

How can poverty be reduced among small-scale farmers in the highlands of western Cameroon?

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Abstract

The article discusses, on the basis of the situation of small-scale farmers in the western highlands of Cameroon, strategies that may reduce their poverty. Background information about Cameroon is given in order to situate the study and discussion in an empirical context that may facilitate a better understanding of the plight of these farmers and their choices at the local level. The data were collected by two quantitative surveys and one qualitative study in the period 2008 to 2013. The question is what choices the farmers really have in this context. A number of such choices are described and their realism debated. It is argued that the strategy, promoted by leading international organisations, of improving the productivity of small-scale farming while it still remains at a small scale, is doomed to fail to reduce poverty. Instead, the focus should be on how to make small-scale farmers become middle-sized commercial producers.

Key words: Small-scale farming, poverty reduction strategies, Cameroon

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Introduction

Undernourishment is a major problem in the world. In 1990 about a billion people (19% of the world population) got too little dietary energy (calories). The figure is estimated to have been reduced to about 800 million today (12% of the world population). In addition, about a billion people are said to have micronutrient deficiencies. An inadequate intake of, for instance, minerals or vitamins is called hidden hunger (Brown et al., 2009; FAO, 2009a; Grebmer et al., 2009; IFPRI, 2011; FAO et al., 2015). It is further estimated that around 19,000 children die every day from easily curable causes connected to under- and malnourishment (Brown, 2008; Hanlon, 2015). Thus, it was recently maintained that “the world is not currently on target to meet the First Millennium Development Goal (MDG 1c) target of halving the proportion of undernourished people in developing countries between 1990 and 2015” (OECD, 2013: 22). In contrast, it is now argued by FAO et al. (2015) that the goal has nearly been reached, partly due to economic development in China. However, the world is far from attaining the goal of halving the *number* (not proportion) of hungry people, who are mostly found in South Asia, parts of China, and sub-Saharan Africa. In the case of the latter, between 1990 and 2015 most countries have seen only a limited reduction in underweight children below five years of age; and about a third of the children are still stunted (FAO, 2015a). During the same period, the number of hungry people in this region has increased from 176 million to 220 million. It is important to note that estimates of a country’s population that is undernourished are based on an indirect method, not on surveys of people actually suffering (Conway, 2012). It is the availability of calories in a country together with estimations of the skewness of consumption, among other things, that is used to arrive at the number of hungry people. At the same time, the production of food in the world has consistently increased more rapidly than the growth of the population, and is today much higher than the need to provide everyone with an adequate diet (Mahon, 2012). Moreover, hidden hunger is excluded from the calculation. In fact, Weis (2007) calculates that the world production of food amounts to as much as one and a half times the amount needed to feed the global population. Still, even in places and regions with abundant food, i.e. “overproduction” in relation to the population, some people do not get enough to eat. Furthermore, it is estimated that about one-third of the total world production of food is wasted, that is, not consumed by people, and in addition, another one-third is used for non-dietary purposes such as biofuel (Stuart, 2009; United Nations, 2013). Hunger is undoubtedly a question of chronic poverty, of not having sufficient buying power to cover the most basic of needs. It is *not* a question of agricultural production, neither today nor in the near future. Moreover, it is a historical fact that countries specializing in food production simultaneously “specialize” in being poor. Furthermore, it is a paradox that most people experiencing hunger (chronic or seasonal) are themselves food producers. The

How can poverty be reduced among small-scale farmers in the highlands of western Cameroon?

International Federation of Red Cross (2011) states that more than 70% of the malnourished children in Africa live on small farms. With the on-going process of urbanization of poverty in mind, this is probably an overstatement. It suffices to say that most of the hungry in Africa belong to (food insecure) farming households (FAO, 2010).

It seems to be a widespread view that a small-scale family farm focused strategy can reduce rural poverty and at the same time improve national as well as international food availability (Green et al., 2005; Thurlow, 2007; World Bank, 2007; Wiggins, 2008, 2009; FAO, 2009a; Fraser, 2009; IAASTD, 2009; Leathers & Foster, 2009; World Food Programme, 2009; Devèze, 2011; IFAD, 2011a; International Federation of Red Cross, 2011; Thapa & Gaiha, 2011; Hazell & Rahman, 2014a). Moreover, some authors think that a national policy of agricultural development that is based on small-scale farming is “the best way to reduce poverty” (Birner & Resnick, 2010; Hazell et al., 2010; Torrez, 2011; FAO, 2015a; Henley, 2015). One of the arguments often used is that most of the poor live in rural areas and are sustaining themselves mainly by agriculture. FAO, as a major food and agriculture research institution, is clearly in favour of using an agricultural strategy to alleviate poverty: “higher cereal yields will still help reduce poverty by raising revenues for small farmers and increasing demand for rural labour. Thus, it is time to learn from the past and re-invest in the agriculture sector to reduce food insecurity and poverty” (2009a: 12). Furthermore, such investments are generally thought to be the most important strategy for national economic growth and poverty reduction in poor countries. In the 2015 issue of the “Food Insecurity in the World” report, FAO et al. repeat this point, but now confuse the argument by combining the categories of “family farm” and “small farm”. (Family farms can be large-scale.) The World Bank and others use econometric models to argue that investments in agriculture are more effective in alleviating poverty than investments in other sectors (Xavier et al., 2001; DFID, 2005; Diao et al., 2007; World Bank, 2007; Christiaensen et al., 2011; UNDP, 2012). In my view FAO et al. (2015) overstate this when they allege that: “In sub-Saharan Africa, agricultural growth can be 11 times more effective in reducing poverty than growth in non-agricultural sectors” (page 28). An increasing number of researchers are skeptical about this argument by FAO and the World Bank, among others (Bresciani & Valdes, 2007; Christiansen & Demery, 2007; Havnevik et al., 2007; Lines, 2008; Oya, 2009; Veltmeyer, 2009; Stein, 2011; Collier & Dercon, 2014; The Oakland Institute, 2014). The econometric studies do not include the dynamic aspect of agricultural modernization which could drive a large part of the farm population off the land. Thus, there may become less poverty among modernizing farmers but at the same time poverty may well increase among those losing all or part of their land. In my view, even a small-scale farm strategy is *not* likely to achieve the combined objective of sufficient food output *and* poverty reduction *in general*. Thus, investments

in agriculture are not *the* solution to poverty in a country. Even IFAD (2011b) admits that it is unrealistic that small farms constitute a “robust” path out of poverty. Keeping farms small is not the way forward.

The mainstream view before the opinion changed to the small-scale farm strategy was that in order to achieve sufficient future food availability, it was necessary to provide “progressive” (profit maximizing minded) farmers with new technology and more land to cultivate (in order to make the new and more expensive technology economically viable). It was anticipated that these “family farms” would become modern and relatively large-scale, and that a proportion of the small and medium-sized farmers would disappear. This could however increase poverty at the national level. Such a strategy would improve food production but it would not achieve the other goal of reducing the number of poor people. Thus, I think that the needed strategy to reach both aims is to transform a large proportion of the small-scale farms into medium-sized farms. This strategy is seldom discussed in recent literature on agricultural development, which has become much too dichotomized - pro-agribusiness or pro-small-scale (Stock & Carolan, 2012). It is, in my view, necessary to explore a middle-way, and to move from farming based mainly on family survival to a system geared at commercial options without going to the extreme - to large-scale (industrial) agriculture. Furthermore, it is important to distinguish firstly between a reduction in number of poor people and a decrease in degree of poverty among the poor, and secondly between fewer poor farmers and less poor people in a country as a whole. It would for instance be positive with a fall in degree of poverty among farmers, due to improvements in their agricultural production and marketing, although the number of poor farmers does not go down. Likewise, it would be negative if a reduced number of farmers were poor but the number of poor (or the degree of poverty) increased at national level due to a process of displacement of many farmers from the land.

In this article I will present some results of a quantitative survey with 200 randomly selected small-scale farmers conducted in 2008/09, another random sample survey of 328 similar respondents in 2013 and a qualitative fieldwork with in-depth interviews with 25 selected farmers made in 2011, all from “Lethe”, an area situated in the highland Bamboutos in northwestern Anglophone Cameroon. The objective of the article is to use this information as an empirical background to discuss choices small-scale farmers have in such a setting as well as to touch upon strategies of agricultural development in general.

Small-scale is seldom defined in the literature and debates on agricultural development, but when it is, the most common definition is: a cultivated area less than 2 hectares (IFAD, 2011a; Thapa & Gaiha, 2011; Conway, 2012; Hesselberg, 2013). Of course, an economically viable farm size for a family

How can poverty be reduced among small-scale farmers in the highlands of western Cameroon?

depends on several factors, not least the quality of soil and weather conditions; the types of crops it is sensible to grow, climate- and market-wise; and whether it is possible to obtain two or more harvests per year from the same land. In the research conducted for the present article the definition of two hectares is used because this makes sense regarding the physical situation in the study area.

Cameroon¹

Cameroon is a low-income country. The GNI per capita is p\$ 2,770 (also called international dollars or purchasing power parity US dollars, World Bank, 2015). This constitutes for instance only 4% of the Norwegian figure. The economic growth per capita is fairly stable, about 2% per year. The average for 2012 and 2013 was 2.9%. Interestingly, the country has many resources, both physical and human. With tropical rainforest, large rivers, rich agricultural land and oil in the coastal waters, the basis for development exists. Oil has been the main export product since 1978 and now constitutes 52% of total exports (followed by cocoa beans 9% and wood 7%). On the negative side, the industrial sector is limited and the present low oil price is reducing government revenues. Thus, the economy is growing slowly. Cameroon liberalized foreign trade during the 1980s, resulting in some deindustrialization. Import protection is still very low, making industrialization difficult. This is not exceptional in sub-Saharan Africa where “growth in GDP per capita since 2005 has failed to result in a growing share of manufacturing in GDP ... the share of manufacturing in value added declined dramatically ... pointing to deindustrialisation” (AfDB et al., 2015: 108). Subsidies to agriculture were terminated by the government in 1988 after pressure from the World Bank and the IMF. The country had to follow the imposed structural adjustment policy if it wanted to receive foreign aid and assistance (Amin, 2008). Cameroon was forced to devalue its currency in 1993 by as much as 50%. In addition, the salaries of the publicly employed were at that time reduced by 70%!

Cameroon has about 250 ethnic groups and close to the same number of languages. Most of the inhabitants speak French in addition to their mother tongue. English is spoken in a smaller area in the western part of the country. Education has a long tradition in Cameroon stemming from the colonial

¹ <https://www.cia.gov/library/publications/the-world-factbook/geos/cm.html>
<http://www.indexmundi.com/cameroon/>
<http://search.worldbank.org/all?qterm=cameroon&title=&filetype=>
<http://www.spm.gov.cm/index.php?L=1>
http://faostat.fao.org/CountryProfiles/Country_Profile/Direct.aspx?lang=en&area=32
<http://www.encyclopedia.com/searchresults.aspx?q=cameroon>

periods, yet not all children are getting a primary education, and as little as 50% attend secondary school.

Undernourishment among children is high, between 15% and 35% according to different sources (FAO, 2009a; UNICEF, 2009; World Bank, 2015). According to IFPRI et al.'s (2014, 2015) Global Hunger Index (GHI), Cameroon has a serious situation regarding hunger among the population. This is however disputed by FAO et al. (2015), who place the country among those having achieved both the MDG 1c and the goal of halving the number of undernourished people from 1990 (4.7 million or 38% of the population) to 2015 (similarly 2.3 million or 10%). The GHI shows a less strong reduction in hunger, to only 24% of the population. The national definition of food poverty (not sufficient calories and proteins for a normal active life), on the other hand, gives a figure of 40% poor (rural 55% and urban 12%). It is worrisome that child mortality increased from 1990 to 2007 (although it has declined somewhat since then), and that the life expectancy at birth, 56 years, is still rather low (AfDB et al., 2015). The World Bank (2015) calculates that 28% of the population was poor in 2011 (according to a poverty line per person and day set at p\$ 1.25 in 2005 and adjusted for inflation thereafter). This corresponds to a consumption level of only one and a half loaves of white bread. The World Bank poverty line is usually equal to one loaf but in Cameroon wheat (and rice) is subsidized by the state. This is obviously not a level of consumption that secures the barest basic needs. If the poverty line is set at p\$ 2 (2005 dollars), the figure for poverty is 53% of the population.

After the so-called global financial crisis in 2008, development has become difficult in Cameroon. Real wages have dropped, unemployment risen, prices on necessities increased, and remittances from abroad gone down. Urban riots due to increases in basic food prices led to loss of lives in 2008 (Berazneva & Lee, 2013). The *New York Times* (7/12-08) and Reuters (3/8-08) reported a hundred dead demonstrators. Thus, it is not surprising that Cameroon is assessed to be a chronic fragile state. The country has been on every list of fragile states made by OECD (2015). Furthermore, it is also among the most corrupt countries (AfDB et al., 2015).

According to official statistics, 43% of the work force is economically active in the agricultural sector, which contributes 23% to the GDP (AfDB, 2015; FAO, 2015b). However, as much as 56% of the population lives in urban areas (World Bank, 2015). Although there is some food cultivation in urban areas, it is clear that the number engaged in farming is overstated. Still, Cameroon is today a typical poor agricultural country where most people base their livelihood on agricultural production *to some degree*. Thus, it is a paradox that Cameroon is a net importer of food (comprising about 25% of total imports), whereas the country, like many others in Africa, was a rather substantial net exporter of food

How can poverty be reduced among small-scale farmers in the highlands of western Cameroon?

in the 1960s and 1970s (Bello, 2009; Devèze, 2011; Fritz, 2011). This is a result of the government's policy of neoliberal free trade which allows imports of cheap food to the urban consumers from "heavily subsidized food transnational corporations and highly capitalized agricultural producers in the North" (Araghi, 2009: 112). Liberalization of agricultural trade can be devastating for small-scale farmers who depend on selling food on local markets (Akram-Lodhi et al., 2009; Hulme, 2015), and even FAO et al. (2015) admit that it may hinder agricultural development in the South. The farmers need import tariffs to enable them sell competitively at urban markets. It is thus not surprising that FAO (2014a) estimates that the total agricultural area in Cameroon has increased only insignificantly during the last 30 years. However, there is a positive and gradual improvement in agricultural yields (IFPRI, 2014), due in part to several government programmes to improve various aspects of agricultural production (e.g. a better legal framework for land tenure; a new fertilizer law; a rural microfinance policy; and a rural growth and employment strategy) (FAO, 2015a).

In numerous publications from FAO and IFAD it is maintained that about 70% of the population in many sub-Saharan African countries live in rural areas and depend on agriculture for their livelihood (Buckland, 2004; Mazoyer & Roudart, 2006; Fraser, 2009; IFAD, 2011a; FAO et al., 2015). If this was correct, the rural proportion of the population engaged in agriculture in Cameroon ought to be higher than even dubious official statistics show. The mistake made in the calculation of these figures is probably that people in the urban and peri-urban informal sector are not included in the figure of the economically active population (FAO, 2004; World Bank, 2004; World Bank, 2009). Thus, the rural agriculturally active population is calculated as a percentage of a smaller, and wrong, urban population. In other words, it is probable that the part of the population in many countries in sub-Saharan Africa whom leading international organizations claim are living in rural areas and surviving on agricultural activities is substantially overstated.

“Lethe”

A part of the agricultural area of the Bamboutos highland (2,000 to 2,700 meters above sea level) with a population of about 50,000, I term “Lethe”. The area was a German colony before the British became the colonial masters. The rugged topography and steep slopes of Lethe make driving a vehicle in the rainy season very difficult. Thus, agricultural inputs to and produce from the fields are usually transported by motor cycle or carried on the head. Small pick-ups are only used in dry weather situations. In addition to women, men and children also carry large bags of fertilizers and vegetables on their heads over steep and long distances. There are no tractors in the area. The soil is volcanic and very well suited for intensive vegetable growing. Since the farms are small, less than two hectares, and

there is a small population increase, the land available to the small-scale farmers is intensively used. Thus, there is no land available for fallowing but a need for relatively heavy application of artificial fertilizers because farmers have reported a deterioration of soil fertility during recent years (Hautala, 2013). Lethe is especially well suited for potato cultivation. Although the transportation of the (Irish) potato to the urban markets is expensive due to long distances, this relatively heavy product is still the main crop among the small-scale farmers. The cultivation is carried out by hoe. The farmers work the fields themselves with hired help, often of children and women from nearby French-speaking villages.

A reason for the relatively good growing conditions in Lethe is the fact that it has only been occupied by cultivators for about 40 years. Earlier, the land was used by Fulani groups for grazing their cattle and by German and English hunting parties. At that time there were no trees in the area. After a gradual cultivation of most of the area and the planting of trees, there are now small patches of forests. Due to the fact that Lethe is situated close to the highest area of the Bamboutos, irrigation is almost nonexistent. The cultivation is thus dependent on rainfall, and its variability. Very little land is used for cultivation during the dry season. Climate change has, according to local people, begun to affect Lethe somewhat, with less rainfall, but it is still sufficient for vegetable production. Future changes in the climate may be more dramatic (IPCC, 2014). Due to the height, the temperature in Lethe is rather cold during the rainy season, which attracts fewer insects, pests and other problems for the crops.

In Lethe, there is no yield (land productivity) difference between the tiny potato farms and the somewhat larger small-scale farms. This also applies when comparing farms in Lethe to medium-sized farms in neighbouring areas. There are no large-scale potato farms in the region. The general myth that small-scale farmers are more productive than large-scale farms stems from several decades old literature on Latin America which makes the methodological mistake of comparing farm sizes and not cultivated areas. It was common for the large haciendas in South America not to cultivate all the land. Thus, the yield on average for the farm as a whole obviously became low. Comparing intensive cultivation on small farms today with modern, industrial large-scale production would probably reveal little difference in yield per unit of cultivated land. It would be difficult to ascertain this since, as remarked by Hazell and Rahman (2014b), studies on farm size and yield do not compare small family farms with large commercial farms. It is most likely that the yield is now to a large extent dependent on the amount and right timing of the application of artificial fertilizers. Thus, access to credit and knowledge are more important than intensive use of labour.

Due to hoe cultivation in high altitude and the rather long distances between farmsteads and fields (from one to five kilometers uphill), to be a farmer in Lethe involves hard work. On the positive side,

How can poverty be reduced among small-scale farmers in the highlands of western Cameroon?

there are no snakes and no malaria because of the altitude. Recently, grid electricity reached the village, where the shops and schools are clustered, but not the farmsteads because they are more widely spread.

In Lethe all land is private, and fields can be rented out or sold (Achu & Tiafack, 2006). There is no common land, and as mentioned above, no vacant land on the periphery for expansion. The borders to the more low-lying French areas to the east and south of Lethe are strictly upheld by both communities. To the west and north there is a deep valley where cultivation is impossible. To the north of the valley is an English speaking community, and to the west is a dense rainforest with a completely different climate. No cultivation is undertaken there, and the people of Lethe do not see any possible expansion into that area. Three farms in Lethe are solely used for cattle grazing by absentee owners living in the capital Yaounde and abroad. Most small-scale farms have several fields located in quite different areas of Lethe. The land fragmentation makes cultivation more time consuming.

Inheritance of land in Lethe is patriarchal, as is generally the case in Anglophone Cameroon (Fonjong et al., 2013). Daughters do not inherit fields. In order to access land they have to marry. It is common to have more than one wife; some men have four wives. The economic rationale for polygyny is that when the area was gradually inhabited by the cultivators, land was abundant. Thus, more wives made a larger cultivated area possible for a man. Today the men with more wives are those who have inherited relatively more land and /or taken over land from brothers who have migrated out. Wives get their own fields from their husband, and sons inherit their mothers' land. Only in the case of the very poorest farmers with tiny fields can joint cultivation by wife and husband be seen. In return for land to cultivate, the woman provides the husband with children and food and contributes to the husband's housebuilding and repairs. Women do not work for free on their husbands' fields. Usually, the wife and husband have separate economies. They typically live in different houses but in the same compound. The husband contributes to the children's upkeep when they are small, but there are often conflicts when, for instance, a wife asks the husband to pay school fees. In cases of divorce, the land returns to the husband.

It is generally maintained that women in the South only own about 2% of the cultivated land, but that they produce between 60% and 80% of the food and carry out about a similar proportion of agricultural work (Patel, 2007; FAO, 2011). It may be correct that in most countries in the South women own very little land, and that in places which have community land rights, they usually do not inherit the land they have been cultivating. However, even in the South, most of the food is *not* produced by women (Quisumbing et al., 2014) but by large-scale industrial farming operated by men. Just think of wheat production in Punjab (India and Pakistan), soya cultivation in Brazil and rice produced in Thailand. Even when it comes to labour, women are not more active in cultivation than men. Moreover, FAO

(2014a) estimates that in low-income countries 83% of the farm holdings are below two hectares. These holdings however cover only 42% of the total agricultural area. Globally, the figures are 84% and 12% respectively (FAO et al., 2015). It is then obvious, due to the limited land available to small-scale farmers, that the statement often seen in the literature that small family farmers produce most of the world's food, is a myth.

In Africa also, the bulk of marketed food is produced by large farms (Jayne et al., 2010). Furthermore, in most regions of Africa both women and men are active farmers working the land together or separately, and according to Gollin (2014: 5): “women make up little more than half the agricultural workforce” and in Cameroon a little less (IFPRI, 2015).

In Lethe some farmers cultivate only potatoes. Most farmers grow one to four other crops in addition, although in limited amounts. The most common crops besides potatoes are carrot, beans, cabbage, onion, garlic and leek. The main inputs besides family labour are artificial fertilizers (called yara), chicken droppings and chemical sprays. The yara price in Lethe increased during 2007 and 2008 by as much as 48%. Chicken droppings increased by only 8% and sprays by 17%. There was then understandably a change from yara to chicken droppings. Furthermore, 87% of those who still used some yara at the end of 2008 applied clearly less than the year before. Likewise, those using chicken droppings increased their use. However, the rise in the amounts of chicken droppings did not compensate fully for the decline in the use of yara. Another consequence of the increased prices on inputs was less hiring of labour. As much as 72% of the small-scale farmers interviewed in 2008 had fewer hired workers than before. However, the use of hired child labour increased.

The farmers mentioned in 2009 a number of cultivation problems. The most important issues were the fragmentation of their land into small plots in different places, the uphill distance to the plots and the bad roads, all of which force them to spend time and money on transportation. The walking and carrying are also tiring. Secondly, agricultural tools were said to be old and thus in a rather bad shape. The third priority problem was the bad quality of seeds. Lastly, more erratic rainfall in recent years was thought to indicate climate change with more unpredictable weather conditions. However, in the survey in 2013 the main reason for a bad harvest was the application of too little insecticides and fertilizers (reported by 50% of the respondents). A third reason given was too much rainfall (28%). Bad seeds were mentioned by a few (9%).

Most (88%) of the farmers sell their potatoes and other produce locally. The local buyers are both men and women. They buy small quantities from small producers and pack them in 120 kilo bags. The bags

How can poverty be reduced among small-scale farmers in the highlands of western Cameroon?

are transported by lorry to the wholesale market in the capital Yaounde more than 6 hours away. Only 12% of the farmers sell directly to traders in the city. These farmers have family members who stay in Yaounde and act as tradesmen. Cameroon is exporting potatoes to neighbouring Gabon. The often repeated view in the literature that small-scale farmers in the South are not connected to national and international markets (World Bank, 2007) does not apply to the farmers in Lethe (and probably to only a few and especially remote and marginal areas in other countries, as well). Moreover, as pointed out by Havnevik (2007, 2008), during the last two decades African farmers have lost market shares for their traditional goods, both at home and abroad, to big international agribusiness firms. These farmers' export shares are very small today due to low competitiveness compared to more large-scale industrial farmers and firms in other countries in the South.

It is important to compare changes (or the lack of them) in producer prices for the farmers with price increases on input factors. The price of potatoes fell locally by 4% from November 2007 to September 2008, whereas the wholesale prices on the market in Yaounde rose by 14%. This price increase is a benefit only to very few of the farmers in Lethe. It is interesting that urban price increases seldom have a bearing on local producer prices. None of the crops grown by the small-scale farmers saw a rise in price, except for garlic which experienced a strong fall in price the year before. Obviously, low producer prices make a modernization of agriculture difficult, especially when the prices of inputs such as fertilizers and labour increase. The real income of farmers in Lethe fell from 2007 to 2009 due to higher prices of fertilizers and basic goods they have to buy from shops, and to the stagnation in the prices of the produce they sell.

The total production of potatoes on a typical small farm in Lethe is 2,700 kilos, and the gross sale makes less than the equivalent of a thousand p\$. This is not sufficient for a family to survive on. Thus, family members have to find other sources of income in order to survive even on a very low level of consumption of food and other basic needs.

The potato is nutritious, and the farmers eat potatoes as the main food in all their meals. Most families have enough potatoes for consumption throughout the year. Less than half of the farmers have a sufficient production of beans and other vegetables to last the whole year. Nearly none uses milk, sugar, tea and coffee. Some few families sometimes eat meat or fish, but as much as 84% of the farmers never eat meat. Thus, no shop in the local village sells meat. Bread is eaten by many. All the small-scale farmer families are *net* food buyers in the sense that they spend a larger sum of money on buying food than they obtain from selling their own produce. They are therefore vulnerable to price increases on food products generally. It is in their interest for the prices of their produce to rise while the prices of

what they have to buy fall! This corresponds with the literature that says that a large part (about 75%) of the farmers in the South seldom have sufficient food from own production to last till the next harvest (FAO, 2008; Cenceicao & Mendoza, 2009). FAO (2009b) points out that small-scale farmers who depend mainly on the income from their farm buy even more food than they grow themselves. Generally, small-scale farmers in many places in the South use as much as 80% of their income on food alone.

The prices of basic goods in Lethe increased quite substantially from November 2007 to September 2008: Plantains 44%, maize floor 38%, cassava 36%, food oil 29%, spaghetti 27%, rice 25% and locally made bread 9%. The prices of soap and kerosene, two examples of non-food basic goods, rose by 29% and 11% respectively. It is common for small-scale farmers in the South to experience a triple price squeeze. In a situation of stagnating producer prices, they experience increasing prices on inputs and on necessary basic food and non-food goods they have to buy in shops. It is a general fact that in the short term input prices increase somewhat, whereas producer prices stay unchanged (FAO, 2008). In the longer term land fragmentation leads to less land to cultivate for the individual small-scale farmer, and reductions in soil fertility make maintenance of output levels difficult. Simultaneously, as mentioned above, the relative price trends of what farmers sell and what they have to buy worsen. Buckland (2004) shows this by pointing out that the price index for the world market for food was 193 in 1980 and 84 in 2000 (1990 = 100), whereas the figures for manufactured goods were 72 and 101 respectively. It is a fact that the effective demand for food does not increase in step with the demand for manufactured goods. Thus, the terms of trade between food and manufactured goods worsen for the former in the long term (FAO, 2009b; IMF, 2010; Timmer, 2010). An example from the USA is telling: in 2005 farmers there had to pay four times the amount of maize to buy a tractor than in 1978 (Rosset, 2006). This can be expressed as farmers must “run to stand still”. It is well-known that in general agriculture does not, or cannot have a similar rapid productivity gain as industry (Rosset, 2006; Collier, 2007, 2008; Lines, 2008). The price spikes for some important food items during 2007 and 2008 and again in 2011 (FAO, 2013) are thus exceptions. Prices are now back at the pre-2006 level in real terms, according to the FAO's index.² In the South generally, some families benefit from higher food prices, but most farmers do not. Thus, poverty in the rural South increases when food prices increase (Ivanic & Martin, 2008).

² <http://www.fao.org/worldfoodsituation/foodpricesindex/en/>

How can poverty be reduced among small-scale farmers in the highlands of western Cameroon?

Due to the above, it is not surprising that multiactivity is common among farmers in the South (Hesselberg, 1985; Djurfeldt et al., 2005; Heady et al., 2010; FAO, 2014a). In Lethe, as much as 81% of the small-scale farming households have at least one member with local income derived from outside the farm. Even among those family members actively engaged in farm work, many (52%) pursue off-farm economic activities. Thus, most farmers in this area can be labelled *sub*-subsistence farmers. Multiactivity consists of many small economic activities besides agriculture. Farmers and/or other household members engage in selling food at the roadside or in market stalls; trading potatoes through buying small quantities of potatoes from small producers and selling them to larger-scale traders; dressmaking; hair plaiting; housebuilding; agricultural labour; transportation of goods and people by motorcycle; and furniture making. A common feature of these diverse activities is that they are limited, erratic and bring in only small amounts of money. The farmers complain that the need for them to get involved in many such activities hinders them from specializing and thus becoming efficient in one activity. Importantly, several of these activities used to be part of a system of local-level mutual help. Today, there is, according to the farmers, very little assistance given to other households. All economic activities are now paid for in money directly. When someone is very sick or in dire need of food, help is received only from family and close friends. The traditional local safety net that was very important in times of adverse weather events, falling market demand and reduced producer price is much weaker today if not gone altogether. It has not been replaced by government support systems such as social protection policies. Public cash transfers to the poorest can contribute to a virtuous circle of progress in agriculture by providing stable but small incomes, thus allowing more time and energy to be spent on farming. In the absence of such a social protection programme the little income obtained from being multiactive is of great importance as an addition to sales of agricultural products when most of the households' annual need for staple food is met by their own cultivation. This income allows the people to buy other basic needs and to cover education and health expenditure. Given this background, it is surprising that the World Development Report for 2008, which deals with agriculture, does not discuss this important phenomenon (World Bank, 2007; Akram-Lodhi, 2008; Akram-Lodhi, 2009). Multiactivity among farmers is an essential topic to include in discussions on rural development strategies, not least because it may make a necessary further agricultural specialization and adoption of new technology among farmers more difficult.

In Lethe people receive few remittances from family members in urban areas or abroad. As many as 64% say that they do not get any money at all from children and relatives living elsewhere. Nearly a third of the households seldom obtain remittances or do so only in times of severe crises. The money

received by these families is only used for consumption. Thus, not more than 5% of the farmers in Lethe can use funds received as remittance for investment in their farm.

Discussion

What is the strategy the small-scale farmers use to meet the price squeeze? In Lethe it is not possible to apply the *most common strategy*, that is, to enlarge their area of cultivation. Every piece of land in the area is owned by someone who uses it more or less intensively. In order to obtain a higher production from their existing land, therefore, they use more family labour. There is however little scope, either for using more own labour, since it is already used intensively, or for getting more out of the land only through more labour input. Since the farmers in Lethe, like people elsewhere, seek to maintain their level of living, they normally work themselves to exhaustion (Patel, 2007). Thus, intensification of cultivation on existing land is not an option.

Another strategy is to change from the crops grown to others that might give a higher return. The small-scale farmers have ample experience in doing this, and with little success. The climate and soil are very well suited for potatoes, and the long distance to the main urban market in Yaounde prohibits many types of crops. This applies especially to crops that grow well at lower altitudes with warmer climate. There is also available agricultural land of this type in the French-speaking areas closer to the cities. These so-called intervening opportunities, particularly between Yaounde and Lethe, imply that farmers in the latter location have a competitive disadvantage for most crops relative to those closer to the former. Thus, a process of diversification of production is not an option for farmers in Lethe.

A third strategy is to reduce the intake of own produced food, and thus sell more. However, this has already been done in Lethe. The farmers' consumption is at quite a low level generally. As much as 82% of the households say that during the last 5 years (before 2013), they experienced months of reduced food intake. Only 18% maintain that they always have sufficient food from own production throughout the year or enough income to buy what they need. It is worrisome that more than half of the households experience at least 2 months every year with too little food. It is the months before the next harvest that are the most problematic. Furthermore, 53% of the respondents said in 2013 that when they experience one year of bad harvest, they manage by using income from their other small income sources. For 27%, reduced consumption was the major way of coping with a bad harvest. This is a serious strategy to use since their consumption in normal times is low. Borrowing food and money from family and friends and asking for remittances are the preferred coping methods for only 11%. Not more than 5% manage to find some local casual work. Of course most households combine several sources

How can poverty be reduced among small-scale farmers in the highlands of western Cameroon?

in order to try to maintain their usual low level of consumption. Generally in Lethe there are diverse ways in which households adapt to low yields, unfavorable weather conditions and limited incomes from other sources including remittances. First, they change type and quality of food consumed to cheaper sorts, and then they reduce the quantity but keep the number of meals a day. If this is not sufficient, they reduce the number of meals from 4 to 3 or from 3 to 2. Seldom does a household have only one meal a day.

A *fourth strategy* is to find more local non-farm work, i.e. to increase their level of multiactivity. This is extremely difficult; all work opportunities are already exploited. They have already tried many times to travel as labour migrants to nearby small towns, but without much success. Thus, farming as the main economic activity is the only option; trade and other activities can only be add-ons in this area. It is then not surprising that the small-scale farmers live in a constant state of vulnerability. The general strategy should thus be the double effort of support to agriculture and to other rural economic activities. In the words of FAO (2014a:17): “For the smallest family farms, escaping poverty requires not only increasing farm labour productivity, but also the creation of non-farm employment opportunities”. In Lethe both these paths are unrealistic.

A *fifth strategy* is to ask for remittances from family members and relatives who work in cities. The farmers in Lethe say this is very difficult for them to do. As mentioned above, the money they might obtain in this way will be used only for a short time crisis, they say.

The *last strategy*, chosen by many of the young, is to migrate permanently to an urban area. In Lethe this has somewhat reduced the rate of land fragmentation through inheritance and thus lowered the pressure on land due to a growth of population. However, it has led to increased land conflicts between family members who have moved out but still inherit some land and those staying behind and using the land of those who have migrated out. The fact however remains that the area farmed per active farmer has not been falling much in recent years.

Many farmers in Lethe continue to produce food on a small scale and to have a limited consumption of other basic needs. This is possible in normal times since, as shown above, a substantial proportion of them have some income from non-farm activities locally, and since the money they obtain in this way increases in pace with inflation. Thus, it is possible to survive normally, given that they at least produce sufficient amounts of potatoes for their own need throughout the year. Furthermore, the knowledge of urban slums and their inferior living conditions prohibits many from migrating out. Already in 2000, as much as 67% of the urban population in Cameroon lived in slums (UN-HABITAT, 2003). To move

to a city implies a great uncertainty of securing their basic needs. Still, generally speaking, many move out of agricultural areas to this uncertain urban future (Davis, 2006). In Lethe the outmigration of young men can be seen indirectly through the slowly increasing proportion of farmers who are women and the elderly.

The question of how the hard working small-scale farmers in Lethe with their suitable soils and climate for potato cultivation can improve their yield, total production and income is a challenging one. The point they themselves emphasize is state subsidies on fertilizers. This is the first priority for as much as 87% of the farmers in Lethe. Another point mentioned by many is better roads in the local area and credit facilities to enable some farmers buy tractors (that can be rented out to the other farmers). The government in Cameroon cannot easily subsidise the farmers' inputs because the country is among the low-income countries which have very little industrial production. Moreover, western countries in the North are putting pressure on poor countries not to "distort markets" by giving state subsidies to agriculture (Patel, 2007). Since unused land is not available in Lethe, some farmers cannot buy and use a tractor in an economically viable manner without subsidies. An interesting calculation is made by Mazoyer and Roudart (2006) which shows that if all small-scale farmers in the South had the same machine intensive agricultural production as those in the North, 90% of them would have to drop out of agriculture so that the remaining 10% could have sufficient land to sustain their production without permanent subsidies. They would then become at least medium-sized farmers.

What is the solution to the price squeeze promoted by leading international organizations? The essence of the view argued by FAO is that small-scale farmers should be temporarily assisted to enable them increase their yield on their existing land and to be linked in an improved way to markets. The farmers would then continue to cultivate on a small scale, and they would *still be poor* (Madeley, 2000). In Lethe the productivity of the land is already good and the link to the national urban market was established a long time ago. Thus, the FAO strategy would not be of any benefit to them. Short term assistance cannot lead to longer term positive change because it does not solve the problem of the price squeeze.

The World Bank view on global food supply is that in addition to industrial large-scale agribusiness including "land grabbing" (Holmén, 2015), small-scale farming can contribute successfully through contracts between an independent farmer and a national or international company (Oya, 2012). Contracts secure farmers relevant inputs of fertilizers and chemicals, while the companies buy an agreed amount of output at a fixed or a negotiated price after harvest. This is a way of linking efficient farmers to the global value chains of agribusiness. The World Bank (2008) argues that since large-scale

How can poverty be reduced among small-scale farmers in the highlands of western Cameroon?

agricultural production provides the local area with relatively few multiplier effects (little downstream positive economic impact), it is important that there is also a vibrant small-scale agricultural sector in order to reduce rural poverty. However, the problem with this view is that it is difficult to see how small-scale farmers can be anything but poor, or do anything but work very hard and endure harsh living conditions. In my opinion the life of small-scale farming households should not be romanticized, and the small-scale farmers *must* become medium-sized farmers in order to get out of poverty. Thus, a number of farmers will have to drop out of agriculture. This is what has happened everywhere historically when agricultural production has been modernized. The difference between this process in the North earlier and the South now is that North America offered ample urban and rural space for those migrating out of agriculture. Successful agricultural modernization in the South today would undoubtedly result in several hundred million new urban poor (Amin, 2003; Diaz-Bonilla et al., 2006; Amin, 2011). As mentioned, those in the South who move to urban areas mostly end up in unemployment or as informal labour with severe underemployment and life in a slum. This is not to deny that some people gain from moving to a city, as stated by the United Nations (2013:105): “stimulating rural-urban migration will help in diversifying the income sources of the household and reducing poverty”.

Conclusion

In my view it is impossible for small-scale farmers in the South to improve their productivity sufficiently to become non-poor without also graduating to become medium-sized farmers. This does not imply that an agricultural strategy should not target small-scale farmers. On the contrary, it would be expedient for national food sovereignty and reduced rural poverty that some of these farmers become modern entrepreneurial “medium-farmers” with innovative agroecology technology. This view was supported by the President of IFAD in an intervention in Rome (29 April 2010): “African governments, donors and the private sector need to act now to turn the world’s 500 million small farmers into profitable businesses.”³ If this became a reality much of the extremely hard work involved in hoe agriculture in Lethe and similar places or the use of donkeys and oxen for ploughing elsewhere would become unnecessary. An open question is whether it would produce *too much* food relative to effective national and international demand. If the result is overproduction for some agricultural products, prices will fall and the most inefficient medium-farmers will be forced out eventually.

³ <http://www.ifad.org/media/press/2010/30.htm>

There is no doubt in my mind that a successful agricultural modernization of the many small-scale farmers in the South today would leave many of the existing poor farmers even poorer. Those small-scale farmers who, by being multiactive are non-poor, could also end up in poverty. Thus, some poor farmers would by modernization of production and by getting access to an increased land size get out of poverty. At the same time a number of non-poor farmers may fall into poverty. The net effect will of course vary from country to country and from region to region in large countries. The overall impact is difficult to predict. However, investment in small-scale farming is in no way “the best strategy to reduce poverty in the South”, as FAO and the World Bank insist. It is surprising that these and other organizations do not include in their arguments the necessary fact that higher machine, fertilizer and chemical intensity on small farms requires increased farm land in order for those farms to be economically viable when permanent subsidies are not an option or social protection support is not available. According to Hazell and Rahman (2014b), there is even a process of declining farm sizes and thus of falling viability among many non-poor small-scale farmers: “Given potential economies of scale in production and marketing or both, many small farms are in danger of becoming less competitive and hence less viable as businesses” (page 529). The conclusion is unavoidable that there must be larger farms and fewer farmers (Holmén & Hydén, 2011). What then shall the people dropping out of agriculture do to survive, and where can they go? The market alone does not solve this problem (Barrientos & Dolan, 2006; Minten et al., 2009); state regulation and support are necessary (Coleman et al., 2004; Oxfam, 2007; Roberts, 2008; FAO, 2009b). For governments to be able to support food production on a permanent basis and on a larger scale than, for instance, public procurement of foodstuffs for school meals from the poorest local farmers, as in the “Purchase from Africans for Africa” programme (FAO, 2014b), it is necessary for poor countries to succeed at industrial growth, at wealth creation. It is only through economic growth based on manufacturing that *sustained* support to agriculture is possible (Reinert, 2007; World Bank, 2008; Peterson, 2009; Reardon, 2009; Diao et al., 2010; United Nations, 2011). In the short to medium term, countries well endowed with strategic resources (e.g. oil), can afford to and should support small-scale farming by providing inputs. This is so not least because the rapid increase in the economically active population of young people seeking employment implies that it is important for farming to be able to provide a large number of people with gainful work during a transition period before a more diversified economy is developed in Cameroon. This means that farming must be labour intensive. Thus, there is a contradiction between this need and the need for productivity improvements through replacing labour with technology (e.g. tractors). Countries that invest mostly in agriculture will be locked in a low-income trap. Thus, investments are needed in both manufacturing and food production simultaneously. My view is that an innovative

How can poverty be reduced among small-scale farmers in the highlands of western Cameroon?

strategy should not simply provide support for farming technology at the small-scale level, because such an approach will keep them trapped in poverty with few long-term prospects for improved levels of living. It will rather further the slowly ongoing so-called differentiation process if some farmers succeed in increasing their land size, while those losing land are forced into urban migration. This structural transformation of society is the only alternative available to countries in the South for solving the problem of *poor* small-scale farmers, although it will not reduce poverty in general. It is thus necessary to protect those people who are not able to make an adequate level of living in urban areas and those who either return to their rural site of outmigration or remain in the urban centres but with a deteriorating quality of life. This could be done for instance by direct cash transfers from the government.

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Ethics

I hereby declare that all interviewed individuals consented to answer the questions put to them.

There is no committee in Norway for ethics approval of studies in other countries. Thus this is not applicable. The manuscript does not include any personal data, thus Consent for publication is not applicable.

Competing interests

The author declares that I have no competing interests.

The author is the sole author.