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FUTURE PERSPECTIVES POSSIBLE

South Ethiopia 29.09.- 05.10.2018

Report to Federal Minister Dr. Gerd Müller



Photo: Josef Göppel

Discussion about development aid

If you believe some German newspaper, then development aid should be stopped. The recipients would only hold their hands open and not strain themselves. US scientists even believe that the more active population would become wealthier and then make their way to Europe. Though some forget that we Germans were also massively supported after the Second World War with help of the so-called Marshall Plan. Whoever has been to an African home with 4 x 7 m floor space, with stomped ground, a windowless kitchen and smoky rooms will judge differently. What do you do in the tropics without light when it gets dark at a sudden at 6:00 p.m.? What do we expect of the women who live half their lives in smouldering dungeons and almost without exception have respiratory problems? Who sees the yellow canisters, in which women and children fetch the drinking water every day, sometimes at far distances, understands that young people want to get out of this world.

Light in the evening and healthier cooking zones are two crucial developmental steps for the women. The project Green Citizen Energy project for Africa wants to support this goal in eight countries. However, the approach is different than it used to be.

Own powers

At artisan schools, which are called in english „Vocational Training Center“, Germany is supporting the development of classes in electrical engineering and renewable energy. This creates a **craftsman's profession**, who can in a reliable way install and take care of the **modern energy techniques**. Who **incorporates a company**, gets financial support.

Especially purposeful young people will be invited for some months at German technical

schools and companies to learn our way of working. For example, in 2018 there were 25 young women and men from 10 African countries in the Franconian Technology and Agricultural Center



The energy engineer **Hiwot Abayneh** from Hawassa completed recently her master's degree within a study semester at the Franconian University of Applied Science *Triesdorf*. She now wants to initiate tailor-made energy solutions for the population in her region.



Development Minister **Dr. Gerd Müller** hands over the study certificate to **Hiwot Abayneh** in Berlin

Triesdorf. Here they work on concrete business plans for projects in their home regions. I accompanied two of them back to southern Ethiopia.

The artisan school in Hawassa

This school was founded in 1995 as a refuge for orphans whose parents died of AIDS.

Gradually, it developed into a kind of vocational school. The school was supported by an association from **Beverungen** in Weser Hills (Weserbergland). Their mayor **Christian Haase** is today a member of the German Bundestag. He also participated in the trip. Now here is running the in-depth skilled worker training for environmental compatible energy supply in the rural South Ethiopian Province.



Young women learn in *Hawassa's* craftsman school to handle electric sewing machines. With those they produce all student's school clothes.



Josef Göppel visits the craftsmen school in the South Ethiopian province capital *Hawassa*. There, Germany is financing the training of these young men to craftsmen in order to build up independently solar systems, small power stations and biogas stations. The aim is that some of them will be self-employed entrepreneurs.

Better life in the country

Hiwot Abayneh, a young agricultural engineer, developed business plans for the power supply for two villages 80 km west of Hawassa during her qualification semester in Germany. There the delegation is on the road for two and a half hours. First we drive on a boldly traced out new route. Parallel to this route are also new, in the sun shining power poles for the highest voltage level. There are no voltage transformation substations to supply the cities along the route.



Ethiopia is investing heavily in roads and power lines, here in the remote province of *Southern Peoples*. But the country is three times the size of Germany and 85% of the population live in small villages. In order to give young people there a future perspective, they need access to electricity from renewable and decentralized energy sources.

Advertising poster for the **Nile dam** on the border with *Sudan* at the Addis Ababa airport. So far, the Ethiopian government has been promoting it as the "great rebirth of Ethiopia." The subcontractors *Sudan* and *Egypt* want to prevent the construction.

Grand Ethiopian Renaissance Dam is a shaper of future cooperation in providing opportunities to enhance shared economic benefits and trade, namely in the field of energy, and as an opportunity to expand regional development and integration in the Eastern Nile Basin region.

إن سد النهضة الإثيوبي الكبير محدد مسار التعاون للمستقبل من أجل توفير الفرص لتعزيز المنافع الاقتصادية المشتركة والتجارة، وخاصة في مجال الطاقة، كما أصبح فرصة لتوسيع التنمية الإقليمية والتكامل في منطقة حوض النيل الشرقي

Le Grand barrage de la renaissance Éthiopienne est une entreprise de coopération future pour offrir des opportunités d'améliorer les avantages et les échanges économiques partagés, notamment dans le domaine de l'énergie, et une opportunité d'élargir le développement régional et l'intégration dans la région du bassin de l'est du Nil.

The Federal Democratic Republic of Ethiopia
Office of National Council for the Construction
of Public Participation in the Construction
of the Grand Renaissance Dam



The majority of villages can only be reached via such routes.

After 2 1/2 hours we meet at our first goal. It is the village of Boditi in Woreda (County) Duguna Fango.

In the administrative centre, the local Functionaries gathered. It is a modest functional building, more equipped with mowers and tools than with offices. The highest-ranking local politician speaks of **biogas** and **solar systems** for his scattered living families. He thanks the young agricultural engineer for the initiative, because his prelacy does not involve the 47 model biogas Woredas (districts).

Over sandy tracks and through the ford of a river we now drive again for 30 minutes to two farms. On the route we see lorries that apparently bring goods and people to and from several farms.



The two-wheeled donkey cart is a ubiquitous freight vehicle. The yellow canisters contain drinking water. 30 liter cost 2 Eurocents.

On the other cart eucalyptus canes.





The small farmers' land parcel is still for 80% of the population the livelihood.



A homestead west of Lake Hawassa in Southern Province People. Right behind the round hut is a "modern house" with about 7x4 m. These houses are built of poles and encased with straminous clay.

The two boys proudly show us their house.



We stop at an estate, which lies idyllically under mighty trees. At the side is the traditional round hut, which now apparently no longer serves as a residential building. The new house is elongated rectangular and measures about 7 × 4 m. The entrance door leads immediately into the large living room. There are Christian symbols on the walls and pictures of family members with doctor hats.

The floor is made of stomped clay. There are no furniture except low stools. Two doorways lead into separate side rooms, the kitchen and the stable. The kitchen is a windowless room. In the middle of a small circle of stones burns a wood fire on the ground, on it there is a metal frame, which concludes with an iron plate. Traditionally, there would now baked the flatbread *Injera* from the teff plant. But there is no dough. This is located under the hood of a new efficiency oven.



A traditional stove. In the middle of a stone circle burns wood fire on the floor. Many women have breathing difficulties.



105 million people, of whom 80% cook and heat with wood, lead to many illegal deforestations. In the photo two chopped eucalyptus trees.



This photo shows the difference between traditional and improved bread ovens. On the left an open fire in a stone circle. The flat bread *Injera* is baked openly on the iron plate. On the right a new, closed oven. Under the lid lies the dough for the flatbread. The demand for wood drops by half; the bread bakes faster; the kitchen does not smoke. The concrete stove can be bought for 3 Euros.



This is **teff-straw**. **Teff** is a gluten-free sugar millet species. From this, the flatbread **Injera** is baked. 100 grains are as heavy as one wheat grain.

At least now we realize that this farmer has a model company for modern energies. Behind his house there is already a small biogas plant and in the house a solar home system with lamp and battery, next to it a small gas cooker and in the living room gas light.

The biogas plant of a typical farm. On the left the concrete gas storage with 5 m³ capacity, on the right the transfer line into the house. It produces 1 m³ of gas a day. Thus, the gas stove can be operated for about five hours, the gas lamp 10 hours. But the system requires 40 kg of dung and 30 liter of water per day. Collecting the dung and bringing it into the double pit is the task of the women! The investment costs for the entire system are 500 Euros.



His investments:

biogas plant	500 €
solar system	60 €
efficiency oven	3 €



Without the farmer's wife, the biogas plant would not work. She brings daily the cattle's feces from the stable to the fermentation pit. Right the feces of the growth-restricted Ethiopian cattle.

About the biogas plant a long discussion ensues with local experts. It needs about 40 kg of dung and 30 liter of water per day. The peasant woman collects the dung in the pasture and in the stable and takes it into the fermenting pit. One of the local technicians calls the biogas plant a pet that can die in two days.

So the following questions determine the discussion:

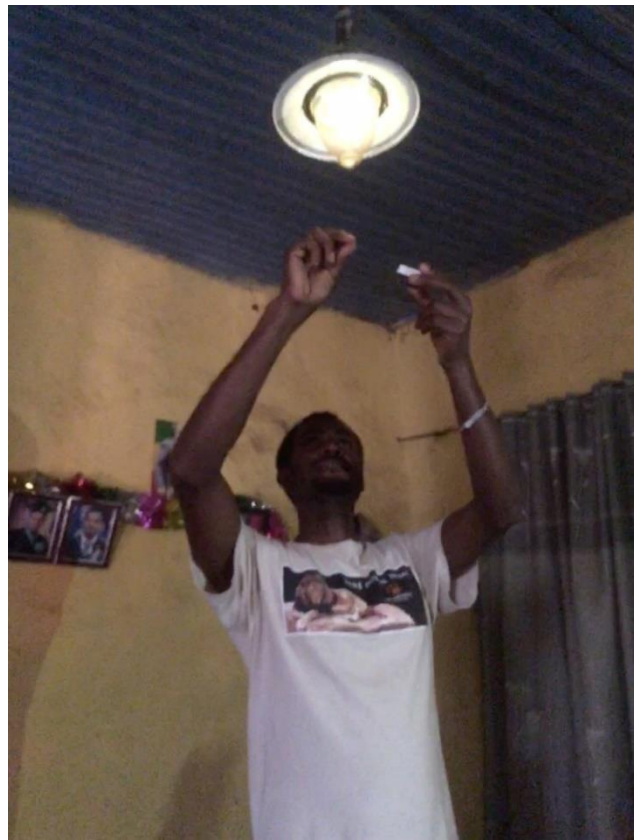
What kind of technology will young people be prepared to use in the future?

How many people do we reach with a technique?

What will the market take on self-sustaining?



The gas stove lights up the kitchen.



The gas sock in the living room of the farmhouse. It burns up to 10 hours daily.



For the bedroom, the son of the family also has a solar lamp with storage purchased for 60 Euros.

Thoughtfully we walk to the neighbouring farm. There are still no modern energy techniques available. The kitchen is not only windowless and dark, but also completely smoky.

The women have to constantly bend over while preparing the food. Outside we see their red eyeballs and hear that they are having difficulties breathing. Remedy here is a command of humanity! By the way, we also learn that the drinking water needs to be fetched daily from the 5 km away Boditi. The Woreda boss expected our spontaneous question about the construction of a well. The groundwater is only reached in 50 m depth, but especially enriched with large amounts of iron; a local treatment is far too expensive.

Our next destination is further north, a place called Bedessa in the Woreda Damot Woydie. High above the houses on a plateau are half a dozen properties. I notice a farmer in the field with a wooden plow share. Two oxen pull him, but he is struggling keeping the plow in the rut. He really is plaguing himself. A woman collects dry wood next to it. A local GIZ employee emphasizes once again that the efficiency ovens cost only 3 – 5 Euros and cut the wood requirement by half! The same picture again in the houses. I wonder how people in these circumstances can take care of their bodies and ensure clean clothes.

Solar home systems are available in almost every property in this mountain village.



Farm boys in the Ethiopian province *Southern Peoples*. Will they still live here as adults? Therefore access to modern energies is a crucial requirement.



A young woman is serving the home-brewed **Talla** beer. It is made from sprouted grain and tastes more like bitter tea.



Artisanship for tourists on *Entoto-mountain* high above *Addis Abeba*.

How to implement the program Green Citizens Energy for Africa?

The improvement of living conditions in the rural scattered settlements of Africa is urgent, but laborious. Investors from China, Europe, USA and Arabia are only looking for profitable projects in the cities. The German Federal Minister Gerd Müller's view of the remote rural areas is an exception. But that's where young people need perspectives in order to not migrate to megacities or to Europe.



Josef Göppel met several times with the 25 students from 10 African countries in *Triesdorf*. Everyone wants to build value added chains in their home country.

For that we do not need big money packages in the first place, but more **people** who **take care** of it. Germany has with the GIZ an international operative unit with well-trained specialists. I have experienced this organization as a powerful tree trunk with extensive branches during numerous trips through Africa. Like a tree, however, it needs numerous fine ramifications that multiply its action.

That's why the two-tier training concept in the Green Citizens Energy program is so important.

1. The sector of electrical engineering and renewable energies should be supported by Germany as far as possible in all regional **crafts schools**. This creates a local artisan profession for the installation and repair of equipment and for the motivation of the population.
2. Young craftsmen, who **start a business themselves**, should receive a build-up aid.
3. At Africa's universities there are already numerous degree programs for **energy engineers**. More qualification semesters in Germany should be offered.
4. Finally, both craft entrepreneurs and engineers should be able to select personal **partnerships** with German organizations from a pool of addresses.

Africa needs thousands of its own forces, working daily for a better life for the people in the countryside. At the national conference of the Ethiopian ruling party, which took place during our trip to Hawassa, the only European invited was a German as a welcome speaker, next to a Chinese and not an American. We Germans enjoy a lot of confidence in our neighbouring continent Africa. That brings responsibility, but also opportunities.



The travel delegation:
(from left) MdB **Christian Haase**, Special Representatives for Energy in Africa **Bärbel Höhn** and **Josef Göppel**.

Internally displaced people (IDPs)

This report would not be complete without mentioning a large refugee camp between the cities of Shashemene and Hawassa. In the open countryside at the foot of a hill chain are located long rows of silvery corrugated iron barracks. Up to 10,000 refugees from neighbouring Somalia can find there accommodation. The state of Ethiopia finances the camp and supplies the inhabitants constantly with food. A targeted integration work does not take place. Also, the refugees are not allowed to take up regular employment. They can, however, move freely. The terrain is not fenced!



The refugee camp from *Somalia* near *Hawassa*. The accommodations are set-up by the Ethiopian Government for longer stays. Over 10,000 people live here.





Women in the refugee camp outside *Ha-wassa* try to grow vegetables on building rubble.