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Maize and malnutrition in Malawi

**A study of the socio-economic causes
of unbalanced food cropping in Dedza and Salima Districts**

**As commissioned by Gesellschaft für Internationale Zusammenarbeit (GIZ)
Giessen, September 2015**



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Photo: M. Fink

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We hope that the present study, in which we placed primary emphasis on the voices of Malawi women and men farmers, will provide new findings that will prove useful to the work of GIZ, as well as to that of other development agencies and State aid programmes.



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Table of Contents

5 Introduction

Terms of Reference for the study

Initial background situation and framework conditions of the study

Study Procedure

Summary of the results

14 Maize as staple food and as crisis crop

The current nutritional crisis in Malawi can only be understood retrospectively in terms of its historical, cultural and socio-economic background and preconditions. The retrospective shows that maize became staple food to traditional crop and finally a crisis crop. Optimised seed, combined with chemical fertilizer, promises higher yields on ever-shrinking fields. This is seen as advantageous, not least because of climate change. However, as a result of years of monocultures and chemical fertilisation, the system begins to falter: the soils are leached out, and poor harvests increase.

21 Cultural deforestation

In interviews, old and young women and men farmers deplore the loosening of social bonds. The decline of natural resources goes hand in hand with the erosion of village social structures. An example of this is the disappearance of the '*chidyerano*': the end of these village communal meals, which had persisted as late as the 1980s, fosters the end of food security and of nutritional variety.

27 Cultivation of food crops

Women and men farmers in Salima and Dedza Districts have largely abandoned their local seed varieties. They use certified, hybrid seed whenever they can afford it. Besides maize, several other field crops are cultivated, either for subsistence or for sale. Men and women usually decide jointly on the cultivation and sale of field crops. Several factors hinder a diversified cropping and a diversified nutrition, among them the widespread raising of goats (in Salima), the inadequate access to a diversified seed supply and to fertile land, as well as the theft of field and tree crops. The strong pressure from the monetarised economy forces the farmers of either gender to sell part of their harvest, which in turn detracts from a diversified diet.

34 Nutrition and food scarcity

The low yields force women and men farmers to bridge the gap between harvests by means of salaried work and small businesses. The food supplies are usually stretched by shrinking the daily meals, by supplementing the fine, highly processed maize flour (*woyera*) with whole-grain flour (*ngaiwa*), and by consuming flour made from maize husks (*madeya*). The daily nsima (maize porridge) is eaten with small portions of vegetables. Meat, fish or fruit are hardly available, as they must be bought. Normally, money is not even sufficient to pay for fertiliser, seed, school fees, trips to the hospital, clothing, the maize mill and for simple household goods such as salt, oil, lamp oil and soap. Hunger and the consequences of malnutrition are prevalent.

40 Nutritional knowledge

The interviews have shown that women and men farmers are aware of the importance of a balanced diet for one's health and of the significance of diversified food cropping for sound soils. To farmers of both genders, the focus on hybrid maize is, however, tantamount to food security (*"As long as you have maize in the house, you have food"*). They speak in equal measures with approval and skepticism of modern, diversity-orientated dietary concepts as promoted by the NGOs and by the state Nutrition Officer. Hunger and malnutrition are also reflected in local practices, such as *gule wamkulu* and *namkhungwe*.

48 Conclusions

Climate change, pressure from the monetised economy, population growth and the degradation of natural resources are threatening to have dramatic consequences for Malawians' future. Many rural inhabitants – young and old, men and women – have already packed to escape, and would rather leave for the city today than tomorrow. They perceive their existence as hopeless. At the same time, they have very concrete visions of what they need in order to survive in the future as subsistence farmers.

51 List of interviews

56 Bibliography

Introduction

Terms of Reference (TOR) for the study

The present consultants' report is the result of a qualitative investigation of the socio-economic causes of the unbalanced food cropping in the Districts of Dedza and Salima. The report was commissioned by Gesellschaft für Internationale Zusammenarbeit (GIZ) with the objective of gaining qualitative insights into the farming and nutritional situation of smallholder farmers of either gender in the two Districts mentioned. The study took place as part of the lead-up to a GIZ Programme of Nutritional Diversification, which is implemented in selected Traditional Authorities (TAs) of both Districts in the context of the country package for Malawi. The Programme is part of the BMZ's (Federal Ministry of Cooperation) Special Initiative "A World without Hunger" (SEWOH), and addresses Action Area 1, the target group of which is nutritionally vulnerable persons (especially women of reproductive age, as well as nursing babies and small children).

In Malawi, 42.4% of children under the age of 5 are considered malnourished. Experts estimate that malnutrition is responsible for 34% of all deaths among the under 5, and for 38% of all deaths of pregnant women and mothers (TOR, p. 2ff).

The Programme is to be implemented in the context of the ("Country Package Malawi") Food and Nutrition Security Programme under the 'ONE WORLD – no hunger' Global Programme by the German Ministry for Economic Cooperation and Development within 3 years, ending in December 2017. The Programme follows a multisectoral approach, whereby basic education and health facilities are to be promoted in order to stimulate and support nutritional improvements for mothers and children under 5 years. The measures rest on the assumption that – next to social-cultural and economic factors – "inadequate knowledge of the importance of a diversified diet is the main cause of an unbalanced food-crop production and of malnutrition" (TOR, p. 3).

The TOR set the following key questions to be addressed by the study:

- » Are women and men smallholder farmers aware of the advantage of a diversified cropping system and of a diversified diet? If so, how much and wherefrom?
- » Which kinds of food are grown, and how long are they available during the year?
- » Who decides on the cultivation/consumption/sale of food crops? In this connection, what are the roles played by village heads, farmer groups, neighbours, churches, etc.?
- » Which economic factors affect the cultivation/sale of food crops?
- » Which factors in recent years have led to a change in cultivation and nutritional patterns (when and how specifically)?
- » Which food crops are primarily grown for own consumption, and which are for the market?
- » Are there differences in cultivation/diversity between men- and women-headed households?
- » What is the role played by supplementary purchases of food? Which products are acquired and by whom? Which products stem from regional production, and which originate from industrial production?

The questions posed by the TOR formed the basis of the interview questionnaire prepared in anticipation of the fieldwork.

Initial background situation and framework conditions of the study

Malawi rates as one of the poorest countries in the world. In this small rural country, most of its 16.1 mill. people live from rainfed, subsistence agriculture. Women and men farmers normally work their small holdings without any mechanical aids. The majority of Malawians still live in rural areas. Nevertheless, in view of the high urbanisation rate (5.2% per year), the proportion of urban residents may rise from 15.3% (in 2008) to 30% by the year 2030, and to 50% by 2050.¹ Malawi's total population, should the present annual growth rate of 2.8% persist, will have doubled in 25 years. The Chief of Kwanji in the Kalonga TA (Salima) reports that in the 1960s, 21 households belonged to his village; since then, they have become 700. Village chiefs are constantly confronted

1 Situation of Urbanization in Malawi Report. Ministry of Lands and Housing, Malawi Government. 15.07.2013, p. 6: http://www.academia.edu/8588039/SITUATION_OF_URBANIZATION_IN_MALAWI_REPORT

with conflicts over land. The threats posed by population growth for natural resources and for the nutrition of people have long since become a bitter reality.

Study procedure

The study team carried out several weeks of fieldwork in May/June and in July/August in selected TAs (Traditional Authorities) in Salima and Dedza Districts. Interviews with experts took place primarily in the capital Lilongwe. A complete listing of the interviews is given in the Annex to this study.

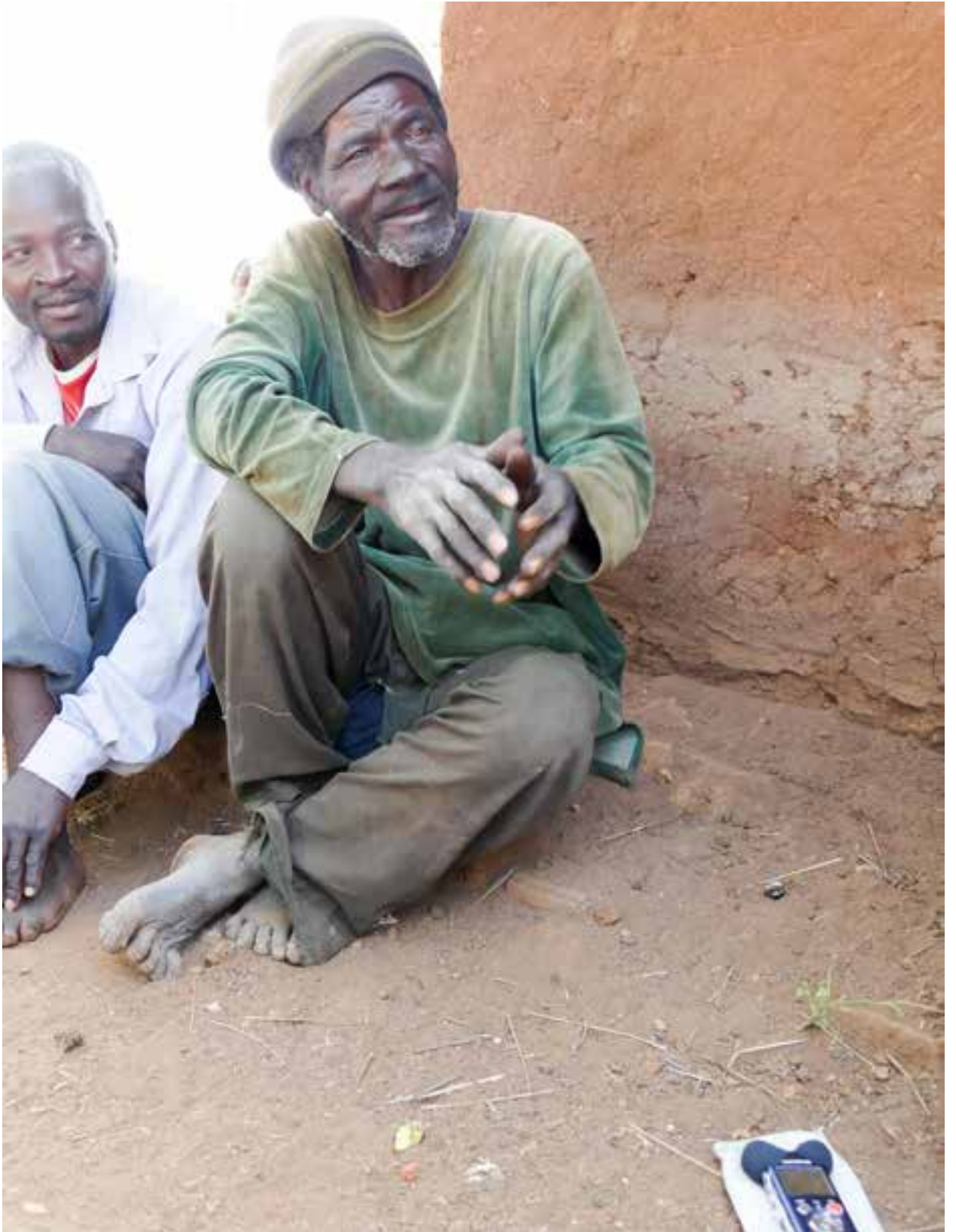
The study is based primarily on the interview material collected during fieldwork.

In addition, relevant NGO and government reports, newspaper articles and selected research literature were consulted. A bibliography of the secondary sources is also given in the Annex.

In total, 60 problem-centered, narrative interviews were conducted:

- » 23 interviews with women and men experts in Ministries and in national as well as international development agencies;
- » 37 interviews with women and men farmers (primarily smallholders) in Dedza and Salima Districts (individuals, families as well as smaller or larger groups).

The interviews lasted between 40 minutes and 3.5 hours. With few exceptions, they were recorded (with the approval of the interview partners) with a digital sound recorder. The interviews were transcribed in part. The evaluation of the interviews occurred on the basis of the transcripts and of the personal notes taken by the study team.



Malunga Chayedzekeka, smallholder farmer, Mjolo village, TA of Chauma, Dedza (Photo: M. Fink)

Summary of the results

The nutritional crisis and its causes

In 2015, Malawi's maize harvest fell, as a result of the very late onset and much too early an end of the rains, to a level 30% lower than in the preceding year. According to the July report of the *Malawi Vulnerability Assessment Committee* (MVAC), more than 2.8 million Malawians will have to rely on food aid between the months of October 2015 and April 2016. The women and men farmers interviewed by us stated that their harvests will have been exhausted between August and October. They reported having obtained only minimal (even a total lack of) harvests, and that they were now looking for piece work (daily-wage work) in order to hold out during the long months until the next harvest.

Although this year is particularly dramatic, women and men farmers claim that hunger and malnutrition have long been a problem. The causes of the persistently poor harvests and of the chronic nutritional shortfalls are clearly recognised and identified by them:

- » unusual extremes in precipitation with resulting droughts and floods;
- » exhausted soils as a result of years of maize monocultures using chemical fertilisers;
- » inadequate access to sufficient fertile farmland (especially as a result of the explosive population growth), with the result that farmers concentrate on high-yield maize growing, and therefore largely abstain from diversified cropping and consequently from a diversified diet;
- » inadequate access to farm inputs (notably fertiliser and various seed/seedlings);
- » progressive, drastic deforestation and the loss of natural resources (game, wild fruit, plants and roots).

According to the farmers, the disappearance of forests has clearly contributed to the deterioration of food security. The interview partners have stated that parts of their region were still densely forested as recently as a few decades

ago. It is primarily the rising demand for firewood and farm land that is responsible for the loss of forests.²

Cultural deforestation

Natural deforestation is accompanied by cultural deforestation. Both affect each other, and reinforce each other mutually. The devastation threatens not only Malawi's landscape, but in a way its rural culture as well. Added to this is the pressure from an increasingly monetarised economy.

Agriculture, nutrition and health in transition

- » Women and men farmers state consistently that, until 20 to 30 years ago, the harvests were more reliable, and that both cropping and nutrition were more diversified. They describe how the aforementioned environmental changes, as well as the increasing processes of individualisation and monetarisation of society, have damaged their living conditions to a dramatic extent.
- » Until the 1980s, there were *chidyerano*, the village communal meals. Their disappearance reflects not only the decline in food security and in nutritional diversity, but also reinforces, at the same time, this decline.
- » Women and men farmers report a noticeable increase in diseases, a decline in life expectancy and a weakening of vitality (*'human weakness'*). They attribute these phenomena to nutritional deficiencies and to modern living conditions (*'modern life'*).
- » Women and men farmers express consistently negative expectations regarding the future. They reckon that agricultural and living conditions will deteriorate further. Many people – young and old – wish to leave their villages today rather than tomorrow, and to move to the cities.

2 A government report from the year 2000 (cited in Alden Wily & Mbaya, 2001 p. 40 fn. 6) indicates that approximately 41% of Malawi's forests have been disappeared between 1972 and 2000. The FAO (2001) even estimates that between 1972 and 1992 57% of Malawi's forests were lost. Hall & Burgess (2006, p. 24) point out that reforestation programmes in Malawi exist since 1950 on government plantations, and since the late 1980s on communal land.

Cultivation, nutrition and nutritional knowledge

- » Maize, manioc (cassava), groundnuts (peanuts), soybeans, potatoes (Irish as well as sweet or yams) and occasionally rice are the main crops raised. The principal vegetables cultivated include squash, beans, oca, moringa, cabbage, Chinese cabbage, tomatoes, onions, cowpeas and pigeon peas. Vegetables are made in part imperishable by drying. Those who can afford it, buy fresh vegetables during the dry season. “modern vegetables” such as cabbage and Chinese cabbage are popular. In well-watered regions, vegetables are also grown along river banks during the dry season. The watering of gardens by hand poses, however, a great problem, as not all can perform this heavy work. Farmers inform us that fruit such as mangoes and papaya are rare, and are consumed immediately, even unripe, during periods of food scarcity.
- » Decisions regarding the cultivation and sale of food crops are for the most part negotiated between marriage partners. In many cases, however, the man makes the final decision, at least in the case of the main field crops.
- » Maize is cultivated primarily for household consumption. Other field crops and vegetables are cultivated for household needs as well as for sale.
- » Cultivation and sale of food crops are determined more by economic necessities than by preference. Women and men farmers dispose of a portion of their harvest in order to buy chemical fertilisers and to meet the costs of clothing, schooling (especially indirect costs), medical services, transport and maize milling. Often, money is barely sufficient for the simplest household items, such as soap, salt, oil, lamp oil and sodium carbonate (for the softening of vegetables in cooking). Owing to poor harvests, supplementary purchases of maize are often necessary. These goods originate mostly from local markets.
- » Women and men farmers report that the persistence of poor harvests has reinforced the concentration on maize growing. Maize has become the most important field crop and the main food (*nsima*). Women and men farmers are fully aware of the problems posed by this unbalanced diet. Maize, however, represents for them a comparatively safe staple, if only because of the lack of alternatives (“*If you have maize in the house, you have food*”). What counts is food security as a priority vis-à-vis nutritional diversity. Moreover, maize is not only a staple food: maize is cultural identity. Valued and eaten is, above all, *nsima ya woyera*, a fine, white maize porridge made from highly-processed flour.
- » As a result of insufficient rains and of exhausted (leached) soils, both women and men farmers have largely abandoned their local seed, and have switched to certified hybrid seed combined with chemical fertilisers. They only fall

back on local seed varieties when they cannot afford chemical fertilisers and hybrid seed. Early in 2015, those women and men farmers who had sown local seed recorded a poor to failed harvest as a result of climatic and soil conditions.

- » The advantages of diversified cropping for the maintenance of soil fertility and of a diversified diet for one's own health are well-known to women and men farmers. Pregnant women, who are legally required to give birth in hospitals, are instructed in healthy nutrition during pre-natal examinations in the health centres. In villages, several NGOs offer advice and cooking instruction with a view to dietary diversification. At the Ministerial level, however, contradictory advisory strategies can be observed: extension workers of the Health Ministry encourage the diversification of food crops and of diets, whereas extension workers of the Ministry of Agriculture still place a strong emphasis on the combination of hybrid maize and chemical fertiliser.

Regional differences in smallholder farming

- » Whereas in Salima cotton is the main cash crop grown, in Dedza it is the Irish potato. The latter is exported throughout the country, and is primarily processed as chips (French fries). The potato has the advantage that it can be eaten in critical times (in contrast to cotton). As a cash crop, tobacco is losing its significance in both Districts as well as country-wide, as the global demand for it has undergone a strong decline.
- » The farmland in Dedza is more fertile than in Salima. Dedza District is mountainous and well-watered, but in both Districts there is an absence of irrigation technology.
- » The smallholder economy in Dedza seems to be less commercialised than in Salima, which can be attributed mainly to a less-developed infrastructure. Many villages can only be reached by all-terrain vehicles.
- » Salima borders on Lake Malawi. The latter has, however, lost its significance greatly, as far as women and men farmers are concerned, since fish stocks declined drastically as a result of overfishing.
- » In Salima District, both women and men farmers complain about the widespread keeping of goats in that District. In 1983, the Malawi government, in cooperation with the German federal government, introduced a goat-breeding programme which was implemented by the *Malawi-German Livestock Development Programme* (MGLDP). The goats have since become a great problem: as soon as the maize is harvested, they are turned loose so that they may graze and breed, with the result that at this time they also browse on other field crops awaiting ripening and harvest. This hampers diversified

cropping, and various foods must be bought. Goats are nevertheless very valuable to women and men farmers as a result of their high market value (“personal banks”). Goats are sold whenever cash is needed. The goat stocks in Dedza District are distinctly smaller. There, chickens and hogs (the latter mostly in fenced-in areas) are being kept as the main farm animals.

Expectations of women and men farmers

- » Farmers of both genders welcome the project planned by GIZ, but they hope for – besides extension advice on cropping and nutritional diversification – support by means of farm inputs, primarily in the form of seed (of early-ripening varieties), irrigation pumps and (chemical) fertiliser.³
- » The interview partners emphasized that, for them, it is especially important that they be consulted regarding their problems and assessments during the run-up to any planned intervention. This sentiment was expressed repeatedly as a request with regard to other future interventions.

The view often expressed by experts, that the main obstacle to overcoming unbalanced nutrition in Malawi consists of women and men farmers clinging to traditional cropping and eating habits, could *not* be confirmed by the interviews conducted in the Salima and Dedza Districts. Farmers of both genders desire a more diversified diet. Regardless, for them *nsima* – prepared from highly-processed maize flour – is a food they are not willing to forgo.

There were no statistical data collected as part of this (qualitative) study, however, the interviewed farmers unanimously stated that the severe food crisis, which is described in the following, would affect almost all smallholder farmers.

3 The long-term risks of using chemical fertilisers are normally well-known to women and men farmers. Farmers prefer, however, chemical fertilisers because the latter – in contrast to organic fertilisers – can be applied to the fields with a lower labour input and without creating transport costs. Sporadic attempts to produce one’s own organic fertilisers can be found. The limited livestock-keeping makes it difficult, however, to produce enough fertiliser on one’s own.

Maize as a staple food and as crisis crop

Maize, originally from Central America, has become widespread globally as well as in Africa.⁴ In Malawi, maize has been the dominant staple food for decades. More than 54% of the food calories are supplied by maize. Maize is grown by now on 80% of the cultivated land.⁵ Maize porridge is perceived as *the* traditional food. As women and men farmers see it, only the daily *nsima* (the hard-boiled maize porridge) can fill the stomach. Whenever we ask groups of villagers as to their favourite food, the response in chorus is always “*nsima! nsima!*”. Only thereafter follow potatoes, rice or beans – though, with these, the preferences vary.

In Chembe village (Salima), a woman farmer reported not having eaten anything in two days. In the course of the interview it transpired that inbetween she had eaten cooked squash. This, however, only counted as a *snack*, not a real meal, in any case not as a meal that leaves one feeling replete. Only maize does that. “*Chimanga ndi moyo*” – “maize is life”, is a saying heard repeatedly. The spread of maize has a long history in Malawi that definitely does not begin with the political shift in 1994 and its associated opening to the globally liberalised markets. It does not begin with the Kamuzu Banda’s (1964–1994) regime either, as sometimes claimed.⁶

Maize was brought to Malawi by Portuguese traders as early as the 15th and 16th centuries, and spread rapidly there by pre-colonial times – especially in the regions peopled by the Chewa and Ngoni.⁷ Regardless of the strong promotion of maize by the former president Banda in the context of his modernisation campaign, Malawian women and men farmers had good reasons to

4 Cf. Conrad, Abigail (2010)

5 Cf. Aberman, Noora-Lisa et al. (2015), p. 1

6 Stephen Carr, in his essay “A Brief Review of the History of Malawian Smallholder Agriculture over the past fifty Years”, outlines among other subjects that the oft-repeated claim that “*maize would dominate the smallholder agriculture of Malawi because Banda’s regime forced the farmers to give up the traditional food crops, and cultivate maize instead*” is a myth. Cf. Carr, Stephen (2004)

7 Cf. Mzamu, Jessica J. (2011), p. 65 – The local maize varieties are also called *chimanga cha makolo* (maize of the ancestors). The hybrid varieties are called *chimanga cha chizungu* (maize of the Whites).

expand the cultivation of maize and to abandon to a large extent other field crops such as millet. Stephen Carr has described why the new crop maize, in contrast to indigenous crops (sorghum, pearl millet, the bambara groundnut and various root crops), was so attractive to women and men farmers. The yields, writes Carr, were substantially higher; and the maize grains wrapped by the husks were much better protected from birds and pests. In addition, maize had a distinctly better taste for women and men farmers than millet.⁸ To this day, farmers mention these reasons when they explain why they, above all, cultivate maize.

From the colonial time until the present, maize has been a highly politicised crop plant. In 1949, the attempt by the British colonial power to control the production and distribution of maize led to an acute food shortage in the land. This event has to this day remained in the memory of the older women and men farmers.⁹

In the Chewa tradition, one of the central tasks of the village *chiefs* is the food supply of the population. He is responsible, especially in times of hunger, for ensuring that the supply is maintained to at least a modest level.¹⁰ The former president of the country, Dr. Kamuzu Banda, who saw himself not only as president but as a *chief*¹¹ in the Chewa tradition, extended this self-image to his national role:

“As a Chewa chief was obligated in pre-colonial times, Banda guaranteed the Malwaian people that, being their nkhoswe (guardian/patron), the availability of food (specifically maize) was one of his primary concerns. In return, he expected loyalty, obedience, unity and discipline.”¹²

This way Banda tied the legitimacy of his government (and that of subsequent governments) to the competence of making available to his country sufficient food (maize), and, for that matter, favourable prerequisites for the cultivation of maize.

The recurrent debates between the government and the donors, i.e., debates over subsidies for hybrid maize seed and for chemical fertiliser for the cultiva-

8 Carr, Stephen (2004), p. 12f.

9 Mzamu, Jessica J. (2011), pp. 61, 65

10 A Chewa proverb says: *“kapolo okhuta aposa mfumu ya nyala”* (a slave with food is more powerful than a chief without food). Ibid., p. 21

11 Kamuzu Banda claimed to be 1) *nkhoswe number 1 ya mtundu wa amalawi* (patriarch number one for the Nation of Malawi); and 2) *mchikumbwe number 1* (farmer number one).

12 Mzamu, Jessica J. (2011), p. 90

tion of maize, over electoral gifts in the form of maize or over farm inputs for maize growing, must be seen in this historical context.

In the last 60 to 70 years, maize has stood at the centre of many government programmes, but also of international cooperation in the sectors of food security and poverty reduction. The programmes seek primarily an intensification of maize growing in the smallholder agriculture of Africa. Women and men farmers are to be placed in the situation whereby they can feed themselves, and at the same time generate a cash income from the sale of surpluses. In Malawi, in order to promote agricultural productivity, the *Agricultural Productivity Investment Programme (APIP)* (1996–2005) and, since 2006, the *Farm Input Subsidy Programme (FISP)* have been implemented. The latter Programme aims to enable 1.5 mill. smallholder farmers to gain access, by means of a coupon system, to subsidized hybrid maize seed and to chemical fertilisers. Through the FISP, the national yields were increased substantially, although this increase had also to do with the above-average good rainy seasons in the years after the introduction of FISP.¹³ This success earned Malawi the title of “*cradle of Africa’s green revolution*”. At the same time, the programme led to a growing dependence on chemical fertilisers.¹⁴

In the meantime, the farmers have started to perceive the dependence on hybrid maize seed and on chemical fertiliser as an existential problem. On the one hand, they do not know how to escape this cycle that functions less and less and destroys their basic living conditions; on the other hand, they cannot afford the expensive fertiliser. The regular price of a 50 kg bag of fertiliser lies between MK 17,000 and MK 20,000. The price for the fertiliser is disproportionately high, considering that a bag of maize (also 50 kg) costs MK 5,000, and can feed one family during an entire month.

The reduced price for the subsidised chemical fertiliser until August of 2015 still amounted to 500 MK per 50 kg bag – even this small sum if hardly affordable for many women and men smallholders. For the coming crop season of 2015, the subsidies were cut drastically; the co-payment from now on amounts to MK 8,500 per bag.¹⁵

13 Cf. Webb, Patrick (2011); Verduzco-Gallo, Inigo (2014), p. 1; GRAIN (2010a); Mzamu, Jessica J. (2011)

14 Cf. Snapp, Sieglinde et al. (2010)

15 How long the State can still afford the subsidies has long been under discussion. The fertiliser subsidies swallowed 80% of the agricultural budget. Thus Wolfram Jäckel (MIRA), Lilongwe, 28.05.2015.

The distribution of hybrid seed and of fertiliser by the *chiefs* to a few selected vulnerable households on behalf of the government is regarded by the women and men farmers as unfair. During the interviews, it was said again and again that in the village ultimately all households are affected by poverty and climatic change and, therefore, all deserve support. So far the matter is dealt with coupons. *Chiefs* and villagers expect that those favoured with coupons will share the fertiliser and seed (or a portion of the harvest) with all.

Women and men farmers of Salima and Dedza Districts state without exception that their maize harvests have been declining for years (5–10 years), and that, for them, hunger has become the norm. Rarely does the maize harvest last beyond October. This is the consequence of climatic changes and of the shrinking and leached-out fields.¹⁶

“In the times of my grandmother we would farm a piece of land, maybe two acres. If the rains were good then we would really get a good harvest while as today if you do the same two acres, if you don’t apply fertiliser you get almost nothing.”¹⁷

Vulnerable households are also supported with hybrid maize seed and chemical fertiliser (as well as with goats) by NGOs.¹⁸ Aid by NGOs is, however, not area-wide, but rather confined to certain regions. In 2015, in order to compensate for the crop failures caused by drought and floods, the government relies on supplementary purchases of maize, which is then distributed to those suffering from hunger.¹⁹

In the interviews with the smallholder farmers, maize is constantly referred to as the “currency” with which one’s own food security is calculated and planned. All women and men farmers could state exactly how much maize was harvested, and how many bags (at 50 kg each) their household consumes per

16 The leaching of soils is, above all, the result of population growth and its associated intensification of maize cultivation. According to projections, the soils of Malawi lose annually 160,000 tons of plant nutrients through the harvest of agricultural products and through erosion. The application of chemical fertilizer replenishes no more than 17,000 tons, with a further 10,000 to 15,000 tons returned by organic fertilisers, and thus no more than half the amount removed. Carr, Stephen (2004), p. 17

17 Interview LS_50294

18 For ex., the following NGOs are represented in the two Districts: Care International, Concern Universal, Salima AIDS Support Network (SASO), Feed the Children, World Vision, Welthungerhilfe, COOPI, and Action Aid.

19 Cf. “Government will give the Agricultural Development and Marketing Cooperation (ADMARC) K4 billion to purchase maize from farmers in readiness of the looming hunger”. Nyasa Times, 07.05.2015

month; they could also provide accurate information on how long the bags of maize remaining in the house could still feed them, and on how large the field required must be in order for their harvest to last until the next one in a “good” rainy season. They could also say with precision how many bags of maize they could have expected before the drought and floods destroyed their harvest.

Should there be no more maize left in the house, women and men farmers seek out *piece work*, or they dispose of other field crops in order to purchase maize flour from the income. Better-situated women and men farmers always hold back a supply of maize in order to be able to pay their daily wages with maize. The woman holder of a large farm states in the interview:

“I kept all 40 bags of maize. That is just for food. If the harvest is too bad to sell something, we have to make sure that we keep the 40 bags just for food. [...] I use the 40 bags also to pay laborers in the next growing season. That is just to make sure that even if I don’t find money along the year, but when the time comes for farming I can pay people to work in my farm using the maize as well. [...] It is also to help people. Some people are coming here already weakened by hunger. They still want to do piece work, but I know that they will not be able to do the actual work. So I just take the maize to help them and say: ‘why don’t you go and eat first, when you get stronger you can come back here, or you can go and find piece work elsewhere’.”²⁰

Maize (*nsima*) is central for providing hospitality. In order to receive a guest properly, it is de rigueur to serve *nsima*. This way, the guest is shown that he is welcome as a *m’bale* (relative). On taking his leave, the guest expresses his gratitude with the sentence “*anatilandilo bwino, tinadya nsima yoyela ndi nkhu-ku*” (“I was well received, as you prepared *nsima* from white flour and chicken for me”). If the guest is not served *nsima*, the host must count on being considered stingy, and he could even be suspected of witchcraft.²¹

As the dominant field crop, maize determines not only the diet but also the cropping cycle and the sequence of most village activities. With the first rains in November/December, maize is sown, it matures during the hunger or lean months from January to March, and it dries with the end of the rainy season in April and May; it is harvested in the cold months of June and July, and it is eaten in the hot months from August to October. At this time normally feasts take place. With the next sowing in November, the cycle starts anew.

20 Interview LS_50290

21 Cf. Mzamu, Jessica J. (2001), p. 186



Drying of processed and of whole-grain maize flour, Mwape village, TA of Kasumbu, Dedza District (Photo: M. Fink)

In an impressive essay entitled “A Chewa Cosmology of the Body”²², the anthropologist Deborah Kaspin analyses how, in Chewa culture, the cropping cycle, social organisation, cosmology, and bodily cycles are tightly interwoven. Kaspin speaks of an “agrarian sensibility” when she describes the collective visions of Chewa women and men farmers as the former still existed a few decades ago: rainy and dry seasons and hot and cold seasons lay, in the thinking of the Chewa, on a similar basis as cosmic events, as did the various “seasons” in agriculture or bodily processes (sexuality, pregnancy, menstruation, the life cycle):

“The body also heats and cools through the course of the same lifetime, reflecting its health and reproduction capacity. At one extreme corpses are cold as is the graveyard where the dead are interred. At the other extreme menstruating women are hot, as the food they cook. Newborns are cold, children cool, and adults of childbearing age warm. As the body ages and sexual capacity diminishes, the body cools down again.”²³

22 Kaspin, Deborah (1996)

23 Ibid., p. 569

Agriculture and nutrition were central reference points for social life, for rituals, as well as for experiencing the world in general. A pregnancy, for example, could be described and construed as the preparation of maize porridge:

“The womb is like a cooking pot, sex is like stoking the fire beneath it, and the infant that forms in the womb is like the porridge that forms in the pot.”²⁴

To this day, maize is, culturally, deeply ingrained in the life and culture of Malawi’s women and men smallholder farmers. Maize growing is more than subsistence and economy. Maize has symbolic value, not just market value.

24 Ibid.

Cultural deforestation

The highly advanced deforestation of Malawi is a well-known phenomenon.²⁵ Probably, in a few years, in Mozambique and in Malawi no stands of trees worth mentioning will be found.²⁶ The consequences for the hydrologic cycle, for the soils, for biodiversity, and agriculture are dramatic. We must not overlook that this event is accompanied by a development in the smallholder farming regions that could be described as a *cultural deforestation*, a *cultural disintegration* in Malawi. The natural deforestation resulting from population growth and cultural disintegration affect each other, and they reinforce each other mutually, so that in a way a devastation of the Malawian landscape *and* of the rural culture is looming. In view of the crucial role played in Malawi – as in many regions of Africa – by smallholder agriculture in the feeding of the population, this development deserves special attention.²⁷

The villagers questioned by us, in individual discussions and in group interviews, have an accurate perception of this phenomenon of *cultural disintegration*. They observe and deplore a loosening of traditional village cohesion, the decline of social life, and increasingly sparse communications. “*People don’t love each other anymore*”, “*they don’t trust each other*”, “*people are more individualistic nowadays*”. Such diagnoses of village life by those affected recur regularly.

To be sure such complaints, particularly when they are voiced by the elders, evoke scepticism, because they represent a common intercultural pattern: the old, as usual, invoke the good old days simply because they are old, and they see their hopes dashed. As an example, during a village discussion, a dignified older man in a threadbare jacket, stamps with his cane in front of the

25 “The current high population density in Malawi which is at the root of many agricultural problems is partly explained by the movement of large numbers of people from Mozambique into Malawi in the early part of the 20th century”. Carr, Stephen (2004), p. 19

26 See the report <http://oraclesyndicate.twoday.net/stories/1022466292/>

27 Cf. for ex., the article “We are the 70%. The power, politics and profit of African agriculture”, in: African Business, Nr. 422, August/September 2015, p. 16ff.; Noora-Lisa Abermann et al. (2015), p. 1, write: “Smallholder agriculture is the mainstay of Malawi’s economy. Its importance for livelihoods cannot be overstated. 94 percent of rural residents and 38 percent of urban residents engage in agriculture to some extent, the vast majority as smallholder farmers with landholdings of less than one hectare.”

assembled village community, and complains that the young no longer listen to the old. Typical, indeed. It is, however, noteworthy that in the discussions led by us, it was by no means only the old who spoke in such terms. Thus, the 35-year-old *chief* of Kudza complains that the relations in the village are deteriorating, and, as evidence, he mentions that lately even maize cobs are stolen from the field by people of one's own village.

This process of change, which can be interpreted as a process of cultural modernisation as well as a process of cultural disintegration, is associated, by the people with whom we have spoken, with very concrete phenomena. Of special significance to us in this connection is the disappearance of the communal meals (*chidyerano*)²⁸. Twenty, thirty, in several regions forty years have gone by since *chidyerano* ended. Until then, all village inhabitants assembled daily for the noon and evening meal on a meeting place in the village, and each brought what was possible and available. Some brought chicken, others maize, somebody brought squash, another cabbage. It was reported to us consistently that this practice was maintained as long as sufficient food was available in the villages. As the situation began to deteriorate, people switched to eating in front of their own huts. It seems that the plaited fences, that today surround the huts, originated from this time of upheaval. Now each family consumes its small *nsima* portion in private, behind the fence and out of sight of the neighbours. The changes that have occurred in the villages with the disappearance of this practice are manifold: *chidyerano* provided for diversified meals, it guaranteed that even those whose harvest had failed or who were too old for work in the fields, or who lived as widows or orphans, had access to food. This was presumably not always without conflicts, and criticism of those who were stingy or lazy was surely not spared. The regulatory role of the *chiefs* was as important as it is still visibly so in many connections today. *Chidyerano* is not idyllic, but rather a practical means in local hands for social and cultural security. Now, however, given increasing food deficits and faster processes of individualisation, the gap between those who nevertheless still have *something*, and those who have *nothing at all* left, has steadily widened. *Chidyerano* was a local attempt at social balance, and a guarantee of local food security and nutritional diversity. There is probably no way back to *chidyerano*, but the example shows that – so long as competition and scarcity are kept within limits – a local social self-regulation is possible. The disappearance of *chidyerano* is only one example of this process of cultural erosion within the village context in the regions visited by us. Other examples include:

28 Mandala, Elias C. (2005)

- » Traditionally, a whole range of taboos has apparently contributed to birth control: *mdulo*, for example, in Chewa culture is a complex of sexual taboos that are connected to hot and cold, dry and wet periods, and that in turn correspond to bodily and life cycles. The non-respect of the taboos threatens – thus is the belief – to bring misfortune and diseases.²⁹ The taboos rested apparently on magical visions (parallels between the fertility of farmland and the fertility of the couple) that evidently did not fail to be effective. The rapid population growth in the rural regions has indeed to do with the fact that, until now, no other controls have appeared to replace the taboos that have vanished. (The disappearance of certain taboo rules is also accompanied by growing promiscuity, or so claim the interview partners.) The attempts by the government and the NGOs to limit the population growth are, in a way, the equivalents of the vanished taboos, but so far they have not had a sufficient reach. In discussions, older women in particular have repeatedly indicated that, earlier, there were not so many children in the villages, and that the children were healthier. The *chiefs* supply examples of the rapid increase in the number of households in the villages. As the land available is limited, the limits to growth are foreseeable. With respect to the number of their members, the households have, however, become smaller, and this trend is consistent with processes of individualisation and privatisation. This trend can also be seen as one whereby villagers are being introduced to their imminent integration into a free-market, performance-orientated society.³⁰
- » Schooling contributes appreciably to modernisation in the villages, it reinforces individualising tendencies but, at the same time, it displaces the traditional cohesion of the village. Schooling reinforces among the young the wish to leave for the city (“*Once they have education, they are gone*”). In order to be able to pay for schooling, women often hire themselves out as day-wage workers. Especially single, destitute women are sometimes forced into prostitution. In a rural context, this seems to be more often the case than in an urban setting, as the access to cash is more difficult on the land. It is deplored that children bring poor manners, acquired from peers, from the school into the village. It is young women and mothers who, in this connection, agree with the old that children no longer obey. In addition, children shirk field and house work, which they are no longer willing to do and which they increasingly fail to master. It is interesting to see that the old village

29 Cf. for ex., Wilson, Anika (2013), p. 51; Kaspin, Deborah (1996); Malawi Human Rights Commission Report (2006)

30 As early as the 1970s, certain approaches within development theory emphasised that the African extended family is an obstacle to development, and, from their perspective, not without good reason. The social security, as it operates within this model, was, however, almost completely overlooked.



Humorous act at the Mua Mission Festival (15.08.2015): the constipated villager cannot be helped, as the medicinal plants have disappeared together with the trees (Photo: M. Fink)

culture of the costume-and-mask dance (*gule wamkulu*) today sometimes becomes a topic of conversation whenever the frightening masks, armed with canes, chase truant children to school.

- » They existed in all villages, and for the most part they still do: the *anamkhungwi*, responsible for the initiation of girls and for the instruction of girls and pregnant women in matters of hygiene, of nutrition, and of behaviour. The *anamkhungwi* relieved the parents (especially the mothers) of the difficult task of “sexual education”, and secured the continuity of village culture.
- » In villages, there is often a traditional healer (*sing'anga*), mostly women, who can often cure, with the aid of herbs and plants, in particular digestive problems, cold and pains, and who belong to the small universe of the village. An old female healer recounts how she travels twice a month to Lilongwe in order to participate in meetings of traditional healers. There is an association of healers, under state control, which issues membership cards to healers.
- » The natural and cultural deforestation/disintegration of Malawi merge wherever the nutritional status of the villagers, poor as it is, is further weak-



The village of Mwape, TA of Kasumbu, Dedza District (Photo: M. Fink)

ened through the disappearance of traditional plant resources. Long lists of leaves, fruits and roots, found earlier in nature, are recited in discussions, but these foods (and medicinal plants) are no longer available, and thus nutritional diversity is thereby further restricted.³¹

- » In the discussions led by us, it was mainly the existence and observance of traditional rituals, customs and taboos that were contested. It has been revealed in the meantime that more occurs in the daily village life than is being articulated. For example, the “hyena” still exists (although the *chiefs* forbid the ancient practice in times of HIV/AIDS). When a woman cannot conceive, the husband can ask a friend to visit his wife at night in order for her to have a child. *Gule wamkulu* is ubiquitous, among Moslems as well as Christians, and sometimes it is understood as a religion of its own, alongside Christianity and Islam (“*We are no Christians or Moslems, we are gule wamkulu*”). In the dances and costumes very topical subjects of village life are raised, which speaks for the vitality of traditions, whilst at the same time – and, in any case, opposed by the churches – they seem to be on the way to becom-

³¹ Eg., *mkokabwato, ntchire, kholowa, chewe, kandudwa, chinunje, chisoso, denja, nkhonyanga, kolakola, mlozi* (wild plant/vegetables); *maye, masuku, nthudza, maula, matowo* (wild fruit); *mpama* (wild root).

ing folklore. From a modernising perspective, social practices such as *gule wamkulu* or the initiation of girls, appear overwhelmingly as something oppositional, backward and harmful (“*harmful cultural practices*”).³² Noteworthy is the religious peace in the villages, which has led to a daily life in the villages that is, though not entirely without conflict, nevertheless free from violence. The increase in economic competition (as shown by the example of Tanzania) can, however, sharpen religious tensions immediately and rapidly.

» The cohesion in the villages has so far been maintained by an ensemble of persons with responsibilities: *chief*, *anamkhungwi*, *sing’anga* (healer). These traditional village “experts” are increasingly being replaced by government officials, such as extension workers, health and nutrition advisers, and teachers. The relationship between men and women is also evolving: until now, there has been a passable balance between men and women (for example, in Kudza the male *chief* is elected from a particular family, but only the women vote because “*they know men best*”). The poor food situation and the need to have cash available is increasingly upsetting the fragile equilibrium between men and women to the detriment of the women. The husbands go to other women, and work on their farmland or seek work beyond the national borders. A young woman stated in an interview that she has named her son “never-heard-of-him-again”. Her husband has moved to South Africa, and has not kept in touch ever since.

The erosion of village cohesion that can be observed is closely connected to the deterioration of the food situation, and this in a dual sense. On the one hand, old forms of local social security and social balance disappear; on the other, the precarious food situation disrupts traditions, the capacity of which to cope with issues has reached its limits in the face of the food crisis.³³

32 Dedza Local Rights Program – Strategic Plan 2012–2017. Action Aid (2015), Draft, p. 4

33 The *cultural disintegration* contains not only the loss of traditions and village cohesion, but also the decline of indigenous knowledge, like traditional farming techniques and risk management, food storage techniques, soil management, pest control, knowledge about medical plants and healing a.s.o. Kamwendo & Kamwendo (2014) analyzed how indigenous knowledge can contribute to food security in Malawi.

Cultivation of food crops

In addition to maize as the main crop, the women and men farmers of the Districts of Salima and Deza grow various staple food crops. These are primarily groundnuts (peanuts), manioc (cassava), potatoes (Irish and sweet), vegetables, cabbage, beans, soybeans, squash, tomatoes and onions. Parts of the harvest are intended for sale, including maize. This way a small income can be generated. Cultivated as pure cash crops are tobacco³⁴ and (in Salima) cotton. Rice growing is rather rare, as rice grows under special conditions. Of the two Districts, Salima is more likely to grow rice.

Households have available between 0.5 and 3 acres of land on which to grow crops. Farmers measure the size of the fields by pacing: an acre comprises 70 by 70 paces. Hardly any vacant farmland remains. Especially in Salima, the fields are located far outside the villages visited by us, also to protect them from goats. Footpaths to the fields, requiring one to two hours of walking, are quite common. Farmland plots near rivers are coveted, as there some crops, such as potatoes or vegetables, can be grown even in the dry season. Dedza District is, in particular, richly endowed with rivers. Irrigation aids are, however, unavailable. Gardens on slopes are usually watered with buckets. This is heavy labour that cannot be performed by all. Banks are sometimes very steep, the rivers deep, and occasionally inhabited by crocodiles. As a result of the dangers and of the enormous physical efforts associated with manual irrigation, women and men farmers wish to have irrigation pumps (treadle pumps). These pumps would permit year-round cultivation, and would help the farmers through the long hunger months.

Besides irrigation, the water supply of the villages is also problematic. The water-tables have sunk so far that groundwater reserves can no longer be reached through digging but rather only through drilling (boreholes). Fountains are found here and there. In Mwape, TA of Kasumbu (Dedza), women and men farmers report that the people in their region by now only drink from rivers. Next to the village, river water has been impounded. The waterhole is shared

34 As a cash crop, tobacco is losing its significance in both Districts and throughout the country, as world demand for it has greatly declined.

with animals. It is not safe, they say. Occasionally small animals die in the waterhole.

Seed for local maize varieties is seldom used by now. It has been years since farmers have switched to hybrid varieties. The rainy season has become so short and unreliable that the rain for traditional seed, which has a growth period of about 5 months, is no longer sufficient, and thus farmers fall back more and more on hybrid seed in order to be able to harvest maize at all. Hybrid seed must be bought.³⁵

The farmers report that population growth and soil degradation have caused the fields to shrink in the last 20 to 30 years, so much so that it has become difficult for them to feed themselves from the fields. The farmers have reacted to this by intensifying cultivation through a concentration on maize.

Until two generations ago, access to farmland was not a problem, according to the farmers. The *chiefs* made available land to anyone wishing to establish a crop field. This permitted a diversified cropping (*"In my parents' time, people had enough land to grow different crops, and there was no need for fertiliser"*).

The farmers complain that they lack seed. They need and wish to have access to diversified, early-ripening seed (eg., for beans) and seedpieces/seedlings (eg., for potatoes). As seed for hybrid maize varieties must be purchased each year, so must the seed (and seedlings) for most other field crops. Groundnuts, soybeans, cassava, but also many types of vegetables (tomatoes, onions, cabbage) are not indigenous plants, but were rather introduced only with commercial farming.

Most indigenous vegetable varieties have, too, given way to hybrid varieties, which also have shorter growing periods and which promise greater yields. Farmers cannot afford the annually renewed purchase of vegetable seed, which impedes a diversified food cropping. Occasionally, several farmers pool their money and collectively buy the seed packages (too expensive and too large for individuals).

Cash crops play an increasingly greater role for the smallholder farmers. The latter report a growing pressure from the monetarising economy (*"Nowadays everything is attached to money"*). Money is needed for seed, fertiliser, maize milling, clothing, schooling, medical supplies, transport, home construction

35 Farmers say: hybrid maize varieties with their short growing period may be better adapted to climatic change, but the old, local maize as well as millet varieties are distinctly more drought-resistant. That is because the hybrid maize varieties, during their shorter ripening period, rely nonetheless on intensive rains.

and repairs, and for household goods such as soap, salt, and oil. Although the expenditures mentioned by the women and men farmers refer exclusively to strictly daily necessities and in no way to luxury items, the farmers find it difficult to muster the necessary funds. When the two Districts are compared, Dedza appears to be distinctly less commercialised at the household level than Salima, a circumstance that has to do with the remoteness of many villages and the poor state of the roads in the former. In Dedza, vegetables and baked goods prepared by the women are often sold within the village or in a neighbouring one, but where the sale prices are lower than in distant markets in larger localities or in Dedza town itself. At a group interview with 50 villagers – men and women of all ages – in Chauma village, TA of Chauma, Dedza District, only a handful of persons responded affirmatively to our question as to who has ever been to Dedza town.³⁶ Eight of the 50 persons indicated ownership of a mobile (cell) phone.³⁷ According to official statistics, in Salima on average 31 percent of the population own a mobile phone, whereas in Dedza only 18.8 percent do.³⁸

In contrast to Dedza, Salima is generally more commercialised at the household level.³⁹ The cultivation of cotton, as practiced by many women and men farmers, provides once a year a substantial inflow of cash whenever the cotton is sold to firms in May/June. In contrast, the smallholder farmers of Dedza generate rather regularly throughout the year small revenues, mainly through the sale of self-grown foodstuffs. The Dedza farmers try mainly to grow potatoes (sweet and Irish), cassava, soybeans, and groundnuts for sale. The potato (Irish potato) is an especially important cash crop in Dedza. Potatoes are exported to the entire country, and are mostly processed as chips (French fries)

36 According to official data, the outlay of a rural household amounts on average to only MK 40,306 (about 80 euros) for a whole year in Salima, and to MK 34,283 (70 euros) in Dedza – thus under a dollar a day. National Statistical Office 2012: Integrated Household Survey 2010–2011, Zomba, p. 98

37 Interview LS_531514

38 National Statistical Office 2012: Integrated Household Survey 2010–2011 Zomba, p. 124

39 In Salima, the business with “cinemas” is currently spreading, and is bringing to the villages globalised consumer demands. The “cinemas” are located in small houses, and are equipped with TV and DVDs. Chinese productions with subtitles in *chichewa* are often shown. The films are aimed primarily at children and youths. Often, large loudspeakers (“boomboxes”) are set up at the open entrances. The volume of sound, with which the films are shown, drowns out all other noises of village life. Even the call of the muezzin is lost to the “cinema” soundtrack. Adults report that the “cinemas” – which often play seven days a week, from morning till evening – have lured the children completely into their thrall. Some children are said to steal money at home in order, then, to sneak into the “cinemas”. The “cinemas” have triggered serious conflicts in the villages. The “opponents” of and “sceptics” towards this modernisation feel helpless. Even the *chiefs* do nothing about it, so they say, as the chiefs themselves are in some cases the operators of the “cinema” business.

and sold at snackbars. The potato has the advantage, in contrast to cotton, of serving as food during crisis periods.

The field crops mentioned are, however, not grown exclusively as cash crops – especially in periods of poor harvests. A farmer in Nhkungula village, TA of Chauma, Dedza, explains:

“We sometimes mix soya and maize flour to cook a porridge for the breakfast. We don’t eat that often, but we would prefer to eat that nutritious meal more often, just the quantity is not enough. Yes, soya was introduced for selling, but now, if I would have 10 bags, I would only sell four and keep six for food.”⁴⁰

The decision as to which field crops are to be cultivated, what is sold and what is kept is essentially reached jointly by men and women, or so they claim. It is heard occasionally that the final decision lies with the men, in any case as far as the “important” crops are concerned.

In order to cope with their living costs, women and men farmers are forced to dispose of part of their harvest: above all, soybeans, groundnuts and potatoes, which, in contrast to maize, can be sold at a higher profit. Farmers weigh very accurately the times and quantities at which to sell portions of their harvest. Their priority is always food security.

Those who confine themselves to maize growing, do so mostly because they lack the capacity to do otherwise. This is particularly relevant to vulnerable households, that is households that have available very little land and/or have a limited labour force because the persons are old, ill, or handicapped. Often they are also households headed by single women⁴¹ who lack the capacity to cultivate more than the maize they need to survive.

The focus on maize is also reinforced by extension workers of the Ministry of Agriculture who advise primarily to cultivate maize, if at all possible, as a monoculture, and to forgo intercropping in order to achieve the highest possible maize yields. This advice notwithstanding, many smallholder farmers intercrop maize with other crops, such as squash or beans. In contrast, the extension workers of the Ministry of Health and the representatives of the NGOs

40 Interview LS_50304. As stated by Musa Seya who grows on his 2.5-acre fields maize and soybeans.

41 The women complain constantly about the increasing promiscuity of the men, which causes the number of self-supporting and single-parent women to increase enormously. The reason for the men’s behaviour is attributed by the women to the abolition of social controls and taboos, as well as to a growing “greed” of the men. According to the women, this phenomenon has an immense impact on all facets of life, as well as on agriculture.

advocate diversified cropping. For example, the NGO *Neverendingfood* (Lilongwe) diffuses permaculture and mixed cropping at the village level. Women and men farmers experience, however, that the combination of mixed cropping and chemical fertiliser, which is applied to the hybrid maize, is problematic. They claim that the fertiliser promotes the growth of maize but is harmful to other field crops, particularly when the plants are very closely spaced. Maintaining greater intervals between plants is, however, hardly possible on the smaller fields.

An important component of Malawian agriculture is small-animal husbandry. An appreciable number of women and men farmers keep chickens, ducks, goats and hogs. The animals serve primarily as a capital investment and as trade items that allow the generation of cash income. Goats are disposed of in such cases as when feasts or funerals are held, payments for hospital treatments or for schooling are due⁴², or when fertiliser and hybrid-maize seed must be bought at the onset of the sowing season. In Salima District, women and men farmers complain about the widespread keeping of goats there. With population growth, the number of goats has also increased. In addition, in 1983 the government of Malawi, in collaboration with Germany's federal government, introduced a goat-breeding programme in Salima that was implemented by the *Malawi-German Livestock Development Programme* (MGLDP). The goats have since become a serious problem: as soon as the maize is harvested, the goats are turned loose so that they may graze and breed.⁴³ At this time of the year, the goats then browse on fieldcrops still awaiting ripening and harvest. This complicates diversified cropping, and a varied diet is then often available only to those who can purchase it. Goats are nevertheless very valuable to the women and men farmers ("*personal banks*"). The stocks of goats are considerably smaller in Dedza District. There, it is mainly chickens and hogs that are being kept (the latter mostly in fenced-in areas).

42 Even when no school fees are due, there are "hidden costs" generated for the farmers by the schools, such as contributions for water or electricity, instructional materials, expansion of school buildings, night watchmen, and examination fees.

43 During the rainy season, the goats are tethered or penned up in order to prevent their browsing of young maize plants. As soon as the harvest is brought in during the dry season, the goats are turned loose. This is necessary as, in the dry season, the goats require a larger area for feeding. In addition they need the free run in order to reproduce. The penning-in required during the rainy season increases the risk of infection with diseases. Once given free run after the maize harvest, the goats will eat, however, the field crops still standing (eg., cassava, all winter-grown crops, as well as plants cultivated for erosion control or as organic fertiliser). Also as a result of the goat population, vegetable growing is hardly feasible in the villages.



Juni Chisale and family, smallholder farmers, Kankalamba village, TA of Khombedza, Salima District (Photo: M. Fink)

In the past, goats were not a problem. Today, however, humans and goats compete over the field crops as a result of the degradation of natural resources. Goats are also distributed by NGOs, again with the objective of nutritional diversification. The goats are, however, much too valuable to the women and men farmers to land on their plates.

The discussions with the farmers of both genders have shown that diversified cropping is not practiced exclusively for the purpose of sales, but is also clearly reflected in their diet, although it is not always the self-grown foods that appear on the menu. Often, it is one's own field crops that are sold in order to be able to buy other, more desirable foods. The supplementary purchase of food is, however, only possible with a higher cash income.

In the agricultural sector, the NGO *Neverendingfood* tries to set a good example of the possibilities for a diversified cultivation of food crops. With its model farm near Lilongwe and with Community Projects, *Neverendingfood* promotes, as mentioned earlier, permaculture and mixed cropping, and indeed without applying fertilisers. The concept, as explained and presented to us on location, can be summarised as follows:

Permaculture is understood as a method for planting “with nature” and not against it. Women and men farmers are urged to start with permaculture on a small lot, and then to expand it piece by piece. A piece of land should lie fallow for at least a year and be able to recover by this method. On the model farm, its own permaculture farm is watered year-round with direct and stored rainwater. Those who, like the majority of smallholder farmers, have no irrigation possibilities available, can implement permaculture during the rainy seasons.⁴⁴ Vegetables and field crops are interplanted, and grow together with indigenous food crops such as *chisoso* (*black jack*), the grains of which are still available in the soil but which, under conditions of maize monoculture and field clearance through burning, normally no longer have the possibility to germinate. Natural fertiliser is self-produced via composting. In addition, certain plants of the permaculture boost soil fertility or act as insect repellents. Whereas chemical fertilisers reinforce plant growth whilst robbing indirectly (by intensifying the yields) the soils of their fertility, natural fertilisers promote both plant growth and soil fertility.

As seed, only self-reproducing varieties are used, not hybrid varieties. Next to the *permaculture* gardens, mixed cropping is being pursued on the fields – without the application of chemical fertilisers. Maize is grown together with millet, beans, soybeans and groundnuts. Local varieties are used exclusively. The soil recovers its fertility through the balanced mixed cropping, and is made highly friable, which obviates the need to hoe or harrow.

On the fields of the model farm, various trees have been planted, the leaves of which fertilise the soil and are supposed to protect the seed from drifting in the wind. So far cattle dung is applied to the fields. According to information provided by collaborators on the site, even during the poor harvest year of 2015, the project was able to obtain a normal harvest. The explanation for this result is that, on fertile soils, good yields are possible even with meager rains. In addition, the project promotes products beyond purely agricultural ones, as for example solar driers, for the dry preservation of vegetables, that are easily home-built, as well as small, firewood-saving stoves which, in the meantime, have enjoyed growing popularity in the country and can be acquired on favourable terms (only MK 1,000).⁴⁵

44 In principle, permaculture does not depend on the rainy season and on artificial irrigation. Permaculture works with plants that hardly need any water, and tries to “harvest” water during the rainy season (water-harvesting techniques) so that water is available all year-round. Also see www.permaculture.org

45 <http://www.neverendingfood.org>

Nutrition and food scarcity

The villagers questioned by us in individual discussions and in group interviews state that their harvest supplies will already be exhausted between August and December of 2015.⁴⁶ During the period until the next harvest in March/April 2016 they will try to secure their survival through piece work (daily-wage workers). Many have already started to search for piece work as early as July. Finding work is difficult, particularly for older, sick and handicapped people. Alternatives do not, however, exist. Artificial irrigation aids for fields and gardens during droughts and the ordinary dry seasons are rarely available.

Salima District borders on Lake Malawi. The lake has, however, lost significance as a food and revenue source ever since its fish stocks have declined drastically as a result of overfishing.

Women and men farmers seek work on the larger farms, where they are often paid with maize. As the payments occur in the form of local maize varieties, the old varieties remain in circulation, even when farmers of both genders prefer hybrid maize, primarily owing to its shorter maturing period. Those who cannot afford hybrid maize and fertiliser have planted local varieties, and have harvested almost nothing. In the last 5 years (our questions concerned this time period), the women and men farmers inform us, meager harvests and food scarcity have been a constant and serious problem. Days during which both women and men farmers have nothing to eat, except some squash or squash leaves, occur over and over again.

Occasionally, the piece workers are also paid, for their work in the fields, with maize husks. The husks, which are removed during the processing of the maize, rate as waste products, and are only processed as flour, and eventually as *nsi-ma*, whenever imposed by necessity. In the better harvest years, the husks (in *chichewa: madeya*) are used primarily as cattle feed, if not disposed of.

Besides the compensation for harvest deficits through piece work, possibilities for earnings consist of the production and sale of tiles, mats and baskets, as

⁴⁶ The actual scarcity or hunger period (February-March) appears to lengthen steadily. This year (2015), it began as early as the summer and autumn.

well as by gathering and selling firewood and charcoal. These trading goods are offered at the nearest markets or in Lilongwe. In the early hours of the morning, on the road towards the capital, numerous firewood sellers are commonly underway with overloaded bicycles. They return to their villages before night falls.

The maize mills also provide piece work. In this case, too, payment is often with maize husks. Farmers of both genders report that flour made from husks amounts occasionally to the sole source of food for the daily-wage workers.

Next to piece work, a further strategy for coping with the food crisis is to cut back on the daily meals. At times of scarcity, farmers eat only once or twice a day small portions of *nsima*. The portions do not satisfy, but only serve as a makeshift filling of the stomach. Faced with food scarcity, farmers prepare *nsima* by mixing whole-grain flour (*ngaiwa*) with the highly-processed white flour (*woyera*). In order to enrich *nsima*, occasionally soy meal, ground groundnuts (peanuts) or ground dry fish are mixed in.

Even at a time of crisis, as during the present one in 2015, *nsima* is never eaten without a side serving of vegetables (*ndio*). Even the side dish is, however, meager, as self-grown vegetables are insufficient and must be supplemented by purchases. The side dishes are prepared, insofar as possible, with fresh vegetables; when these are not available, then with dried ones. Above all, beans, the leaves of beans/squash/moringa/cassava/potato/and hibiscus, and okra serve as side dishes, as well as vegetables considered “modern”, such as cabbage, Chinese cabbage, tomatoes and onions.⁴⁷ Occasionally, ground peanuts are added to the vegetables in order to render the latter tastier. The most common side dishes eaten include the leaves of squash, moringa and beans. Wild fruit and vegetable varieties that have been gathered rate as rare but tasty accompaniments. The elders reproach the young, however, of being too idle to collect foods, and of preferring “modern vegetables” such as cabbage and Chinese cabbage, as well as fruit from the market.

Chickens are kept primarily for sale, as are the eggs, although both are also eaten as side dishes to *nsima*. The women produce *fatcakes* (*mandasi*) and cakes made from maize flour and banana. Parts of these are intended for the family, with the rest sold in the village or at the market, insofar as one exists in the vicinity.

47 For the indigenous (*chichewa*) names of foods see Nordin, Stacia (2005), pp. 184–196

Normally, the adults do not have breakfast. Even during the labour-intensive season, they leave for the fields early in the morning without eating, and return only in the afternoon. The farmers report that, until as late as 20 to 30 years ago, it was possible to find wild fruit in abundance on the way to the fields, where it was eaten whilst at work. This source of food has dried up.

The farmers of both genders complain that they do not have available a sufficiently diverse diet.

Be that as it may, *nsima* prepared with highly-processed maize flour – is a food they do not wish to forgo. Rice and potatoes are, however, also popular. The farmers, however, can hardly afford satisfying quantities of rice or potatoes, as both must be bought and have a distinctly higher market value than maize. Rice and potatoes are, therefore, considered luxury goods, and in the households are seldom found on the menu. Bananas, mangoes, guavas, squash, cassava and sweet potatoes are considered snacks. They are rare, and normally used up quickly. In any case, the number of fruit trees has declined drastically as a result of tree-felling in the village and on the fields. New trees are hardly planted, as it is feared that the fruit will be stolen. In general, farmers of both genders cannot afford to purchase fruit. Older persons, in particular, gather wild fruit and roots that occasionally can still be found on remote mountains and on river banks. Wild roots, that earlier could still be dug up during periods of hunger, are by now rare. Especially during the severe drought of 2002, the roots were so heavily exploited that their stocks have never recovered.

Primarily in Salima, sodium carbonate is often used in the preparation of vegetables in order to soften these. In Dedza, this method (which, according to nutritional experts, removes nutrients from the vegetables) is used less often. Dedza farmers of both genders refer to a similar product (*chidulo*) that they themselves make. The farmers of either gender, who use this product, say that certain leafy vegetables are inedible without this method of tenderising.

Cooking oil is bought in small portions, and bottled in small plastic bags or in small plastic bottles. The purchase of an entire bottle of oil is, at the moment, too great a cash outlay. Older interview partners recall that, in their childhood, animal fat from hunted animals was used for cooking instead of oil.

Elizabeth is chief of Mwili village, in the TA of Chauma, Dedza. As head of the village, Elisabeth reports that she is confronted primarily with three problems: household conflicts, conflicts over land, and theft of field crops. Eliza-

beth grows maize, soybeans, groundnuts, sweet potatoes, beans, and squash. As a result of land scarcity, this woman farmer intercroops her field.

Owing to the short rainy season, the maize harvest this year yielded 5.5 bags of maize (1 bag contains 50 kg of maize grain). In addition, she was able to harvest 15 kg of groundnuts, 75 kg of soybeans, and 15 kg of beans.

From the maize harvest, Elizabeth had to repay four bags to a farmer in a neighbouring village who had loaned her 2 bags during the last hunger period. The interest corresponds more or less to the official rate. She is left with 1.5 bags of maize. If she cannot find work, she must live from squash leaves. Elizabeth reports that, in a more productive year, she could have harvested 30 bags of maize on her two acres of land. She has, however, not experienced such a good season in years.

This woman farmer dries vegetables, for example okra and chisoso (black jack). She sells most of the soybeans in order to pay for the schooling of her children with the proceeds. Although the elementary school is fee-less, funds are raised for materials and operating expenses such as watchmen.

From her revenue, she must also meet the cost of maize milling. Elizabeth buys soap, oil and salt, occasionally also supplementary maize or the cheaper cassava. Part of the soybean harvest she keeps for her family. The soybeans, same as the maize, are soaked, dried and processed as flour. Elizabeth adds the healthy soybean flour to the breakfast porridge of her children.

Tienenji lives in Mpondezi, a village in the TA of Maganga, Salima. She rises in the morning at four, and proceeds to her maize field. She needs two hours for this trip. She carries on her back her three-month-old baby. She carries a plastic water bottle, and the hoe, the only tool available to her. As soon as she arrives on the field, Tienenji begins her work: hoeing, sowing, mounding, weeding, harvesting – depending on the season. There is nothing to eat for the entire day. In the afternoon she faces again a two-hour walk. Once at home, she lights a fire between the three stones in front of her house. As she has no wood, she burns the straw-like core of the maize cobs in order to boil the water for the nsima, the maize porridge.

First to be fed are the children, three boys and two girls. The baby is put to the breast. Then she herself has the first and only meal of the day. The portion is small because the harvest was poor.

Tienenji's hut is built from red burnt bricks. The clay for this is available throughout the region. The timber for the roof construction and the straw for the roofing have also been collected. Here, as well as almost everywhere in Malawi, deforestation is, however, far advanced, so that it is increasingly difficult to find wood for construction and as kitchen fuel. The huts consists of two rooms, and the walls are carefully plastered with grey clay. In one of the



Woman farmer, Kalombodza village, TA of Khombedza, Salima District (Photo: M. Fink)

two rooms, the maize cobs harvested have been piled up. Next to them, on the bare clay floor, are the sleeping places. When going to sleep or waking up, her eyes fall on the shrinking mound of maize cobs, and Tienenji can estimate when the last maize porridge will be eaten. Then they will bring the green, as yet immature, maize cobs from the field in order to dull their hunger.

Tienenji is raising and caring for her children alone. Her husband has not returned from a trip to South Africa. In many cases, the children, when the mother remarries, are turned over to the grandparents. Since the number of divorces has increased drastically, very many children live with their grandparents. The latter, however, are mostly too old to care for the children properly.

In the matrilineal culture of the Chewa, the man traditionally moves to the village of the woman he marries. In case of a separation, the children remain with the mother. When the mother remarries, the new husband normally does not accept the children. According to tradition, the children are then given to the mother's parents. In view of the growing number of children – and of divorces – and against the background of the general food insecurity, it appears that the problem of malnutrition and undernourishment of children is, thereby, substantially aggravated.

Aduniya *is divorced. She lives with her 6 children in Matumula, a village in the TA of Pemba, in Salima District. Three of the children are going to school, the other three are still small and at home. Aduniya has received a goat from*

the NGO SASO (Salima AIDS Support Organisation), as well as fertiliser and seed. The woman farmer explains that SASO provides information on healthy nutrition, and shows the villagers how to prepare a healthy meal. Aduniya says, however, that the food is always insufficient. She has never had a surplus from her harvest. This year the harvest was especially poor: Aduniya has lost half of her maize harvest, and her pigeon peas were completely destroyed by the drought. Aduniya does not know what to do. Her supplies will be exhausted by October. She is already looking for work. She and her children are still eating two meals a day (at noon and in the evening): nsima with moringa vegetables. She cooks the moringa leaves with sodium carbonate until they are tender. The woman farmer says, as long as the soil is so dry, all villagers are planting only maize, and no potatoes or cassava. Some villagers run small business selling fish or fatcakes (mandasi).

Malunga lives in Mjolo, a village in the TA of Chauma, in Dedza District. In the past 5 years, for him there was only one good harvest year. It was the year he was able to buy fertiliser, as he made mats and sold them in Salima. Since then Malunga is too old and weak for this work, and therefore he can no longer afford the fertiliser.

He uses, therefore, local seed. His field is small (1.5 acre), and for this reason Malunga restricts himself mainly to maize growing. Between the maize he plants beans. His harvest this year was poor, and will only last until September. Beyond then, Malunga does not know how to proceed. He has only harvested 2.1 bags of maize. Had the rains been good, he could have harvested 10 bags. Soybeans and beans came to nothing as a result of the drought. Mulunga and his wife, their two children, and two grandchildren at this time eat twice a day (at noon and in the evening). The portions available are, however, small and do not satisfy. Mulunga says that, in the village in the last two years, there have been no more feasts because there is not enough to eat. Traditionally, after the harvest, various feasts take place: these are mainly weddings (ukwati) or mkangali (a feast for the inauguration of new chiefs). In his village, most are members of gule wamkulu, and not either Christians or Moslems. Mulunga explains that, for weddings in the gule wamkulu tradition, meals do not play a role, only the chiefs are paid so that they authorise the performance of the nyao masked dancers at the feast. In contrast, for mkangali much food is needed. Mulunga says that, the fact that mkangali can no longer take place, is a serious problem, but, he adds, that is the way it is now.

Nutritional knowledge

NGO and government experts overwhelmingly assume that inadequate nutritional knowledge on the part of women and men farmers is an essential reason for the unbalanced nutrition. (*“There is a lack of knowledge about nutritious food”, “they produce too little and they don’t know how to use it”, “they sell their fruits and vegetables to town and keep only maize”, “people stick on maize as their traditional food”, “they have forgotten that they have rich foods there”, “people want exotic foods and do not value local vegetables”, “sorghum, sweet potatoes, cassava could be eaten, but people concentrate on maize”, “in the past people used local food, but now marketing has taken over”, “papaya and mangos are sold in town”, “food security in Malawi means maize, not beans or potatoes – this has to change!”*). An NGO woman representative in Dedza declares: *“We produce a lot, like potatoes and vegetables, but the problem is the utilisation. This is the challenge! Most of the food they sell, it’s for the market. People harvest much. But you cannot force the household to keep.”*⁴⁸ The aid programmes are based, therefore, on education.

Nutritional knowledge (e.g., knowledge of the 6 food groups, or knowledge about the necessity of exclusive breastfeeding for the first six months) is disseminated primarily via the hospitals, as pregnant women (in Malawi, giving birth in hospitals is legally mandated) are educated in matters of illness prevention and diversified diet as part of prenatal consultations. Several NGOs and nutritional experts of the government (especially the *health and nutrition surveillance officers*) counsel and offer courses on nutritional diversification and on nutrient-conserving food preparation at the village level.

Measures for the improvement of nutritional knowledge have also originated within the context of the struggle against the HIV/AIDS epidemic. At the national level, nutrition has been a high-priority topic for years.⁴⁹

The educational measures aimed at nutritional diversity include, for example, the information campaign concerning the whole-grain *nsima* (*nsima ya ngai-*

48 Interview LS_50261

49 For the national nutritional guidelines of Malawi see: http://www.unicef.org/malawi/MLW_resources_nutritionguidelines.pdf

wa). This form of *nsima* is not very popular among farmers of both genders. To be sure, they are aware that *ngaiwa* is healthier and more filling than the highly-refined, low-nutrient maize meal (*nsima ya woyera*); the latter, however, is more delicate and, above all, considered tastier. In addition, the fine maize porridge does not cool down as quickly as the whole-grain porridge, at least according to the farmers of both genders. Women who can prepare a snow-white *nsima* are judged to be especially competent housewives and cooks. Those questioned are unanimous that whole-grain *nsima* cannot be combined with vegetables, but only with fish or meat (“*it only goes with fish or meat*”) – both of which are seldom available. Occasionally, beans are also accepted as a side serving to *ngaiwa* (“*beans are our meat*”). The whole-grain flour is used primarily for the children’s morning maize porridge, which, in contrast to the hard-boiled *nsima*, is a softer porridge. In addition, *ngaiwa* is used to stretch supplies of *woyera*.⁵⁰

In order to improve nutritional security and diversity, nutritional experts further advise to:

- » Cook vegetables sparingly so as to retain nutrients;
- » not prepare more food for meal that can be eaten, so as to avoid leftovers;
- » not treat food wastefully at feasts and right after the harvest;
- » rediscover the value of traditional, more nutritious food, and not to denigrate them as old-fashioned or as “food of the poor”;
- » consider fruit not only as snacks, but rather as important components of a healthy diet;
- » not sell field crops such as potatoes and squash, but rather eat them immediately after harvest; in contrast, with maize, as it can be stored longer, to lay in sufficient supplies for the hunger periods.

The advice is probably justified up to a point. It must not be overlooked, however, that, from the standpoint of the farmers of both genders,

- » fruit cannot fill a hungry stomach;
- » *nsima* is, to the farmers, an indispensable food;
- » the call for diversity is normally difficult to meet, and the cultivation and sale of foodstuffs are dictated by economic necessity. (Farmers of both genders need money in order to survive – for fertiliser, seed, supplementary maize flour, maize milling, schooling, clothing, medical expenses, and for household items such as salt and soap).

50 Cf. <http://malawiguide.blogspot.de/2013/03/chimanga-vocabulary-of-maize-in-malawi.html>



NGO educational brochure on nutritional diversity (Photo: M. Fink)

That farmers of both genders absolutely wish to have a more diversified diet was also clearly revealed by their replying, to the question as to what consists a “good meal”, with a listing of various foods, as for example:

- » *Nsima*, rice, beef, chicken and vegetables (thus a 40-year-old woman farmer in Salima District);
- » *Nsima*, soybean porridge, rice, okra, squash leaves, cow-pea leaves, potato leaves, spinach, meat (thus a 76-year-old male farmer in Dedza District).

With regard to the waste of food (particularly after the harvest) presumed by outsiders, the farmers respond that, in any case, certain feasts no longer take place because there is not enough to eat.

We were able to observe that the farmers calculate their supplies with great precision. A farmer who, in April 2015, harvested 6 bags of maize knows that this quantity will last until October. The majority of women and men farmers questioned stretch their supplies by eating, as a rule, only once or twice a day instead of three times. When only one meal is available, the farmers weigh whether this meal is taken at noon or in the evening. One farmer explains that he and his wife would rather eat in the evening, as it is more difficult to tolerate hunger at night rather than during the day. What happens with leftovers is carefully thought out: if a portion of maize flour remains, and it does not

suffice for all members of the household, then this portion is only cooked for the children.⁵¹

The wariness of farmers of both genders vis-à-vis the plea for diversity is in no way an expression of a lack of candour, but rather it has good reasons. The farmers' perception is: food security consists of sufficiently large maize supplies. Only when the maize harvest is assured can thoughts turn to diversity. A lack of diversity does not stem from ignorance or from an absence of flexibility, but rather from the immediate urge to survive (*"firstly, one has to have enough food to last throughout the year and when I say food, I mean maize"*).⁵² Maize fills the stomach, and maize growing promises higher yields. This survival strategy is, however, starting to falter: the ever-shrinking fields are emaciated from monoculture and chemical fertiliser. The farmers of both genders see this with great clarity – and they experience it as a bitter reality.

The interviews were able to show that both women and men farmers are well-aware of the positive impact of a diverse diet on health, as well as of the importance of diversified cropping for good soil conditions. They lack, however, the means to this end (they name early-ripening seed and seedling varieties; fertile land; irrigation aids; cash). The natural resources, in the past an important basis for nutritional diversity, have been used up. (*"In the past there were a lot of wild fruits and vegetables. People didn't know that it was healthy, they just ate it because it was available. Nowadays we know what is healthy food, but it is no longer available for us."*)

Nevertheless, both women and men farmers welcome the educational initiatives (*"Times have changed, now we need new skills"*). At the same time, they emphasise that, for them, the lack of access to resources such as seed, fertiliser and fertile land, represents the most urgent problem.

51 Interview LS_50284

52 Stephen Carr has convincingly described how thoroughly flexible Malawian women and men farmers have been in the past in adopting newly-introduced crops. Cf. Carr, Stephen (2004)



Group discussion with women and men farmers in the village of Mwale, TA of Maganga, Salima District (Photo: M. Fink)

Malnutrition and its consequences, wasting and stunting⁵³ are perceived by the women and men farmers as a serious problem. Occasionally, however, scepticism predominates vis-à-vis the concept of malnutrition, as the following commentary from a group discussion with villagers in Mawale, TA of Maganga, Salima District, shows:

“Of course there are a lot of malnourished children in the village. But the situation has been made worse by the fact that there is now emphasis on six food groups. So if you only eat three, it means you are malnourished. Whether you are a child or a grown-up. Whoever brought this idea that there should be six food groups is worsening the situation. Because when you are eating only three – there is no way out – you are malnourished. But of course there are

53 For the definitions of *wasting* and *stunting* cf. UNICEF under http://www.unicef.org/progressforchildren/2007n6/index_41505.htm: “*Stunting, or low height for age, is caused by long-term insufficient nutrient intake and frequent infections. Stunting generally occurs before age two, and effects are largely irreversible. These include delayed motor development, impaired cognitive function and poor school performance. Nearly one third of children under five in the developing world are stunted. – Wasting, or low weight for height, is a strong predictor of mortality among children under five. It is usually the result of acute significant food shortage and/or disease. There are 24 developing countries with wasting rates of 10 per cent or more, indicating a serious problem urgently requiring a response.*”

malnourished children and there are malnourished grown-ups! But for you to eat the six food groups you must have money!”⁵⁴

It became clear from the interviews that undernourishment through *food shortage* is perceived as a greater problem than *malnutrition*. The experience of undernourishment and malnutrition are also reflected in local practices such as *gule wamkulu* or *anamkhungwi*. One of the many *gule wamkulu* characters, whose central theme is food security, bears the name of *makuponi avuta*, which means “the coupons are hard to get”. The mask of this dancer consists of a shipping bag for chemical fertiliser. The bag is stuffed with a light filler, and is fitted over the head of the dancer. The dress of the dancer, as well as the arm and foot decorations, are also made from the material of a fertiliser bag. This *gule* holds in his hands two knives that he bangs against one another in order to symbolize the struggle against the unfair distribution of chemical fertilisers.⁵⁵

Namkhungwe is a social practice, conducted by women, for the instruction of girls. In addition to the instruction of girls (*chinamwali* and *chisimba*), the *anamkhungwi* (plural) counsel those women who are pregnant for the first time, on matters of nutrition and prenatal preparation, as well as on the care of nursing babies. As a result of modernising processes, such as the influence of the schools, the role of the *namkhungwe* has lost on significance. The former strongly spiritual dimension of the instruction has also given way to a rather more practical counseling, orientated towards international nutritional and health concepts. Despite their loss of significance, the *anamkhungwi* still play an important role in the villages. In many cases, in a single village several *anamkhungwi* may be present.⁵⁶

54 Interview LS_50288

55 Cf. http://www.kasiyamaliro.org/pdf/makuponi_avuta.pdf (for other characters on the theme of hunger, malnutrition and food security, see „*njala ipita n'khasu* oder *adzinja tipale nawo*“, „*munda udagona tsala* or *chimbandanga*“, „*mafumu achuluka*“, „*kunali njala*“, „*chiphama*“, „*bonya*“, „*kadanga*“, „*januwale*“, „*disembala*“, „*kalinyeke*“, „*sitiopa mama*“). Regarding the topic of fertiliser, cf. the chapter “Maize as a staple food and as a crisis crop” of this Report.

56 Traditionally, watching over health and fertility in the village belonged to the important tasks of the *anamkhungwi*. In this respect, cf. Kaspin, Deborah (1996), and Pfeffer-Engels, John (1996).



Makuponi avuta (Photo published with the kind consent of the Kungoni Centre, Malawi, www.kungoni.org)



Jessie Chapota, namkhungwe in the village of Mwili, TA of Chauma, Dedza District (Photo: M. Fink)

Conclusions

We hope that our findings are helpful in the implementation of the GIZ's project design. We urgently recommend that the desires and insights of the villagers be taken into account. The villagers are, after all, the experts on their own living conditions.

With the conclusions of our investigation we do not claim to provide new findings in all respects. We have the impression, however, that even known facts sometimes do not receive the necessary attention.

With this proviso, we conclude the following:

1. There are clear indications, also scientifically confirmed, that Malawi, like other Sub-Saharan African countries, is affected by climate change, with momentous consequences. If the drought persists, and if in the future the rains will no longer occur on a regular basis, it will be primarily the smallholder farm families who will suffer as a result. Their harvests will be even more meager, and the nutritional situation in the countryside will deteriorate further. The smallholder farmers, who so far have led a modest existence, will soon be in need of aid, and become dependent on food deliveries.
2. It is not difficult to predict that, from such events, a massive rural exodus will ensue. The farm families will be turned into refugees. It is not only young men who are already considering the move to the city, but also adult women and men with children: *"we all would like to leave the village better today than tomorrow"*, as the villagers questioned have put it. It is possible to gain the impression that the number of those who, so to speak, are almost sitting on their packed baggage, grows day by day.
3. The smallholder farmers in the regions visited by us express distinctly pessimistic expectations whenever they discuss the prospects of agriculture in Malawi.
4. The villagers report a widespread weakening of people through more disease and as a result of *"modern life"*, as they put it. A whiff of resignation hovers over the villagers.
5. Village culture, and above all the village economy, is externalising: customs and rules, that once safeguarded cohesion and local autonomy, are disappearing. The local *"officials"* are losing influence to outside experts. The

latter promise to provide health, diversified nutrition, education, improved seed and better harvests. With this, there follows, step by step, a transformation of the modest and autonomous village economy into an economy of neediness and dependence (latently permanent, even if not so desired). Local tradition will be replaced by structures which will result in individuals acting in a free-market and competition-orientated manner. It is not clear, however, whether such a modernised agriculture can succeed on the leached soils of the overpopulated regions.

6. A question is whether the chances for an improvement in agricultural yields have been sufficiently exploited. Have the possibilities for local seed been exhausted? Have the possibilities for non-chemical fertilisation been sufficiently investigated? Have irrigation projects been implemented where they could be implemented? Has the maintenance of smallholder autonomy been sufficiently thought through, or have the measures and offerings coming from the outside contributed primarily to just a stronger monetarisation of village daily life, and thus the problems have not been solved but rather have been exacerbated?



*Sumani Lufani, Village Headman of Mpondezi, TA of Maganga, Salima District
(Photo: M. Rompel)*

The wishes that have been directly formulated by the women and men farmers to the project designers are, in any case, presumably clear. We are recalling them here so that they may elicit a stronger response:

- » The persons affected say “*maize is food and food is maize*”. Maize is more than a staple food, maize is an element of rural identity, and is a prerequisite for well-being. NGOs should respect the priority of *nsima*, the maize porridge, and concentrate their efforts on diversification of the side dishes (vegetables, fruit, eggs, etc.), and not overlook, in this connection, that the persons concerned are well-informed regarding food diversity.
- » Farmers are saying that they need seed (“*seed availability*”), and not only for maize.
- » Farmers say they need clean water and irrigation opportunities.
- » Farmers say they need better access to fertiliser.

Our impression is that it would be helpful, for the implementation and effectiveness of the GIZ project, to devote as much as possible attention to the structures of the smallholder culture and of the villages. The surviving forms of local social security and the remaining local nutritional autonomy should be perceived with empathy with a view to strengthening them and, eventually, to ensuring their sustainability. Food security programmes, however necessary, can threaten local cohesion and the willingness to remain if the village culture is not taken into account, and they may aggravate, by intensifying competition-orientated options, the living conditions of rural communities, in particular those of their weaker members.



Children in the village Kalombodza, TA of Khombedza, Salima District (Photo: M. Fink)

List of Interviews

Interviews with experts in Lilongwe, Bunda, Salima und Dedza				
Interview no. as per audio	Interview lengths	Date	Expert	Location
LS_50255	0:32:17	28.5.15	Felix Pensule Phiri (Director of Nutrition, Ministry of Health) und Kondwani Mpeniuwawa (Chief Nutrition Programme Officer, Ministry of Health)	Lilongwe
LS_50256	0:49:47	28.5.15	Augustine Chikoko (Zonal Manager for Salima, Care International)	Lilongwe
LS_50257	0:53:03	28.5.15	Victor Mhoni (GIZ Technical Advicer HCD, NAPE) & Joseph Ndengu (GOPA Programme Manager)	Lilongwe
LS_50258	0:52:14	28.5.15	Regina Claas (EBM International Consultant for Leadership Training in South Africa)	Lilongwe
LS_50259	1:01:05	29.5.15	Beatrice Mtimuni (Associate Professor of Human Nutrition, LUANAR) & Collegues	Bunda
LS_50260	0:51:12	29.5.15	Lisa-Noora Abermann (Country Program Coordinator, IFPRI)	Lilongwe
LS_50261	1:02:20	30.5.15	Chimwemwe Jemitale (Nutrition Coordinator, Concern Universal) & Tiery Nkhata (Health and Nutrition Officer, Concern Universal)	Dedza
LS_50262	1:18:39	31.5.15	Paul Duncan (Executive Director, Salima AIDS Support Group) & Chiyembekezo Chabvu (Programmes Manager SASO)	Salima
LS_50263	0:26:28	31.5.15	Lytton Nkata (Malawi-German Programme for Democtratic Decentralization MGPDD in Salima and Dedza)	Salima
LS_50264	0:23:00	31.5.15	Pilirani Banda (Food and Nutrition Officer in the District Agriculture Office Salima)	Salima

LS_50265	0:30:28	31.5.15	Yoviter Mwaalemu (Team Leader Care International Salima) & Jayaka Lawrence Kipandula (Crops Officer, Salima District Agricultural Office)	Salima
LS_50280	1:07:00	4.6.15	Robert Kawonga (Nutritionist at the District Hospital Salima, Member of DNCC)	Salima
LS_50281	0:56:46	4.6.15	Linley Linachi (Nutrition Officer, Coopi) Ephraim Chiwunjiza (Coopi)	Salima
LS_50283	0:46:19	5.6.15	Lazurus Phiri (Chief of TA Khombedza)	Salima
LS_50293	0:55:09	9.6.15	Mark Liwonde (Programme Director, Feed the Children)	Salima
LS_50295	0:39:49	11.6.15	Betty Chinyamuni (Deputy CEO, National Smallholder Farmers' Association of Malawi, NASFAM)	Lilongwe
LS_50127	0:48:45	13.8.15	Marry Nyasulu (Action Aid)	Dedza
LS_50312	1:18:26	12.8.15	Students (Neverendingfood)	Lilongwe
---	no audio record	7.5.15	Christa Roth (Food and Fuel Consultants) & Dr. Chistoph Messinger (Gesellschaft für Internationale Zusammenarbeit)	Eschborn
---	no audio record	28.5.15	Wolfram Jäckel (Programme Manager MIRA Malawi, GIZ)	Lilongwe
---	no audio record	2.6.15	Blessings Nkhoma (Director of Planing and Development Salima District)	Salima
---	no audio record	1.8.15	Moses Jemitale (World Food Programme)	Dedza
---	no audio record	3.8.15	Humphrey Kalamuka Gondwe (Director of Planning and Development Dedza District)	Dedza

Interviews with farmers (primarily smallholder farmers)

Interview no. as per audio	Interview length	Date	Farmer	Village/TA	Age	Gender	Ethnic affil.	Household members
LS_50165	0:45:00	29.5.15	Group discussion 5 participants (1 women, 4 men)	Bunda, Chadza		m/w	Chewa	
LS_50266	0:50:14	1.6.15	Aduniya Wilade	Matumula, Pemba		f	Yao	7
LS_50267	0:22:26	1.6.15	Milambo Ndala	Matumula, Pemba		m	Yao	9
LS_50268	0:54:55	2.6.15	Linginet Panganini	Chembe, Kambwiri	51	f	Chewa	5
LS_50269	1:00:34	2.6.15	Sauka Ajibu	Dzoole, Kambwiri	33	f	Yao	6
LS_50270	1:01:27	2.6.15	Maskoni Malizani, Joyce Malizani	Lumbe, Kalonga	51 43	m f	Chewa	5
LS_50271	0:17:52	2.6.15	Alinafe Malingamoyo	Chankhwa, Kalonga	32	f	Chewa	7
LS_50273	1:02:39	3.6.15	Group discussion 40 participants	Mzamba, Maganga		m/w		6
LS_50274 LS_50275	1:03:04	3.6.15	Sumani Lufani	Mpondezi, Maganga	59	m	Yao	7
LS_50276	0:47:44	3.6.15	Tienenji Makiyi	Mpondezi, Maganga	28	f	Chewa	
LS_50277	0:31:12	3.6.15	Patuma Chida	Mpondezi, Maganga	35	f	Yao	
LS_50278	0:41:15	3.6.15	Patuma Nakutepa	Mpondezi, Maganga		f	Yao	3
LS_50279	0:14:24	3.6.15	Faida Wiliyamu	Mpondezi, Maganga	38	f	Yao	

LS_50282	1:42:32	4.6.15	Mdzahira Chilupsa Ezibelo Otifala Elizabeth Sumani	Kandusiwa, Pemba	20 28 30	f f f	Yao Yao Yao	4 6 5
LS_50284	1:38:03	5.6.15	Juni Chisale	Kankalam- ba, Khombedza	39	m	Chewa	6
LS_50285	0:53:27	5.6.15	Mpitamawa Fayidoni	Kalom- bodza, Khombedza		f	Chewa	5
LS_50286	1:06:00	5.6.15	John Yikweneneyi Nesi Yikweneneyi Ethel Beston (grandchild)	Kasonda, Khombedza		m f f	Chewa Chewa Chewa	6
LS_50287	0:40:25	5.6.15	Group discussion; with Farmer Support Group SASO	Kasonda, Khombedza				
LS_50288	3:14:45	6.6.15	Patricia Ali Kachere Alifa Assani Richard Kaizi Hussein Luci Mdala	Mawale, Maganga	49 69 63 50 unkn.	f m m m f	Yao Yao Yao Yao Yao	
LS_50289	0:48:32	6.6.15	Dim Sobola	Mawale, Maganga	55	m	Yao	3
LS_50290	1:35:31	8.6.15	Lakinesi Kayamba	Chimbom- bo, Kalonga	53	f	Chewa	10
LS_50291	1:00:02	8.6.15	Jafir Chikadwe	Mgumba Phiri, Kalonga	51	m	Chewa	12
LS_50292	01:14:44	8.6.15	Dimmu Janvari Katunga	Kwanji, Kalonga	59	m	Chewa	12
LS_50294	1:34:48	10.6.15	Lucy Mdala Patricia Ali	Mawale, Maganga	unkn. 49	w w	Yao Yao	11 9
LS_50296	2:24:05	1.8.15	Elizabeth Chiponde	Mwili, Chauma	43	w	Chewa	7
LS_50297	1:41:20	1.8.15	Jessie Chapota	Mwili, Chauma	37	w	Chewa	9

LS_50298	2:26:00	2.8.15	Elizabeth Chiponde Jessie Chapota	Mwili, Chauma	43 37	w w	Chewa Chewa	
LS_50299	2:01:44	3.8.15	Madzutikhumba Chipire	Njolo, Chauma	unkn	w	Chewa	2
LS_50300	1:23:30	3.8.15	Malunga Chayedzekeka	Njolo, Chauma	76	m	Chewa	6
LS_50301	1:50:12	4.8.15	Group Discussion; 40 participants (27 women, 18 men)	Mwape, Kasumbu		m/w	Chewa	
LS_50302	1:37:35	5.8.15	Dickson Kasinjeni Yohane Chenjerani	Kudza, Kasumbu	32 30	m m	Chewa Chewa	6
LS_50303	1:07:21	5.8.15	Group Discussion; 35 participants (22 women, 12 men)	Kudza, Kasumbu		m/w	Chewa	
LS_50304	2:03:40	6.8.15	Musa Seya John Stephano	Nhkungula, Chauma	48 32	m m	Yao Chewa	7
LS_50105	0:30:00	6.8.15	Group Discussion; 30 participants (20 women; 10 men)	Nhkungula, Chauma		m/w	Yao	
LS_50305	1:13:37	9.8.15	Elida Twali	Masi, Kaphuka	50	w	Chewa	5
LS_50313	0:39:38	13.8.15	Lemson Chikadzma	Chauma, Chauma	65	m	Chewa	
LS_50314 LS_50315	00:35:31 1:38:34	13.8.15	Group Discussion; 50 participants (45 women; 5 men)	Chauma, Chauma		m/w	Chewa	

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