A new property regime in Kyrgyzstan; an investigation into the links between land reform, food security, and economic development

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CHAPTER 2. DEFINITIONS AND TERMINOLOGY

2.1 PROPERTY

2.1.1 PROPERTY, PROPERTY REGIME, AND PROPERTY RIGHTS

Bruce [11] defines property as "a set of rights and responsibilities concerning a thing; property also is the term for the thing itself". When we use property as the thing itself, we can distinguish two different types of property: private and public property. Private property is held by private persons and includes property held by legal persons such as corporations or partnerships. Public property is held by any level of government.

When we want to make it clear we are using property as a set of rules and responsibilities, we often say property rights. In Western law a distinction is made between two basic kinds of property. One is real (Anglo-American Law) or immovable property (European Civil Law). This is property in land and attachments to land like trees or buildings. The second is personal (Anglo-American Law) or movable property (European Civil Law), which is property in all other things. (The Dutch Civil Code states: “Movable property is all that is not immovable property” – article 3.1.1.2 part 2).

Looking at rights and responsibilities, a 'property regime' is a complex of rules, principles, and procedures that in a specific community or society regulate legitimate control over, access to, and conditions of use of the means of existence and of production (resources), as well as the acquisition and transfer of such resources (Hoekema [40] p.78/79).

Generally a property regime is considered to consist of four basic components; 'Who', 'What', 'How much', and 'When' - as a land surveyor I like to add a fifth component; 'Where'. The 'who' component is about the subjects, the persons or entities possessing property rights. The 'what' component is the object, the means of production and existence, for example a plot of land, a residence, premises, a well, a mine, or a quarry. The 'how much' component contains a description of the extent of the property right. Since persons normally hold property rights for a limited time, the temporal aspect indicated by 'when' is a fourth component. For real property the component 'where' can be added, because real property is immovable, and can thus be located by its position on the globe. Property rights incorporated in the institutional structure of a country are the building blocks of land tenure, but also are land registrations and credit structures. Property objects are vital for the existence of mankind; the field of property law and rights is one of the most important fields of research and theories in law and economics.

Von Benda-Beckmann [4] (p.21) states: "Property is a sanctioned social relationship between persons – not between persons and objects - with respect to material and immaterial objects". In [5] it is argued that there is a lack or neglect of anthropological approaches towards property rights in law and economics. The function of property is biased towards economic organizations with commodified property in order to be easily exchangeable to contribute to efficient and optimal allocation. The assumption is that legal reform towards marketable individual ownership rights would significantly contribute to economic development, by creating greater legal security, freeing the individual property holder from communal constraints. These constrains prevent him to become the 'homo economicus' capable and willing to pursue maximizing of his property as economic theory
has laid out for him. In doing so, land will also provide a basis for collateral to obtain productive credit.

Looking at resource use and access to land, modern 'western' people tend to look at the level of use and exploitation and seldom at its functioning to establish social security. I observed in many projects that property is dominantly approached at the level of use and exploitation, in the field of private law. This while the legitimate authority to control, allocate and exploit property is one of the most salient elements of power through which people can be subordinated at all levels of socio-political organization.

In this book the term 'property' will be used to describe real property as we discuss the (dominantly material) objects. The term 'property regime' will be used for a complex of rules, principles, and procedures that regulate control over, access to, and conditions of use, of the objects and 'property rights' are the sets of rights and responsibilities that come with the object. Property rights in my text always mean a very general category and are not limited to for example private property rights, unless explicitly stated.

2.1.2 FROM COMMUNAL TO INDIVIDUAL PROPERTY

Originally most of the land in Europe once was held under communal rules in which land was primarily seen as a resource for survival for everyone belonging to the clan or the group dwelling in a certain area. There was a sense of belonging with the individual. Belonging to the clan, the group, the kinship, or the village, expressed by submitting oneself to the customs of the clan, the group, the kinship or the village. In early days there was also a religious colored respect for the most essential resources and this can still be found in some societies. A strict set of rules was in place manifesting the appropriate and respectful way to use and exploit the resource. Land was seen simply as too important a means of existence to give private persons any individual power of control, allocation and exploitation over it. The individual was tied to the explicit consent of the group or the clan, the kinship or the village. Use and exploitation of land was bound with a social mortgage on every tenure right. One of the most impassioned descriptions of the mystic relationship between man and land has been given in 1855 by Indian Chief Seattle [72] (third – non-numbered - page from the middle) of the Puget Sound tribes: "Every part of this soil is sacred in the estimation of my people. Every hillside, every valley, every plain and grove has been hallowed by some sad or happy event in days long vanished. Even the rocks which seem to be dumb and dead as they swelter in the sun along the silent shore thrill with memories of stirring events connected with the lives of my people, and the very dust upon which you now stand responds more lovingly to their footsteps than to yours because it is rich with the dust of our ancestors, and our bare feet are conscious of the sympathetic touch."

Hoekema [40] states (p.37): “Once upon a time in Western societies, communal land tenure prevailed. Private property had a marginal status. In the course of the centuries, particularly in the 18th and the 19th centuries, private property took over, hand in hand with the rise of a market oriented capitalist economy". Moore [57] (p.8) formulates this in 1968; "Under the pressure of circumstances, the medieval notion of judging economic actions according to their contribution to the health of the social organism began to collapse. Men ceased to see the agrarian problem as a question of finding the best method of supporting people on the land and began to perceive it as the best way of investing capital in the land. They began to treat land more and more as something that could be bought and sold, used and abused, in a word like modern capitalist private property".
2.1.3 SOCIAL FUNCTION OF PROPERTY

During the past centuries many economists and social researchers have focussed on property regimes and property rights. There have been countless – sometimes violent – conflicts over this highly ideological and politically loaded issue in particular over justifications to change or to maintain a given property regime. Economists have given numerous reflections on the economic significance of property like Adam Smith and John Kenneth Galbraith. Most publications about property rights focus on how property regimes should be, with emphasis on the future. Denman warns for such a one-sided approach. He draws attention to the inter-relations between persons that play an important role in property regimes. These inter-relations are seldom recognized, acknowledged and taken into account in policy making. Nonetheless, they work away under the surface, often to the confounding of policies [1980] [21].

More recent is the accentuation on communal property regimes and their significance for some of the problems that only in a poor way can be addressed by private property regimes. Hoekema [40] (p.51) argues: "The notion that only individual western style ownership provides enough individual security to promote an economic take off has been substituted by the opposite notion: only communal tenure (in areas where it still holds) provides enough security".

Because of its less exploitative and more socially oriented nature the practice of communal tenure has come to be seen as a possible solution for problems of depletion of resources. It is a sometimes hotly debated issue.

Von Benda-Beckmann [4] (p. 20-23) emphasizes in his theory of the various layers of property the sanctioned social relationship between persons with respect to material and immaterial objects. This social relationship can be observed in four layers of social organization of which the most relevant for this research are the cultural (and ideological) ideals, the normative and institutional regulations and the social property relations. (He also distinguishes a fourth layer, the social practices, less relevant in this context). Property should be attributed a social function, emphasizing that all property can serve a common good or has to be justly distributed among society's members. In many projects I observed that property rights were mainly approached at the level of use and exploitation, in the field of private law. Public authorities came in as an agency to regulate the property rights of private right-holders, in such a way that at least some elements of the social function are safeguarded. The regime established by licenses, production quotas, and subsidies is an example. In matters of landed property one can think of zoning laws, environmental regulations, eminent domain, and laws that provide subsidized housing for low-income households. Although seldom explicitly referred to in donor stimulated projects, it should be remembered that there are generally substantial public law constraints on private property in most Western societies. This sometimes goes so far that observers wonder whether there still is 'private individual property'. Thirty years ago researchers had already described the merits of a more socially oriented approach for tenure regimes, but modern 'western' people continue to look at property at the level of use and exploitation and seldom at its functioning to establish social security. Although not a central issue in this research, one of the questions raised is to consider the option of a land tenure system that does not primarily use the common exploit and use approach of property but goes for a more socially oriented
property regime. With many countries in transition looking for the most suitable property regime to import, there must be an opportunity for such a project.

2.1.4 LANDED PROPERTY
Some literature refers to ‘Landed property’ when focusing on property rights and the function of land being held under ownership rights. In “A journey through economic time” Galbraith [36] reviews the role of feudalism and capitalism (p. 10 – 13). “For centuries, political authority in Europe had been, to a greater or lesser degree, associated with landed proprietorship or, at a minimum, with landed aristocratic tradition. So also, and more markedly, had military power..... There were notable consequences of this continuing role of the old feudal classes. One was the profound centuries-old instinct that war has primarily to do with landed territory. Once, indeed, this had been true: territorial conquest was the basis of both wealth and power. With land came economically productive peasants, public and personal revenues and men available to wage armed combat for their master”. (Even today it is remarked that the legitimate authority to control, allocate and exploit property is one of the most salient elements of power through which people can be subordinated at all levels of sociological organization).... “It was to be one of the modern and welcome triumphs of the capitalism attitude and achievement to diminish the acquisitive need for more land. In the highly prosperous city-states of Singapore and Hong Kong, land has been shown to be wholly irrelevant... And when in the years after the Second World War many European nations.... as well as the United States, all shed their colonial possessions; scarcely a ripple was felt in their domestic economic well being”.
However, this does not imply that landed property has lost its role as a generator of economic well being and the development of a nation. In many less developed countries the process of industrialization is in progress or has hardly even begun. Still many peasants have to rely on the land as the source of sustenance for their living. In these countries land has not at all lost it's meaning as a source of wealth and influence. In most of the countries in transition agriculture is the most important employer and source of income. It would be a gross error to underestimate the potential effects of the establishment of a new (imported) property regime there.

2.2 LAND

2.2.1 LAND AND REAL PROPERTY
Cadastral specialists use the term ‘Land’ to indicate real property as being the basic unit of registration in a land registration system. The terms land registration systems and land information systems nowadays are widely used to indicate systems containing data about real property and the same goes for terms as land titling and land market.
In Kyrgyzstan (and in several other former communist countries) a specific distinction of real property was used. On the one hand land in use by state and collective farms like land designated for agricultural production (the ‘Ugodia’) and land and real property in use for housing, for farm buildings, for the infrastructure of the farm and land on which agricultural installations were built. Or on the other hand the land and real property outside the state and collective farms in urban areas and villages like dwelling houses, apartment buildings, parks, house-plots, and all other land and real property as roads, railways, canals, etc.
For the ‘Ugodia’ and often also for land with typical agricultural buildings, a regime of land tenure existed that was different from the tenure of the other real property. The ‘Ugodia’ was governed by special regulations and managed by offices of Land Engineering (also called Land Administration offices).

The agricultural sectors of almost all economies (or nations for that matter), rich and poor, depend heavily on land. In most policy views the function of rights to land is approached as a possibility of optimization of the productive use of resources. In modern society one wants to have clear notions of whom is “holding” certain rights to the land. Looking at agriculture as a source of prosperity, it is important to know more about the rights to land of individuals, corporations and the State. The way the “holding” of the land is organized and recognized may have widespread effects on agricultural production and the distribution of wealth and income.

In most legal systems, there is no difference in judicial approach in protection and registration of rights to real property whether it is an individual, a corporation or the State, owning the right. So, although the word “individual” appears in the following paragraphs, it may well be meant as individualized rights, instead of explicitly referring to an individual as opposite of a corporation or the State.

2.2.2 RIGHTS TO LAND
The concept of land as used in legal systems is surprisingly difficult to define. The common concept is some form of the idea of terra firma or dry land, but this is inadequate. A good short definition is “Any part of the earth’s surface which can be owned as property, and everything annexed to it, whether by nature or by hand of man” (Random House Dictionary). In legal terms however also a (thin) layer of earth beneath the surface of the object and a certain layer of “air” above this surface is considered as the property and rights to land can also be executed as the same rights in those layers. Physical land is part of real property, the latter being property in land and attachments. So all things permanently attached to land can be defined as real property and often the land itself is also referred to as real property. In professional circles the term land is used for all real property. Land information, land information systems and land registration (systems) all refer to the term “land” representing all real property objects. The owner of rights to one apartment in an apartment building will find the recording of this right in a land registration or cadastre, as will the owner of a right to a certain piece of agricultural land.

Land is divided into smaller portions and in many societies individuals hold exclusive rights to such a piece of land, but what piece of land? With movable objects there is often no doubt about the object to which rights are held. For most movable objects possession is the common way of ownership and most objects are physically clearly identifiable. With land and real property in general, it is often difficult to determine the relationship between an individual and the real property “at first sight”. Real property does not always come in easy to identify separate objects. It can not be physically possessed and normally it is connected to other real property to which other individuals are holding different rights. And to make it even more complicated: it is not uncommon that various individuals hold different rights on the same real property. Even if the individual right to real property is made known, it still is not always automatically obvious where exactly on the land or in the real property object, the physical beginning and the end of the right of the specific individual and the object is, or where the rights of other individuals begin or end. There is an invisible line where the
different holders of a (real) right on the object change. There are several invisible lines or boundaries when more than one individual holds different rights on the same object. The rights to real property may be recorded - according to the International Federation of Geodesists (FIG) - in a cadastre. The FIG statement on the Cadastre [34] (published in February 1995) describes a cadastre as a system that may record different forms of land tenure such as ownership, leasehold, easements, mortgages and different types of common, communal or customary land tenure.

2.2.3 LAND TENURE
Land tenure is the institutional arrangement of rules, principles, procedures, and practices, whereby a society defines control over, access to, management of, exploitation of, and use of means of existence and production. Terms as property title, life-estate title, leasehold, usufruct, lease, all the ways of defining entitlements to and use of the land, and all practices among people about what rights are held, by whom, and for what length of time determine the character of land tenure in a country. Change of the rules will change the access to land or will reflect the change in access to land already taking place and the citizens' perception of land tenure. Access to land thus has two forms the formal and physical one, but also a perceived form. Land tenure can be defined in terms of a "bundle of rights" – specific rights to do certain things with land or real property. In other words: Land tenure determines who can use what land how much of it and how. The institutions governing land tenure answer the question "Who, What, When, How much, and Where?"

In most modern societies real persons and legal identities can hold rights to land. Holding of rights to land can be captured by the term land tenure. As Bruce [11] (p. 6 - glossary) states: "Land tenure is: Right(s) in land". The term "tenure" comes from English feudalism. "After their conquest of England in 1066, the Normans declared all previous land rights void and replaced them with grants from their new monarchy. Derived from Latin for "holding", land tenure means the conditions under which something is held: the rights and obligations of the holder. It is a legal term that means the right to hold land rather than the simple fact of holding land. In a society with well-documented rights to land one may have tenure but may not have taken possession" (Bruce, 1998 [11] p. 1). Land tenure is a term frequently used in the following chapters. The main reason for this is that one cannot think only in terms of land ownership if one wants to keep land registration in perspective. As stated before in some jurisdictions the full authority over land by the owner is not given everywhere to its full extent. In Anglo-American law land ownership in its full extent is a prerogative of the Crown or the State. Individuals can obtain grants to inheritable and exclusive use of land although this is often experienced as ownership of land. Roman law as practiced in almost all of continental Western Europe theoretically recognizes an absolute ownership of rights to land. Theoretically because of the importance of land for the whole of the nation, almost every society knows of legal or customary provisions to deal with land even against the will or the permission of the owner of rights to the land. Property rights to land define sanctioned behavior of the right holders with regard to scarce resources (of which land is a prime example).

2.2.4 SECURITY OF LAND TENURE
The philosophy of the World Bank for good governance policy for several decades has been that legal reform toward marketable individual private ownership rights will significantly
contribute to economic development. This concept still is the most used scientific legitimization for restructuring of land laws.

Development of institutional arrangements establishing a (new) system of land registration can be done without involving too much of a distinction between the various forms in which people enjoy rights to land. Proper development of land depends on “security of tenure” rather than on the form in which people enjoy the ownership of rights to land. Rowton Simpson [69] (p. 8) remarks: “A person has security of tenure if that person is secure or safe in the holding of land, but when ordinary man speaks of ‘security of tenure’ he is almost certainly thinking more of security of possession or occupation than strictly of tenure. To be adequate to encourage or even permit development, security of tenure need not amount to ownership, nor need it last all the time. A lessee has security for the time of the lease and, for as long as the lessee complies with its conditions, the law will give complete protection even against the owner of the land.”

For land tenure security my definition is: Land tenure security is tenure perceived as held without risk of loss except for customary rulings or formalized expropriation with fair compensation. The term that would be appropriate in my ‘definition’ of land tenure security is ‘sustainability of tenure’. If the question: “Can I uphold the tenure against others in a sustainable way?” is answered positively, then there is land tenure security. Whether that security is achieved by effective protection by respected authorities or by customary recognition for property rights is not relevant.

It is important to bear in mind that security of tenure in many societies even today can be and frequently is enjoyed without any concrete evidence of title other than occupation. Security of tenure is a question of fact and, as a fact, it can exist whether there is documentary evidence to prove it or not. It does not necessarily rest on statutory title or on a system of written record. In several countries around the world, security of tenure of land exists without any formal record at all. Security of tenure describes the level of trust or certainty individuals have in the continuous protection of their tenure against ‘third parties’. This trust is based on institutional arrangements whether or not backed up by state laws. The tenure itself may be short, for instance, two months, but if the leaseholder can be certain that he or she will be able to keep the land for the two months, then the tenure is secure. It implies confidence in customary support (thus not necessarily a legal system!) and lack of worry about loss of one’s rights. This is the narrowest usage of the term ‘tenure security’ common among legal professionals. According to Bruce [11] economists often use the term to include the confidence factor noted above and a second element: long duration. Any two-month tenure would be insecure, because it is brief. The ‘insecurity’ used here, relates to incentives for investment. Someone with a two-month lease will not plant trees, because there is no expectation of being able to use the wood or the fruits. Place et al. [67] (p. 19) describe land tenure security as follows: “Land tenure security can be perceived to exist when an individual perceives that he or she has rights to a piece of land on a continuous basis, free from imposition or interference from outside sources, as well as the ability to reap the benefits of labor and capital invested in the land either in use or upon transfer to another holder”. They distinguish three components in their definition, breadth, duration and assurance with legal and economic dimensions. Breadth of rights has to do with the robustness of the rights to land and is related to exerting the property right and the costs of enforcing the right. Duration has, in my opinion, only an economic dimension and is not something to take into account for the perception of tenure security. A secure tenure can
be for a short period of time. The economic dimensions are important as indicators of land tenure security perceived by peasants in relation to agricultural production. The duration of rights, the possibility of exerting the rights and the costs of enforcing the rights highly determine the choice of exploitation and use of agricultural land but have less to do with tenure security in a legal sense.

Although the relative character of the content of rights under communal tenure is often seen as an impediment to security of title and thus security of tenure, Bruce [10] shows that also under communal tenure market oriented agrarian business could develop. As to security of tenure the common outlook on western style ownership only providing for tenure security has changed and it is recognized that in areas where communal tenure still holds it provides enough security.

2.2.5 LAND REFORM
The start of a non-evolutionary change in land tenure is often the result of a politically instigated land reform program, most likely supported by donor driven recommendations and funding or general economic expectations. It is important to note that there is no general formula for land reform; nor does a 'best' system of land tenure exist. Domer and Kanel [24] (p. 1) note that: "Though ideological arguments on the best ways of organizing agriculture continue, no land tenure system can be adjudged best in abstract. Any judgements concerning a particular system must take note of the institutional and technological conditions in the society and the stage at which that society lies in the transformation from an agrarian to an industrial economy. Judgements should also consider what specific groups and individuals in the society are attempting to accomplish".

The 1970 USAID Spring Review noted that this strange animal called land reform is an animal that changes its colors, its appearance, its anatomy, and its physiology almost as often as much as other strange animals called democracy, freedom, capitalism. Virtually every author of our analytical papers apparently felt he or she had to define the term. Definitions vary according to whether you favor or oppose land reform, whether you treat it as an ideological symbol, or as an achievable goal, or look at actual results. Although this description does tell how difficult to determine the contents of land reform actually is, one thing is obvious; land reform aims at changing the existing pattern of land tenure in a society.

It must be noted here that land registration can be a component of a land reform program, and this is highly recommendable to avoid future problems and litigation. But land registration is not an element of land reform sine qua non. Since land reform is often politically motivated and the land registration element is very costly and normally requires outside funding, several land reform projects start without the land registration component in place.

Land reform focuses on changing land tenure and redistribution of agricultural assets combined with legal changes and often also establishment of a system of land registration, protection of new property right holders and public records of property rights to provide improved security in land transfers. The latter is seen as an important requirement for a land market to evolve to stimulate economic development. Land and agrarian reform puts emphasis on agricultural production. Land tenure is changed and individual farmers are made responsible for the way in which they till the land expecting they will do so that it results in increasing agricultural production.
2.3 FOOD

2.3.1 FOOD SECURITY

Food is the most important among the basic needs for human existence. Searching for food originally dominated human life. Providing for citizens a perceived food security is one of the main achievements in a society. Many people on earth are not food secure. The distribution of food over the globe is inequitable. With the rapid spreading of news, and the easy sharing of images from all over the world, most people nowadays in "developed" countries, are aware of the fact that there are a number of food insecure countries. During recent decades increased international attention has been given to food security. Donors have invested in food insecure countries to improve food security. Most food insecure countries are among the so-called "developing" or less-developed countries. Foreign involvement often focuses on the distribution and the access to farmland in order to increase agricultural productivity, to increase food security, to improve the quality of rural life, and to reduce rural unrest. It is important to note that food production in itself does not provide for food security although striving for increased food production is often the first and foremost political activity in food insecure regions. Food security can be achieved by food transfers and feeding programs, but the long-term political and macro-economic effects of such symptom-oriented intervention can have negative consequences for food security. In "Determinants of Food Policy: An Attempt to Understand Government Behavior", Michel Petit [64] demonstrates that countries have food security policies because the elite are threatened, or at the very least embarrassed, by famine. Such policies are implemented when acute problems develop and social order is at risk. But this will not achieve a long-term solution. Long term food security can only be achieved by substantial development of human, material, and technological capabilities giving depth and resilience to broad based food availability and access.

Food security can be defined as sustained and assured access by all social groups and individuals to food adequate in quantity and quality to meet nutritional needs - to live an active and healthy life. A food system offering security should have the five following characteristics according to the Food and Agricultural Organization of the United Nations (FAO 1979) [28]: "The capacity to produce, store and import sufficient food to meet basic needs for all. This includes maximum autonomy and self-determination in order to reduce vulnerability. Furthermore it covers reliability, meaning that food supply should know minimal seasonal or cyclical variations, sustainability while protecting the ecological system, and equity in order to give access to adequate food for all social groups". Some argue that food security is a utopian concept (See Molnar [56]); it reflects an ideal or value-laden state of well being unlikely ever to be fully attained. For many, food security is a moral imperative of the well-nourished (Lappe and Collins 1986 [46] and Aiken and LaFollette 1996 [1]). Implementing long-term policies engendering strong institutions, enhancing the widespread availability of sustainable livelihoods and instilling a capacity to withstand food shocks requires a high level of social organization. To achieve food security, markets have to work; property rights to (rural) land must be distributed among the population and policymakers must act also.

The definition used by the World Bank “access by all people at all times to sufficient food for an active healthy life” (WB report 1986) [98] does not mention sustainability. Sufficient and at all times means that the food security must be at least sustainable. A household can not
be food secure if it has to use its endowment of resources to stay food secure. If a depletion of the non-labor resources takes place, the household is not food secure. Maxwell and Wiebe [55] introduce the term vulnerability here. Vulnerability is the level of ability to cope with exposures to shocks in food access. Exposures as a result of predictable seasonable influences (a dry season for example each year leaving people hungry for a period of time), or chronic circumstances and during a period of civic unrest or war.

2.3.2 ACCESS, AVAILABILITY, AND UTILIZATION OF FOOD

Through the 1970's food insecurity was used to increase food production or food availability, often at the national or global level. The work of Sen [73] draws attention to the critical access to food, particularly at the individual and household level, as distinct from food availability. Later a crucial third component was recognized: individuals' ability to utilize the food to which they had access. Hence food availability, access, and utilization are the three general components usually mentioned in definitions of food security today. The World Bank, the Food and Agriculture Organization (FAO) of the United Nations and the U.S. Agency for International Development (US-AID) all define food security as access by all people at all times to sufficient food to meet dietary needs for a productive and healthy life (USAID 1992, p. 1). This definition does not recognize the two other important determinants of food security - availability and utilization. As far as availability is concerned, the problem has been almost solved according to a table provided by FAO in 1996 [29].

<table>
<thead>
<tr>
<th>Output in calories per day</th>
<th>Actual output</th>
<th>Actual output</th>
<th>Projected output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed countries</td>
<td>3190</td>
<td>3320</td>
<td>3390</td>
</tr>
<tr>
<td>Developing countries</td>
<td>2140</td>
<td>2520</td>
<td>2770</td>
</tr>
<tr>
<td>The World</td>
<td>2440</td>
<td>2720</td>
<td>2900</td>
</tr>
</tbody>
</table>

The average supply of dietary energy seems to be sufficient and this makes availability of sufficient food not an overriding constraint anymore. Despite the world food supplies being more than adequate per capita as an average to provide food security for all, altruism is not widespread enough to enable sufficient transfers of food over the globe. Access to food meaning the ability to acquire available food from earnings and transfers, is the major constraint to food security. For most people living in the rural areas of a great number of countries, food availability is closely linked to buying power. Food consumers outnumber food producers in every country. Some researchers argue that raising prices of food for whatever reason will first reach the food producers and might even result in increasing food insecurity for the majority of the consumers. However, eventually higher prices will stimulate production and thus benefit everyone in the longer term. The opposite is even more true, lowering food prices will in the short run benefit all consumers, but will eventually lead to diminishing production and increasing food insecurity. I could observe a grim example of that in the 80s in Burkina Faso where grain – a gift from the people of the US, as was clearly marked in English on the bags – was sold at the market in French speaking Ouagadougou. The influx of relatively cheap grain on the market resulted in lower prices for the domestically produced rice, and several domestic producers changed to the
more favorably priced cotton instead of food crops. The predictable - but never intended - result was a decrease in domestic food production and an increase in food insecurity that could only be alleviated by additional import of food products in the coming years. The third critical element in food security is utilization. If people do not or can not utilize food properly, access to sufficient food will not alleviate their food insecurity. This is for example the case when food can not be prepared properly (lack of heating sources), when their only source of water causes intestinal parasites because it is unsanitary water or when they suffer from eating disorders (foreign imported food, or too one-sided diets).

2.3.3 FOOD SECURITY AND LAND REFORM

One of the ways to combat food insecurity is by land or agrarian reform. Land reform research shows that the battle against poverty and the evolution of economic development in developing countries can be more effectively won with equal distribution of assets, than with more equal income distribution. Equal income distribution by means of social safety nets or redistribution of income by taxes generally has short term and not long lasting effects for the poorer segments of the population. Besides, it is costly to implement a properly functioning social security system or an income correcting tax system in developing countries, it is also difficult to maintain and to keep it corruption free. In an analysis by Deininger and Squire [20] (p. 38 - 41)(1997) almost no association between income inequality and economic growth was found. They note that "even when income inequality has worsened, its negative effect on the poor has been more than outweighed by the positive effect of growth".

Land is the most fundamental resource for agricultural production and many governments of prosperous countries have sought an involvement in increasing agricultural production in developing countries. For this reason, land reform has been promoted by international development agencies the world over. Change of patterns of land tenure has been the starting point for programs aimed at improvement of agricultural production. But there is a danger here. Land reform should not be an isolated activity to combat food insecurity. By emphasizing increase of agricultural production assuming that this will result in increased food consumption will most likely provide disappointing results. Improving (rural) livelihood and the research on the relationship between food production and food consumption in the specific regional circumstances must be a part of national food policies.

Barraclough [2] (p. 130) notes that in countries where rural poverty is widespread and closely associated with power of a land owning class: "Land reform becomes the only option for improving rural livelihoods rapidly and substantially". A review of land reform experiences by the author does suggest several tentative conclusions concerning land reform's suitability as a political instrument to alleviate food insecurity. It has been highly effective in some situations and much less so in others. Broader socio-economic and political processes determine the success of implementing land reform, because it directly challenges established class relations. The greatest contribution of land reform according to Barraclough has often not been economic but social and political. Nevertheless, where land reform has been implemented, it almost invariably improved access to food although the longer-term production and distributive impact of land reform is difficult to untangle from the broader process of which land reform is only a part.

The World Food Summit in Rome in 1996 made access to sufficient and adequate food a human right of everyone. This makes food security a legitimate national concern for all
countries. A predictable and stable trading system should be a central element in global and national food security. Some countries suffer from high national production costs of food. Under ordinary circumstances it would have been most cost efficient to rely entirely on the world market in order to provide food for the population of these countries. Based on historic experience and due to the uncertainty associated with future international supplies and prices, national production policies will always be a central element in national food security policy. But as a difficult supply situation might be long-term, a national stocking in high cost countries can only partly compensate for such a risk. The risk of a rupture in supplies as a result of war or insurgency or a crisis in peacetime (ecological disasters, diseases in plants and animals, radioactive fallout) can cause substantial changes in international demand and supply. Even if these risks are small, policies to secure food supply could be seen as insurance, and the public costs of higher national production are a function of the population’s risk aversion and its willingness to pay for “the insurance”.

2.3.4 PROSPERITY FOCUS AND FOOD SECURITY FOCUS IN LAND REFORM
When the goal of land reform is primarily to bring about a development of the land market to stimulate economic and prosperity development, such a land reform can be categorized as a land reform aimed at prosperity. As a result of national revolutions driven by populist forces other land reforms were initiated as a response by the government to ensure food production and to avoid food insecurity. In this type of land reform alleviating food insecurity is the main aim, often combined with the goal to improve rural living standards. Countries in transition do primarily seek economic development because of disappointing results of the communist doctrine in society. Nevertheless, it seems that in several countries in transition improvement in food production is at least as important. The availability of sufficient domestically produced food is a matter of national independence and a safeguard against food insecurity among the population. It is generally difficult to find a clearly documented motive for land reform in donor assisted projects, which only makes the consulting in projects more difficult. While building the model I will initially use the two separate goals. The final model will combine both paradigms into one, in which the elements may have slightly different accents, but also show remarkable similarities.

2.4 NON-EVOLUTIONARY CHANGE

2.4.1 INSTITUTIONS
Institutions are the established rules and customary relationships of a social organization, as a set of constraints they govern the behavioral relations among individuals or groups. Changing institutions means changing the social organization. Several reasons will be mentioned in the research as to why governments embarked on such an adventure, in particular in countries in transition and focusing on Kyrgyzstan. It is important however to keep in mind that intervention in the society does not deliver quick results. It takes almost a generation to build up a farm; it takes a generation to see the results of land reform, in addition to what it takes to restructure a society. In this research I will not be able to answer the question what is the most appropriate institution to combat food insecurity. Nor will I be able to formulate the best institutional arrangement to guarantee land tenure security. Should land be privately, cooperatively, or state owned? Should agricultural production and, in particular food production be organized in private farms, cooperatives or collectives? Is a
market economy the best way to improve economic development or must central planning be applied in famine prone regions? I am convinced that only dogmatic answers exist and no straightforward pragmatic solution can ever be offered. Nevertheless it is worth a try. Natural resources should not lay wasted and should not be insufficiently used. It is hard to accept that some of the world population lives with food shortages and threat of famines. The result of research on land reform and food production is that achievement of food security requires social transformations. It is interesting to speculate about a utopian model and by studying it, steps that can be taken towards this utopian concept might be disclosed. My research starts with institutional change. Change of rules and non-evolutionary change of customary relationships. Many governments have followed this path.

2.4.2 LAND REGISTRATION
Changing legislation to introduce western style land tenure will encounter the question of land registration and land titling. Land registration is the official recording of legally recognized interests in land and is usually part of a cadastral system. Knowledge and public record of land tenure in several modern societies is relatively simple because of the recording of the tenure in registers. The situation becomes more complicated where individual rights to land are rooted in local customs or in customary rules. Local customs are generally not documented and are known to inhabitants of a certain region or village. There are many customs governing the use and the access to land and these customs certainly do not always easily translate into Western concepts of legislation or even in the conceptual interpretative frame of Western experts and advisors. Nevertheless these rights are respected and are of great importance for local communities and indigenous people. Their non-perceptibility for the non-trained Western mind, make them easily overlooked in the process of drawing new "Western style" legislation, leaving indigenous people with uncertainty about their rights causing insecurity of tenure for them. (See on this subject Von Benda-Beckmann [3] and [5], Carter [13], Doolittle [26], Hoekema [40], Lastarria [47], Lynch et al [53], Platteau [65], Tshuma [90], Wheeler [97] and many others) Platteau [66] suggests that a change in land tenure might be pursued because there is a doctrine of a misfit between embodied tenure systems and the requirement of agricultural production. If this argument is followed a drastic alteration of customary land rights under supervision of determined authorities is a viable option. But the World Bank endorses another – more dynamic - doctrine according to Platteau. It denies the empirical validity of this type of state intervention, but promotes a more or less autonomous evolution of indigenous land rights under pressures of market forces, with government guidance and support to formalize and consolidate the newly emerging land tenure system. One pre-condition Platteau finds, is that the state needs to implement a land registration and titling program without jeopardizing sufficient access to land for the mass of land tillers.

Western style registration requires clear described rights related to surveyed physical plots of land and distinguished from other plots of land to which different rights are attached. In modern societies the boundaries between real properties are recorded in Land Information Systems and Land Registration Systems. These are the institutions and the materialization of the political decisions on the very existence of invisible lines that form the boundary of real property ownership between two or more owners. Land Information Systems have to be set up to provide publicity of invisible lines, to mark them on maps and to describe the rights
that go with them in registers or documents. However, this does not imply that in several societies rights to land are respected and secured without any form of Land Information System or Land Registration System. Bruce Chatwin [16] gives in "The Song Lines" an account of the way Aborigines in Australia know the boundaries of their land with certain lines of ancestral songs.

2.4.3. LAND REGISTRATION AND LAND DATA
Because land tends to be forever, one can not hide, or as a rule, destroy it completely. Ownership of rights to land - when duly protected - can give mankind the feeling of long lasting security. This aspect requires careful managing in the administration of the plots of land the rights refer to. Although recorded on paper or in electronic files, the land should be directly related with the clods of earth of which it consists. An accurate survey of the land parcels by a professional surveyor, as part of the description in the records and reliable administration should give this guarantee. For a modern computerized land registration a primary condition is integrity of data. The earlier mentioned 'Who, What, How much, When, and Where' should translate into data that seamlessly provide answers to these questions without ambiguity and contradictions. Increasing use of computers for managing land related data makes it relatively easy to carry out cross checks on data on land. In several modern societies actual cross checks between different land registration systems are used as a means to maintain or restore the integrity of the data (see also 5.3). The requirement of integrity of land related data is not always understood well. In several Eastern European countries for example, under communist rule, land was treated as an area simply on paper. One piece of land could be exchanged for another, by writing only numbers in registers. The land record was not connected anymore with the clods of earth of which it originally consisted, thus creating invisible land. In many cases this practice becomes a source of conflicts and uncertainty when land is returned to original owners, or redistributed on the bases of the recorded size.

An account of this practice in Transylvania (a region in Central-Romania) can be found in "The elasticity of land" by Katherine Verdery [96] (p. 1083).

"In the village of Vlaicu one clerk was a notorious drunk and he could readily be persuaded for a bottle of brandy, to reduce the recorded size of one's holdings. The system used by the government was to set quotas to be produced and handed over to the state by farmers depending on the size of their farm, quotas whose magnitude increased exponentially with the size of the holding. Sizes of holdings were based on village registers (not on a Cadastre). Any holding thus dipped in brandy shrank, invalidating the area reported in the 1950s. (One farmer could show seven different recorded figures for the size of the farm, each figure responding to a particular need of the time, and each as the result of liberal applications of brandy). Such shrinkages have effects in the present, as owners of shrunken fields often find it difficult now to stretch them back out to their former dimensions. But this situation gives way for officials (as insiders) to use the remaining land for their own purposes."