

South to South Knowledge Network for the Use of Alternative Energy Sources in Rural Regions in Nicaragua and Haiti in Cooperation with Cuba

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1. Starting point

Almost all villages in Nicaragua and Haiti lack infrastructure such as electricity, water, schools and health centers. In addition, every rural household requires electricity for light and for cooking – electricity which these countries cannot provide everywhere due to their economic condition. They do not have a sufficient supply grid. Lack of energy has an effect on all areas of life in the village. One possible remedy for this situation could be the utilization of alternative energies – solar energy, water energy, biogas or biological grain waste.

So far, broad use of these energies and technologies in Nicaragua and Haiti has been impossible due to lack of public awareness, high launching costs and insufficient education in these fields. On the other hand, rural areas generally lack development social development. The majority of inhabitants live on rural production and work, which again has a great effect on their possibilities of making use of alternative energy sources; they also don not have the resources to increase their productivity.

In the course of the present project, some of these difficulties will be overcome through the education of multiplicators and the further education of local experts. The aim of this education is their promoting the development of adapted technologies for renewable energies quickly and effectively. The concurrent social strengthening of communities and sustainable agricultural production will strengthen projects geared towards poverty reduction.

No country has shown more clearly than Cuba how important renewable energies (such as wind and solar energy, water-power, biogas) are for independent development. In each of the 15 provinces pilot schools were founded which were remodeled to rely on renewable energies. Cuban universities have made great efforts in the use of national energy reserves through various research centers and development of these technologies. Some examples are:

- CEEPI – Center for energy studies and industrial processes at the headquarters of the University Sancti Spiritus

- CETA – Research center for thermo-energetic sugar processing at the Universidad Central de las Villas
- CEEMA – Research center for energy and environment at the Universidad de Cienfuegos
- CETER – Research center for renewable energy technology at the Instituto Superior José Antonio Hechevarria de la Habana
- CIES – Research center for solar energy at the Universidad de Oriente.

Cuba has the energy education centers, the basic workshops and the personal resources to manage the tasks mentioned above. This background prompted employees of the TU Berlin to get in touch with various NGOs in Berlin which have the requisite experience for a cooperation with local NGOs in Latin America: KarEn (Society for energy renewal in the Caribbean) and KATE (Work group for adapted energy and development). This NGO satisfies the European Commission's criteria and is suitable for a cooperation with NGOs in Nicaragua, Haiti and Cuba. It has already carried out different energy projects in Nicaragua and in Cuba.

Simultaneously, there exist working relations between the initiators of this projects and researchers at CEEPI at the University Sancti Spiritus who are involved in the development of the project.

2. Project development

During a workshop that took place from July, 14th to 16th, 2000 at the Technical University of Berlin NGO-members from Haiti, Cuba and Germany have been discussing the ideas of the project considering aims, results and measures.

A first analysis of the problem points out the fundamental causes and consequences of the energy shortage in the villages of Haiti and Nicaragua. Almost all of the villages lack electricity and food production.

The main target, that has to be achieved through the pilot project, is: "Improvement of the energy supply, social development and agricultural production in the rural areas". Within this, the specific project aim of "Securing further education in the field of regenerative/alternative energy" represents the main focus of the project.

Under this premise the idea is not to hand out ready-made solutions to the people concerning their energetic, social and food supplying problems, but to widen their knowledge about these issues and to enable them to develop the best possible solutions on their own, regarding their individual situations.

In the long run the project is intended to help the local NGOs in the countries concerned to develop and install purposeful measures in order to solve their energy problems on their own, to give competent advice to the decision-makers in their countries and furthermore, to increasingly educate specialists as sort of multipliers in their own countries. In the first three years there will be training courses held in Cuba. The chance of national and international cooperation shall be made possible by an exchange of knowledge and experience in Cuba. Based upon this, specialists are enabled to gain insight into the social, political and cultural conditions and effects of the chosen and adapted technologies. Built on this preceding step, further participants will be chosen, then the educational requirements are determined and eventually the courses will begin.

3. Target group

As the target group for qualification and technology, the project envisions primarily employees of NGOs who work in the field of regenerative/renewable energies or who work on measures to solve energy problems in rural areas.

The actual realization of the plan will be up to the villagers themselves, though. That is precisely the object of this project: The villagers will gather information about different solar technologies, will develop their own energy system with the help of experts, will help build the system and will run it themselves. In this way, each village will find its own solution. The energy project aims to contribute to the solution of the growing problem of energy supply in villages in Nicaragua and in Haiti in an ecological fashion.

In the course of a pilot project, as a first phase, employees of the NGOs will attend a basic training in Cuba and will deepen and broaden their knowledge.

The project partners involved will retain their previous independence. The Cuban principle of “learning with and hand” will be reflected in the educational approach of the course and in the practical activities in Cuba and in the participants’ native countries.

4. General objectives and impact of the project programme

- Building a south to south network of knowledge involving universities, NGO's, and civil organizations
- Institutional and personal capacity building in the southern and western countries by knowledge networks
- Programmes of qualified professional re – integration for students from southern countries at the Technical University of Berlin

