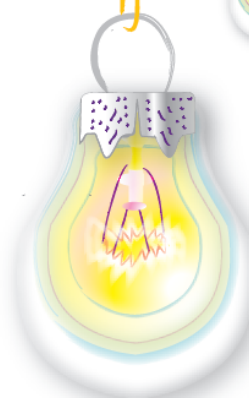




# Energy Assistance NEWSLETTER



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## 2007 – a year of innovations

After 6 years' existence some may think that the good ship Energy Assistance sails at its cruise speed. Be assured it doesn't. Firstly, because the projects keep coming, but each time set a number of new challenges. Also, but not least, because our teams constantly innovate in all areas in order to enhance the efficiency of our action in the field. Here is a pick of the « firsts » achieved in 2007.

**January** : the equipment for Djuma Hospital (DRC) is shipped free of charge by the Godetia, a Belgian Navy ship

**February** : two volunteers visit 8 sites in 3 countries of the Great Lakes region, cramming into a single mission works, follow-up and evaluation

**March** : purely training and consultancy mission regarding photovoltaics in Burkina Faso

**May** : more than 200 run in the 20 km of Brussels under the banner of E.A.

**September** : inauguration of a photo library, accessible to all members via their PCs

**October** : financing by the Belgian Cooperation to Development of the shipment of equipment to Goma

**November** : E.A.France supplies PCs collected from the Group companies to Secours Populaire Français, after having reconditioned them

**December** : The section of the 15 kV line that will supply the Ngangi centre in Goma is marked out on the ground by GPS, and then reproduced on Google Earth images

I take this opportunity to warmly thank all our members who devote their own time to making our association live and progress in terms of quantity and quality, as well as those who support us financially. To all of you and to all who are dearest to you, I wish an excellent, fulfilling and creative 2008.

**Jean Bouckaert**  
Chairman of E.A.

# Falani, Tanima and Balan Massala : Border-crossing cooperation in Mali

In June 2006 the 13th issue of our Newsletter brought you the story of the achievements in Sanga (Mali) which were completed with an assessment of the needs at the Falani and Tanima health centres. Thanks also to a unique combination, in addition to Falani and Tanima centres, now also the Balan Massala centre has the use of solar photovoltaic power.

Falani and Tanima are situated some 20 to 30 km to the East of Bamako, or roughly at one or two hours' drive. Balan Massala on the other hand is located some 120 km to the West of Bamako, which in the bush can easily mean a full day's journey.

These three sites have a health care centre to the Malinese model CSCOM (Centre de Santé Communautaire) managed by a community organisation (ASACO) that covers several villages and is controlled by a chief doctor who is responsible for that area. These health centres, including a maternity and housing for the nurse were provided recently with support from the Afri-Kali NGO, but until now lacked any energy supply. Each of these centres serves about ten villages scattered around it, amounting to a community per centre of more than 10,000 to whom such centres are the only source of health care.

An in situ investigation of the local circumstances and an in-depth assessment of the needs resulted in the final determination of the electricity supply requirements. The electricity supply system typically comprises a set of photovoltaic panels, a regulator and a converter, a set of batteries and the users, which usually are a few light fittings, a modified refrigerator to store vaccines and produce ice for when these need to be transported and a 230 V AC power point. The three sites had refrigerators, but these were changed from petrol supply to electrical – photovoltaic – supply.

After three weeks' transport to Bamako and four weeks in transit for customs clearance misery it would finally happen. The border-crossing team of volunteers, composed of Benoît Roost of Netmanagement Wallonie and Smain Ramsi of Lydec (Morocco), gathered in Bamako and



started work with support from the local contractor Diawara Solar – our special thanks for the efforts of its director, Ibrahima TRAORE. This task force was operational immediately and after a few days the breaking of the dark of night at Falani was met with African emotions and applause. Tanima and Balan Massala followed in the same style.

The mission of Benoît and Smain finally ended with a



visit to the CSCOM of Koutienso in the Bla region and supervised by Sister Suzy from Belgium, in order to evaluate the energy supply needs and visit the Bla hospital to examine and assess its existing electrical installations. This

paved the way for a future sustainable humanitarian intervention by E.A.

**Julien Smets**  
Projet manager

## Ineo VD and Elyo IDF help the “Belgian Chain of Hope”



The project presented by the Belgian Chain of Hope consists of transforming a maternity unit into an operating theatre for infant cardiology !

This project is intended at N’Galiema in DR Congo, a country in which cardiac malformations occur frequently and the children affected have a very low life expectancy. This surgery unit becomes essential to curbing this scourge.

The Belgian Chain of Hope contacted Energy Assistance in Brussels, requesting the expertise of our volunteers in order to perform the design of the technical installations. The equipment in place is ancient and cannot meet the needs of this new operating theatre.

In France, the Group companies specialised in tertiary installations

relating to electricity and HVAC have become experts in works for our largest hospitals. As a result, the design bureaus of INEO VD and ELYO IDF will perform the studies and design for this project and will carry out the necessary adaptations. They will also audit the costing by the local firms and determine the adequate amounts, thereby facilitating the financing to be provided to implement this project.

Also, volunteers of these companies are prepared to travel to the site and participate in the works and provide technical supervision.

**François-Xavier Lesaulnier**

## A computer for a job

An original initiative of a number of the Group’s engineers who decide to recondition their ‘old’ computers in order to donate them to a charity. As a first step all the files are removed from the machines and, with the help of the IT Systems Department, free software is uploaded in them.

In cooperation with the French charity SPF (Secours Populaire Français), Energy Assistance France opted to dedicate this operation to the disadvantaged populations in our most fragile districts. The computers are supplied to the local SPF offices, who distribute them to job seekers in order to help them find an employment, write their CV and facilitate their job search. Three local offices were selected for the first phase of this operation.

We are expecting the first results before we develop this initiative more widely. In future we shall have to collect more PCs and, particularly, build a team of volunteers who will recondition them. On the SPF side we can count on a participation that is commensurate with their well-known commitment to helping populations that have difficulties.

**François-Xavier Lesaulnier**

# In Togo, solar energy supplies efficient partners

## Agou Avédjé, my love.

Once upon a time there were two students : Bert the engineer and Nele the graduate in African languages and cultures. Both in love. With each

Nevertheless, a dispensary is in operation, a school is being developed and even a small library was created under the impulse of CADO, dynamically assisted by the not-for-profit organisation created in Belgium by Bert et

being no power network or hydro or wind power resources, and the price of fuel proving prohibitive, the only suitable option was to install photovoltaic panels, in this case totalling 600 Wp (Watts peak).



At the start of August, as soon as the equipment was delivered, it had to be rushed to Bruges to be put into a « humanitarian » container chartered by BISZ and destined for Togo. Our boxes are quite small when compared to the mountain of beds, bicycles, wheelchairs ... collected and loaded into the container by a gang of enthusiastic youths.

## Open, meticulous and reliable

After the equipment reached the port, was cleared through customs and safely transported to location by CADO, our volunteers could do their bit. Luc Jaivenois and Dominique Thomas, both from Netmanagement Wallonie and accompanied by Bert, landed in the country's capital Lomé on September 29th, for a two-week mission.

As soon as they arrive at Agou Avédjé, our friends become aware of the extent of the population's commitment. Welcomed with dances to the sound of jembe drums, a speech by

other and with the country where they spent their summer training and which they return to every year : Togo.

Nele, the BISZ (for Promotion of Intercultural Cooperation with the South).

Togo is wedged between Ghana to the west, Burkina Faso to the north and Benin to the east. It is shaped like a 600 km long, north-south corridor, its base only 60 km wide and bordering the Gulf of Guinea.

The request made by CADO/BISZ was obvious : electrify the dispensary to permit health care and surgery at night and power a refrigerator in which to keep the vaccines, as well as electrifying the school and the library so as to prolong the social and educational activities after sunset. There

A country of plains, Togo is nevertheless crossed west to east by a mountain range and high plateaux. The main summit is Mount Agou, peaking at 986 meters

At the foot of this mount, in the village of Agou Avédjé, situated some 120 km from Lomé, the ngo CADO (Centre d'Assistance aux Démonis et Orphelins – support centre for the destitute and orphans) was created, which organises training periods for students, but is active mainly in the areas of health, education and culture. What little resources the village has comes from subsistence farming. There is no electricity at all.



Welcome

the village chief, they call for volunteers. All raise their hands immediately. Rendezvous next morning at 6 h. Surprise, all are already waiting at 5h45 and twenty volunteers are selected. They turn up every day and work till 17h30.

Luc and Dominique are amazed at how quickly these young people learn and spare no effort to do well, considering they have no technical background at all : « In one morning we showed them how to fix the light fittings and the cables. With some more advice here and there, they installed everything practically all be themselves. » They also demonstrated their ability to improvise solutions, for example when scaffolding had to be erected. After a week all the installations were finished and the mission at Agou Avédjé is concluded by training in electricity of four particularly talented helpers, so as to ensure the installations are used rationally and will be operational long-term.

### Wli and Sichem, the works of a determined woman

We are only at half-time so far. Together with its own request, BISZ relayed a request by a foundation created by a Belgian nurse installed in Togo for 8 years : Ria Etienne. This co-operator, as enterprising as she is determined, created several schools and dispensaries and asked E.A. to electrify the dispensary of Wli and the school/farm of Sichem, two villages located some 20 km from Lomé and

both also without any electricity. Here again, photovoltaics is the only option : 390 Wp at Wli for lighting and the refrigerator, 225 Wp at Sichem, for lighting and for a portable PC, via an inverter.

On location, the welcome is perfect and it is obvious that the organisation is solid and rests in energetic hands, including those of Jean-Paul, the right hand of Ria Etienne. Our volunteers are provided help by five men who have had electrical training, and therefore the work can go ahead at full steam ... to the amazement of the beneficiaries who most of the time had to face the inefficiency of local contractors. One minor surprise : the buildings erected with solid masonry had their roof built with extremely thin steel sheeting. As a result, in order to install the PV panels we first had to install provisional flooring on the roof ... and this was definitely a job for the lightest of the two of us (guess who).

### Concrete results

The population who benefited greatly appreciated our work : vaccines can now be preserved in the refrigerators of the two dispensaries and the medical interventions will no longer have to take place in torch or oil-lamp light. As for the school at Agou Avédjé, lighting was provided in the six classrooms, the library, as well as



*The kids give a hand*

outdoor lights.

At the school/farm of Sichem, not only was lighting installed, but also a 220 V power supply, permitting the teachers and pupils to use a computer donated by S.I.S.F (Solidarité Informatique Sans Frontières).

**Roland Rosseel**  
Projet manager



*from left to right Bert, Nele, Luc, Dominique and the Sichem team*

### *Straight from the field*

**Luc** : « The evening we arrived at Agou Avédjé, a person showed us the place where we would sleep, opening the door to a large room with on the floor two mattresses in foam not much thicker than an inch. At the back of this room were two more doors, but they were closed. So we assumed the premises behind these were off-limits to us and the mattresses were put here for us to sleep on. Which we did, covered with our mosquito nets. The next morning Bert comes to collect us and, seeing our improvised bedding, asks with a laugh "Didn't you like your rooms?" » In fact, behind the doors were bedrooms with proper beds... »

**Dominique** : « I was able to make use of my agricultural roots in order to show the students :  
how to empty and cut chicken into pieces to cook them  
how to use wedges when storing sawn wood  
how to transplant tomatoes before planting them in plain soil  
how to lay bricks using string and a spirit level »

**Luc** : « Tipping is still (very) widely expected in Togo. On our way back, at the airport when we went through our third customs check, the customs officer said to me "Mr Jaivenois, did you bring a present for me ? ».

# Solar electricity lights up Muntemba (*Zambia*)

## From tree nursery to humanitarian

One day the carpenter of the tree nursery developed since 1994 by the du Parc family in the Fringilla region of Zambia came to ask his « bosses » if they couldn't help him create a school in his village. Impressed by his remarkable will to take care of himself and his village, they decided to have a go and started seeking the funds necessary to make their project a reality.

News travels fast by word of mouth in Africa and experience is gained continually as work goes on. As a result this first project was soon followed by other ones across the entire region. Based on a local cooperative society headed with vision and perseverance by Hellen Makwangula, Sybille du Parc created her own not-for-profit organisation in Belgium (Abantu Zambia) and gradually converted herself into the overall coordinator of a series of development projects all over the Chibombo district. So far, 14 villages and more than 40,000 inhabitants are concerned by the various projects : schools, orphanages, health centres, wells, farms, agricultural equipment, setting up of micro-credits ... etc ...

In the spring of 2007 Energy Assistance received the pressing request from Abantu Zambia to electrify a Health Centre situated in the village of Muntemba and destined to serve a population of 20,000. As the structural work was nearing completion it became urgent to do something about the electricity.

The village is situated more than 20 km from the regional electricity distribution grid and there are no plans to connect the Mutemba area to it in the foreseeable future. Therefore, electricity would have to be generated locally. Since the main need was for

lighting and for powering a small refrigerator in which to keep vaccines and medicaments, we rapidly opted for a 100% photovoltaic solution.

## Beating the wet season

The timing was very tight : the furniture for the Health Centre was leaving Belgium in a shipping container at the start of August and was planned to arrive on location around the beginning of October, just before the start of the wet season. It was essential that we shouldn't miss the opportunity of this shipment to also include our photovoltaic equipment, because otherwise we would have to organise forwarding it separately, entailing additional risks and expenses, plus having to send our volunteers to do the installation work well into the wet season.

Fortunately the project was approved very rapidly and the equipment immediately determined, ordered and delivered, just in time to catch the container of Abantu Zambia. All that was needed now was to find volunteers prepared to travel to the site as soon as we were notified that the equipment had arrived. Our call for volunteers was met with several positive responses and so we were able to form a totally new team of two volunteers.

After some last-minute delays due to congestion at the port of Dar Es Salaam, it is finally on November 9th that Marc Van Gelder, an old hand at missions for Energy Assistance and well-known to our regular readers, and a rookie, Maxime Palante, a young engineer from Tractebel Engineering, embarked together for Lusaka.

## Efficiency combined with enthusiasm

This apparently odd team in fact gelled instantly and proved excellent ... so much so that our two friends are already looking forward to a new mission together.

The welcome given by the village people, the collaboration and motivation of the local personnel, the availability and reliability that are typical of the Zambian population, the climate and the beauty of the scenery, but especially the efficiency and the enthusiasm of our two volunteers en-



*...our two friends are already looking forward to a new mission together...*

sured that the mission was a total success. The entire installation was completed and put into service without any glitches and within the allocated time. Now this small district hospital is entirely and correctly lit. In a few months it will be able to treat its first patients. Well done Marc and

Maxime ! No doubt your Zambian friends of the non-profit organisation Tshowe Hospital will remember you for many years !

As all had gone smoothly our two friends had some time left and were willing to do more. They took a look at the water supply to the hospital. A well had been bored some 100 m from the hospital, and a water tank had already been delivered, but nothing had been done yet about a pump. So, before returning to Belgium they managed to collect all the technical information necessary permitting to propose a mission complement to Energy Assistance, consisting of the sizing, supply and installation of a photovoltaic pump in the well, and laying a pipe connecting the well to the tank placed high, near the hospital. Be assured that in a next issue we will be able to tell you more about Zambia ...

**Gilles de Roubaix**  
Project manager



*Maxime adopted by the kids*



*Assembly of the panels on the roof*



*Panels are put on the roof*



*Maxime and Marc give a training session*

## Latest from Goma

The line conductors left the port of Tianjin (China) mid October, and the other equipment loaded in two containers left the port of Antwerp on November 14th; they are expected in Mombassa (Kenya) for further transport to Goma which they should reach mid December .

The Belgian Development Cooperation Agency accepted to finance the transport to the tune of € 8,300.

The detail design for the 15 kV line and the transformer substation are underway.

The installation work could start in January 2008, local safety situation permitting.



**Claude Gastout**  
**Project Manager**

**ENERGY ASSISTANCE** needs its **MEMBERS'** support.

For Belgium The annual membership fee is **€ 20** for full members and **€ 5** for associated members. (Please send your contribution to our bank account number ING **310-1675876-93** - IBAN: BE98 3101 6758 7693 - BIC: BBRUBEBB).

**IMPORTANT** : In the message with your payment, please mention the amount being paid for membership (€ 20 or € 5) and/or the amount of the donation. The donation is tax-deductible and you will receive a tax certificate for any donation of **€ 30** or more. The membership form can be downloaded from the site (<http://www.energy-assistance.be>) or can be obtained from the association.

For France, Every one who would like to join EAF can do so by sending a subscription of **€20** by cheque made out to **ENERGY ASSISTANCE FRANCE** at 1, Place des Degrés, 92059 Paris La Défense. Please let us have your address details so that we can send you a tax receipt (all donations or subscriptions to EAF are tax deductible in France up to 66%).

**Thank you in advance.**

**REMINDER**: Please send any changes in your personal data (address, telephone number, e-mail) to the **ENERGY ASSISTANCE** secretariat.

### ENERGY ASSISTANCE IS LOOKING FOR PROJECT COORDINATORS

To deal with the increasing number of projects being submitted to EA, we are looking for volunteers to join the Project Committee which studies, develops and follows up the implementation of the projects we approve.

Interested? Then please apply to J.P. Germeau  
([jp.germeau@skynet.be](mailto:jp.germeau@skynet.be))



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