

Senegal Policy Research Paper (PRP)

Title

Preliminary Development Plan for Integrated Water Resource Management (IWRM) in Sangalkam

Implementing Agency

Ministry of Agriculture, Rural Hydraulics and Food Security Water Resources Management and Planning Department

Asian Counterpart

Huai Hong Khrai Royal Development Study Centre, Thailand

General Information of the PRP

Sangalkam rural community is situated in the region of Dakar to the west of Senegal and is in the primary zone for horticultural development and agricultural development in general. Both income generating activities and smallholder farm subsistence activities are included in the economy of this region.

Senegal has a chronic insufficiency of water for agricultural productivity, largely due to inadequate water resource management.

An approach known as Integrated Water Resource Management (IWRM) was introduced at the Rio Conference in 1992. This strategy seeks to manage water resources using environmentally sound principles and incorporating the needs and demands of communities with regard to the purposes for which they require water. To this end, Senegal formed the National Water Partnership Committee in 2002, a body which is concerned with successful implementation of water resource management strategies. Its objectives are:

- To improve water resource management
- To guarantee water supply and sanitation
- To protect natural resources

Result of the PRP

The final output of the PRP is a preliminary IWRM development plan.

The plan includes the following short term outputs.

- mapping of soil types and of natural resources
- improving current water management sites
- Capacity building of local community
- Supporting the existing centre within the community to foster links between farmers for dialogue and technology on IWRM
- Setting up of a documentary database

The plan's long term outputs are,

- Revitalization of fossil valleys in the zone
- Construction of small dams in strategic positions
- Regeneration of natural resources (forest, fauna, soils)

Lessons Learned

An important lesson learnt was that it is necessary to closely involve communities in the design and implementation of an IWRM strategy. The use of different types of soils for different types of agricultural production must be rational and appropriate for both cash crop purposes and for the use by the local communities.

Any development plan must be simple and easy to implement for the local community, and the development strategy must take into account those policies at a national level which must then be integrated.

Future Plans

Plans for the future include further development of an IWRM Plan and in particular, the development of an Operational Plan. In addition, there are plans to further strengthen the Water Management Centre in Sangalkam to facilitate the sharing of ideas and experiences between farmers and other members of the community.

Comments from Asian Partners

The program for IWRM in Senegal has been designed according to the initiatives of His Majesty the King of Thailand, in particular the "New Theory" which stipulates the managing of available resources to complement the naturally occurring conditions. The activities proposed within the PRP are those within the development model of

Huai Hong Khrai. These are the use of check dams, advocating reforestation and the use cultivation techniques and crops that are suitable to the subject area. There are three steps necessary for development to take place.

- Understanding the problem to be resolved
- Understanding and implementing a strategy that is appropriate to the target group
- Evaluation of the strategy and modification if necessary

If these three steps take place, development will follow.

Comments and Questions from Advisory Panel and JICA

The panel commented that the final report for the PRP needs to be different from the final output for the preliminary IWRM Plan. The Plan should start with a situational analysis, socio-economic profile of the area, national policies which are already in place with regard to water resource management and an assessment of local needs and priorities for water use.

Attention should also be paid to the feasibility of implementation of the plan and whether it is applicable to areas of Senegal outside of Sangalkam.

South Africa Policy Research Paper (PRP)

Title

Implementation of Effective Soil Conservation Techniques to Combat Soil Erosion and Land Care

Implementing Agency

Department of Agriculture, Limpopo Provincial Government

Asian Counterpart

Huai Hong Khrai Royal Development Study Centre, Thailand

General Information of the PRP

This PRP was planned and designed in line with the Republic of South Africa's policy on land care. The main problem being experienced in the village of Ga Maila Mapitsana is soil erosion caused by deforestation, strong soil runoff, erosion due to cattle systems and the weak soil texture of the area. Most of the members of this community rely on farming as their major source of income and sustenance therefore combating the erosion with proper soil management skills is considered the government's priority.

The main goal of the project was to combat the soil erosion in the highland area, subsequently creating a better environment for the community thus improving their livelihoods and increasing self reliance for the population of this village.

Results of the PRP

As a result of the training workshop, the extension officers and community members acquired knowledge on how to stop soil erosion by the check dam method and they also learned about working as a team for the success of the project. They then proceeded to construct the check dams and gabions at the pilot project site, using rocks instead of bamboo, as bamboo is not available in this area. The effectiveness of the check dams was recently proved during a heavy storm earlier in the year.

It was noted that with the support of the community leaders, the youth in the community became active participants in the project and were involved in both the

designing and the building of the check dams and gabions. With the participation of the whole community, activities were more coordinated and the community's team spirit was enhanced.

Due to the unavailability of bamboo in this area, indigenous material (rocks) was used in the building of gabions.

Unfortunately, due to time constraints, the final output which was to be a proposal on a training programme for South Africa was not finalized.

Lessons Learned

The South African team learnt the value of team spirit in the coordination of developmental activities. The importance of involving all stakeholders from the design to implementation phase of any project was an important lesson learnt. In the process of community training, it was realized that the responsible use of natural resources was an important factor in minimizing and avoiding soil erosion and run off.

Future plan after PRP

In the future, the project should be expanded to involve more communities around the pilot project area. The next phase should see closer working relationship and collaboration with the provincial land care entities that were not included in this phase.

The government would like to continue this cooperation with Thailand as it recognizes that there is a lot they can learn from each other in adaptation of soil and water management techniques.

Comments from the Asian partner organization

The Thai partners noted that there was a much larger area that required soil and water management technologies. With the success of the pilot project, the project can be up scaled with even greater success.

The check dam used in this pilot project was selected out of several available models, as it was seen to be the most effective in this terrain. The decision on the materials used for the check dam was decided by the community leaders,

stakeholders and government officials, focusing on the local availability of the material.

Comments and Questions from Advisory Panel and JICA

Prof. Nishikawa

Comments

The check dam method is not new to these communities. FAO, JICA and other agencies have been in South Africa trying out different methods of check dams. Limpopo Province in particular has had very many trial and error experiences in the past in regards to the check dam. .

Question

How would you propose to spread the technique for land care and water management to the rest of the country or even within this area?

What was the motivation for the community to attend the training workshop and what motivation or incentives did you provide for the community to participate in the training?

Response

E. Matjokana

Community leaders were targeted first and to ensure their cooperation in this project. When the community leaders were convinced that the soil erosion was a threat to their livelihoods and that the nutrients in their soils were depleting, it was the leader themselves that went round the community spreading the message.

Sharing Results of Group Discussion 2

Knowledge Co-Creation

Chairman
Prof. Nishikawa

Professor Nishikawa's summary on the three group's presentation on knowledge co-creation.

There are very many factors that were common in all three presentations, some of which were as follows.

- There seems to be an understanding that the attitude or the willingness to follow the community rules is important.
- Currently, the existing knowledge in Africa seems to be confined to the individual level. The knowledge has not yet developed into societal knowledge.
- The knowledge obtained from Thailand seems to be too advanced and the equipments used in Thailand are not available in Africa.
- Time was too short to co-create knowledge.
- All methods indicated in the handout seemed to be useful, but in particular, the direct observations of the participants and hands on training were considered very effective.
- Grassroot level exchange, where the African farmers visited Thailand was seen to be very important. Face-to-face exchange was seen to be necessary for knowledge co-creation.
- Future recommendations included the use of TV conferencing to combat physical / location difficulties.
- Knowledge co-creation is not instant, but a step-by-step process which involves the improvement of existing knowledge. The existing knowledge is the starting point of knowledge creation.
- Cultural differences, attitudes and mindsets are some of the difficulties mentioned.
- Political and/or economic relationship between the African and Asian countries is an important factor in the success of projects.

Comments from Ms. Imoto

It is important to be conscious of what one wants to learn from the counterparts, and to be clear on one's expectations in order to learn something from the experience. It is interesting to note that the aspect of "attitude" was mentioned by several groups. It could be said that it is the mindset or attitude that in fact helped the Thai's to develop. It is important to look back and see whether there needs to be any changes made in the mindset or attitude, and if changes need to be made, how such changes can be initiated.

It is easy to count what one does not have; it is however more important to count what one has, and think of ways to add to what one has.

Time limitation was frequently mentioned, however best aspects and methods should have been considered within the given time and budget limitations.

Comments (Wrap up) from Prof. Nishikawa

Capacity Building is a common need in many parts of the world. Knowledge co-creation is one of the tools to achieve capacity building.

Knowledge creation methodology differs from region to region therefore one single method cannot be regarded as the good or bad. In the same line, achievement of knowledge creation should not be evaluated in a single manner. Instead, different interpretations of knowledge creation and co-creations should be accepted and at the same time be utilized for assessing the PRPs.