

## **Famine and Markets in Nomadic Systems: Conceptual Approaches Reconsidered**

*Ulrike Schultz*

### **Abstract**

During the last decade, nomadic systems were put under pressure. Increasingly, they lost the ability to guarantee the sustainability of their economic and ecological resource base. Famine and sedentarization processes can be observed.

By analysing the causes for famine and marginalization, economic structures are put on the research agenda. But, there are still few studies in which markets and food distribution systems are seen as comprehensive institutions for the exchange of goods and services which are embedded into the social, economic, and cultural setting of the society. Therefore, the study focus on the historical genesis and the institutional background of marketing systems.

In the analysis of famine and food security, entitlement and vulnerability analysis replaced conventional production oriented approaches. Thereby, it is often overlooked that the individual entitlements depend on status and the intra-family distribution of income and resources.

This is particularly important for the Turkana, pastoral nomadic people in north-western Kenya. There, the livestock marketing system is connected with the moral economy. Therefore, the investigation into the functioning of their traditional institutions is most likely to give additional insight into the functioning of their survival strategies.

### **Introduction**

For almost two decades, the Turkana people have been affected by recurrent periods of drought leading to famine and massive livestock losses. Therefore, today, a growing part of the population depends on food relief and other development programs. In contrast to periods of drought in the past, nowadays, for an increasing number of Turkana, it is not possible to return to the traditional pastoral economy after drought and famine (Snow 1984, Odegi-Awuondo 1990). For them, famine is never ending and the former famine camp is now their permanent home. Furthermore, for the nomadic Turkana, food aid is an integral part of their coping strategies and is included in their decision making concerning migration patterns and the splitting of the family in different residential camps.

It has been noticed that the risk of famine has increased. Whereas former studies focus on the role of overgrazing and erosions in causing famine and poverty, today, the lack of security in

Turkana district and the missing income opportunities outside the livestock subsector are seen as the major causes of the current crisis (Swift 1979: 307; McCabe 1990; Schultz 1997).

Today, NGO's and other development agencies try to enable at least this part of the population who still live on the traditional livestock economy to rely on themselves and to prevent further marginalization. In this context, the promotion of livestock marketing is put on the development agenda in Turkana district. The hypothesis of the development agencies is that the lack of marketing opportunities and the weak position of the Turkana pastoralists in the national livestock market is the major hindrance of development (Snow 1984:159; NORAD 1989; Chabari 1994). Existing barter, depressed prices for Turkana livestock in Nairobi, insufficient market information, high transport costs and the insecurity of roads and livestock paths due to livestock raids are named as causes for the marketing problems.

Politicians and agricultural economists call for a better integration of nomads into the national market. However, it seems that, over centuries, the Turkana have succeeded in minimising the risks of livestock loss and famine without considerable trade or marketing by risk distribution and various diversification strategies (Hogg 1986; McCabe 1987, 1990). Moreover, the mentioned marketing studies overlook the importance of indigenous exchange systems, by which a large part of the Turkana herds is withdrawn from the market because they are required for bridewealth transactions and other indigenous institutions. Accordingly, the survival of Turkana people in times of crisis seems to depend not only on their market position but also on their embeddedness in traditional social networks.

With this study, I want to discuss whether and how far conceptional socio-economic frames are relevant for the analysis of such a complex system and the challenges it is confronted with. Beside conventional economic theories I will consult the anthropological and sociological literature on marketing systems and food security.

### **Marketing Systems in Economics and Economic Anthropology**

Up to today, the **neo-classical market** model, which focuses on individual utility maximising behaviour has dominated the analysis of marketing systems. There, the market is an atomistic construction of impersonal economic exchange that arises spontaneously from the interaction of self-seeking equal individuals (Stein 1995: 110, Harriss-White 1995: 87).

In empirical studies, this model of the market has been proven to be non-adequate (e.g., Mackintosh 1990; Bohle 1992; Harriss-White 1995, 1996). Especially in the analysis of rural agricultural markets it has been shown that real markets have little in common with this model and its independent and self-seeking individuals. Nevertheless, in studies of agricultural markets in developing countries, the orthodox market model still dominates the argumentation and research (e.g. Tilburg 1992, Tollens 1992, Aldermann 1993, Goletti, Babu 1994, Lutz, Tilburg, Kamp 1995).

Although since the 70ies, marketing theory increasingly refers to a system approach (e.g., Stasch 1972), empirical studies in which marketing systems are seen as an integral part of the "total system" are still missing.

In the 70ies, **the New Institutional Economics (NIE)** has made a step to improve the neo-classical market model. By a slight variation of the assumptional framework (e.g. imperfect information), a number of economists realized the importance of institutions (Terberger 1993: 22f). Problems of information, incentive and trust are put in the centre of analysis and the role of institutions in a society is seen as reducing transaction costs and information costs by specifying property rights and reducing uncertainty in the prevalence of „bounded“ rationality, opportunistic behaviour and ecological and biological constraints (North 1990: 3ff, 6).

Although the NIE puts institutions in the centre of market analysis, it does not distinguish itself fundamentally from the neo-classical theory because the perfect competitive market remains to be the reference point. NIE remains narrowly connected to the „rational choice theory“ (Stein 1995: 109) and institutions serve mainly the reduction of transaction costs (e.g. Williamson 1975, North 1990).

Only in the recent discussion about the functioning of markets, are institutions seen as a necessary and inherent part of the market. Furthermore, the market is embedded in the society and is part of its values and norms (Etzioni 1988, Harriss-White 1996: 25). Thereby, **“real” markets** ought to be the starting point of analysis (Mackintosh 1990: 46f. Bohle 1992: 129, Harriss-White 1995, 1996). “Real“ markets (“the phrase refers to the wide range of different ways of buying and selling“, Mackintosh 1990: 47) have different institutional, economic and social backgrounds. They function under conditions of limited information and help to create social classes, power relations and complex patterns of needs and responses (Mackintosh 1990: 47). It is assumed that resource appropriation via the market is far more complex than a mere redistribution resulting from buying and selling (Harriss-White 1995: 93) and that it is both influenced by interlocked markets (Ellis 1988; Harris-White 1995:93) and by social and political institutions.

The concept of “real“ markets does not aim to distinguish the market from other processes of social and economic exchange. This topic is discussed in great detail in economic anthropology. Starting from Polanyi’s classification of exchange relations in redistribution, reciprocity and market exchange (Polanyi 1978, 1979), the **substantivist school** in economic anthropology (Bohannan 1955; Bohannan, Dalton 1962; Dalton 1967, 1971; Sahlins 1972) assigns the different modes of transactions to specific social systems and stages of development. Whereas in traditional subsistence economies, reciprocity and redistribution dominates, market behaviour is the transaction mode in industrial economies. This was criticised by a number of anthropologist who were influenced by the neo-classical theory. The **formalist school** in economic anthropology argues that use-maximising behaviour is universal. Therefore, it is assumed that the neo-classical approach can also explain economic behaviour and economic structures in traditional societies (e.g. Schneider 1974).

The polarisation between formalist and substantivist school in economics was, however, described as fruitless (Plattner 1989; Davis 1992). The dichotomy of reciprocity and market by Polanyi and its assignment to “non-market systems“ respective market systems is rejected. It is emphasised that reciprocal relationships are also crucial for survival in industrial societies and that even the highly competitive capitalistic market is always embedded in the society (jurisdiction, moral economy) (Elwert 1987; Plattner 1989: 210). At the same time, market relations are historically found not only in western capitalist societies; they also play an important role in exchange relations of pre-capitalist societies.

However, Polanyi's contribution is to have clarified that market exchange as a rather "unnatural human activity that requires certain exogenous conditions" (Schrader 1994: 30). Moreover, the substantivist introduction of institutions such as redistribution and reciprocity was, as Plattner puts it, a healthy stimulus to analyse the functioning of indigenous economic systems (Plattner 1989: 15).

As the quintessence of the debate remains it is difficult to distinguish market exchange from other forms of exchange and redistribution. At the same time, it does not make sense to cover all material and social processes of exchange under one roof. Up to today, a theory of exchange, that is based on the substantivist inspiration but avoids its weakness, is still lacking (Schrader 1994: 32). Nitsch claims for a methodological synthesis of NIE and Marxist Political Economy. The main economic and social structures of society should be analysed by a Marxist class analysis whereas the analysis of details such as institutions and the structures of incentives should be carried out by the analytical framework of NIE (Nitsch 1989: 45). Moreover, it is called for market studies that include the historical genesis and the institutional background of markets and indigenous exchange networks (Guyer 1987: 10f; Ensminger 1992; Schrader 1994; Harriss-White 1996). Therefore, economic systems have to be considered and analysed as an integral part of the society. This is difficult to achieve because a mixture of methods and methodologies have to be applied which can only be done by an interdisciplinary research setting.

### The Concept of Famine

Academic approaches to explain famine were based on the Malthusian concept for a long time. It states that famine is caused by a shortage of food and is manifested by mass starvation (de Waal 1989: 10ff). This equation of famine with food shortage caused by drought or other natural disasters was criticized in the late 70ies by Sen's entitlement theory (Sen 1980: 613, 1981: 1f). Sen's criticism of the FAD (Food Availability Decline Approach) and his emphasis on the distribution system was taken over by a series of studies on famine and food security (Watts 1983; Ravallion 1987; D'Souza 1988; Kumar 1990: 171). Sen rejected the Malthusian notion that a famine is solely caused by the decline of food supply. For Sen the **distribution** of food is a central issue in famine causation (Sen, 1981: 1f). However, Sen indicates as one criteria for the prevalence of famine an increase of mortality (Sen 1981). This coincidence of "famine" and "starvation" is still common in the perception of famine. It implies the passive endurance of the victims (de Waal 1989). In this notion, famine is an individual biological crisis and not a social phenomenon. De Waal emphasises that indigenous concepts of famine do not necessarily include starvation. For the people from Darfur, West Sudan for example, there are "famines that kill" and others which do not bring death and starvation (de Waal 1989). Indigenous concepts characterize famine by very different indicators.

For the population, famine is a collective experience which poses a threat not only to their lives, but also to their livelihood (Macrae, Zwi 1994: 7). Consequently, de Waal notes that for the population of famine stricken regions it is not the hunger but the threat of becoming destitute that is central for the perception of the crisis. People see famine primarily not as a threat to their lives but as a threat to their way of life (de Waal 1989: 141). Moreover, indigenous concepts of famine concentrate on the ability to keep to beliefs and values in times of crisis and scarcity.

People act in order to be able to go back to the usual way of life after famine ends (de Waal 1989: 7ff; Spittler 1989: 35). Peasants endure hunger in order to be able to cultivate their land after the famine is over; and pastoralists suffer because they try to get their livestock through the drought.

Accordingly, a system of coping strategies can be observed. Whereas in the beginning of a famine, savings are dissolved and income sources are diversified, at the end of the famine, there is often no choice but to sell the productive capital (Dirks 1980; Mc Cann 1987: 264; Corbett 1988).

Furthermore, if the productive capital is sold, the people have often no choice but to leave their homes and migrate to towns and hunger camps. The nature of famine changes dramatically, if coping strategies fail that aim to secure the productive capital and endowments (Spittler 1989: 22f; Macrae, Zwi 1994: 8). For de Waal (1989), efforts to define famine as a distinctive concept have failed. Famine is hardly a technical problem but a human experience, which can only be understood if indigenous concepts of famine are integrated in the analysis.

### **Market Integration and Famine**

In agricultural economics, markets are assessed by their efficiency and competitiveness. Efficient markets are supposed to secure food provision and famine is explained by market failure. A widely used method in this field of economics is the concept of spatial market integration. It is assumed that fully integrated markets behave in such a way that imbalance of food supply in a country can be avoided and food security guaranteed. Usually the concept of market integration is confined to the analysis of price integration which refers to the movement of prices of spatially separated markets. However, the similar movement of prices is not always due to the occurrence of market integration. Similarities of price movements can have different reasons and are not always due to price arbitrage. Due to seasonalities or national trends, markets can show the same shape of price movements over time without being integrated at all (Harriss 1979: 202). Especially in the field of food analysis, the measurement of market integration is widely used and can influence the implemented policies like the degree of governmental interference or the implementation of famine relief measures. Market integration studies are supposed to answer the question whether food aid is necessary or whether the market can bring about the necessary adjustment at the right time (Ravaillon 1987; Wyeth 1994). In Early Warning Systems, via price integration studies, vulnerable regions can be identified. Integration is considered to be positive and the fragmentation of agricultural markets is seen as one of the major causes of famine and food shortages. Other studies, which integrate sociological and anthropological material in their analysis, contradict this view by observing in various field studies that desintegration can create niches for the poor part of the population. At the same time, a desintegration of regional markets from the national market can integrate local markets and guarantee an efficient food supply (de Waal 1989). Classic evolutionary theories assume that economic development leads to economic integration and that this integration process is irreversible (Schrader 1994: 40). It is seen as a continuing process to further integration in markets and the national economy. In contrast, the population of many African countries is confronted with a permanent interplay of integration and desintegration, regulation and liberalisation. Therefore, local production has not only to adapt to the variable climatic and ecological condition but also to volatility of the economic system. However, the local people seem to be more adaptable than national and international

policies. Often it is the people that migrate to the markets and not the food that is transferred to the people. Although, mass migration leads to hunger, social disruption and the spreading of diseases, it is not included in the economic analyses of the efficiency of market integration and the analysis of food security.

### Entitlement Analysis

Another point of view is taken by the scholars of the entitlement theory. Without explicitly criticising market integration studies, this theory states that the entitlements of different population groups and not just the national aggregate production output are the crucial factors in determining food security (Sen 1980: 615, 1981: 2f, 1990: 37; Ghose 1982: 368, Desai 1988: 109; Drèze, Sen 1989: 21).

The entitlements of the people are determined by the original bundle of ownership (**endowments**) and the alternative bundles he or she can acquire by using trade and production (**exchange entitlements**) (Sen, 1980, 1981). The entitlements of the people are influenced by the distribution of incomes and productive assets, social obligations and the relative prices of the goods supplied and goods demanded.

The entitlement theory refers to the risks and uncertainties of the market system by pointing to the different factors that determine the prices of various goods and services. For example, the food prices can be influenced by national demand, whereas cash crop prices are determined by international markets and finally, the wages are fixed by local convention (Ghose 1982: 371). Famine can be caused by the market mechanism and even functioning food markets can lead to distress, if an increase in the food demanded from one part of the population is not accompanied by an increase of income from another part.

However, the entitlement theory neglects the institutional context of food production and distribution. The position of the individual in the food system and the influence of local authorities are ignored whereas the importance of national and international factors is overestimated. Thus, processes of differentiation on the local level are overseen. Accordingly, Sobhan argues that the entitlements are not only determined by means of production and terms of markets but also by the political power and status of the household (Sobhan 1990: 80).

Furthermore, the entitlement theory neglects the intra-family distribution of food and the access of the individual family members to prepared food. Although, Drèze, Sen (1989) try to overcome this limitation of their theory by including social norms and legal claims through the notion of “extended entitlements“, this concept is mainly limited to the exchange relation of the family to the outside. Accordingly, Sen demands to apply the entitlement theory to the intra-family distribution of food (Sen 1990: 41). Curtis tries to come up to this demand with the **concept of social entitlements** (Curtis 1988: 197). However, empirical studies, that are based on this concept, are still lacking.

Another weak point of the entitlement theory is the assumption that the vast majority of the people depend on market income. However, in times of drought and famine, a revival of subsistence production can be observed, if the market income drops under a certain level and if the food that is bought on the market is not sufficient to feed the family. Food, like berries and grass, which are not edible in good times, are then consumed.

Therefore, in my view, the entitlement theory can only fulfil its claim to include all entitlements and endowments that play a role in food security by examining the totality of the food system thus as markets, subsistence production and traditional exchange networks.

### Vulnerability Analysis

With the entitlement theory the notion of vulnerability became a central issue in social science. The most vulnerable groups are those who only dispose of small endowments and whose access to food depends on the exchange of non-food goods and services. (Sen 1981; Desai 1988). Moreover, entitlement theory concludes that the way of **asset keeping** as well as the **insurance** and **storage patterns** are crucial variables in the analysis of vulnerability (Harriss-White 1992: 156).

In order to include all processes that determine food security and food consumption, a group of social scientists developed a broader concept of vulnerability, and called it **empowerment approach**. Whereas the entitlement theory identifies vulnerable groups on the basis of the distribution of scarce resources, the terms of trade of the produced and demanded goods and the distribution of incomes, the empowerment approach includes the available coping strategies such as mutual aid, patterns diversification, patron client relationships or “fall back“ activities (e.g. gathering and hunting) in the analysis. Therefore, vulnerability is determined on one hand by the probability of food shortage but also, on the other hand, by the available coping strategies (Chambers 1989, Lachenmann 1990; Bohle 1992). Increasing food insecurity is therefore explained by a diminishing scope of action<sup>61</sup> of affected population groups (Lachenmann 1983; Macrae, Zwi 1994: 7; Lachenmann 1990).

Bohle emphasises that in this context market integration is ambivalent. On the one hand, market integration has diminished the vulnerability of rural producers to local production failure. On the other hand it has also increased dependence on very complex exchange mechanisms (Bohle 1992: 128). It is emphasised that a **partial market integration** of rural producers has widened the opportunities of access to food but that the successful use of these opportunities depends on conditions (non-agricultural income sources, low prices for staples) which are presently not fulfilled in most African countries (Rauch, Haas, Lohnert 1996: 52). Predominately vulnerability analyses based on the empowerment approach conclude that the vast majority of petty traders (Lorenzl 1986) and consumers enter the market under conditions that make them more vulnerable for famine and poverty (Mackintosh 1990: 43). The people are not only poor but they are also left with less security, possessing neither bargaining nor political power and also become the marginalized part of a exploitative food systems (Bohle 1992: 135).

### Gender and Famine

Moreover, during a famine social roles are disputed. The market becomes the scene of social change. When markets gain more importance in securing the family's food needs the internal power structure and decision-making within the family is modified. A number of case studies emphasise that women are especially vulnerable in this process of social change. Others imply

---

<sup>61</sup> The scope of action of the people is not only determined by their access to resources and the "entitlements" in a narrow economic sense but also by the norms, the knowledge, the abilities and the social institutions in which they act (Lachenmann 1992).

that the outcome of this process is open. Women can be the winners if they succeed in transforming traditional usufructary rights into disposal rights. However, they are often the losers because it is mostly the men who appropriate the resources and rights of the women through the market mechanism (Lachenmann 1983; Watson 1988; Dahl 1987; Talle 1987; Broch-Due 1990). Frequently, processes of differentiation can be observed. Some women succeed in widening their scope of action by earning money outside the traditional family whereas others lose their influence and bargaining power within the family (Schultz, Scholz 1994; Francis 1995; Lachenmann 1996: 240f; Lachenmann 1997: 34f.). Lachenmann notes that, although today, African women depend less on patriarchal rules and norms, they have lost in scope of action because traditional women's spaces and spheres of influence are destroyed by market expansion and economic policies (Lachenmann 1996). Recent studies focus in this context on increasing conflicts within the family. Gender roles are disputed in times of social and economic change (Whitehead 1990: 57; Holmboe, Wandel 1991). Thereby, it must be considered that not only the access to resources but also the bargaining power of women in the family which is partly determined by cultural, religious and social norms and the rules of the moral economy influences the scope of action and the vulnerability of women in periods of famine.

There is lack of knowledge and research concerning these issues. The question remains whether the scope of action of women within the family is underestimated and if women can use the niches and options of markets and traditional exchange networks in their own interests. In addition, the question arises whether women can compensate their disadvantages concerning their access to resources through their responsibilities concerning the distribution and preparation of food within the household.

### **Livestock Markets and Traditional Exchange Networks**

The "entitlement-theory" concludes that pastoralists are especially vulnerable in a food crisis (Sen 1981). This is caused on one hand by a general marginalization of pastoralist people due to the worsening conditions of their natural environment through the expansion of commercial ranching and acquisition of land through agricultural tribes. But on the other hand, a dramatic deterioration of the exchange entitlements for the pastoralists during a crisis can be observed.

Livestock serves as insurance for many people in African societies, farmers and pastoralists, and it is sold in times of need at the market. Moreover, during a famine livestock keepers can not support their animals with sufficient food. They are forced to sell them on the market before their livestock die of hunger and thirst. At the same time, the demand of grain increases because milk production is reduced to a minimum. Therefore, the loss of animals due to drought and disease is accompanied by a dramatic fall of livestock prices. When the drought is over, livestock prices will rise again and it will be difficult for the pastoralists to restock their herds (Toulmin 1988: 172; Watts 1983: 212, Kumar 1990: 187; Ibrahim 1991: 194).

The entitlement theory and studies focusing on livestock marketing often underestimate the scope of action of the affected people. They also overlook that many pastoral societies like the Turkana live exclusively from livestock products and wild plants. De Waal emphasises that the people will suffer hunger and deprivation in order to support their animals during a famine (de Waal 1989). They use „fall back activities“ as the gathering of wild fruits and the hunting of wild animals. Individual members of the family migrate to towns, others try to earn income

outside the pastoral economy. The pastoralists remain with more coping strategies than that of the livestock market focusing studies imply (Spittler 1989).

In contrast, the anthropological part of nomadic research emphasises the risk minimizing strategies of traditional pastoral systems (Dahl, Hjort 1976; Galaty 1981). A pastoralists family minimizes the risk of loosing its livestock by diversification, risk variation, mobility, “overaccumulation“ and an extensive social network. However, these authors stress that the restriction of mobility and the increasing commercialisation of livestock keeping, leads to a limited scope of action and the destruction of traditional exchange networks. Thereby, the market plays a crucial role: diversification strategies become obsolete and mutual aid networks are undermined if a substantial part of the livestock is not exchanged by reciprocal but by market mechanism (Swift 1979; Behnke 1984). Moreover, it is observed that commercialization of the pastoral economy has dismantled the “Commons“. Thus, Ensminger reports from the Orma, pastoral people in Northern Kenya, that although, in former times, a “Tragedy of the Commons“ (Hardin 1968) was prevented by a set of rules like the rotation of grazing. Today the anticipated “Tragedy“ becomes reality because of an increasing market integration of the pastoral economy (Ensminger 1992).

At the same time, it is referred to differentiation processes. On one hand, traditional livestock keepers are driven out of the livestock subsector by farmers and urban investors (Little 1985; Lachenmann 1990). On the other hand, recent studies make clear that traditional pastoral economies have become more stratified (Galaty 1981; Hogg 1986; Horowitz, Little 1987; Ensminger 1992). Thereby, the price mechanism leads to a further differentiation of incomes and assets. Whereas the poor pastoralists have to sell their livestock during the crises and have to restock at the end of the famine at the now rising prices, the more prosperous pastoralists can keep their animals during the crisis by buying fodder, buy additional animals and sell them at the end of the crisis at a higher price.

In contrast, the traditional pastoral economy is described as egalitarian. Emerging wealth differences are said to be only temporary because of the traditional redistribution systems (Dahl, Hjort 1976; Salzman 1980; Dahl 1981). Rich pastoralists are forced to support their poor friends and neighbours. At the end of crisis, the traditional social relations are reinforced to restock the herds. Spittler denotes this as the crucial difference between market and moral economy. Whereas within the market economy a famine leads to further differentiation of incomes and assets, the moral economy equalizes the society (Spittler 1989).

Mostly, the mentioned studies assume dichotomies. Market and subsistence production, market and moral economy, commercial livestock production and traditional exchange networks are seen as excluding concepts of social organisation. Whereas one part of studies claims for the destruction of traditional subsistence production, the other part of nomadic research focus exclusively on the market behaviour of pastoralists without considering that market behaviour is embedded in the traditional obligations and relations of the society.

### **Marketing and Food Security Systems in Turkana**

Anthropological studies ignore the marketing of livestock in their analysis of the Turkana society. Indigenous exchange systems are described as if they function independent of national livestock marketing and the increasing money demand of the pastoral Turkana (Gulliver 1955; McCabe 1987, 1990; Müller 1989).

Some authors emphasise that market integration and monetisation has lead to a differentiation within Turkana society (Hogg 1986; Storas 1990; Broech-Due 1990), whereas others stress the continuing existence of indigenous networks and mutual aid (Wienpahl 1984). In this context, McCabe refers to regional differences. Whereas, in the north of the Turkana, traditional exchange networks fall apart, in the south, recovery periods can be observed. After the end of the drought, the people can return to the nomadic areas and continue their usual way of life (McCabe 1990).

It is agreed that some Turkana dispose of extended power through political alliances and offices and they accumulated a substantial livestock property. It has to be examined to what extent they use their property to achieve a strong market position or whether they still transfer their wealth in traditional networks and status.

Furthermore, with the increasing marketing of livestock the traditional gender specialized division of work and resources is challenged. Gender roles are negotiated. Wienpahl emphasises in a qualitative study of three Turkana households that predominantly women dispose of the money the men earn at the market by selling the livestock of the family (Wienpahl 1984). However, it remains unsolved whether in times of drought and hunger a conflicting interest of men and women exists. It is assumed that under market integration reciprocity is less obligatory and mutual aid disappears. Schultz notes the questioning of traditional reciprocity in town but at the same time she observes the reinforcing of traditional obligations by formalizing and institutionalizing them (Schultz 1996a). She emphasizes furthermore, that although Turkana women in town adapt to money and market quite differently, the metaphor of "bad money" dominates the description of all women (Schultz 1996b). The questions remains whether this development towards formalization and individualization is restricted to towns and settlements or whether a similar development can be observed in the nomadic areas.

Moreover, men and women are differently affected by famine and livestock losses. Whereas women tend to migrate to towns and settlements within the district in order to complement the income of the family, men stay in the nomadic areas to care for the remaining livestock and try to restock the herd after the drought ends (Schultz 1996a). However, detailed research in the vulnerability of men and women in times of drought, their access to food and health services under famine conditions are still missing.

Therefore, a study about the functioning of markets and traditional exchange networks in times of famine seems to be necessary. It could supplement orthodox marketing studies and contribute to the understanding of the functioning of imperfect "real" markets. Thereby, the complex institutional setting of food production, distribution and consumption, its contribution to food security and the observed processes of change and differentiation should be analysed.

Thereby, a system approach can be helpful. Knowing that market and moral economy influence each other, in a comprehensive investigation in livestock transactions via network analysis, the interplay of marketing and traditional exchange and the underlying rationalities should be made more transparent.

Beside the economic analysis of income, prices and quantities, the Turkana notions of famine, starvation, scarcity and security and the underlying interpretation of social and economic

changes should be examined and compared with concepts of the international development and scientific community.

The indigenous categories, the entitlement and vulnerability analysis and the economy analysis of the livestock marketing system could help to clarify the causes of famine, the responses and the scope of actions of the people and could help to identify especially vulnerable population groups.

### References

- Aldermann, H., (1993) Intercommodity Price Transmittal: Analysis of Food Markets in Ghana. *Oxford Bulletin of Statistics* 55: 42-65
- Behnke, R. H. Jr., Fenced and Open-Range Ranching: The Commercialisation of Pastoral Land and Livestock in Africa. In: Evangelou, P.; Simpson, J.R. (eds.): *Livestock Development in sub-Saharan Africa*, Boulder: 261-284
- Bohannan, P., (1955) Some Principles of Exchange and Investment among the Tiv. *American Anthropologist* 57: 60-70
- Bohannan, P.; Dalton, G., (1962) Introduction. In: Bohannan, Paul; Dalton, George (eds.): *Markets in Africa*. Evanston: 1-26
- Bohle, H.G., (1992) „Real“ Markets and Food Security. With Evidence from Fish Marketing in South India. In: Cammann, Lüder (ed.): *Traditional Market Systems*. Feldafing: 128-138
- Broch-Due, V., (1990) „Livestock Speaks Louder than Sweet Words“: Changing Property and Gender Relations among the Turkana. In: Baxter, P.T.W.; Hogg, Richard (eds.): *Property, Poverty and People: Changing Rights in Property and Problems of Pastoral Development*. Manchester: 147-163
- Chabari, F., (1994) Livestock Marketing. In: GTZ/Ministry of Livestock Development and Marketing (eds.): *Range Management Handbook of Kenya*. Vol. II, 9:159-174
- Chambers, R., (1989) Vulnerability, Coping and Policy. *IDS Bulletin* 20, 2: 1-7
- Corbett, J., (1988) Famine and Household Coping Strategies. *World Development* 16, 9: 1099-1112
- Curtis, D.; Shepherd, A., (1988) *Preventing Famine: Policies and Prospects for Africa*. London, New York
- D'Souza, F., (1988) Famine: Social Security and an Analysis of Vulnerability. In: Harrison, G. Ainsworth (ed.): *Famine*. Oxford: 1-56
- Dahl, G., (1981) Production in Pastoral Societies. In: Galaty, John G. et al. (eds.): *The Future of Pastoral People - Research Priorities for the 1980's*. Ottawa
- Dahl, G., (1987) Women in Pastoral Production: Some Theoretical Notes on Roles and Resources. *Ethnos* 52, 1-2: 246-279
- Dahl, G.; Hjort, A., (1976) *Having Herds: Pastoral Herd Growth and Household Economy*. Stockholm
- Dalton, G., (1967) The Development of Subsistence and Peasant Economies in Africa. In: Dalton, George (ed.): *Tribal and Peasant Economies*. London: 155-170
- Dalton, G., (1971) Primitive, Archaic, and Modern Economics: Karl Polanyis Contribution to Economic Anthropology and Comparative Economy. In: Dalton, George (ed.): *Economic Anthropology and Development*. New York: 11-37
- Davis, J., (1992) *Exchange*. London
- De Waal, A., (1989) *Famine that Kills, Darfur, Sudan 1984-1985*. Oxford
- Desai, M., (1988) The Economics of Famine. In: Harrison, G. Ainsworth (ed.): *Famine*. Oxford: 107-137

- Dirks, R., (1980) Social Responses during Severe Food Shortages and Famine. *Current Anthropology* 21,1:21-44
- Drèze, J.; Sen, A., (1989) *Hunger and Public Action*. Oxford
- Elwert, G., (1987) Ausdehnung der Käuflichkeit und Entwicklung der Wirtschaft, Markt und Moralökonomie. In: Heinemann, Klaus (Hg): *Soziologie des wirtschaftlichen Handelns. Kölner Zeitschrift für Soziologie und Sozial-psychologie*, SH 28. Köln: 300-321
- Ellis, F., (1988) *Peasant Economics*. New York
- Ensminger, J., (1992) *Making a Market. The Institutional Transformation of an African Society*. Cambridge
- Etzioni, A., (1988) *The Moral Dimension: Towards a New Economics*. New York
- Francis, E., (1995) Migration and Changing Division of Labour: Gender Relations and Economic Change in Koguta, Western Kenya. *Africa* 65, 2: 196-216
- Galaty, J. G., (1981) Introduction. In: Galaty, John G.; Salzman, Philip C.(eds.): *Change and Development in Nomadic and Pastoral Societies*. Leiden: 1-25
- Ghose, A. K., (1982) Food Supply and Starvation: A Study of Famines with Reference to the Indian Sub-Continent. *Oxford Economic Papers* 34, 2: 368-389
- Goletti, F.; Babu, S., (1994) Market Liberalisation and Integration of Maize Markets in Malawi. *Agricultural Economics* 12: 311-324
- Gulliver, P. H., (1955) *Family Herds*. London
- Guyer, J., (ed.) (1987) *Feeding African Cities*. Manchester
- Hardin, G., (1968) The Tragedy of the Commons. *Science* 162: 1243-1248
- Harriss, B., (1979) There is Method in my Madness: Or is it vice versa? Measuring Agricultural Market Performance. *Food Research Studies* XVII, 2: 197-218
- Harriss-White, B., (1992) Order and Efficiency in Private Agricultural Markets: a Summary for DSE of the Experience of Regulation in four Indian States. In: Cammann; Lüder (ed.): *Traditional Market Systems*. Feldafing: 156-164
- Harriss-White, B., (1995) Maps and Landscapes of Grain Markets in South Asia. In: Harriss, John; Hunter, Janet; Lewis, Colin M. (eds.): *The New Institutional Economics and Third World Development*. London, New York: 87-108
- Harriss-White, B., (1996) *A Political Economy of Agricultural Markets in South India*. New Delhi
- Hogg, R., (1986) The New Pastoralism: Poverty and Dependency in Northern Kenya. *Africa* 56, 3: 319-333
- Holmboe-Ottesen, G.; Wandel, M., (1991) Gender and Food: Women's Bargaining Power and Agricultural Change in a Tanzanian Community. In: Stolen, Kristi Anne; Vaa, Mariken (eds.): *Gender and Change in Developing Countries*. London: 92-119
- Horowitz, M. M.; Little, P. D., (1987) African Pastoralism and Poverty: Some Implications for Drought and Famine. In: Glantz, M.H. (ed.): *Drought and Hunger in Africa, Denying Famine a Future*. Cambridge: 59-82
- Ibrahim, F. N.,(1991) The Exchange Rates of Livestock and Grain and their Role in Enhancing Vulnerability to Famine in the Semiarid Zone of the Sudan. In: Bohle, Hans-Georg; Terry, Canon; Graeme, Hugo; Ibrahim, Fouad N. (eds.): *Famine and Food Security in Africa and Asia*. Bayreuth: 185-199
- Kumar, B.G., (1990) Ethiopian Famines 1973-1985. In: Drèze, Jean; Sen, Amartya (eds.): *The Political Economy of Hunger. Vol. II. Famine Prevention*. Oxford: 173-216
- Lachenmann, G., (1983) Die Destabilisierung der ländlichen Produktions- und Sozialsysteme in Schwarzafrika. *Afrika Spektrum* 18, 1: 5-25
- Lachenmann, G., (1990) *Ökologische Krise und sozialer Wandel in afrikanischen Ländern*. Saarbrücken

- Lachenmann, G., (1992) „Grüner Wall gegen die Wüste“ oder ökologischer Diskurs im Sahel. In: Glaeser, Bernhard; Teherani-Krönner, Parto (Hg): *Humanökologie und Kulturökologie*. Opladen: 329-356
- Lachenmann, G., (1996) Transformationsprozesse in Westafrika - Widersprüche und Chancen für Frauenpolitik und Wandel der Geschlechterverhältnisse. *Asien, Afrika, Lateinamerika* 24: 231-251
- Lachenmann, G., (1997) Future Perspectives of Rural Women's Projects - Intervention, Interaction or Empowerment? In: Altmann, Uta; Teherani-Krönner, Parto (eds.): *What have Women's Projects Accomplished so far?* Berlin: 31-51
- Little, P., (1985) Absentee Herd Owners and Part-Time Pastoralists: The Political Economy of Resource Use in Northern Kenya. *Human Ecology* 15: 131-151
- Lutz, C.; Tilburg, A.; Kamp, B., (1995) The Process of Short- and Long Term Price Integration in the Benin Maize Market. *European Review of Agricultural Economics* 22: 191-212
- Mackintosh, M., (1990) Abstract Markets and Real Needs. In: Bernstein, Henry; Crow, Ben; Mackintosh, Maureen; Martin, Charlotte (eds.): *The Food Question: Profits versus People*. London: 43-53
- Macrae J.; Zwi, A., (1994) Famine, Complex Emergencies and Inter-national Policies in Africa. In: Macrae, Joanna; Zwi, Anthony (eds.): *War and Hunger*. London: S.6-36
- McCabe, T. J., (1987) Drought and Recovery: Livestock Dynamics among the Ngisonyoka Turkana of Kenya. *Human Ecology* 15: 371-389
- McCabe, T. J., (1990) Success and Failure - The Breakdown of Traditional Drought Coping Institutions among the Pastoral Turkana. *Journal of Asian and African Studies* XXV, 3 - 4: 147-160
- McCann, J., (1987) The Social Impact of Drought in Ethiopia: Oxen, Household, and Some Implications for Rehabilitation. In: Glantz, Michael .H. (ed.): *Drought and Hunger in Africa, Denying Famine a Future*. Cambridge: 245-267
- Müller, H., (1989) Changing Generations: Dynamics of Gene-ration and Age-Sets in South-eastern Sudan (Toposa) and North-western Kenya (Turkana). Saarbrücken
- Nitsch, M., (1989) Vom Nutzen des institutionalistischen Ansatzes für die Entwicklungsökonomie. In: Körner, H. (Hg): *Zur Analyse von Institutionen im Entwicklungsprozeß und in der internationalen Zusammenarbeit*. Berlin: 37-50
- NORAD (1989) Preliminary Study of the Livestock Sector - Turkana District. Lodwar
- North, D., (1990) Institutions, Institutional Change and Economic Performance. Cambridge
- Odegi-Awuondo, C., (1990) Life in the Balance - Ecological Sociology of Turkana Nomads. Nairobi
- Plattner, S., (1989) Economic Behaviour in Markets. In: Plattner, Stuart (ed.): *Economic Anthropology*. Stanford: 209-221
- Polanyi, K., (1978) *The Great Transformation*. Frankfurt
- Polanyi, K., (1979) *Ökonomie und Gesellschaft*. Frankfurt
- Rauch, T.; Haas, A.; Lohnert, B., (1996) Ernährungssicherheit in ländlichen Regionen des tropischen Afrikas zwischen Weltmarkt, nationaler Agrarpolitik und den Sicherungsstrategien der Landbevölkerung. *Peripherie* 63: 33-72
- Ravaillon, M., (1987) *Markets and Famines*. Oxford
- Sahlins, M., (1972) *Stone Age Economics*. London
- Salzman, P. C., (1980) Introduction: Process of Sedentarization as Adaptation and Response. In: Salzman, Philip Carl (ed.): *When Nomads Settle*. New York: 1-19
- Schneider, H., (1974) *Economic Man*. New York
- Schrader, H., (1994) The Discussion of Trade in Social Science. In: Evers, Hans-Dieter; Schrader, Heiko (eds.): *The Moral Economy of Trade*. London: 27-47
- Schultz, U., (1996a) *Nomadenfrauen in der Stadt*. Berlin

- Schultz, U., (1996b) Von gutem und schlechtem Geld - Geld-verwendung und -symbolik bei den Turkana. *Peripherie* 62: 72-94
- Schultz, U., (1997) Hungerkrisen in der Turkana: Handlungs-strategien im Spannungsfeld zwischen Sub-sistenzproduktion, Markt und Entwicklungs-politik. In: Peters, Kurt J. (Hg): Ressourcen-knappheit und Erhaltung der Lebensgrund-lage-die Herausforderung für die Zukunft. Berlin: 184-196
- Schultz, U.; Scholz, V., (1994) Wir wollen Turkanafrauen bleiben - Frauen im Prozeß der Verstärkung ostafrikanischer Viehnomaden. Münster
- Sen, A., (1980) Famines. *World Development* 8: 613-621
- Sen, A., (1981) Poverty and Famine. Oxford
- Sen, A., (1990) Food, Economics and Entitlements. In: Drèze, Jean; Sen, Amartyra (eds.): The Political Economy of Hunger. Vol. I. Entitlement and Well Being. Oxford: 34-52
- Snow, R. T., (1984) The Impact of Famine Relief: Unasked Questions in Africa. In: Currey, Bruce; Graene, Hugo (eds.): Famine. Dordrecht: 155-179
- Sobhan, R., (1990) The Politics of Hunger and Entitlement. In: Drèze, Jean; Sen, Amartyra (eds.): The Political Economy of Hunger. Vol. 1. Entitlement and Well-being. Oxford: 79-113
- Spittler, G., (1989) Handeln in einer Hungerkrise. Opladen
- Stasch, S. F., (1972) Systems Analysis for Marketing Planning and Control. Glenview, London
- Stein, H., (1995) Institutional Theories and Structural Adjustment in Africa. In: Harriss, John; Hunter, Janet; Lewis, Colin M. (eds.): The New Institutional Economics and Third World Development, London, New York: 109-132
- Storas, F., (1990) Intention of Implication - the Effects of Turkana Social Organisation and Ecological Balances. In: Baxter, P.T.W.; Hogg, Richard (eds.): Property, Poverty and People: Changing Rights in Property and Problems of Pastoral Development. Manchester: 137-145
- Swift, J., (1979) The Development of Livestock Trading in Nomad Pastoral Economy: the Somali Case. In: EEASP (ed.): Pastoral Production and Society. Cambridge: 447-466
- Talle, A., (1987) Women as Heads of Houses - The Organisation of Production and the Roles of Women among Pastoral Maasai in Kenya. *Ethnos* 52: 50-80
- Terberger, E., (1993) Neo-institutionalistische Ansätze. Frankfurt
- Tilburg, A., (1992) Competition at Rural and Urban Maize Markets in South Benin. In: Cammann, Lüder (ed.): Traditional Market Systems. Feldafing: 101-112
- Tollens, E., (1992) Cassava Marketing in Zaire - an Analysis of its Structure, Conduct and Performance. In: Cammann, Lüder (ed.): Traditional Market Systems. Feldafing: 113-127
- Toulmin, C., (1988) Livestock Policy in the Sahel: Why it Must Become More Drought Orientated. In: Curtis, Donald; Shepherd, Andrew: Preventing Famine: Policies and Prospectives for Africa. London: 171-177
- Watson, C., (1988) The Development Needs of Turkana Women. Nairobi
- Watts, M., (1983) Silent Violence. Berkeley
- Whitehead, A., (1990) Food Crisis and Gender Conflict in the African Countryside. In: Bernstein, Henry; Crow, Ben; Mackintosh, Maureen; Martin, Charlotte (eds.): The Food Question: Profits versus People. London: 54-68
- Wienpahl, J., (1984) Women's Roles in Livestock Production among the Turkana of Kenya. *Research in Economic Anthropology* 6: 193- 215
- Williamson, O. E., (1975) Markets and Hierarchies: Analysis and Antitrust Implications. New York
- Wyeth, J., (1992) The Measurement of Market Integration and Applications to Food Security Policies. Institute of Development Studies, DP 314