Agricultural, health care and education services in Bongo and Garu (pre-study for 'Grace of God'; unpublished)

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Introduction

To get an overall idea about the 'state of affairs' in the provision of basic services in the fields of agriculture, health care and education in the research areas Bongo and Garu we interviewed a number of key persons who basically gave the government perspective on service provision and on a number of issues related to poverty levels and poverty reduction interventions. They also gave an assessment of the importance of NGOs in these fields and of public-private partnerships between the Ghanaian government services and NGOs.

1 Agricultural services in Bongo[1]

The Ministry of Food and Agriculture has divided Bongo District in four zones with twenty-two operational areas. Each operational area has one Agricultural Extension Agent (AEA). A District Agricultural Development Officer (DADO) supervises the AEAs of each zone.

The District Assembly of Bongo District has eleven departments (in the current decentralised government structure of Ghana) of which DADU is one. DADU stands for District Agricultural Development Unit. Bongo DADU was created in 1997 and has one director and 48 staff members. In 1997 MoFA was re-organised according to the 'government decentralisation programme'.

In the 1990s, MoFA in Bongo received considerable support from two consecutive programmes funded by IFAD: LACOSREP I and II. LACOSREP stands for Land Conservation and Smallholder Rehabilitation Project. The overall objective of LACOSREP is

[1] The information in this section is based on two interviews and one report:

- Interview with Mr. Francis Dery, District Director of Food & Agriculture, Bongo district, 28th March 2002 by Kees van der Geest.
- Interview with Dr. Fenteng Danso, District Deputy Director of Food and Agriculture and District Veterinary Officer in Bongo District, 27th March 2002, by Kees van der Geest.
- Progress Report – District Agricultural Development Unit to District Assembly (Bongo). No date, but probably 2001 or 2002.

to reduce rural poverty and to address food insecurity. LACOSREP complements the regular activities of MoFA.

LACOSREP has seven components:

1. Water resource development: dam construction and rehabilitation; catchment area protection.
2. Rural infrastructure: feeder roads construction to enable farmers to open new farms. In 2001, two feeder roads of 7.3 and 7.7 km length respectively were constructed in Bongo District. Private contractors did the work.
3. Hand-dug wells. For each hand-dug well (65 in the district), five household latrines were also built.
4. Agricultural development: Extension services in crop cultivation, livestock production and fishing
5. Capacity building
6. Organisation & Management
7. Credit

All activities of MoFA are ‘gender mainstreamed’, as they call it.

MoFA is not involved in the management of the Vea dam and irrigation area in the South-western part of the District. That is in the hands of ICOUR. MoFA just provides extension services to farmers at the Vea dam.

According to the Bongo District Director of Food and Agriculture, Mr. Dery, the main problem in the Bongo District is soil erosion and land degradation caused by high population density and resulting in low crop yields. In crop cultivation, MoFA provides extension services on different soil and water conservation measures, including stone bunding, earth bunding, the use of A-frames, the use of organic manure and composting. MoFA also introduces improved seed varieties, for example Kapala (white sorghum), Framida (red sorghum) and a number of new rice varieties. They further promote bullock farming through training of both bullock and farmer and through advice on contour ploughing and animal care.

Tables 1 and 2 show acreages and yield levels for different crops. No time series of longer duration were available or at least at hand. A critical note about the alleged improvement of the acreage and yield data is needed: the acreages of sorghum, millet, groundnuts and rice increased with exactly 10% and the acreage of cowpea with exactly 20%. Such figures look more like easy assumptions than well-funded estimations, let alone thorough measurements. The changes in yield levels also look too slick to be based on thorough measurements. On the positive side, the yield figures seem quite realistic (not too high).

Table 1: Acreages cultivated with different crops in Bongo District (1998-2000), ha

	1998	*1999*	*2000*
Sorghum	7015	7717	7835
Millet	3150	3465	3550
Groundnuts	3035	3340	3650
Rice	333	366	385
Cowpea	100	120	140

Source: MoFA-Bongo

Table 2: Yield levels for different crops in Bongo District (1998-2000), kg/ha

	1998	*1999*	*2000*
Sorghum	0.8	0.82	0.85
Millet	0.6	0.61	0.62
Groundnuts	0.9	0.98	1.08
Rice	0.6	0.67	0.74
Cowpea	0.4	0.5	0.56

Source: MoFA-Bongo

According to Mr. Dery, “there is no reason to believe that people in the Bongo District produce enough on their own farms to feed themselves.” What makes it worse is that even though the harvest is not enough to meet food needs, most people sell part of their harvest. In most households, the problems start about four months after the guinea corn and millet harvests (i.e. in March). According to Mr. Dery, the lean season is most serious in June-July when virtually no household has grains left. “What keeps them going is the vegetables in the farms and in the backyard gardens.” By the end of July, new maize from southern Ghana enters the market in Bongo. People buy it with the money they get through the sale of livestock. Obviously, people can also buy food earlier on.

The most important change in the farming system of Bongo District in the past two decades is the shift to irrigated farming (dry season gardening). Farmers with dry season gardens are more productive in the dry season than in the wet season, Mr. Dery says. The most important garden crops are onions and tomatoes. Of all regions in Ghana, the Upper East Region is by far the most blessed with dams (including the Vea-dam) and dugouts. Not all communities and certainly not all households benefit, however. Another problem is that dams become silted. In the first phase of LACOSREP, forty-four dams were rehabilitated and in the second phase thirty-six.

In rain-fed agriculture, the principal changes are the increased adoption of bullock farming and the adoption of some Soil and Water Conservation measures. Mr. Dery estimates that forty to fifty percent of the households in Bongo District use (not *own*) bullocks to till the land. The problem is affordability. “If all people could afford to buy or rent bullocks and ploughs, the adoption rate would be 100%.” MoFA has no specific interventions to increase the affordability of bullocks and ploughs (“we are a service organisation”), but LACOSREP (MoFA & IFAD) does and so do NGOs.

Changes in crop mix have been small. Maize has not been adopted like in the Garu area. According to Mr. Dery, this is because the soils are not fertile enough so maize wouldn't do well. Increased use of compost could make maize more popular in the nearby future.
Mr. Dery: "I don't say that there is no improvement. Our activities of the past years and especially of LACOSREP have left behind a lot of good things, like better infrastructure (both water and roads); the credit has given people more income generating activities; staff is more capable and there is better soil and water conservation."
Livestock production is an important activity in the district and provides many people with a buffer in bad times and with indirect access to food. MoFA interventions in livestock production are the following.

- Stock improvement through the introduction of exotic breeds or crossbreeding of exotic breeds with local breeds. Examples are Zebu cattle, Saharan rams and exotic cockerels.
- Introduction of rabbits and advice on rabbit keeping.
- Advice on the improvement of dry season feeding and establishment of fodder banks (at household level). Two types of grasses were introduced: Stylo and Gageanus. These grasses are planted in the rainy season. At the end of the rainy season, the grasses are harvested and stored so that livestock can feed on it in the dry season. These grasses are planted on individual household land holdings and on communal grazing lands. To improve feeding practices, MoFA has given advice on the use and storage of groundnut vines and rice husk and they have given advice on pruning of trees (especially the Luecena).
- Preventive medicine. Vaccination of animals against anthrax, 'peste des petits ruminantes'(PPR), black leg disease, rabies and Newcastle disease. Commercial poultry farmers can further have their fowls vaccinated against fowl pox, marek and gumboro.
- Clinical veterinary services.
- (Semi-) Quarantine station. Bongo District has two border crossings (at Feo and Namoo). Before livestock from Burkina Faso enters Ghana, it has to be kept in quarantine for some days. After inspection, the traders get a permit to import and sell the animals.
- Meat inspection before slaughtering.
- Laboratory services. The lab is in Bolgatanga. Bongo is a reference point.
- Pathology unit. Commercial poultry farmers can use the services of the pathology unit to find out the death cause of their fowls (in order to minimise the risk of massive losses).

According to Dr. Danso, Bongo District is a meat-surplus district. On average, people produce more meat than they consume. This, however, is mainly because they don't consume much meat. Table 3 shows the result of livestock censuses in 1998, 1999, 2000 and 2001. The human population in 2002 was estimated at 77,852. According to Mr. Dery, the figures for livestock are probably underestimated.

Table 3: Livestock (heads) in the Bongo District (1998-2001).

	1998	*1999*	*2000*	*2001*
Cattle	20,907	22,920	23,140	21,860
Donkeys	1,451	868	967	1024
Sheep	20,755	20,169	22,400	27,276
Goats	25,702	23,424	23,880	27,688
Pigs	3,035	2,884	2,930	2,354
Fowls	64,885	66,285	70,182	72,417
Guinea fowls	70,285	77,176	74,825	76,891

Source: MoFA-Bongo

Mr. Danso couldn't tell whether livestock ownership has increased or decreased in the past two decades. He did emphasise that livestock is extremely important in the livelihoods of the Bongo people. Most people sell livestock to fill the omnipresent food gap.

MoFA is not directly involved in agro-forestry. It rather focuses on what it regards as their core activities: crop cultivation and livestock production. It leaves agro-forestry to three NGOs that operate in the area: Bongo Agro-Forestry Project (BAFP), World Vision International (WVI) (in three selected communities) and Adventist Development and Relief Agency (ADRA) (in five selected communities). Both WVI and ADRA confine their agro-forestry activities to the planting of cashew trees. According to Mr. Dery, MoFA has an "intimate collaboration" with these two NGOs. Collaboration is mainly in the field of training. The relation with BAFP has not always been very good. According to Mr. Dery, there was and still is lack of communication between MoFA and BAFP. They don't invite each other for meetings and there is no exchange of information and skills.

MoFA is quite happy that these NGOs encourage people to plant trees because it is a good way to protect the soil. In general, Mr. Dery says, people have not been very willing to plant trees. Adoption rates have been relatively low because the land is very scarce and trees (and shade) occupy space. The short-term effect of planting trees is that you lose surface for crop cultivation and farmers are uncertain about the long-term effects. Moreover, seedlings (especially leucena and mango) need much protection and survival rates are generally low. Therefore, most tree-planting activities are now only carried out around the compounds where protection is easier. Cashew trees are also planted in farms. Recently, World Vision International has shifted some emphasis to crop cultivation and away from agro-forestry.

The planting of cashew trees has started only a few years ago. According to Mr. Dery, the trees are not yet bearing fruits. Hopes are quite high, however, that cashew will become an important cash earner in the nearby future. When the trees begin to bear fruits, the Export Promotion Council in Accra will assist in the marketing of cashew nuts. They will buy cashew nuts from farmers against guaranteed prices. To date, two communities in Bongo District (Daboya and Feo) have registered with the council. The Export Promotion Council also markets the baskets and hats that are woven by many people in Bongo District.

According to MOFA staff, the most dominant NGO in the fields of agriculture, healthcare and education in Bongo District is World Vision International (WVI). In some agricultural interventions, WVI finances and MoFA executes. The Adventist Development and Relief

Agency (ADRA) introduces new technology to five communities, supervised by MoFA. According to Mr. Dery, WVI and ADRA deal with all aspects of agriculture.

Recently the District Assembly has become quite important in agricultural development, mainly using funds from two national programmes:

- National Poverty Reduction Programme: bullock ploughing, backyard rabbitry, introduction of improved breeds in small ruminants and poultry.
- Village Infrastructure Project: funded by foreign donors, implemented by the government (D.A.): dams and other physical infrastructure

Since Mr. Dery comes from a village near Nandom, in Upper West Region, we asked him to compare the situation in Bongo District with the situation in Nandom. According to him, both areas have similar problems because of high population density. An advantage of Nandom is that the pressure on land is a bit less than in Bongo. An advantage of Bongo is that it has much better 'facilities' and access to market is "very good". The difference in outcome is striking, he says. Farmers in the villages around Nandom are much more self-sufficient in their food production) than in Bongo District, he says. He gives two socio-cultural explanations and one economic explanation (note that the socio-cultural ones may be quite ethnocentric). Firstly, in Bongo, much more food is 'wasted' in celebrations. Secondly, farmers in the villages around Nandom work harder than farmers in the Bongo District. Thirdly, livelihoods in the Bongo District have shifted away from rain-fed agriculture more than in the Nandom area. Dry season gardening and crafts are more developed in Bongo District than in Nandom.

2 Agricultural services **in** *Bawku East District and in Garu in particular*[2]

The Ministry of Food and Agriculture (MOFA) has divided Bawku East District in five zones:

1. Bawku
2. Binduri
3. Pusiga
4. Garu
5. Woriyanga

MoFA monitors rainfall, crop yields, acreages under cultivation with different crops, technology, market prices of food items and credit performance. The crops for which acreages and yields are monitored are: guinea corn, millet, maize, groundnuts, soybean, cowpea and onions.

Until 1997, when Mr. Faalong became the district director of MOFA, crop yield measurements were not very reliable. It took some time to educate the staff members in measuring yields. From 1999 onwards, the figures are quite reliable, he says.

In 1995-1996, the Unified Extension System was introduced by the Ministry. This system was to integrate the efforts and approaches of the different departments within the ministry. Services also had to become more demand-oriented. The only service of MoFA that is free of

[2] The information in this section is based on an interview with Mr. Faalong, District Director of Food and Agriculture in the Bawku East District, 20th March 2002 by Kees van der Geest. Mr. Faalong joined the ministry in 1981. He became the District Director of Food and Agriculture in Bawku East District in 1997.

charge nowadays is extension/advice. The Unified Extension Systems seems to have undone the division in different departments within MoFA. The old division gives a good idea about the different intervention of MoFA, however:

- PPMED: Policy, Planning, Monitoring and Evaluation Department: collecting data on prices, yields, acreages, rainfall, etc.;
- AESD: Agricultural Engineering Department: not represented at district level;
- PPRS: Plant Protection Regulatory Services: monitoring pest incidences and checking whether cargo at borders is free of plant diseases;
- FSD: Fishery Services Department: development of inland fishing especially along White Volta (less in Garu area), construction of demonstration ponds, stock ponds and dam reservoirs with fingerlings, advice, net construction;
- VSD: Veterinary Services Department: Combat livestock diseases through 1) vaccination against anthrax, black leg disease, Newcastle disease, rabies and other diseases. Since last year, people have to pay for these services, but for anthrax vaccination). Number of vaccination decreased tremendously. 2) clinical treatment. three clinics: in Bawku, Binduri and Garu 3) inspection before slaughter (animal owner pays, not butcher);
- APD: Animal Production Department: Especially breed improvement of small ruminants and advice on feeding, watering, housing, breed selection;
- DAES: Department of Agricultural Extension Services: Overall technical advice in all sectors. Virtually every village in the district has an Agricultural Extension Agent. Their numbers have decreased in the past years, but their skills are of better quality now.
- WIAD: Women in Agricultural Development: Gender specific interventions. Every department listed above has a gender specialist who has to assess the needs with a gender perspective. It looks at the positive and negative aspects of socio-cultural traditions on gender. As Mr. Faalong says: “Don’t throw away the traditional culture, but look how some negative aspects can be improved.”

The Irrigation Development Authority (IDA), responsible *inter alia* for building dams, is not under MoFA. They do collaborate.

We asked Mr Faalong about the relationship between the Ministry of Food and Agriculture (MoFA) and Garu Agricultural Station (GAS) in the Bawku area.

- The Bawku District Director of Food and Agriculture is always a board member of GAS and can influence the policy of GAS
- Conversely, MoFA policy is influenced by developments within GAS and other NGOs in the agricultural field.
- For training of GAS staff, MoFA trainers are always asked first.
- At the District Assembly level, GAS and MoFA people are represented in the Agricultural sub-committee. Any Agricultural Plan has to pass through this committee before implementation.
- Sometimes, the GAS *executes* projects for MoFA, as sub-contractors. GAS for instance distributed 45,000 seedlings for trees to be planted around dam sites (catchment area protection).

In general, there is a lot of communication between MoFA and the agricultural stations or agricultural projects in the district. Thereby they try to avoid duplication of activities and duplication geographically. According to Mr. Faalong, there is no such thing as *competition* between MoFA and the agricultural stations. MoFA reduces its efforts and resources in places where agricultural stations are more active. The coordination between GAS and MoFA-Bawku East is much better than the co-ordination between BAFP and MoFA-Bongo.

We also asked Mr Faalong about his opinion concerning trends in agricultural production and food security in the Garu area.

According to Mr. Faalong, agricultural production has increased in the past two decades, but it does not keep pace with population growth. Improvements have been noted in maize yields, onion production and livestock health. Millet yields have not improved despite some efforts to introduce more adapted varieties. Despite the decreased agricultural production per capita, farmers have become more food secure, Mr. Faalong says, because their cash income from dry season gardening and non-farm activities has increased.
The population density in Bawku East District is about 200 persons per square kilometre. We asked Mr. Faalong why so many people live in an area where conditions for agriculture are so harsh. In his answer, he turned the matter around. He emphasised that conditions for agriculture have deteriorated because of increased population pressure. In the past, MoFA has tried to encourage farmers in the densely populated Bawku East District (also from Garu) to resettle to the relatively sparsely populated Bulsa District, in the South-western part of Upper East Region. Some people indeed went, but they soon returned. Insecure land tenure, "to be a stranger" and "to have no kin around" were the main problems.

3 Health care services and health status in Bongo[3]

Bongo District has one hospital, four health centres and one community clinic. The hospital is located in Bongo Town. The health centres are located in Bongo-Soe, Zorko, Namoo and Vea (Valley zone). The community clinic is located in Bongo-Beo. The Namoo health centre was funded by Saudi Arabian donors and was finished last year. The health centre at Zorko used to be a mobile clinic that was operating from Bolgatanga, and that was funded by the Catholic mission. Later, it became stationary. The government funded the two other health centres. In Vea, there used to be only a community clinic. In 2002, the District Assembly established a health centre and the community clinic closed down.

The hospital in Bongo Town used to have the status of 'health centre' until 2002. Bongo health centre was established in 1977 and in those days, it was the only health centre in what is now Bongo District. This year Bongo health centre has been upgraded to the 'hospital' status, but not all facilities have been put in place yet. The operations theatre, for example, is not functioning yet. In 2002, Bongo hospital has a 'catchment population' of 77,852 persons of which 15,570 are less than five years old. Bongo hospital has one Ghanaian doctor (Dr. Yakubu) who at the same time is the District Director of Health Services. In the morning, he

[3] The information in this document is based on an interview with Dr. Yakubu Bayayinah, District Director of Health Services, Bongo District, 27th March 2002; an interview with Ms. Agnes Atayila, Nutrition Officer, Bongo District, 28th March 2002 by Kees van der Geest; and a visit to the Nutrition Rehabilitation Centre in Bongo Town, 28th March 2002 by Kees van der Geest. There were no annual reports available.

does consultations in the hospital and in the afternoon, he works at the District Health Administration. Two Cuban physicians assist Dr. Yakubu. When the Cubans came to Ghana, they didn't speak English at all. Communication difficulties put a strain on the use of their skills. There is also one 'medical assistant' in the hospital. There should be at least one more medical doctor. According to Dr. Yakubu, it is difficult to get medical doctors up north. This, he says, is due to the hot weather, the poor road network, the lack of extra income opportunities ('side-issues'), etc. An additional problem in Bongo is that there is no suitable accommodation for a second doctor. In the 5-year plan that has been submitted to the District Assembly, a new house has been scheduled.

Changes in health care delivery and health status

As the information above indicates, geographical access to health care has clearly increased in the past two decades. According to Dr. Yakubu, the quality of health care has also increased over the years. Now that Bongo health centre is being upgraded to the hospital status, the quality can further improve. When talking about financial access to health care, two dates are important. After Independence (in 1957) and until 1985, health services were free of charge. In 1985, user fees were introduced ('Cash & Carry'). In 1997, the exemption policy, meant to improve financial access of vulnerable groups in society, was introduced. Children under five, pregnant and lactating women and the elderly (above 70) get free treatment (and free medicines). However, they do have to pay for certain large operations.

Table 4 shows the most common diseases (admittance figures) in the Bongo District in 2000 and 2001.

Table 4 Most common diseases in Bongo District

2000		2001	
Disease	Admittance	Disease	Admittance
Malaria	3,647	Malaria	1,499
URTI	428	URTI	164
Anaemia	250	Diarrhoea	103
Diarrhoea	103	Pneumonia	101
Skin diseases / ulcer	83	Skin diseases / ulcer	91
Chicken pox	60	Anaemia	81
Pneumonia	47	Measles	40
Malnutrition	13	Chicken pox	23
Measles	12	Acute eye infection	9
Mental disorder	10	Mental disorder	7

Source: Ministry of Health, Bongo

In the past twenty years, some diseases have virtually been eradicated or at least their incidence has decreased considerably. Some notable decreases have occurred in guinea worm, sleeping sickness (more than fifty years ago already), river blindness, leprosy, chicken pox and measles. Off late, there have been no meningitis (CSM) epidemics in Bongo District, but isolated cases are found every year. When we asked Dr. Yakubu whether there are any diseases that have become more serious in recent years, his answer was "No". We had expected him to mention HIV/AIDS. When we asked whether HIV/AIDS was a big problem

in Bongo District, he said that seven cases had been registered of which three have died by now. We told him that this figure seemed very low. He said that not everyone comes to the hospital and some patients may be dying of AIDS in their houses. In Bongo, people can be tested on HIV voluntarily, but nobody has ever done that. It is clearly not regarded as a major problem (yet).

Collaboration with NGOs

Unlike in Bawku East District, health care delivery in Bongo District is mainly funded (D.A. Common Fund) and executed (MoH) by government agencies. Several NGOs and IGOs provide assistance in varying ways, however.

- World Vision International (WVI) has provided equipment and medical and non-medical supplies and they have financed health education in Bongo District. They also supply food to the nutrition rehabilitation centres.
- UNDP has also financed health education.
- Catholic Relief Service (CRS) has provided food rations during immunization activities. Each person received a certain amount of food (four mothers per one maxibag of maize and five mothers per one maxibag of WSB; wheat soy blend). This is meant as an extra incentive for people to have themselves vaccinated. CRS also donates foodstuffs to stock the nutrition rehabilitation centres in the district (see below) and they supply food to the Food Assisted Child Survival (FACS) project that covers nine communities in the district.
- Valco Fund. Valco is a North American company based in Tema (southern Ghana). The company donated medical equipment.
- World Food Program (WFP) donates foodstuffs to stock the nutrition rehabilitation centres in the district (see below).
- Unilever donated an ambulance to the Bongo District Health Service.
- Red Cross provided volunteers during the National Immunisation Days.
- UNICEF proves assistance at the regional level and in Bulsa and Bawku East District. Not in Bongo.

No collaboration with Bongo Agro-Forestry Project (BAFP) was reported.

The rather chaotic support from all over the world gives reporting problems for the officers on the ground. An interesting quote of the nutrition officer illustrates these problems: “The white man doesn’t give anything for free, ooh. You have to produce reports”.

Malnutrition

Malnutrition is widespread in Bongo District. It is not always caused by poverty and food insecurity per se. Sometimes it is caused by lack of awareness, ignorance and bad practices within households, Ms Atayila says. One of these bad practices is that the men often decide to sell food after the harvest even though they know that their farm produce is not even enough to feed their own households. Another bad practice would be the fact that much foodstuff is ‘wasted’ in all types of celebrations like funerals and festivals. The nutrition department of the Ministry of Health in Bongo District tries to remove this lack of awareness through education of both women and men. Education sessions are usually held separately (men-women) because “a woman will not come out when she is sitting next to her husband.”

According to Ms Atayila, the worst months of the year in nutrition terms are February to May. This surprised us for two reasons. Firstly, February looked quite early for people's grain stores to be depleted. Secondly, farmers will not harvest until August. After repetition, Ms Atayila persisted that February is the month that most households run out of grains. This is mainly due to the fact that harvests are small and that people sell part of their produce. "If we would visit any household now (end of March), we would see that their granaries are empty." She also persisted that the worst stress is over in June because that month, vegetables (both wild and cultivated) become available, at least if rainfall is adequate. It is interesting to note that people working in different departments have different opinions about the seasonality of the 'worst months'. According to the District Director of Food and Agriculture (Mr. Francis Dery), the lean season in the District is at its peak from April to July, not yet in February.

People's food security does not only depend on their own food production. Livestock sales can be important too. However, according to Ms. Atayila, people don't sell cattle, even if the hunger is severe. They only sell smaller animals. She also stresses the importance of migration income. Both men (boys) *and women* (girls) engage in seasonal labour migration. Boys mostly work in agriculture and girls work in the informal service sector (Ms. Atayila specifically mentioned "washing bowls in chop-bars").

The outcome of a malnutrition survey conducted in 1999 (month?) was that 55% of the children under five were undernourished (weight for age). Ms. Atayila was rather vague about the monitoring part of the work of the nutrition unit of the Bongo District. In each health centre in the district, data are regularly collected that include the age, weight and height of the children in the communities. When compiled and analysed in a proper way, these data could show the trends in malnutrition over the years and the seasonality of malnutrition (within years). However, there were no annual reports available (like in Bawku East District).

Ms. Atayila clearly linked malnutrition to population dynamics. A major cause of malnutrition, she says, is the large number of children per woman (high fertility rate). Although there is a separate department in the MoH that deals with family planning, the nutrition unit also seems to educate on it. "Once family planning is accepted, malnutrition will become less", Ms. Atayila said.

Traditionally, 'family planning' consisted of the spacing of children. After a woman had given birth, she and her husband would abstain from sex ("the man wouldn't touch his wife") until the child was about two or three years old. This system may still be in effect in some households, but it is not common anymore. According to Ms. Atayila, men are the problem. "They want sex all the time and they also want many children because it gives them respect". Teenage pregnancy is also high in the district. Another problem is polygamy. When a man has married several wives, the different co-wives ('rivals') will compete with each other on the number of children they get. The more children one has, the better one is respected. Even though the economic costs of children seem to have become higher than the economic benefits, big household sizes are still preferred. Polygamy is quite widespread in Bongo District. Christians are a minority in the district. Nowadays, the Catholic Church favours *natural* family planning and the government encourages the use of 'devices'.

The main activity of the nutrition unit is the management of the nutrition rehabilitation centres (NRCs) of which there are six in the district. In the NRCs, severely malnourished children (<5) and their mothers are 'rehabilitated'. This means that they are fed until they have

recovered an acceptable weight. This usually takes about three weeks to three months. The World Food Program, Catholic Relief Services and World Vision International supply the food that is used to feed the children and their mothers. Occasionally, food is donated by other 'benevolent societies'. When for some reason the delivery of food from donors has delayed and stocks are depleted, the D.A. provides food for the NRCs. The rehabilitation is totally free of charge. It is not clear when the first NRC was established in Bongo District.

Besides the NRCs, there is also a program for 'supplementary feeding' (since 1996). The World Food Program supplies the food. Beneficiaries are children under five and breast-feeding women in nine communities of Bongo District. The community builds a structure; the D.A. arranges the transportation of the foodstuffs and the World Food Programme supplies the food. Every day, food is cooked for the children and once a month foodstuffs are given out to the mothers (four bowls of rice, four bowls of beans, oil and sugar). It is a so-called 'integrated program' that also involves education. After some time (e.g. two years), when the whole education program has passed, the aid should shift to other communities. The nutrition unit also helps women in Weanimix production (a mix of four units cereal and one unit legumes to feed to small children).

4 Health care services and health status in Bawku East, and Garu in particular[4]

Institutional Setting / Actors

The Presbyterian Church of Ghana (PCG) has a paramount role in the provision of health-care services in the Bawku East District. The district is divided in nine sub-districts. In the Garu sub-district, the role of PCG in the health-care sector is even more important than in most of the other sub-districts.

Health-care services in the Bawku East District are mainly provided through a partnership between the government (MoH at district level) and the Presbyterian Church Ghana (Presbyterian Primary Health Care Services). Their activities are intertwined and it is sometimes difficult to determine *who does what*. In general, it can be said that the government pays the salaries of the health workers and it finances the Immunisation Programmes. The Presbyterian Church Ghana *executes* (through the Bawku Presbyterian Primary Health Services) and also attracts funds from foreign donors (including ICCO). For the nearby future, there are plans to decrease the presence of PCG in six out of nine sub-districts and concentrate

[4] The information in this section is based on two interviews and four reports.

- Interview with Mr. John Abugri, nutrition officer of the Ministry of Health (MoH) in Bawku East District and manager of the Bawku Nutrition Programme (BNP), Bawku Town, 20th March 2002; by Kees van der Geest
- Interview with Dr. Alexis Nang-Beifubah, District Director of Health for Bawku East District, Bawku Town, 20th March 2002; by Kees van der Geest
- Annual Report (1998) of the Presbyterian Primary Health Care / District Health Administration (MoH), Bawku East District. Author: Dr. Alexis Nang-Beifubah, February 1999;
- District Profile of Bawku District (Upper Region). Authors: Dr. M. Broekhuizen, Dr. M. Strobel and the District Medical Officer of Health, April 1982.
- Evaluation report of the second phase of the Bawku Nutrition Project (1994-1996) funded by Dutch Interchurch Aid (DIA) and executed by the Bawku Presbyterian Primary Health Services. Author: Aart van der Heide, April 1997.
- Evaluation report of the third phase of the Bawku Nutrition Project (1997-2000). Author: Aart van der Heide, August 2000.

efforts in three sub-districts (Garu, Widana and Woriyanga). In the other six sub-districts, the MoH would become the main health-care delivery body.

A large variety of other NGOs and institutions, like Action Aid Ghana, Christofell Blind Mission, the Netherlands Reformed Church, Wild Geese ("Wilde Ganzen"), the Association of Church Development Practices (ACDEP), EMS (German), COWAP (?), Bawku East Women's Dev. Association (BEWDA), ISODEC, MP, the US Embassy, USAID Food for Peace Programme, Catholic Relief Service (CRS), UNICEF, the World Food Programme (WFP), the World Health Organisation (WHO) and Canadian International Development Agency (CIDA) assist or have assisted in specific programmes.

The position of the District Assembly in the health sector is unclear and probably very weak. A District Health Management Team (DHMT) "co-ordinates and integrates medical work in the district." It meets every week (for 1.5 hours). It already existed in 1982. There is also a Regional Health Management Team (RHMT) and a Regional Health Directorate. A body called CHAG seems to have a co-ordination role between mission activities and government agencies. The 'Area Board' of the Presbyterian Health Service, Northern Presbytery co-ordinates the health activities of PCG in Northern Ghana (especially UE/R and N/R, the Presbyterians are less present in UW/R). Finally, the Internal Management Committee has a similar co-ordinating function within the Presbyterian sector.

Some important dates

1953: Government establishes Bawku Hospital.
1956: The management of the Hospital is handed over to the Presbyterian Church.
1963: First outstation opened in Binaba (now in Bawku West District).
1975: Garu health centre opens its doors.
1976: Garu Rehabilitation Centre for the Blind opens its doors.
1990: Dutch Inter-church Aid (DIA) starts funding the Bawku Nutrition Programme.
2000: After three evaluations DIA decides to withdraw from BNP. DIA joins ICCO.
2001: ICCO withdraws support to the Bawku Nutrition Programme (BNP). ICCO support to PCG continues.
2002: New intervention planned in primary health/nutrition sector in Bawku

General description of the current health care situation and comparison with 1982

At present, the Bawku East District has one hospital (in Bawku); three functioning health centres (in Garu, Widana and Woriyanga); two health centres under construction (Bugri, sponsored by OPEC and Binduri, sponsored by 'Saudi Arabia') and between fifteen and twenty dressing stations / local clinics (level A). In Bawku Town, there has been a private hospital (Banga Hospital) for some years, but it seems to have closed its doors after the practitioner/manager left. In 1998, there were seven doctors, nine medical assistants and 221 district nurses in the Bawku East District on an (over)estimated population of about 380,000. In 1998, the budget of Garu health centre amounted to 180 million cedis of which 26.6 million came from donations overseas (ICCO: almost 20 million; EMS 6.4 million).

Health facilities in 1982 were: hospital (1), health centres (3), dressing stations (18), Nutrition Rehabilitation Centre (1), mobile clinics (4), Nurse Training School (1). It seems that there has not been a great extension of health services in the past two decades. Also the organisation

is much the same. Departments in 1982 were: environmental health, eye extension, leprosy control, medical field unit, community health service, family planning service, district health management team. The future of the Nurse Training School was uncertain in 1982 and no longer exists.

Interventions: health care delivery

When we asked Dr. Alexis what his general, overall impression was about the changes in the health situation in Bawku District since the early 1980s, he answered that we have to distinguish between changes in *health care* and changes in *health status* of the people. Dr. Alexis is convinced that health care delivery has substantially improved in the past two decades. He did express some concern about the 'Cash & Carry' system that demands instant payment before treatment. This system has made health care services less accessible for the poor. The 'Cash & Carry' system was introduced in the (in Bongo interview: 1985)as one of the elements of structural adjustment. Dr. Alexis was less convinced whether the health status of the people of Bawku East District had improved much in the same period. The monitoring of health status changes is inadequate. However, some of the figures presented below suggest that the health status of the people has improved.

The different interventions in health care can be categorised as:

- Clinical services
- Pharmacy Unit
- Maternal, child health and family planning services
- Expanded Programme on Immunisation
- Community psychiatry
- Bawku East Epilepsy Project
- Bawku Rural Eye Programme
- Health Education Unit
- Bawku Nutrition Programme
- Ambulance service from health centres to the hospital (with fee).

The position near Burkina Faso and Togo makes the Bawku area prone to epidemics because health care and immunisation are (according to Dr. Alexis) less developed in these countries.

Bawku hospital also serves Bawku West District, parts of the Northern Region and parts of north-west Togo and bordering areas in Burkina Faso. Bed occupancy in 1998 in Bawku Hospital was 52% against 70% in 1997. Admissions: 16,498 against 19,521. Constraints: high cost and "no facility for the treatment of paupers." The availability of drugs was adequate in 1998 and not a major constraint. In 1981, the bed occupancy was around 100%, but that was before the 'Cash and Carry System' was implemented. Information from the 1981 report shows that in those days, health care delivery was not completely free of charge, though. Fees were charged on O.P.D., admission, deliveries, operation, drugs, etc.

The health centres are 'referral points' for the more local dressing stations (18 in 1981). The Bawku hospital is again the 'referral point' for the health centres. This system of primary health care has existed for almost three decades and was revolutionary in its time (established by a Dutch doctor: Jan S. Oosterink). Each health centre has a car for 'references' to Bawku hospital.

In 1981, for our research village Kugsabilla, the nearest dressing station (type A clinic) seems to have been in Woriyanga, Tempane or Garu and for the research village Tambalug in Garu or Kugri.. Nowadays, Kubsabilla has its own clinic.

Health status and diseases

In 1980, 2354 children in Bawku district were admitted because of malnutrition. Of these, 688 died! In the early 1980s, approximately 200 out of 1000 children would die before reaching the age of five. Both interviewees indicated that infant mortality had substantially decreased in the past two decades. In the early 1980s, over 60% of the death cases in Bawku District were deemed 'preventable' with adequate health care. No exact data were available on life expectancy. In 1980, measles were the most common death cause in Bawku hospital (147), followed by malnutrition (77) meningitis (76) and pneumonia (71). Malaria listed number eight (27). For adults specifically, meningitis and gastro enteritis were the main death causes. The 1998 report does not show death causes. According to Mr. Abugri, malaria has become death cause number one (especially among children). Among adults, he thought, pneumonia was death cause number one. What follows is some brief information on diseases in the district.

CSM (Meningitis): 1997: "unprecedented CSM outbreak." Immunisation against CSM, since 1996: 88% coverage. In the interview, Dr. Alexis stated that such an outbreak is very unlikely to occur in the future because the monitoring, communication and response have substantially improved in the past few years.
Cholera: 1998: outbreak of cholera epidemic. 1176 cases; 35 deaths.
Measles: In 1998, a small outbreak of measles occurred in Pusiga sub-district. 311 cases were recorded; no one died. The control of measles through immunisation stands out as the most drastic health improvement of the past two decades. Until the early 1980s, it was death cause number one. In the late 1980s, the measles ward in Bawku Hospital was closed because few cases were diagnosed and few patients were admitted for measles.
Yellow fever: 233 cases in 1998 of whom 12 died.
Tuberculosis: 218 cases in 1998.
Polio: During the National Immunisation Days, coverage of immunisation against polio was 100%.
Leprosy: 19 new cases in 1998. New cases in 1981: 64 of which 12 in Garu. Total known cases until 1981: 854 of which 162 in Garu. Note that in 1981, the district was larger as it included the present Bawku West District.
Guinea worm: Has decreased in the past decades. No cases were *reported* in 1998.
Bilharzia: Has decreased due to the increased use of boreholes rather than surface water.
River blindness: In 1982, river blindness (onchocerciasis) was mentioned as a very big problem. The number of affected people in the Bawku District was estimated at 70,000 and the number of blind people at 3,000 on a total of 300,000 inhabitants. River blindness has reduced drastically due to spraying of riversides (by WHO). Besides river blindness, Xeropthalmia was estimated to have caused 400 cases of blindness.
Yaws: In the 1982 report, it is mentioned that the medical field unit's main task in 1982 "seems to be surveillance and treatment of yaws". No mention of yaws was made in the 1998 report. (eradicated?).
HIV/AIDS: Between 1991 and 1998, 848 persons tested 'positive' on HIV/AIDS in the lab of Bawku Hospital. There is not a clear increasing trend. Peak years were 1995 and 1996. An

educational programme was carried out to prevent the spread of HIV/AIDS by Action Aid Ghana (Aids Control Programme).

The Bawku Nutrition Programme (BNP)

In the late 1970s the Bawku Nutrition Project (BNP) was started to combat malnutrition. Target groups were all the District's children and their mothers, especially those children under five who were diagnosed as being malnourished. Despite the central attention for women, it is interesting to note that still in 1997 the management board of BNP consisted of 100% men.

Activities of BNP: Rehabilitation, education & training, production and distribution of 'Weanimix', monitoring and documentation of age, height and weight of children under five (nutritional surveillance), conduct nutritional surveys, assist women to acquire support from other NGOs for income generating activities, train staff and community health workers and collaborate with local, regional and national authorities. The *intervention* type of activities are mostly mediated through 'Nutrition Mothers Clubs' of which there are 20 in the District with a membership of more than 600 women in the year 2000. There are three rehabilitation centres: in Bawku, Widana and Garu.

In the mid 1990s, the main donor (Dutch Inter-church Aid) recommended the programme to shift from a 'classical' focus on malnutrition (symptoms) to food security (root causes): "An approach beyond malnutrition." In 1997, the shift had not yet been made. "It was not a project trying to improve food and nutrition security on household level." The only activity that was geared towards improving food security was to provide loans to women for income generating activities. Increased incomes would enable mothers to buy more food for their children when their own food production would be below subsistence. DIA wanted BNP to really attack the root causes of malnutrition: to improve people's access to food (through increased agricultural production and increased cash income). After the evaluation of the third phase (1997-2000), DIA/ICCO decided not to continue its support because the BNP did not fit in their approach and did not move in the right direction, despite the clear messages in the last two evaluation reports. The manager of BNP criticises DIA/ICCO for this position. There are other NGOs and government agencies in the district whose task it is to increase food security at the household level. : "Why can't a nutrition programme focus on prevention of malnutrition through education (and Weanimix production); monitoring malnutrition and 'curing' malnutrition through rehabilitation? A nutritionist is not educated to work as an agronomist, extension officer or economist". It is his opinion that BNP should be allowed to continue its emphasis on the 'symptoms', while others concentrate on the 'causes'.

For our research, it would be very interesting to see the changes in malnutrition over the past two decades. Malnutrition has been monitored for more than two decades. In the 1982 report, monthly 'weight for age' figures are presented, for example. It is not clear whether it has been monitored throughout the period, however. Unfortunately, the data were not managed in such a way that changes / trends in malnutrition are discernible. Perhaps a thorough archive search would enable such an analysis. The little data available show a very moderate decrease in the incidence of malnutrition. Two other interesting conclusions can be made with the available data, however. Low height for age figures are much more common among children under five in the district than low weight for height figures. This indicates that chronic malnutrition was

more widespread than acute malnutrition. The second conclusion is that malnutrition more often concerns a low quantity than a low quality of food.

When a child's weight for height (W/H) is below 80% of 'the medium' (unclear from reports), this indicates moderate or severe *acute* malnutrition. In 1997-2000, the figure amounted to about 10% on average of children who were below this threshold. When a child has a low height for age (H/A) it indicates moderate or severe *chronic* malnutrition (stunting). This was more widespread (around 20% of the children had less than 80% of 'the medium'). In 1997-2000, weight for age showed the most alarming figures. This measure is a less specific measure (general malnutrition). It amounted to about 40% of all children. When the W/A figure falls below 60% of the medium, the child is considered 'severely' malnourished. The cause of malnourishment is predominantly 'marasmus' (indicating a quantitative deficit) and much less 'kwashiorkor' (indicating lack of protein). The diets are quite balanced in general and provide enough protein. In 1996 a start was made of supplementary feeding (donated by the World Food Program): rice: 7,200 kg, corn: 6,400 kg, canned fish: 1,920 tins, oil: 768 litres and sugar 2,000 kg.

The BNP did go a bit beyond the 'symptoms' treatment, by providing loans to women. In June 2000, loans were given to 631 women in Bawku East District. Average loan size: 100,000 cedis; payback time: 10 months; interest rate: 18%; Reported profits: 25,000 to 70,000 cedis per 'imbursement'. The profit of the loans helped the mothers to increase food security, but some women reported that their increased cash income resulted in irresponsible behaviour of the husbands who would now spend their own money on 'other women' and drinks. Another disadvantage is that the women's workload had increased.

In 1980, 2354 children in Bawku district were admitted in the hospital or in health centres because of malnutrition. Of these children, 688 could not be saved ('rehabilitated') and they died! In 1994, 1995 and 1996, a total of 1405 malnourished children were admitted in the rehabilitation centres of whom 67 died. In general, Mr. John Abugri says, the nutritional status of the people in the district is improving. The malnutrition ward is much less crowded nowadays than a decade ago. In the field too, he says, one sees much less signs of malnutrition. This is despite the 'fact' that subsistence, rain-fed agricultural production has stagnated or even declined, he says. It is due to increased income opportunities, including dry season gardening and trade. The improved access to credit (not only through BNP) has enabled women to engage more in income generating activities.

When a child's weight for age is less than 60% 'of medium', i.e. when it is 'severely malnourished' it is admitted for rehabilitation. In Garu (one of three NRCs), the average admission rate in 1997-2000 was 8 per month, which does not indicate a very problematic situation, like twenty years ago.

Health care in Garu

- Garu has a Nutritional Rehabilitation Centre of BNP
- Garu has a Rehabilitation centre for the blind (since 1976). Its objective is to "educate blind people in such a way that they feel and are respected again in the society. There are courses in dry season gardening, 'mobilisation', weaving, rope making, etc.
- Garu Health Centre opened its doors in 1975;
- Garu Health Centre was renovated in 1998;
- Garu health centre is one of the three health facilities offering 24 hrs/day services.
- Garu health centre provides a limited number of laboratory services.
- Garu health centre has 28 staff members

- Garu health centre had a budget of 180 million cedis in 1998. The actual income was 212 million cedis and expenditure amounted to 193 million cedis. Expenditure was above budget especially for purchase of drugs and vehicle maintenance.
- Donated funds of Garu health centre. 'Foreign partners': EMS and NRC/ICCO 6.414 and 19.970 million cedis respectively. 'Local partners': Garu Bessra Bank and MoH 5.5 and 15 million cedis respectively.

Collaboration of BNP with Garu Agricultural Station (GAS)

Two instances of collaboration were found. Firstly, women groups of GAS engage in Weanimix production and secondly, the Garu health centre has educated groups of GAS on nutrition. Mr Abugri about the division of labour between GAS and BNP: "GAS tackles the problem of food and nutrition security from the agricultural point of view and the BNP does the same from the nutrition point of view. Both contribute to the same goal; to improve food and nutrition security on household level".

Influence of NGOs on government policy

A separate question in the interview was meant to find out how the activities and interventions of NGOs in the area have influenced the health policy of the (local) government. In the case of Bawku District, government and PCG design the health policy and deliver health care in a collaborative way. Thus, PCG does not only influence local government health policy. It actually designs it. The local staff members including the two we interviewed cannot clearly say whether they work for the government or for PCG. They work for both.

Community Participation and Requests

According to Mr. Abugri, it quite often happens that community representatives request for a clinic in their village. When a village is not covered in an immunisation campaign (due to mistakes), the villagers come out to ask when the campaign will visit their village. Mr. Abugri also said that community clinic attendants are directly paid by community members (including their education). These attendants are selected from the communities themselves.

5 Educational services in Bongo[5]

Two governmental bodies work in the field of education. The Ministry of Education *designs* policy regarding education and is not represented at the district level. Ghana Educational Service (GES) *implements* policy and is represented at the district level. GES *provides* education. GES has divided Bongo District in three educational 'circuits': East, Central and West.

[5] The information in this document is based on:
- An interview with Mr. Jacob W. Asigri, District Director of Ghana Educational Services in Bongo, 27th March 2002; by Kees van der Geest
- An interview with Chief A.J. Awuni, peripatetic officer of Ghana Educational Services in Bongo, 27th March 2002; by Kees van der Geest
- The annual report of GES Bongo for 1991/1992 and 1996/1997;
- Raw data on enrolment rates for 2001/2002

Presently, there are two senior secondary schools, fifteen junior secondary schools and forty-six primary schools in the Bongo District. Of the senior secondary schools, one is located in Bongo Town and the other one (a technical senior secondary school) is located in Gowrie. Both are day schools. Table 5 shows the increase in the number of primary and junior secondary schools in the past ten years. Some schools have been funded and built by church-based organisations. In the past, these schools were also managed by church organisations. Nowadays, the management of all schools is in the hands of GES.

Table 5: Number of schools in Bongo District from 1991 to 2002

	1991/1992	1996-1997	2001/2002
Primary schools	31	42	46
Junior secondary schools	11	13	15
Senior secondary schools	2	2	2

Source: annual reports of GES-Bongo

Table 6: Student enrolment and number of teachers in the schools of Bongo District (1991 to 2002)

	1991-1992				1996-1997				2001-2002			
	Boy	Girl	Total	Teach	Boy	Girl	Total	Teach	Boy	Girl	Total	Teach
Nursery/ Kindergarten	264	249	513	11 (5)	299	395	694	12	1563	1559	3122	30
Primary	4648	2605	7253	86 (53)	5881	3880	9761	174 (137)	7783	7441	15194	196 (130)
JSS	727	259	986	53 (37)	1232	610	1842	63 (60)	1451	1039	2490	78 (58)

'Teach' = total number of teachers. Between brackets: the number of *trained* teachers

Source: annual reports of GES-Bongo

Six main conclusions can be drawn from tables 5 and 6.

1. The number of schools has increased with almost 50% in the past ten years.
2. The number of children attending school in Bongo District has sharply increased in the past decade, especially in the last five years. The increase in enrolment has been sharper than the increase in the number of schools, especially at JSS level, i.e. the number of students per school has increased.
3. Enrolment rates for girls have increased more sharply than enrolment rates for boys. In primary schools, the number of boys and girls are similar, but in junior secondary schools, boys still clearly outnumber girls.
4. The number of children in nurseries and kindergartens has increased fivefold. A reason for this sharp increase is that mothers nowadays want to (or have to) spend much time on income generating activities.
5. The total number of teachers in junior secondary schools has increased much less than the number of pupils. In primary schools, the number of teachers has kept pace with the number of pupils. In 2001-2002, the numbers of pupils per teacher were 32 in JSS, 78 in primary schools and 104 in nurseries and kindergartens.
6. The number of *trained* teachers in primary schools and JSS has decreased in the past five years.

According to Mr. Asigri, the reason why the number of trained teachers has not increased much lies in the *availability* of trained teachers. After teacher training college (TTC), teachers still want to further their education to university level so that they can get better and more profitable jobs, especially in NGOs. A teacher who has recently graduated from TTC (certificate A) earns 354,353 cedis per month (about 54 euro). A headmaster of a JSS (senior superintendent) earns 578,265 cedis per month (about 89 euro). Compared to what people think they can earn in the NGO sector this is regarded as a pittance.

The number of children attending school does not say anything about the enrolment *rate* if we don't know the number of children in school-going age. These data were not available at GES. The director estimated that enrolment rates are about 65 percent at the primary school level. He further estimated that after primary school, about 55% of the girls continue to JSS and about 65% of the boys continue.

When we asked the Director what his general impression was of the changes in education of the past two decades, he said that the situation was not bad and that it had improved a lot in the past decades. Just like the Director in Bawku East, he expressed his concern about the *quality* of education, however, and he emphasised that after schooling, most students have little opportunity for finding a job. He blamed both the economy (lack of job opportunities outside agriculture) and the educational system. The skills children learn in school do not always coincide with the requirements of potential employers.

Table 7: Student enrolment and number of teachers in the schools of Anafobisi and Balungu (1996 to 2002)

		1996-1997					2001-2002				
		Boys	Girls	Total	TT	UT	Boys	Girls	Total	TT	UT
Anafobisi	Primary	214	164	378	6	0	200	257	457	4	1
	JSS	68	59	127	5	0	149	122	271	5	2
Balungu	Primary	169	91	260	3	1	241	305	546	3	2
	JSS	69	23	92	3	1	69	43	112	2	2

TT = trained teacher
UT = untrained teacher

Source: annual reports of GES-Bongo

Table 7 shows that the trends in the research villages Anafobisi and Balungu are quite similar to the district level trends, but in both villages, girls outnumber boys in primary schools. The number of boys in Anafobisi primary school and in Lungu JSS has decreased in the past five years.

The District Assembly

The District Assembly also sponsors students to further their education up to tertiary level. The District Assembly can use the Social Investment Fund (SIF) for infrastructure investments in schools since the decentralisation in 1997. In the district, two primary schools have been built with assistance from SIF. The procedure is demand-driven: when a community wants to have a school, they have to initiate a project. They can appeal for funding of SIF. A large part of the cost will be paid by SIF and the community pays the rest and provides labour and local materials. SIF has also provided furniture and books to schools.

Collaboration with NGOs

Catholic Relief Service (CRS) provides free lunches in almost every primary school in the district. This is an extra incentive to parents to send their children to school. World Food Program (WFP) regularly hands out foodstuffs to girls in Junior Secondary Schools. Only girls who really attend can benefit. Just like the free lunches of CRS, the handouts of food are an extra incentive for girls to stay in school. Many girls still drop out of JSS.
World Vision International (WVI) has provided storybooks to primary schools and JSS and they sponsor students from 'needy' households. They do this in collaboration with the District Assembly. Students / pupils can request for such sponsorships. To determine who is needy, a social welfare staff member visits the house of the needy student and writes an 'inquiry report'. Sponsorships are granted on the basis of these reports. WVI has also been training GES staff and teachers (capacity building). It is only very recently that UNICEF also started funding in the district in partnership with CRS. Funds are provided to train staff and CRS carries out the training. The relationship between BAFP and education is rather meagre. BAFP has provided free seedlings for planting trees in school compounds and we have been shown school compounds with indeed a woodlot, which was provided by BAFP.

6 Education services in Bawku East, with a focus on Garu[6]

In 1982, less than one in five children in the age group 6-15 attended school in Bawku. In the Bawku District (including the present Bawku West District), there were 75 primary schools, 25 middle schools, 2 Junior Secondary Schools, 1 secondary school, one teacher training college, one technical school, two vocational schools, two home science schools, and seven English/Islamic primary schools. There was also a Nurse Training School (under the supervision of Presbyterian Health Services). The Presbyterian Church had only one primary school while the Catholic Church had six primary schools and three middle schools. The Anglican Church had ten primary schools and two middle schools. In 1981, Garu 'circuit' had one day-nursery, 18 primary schools and seven middle schools. One of the eighteen primary schools was in Kugsabilla. The nearest school in Tambalug must have been either in Kugri or in Garu town.Presently, the Bawku East District (excluding the present Bawku West District) has 146 primary schools, 52 Junior Secondary Schools, three Senior Secondary Schools, one technical institute and one teacher training college. Two senior secondary schools are located in Bawku and one in Tempani, near Garu. It is unclear to us what happened to the vocational, home science and Islamic schools. The Garu circuit presently has four Junior Secondary Schools and nineteen primary schools. These figures suggest that the number of schools in the district has increased substantially, but not in Garu circuit. According to the group discussion participants, enrolment rates have also increased substantially, but they could not directly produce any figures.

Collaboration with NGOs

[6] The information in this section is based on a small group discussion at the office of Ghana Educational Services (GES) in Bawku on the 21st of March 2002, recorded by Kees van der Geest. Participants were Mr. Paul Asikisimi (District Director of GES since 1998), Mr. Robert Kulbo (Assistant Director of Educational Services, attached to GES since 1980) and Mr. David Moli (staff member of GES). One old secondary source was used: *District Profile of Bawku District (Upper Region).* Authors: Dr. M. Broekhuizen, Dr. M. Strobel and the District Medical Officer of Health, April 1982**.**

Education in Bawku District has benefited a lot from external support and collaboration with NGOs and other institutions. Since 1998, the Department For International Development (DFID) from the U.K. has helped with furniture, training and workshops. The District Assembly provides basic infrastructure for schools. Since 2000, UNICEF provides funding for staff training, furniture, school materials and computers. UNICEF has chosen Bawku East as a 'focal district' with special emphasis on the improvement of the position of children and women. Catholic Relief Services has provided food aid through free school lunches (the programme is called 'Quality Improvement Primary Schools': CRS-QUIPS). This intervention had a double aim. Besides combating hunger and malnutrition, it aimed at attracting pupils to attend school. Without the free lunches, many children do not come to school in the hunger season. This strategy was already followed twenty years ago. It is the intention of the Government of Ghana that "even the poorest of the poor should be able to send their children to primary and junior secondary school." The above quotation is based on the fact that for these school types no 'fees' are paid in Northern Ghana. Pupils only pay small amounts for special projects. These mandatory expenses, for instance for sports and culture, are called 'levies' and usually amount to less than 10,000 cedis per year. The purchase of the obligatory school uniform (and materials) involves additional costs. As the group participants noted themselves, the above quotation also neglects the fact that the poorest of the poor may need the children's labour to secure food needs. This is outside the control of GES, however. For senior secondary schools, the costs are higher, especially for boarding schools. Most pupils in the Garu area are likely to go to Tempani Senior Secondary School, which is a day school.

How does education help to escape poverty?
According to the civil servants we interviewed, education only starts paying off in economic terms when a person has followed tertiary education (Polytechnic, University, Agricultural College, Teacher Training College, Nurse Training School, etc.). With an SSS diploma, you are not likely to get a job. The main option you have if you can't afford tertiary education is to work as a 'pupil teacher' for some years. Then you can go to a Teacher's Training College (TTC). For TTC, no annual fees are paid. Students rather get allowances. Students just have to pay an admission fee. Agricultural Colleges and Nurse Training Schools used to have a similar system, but of late, allowances are being removed. The group participants concluded that basic education is quite accessible for students from poor households, but that it gave them little scope to directly escape material poverty. To get a job in the formal sector, you need tertiary education, which is much less accessible for students from poor households. Indirectly, however, to have enjoyed basic education and to be able to read and write enriches people's lives and improves their socio-economic position (better human capital).

The number of schools and the enrolment rates have increased, but the group participants were very critical on the *quality* of the schools. They said that in the past, with the system of O-levels and A-levels, students spent more years in secondary school before moving on to tertiary education. The government seems to have cut down expenses per pupil, but education is still the principal expenditure post in the national budget.