BA AN RASIK

Sustainable Access to Water and Energy through Improved Income Generating Activities, Social Development and Infrastructure in Rural Communities

Supported by the Human Security Trust Fund and Government of Japan

A pilot program of the Government of Timor-Leste and United Nations Department of Economic and Social Affairs

Objectives and Lessons Learnt

BA AN RASIK is a demonstration program of the Government of Timor-Leste implemented by UNDESA to strengthen community management of water and renewable energy services in three rural sub-districts.

The Program addresses all facets of sustainable water and energy provision, including social, governance, financial and infrastructure aspects..

BA AN RASIK focuses particularly on building community capacities and stewardship. The underlying principle of the Program is that communities with a strong sense of ownership over their resources take care of those resources.

The program has been a successful pilot in terms of testing methodologies and options for future development in rural Timor-Leste.

Through Community Development Planning, the needs identified by Suco Councils show that access to water and energy remain high priorities in addressing rural development needs. A major **lesson learnt** is that whilst PDK empowers the Suco councils, the quality of the plans remains basic, as do the needs of rural communities. PDK is a useful tool for government or NGOs with long-term plans and resources to work with Suco Councils.

For government planning, a less resource intense methodology is needed that can be delivered equally to all Suco councils in Timor-Leste.

BA AN RASIK shows that

Installation of Community Facility Solar System on Atauro Island.

the CAP process is an essential social step for infrastructure implementation. All NGOs and government

Children filling water containers, Laclo Manatutu

departments should adopt CAP and ensure that communities are key decision makers in the design and technical choices impacting on their lives.

The Water User groups demonstrated that community enthusiasm can be high at the outset of the project, but that sustaining and empowering GMF volunteers requires longer post-implementation support and training than most organizations or the government is currently providing.

Community Facility Solar Systems are good technical choices for government buildings in areas that will not receive grid access in the near future.

The government, across ministries, should approach procurement in a unified manner to order to standardize systems.

Solar lanterns are an affordable and technically simple option for bringing light energy to the 60,000 households who will not be serviced by grid electricity in the near future.

BA AN RASIK illustrated that access to water and energy remains a central priority for rural communities in Timor-Leste and further inter-ministerial collaboration and capacity building is needed to address the high needs.

Program Components

Achievements

- 10 Water Systems built
- 470 Solar Lanterns distributed
- 14 Community Facility Solar Systems installed
- 23 Water User Groups established
- 4 Lantern Management Committees
- 13 Solar Management Groups
- Fee collection and savings at community level.

PDK in process

Community Development Planning (PDK)

The PDK (Planu Desenvolvimentu Komunidade) methodology aims to build skills for Suco Councils in effective development planning.

The pillars of PDK are resource analysis, problem analysis, effective decision making and prioritization. The methodology takes Suco leaders through a step-by-step analysis of their own community and village, teaching them the skills to write their own community development plan.

A major **lesson learnt** is that whilst PDK empowers the Suco councils, the quality of the plans remains basic, as do the needs of rural communities.

Water and energy continue to rank high in all plans and the need for major infrastructure is often beyond the means the communities.

PDK is a useful tool for government or NGOs with long-term plans and resources to work with Suco Councils.

For government planning, a less resource intense methodology is needed that can be delivered equally to all Suco councils in Timor-Leste. Utilising the Solar-powered Sede de Suco, educational DVD leading councils through the steps of creating their plan s could be more efficient with current resources.

"PDK opened our minds to what we could create from within our community.."

Community Leader
Laulara, Aileu

Community Action Plans (CAP) for Infrastructure

Based on the government policy and decree law no 4/2004, communities in rural areas have responsibility for the operation, maintenance and management of their rural water systems.

The Community Action Planning methodology was used to identify infrastructure needs and social issues relating to new or rehabilitated infrastructure to be community defined and driven.

Lessons Learnt show that the CAP process is an essential social step for infrastructure implementation. All NGOs and government departments should adopt CAP internally and train staff in its methodology. CAP contributes to limiting potential community conflict over infrastructure and ensures communities are key decision makers in the design and technical choices impacting on their lives.

Socialization of Water Designs.

Laying new pipe system in Upper Laclo, Manatutu

Water User Groups (GMF)

The Water User Groups were created by adopting and improving existing methodology.

The **Lessons Learnt** show that community enthusiasm can be high at the outset of the project, but that sustaining and empowering GMF volunteers requires longer post-implementation support and training than most organizations or the government is currently providing.

The GMF's need to be empowered to address complex issues such as fee collection, illegal connections and major repairs on systems in isolated areas.

As GMF's are essential to the sustainability of clean water systems in rural areas., all clean water infrastructure projects should address both the social and technical aspects of the water system, ensuring sustainability.

Community Facility Solar Systems

Children on Atauro enjoying their solar powered TV and DVD in the school.

The community facility solar systems were chosen after a process of socialization and community planning through the PDK and CAP processes. The national Renewable Energy expert completed a energy survey to understand current access to energy and site selection. The community established their own regulations for use and teachers as well as technicians were trained in calculating the daily load and battery life. The program has established 13 management groups for Community Facility Solar Systems on schools and Suco buildings. The TV/DVD are used for educational, church and general community activities.

BA AN RASIK has demonstrated that CFSS are good technical choices for government buildings in areas that will not receive grid access in the near future.

The government, across ministries, should approach procurement in a unified manner in order to standardize systems.

Standard systems will create a spare parts market and limit operation and maintenance issues that could arise from multiple suppliers

Solar Lantern Maintenance Training

Solar Lanterns

The Solar Lanterns were selected through community trials where 4 different styles of lanterns were evaluated on light, ease of use, battery life and general compatibility with community needs. Four Lantern Management Committees were established through local elections. The groups are trained and supported to manage the operation and maintenance of their facilities. The Lantern Management Groups are collecting USD$1.80/ month per household.

The Solar Lanterns have been a highly successful aspect of the pilot project, demonstrating high demand and response from communities willing to pay the USD$1.80/ month.

Solar lanterns are an affordable and technically simple option for bringing light energy to the 60,000 households who will not be serviced by grid electricity in the near future.

The fee collection could be linked with micro-credit savings schemes.

Training women in positions of responsibility is an important aspect of sustainability

Agricultural Training

In partnership with the Ministry of Agriculture and Fisheries, training in horticulture, livestock, fish drying and marketing is offered.

With 50 participants per Suco, participants are trained in intercropping, pest and weed control, organic mulch, organic fertilizer use, animal raising and health.

FAO and the 'Seeds of Life' program have contributed mixed vegetable seed and sweet potato cuttings.

Fishing cooperative members participated in PDK and used their plans for strengthening the cooperative. Part of their strategy is to supply direct to Dili restaurants.

Timing the training for post-infrastructure has been important to assess how much excess water can be used for home gardens.

Fee collection has 100% participation from the community and over $1000 in savings.

Environmental Health Training

BA AN RASIK agreed with the Ministry of Health to support the pilot 'Family Health Promoters' (PSF) program in the project areas.

NGO staff and clinic staff were trained in the pilot project areas by Ministry of Health Master trainers and initial liaison over development of Environmental Health curriculum was discussed.

However, in late 2007, it became apparent that Environmental Health may only be covered in the third year of the program and Family Health Promoters capacity to address environmental health issues was unrealistic.

After discussion with the Vice-Minister of Health, UNDESA decided to concentrate collaboration efforts at a more effective level.

BA AN RASIK has developed a Tetun language trainer's manual to accompany Ministry Health poster series on open defecation and sanitation. The manual is currently being trialed with teachers and women's groups in the pilot areas.

The manual guides the trainer through key health messages and games to follow.

Teachers are trained in Environmental Health Promotion

Key Partnerships

.BA AN RASIK has focused on building relations with the newly formed Ministry of Economy and Development, specifically with the Secretary of State for Rural Development and Cooperatives. BA AN RASIK has been facilitating communication and training.

The Ministry of Infrastructure, specifically the Secretary of State for Electricity, Water and Urbanization and the National Directorate for Water and Sanitation has been closely linked with UNDESA in terms of training, planning, monitoring and technical input. DNAS has provided expert social staff to undertake the CAP process for water infrastructure as well as sent technical staff to oversee design and construction. BA AN RASIK has revised and extended the training manuals on GMFs and prepared technical guidelines for Community Technicians.

The Ministry of State Administration and Territorial Management is responsible for the Suco (village) councils as well as the District and Community Development officers. BA AN RASIKs PDK process was aimed at Suco councils and the pilot has been useful in terms of considering the resources needed to produce quality planning at village level. BA AN RASIK continues to coordination with MSATM and UNCDF to develop a national criterion for planning with Suco Councils that can contribute to the decentralization process and respond to the NGO requests for standardization.

BA AN RASIK agreed with the Ministry of Health to support the pilot 'Family Health Promoter' (PSF) program in the project areas. BA AN RASIK has developed a trainer's manual to accompany Ministry Health poster series on 'Parazite mai husi rai'.

The Ministry of Education has agreed to cover the on-going operation and maintenance of the Community Facility Solar System on schools on Atauro Island and used BA AN RASIK data for plans for solar systems on other remote schools. The Ministry has expressed interest in in using BA AN RASIK model and methodology and has been monitoring the BA AN RASIK example.

The Ministry of Agriculture and Fisheries has provided expertise and trainers for the agricultural component of BA AN RASIK program. FAO and the Seeds of Life program will provide UNDESA with packets of vegetable seed and sweet potato cuttings for training participants.

The Secretary of State for Energy Policy has the mandate to develop policy and projects for rural energy needs. BA AN RASIK has been a key partner for the Secretary in developing energy options for rural Timor-Leste. The UNDESA national expert on Renewable Energy participates in a working group for policy development.

BA AN RASIK has partnered with several local and international NGOs for on-ground implementation.

For more information contact

UNDESA

Edifisiu Fomento, Primeiro Andar
Rua Dom Aleixo Corte Real,
Mandarin, Dili, Timor-Leste
+670 732 9202

Ms. Sarina Kilham
Chief of Project
sarina.kilham@undp.org

Or
Mr.Gabriele Borla
Water Advisor
borla@un.org