

Don't forget South East!

Solidarités International's food security, water and sanitation assessment in Maryland and Grand Kru



Solidarités International has been present in Maryland and Grand Kru counties since 2004, implementing water and sanitation projects.

In 2010 **Solidarités International** conducted two assessments in Grand Kru and Maryland Counties: a first one focusing on water and sanitation in February 2010 for both Maryland and Grand Kru and a second one focusing on agriculture in May 2010 specific to Grand Kru

The key results of these assessments show that, due mainly to its remoteness and its lack of roads network, South East is underdeveloped and under covered:

- Remote communities don't have access to safe water and the whole area is poorly covered in terms of sanitation facilities
- Food security is precarious

So "don't forget South East!" There is an immediate need to increase humanitarian and development projects if we don't want Maryland and Grand Kru to lag behind the development curve.

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1. A blatant lack of infrastructures starting with roads

South East is characterized by its remoteness. Grand Kru presents one the lowest density of population with 14 inhabitants per km² and is known as “the walking county”, as two-third of its territory is only accessible by foot and even not by motorbike.

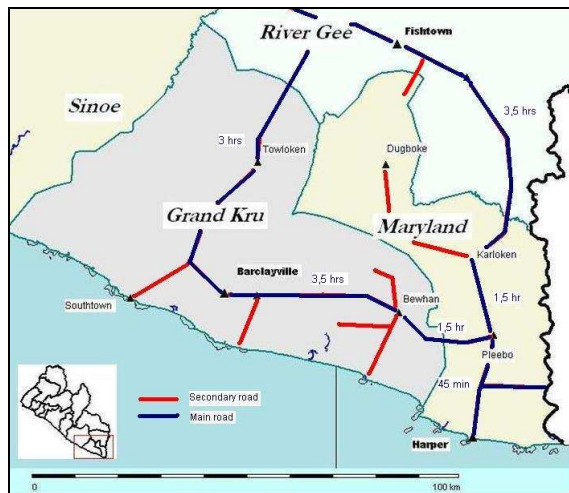


Figure 1: Main Primary and Secondary roads

The few existing roads (Map n°1) are really difficult to practice.



Figure 2: Mud spots (on the main road Barclayville-Harper)

Some communities are not accessible at all by road. Those main areas are indicated on the map n°3 for Grand Kru¹. Some remote communities are

facing the same situation in Maryland but at a smaller scale.

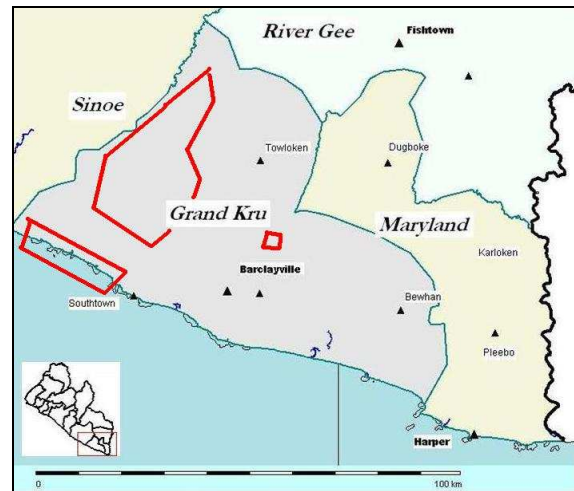


Figure 3: Map of the main areas without road access

During rainy season, as numerous rivers and creeks overflow, some of the communities are even “cut” from pedestrian access.



Figure 4: Raft river crossing on the way to Neyankunpo (Dorboh District)

In the west part of Grand Kru County (west of Sasstown-Fishtown road), average walking distance from a health center is on the range of 4 hours, and average walking distance to reach a primary or secondary road is on the range of 6 hours.

As consequence, **numerous and important communities are not targeted by humanitarian assistance or development activities** despite needs.

¹ Sources : Solidarités Internationale, Grand Kru CHT, Merlin and Grand Kru Super Intendant

2. A very limited access to Water and Sanitation in remote communities

Diarrhea is the 2nd cause of child morbidity in Liberia. In South East diarrhea is the 2nd treated disease in Health centers in Maryland and the 3rd in Grand Kru. Diarrhea outbreaks still occur (over 180 diarrhea cases were registered in Harper hospital during June – July 2010). As some people do not have easy access to health centers **the number of diarrhea is likely to be worst.** This is the result of the lack of access to safe water, proper hygiene facilities and practice of good hygiene behavior.

a. Unequal water coverage

Numerous and important communities still do not have any access to safe water. The biggest parts of these communities are in areas without easy access by road especially in West and South Grand Kru (see Map n°3).



Figure 5: Woman fetching water in a creek - Maryland

- Wells coverage is up to 75% in Maryland and 60% in Grand Kru along the roads
- There is a huge inequity between the communities above 500 inhabitants located near the main roads (coverage is often 100%) and the **remote communities with 200-300 inhabitants (coverage from 0 to 30% depending on the location).**
- Access to water is around 33% (for both counties) partly due to difficulties of the communities to maintain their pump.

There are still **at least 64,000 persons in Maryland and Grand Kru without access to an improved drinking water source.**

b. Blatant needs in terms of sanitation

At county level, access to proper sanitation is very poor especially in remote communities. For example, **Solidarités International**, who is a main actor in sanitation in this area, gave sanitation access to 100% of the targeted communities but only to 5% of the total population in its targeted areas (Maryland and East Grand Kru) after 5 years of latrines construction. An initial baseline showed an **access around 1% of the total population** of the two counties.

c. Unsafe hygiene practices

Due to low level of education² (linked with remoteness and tradition), people don't have safe hygiene practices,



Figure 6: Hygiene Promotion Session in Old Soldoken - Grand Kru

For example, before NGO intervention, people knowledge of good hygiene practices is quite low:

- 74% of people doesn't know how to wash their hands properly
- 61% doesn't store their drinking water properly

This makes people vulnerable to water diseases such as diarrhea.

² According to the results of focus group interviews done in Barclayville, only 20% of the adults can read and write, and more than 80% of the women never went to school.

3. An increasing food insecurity

Liberia is part of the nine countries where the **Global Hunger Index has increased between 1990 and 2010**³. The South East counties is food insecure; having the worst situation compared to other part of Liberia⁴ and for South East coastal part including Maryland and Grand Kru, **population with poor food consumption has increased between 2006 and 2009**, from 14% to 26%⁵.

There is no detailed data about **malnutrition** in Grand Kru, but in all the villages visited during the assessment,

Solidarités International's team observed children presenting common symptoms of Kwashiorkor ("big belly") and half of them children having deformed leg which indicates rickets cases.



Figure 7: Child suffering from malnutrition, Tendeken

Food security is based on three fundamental concepts, all three of them are essential in order to attain food security and are at the core of **Solidarités International's** analysis of food security: (1) **availability** that refers to total good quality food stocks that are available locally during a given period; (2) **access** that refers to the capacity of a household to obtain healthy food in sufficient quantity and quality; (3) **utilization/consumption**

³ According to IFPRI. 2010 "Global Hunger Index". The GHI includes (i) the percentage of undernourished people, (ii) the prevalence of underweight children under 5 y/a, (iii) the mortality rate of children under 5 y/a.

⁴ According to the « Household Food Security and Nutrition Surveillance », conducted in November and December 2009 by the Government of Liberia and its partners

⁵ Comparison with the Comprehensive Food Security and Nutrition Survey (CFSNS), conducted in March-April 2006 by the Government of Liberia and its partners

that refers to the way in which food is utilized and /or consumed.

a. Very limited availability of food

Availability of food is very limited both at domestic and commercial levels.

Farming methods are archaic: According to Solidarites International food security assessment, slash and burn and long fallow period are widely used and the soil fertility is low. These combined factors lead to really **low yield** (340 kg of cleaned rice harvested per hectare in Grand Kru, compared to 760 kg in Bong County).

As a consequence food produced at the household doesn't cover their entire needs. Rice, which is the main staple food, only covers from 73% to 83% of household needs⁶ when not seriously damaged by external factors.



Figure 8: Farm with rice plants, Tendeken,

Grand Kru being covered by forests, farmers suffers from repetitive **attacks from bush animals** on their cultures mainly guinea pigs, ground dogs and birds.

⁶ Source: Solidarites International food security assessment done in May 2010.

First of all, once their production is stored in the house, people suffer from partial loss of their production mainly from rats and chicken due to **improper storage**.



Figure 9: Storage system, household kitchen, Betu

FAO estimated the post harvest losses at about 60% at national level due to poor storage system⁷.

Climate change starts to also badly affect South East farmers' production: during the last years, farmers noticed that rainfalls start was not as regular as it was before. As a consequence, it's more difficult for them to plan when to start the farming work. As an example, this year (2010) the rain came earlier, between half month and 2 months depending on the location, than planned and prevented some farmers to prepare their fields; this will have dramatic consequences for those who were not able to plant this year. This will affect negatively their livelihoods and impact their food security.

Moreover as the agricultural system practiced focuses on rice and cassava production, **few vegetables** are cultivated mainly corn, eggplant, pepper and okra. As a consequence availability of vitamins usually provided by fruits and vegetables is very limited.

Except for hunters and fishermen's families, **sources of proteins are also very limited**. Livestock almost disappear with the war and nowadays the level of restocking is quite low, especially for cows.

In addition, the opportunity for households to complement their food needs by **external agricultural supply is very limited due to remoteness**. There are only few regular markets in Grand Kru, and their number and size are decreasing from East to West. Due to remoteness of the area and lack of roads, commercial exchanges are limited, the main pattern being the exchange between cassava and fish, leading to a low availability of food in the markets, both in terms of quantity and diversity.



Figure 10 Hunter, Grand Kru

A study done by **Solidarités International's** team of Barclayville's **market**, the "capital" of Grand Kru, highlights the low **availability of food**: approximately 40 women and 10 small shops were selling products, but only half of them were selling food, the others selling manufactured products. There was no meat to sell, and only 3 women were selling fish.



Figure 11: Fishes to sale in Barclayville market (1 pile for 50 LD / 3 dried fishes of 15 cm)

⁷ FAO in LIBERIA: Urban gardens to boost food security, 19 January 2010 (IRIN)

The main market of the whole area is in Pleebo in Maryland County. People from remote communities need to walk at least 2 days (for people coming from Thren district) to reach it.



Figure 12 Women walking to the market

b. Difficult access to food

Looking at the type of incomes generating activities, the first three ones being (i) cassava and palm sale, (ii) other agricultural products sale, (iii) petty trade, it is very likely that **most households live with less than 1 USD/person/day**.

As an example of the very limited economical means of the Grand Kru households, to buy tools for farming, men from remote communities usually go to Pleebo, hire themselves as daily workers for few days and then buy tools with the cash they earned.

To worsen the situation, with this low purchasing power, people have to afford expensive prices.

Market Price in LD \ Place ⁸	Red Light	Pleebo	Barclayville	Blebo (Grand Kru)
1 bag of 50kg imported rice	1,600	2,600	3,000	
1 bag of 50kg of cassava flour	521	504		600

Figure 13: Market price of staple food (March and April 2010)

Due to remoteness, the low number of markets and limited commercial exchanges, **prices of staple food are especially high in Grand Kru**, and increase with remoteness, from East to West within Grand

⁸ Sources for Red Light and Pleebo Market: "Liberia Price Market Monitor" Bulletin 7 March 2010

Kru. This is particularly the case during the **hunger gap**, from May to August.

Knowing that, people can't cover their needs in terms of rice with their own production from 2 to 4 months per year (hunger period from May to August); they have to buy the "missing" quantity in the market at an expensive price and making them in addition **vulnerable to any prices surge**. Therefore **households in Grand Kru really live really precariously**.



Figure 14: Women selling products in Barclayville Market

c. Inadequate consumption of food especially for children and women

There is a clear lack in the diet of proteins, fresh vegetables and fruits due to the low availability of this kind of products but also due to an improper storage leading to some loss and more worrying a complete absence of knowledge of proper basic nutrition practices.

People have a basic diet with poor diversity: they eat rice or cassava with a sauce composed of palm oil and sometimes vegetable. Meat or fish can be found in small proportion (if any). **Quantity and quality of food eaten depends on the season** with two "opposite" periods. During the harvest period, mainly September and October, households have 3 meals per day and sometimes even more. Food management is not done properly as they admit that they eat rice in excess during harvest time. On the other hand, during the **hunger gap** (from May to August), farmers shift to cassava consumption, and sometimes buy imported rice ("Chinese rice" called also "butter rice")

Due to a **low level of education, people don't know the importance of vegetables and fruits in the daily diet** and they completely lack of the basic nutrition knowledge such as what is necessary for a children to eat to enable a satisfactory growth and as a consequence they are not able to identify neither children malnutrition symptoms: None of the interviewed people were able to give an explanation regarding Kwashiorkor symptoms⁹. Vegetables are only added in the soup, if available. Fruits are eaten, but not during the meals and mainly outside when found freely available.



Figure 15: Child eating rice - Geeken

Even more worrying, **sharing of food is unequal within the family**. The part for the man is shared out first. He eats alone or with other men. Children then eat on a common plate or in a separate one if they are too small. Women part is shared out at last. Basically, men have the best part of the meal. Therefore in practice meat and fish are mainly for men, not for children, neither for women.

Lastly, in addition to the food insecurity as mentioned above, people have limited or inexistent access to safe water, proper sanitation facilities and health centres. This increases the **vulnerability to water borne disease**, especially for children, and the risk not to absorb nutrients in the best way.

To tackle food insecurity in South East, a comprehensive approach is therefore needed integrating access to water and sanitation, hygiene promotion, access to food in quantity and quality and nutrition basic knowledge promotion

South East has been neglected compared to other part of Liberia despite the fact that it's one of the most needed areas. If nothing is done, South East will be lagged behind and population frustration in this part of Liberia will increase. There is therefore a need for humanitarian and development stakeholders (local authorities, donors and NGOs) to involve means and energy in helping South East inhabitants to improve their situation.

⁹ Source: Solidarités International food security assessment done in May 2010.

Field contact: Ms Claire BOUZIGUES, Head of Mission

Email:lib.hom@solidarites-liberia.org

Tel:+231 (0)6 53 17 06

HQ contact: Ms Béatrice PAVIOT, Desk Officer

Email:bpaviot@solidarites-liberia.org

Tel:+33 (0)1 81 21 05 85