YES - DC

Newsletter

Young Energy Specialists and Development Co-operation

Volume 5, issue 1 May 2000

CONTENTS

FROM THE CHAIRMAN

Dear all,

In front of you is the last issue of the YES-DC Newsletter by the current board of 1999-2000. At the same time, this is the first issue completely in the English language. This shift from Dutch to English as official communication language is due to the fact that, with our network and contacts expanding, we would like to keep our non-Dutch speaking members also up-to-date.

The change in official communication language is not the only change in style you may have experienced last year: undoubtedly you are aware of the new activities and strategic policies set out in the recent past. For example, YES-DC is trying hard to further expand its network (e.g. in USA, UK) and its activities (e.g. through the YES/AFFREI project) abroad; to keep YES-DC members better informed (e.g. by more efficient and more regular communication via Newsletter and listserver), and to let these members have a more active say in what we actually envisage to do. The latter is done a/o by interviews via telephone, as was just recently held amongst the members.

Also, your say in 'how to move on with YES-DC' is hopefully increased by presenting you our concept strategy paper. This concept is included in this Newsletter, and we are very eager to hear your comments on it. The most proper occasion to do so would be at the next general board meeting, which will take place on FRIDAY 12 MAY, at the PALMGRACHT 69 in AMSTERDAM, for which all of you are invited!

During this board meeting (after which we will explore the nightlife in Amsterdam and have a good talk and ditto drink!) also the new board for the coming year will present itself. More on this board you can find in this Newsletter, but in the meantime I can reveal to you that two members of the current board will withdraw for the upcoming year. These board members are Otto Bos (currently commissioner of finance), and myself.

One the one hand I feel sorry to leave YES-DC, on the other hand I think it is time for someone new to take over. After all, a dynamic young network as YES-DC is, needs a board which stays alert and taps the minds of new and fresh people having innovative ideas! So welcome to these new people and board!

I would like to thank you all for the pleasant atmosphere you as member created; this makes being active for and within YES-DC so attractive. I very much enjoyed meeting and talking things over with you; I experienced that you are never to shy to trigger controversial discussions. Let us continue doing that!

Also, I would like to thank the current board. Being 'on board' for the last two years (and last year as chairman), I feel I worked with highly motivated people, all aiming to make YES-DC an even more informative network on energy and developing issues, bringing in new ideas and stimulating me with your enthusiasm. Special thanks to Otto Bos, who by now can be considered a 'veteran' in the board, and to me was a very stable and reliable factor... Otto, did you ever miss one meeting..?! Last but certainly not in the least, thanks to Wim Klunne: as editor you proved to be indispensable and almost inexhaustible: thanks!

Leaves me wishing the new board success for the coming year. As for you, all members, I hope to meet you all at the upcoming general board meeting in Amsterdam; if not, then surely at one of YES-DC's future events!

Jeroen van der Linden (chairman YES-DC!

P.S. At the board meeting in Amsterdam you will be handed over the newest version of the YES-DC member Directory Guide; so don't miss it!

DEO DAG 2000

Jeroen van der Linden (chairman YES-DC)

On the 4th of February 2000, the YES-DC Debate on Energy and Development (DEO2000) took place. The subject was whether it would be wishful and practical to attach sustainability criteria to our Climate Policy, with special emphasis on CDM.

Morning Session: Games!

DEO2000 started with a morning program for YES-DC members, where two games were played.
The first game was called "Tragedy of the Commons" which in a very clear way showed the conflict of interest between individuals (countries) by dividing groundnuts(the natural resources) among the group. These nuts had to be 'consumed' in the most sustainable way, stimulating some group members even to propose to change the rules or to try to cheat... - which triggered some hot discussions!
The second game, "Hot Air, gebakken peren?" divided the different workgroups in climate negotiators (UNFCCC), an investing country (NL) with CO2-reduction targets, and representatives of the host countries (in Central and Eastern Europe -subject to JI) and a Southern country (subject to CDM). The Netherlands had to reduce its CO2-emissions according to a target set, and investments in foreign countries were to a certain extend allowed. This resulted in sometimes tough negotiations with the respective parties, making the complexity of the problem visible - at the same time letting these parties gain insight in how climate negotiations could be practised. Thus, a learning experience!

Afternoon Session: Debating

The Debate itself kicked-off in the afternoon, guided by the chairman Prof. E. Boeker, previously attached as Rector to the Vrije Universiteit (VU) in Amsterdam. The three invited speakers representing different regions, where:
Developing Countries: Prof. dr. K.K. Prasad, editor of Energy for Sustainable Development (ESD)
Climate: Drs. S.P.C. Schöne, manager Climate of World Wide Fund (WWF)

Industrialised Countries: Drs. W. Keurentjes, general director of Lagerwey the Windmaster
After a short introduction by Prof. Boeker, the speakers presented their views on the topic.
Prasad: "Not CDM, but poverty alleviation is the issue"
Prof. dr. Prasad stated that development is about eradication of poverty, where technology could be a powerful means of achieving a level of development. His first concern involved the local and global possible effects of technology on the environment. Prasad also stressed the need for equity, a fundamental issue when speaking about development. Thus, he argued, climate policy should be placed in the human context. The second concern was related to the validation of climate models, where for example, the International Panel on Climate Change (IPCC) publishes inconsistent figures on the assumed temperature increase resulting from global warming. Finally, he mentioned the problem of developing countries not being concerned about long-term strategies: "they can not see clearly what will happen in the long term, and they do not care". Since their concern is eradicating poverty, climate change would not be a topic of their real concern.
Schöne: "UNFCC as it is, will not be able to control actions"

Drs. Schöne elaborated on the already measurable effects of climate change: floods and droughts occurring in various places around the world. One of the issues not highlighted, which he said definitely should be, is the fact that 'the disadvantaged' should be compensated for the resulting loss of land, damage, etc.
The comparison was made between the Sulphur Protocol in the USA, where the controlling body EPA monitors the energy utilities and industries. This EPA sanctions those bodies not meeting the requirements. The UNFCCC, on the other hand, has to control several countries having different targets, where this UNFCCC has no clear means of monitoring, and no clear mandate to impose sanctions.
In order to have a good function mechanism, Schöne pledged for every country to have an institutional infrastructure to allow for National Communications, Technology Transfer, Capacity Building, and CDM. Sources of finance could be GEF, Multi-lateral Development Banks; subsidies through National Policies, and private investments.
Schöne also talked about using forests as sinks, which seemed to be disturbing the picture: when taking into account, countries as Australia would already reached double of what they should reduce!
Finally, CDM was regarded as an

mechanism which in practise hardly influences the technology chosen: this would depend on the technology available, its' sustain ability, etc.
Keurentjes: "Through innovative ideas, there is firm scope for effi ciency improvement"
Drs. Keurentjes, through discussing several priorities and assets in historical perspective, came to the conclusion that the time is right to focus on innovative ideas: First, humans lived as nomads, where the 'collective' was an important asset. After some time land became an valuable asset for the nomads to support themselves in their living. Then industrial revolution set in, when factories became important assets. Then, society became more service oriented, where markets as assets are created and explored. Now, we reached the stage of having all these assets. The thing to do now is to focus on innovative ideas and sell those ideas. These ideas can be used for a better, sustainable society, benefiting technology developments.
Keurentjes is optimistic about improving energy and technology efficiencies; however, the current problem of the prices of conventional fuels not covering the exploitation costs, unfortunately remains. If these prices should reflect the real cost, only then renewables would have a chance of becoming competitive to conventional fuels. Therefore, there is a need as well for national authorities to stimulate this development.

Discussion and statements

The discussion following the speeches focused on the practical implications of theoretically desired aims and effects of CDM; the priority of CDM in industrialised and developing countries; and on how to secure international agreements. It made clear that in practical terms there is still doubt on CDM's workability: a lot of conditions still have to be worked out! Definitely there seems to be a need for government control and guidance, as well as a watertight control system.
Statement 1: The Netherlands should realise its Kyoto targets mostly (>80%) in its own country. Keurentjes stated that we as NL should take our own responsibility. Spending money, earmarked for development co-operation, is not allowed to be used for CDM: something that Schöne agreed with. According to him, this money should be spent to pay of the debts of developing countries instead. On the other hand, CDM would be a means of stimulating energy efficiency and renewables in developing countries. Schöne, therefore, pledged for sharpening the current targets set for NL, e.g. by not allowing hot air to be bought. Prasad emphasised the need for more practical examples and demonstration projects.
Statement 2: Nuclear energy as option deserves serious attention within CDM.
Where Keurentjes considers nuclear of having too much risks involved -not worth realising the Kyoto targets- Schöne recognises that this currently is an option for a lot of countries. In case it would be practised, we should come to a 'positive list' of countries and technologies to be allowed into nuclear. Still Schöne aims at excluding nuclear from CDM. Definitely for Prasad, nuclear is no option. Apart from waste problems unsolved, there are issues like maintenance, installation, operation, safety, bomb production - hardly to be controlled. During the discussion, however, nuclear energy was seen as a technical means for CO2-reduction, regardless what new publications are stating.
Statement 3: Capacity building and technology transfer have to awarded by credits.
There was lot of discussion on how to credit capacity building activities. Keurentjes seemed to favour crediting, for training would be an essential means of bringing in the concept of sustainability. Whenever applied, the implementing country should receive credits as well. Schöne and Prasad, however, argued that capacity building is something which hardly can be measured in quantitative terms, let alone crediting these. Apart from that, capacity building is essential, something especially emphasised by Prasad. In his view, this should receive top priority: it should be a prerequisite in CDM projects.

Closure & Drinks

All in all, another successful De bate was held! Discussions continued during the closure drinks - and will continue to be held for some time, we expect... Let's aim at a practical and workable solution, where the priorities and needs of the target groups in developing countries are kept in mind!

ENERGY EFFICIENCY THE POLDER MODEL WAY

Otto Bos

As a consequence of the Dutch part of the Kyoto agreement, the Dutch government is making a great effort to reduce the greenhouse gas emissions of the industry in the Netherlands. A significant part of this emission is caused by the consumption of energy. In a joint effort, the ministries of environment (VROM) and economic affairs (EZ) stimulate the industry to improve their energy efficiency. Government policy in the Netherlands is usually carried out in close co-operation with the institutions subject to the policy. The energy reduction policy is no exception. The 'polder model' way of industrial energy conservation is called the 'MJA – method', the 'more-year agreements'. In such a MJA, an industrial sector agrees to improve the energy efficiency in a 10-year period to a certain level. During the first generation MJA's, the target was usually an improvement of the efficiency with 20% (MJA-period 1995 – 2000, baseyear 1989). The second generation MJA's, which will be signed during 2000, shows a more diverse level of ambition between the several industrial sectors. Companies signing the MJA of their sector have access to public funds for studies, research and implementation of energy saving measures.

In the second generation MJA's, the very large energy consumers (energy consumption larger than 0,5 PJ) have been excluded. These companies are subject to the 'Benchmark protocol', and will have to be amongst the top 5 energy efficient companies in their sector in the world.

The results of the first MJA round vary. Several sectors have reached or exceeded their targets, others lag behind. In general, a significant improvement of the energy efficiency has been achieved. This does mean that in order to produce the same amount of goods or services, less energy is needed. It does not mean that the absolute level of energy consumption has decreased, on the contrary. The increasing industrial output still leads to more and more emission of greenhouse gasses.

The efficiency approach might seem a rather indirect way to reduce the absolute emission of greenhouse gasses, which is the goal of the global climate agreements. Why not put a cap on the energy consumption of the Dutch industry? The most important reason is that economy in the Netherlands is growing steadily. As long as consumers keep on buying more products, industrial output will increase. If the industry were restricted in doing so, the economy would suffer inevitably. This is a prospect most voters would be uncomfortable with, and so an elected government. Another reason is that global warming is a global problem. There is no difference in CO2 emission created in the Netherlands or in emission created in Poland. During the last decades, the Dutch industry has become one of the most energy efficient in the world. A shift in production from the Netherlands to another, less efficient, country would cause the global emissions to increase.

More information: website ministry of economic affairs (www.minez.nl, in Dutch).

4 OVERVIEW OF ACTIVITIES 1999 - 2000

Over the last year, a number of interesting activities were organised by YES-DC, a lot of which were initiated by members who offered to organise such an event, and (non-)members who offered to present their ideas in the form of a discussion. We hope to continue with this the coming period: suggestions for events and discussions are most welcome….!

1999

May 26th: YES-DC visit to Sustain 1999, The world sustainable energy trade fair, Amsterdam.

June 11th: Visits to the companies BTG (Biomass Technology Group) and ITC (international education institute in the field of mapping and energy)

June 8th: Lectures and discussion: Alex Brouwer about 'Gasifiers in India' and Jan Portegijs about 'the Swingcat'- an innovative design for energy generation from tidal currents

September 4th: daytrip to Zandvoort to support the WNF action on 'green energy'.

October 8th in London. Discussion between YES and young interested persons working in the field of energy in low income countries, with World Bank representatives of the newly announced Africa Rural and Renewable Energy Inititative AFRREI.

October 20th: Lectures and discussions. Michael Schaeffer, RIVM, about the IMAGE climate model and Maresa Oosterman, DGIS, about climate negotiations

Nov. 9th 1999: Discussion on the use of nucleair power in developing countries. Aliki van Heek, expert on a new type of nuclear power station that is being developed for South Africa, presented the concept and fired the debate.

Nov. 15th AFRREI 1999: 2nd discus sion with World Bank representatives of the newly announced Africa Rural and Renewable Energy Inititative. This was a follow-up to the meeting on October 8th.

Dec. 17th Annual YES-DC Christmas drinks. This annual celebra tion was also for our FIFTH ANNIVERSARY!!

2000

January 12th issues in cooking energy- experiences with dissemination of cookstoves, presented by Mr. Prasad and Mr. de Vries.

February 4th: DEO - Debate on Energy & Development. The title of this year's largest YES activity was: "Should Climate policy be sustainable? This theme lead to interesting debates with the inspiring inputs from an experienced panel with members representing the viewpoints of industry, environment and low-income countries.

March 20th: discussion on energy in developing countries- 'we don't solve the problems, and that is exactly the fun of it all'- an evening full of discussions and stories presented by Dr Eric Ferguson.

April 14th: excursion organised by Lagerwey the Windmaster - the Dutch wind turbine manufacturer. Lagerwey let the YES members climb into one of their new models, a 750 kW direct drive turbine, and provided all the latest news on wind energy technology and dissemination in the Netherlands.

Soon to come:

July 15th: excursion to the nuclear High Flux Reactor in Petten

BIOMASS COOKING STOVES

Lecture: Biomass Cooking Stoves
Speakers: K.Krishna Prasad (TUE), Piet Visser (BTG)
12 Jan. 2000, Utrecht

Lecture by Prasad

Prasad stressed the central place cooking has in the rural areas in developing countries: in daily familiy life; as means of cultural expression, and as vital part of tradition through cooking practices and food. Therefore, stoves are not only about Technology or design: it's also about Energy and Development, in the broader context. Prasad, although recognising the fact that problems will remain to be there with the "understanding of stoves", believes that progress can only come through the massive distribution of stoves. To eliminate country-, region-, religion-, culture- and/or tribe-specific factors (i.e., behaviour), new designs should be tested on a large demonstration scale, involving several villages.
Dissemination of stoves has had few successes in the past, due to: the physicial distance between the executing agencies and the end-users; the language barrier (e.g. between academics and non-skilled people); lack of financing/ credit available; lack of maintenance/ monitoring; poor marketing; and cultural/religious differences.
Improving the efficiency of stoves (hereby reacting on Wim Hulscher's (FAO/ RWEDP) statement improved stoves hardly contribute to reduction of fuelwood consumption) was said to be necessary in the first place because it would reduce the effort of collecting wood: thereby saving time.

Lecture by Visser

Visser admits that in the past also BTG focussed on technology design of cooking stoves. Now, cooking stoves are regarded as part of a whole cooking system in the household. Still, a lot of testing is done to increase efficiency and output of the stoves. This is done in the lab, where not only the stove, but also the pan and fuel is being included in the testing of the performance. Aim is to have a stove get to boil water fast, after which the water is allowed to continue boiling at minimum fuel requirements. In this, comfort (cooking time) as well as fuel consumption has to be taken into account and balanced.
In the lab, efficiencies of up to 45% may be reached (in practical applications: 20%). The number one criterium, and challenge, in designing stoves is to reduce the minimum required amount of power needed to properly operate the stove.
In actual dissemination and implementation of stoves, the importancy of making use of cooperatives and intermediate organisations is stressed.
Input and feedback from local users of demonstration stoves is collected on village-meetings, by questionnaires, etc.
Concluding, Visser mentioned that in general terms there might be a market for institutional stoves, serving schools, markets, hospitals, etc.

Discussion

During the discussion, the following statements were quoted and discussed:
- The way people use their burners and (improved) stoves may introduce inefficiency in fueluse, much more than bad design of stoves (gas stoves: high flame is preferred; improved stove: traditional feeding of wood instead of adapting to needs of stove).
- Training in use of stoves is an important element; train women in the use; and start early by changing attitude through informing kids at school.
- But women are often not interested to attend training courses, and/or do not have time to attend. Same applies for schools: there is no interest.
- It might well be that energy efficiency is not an argument for people to purchase stoves. Much more of importancy could be status (showing off) and comfort!
- Also, in areas where there is abundancy of fuel at virtually no cost, there is no need for people to switch to a more efficient device. This is often the case in rural areas, where the people live on which stove programmes are targeted!
- Policy makers and programme designers/implementers think that depletion of forest is a justification for marketing stoves. For most of the potential end-users this is not even considered an argument.
- Health improvement is an argument, this can be seen from e.g. vaccine-programmes where people immediately stand in line.
- Health improvement is not an argument to buy improved stoves. The reference to vaccine-programmes is not valid, since this yields fast results.
- Stove dissemination programmes should be integrated with dissemination programmes of other renewable technologies.
- But then we're talking about different income groups.
- Comparing fuelwood stoves with open fire: people for there own should make a proper comparison. Open fire means less bugs, bit lighting, warmth. Stove saves time, fuel, environment (in terms of reduced health-risks) and is more part of urban life.

Lagerweij the Windmaster

On Friday the 14th of July YES visited 'Lagerweij the Windmaster" in Steenbergen (W-Brabant). Special attraction was the LW 50/750 with a rated power of 750kW and a height of 50 meters. The diameter is 50.5 meters! Unique of this type of mill is the direct drive (no transmission) from rotor to altenator.

On the photos:
LEFT:
On ground level, within the pole, Theo van Deijl of Lagerweij the Windmaster is explaining on the AC-DC-AC power inverter.
RIGHT:
Climbing the stairs to the top: well secured to the ladder.

YESSERS IN THE FIELD: VIETNAM

Petra van den Heuvel, Vietnam

The RENC (Rural Energy North Central) project in Vietnam is an initiative of SNV (Dutch Development organization) and EDP (Energy Development & Planning). The project looks for opportunities to implement energy conservation and renewable energy technologies and facilitates the implementation by giving technical assistance in the form of training, workshops, research and advice. Since one year I am working in this new project, discovering the world and especially the way to go into ' advising'.

'*No problem*', my counterpart said, '*you shouldn't worry, I will arrange it*'. It is great when your counterpart says that, although sometimes I still forget that we have quite some different norms and values, resulting in another definition of '*arranging*'. Sitting in the last working group meeting one day before the training we organize, a member asks to my counterpart '*When is this training anyway?*' My counterpart arranges it all and leaves me in the '*getting used to this planning*' process. Participants which are not explained clearly what the course is about, invitations send one day in advance ('*otherwise they will forget*'), materials delivered half an hour before the start of the

course, trainers who get lost in between Hanoi and HoChiMinh City, continues changing of the planning etc. etc.. are subjects of this process.
As stated before, I work with energy savings and renewable energy in rural areas in the provinces Quang Tri, Quang Binh and Thua Thien Hue in Vietnam. I work within SNV as a junior Development Advisor, simply said a trainee (and a cheap employee). Working as an advisor is, in fact, sitting on your chair and wait until the counterpart (in this case the Department of Science, Technology and Environment and the Department of Industry in the three provinces) is asking for advise and proposals. And when I look around to other NGO's, all having loads of advisors, I wonder if I have the right definition in mind.
Advising is different from managing and arranging, I guess that many institutions forget this. I found this role surprisingly difficult; not creating but adding on, revising if possible, and arranging as minimum as possible. I tried to reflect the difficulty in not being too active in the above. Keeping the influence of the advisor on a minimum level, in Vietnam, has the effect of an increase of involvement and ownership of the counterpart, resulting in a great motivation.
The work in the RENC project is very flexible, from writing (boring) reports to holding interactive workshops, from accounting to advising in setting up implementation systems for renewable energy, from drinking beer with directors up to calculate the number of households in a province for the implementation of biogas installation.
One thing I have learnt next to the 3784 others, that a social background is much more important then technical or even energy knowledge in a job like this.

6

"DOMESTIC AND RURAL ENERGY IN DEVELOPING COUNTRIES"

Subtitle: "wij lossen niets op, en dat maakt het nou net zo leuk"
Summary of discussion of YES-DC with Dr. ir. Eric T. Ferguson
on 20 March 2000
During the discussion, Dr. Ferguson transferred his enthusiasm as well as his frustration to the public with respect to his work in the field of energy in low-income developing countries. Referring to a number of 11 statements, he highlighted different aspects regarding structural and sustainable development in those countries. He elaborated on several practical examples and experiences of energy projects in Western Africa.

Some of the discussion items:
There is too much emphasis on technology. Dissemination of knowledge is essential.
The example of commercial forestry exploitation: their appeared to be a need for change in thinking amongst policy makers to make it happen to transfer forest management to local inhabitants.
The needs of the target group need to be incorporated in a project as from the start of its' definition.
Project activities need to be continued after formal ending of the project. Include a sort of 'dead tail' at the end of the project: review and evaluate the project one or two years after formal conclusion of activities.
Local institutional and infrastructural development is essential for a project to be successful - most of the times, this is more important than delivery or production of materials and goods.
Project appraisal and review should be less emphasised by quantitative targets and materials. Responsibility of project management should be in the hands of local stakeholders, rather than by the external donor. Monitoring and control, then, could be done by evaluating projects on national and programme level. Local accountants should evaluate and monitor on project level, and report on irregularities. Transparency in documentation is of utmost importance.
NGOs, Non-governmental organisations, often function well because of the fact that they are small. Therefore, they are able to keep in close contact with local organisations and groups. Bigger organisations tend to loose sight on the real local needs, and are more occupied in maintaining the internal organisational structure.
Energy is often quoted as an essential asset for economic development. Still, the share of energy is said to be less than 6% of the majority of the economic activities.
One of the problems in energy policy support is the fact that there is much ground in common with forestry, environment, health, energy and industry.
Economic development in low-income countries should be realised without an increase in release of CO2 gas into the atmosphere. For higher income countries, development is defined as reaching a state of welfare without an increase in greenhouse gas emissions. This needs a different approach on the transfer of technologies: current technical and social structures need to be reviewed.

Concluding:
On the title: WE do not solve anything: high-income countries can only catalyse certain developments of existing structures and attitudes. The remaining needs to be triggered and undertaken by the local stakeholders and target groups.

All in all, Dr Ferguson provided us with a lot of issues to be critically reviewed. One could speak of a successful discussion, given only the fact that discussions on the lecture continued in the train until we reached the stop Alkmaar...

Invitation to the General Board Meeting

All members are invited to the general board meeting this year!

When: **Friday 12 May 2000**
Where: **Palmgracht 69, Amsterdam** (near Central Station; tel. 020-625 6834)

During the meeting, the new board will present itself and will have to be approved by you. This new board tentatively consists of:

Annemarije van Dijk	*Chairman*
Jeanette Scherpenzeel	*Treasurer*
Hugo Burger	*Secretary*
Ellen Hoog Antink	*Co-ordinator activities*
Jeroen Verschelling	*Activities*
Jan-Willem Martens	*Board member, PR activities*

Also, the financial balance of the year 1999 will be discussed, whilst the budget for the year 2000 has to be approved, along with the minutes of last year's general board meeting.

The **agenda** for the board meeting is as follows:

20:00 hrs	Doors open, welcome with coffee, tea
20:30 hrs	Welcome by chairman (Jeroen van der Linden)
20:35 hrs	Miscellaneous ▪ Minutes general board meeting 1999 (Jan-Willem Martens) ▪ Annual reporting: brief overview (Jeroen van der Linden, Annemarije van Dijk) ▪ Financial reporting (Jeanette Scherpenzeel) ▪ Inauguration new YES-DC board 2000
21:10 hrs	Presentation of results of telephone interviews amongst members (Jeroen van der Linden)
21:20 hrs	YES-DC strategy paper ▪ Elaboration on the paper (Jeroen Verschelling) ▪ Discussion
22:00 hrs	Closure

After the meeting, we will go for a drink in Amsterdam City. Sleeping places can be arranged at Jan-Willem's new residence! Contact him if you would like to stay the night at his home (Jan-Willems e-mail is martens@ecn.nl; telephone home: 020-683 8814).

YESSERS IN THE FIELD: TANZANIA

Marcel van der Maal, Tanzania (mvandermaal@yahoo.com)

In December 1999 I started working for TaTEDO. My work as "renewable energy engineer" - a nice title that implies more then I can account for - had begun. For a period of one year I would work for a Tanzanian NGO, based in Dar es Salaam.

Now, March 2000, I've been here for almost 3 months. There is a lot to tell about my work here, about Tanzania and about renewable energy. More then I can do here. I will shortly touch the subject solar PV in Tanzania. Then I will introduce TaTEDO, an interesting organisation active in the field of renewable energy and environment. But I think the most fun part to write about is my experience with installing a PV-system. It has taught me a lot.

Solar PV in Tanzania: a brief view

Tanzania is starting with solar PV. The country has not developed a market for PV. Yet demand (for information) is there; people frequently come to our office with questions about solar energy.
One could compare the situation for PV with a vicious circle: companies are hesitant to invest in solar PV, because they believe the market is too small. Customers (in the rural areas) have little awareness of solar PV and thus express no demand for it.
There are a number of private firms in Tanzania, which sell & install solar PV. These firms are concentrated in the big cities: There are as yet no businesses selling small do-it-yourself solar PV kits, which are affordable to household customers. The absence of credit facilities makes it more difficult for people to afford a PV-system.
People are often not aware of the difference between solar PV and solar thermal. We often get the question if a collector can provide electricity or if solar PV can be used for cooking. Furthermore people are surprised to see a radio working on solar energy. "A,a ! How is that possible?"
There is a training institute for solar technicians in Karagwe (KARADEA). Some Christian organisations, NGOs, CBOs do work in solar energy. In Dar there are a number of organisations involved in solar energy. Solar Innovations, dealing mainly with solar thermal applications (water sterilisation), Innovation Production Institute, CEEST, but co-operation between the various organisations is limited. Everyone is re-inventing the wheel. And there is the organisation TaTEDO.

TaTEDO

TaTEDO, Tanzania Traditional Energy Development and Environment Organisation started work in 1990. The initial activity was the promotion of wood and charcoal stoves. Later the organisation started activities in other fields as well: environmental conservation (tree planting programmes) and more recently solar energy and wind energy.
TaTEDO is an NGO based in Dar es Salaam, with a training/workplace facility at Goba, about 5 km from Dar. It has around 200 members: artisans, engineers, sociologists, foresters, organisations, etc. The organisation has three technical sections: bio-energy (stoves and ovens), environmental initiatives (tree raising and growing) and non-biomass renewable energy (solar & wind energy) and a number of support sections (administration and planning).

TaTEDO solar PV activities
I work together with a young mechanical engineer in the Non-biomass Renewable Energy section. Our activities cover a broad field: preparing information, planning, installing PV-systems, setting up a PV-training, informing people about PV and so on. We are even preparing a TV programme about solar energy in Tanzania.
The current TaTEDO PV-programme is sponsored for the period of 3 years. The programme focus is on the areas in Kilimanjaro, Mwanza, Coastal region and Dar es Salaam. TaTEDO follows an integrated approach. The four components: training, demonstration, workshops and awareness creation, are interconnected activities.

Training: We will organise a training for solar technicians in May this year. This training aims to train trainers. Participants come from the areas where our programme is implemented. In doing so we aim to build up a network in the area.
Demonstration projects: We will install solar PV systems at strategic sites (dispensaries, schools) in the selected regions. Recently a project (UNDP funded) at Uvikiuta, a youth centre in a non-electrified area in Dar es Salaam region, has been finalised. This 1,7 kWp project has been installed by a private firm, while TaTEDO did the supervision.
Workshops: In order to develop to stimulate (market oriented) solar PV activities in the regions TaTEDO will organise regional workshops to bring stakeholders together (PV-companies, electrical shops, financial institutes, NGOs, etc.).
Awareness creation: TaTEDO prepares and disseminates information (brochures - English and Kiswahili, radio-programme and tv-programme). We furthermore participate in events where solar PV is demonstrated.

One day in the field:

It is Friday. We have prepared the installation of a 50 Wp solar PV-system for a cowshed at Uvikiuta youth centre. A Dar es Salaam based PV-company has already installed 1.7 kW of power, but due to inflation and the unexpected payment of Value Added Tax there was no more money left to electrify the cowshed (and some other buildings at Uvikiuta). It is one of the first projects TaTEDO installs and it is a test case for us.
We have taken the necessary preparations. It started with a site visit. There we saw that the cowshed was much larger then we thought. There were also a lot of trees in the surrounding, an aspect that troubled us a bit. We estimated that we would need 3 TL-tube lights, 10 W each. The power would be supplied by four 12Wp panels.
We started with the design of a mounting system (and closely looked to what others has done before us). After 4 designs, we finally agreed on the final mounting system. The outcome of our efforts: a metal structure, made from locally available metal profiles. We constructed a rotating mount with the help of local fundi's. This structure, where the PV-panels are mounted on a pole, can be rotated manually to aim it at the sun.
The planning was to install the system on Thursday. But this is Tanzania, so we did it on Friday. We put everything ready, packed the TaTEDO vehicle full and left for Uvikiuta. We went with three local electricians who would get on-the-job training while installing the solar PV-system. But one more thing still needed to be done: buy the four 8mm bolts & nuts that were required for our mounting system (good preparation!). While we drove to Uvikiuta, which lies about 30 km from the TaTEDO office, we stopped at several shops along the road. But no bolts. We finally got our 4 bolts at one of the shops (fortunately!).
After arrival at Uvikiuta we started directly. It took some discussion on where the switch should be and how the wiring should go (preparation). The electricians started with the wiring. We took 4 mm2 wire from the panel to the switch, and 2,5 mm2 from the switch to the lights. We filled the 100 Ah automotive battery with acid and connected the panels to it in order to pre-load the 100 Ah battery. It was a rather irritating job: all the time I was attacked by very aggressive ants that apparently liked Mzungu-flesh very much (Mzungu=white people). So at times I was jumping around to get rid of my unwanted visitors. Again: preparation (wear long trousers and closed shoes!).
In the meanwhile a hole was dug for the pole. The pole was erected and the hole filled with cement. We then build a box of bricks for the battery, since the cowshed was completely open. We bolted the panels to the upper part of the mount, attached all the wires to the junction box. With the combined strength of all man we erected the upper part of the mount and put it on the lower part (that was in the ground). The upper part with the panels was turned to the North and then fixed with a padlock.
And then: the great moment. Would it work? We had already checked the wiring to detect shortcuts, there were no problems. So we connected the battery. The lights worked. Afterwards we connected the panels. Our PV system worked fine.

"TaTEDO power, hamna Tanesco power!", I thought. (TaTEDO power, not Tanesco power(national utility)). Since Tanesco has cut the power at our office a number of times, they are no longer my rafiki (friends).

YES-DC STRATEGY CONCEPT FOR 2000-2001

Introduction

What does and what can YES-DC mean to its members? For what reasons do people join YES-DC? How can we meet the needs of our members even better? This strategy paper aims improving YES-DC in such a way that it will address the members needs better. So YES-members will enjoy being a member even more.

Starting points

The starting points of this strategy paper are that YES-DC members want the following things from YES-DC:

- Information related to energy and development cooperation and discussion about these and related issues
- Informal access to various companies and people through the network of members
- Job opportunities
- Fun

Goals

These starting points lead to the following goals for further improvement of YES-DC

- *Improved participation of members in YES-DC activities*- YES-DC members should (want to) participate in YES-DC activities. For themselves, so that they get more fulfillment from their membership (information, discussion, network, fun), and for other YES-DC members, so that the network becomes more useful, interesting and lively.
- *More members*- especially if they take active part in YES-DC activities (see above). Extension of the network on a national and international level.
- *Increased diversity of members*- members with a diverse background in education, personal interest and employer (history) increase the added value of the YES-DC network, and improve the possibilities for interesting discussions and provision of information amongst members. The diversity meant is within the field of energy and development cooperation.
- *Members should get to know one another better*- important for the fun, but also for lively and open minded discussions and informal networks
- *Increased level of active members*- more members active in organizing activities will increase the diversity of activities and meet the wishes for information and discussion subjects better. Also active members are important for the continuity of YES-DC.
- *Enhanced communication with external experts and former YES-DC members*- Ex members may be able to provide information that YES-DC members may not have access to. Ex members can also be good entries into other networks organisations. External experts can provide information that YES-DC members may not have access to or be free to disseminate. External experts also enlarge networking possibilities.

Strategy

Survey of specific needs of members

An interview will be held among members covering their wishes for YES DC activities: themes/subjects, time, location, preference of activity: lecture, excursion, debate etc. Members will be asked to contribute towards (ideas for) activities during the interview and in the general meeting.

Improved communications

The following options are proposed for improved communications between the members and Yes DC. Official communications (through newsletter) in English, rest bilingual.

Activities

- Every activity will be announced three times (one month, one week and one day in advance) through the list server.
- Messages through the list server get a standard signature containing the activity calendar.
- Messages through the list server get a standard signature containing the YES DC contact address.
- The number of participants of each activity will be recorded in order to give more insight in which activities are popular.
- activities - introduce all present at activities; provide time for informal contacts, let members choose and suggest a number of activities for the coming year at the annual general meeting (ALV); discussions should:
- be related to knowledge of members
- be controversial (more discussions)
- preparation and dissemination of information and discussion statements before meetings can shift meetings from information sharing to discussion (which is more interesting for members)

Newsletter

- Themes for the newsletter- provide a subject/ discussion points so that members have a specific reason to write- this stimulates information dissemination and networking.
- introduce a new item for the newsletter in which members can provide information on new and exciting and other interesting subjects or sources of information in a few sentences.
- More mainstreaming: 4 issues year
- Include a colophon containing contact information of YES DC.

Listserver

- introduction new members by email (listserver), and regular activity calendar
- member booklet- introduce members
- newsgroups (like World Bank Afrrei)
- Yes DC facilitates the dissemination of job vacancies through its listserver at a fee of f250,-.

Website of YES DC

- The site will be kept uptodate by an active member in close collaboration with thte YES DC board
- Site will list upcoming activities, written summaries of meetings, excursions etc
- Site will provide means for potential members to join YES DC through email.

Ex members

- Will be invited to the christmas toast
- Can attend a limited number of meetings per year (further to be discussed)
- A database will be made to keep track of old members

Members booklet

- Will be updated once a year.

Suggestions for future activities

- COP 6- activity
- a series of discussions on related subjects. These could result in reports that can be presented to YES-DC members and external contacts, e.g. at the COP itself.
- excursion to COP-6
- Gelsenkirchen Shell PVcell factory
- Enercon- wind turbines
- Cuijk- biomasse electricity generation
- HFR- nuclear research
- Lagerwey- wind turbines
- Econosto- Solar water heaters
- Discussions on Gender and energy, Poverty and energy, energy and low income groups

UPDATE YES-AFRREI

In the last issue of our newsletter the co-operation between YES-DC and the WorldBank was well covered. In two successful meetings in London and Utrecht respectively, YES members were able to show their innovative view on rural energy provision in Africa. This resulted in the offer by Mark Tomlinson of the WorldBank Afrrei initiative to offer this YES committee the opportunity of developing its own rural energy project. A very challenging, but demanding opportunity.

The first thoughts went directly to a project in which electricity is provided to a rural community. However, it was felt that conflicts of interest could be expected when YES members, next to their normal employment, start to execute a project for the WorldBank that equally could have been done as a revenue earning project for their employers. This, combined with the tremendous amount of time such a project requires, made many members not reluctant to join in.

Intensive e-mail correspondence and discussions made clear that the lack of (access to) information was felt to be a major bottleneck in setting up local projects. Coincidentally the major strength of YES-DC is our network function to share and exchange information. We believe that a similar network in Africa might help local young energy specialists in getting (access to) the information needed for proper project preparation and implementation. Several ideas were put forward on how to set up such a network and which role YES-DC members could play in this. We decided to leave the idea of electrifying a rural village and to concentrate on YES-Africa. At this moment we are in the process of writing a project proposal for the WorldBank on how to implement our ideas. Hopefully the next issue of the newsletter will enable us to elaborate more on the contents of our proposal and the reaction of the WorldBank.

For more information on the YES-Afrrei workgroup, please contact Wim Klunne (wim_klunne@geocities.com, home-tel/fax 053-489 52 42)

COLOFON

This newsletter is published by:
YES-DC
Post Apart 61000
3501 KM Utrecht
the Netherlands
http://www.yes-dc.org

Questions, remarks, ideas or any other correspondence concerning this newsletter, please contact the editor Wim Klunne

e-mail:
wim_klunne@geocities.com
tel/fax:
053-489 52 42 (home)

AGENDA

12 May 2000
General Board Meeting YES-DC

Palmgracht 69, Amsterdam (near the Central Station)
Start 20.00 h
For detailed information, please see page 7 of this newsletter

15 July 2000
High Flux Reactor

Excursion to the nuclear High Flux Reactor of ECN, Petten.
Unfortunately registration for this excusrion is closed already