closely identify and select future water users and to organise them to operate and maintain the infrastructure. Once again, it is the male elite - often loosely referred to by the project as 'the village' - who are seen as providing a quick and easy way of specifying and applying what are still very general procedures. In what is essentially regarded as a technical project, the admission of other parties into this social field is thought to be an unnecessary added complication.

Exclusion is also practised at the local level. To begin with, it is only the political elite, who are close enough to government networks, who are informed about the possibility of proposed infrastructure projects. They can then take advantage of this information during subsequent planning phases to negotiate favourable locations for themselves. The local power of this group is further strengthened by their access to project information and by their role as mediators in the provision of employment. In contrast to the perception of the project that construction work is a purely technical process, the local elite sees their contribution as an investment in infrastructure and a basis for claims to water, certainly when the project itself has largely withdrawn. This male elite is unlikely to want to afford access to any more potential rightholders, e.g. during the selection procedures, especially if the vital resources of land and water are already scarce. The relative exclusion of all others, who are often kept in ignorance of the project for some time, is thus continually strengthened.

Gender as a criterion for exclusion

For both parties - the project team and the local elite - gender appears to be main criterion for exclusion, and is at least as categorical as exclusion based on age, class, ethnic group etc. This practice is underpinned on both sides by a range of stereotypes. The commonest is that of the household and the male head representing the interests of the household as a whole. Irrigation engineers often calculate plot sizes on this basis, resulting in the design of 'household plots'. Another widespread stereotype is the middle class preconception that women cannot and should not engage in heavy, low-status construction work. Accompanying this view is the belief that women cannot by definition deliver the same quality of construction work as men, even though empirical research suggests otherwise (Duyne, 1994). Project administrators also assume that there are strong cultural taboos against communication between unrelated men and women. Although this is a real issue in one or two instances, such as in some parts of the Arab world or it some regions in Pakistan, elsewhere the problem is easy to solve or simply does not exist. Finally, women's water rights may not even be regarded as legitimate; there is consequently no social acknowledgement of their need for a nearby source of clean water for drinking or irrigation. This latter view is part of the general undervaluation

of women's role in agriculture. Yet Deuss (1993) has shown that, in village irrigation systems in Senegal, productivity per unit of irrigated land is no lower on fields farmed by women than on those cultivated by men. Zwarteveen (1996) had similar results in Burkina Faso.

Exclusion of women from rights to irrigation water in projects

The effective exclusion of women is reflected in various ways in the identification and selection of rightholders to irrigation water:

- 1. Expropriation. Government projects in which all agricultural land in the command area is expropriated with the help of the local political elite can lead to women and other vulnerable groups losing their land rights from one day to the next. Due to the stereotypical attitudes described above, women are not given back their independent rights when land and water are reallocated, whereas men are. The Jahally Pacharr project in Gambia is a notorious example of this (Dey, 1990; Carney, 1988; Verkruysse, 1991), yet there are other instances, e.g. the Mahaweli Ganga project in Sri Lanka (Schrijvers, 1986) and the aforementioned rice cultivation areas in South-west Burkina Faso (van Koppen, 1990).
- 2. De facto exclusion from selection procedures. Although the issuing of land and water rights through participation in construction work is theoretically a gender-neutral process, in practice women are often not even informed of these opportunities in advance. A female farmer who found out too late that the Sensibilisation et Formation des Paysans autour des Barrages project in Burkina Faso offered this option said: 'If I had known, I would have slept at the construction site overnight to make sure I was there on time the next morning!' Moreover, the construction work performed by women may be either not registered at all or only in the name of the head of their household. Elsewhere, although the type of work women do is recognised as labour in a traditional context, it is not classified as such within the context of a project. This is especially true of the preparation and transportation of food and drink to the construction site. Yet in the Andes (Lynch, 1991) and in other regions, this is a substantial contribution to the construction and maintenance of infrastructure, and one that is specifically performed by women. Even when the work done by women has been properly registered, the social field formed between the village elite and the project team can still abruptly decide not to honour the agreed claims. In another irrigation system in the Sensibilisation et Formation des Paysans autour des Barrages project in Burkina Faso, registrations revealed that 20% of the work had been done by women, yet they were only given 10% of the irrigated land. Another example of the arbitrary nature of these arrangements is shown by the construction of a new irrigation system in Bolivia. Here, the response of the local population, many of them de facto female heads of household, to the call for labour and thus to the offer of water rights was so great that the project teams suddenly decided to exclude married women and young people with immediate effect (Prins, 1996). This led to angry protests from women.

Sometimes construction work is paid for in cash and no water rights are attached. This can attract a temporary though substantial workforce. However, until recently, women were also excluded from this arrangement (Duyne, 1994).

When water rights are being reallocated on the basis of existing or newly proposed land rights, there is a persistent tendency to consider only the rights of men. In all the aforementioned projects in which land owned by women was expropriated, and also in many other settlement schemes, e.g. in the Office du Niger in Mali (Klaver, 1996), the project administrators reallocated land only to men, and very occasionally also to widows. Yet under the original local law of these settlers, women had enjoyed independent rights to land. If, during the reallocation of land, the surface area of the plot had already been adapted to the size of the family, only the men benefitted. Men were in any case the only group consulted during inventories and registrations. And in so far as existing land registers were used during the reallocation process, the male bias they embodied was reproduced. Little has

changed since 1973, when Hanger and Morris described this process in the Mwea Scheme in Kenya (Hanger & Morris, 1973). In mainstream irrigation projects, women still only tend to acquire rights to irrigated land and water if there is a surplus of such land (Verkruijsse, 1991; Dey, 1990; Jones, 1986), or if the men have not shown interest in it (van Koppen, 1990).

Restrictions on women's rights to drinking water infrastructure

Because project teams tend to be mainly interested in completing construction work as quickly as possible and local elites tend to be chiefly concerned with consolidating their political power, new supply points are not always optimally located, and this restricts the number of women who can use them. No provisions are made to maintain this often very costly infrastructure, which is left in the hands of this same elite when the outside agencies withdraw. Partly because men do not immediately notice the effects of an inefficiently operating infrastructure, the maintenance provided is inadequate. Moreover, it is often later found that women have continued to use existing, less clean, water sources closer to home rather than walking further to fetch cleaner water.

National and international development efforts in the drinking water sector frequently continue to fall below those in, say, the irrigation sector. Moreover, the way governments are structured (i.e. into sectoral ministries dealing with individual sectors, such as public works, irrigation, agriculture, health care and sanitation, home affairs etc.) makes it inherently difficult to develop integrated multifunctional facilities for water use. Opportunities to develop infrastructure for both domestic and irrigation purposes are missed, and competition may arise between various uses, with drinking water taking second place. The interests and rights of women are often far down the list of priorities during these negotiations (Cleaver, 1995; van Wijk et al, 1996).

4.3 Opportunities for projects to strengthen the rights of women to water

The strong prevalence of project law in the water sector gives development projects considerable scope to devise initiatives aimed at strengthening the rights of women to water. These initiatives can plead for national ratification of international conventions in which governments undertake to ensure that women and men are afforded equal access to natural resources, including water (FAO) Peasants' Charter, 1981; UN Convention on the Elimination of all Forms of Discrimination against Women, 1981; UNCED Agenda 21, 1992; Dublin World Water Conference, 1992). Precisely because the staff in charge of technical projects often have little idea of the legal implications of their activities, merely providing information about these nationally ratified principles and their application to specific projects and target groups would be a major step forward. In the Rawa Sragi land reclamation project on Sumatra, Indonesia, there was found to be no legal impediment whatsoever to registering newly reallocated land in the name of both husband and wife rather than only in the name of the male head of household, as had been done during the early years of the project. It had simply not occurred to the project administrators to do so (van Hussen, personal communication).

Obviously, the scope for improving water rights for women will be maximised if women are involved from the very outset in plans to design and implement a new water infrastructure. Alternatively, they could take part in new, smaller-scale investments, such as the expansion of irrigation systems, rehabilitation projects, the transfer of ongoing operation and maintenance activities from the public sector to water users etc. Unless this happens, it will be difficult to renegotiate earlier investments and the claims which men have derived from them. Below is a list of factors at project level which have been found to help strengthen the rights of women to water. They are listed in the order in which they would occur in the project. Project proposals and progress reports should also be tested against these factors.

1. A study of multifunctional water needs and existing land and water rights

Existing land and water rights granted under the various relevant legal systems must be properly understood. Efforts should also be made to prevent certain groups from exaggerating their own rights in anticipation of possible future claims. Existing and potential priority water needs of both women and men must be assessed. This will result in a picture of the multifunctional uses of water. The various sectors of government must coordinate their activities on the basis of this picture from the outset.

2. Shaping the social field and including women as a priority target group

In accordance with the policy of including the local community in all phases of the project, it is vital for each member of this community to be informed and organised before any investment is made. The Dutch government's development policy recognises women as a priority target group; consequently, their interests must guide project managers in subsequent negotiations. Women must be fully represented in decision-making processes right from the start. In the Kenya South-west Kano project, a quota system was used requiring a minimum percentage of women to be present at mectings to establish mixed-gender water users' organisations, and this worked well. Women were also organised in women's groups to prepare for the mixed meetings. In this region, most of the work involved in irrigated farming is carried out by women (Hulsebosch et al, 1994).

3. Drafting legal-technical scenarios

The socio-legal aspects of technical designs or scenarios for new water infrastructure systems must also be examined, e.g. choice of location and compensation for expropriation, where appropriate.

Whenever water rights are granted in return for participation in construction work, women appear to be more than willing to take up the offer, even in regions where projects previously did not make this option available and there appeared to be a strong taboo on women's involvement in construction work, e.g. in the region around Jakarta in Indonesia (van Dok et al, 1993).

Changes in rights to land must be discussed within the social field. Experience has shown again and again that opposition from local male populations is less of an issue than opposition from within project teams. This was most evident in female cropping systems. When the project in South-west Burkina Faso offered local men titles to rice plots in expropriated and technically improved valleys, it was the men who redirected the project team to women by explaining that rice cultivation was their domain. Even within patrilineal land inheritance and dual farming systems there is considerable scope for negotiation, provided the project itself clearly puts women's interests first. Povel (1990) describes the construction of a small irrigation system in Kenya exclusively for women, in which even modest negotiations with the landowners resulted in a reasonably favourable lease contract for the women. Bognetteau et al (1991) describe similar contracts granting women use rights on rain-dependent land in Niger which was improved through soil and water conservation measures under the Projet de Reboisement de la Rive Droite de Téra. The Sensibilisation et Formation des Paysans autour des Barrages project in Burkina Faso began to construct schemes exclusively for women, even in villages where women were only granted use rights and where even the men did not have access to irrigation systems. In this last case, however, there is a real danger that men will surreptitiously lay claim to at least some of these improved lands, especially during inheritance disputes within these patrilineal societies. Open negotiations with all concerned, including the more influential groups, must therefore be held in advance. The organised representation of women during these negotiations is an important empowering factor. Even if traditionally, women have only been granted tenuous rights to water, external interventions can open up new opportunities to strengthen these rights.

This is illustrated by Van der Grift (1996), who explains that although in Tanzania women are not traditionally permitted to approach water sources, they have been granted these rights to new modern infrastructure through the Traditional Irrigation Improvement Programme.

Clearly, it is vital to ensure that the rights afforded by these investments continue to apply on a long-term basis, so that women can properly benefit from them.

If the investment costs and maintenance work to be done by the local population are calculated early enough in the planning phase, they may reveal that the technology proposed is too costly and complex for users to operate and maintain it sustainably, that it will take too much time and energy to set up the required management organisation, that technical training is required etc. This can then be used to draft better legal-technical scenarios. Technology itself can also be used to provide a more reliable and sustainable supply of water for women and poorer groups of men, e.g. by reducing costs, using locally available material, making repairs easier, designing mobile structures allowing those with temporary land use rights to take their investments with them when they move on, creating a scale of project which (within the confines of hydro-technical feasibility) guarantees sufficient technical and financial independence from more powerful groups in regard to acquisition, operation, repair and maintenance (Demotech, 1996), and granting equal access to available loans and subsidies for equipment, etc.

Plan adoption and subsequent phases

If, as described, women are included in the planning phase and given a full say in the choice of legal-technical scenario, their rights to water will be optimally strengthened.

5. HAVING RIGHTS AND SECURING RIGHTS

This paper began by putting forward a socio-legal conceptual and analysis framework to analyse and understand the links between women and natural resources (chapter 2). This framework was then applied to the natural resources being studied, namely land and water (chapters 3 and 4). The present chapter summarises this analysis framework (section 5.1) and formulates a number of policy recommendations (section 5.2).

5.1 Towards a socio-legal gender analysis framework

The 'Gender Analysis Framework' is merely a starting point for analysing the legal status of women in relation to natural resources. The activities profile can be used to begin analysing which natural resources are used by men and women and in what ways. However, the resources profile needs to be refined, since the terms 'access to and control of' are too limited for a proper analysis of women's rights to natural resources. The legal status of women in relation to natural resources is influenced by rules governing the following aspects (see section 2.1):

- 1. Establishing and maintaining a right
- 2. Use
- 3. Management
- 4. Disposal
- 5. Regulation
- 6. Sanctioning
- 7. Ritual and socio-political status attached to the right.

Most situations are characterised by legal pluralism, in which customary law, statutory law and religious law can apply simultaneously and in combination, frequently alongside new forms of local law. Project law and international law can also be part of this structure. Each of these legal systems operates its own combination of rights and obligations, its own divisions between the private and public domain and its own enforcement mechanisms. The relative influence of one legal system over another varies from place to place and from context to context. A proper analysis of the legal status of women in relation to natural resources must take account of all these relevant contexts. The previous chapters have shown the various combinations in which women's rights can occur and the discrepancies which can exist between the rights which women have and their ability to genuinely exercise those rights.

In each situation, women's rights to natural resources can be visualised by answering a number of questions and then analysing how the answers relate to each other. This will provide insight into the 'black box' governing these rights.

Each question should consider:

- The historical perspective: what is the current situation and how has this situation developed over recent decades?
- Local concepts: indigenous terms, terms applied by statutory law, development jargon etc. What is their practical import and semantic scope? Even in English, Spanish and Portuguese there are terms which cannot directly be translated into Dutch; for example, the term *property* and the Dutch word 'eigendom' only partly overlap in meaning.

The following key questions should be answered:

- 1. What are the activities and roles of the various categories of men and women (class, ethnic group, age, civil status, fertility, life cycle, kinship system, and ritual and socio-political status) and what natural resources do they use to perform these tasks?
- 2. What is the nature of the natural resource?
 - * What is its economic value, productivity and quality, and to what extent do these fluctuate?
 - * What products are yielded by the natural resource?
 - * What are its socio-cultural and religious functions?
 - * What role does it play in providing social security?
 - * What role does technology play in making the resource available for use?
- 3. What is the social, cultural, economic and ecological context in which the resource is being used?
- 4. What is the nature of the groups sharing rights to this resource: village community, kingroup, extended families, nuclear families, hearthholds, women's groups, age groups, poor peasants' groups, water users' groups etc?
- 5. What are the individual and communal rights of different categories of women to the various types of natural resource (land, water etc.) under each legal system? It is important to identify which of the seven elements of women's rights listed above are embodied in these rights under each legal system (statutory, religious, local, project and international). What do terms such as rental, lease, tenant farming or communal rights mean within a specific legal system? What combination of rights relating to the aforementioned seven aspects are embodied in these concepts and how are they apportioned among the various groups of rightholders? The answers to these questions will reveal the difference between the internal and external structure of communal and other forms of shared rights. They can also be used to analyse the specific legal relationships between individuals and specific tracts of land, houses, livestock and watercourses. Who has what specific entitlements on the basis of what rules and (kinship or contractual) relationships? It should also be borne in mind that different categories of people and institutions can interpret the law in different ways.
- 6. What obligations are associated with or underlie the aforementioned rights?
- 7. How are these rights and obligations exercised and met in practice, and how does this affect the status of the various categories of women?
- 8. What parties are involved in defining, establishing and maintaining rights to natural resources?
- 9. What obstacles prevent women from genuinely asserting the rights to which they are entitled? What is their bargaining position? The following factors must be examined:
 - Knowledge of the law by women, for which general levels of literacy are an increasing prerequisite:
 - Social acceptance of women's claims by the community;
 - Women's access to officials dealing with land-related issues, other government agencies, irrigation services, NGO and project activities;
 - Knowledge of the law by implementing organisations, including the hydro-technical knowledge required to understand how the law relates to water rights;
 - Women's economic and physical access to the judicial system (lawyers and courts);
 - Women's dependent and independent rights to economic and social resources.
- 10. Who derives what benefits from the rights in terms of income, food, care, prestige?

The legal status of women can only be analysed by examining the relationship between these ten aspects. It is important when doing so to analyse actual situations. The questions are metely intended to help collect and systematise knowledge. The analysis is needed to improve knowledge of women's rights within government agencies, to extend the focus of development cooperation beyond private ownership and ultimately to enable effective programmes to be set up.

These ten points, or some of them, can also be used to monitor and evaluate the success of external interventions in strengthening women's rights to natural resources. The specific points selected and the indicators based on them will of course depend on the aims of the activity in question.

Before this information can be collected and the questions answered, an inventory of existing and current research will need to be compiled. This will often require in-depth studies, partly due to the sensitive nature of the material involved and the many vested interests at stake. A Participatory Rural Appraisal exercise will therefore *not* generally be the best method for gathering data on how local legal systems operate. These methods do not shed enough light on the way laws are applied at the various levels, nor do they provide an adequate basis for supporting a process in which women can improve their access to natural resources. An accurate picture will only be obtained through careful research using participatory observation and in-depth interviews with key informants. In doing so, it is vital to use researchers with socio-legal expertise. Although participatory appraisal techniques such as village maps and resource maps drawn by local men and women can be used at a later stage in the action study, where appropriate, they certainly should not be used in the first instance.

5.2 Strengthening women's rights

Successful strategies for strengthening women's rights to natural resources must be based on detailed analyses, as described above. These strategies may require statutory amendments, but they may equally involve a review of local or religious law. Sometimes improvements can also be made through a wider reading of existing regulations, either by a court of law or by government implementing organisations. The legal status of women can be substantially strengthened by improving the way existing rights are exercised, by removing obstacles to the enforcement of written and unwritten laws, and by encouraging greater and more specific attention for the role and legal status of - poor - women in projects not specifically aimed at legal change but with legal implications. For example, women are often excluded from government land registration programmes (Donkerlo & Aboud, 1994). And even when they are included, the percentage of land registered in their names is limited (Saxena, 1993; Iritié, personal communication). Attention must also be given to factors preventing women from asserting their rights to land. These obstacles seriously hamper the effects of interventions such as land reform programmes and environmental projects.

When a legal system or a specific area of law is being revised, it is important to consider the implications this may have for other legal systems or areas of law. Improvements in the system of statutory law may sometimes have an adverse effect on the legal status of women within other legal systems, for example if women who have managed to secure rights to land then find themselves socially excluded from traditional systems of social security provision. It is therefore always necessary to look beyond the specific area of law in which the amendment is being proposed, further than the law itself, and further even than rights to natural resources alone. Finally, it is important not to overestimate the ability of societies to be artificially 'moulded', especially by legislation. After all, laws are always assimilated by individuals operating within specific systems of social relations, standards, values and interests. 'Teleological considerations that underlie the initiation and enactment of laws tend to overlook the basic epistemological given, that people only cooperate with a new rule when it is in their interest to do so. It is therefore simplistic to think that providing for a unitary body of laws will alter people's perceptions or ways of doing things. Legal change cannot automatically cause people, especially peasants, to change the manner in which they have been dealing with land' (Fisiy, 1992:230).

There are various ways of improving women's rights to land and water, requiring a range of different measures. Structural legal support to improve normative frameworks can be provided through organisations specialising in political lobbying, class action, the training of women in rural areas,

and the training of government officials responsible for implementing policy, who often have little knowledge of local law. Obstacles preventing women from exercising their rights will also be removed through the provision of training to women, government officials and the staff of development organisations. Improvements through national or local jurisprudence will require sound individual legal support. Finally, indirect improvements in legal status will be achieved only if project teams gain a proper understanding of the complex legal environments in which their projects are being implemented.

5.2.1 Strengthening the legal status of women

It is impossible to develop strategies for strengthening the legal status of women which are both specific and universal: there are too many regional variations and the factors obstructing land and water rights for women are too complex. The framework of law not only provides opportunities but also imposes restrictions. It is a forum for negotiation in which acceptable margins for change must be sought. Legal frameworks should be regarded as indicating existing opportunities and restrictions and should not be replaced with an entirely new structure laid over them. Below are a series of key points which could be included in a specific strategy (see also Agarwal, 1994). An optimum, balanced strategy should consider all eight points.

1. Support for local institutions

To identify ways of improving the socio-legal position of women in relation to natural resources, it is important to consult the women themselves. Often this will be extremely time-consuming, since poor women in particular are rarely organised into representative groups. Nevertheless, a large number of government agencies and NGOs in many countries are working to improve the legal status of local populations, and women in particular. The way these organisations operate and the experiences they have acquired must be ascertained. Efforts must be made to help these NGOs (such as the national associations of female lawyers active in many countries, or the male and female staff of NGOs working to improve the general legal status of the population and their knowledge of the law) to identify the current status, problems and needs of women in the region concerned, the areas that must be studied, and how and in what way the capacity of the relevant NGOs should be strengthened to enable them to carry out these (action-based) studies or to support political lobbying and class action.

2. Launching a socio-legal study

More research must be done to study the rights of different categories of men and women to land and water in specific situations. Research and analyses based on the socio-legal gender analysis framework described in the previous section and on the problems identified by local organisations can provide an effective basis for the further elaboration of strategies designed to strengthen women's rights to natural resources. Therefore it is necessary to support socio-legal research carried out by local institutes and universities. The exchange of existing knowledge, strategies and experiences between researchers, policy-makers and field workers at national, regional and international level is also needed to increase awareness of women's rights to natural resources and to improve the quality of the results obtained.

3. Support for activities aimed at legislative amendments

Most legal inequalities relating to natural resources are found in married property law, inheritance law and land law, including land reform laws. It is generally easier to amend laws when all or part of the legislative structure is already under review. In some countries, obtaining equal rights for men

and women under the law may require the statutory provision of technical aid, while in other countries the emphasis may lie on support for NGOs such as women's groups and legal assistance providers. The legal basis underlying development policy and intervention by foreign governments is provided by The Convention against the Elimination of All Forms of Discrimination against Women (CEDAW), the Peasants' Charter, Agenda 21, the International Convention on Civil and Political Rights and the International Convention on Economic, Social and Cultural Rights (ESC Convention). Specific activities will differ from region to region; however, in some situations, it may be useful to concentrate on:

- Adopting a general principle of statutory equality between the genders. This would include:
 - restricting the scope of wills to disinherit daughters;
 - * introducing rules to improve the legal status of widows.
- Recognising women as rightholders in their own right in the context of land reform and water development schemes.
- There is generally little point in trying to codify customary law. Where this is attempted, efforts should be made to generate discussion within the community so that customs involving discrimination against women are not formalised.

In countries such as Bangladesh, efforts to introduce gender equality into inheritance law are likely to encounter opposition due to the strong influence of Islamic law. According to the Sharia, female relatives are not entitled to as large a share of the estate as men with the same degree of kinship to the deceased. Even so, both here and elsewhere, Muslim women's groups and female lawyers are trying to build gender equality into Islamic inheritance law through legislative amendments. They base their arguments on the constitution, which affords equal rights to both men and women, and on the fact that gender equality is a feature of other Islamic countries. In Somalia and Turkey, for example, male and female heirs have a right to equal shares of an estate. Support from development organisations should tie in with the discussions being conducted within Islamic groupings.

4. Promoting knowledge of the law among women, government bodies and credit institutions

One of the difficulties facing women is their lack of familiarity with the complex legal structures they have to deal with. The only information they have on statutory law comes from low-ranking officials. Moreover, these officials usually know little about the law themselves, and what they do know they are sometimes reluctant to impart. Legislation which affords women better rights than they enjoy under local law is particularly difficult to access, either because local officials are not very interested in explaining it or because they themselves are unaware of its existence. Even local law is not sufficiently understood. Government officials, courts, the police and development workers often have a very fragmentary knowledge of local law. Many cannot be bothered to acquire that knowledge, although this is not always the case. This inadequate and one-sided knowledge of local law means that some well-intentioned attempts to apply it have been counterproductive.

In order to strengthen women's rights, it is necessary to begin by improving their 'legal literacy'. Various NGOs are running legal literacy programmes. It would therefore be useful to cooperate with the more successful NGOs to devise local language programmes clarifying the complex nature of legal pluralism (Molokomme 1990-1; Griffiths 1990-1). The translation of laws into local dialects is an absolute prerequisite (e.g. N.N. La Condition Juridique et Sociale de la Femme au Mali).

These programmes may also have the indirect effect of making women more self-confident, more likely to sit on local decision-making bodies, and better able to claim their rights on an individual or collective basis, for example through class actions.

Alongside these activities, it is also extremely important to improve knowledge of both local and statutory law among officials, hydroelectric engineers, development workers and representatives of credit institutions.

5. Encouraging awareness and social acceptance

Both men and women are adversely affected by changes resulting from the growing scarcity of natural resources. This frequently intensifies male opposition to more equal rights for women. Fear about the possible implications of divorce is another factor. Women's rights will only be strengthened if the rights of men are also addressed.

However, it is not only men who oppose land rights for women. Women themselves can also be sceptical. After all, the dominant values of a community are internalised by all its members. This does not of course justify the existing situation, but it does mean that it must be taken into account in any strategy for strengthening women's rights (Kelkar & Nathan, 1991).

Men and women should not simply be aware of the need for women's rights; they should also understand their importance. This will increase social acceptance of gender equality and women's rights. Young men often appear to be more open to this than older men (Slocum, 1995; Iritié, personal communication). Males from different income groups also exhibit different levels of acceptance.

Programmes aimed at increasing awareness and acceptance of women's rights must also try to increase female representation on bodies with decision-making powers over land and water rights, and to ensure that women's interests are included in the decision-making process.

6. Preserving social security

The individualisation of rights to land and livestock is reducing the diversity of land rights and weakening their social security value. In many regions, the chain of exchange relations linked to kinship and land rights has been broken. Assistance must therefore be organised along different lines. Possible solutions must be tailored to local situations, and will to some extent depend on the survival of a more or less intact kinship network (not present in former war zones), ecological conditions (see the Sahel problem), migration patterns, and so on.

Those providing assistance in the form of social security - mostly women - and the recipients of such assistance must also be considered. Men in particular must be encouraged to assume a share of the responsibility. Assistance providers will also need to look around for other individuals with whom to share the work and necessary resources. These would in principle need to be individuals who are themselves fit and strong.

It is also important to devise programmes for people who are too sick, weak or old to care for themselves and who therefore need assistance. Before, they were able to rely on exchange relations based on kinship and land rights, but these are no longer as dependable as they once were. Because most development programmes are targeted at people who are in principle able to work, these groups tend to be forgotten. Yet because they are also facing the consequences of changes in land rights, their problems must also be fully addressed in programmes dealing with land rights. Women must be given a more secure position to fall back on so that they are less dependent on male relatives and have a stronger bargaining position. Village women's groups who are establishing economic and social support networks and programmes must be given assistance.

7. Working towards communal rights for, and in partnership with, women

The advantage of individual ownership rights is that women can dispose of their own land as they see fit. However, if they are unable to resist the pressure exerted by male relatives or other parties (e.g. money lenders), they may lose this land. Furthermore, individual women landowners often prefer to leave their land to their sons rather than to their daughters, who are likely to marry elsewhere.

It requires a great deal of courage to question the existing power relations between the genders by appealing to laws and regulations. That is why land which is state-owned, such as wastelands, or which has been expropriated by the state for redistribution to the local population, as in many state-built or state-improved irrigation systems, gives women the opportunity to acquire better rights (Saxena, 1993). This approach is also unlikely to meet with opposition from men since it is not their land which is being reallocated.

One option is for the state to transfer land rights to a group of poor women, each of whom would acquire individual use rights but no individual rights to dispose of the land. The women could share these rights with their daughters-in-law and with daughters who are still living with their parents or who have returned to their native village. Daughters who marry would acquire use rights in their husband's village. This system resembles a number of traditional systems, except that the land is owned by a group of women rather than a family or clan. This approach gives women more security of tenure and also more control over the land. The scope of these rights can be negotiated when contracts are concluded (see e.g. Munalula, 1994). It can be better for women to establish communal land and water rights rather than individual rights, since communal rights can give them a stronger power base (Fundación Arias, 1995). This strengthens their bargaining position within the household and vis-à-vis the community and the state, thereby creating a more communal and egalitarian basis for access to land while at the same time allowing women to use and manage the land individually.

Generally speaking, then, privatisation of land ownership need not be the only way forward. Communal land management by women can be a valid option, upholding as it does the interests of poor households, and notably those of their female members.

8. Securing support services and women's organisations

It is important for women to organise themselves so that they can collectively apply for support from the various government agencies and NGOs and present a strong front to men and local elites in negotiations to uphold their rights and improve their legal status within their own communities. Only then will women genuinely be able to exercise their rights to land and water. Women's groups that are economically and socially homogenous appear to work best at local level. However, this kind of homogeneity will not be possible, or desirable, for some activities, such as political lobbying. Cooperation between women of different classes and between women at local and national level should therefore also be encouraged. These women must establish a shared basis for cooperation with a view to strengthening women's rights, increasing their participation in decision-making bodies and enhancing their bargaining power.

The support services themselves must also become more accessible to women. This can be done by appointing more and better qualified women to water projects and to agricultural extension and input supply services, as well as by changing the attitudes of male staff. Systematically encouraging women's cooperatives to buy agricultural inputs and to market their products will stimulate the creation of local and national alliances between women, which is vital for an effective campaign to secure land and water rights.

5.2.2 Indirect measures to strengthen the legal status of women

The previous section concentrated on measures with an explicit and direct impact on the legal aspects of women's rights. However, as this paper has demonstrated, it is also important to focus integrated attention on women and their implicitly changing rights to natural resources within current and proposed rural development and environmental projects. The following general conclusions have been drawn with regard to government or NGO projects whose main aim has been to intensify the use of a natural resource or to encourage environmental improvements (land, water, livestock, fisheries, forestry).

Changes in rights to natural resources within the context of an agricultural or environmental project will be achieved largely through the selection of targer groups. Outside agencies have a tendency to focus exclusively on improving production or on 'improved use' as an end in itself (enclosure, irrigation, licensed tree felling, intensive fish farming). Partly as a result of this, the formal and de facto choice of target group remains unclear. At local level, this often means that project facilities are available only to a small, select group of relatively dominant men. This strengthens their social status and allows them, with the support of external agents, to redefine claims to improved resources at the cost of former rightholders, including women.

It is therefore crucial to begin by defining the priority target group and planning the project with their help. These individuals must be properly informed and organised so that the social field which subsequently emerges can identify all existing rights and can draft transparent procedures to formulate new rights if required following improved use of the resource. Again, women's groups have a key role to play here. Only then will it be possible to discuss investments for improving the use of natural resources in a meaningful way.

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