

Practical Action – Sudan
Aim 1: Reducing Vulnerability
PROLINNOVA Program



Participatory Innovation Development
(PID) in Sudan
What has been done and the Way Forward
Wad Madani 15/December, 2007

Workshop Report
26/December 2007

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PROLINNOVA Program
Workshop Report

Title of the workshop:

Participatory Innovation Development (PID) in Sudan: What has been done and the way forward.

Date and duration:

15/12/2007 from 09:30 to 15:30

Venue:

The Senate Meeting Hall, University of Gazeera.

Introduction:

PROmoting Local **I**NNOVAtion (**PROLINNOVA**) is an NGO-led initiative to build a global learning network on promoting local innovations in ecologically-oriented agriculture and natural resource management. The focus is on recognizing the dynamics of indigenous knowledge and learning how to strengthen the capacities of family farmers to adjust to changing conditions: to develop and adapt their own site – appropriate systems and institutions of resource management in order to gain food security, sustain their livelihoods and safeguard the environment.

PROLINNOVA Program is not about an academic debate on what is indigenous or traditional and what is not in agriculture and National Resource Management. The PROLINNOVA is focusing on the essentials, i.e. valuing local knowledge. The choice of the term “local innovation” has helped. The primary purpose is to acknowledge the contributions of farmers and other local community members to development and to encourage them to continue to innovate and add value to existing efforts and technologies.

The unique location of the Sudan and its wonderful diversity make it one of the best locations for the PROLINNOVA Program. Practical Action is the coordinating agency. Started in 2005, the Program in Sudan aims at building/strengthening partnerships between the different stakeholders involved in agriculture, Natural Resource Management (NRM), agricultural research and development in the country. Participatory Innovation Development (PID) is a key activity of the Sudan program.

Purpose of the workshop:

Research centers and universities complement the current conventional research approaches with participatory approaches e.g. (PID).

Objectives of the workshop:

- Reflect on strengths and weaknesses of the three training workshops
- Share experience of initiating participatory approaches e.g. PID in research and academic institutions.
- Improved link between research and academic initiations in the area of participatory research.

Participants:

From 7 States in North Sudan a total of 15 researchers and academicians participated to the workshop (see annex 1). They were representing 4 universities

and 5 research stations and the HQ of the ARC. Most of the participants attended one of the three PID training workshops held during 2006 / 2007.

Facilitation:

The ex- PROLINNOVA Coordinator and a consultant facilitated the various sessions of the meeting. The ex- PROLINNOVA Coordinator prepared and presented the main paper for the workshop. The consultant guided the discussion to serve the objectives of the workshop. The various sessions were chaired by the Head Department of Agricultural Extension and Training at the Faculty of Agricultural Sciences of the University of Gazeera. He also facilitated all the administrative and financial arrangements required to get the workshop started at the time and place specified.

Workshop Sessions:

Opening session:

The Dean Faculty of Agricultural Sciences made a short speech welcoming the participants at the Faculty of Agricultural Sciences, University of Gazeera (FAS). He thanked the participants and Practical Action for choosing FAS to host this forum. He also gave a brief overview on the role of the University, number of faculties and number of students. He welcomed the cooperation between Practical Action (PROLINNOVA PROGRAM) and the faculty of Agricultural Sciences. He added that he is looking forward for more events like this and will support more initiatives in this direction.

The consultant, on behalf of Practical Action, made a short speech briefing and drawing the attention of the audience on some issues like research, local innovations, extension, poverty alleviation and objectives of the forum. He also reflected on the hard work undertaken by PROLINNOVA Program during the last two years.

The main paper which was prepared by the ex-PROLINNOVA Coordinator was circulated to the participants then there was a half an hour break for breakfast.

Second session:

Main paper:

The ex-PROLINNOVA Coordinator presented the main paper of the workshop (See annex 2). He reviewed the major activities and progress made as regarding Participatory Innovation Development (PID) in Sudan. His paper covered the following:

- capacity building,
- number of training workshops convened and locations,
- facilitators,
- training purpose and objectives,
- number of participants and their qualifications and place of work,
- development of a training program,
- training methodology,
- The way forward.

Comments and discussion:

Dr. Nageeb, of the Sinnar University, circulated his draft paper on Institutionalization of Participatory Innovation Development (PID) Methodology in the Universities of Sudan (see annex 3). Participants were invited to discuss in details the papers and to reflect on PID considering their experiences in their respective fields of work. An important discussion was then held and the following points were raised:

- Farmers are fully recognized as a corner stone for research and development.

- Farmers technical indigenous knowledge (TIK) should be recognized.
 - In many cases TIK was found to be the cheapest, the cleanest and more relevant to the prevailing situation.
 - Promotion of local innovations can help in poverty alleviation and improving the environment.
 - The importance of adopting interdisciplinary approach in innovation development.
 - Documentation of local innovations is a must for both researchers and extensionists.
 - Unavailability of documentation equipments e.g. cameras. Video....etc.
 - There is a need to share knowledge at local and global levels regarding PID.
- Participatory local innovation development increases adoption of technology among users.
- Problems of funding to run participatory research with the farmers.
 - More efforts required to identify innovative farmers and innovations.
 - The challenge of sharing and exchange information between the researchers and academicians
 - Low cost of PID Vs conventional researches.
 - In many cases the priority of researchers are not similar to the priority of farmers.
 - Exchange visits to see and evaluate successful practices.
 - Disseminate the idea of indigenous knowledge and participatory research among the graduate and post graduate students.
 - Need for a database for local innovations
 - Need to establish communication with the farmers and pastoralists unions.
 - Difficulties of getting together trained personnel in each region.

Group work:

Three groups were formed to come up with recommendations around the following three domains:

- Universities.
- Farmers
- Research station.
- Extension and technology transfer
- Finance

Recommendations:

The below recommendations were seen to be realistic, doable and not over ambitious.

1/ Identification and interaction with the nearest funding opportunities existing in the various regions / States e.g. IFAD (in North Kordofan and Kassala States), Community Development Fund – CDF - (in Kassala and Blue Nile states) and farmers / pastoralists unions (in all the regions) to secure funding for PID.

2/ where possible investigate about innovators and innovations during regular field visits and they should be encouraged and supported.

3/ encourage undergraduate and post graduate students to identify innovators and innovations in the various regions. Encourage consideration of local innovations and participatory methodology in post graduate research.

4/ Exchange visits whenever and wherever possible.

5/ Establishment of a network between the participants of this workshop and the other trained personnel in the various regions. (circulation of this report to all)

6/ Regular meetings between the trained personnel in each region to further discuss challenges and opportunities facing indigenous knowledge and PID.

7/ Frequent visits to PROLINNOVA web site (prolinnova.net) for more learning and exchanging ideas.

8/ where possible support pilot PID initiatives raised by universities and / or research stations and promotion of PID among staff and students through lectures, seminars and training sessions.

9/ continue PID training in the other regions in Sudan.

10/ more efforts should be made on identification, evaluation and conservation of genetic resources.

11/ Research should make use of TIK 9evaluation, development and adoption)

12/ There is a need to strengthen research – extension and farmers linkages and to adopt participatory approach.

13/ farmers Unions should make use of Integrated Pests Management (IPM), farmers field schools experiences.

14/ Extensionists should adopt simple and easy communication methods with farmers and concentrate on demonstration farms.

15/ extensionists should consider farmer to farmer extension to diffuse local innovations

Annex (1)

Participants to the Meeting on the assessment
of the PID Training Workshops in Sudan.

S #	State	Name	Agency	Telephone #
1	El Shamalia	1/ Awadia Ahmed Hashim	University of Dongola	0912805483
		2/ Abu Baker Ibraheem El Hori	University of Dongola	0912805484
2	Kassala	3/ Ali Ahmed Ali	ARC - Kassala	0912353177
		4/ Abdella Mura Mohamed	University of Kassala	0121527964
3	El Gadaref	5/ Ibraheim El Siddig Ibraheem	ARC - Gedaref	0122233852
4	Sinnar	6/ Ahmed Hassan Abu Assar	ARC – Sinnar	0912888377
		7/ Nageeb Ibraheem Bakheit	University of Sinnar	0918067525
5	Gazeera	8/ Gareeb Alla Hassan El obied	University of Gazeera	0923568955
		9/ Ahmed Hassan	ARC - HQ	0122522029
		10/ Musa Hajo El Fakei	University of Gazeera	0912860316
		11/ Mohamed Yousif El Beeli	University of Gazeera	0915010038
		12/ Ibraheem Bashir Mohamed	University of Gazeera	0922277406
		13/ Mohamed Taha Yousif	University of Gazeera	0121244033
6	Blue Nile	14/Amin El Sir Ahmed	ARC - Damazein	xxxxxxxxxxx
7	N. Kordofan	15/ Salih El Agab	ARC – El Obied	0918091943
8	Others	16/ Prof. Yousif F. Mohamed	Dean faculty of FAS	0129819948
		17/ Prof. Mirghani IbnOaf	Facilitator	0912390196
		18/ Mohamed Yousif Mabrouk	Presenter; main paper	0122233997

Annex (2)

Main paper presented.

Practical Action – Sudan
Aim 1: Reducing Vulnerability
PROLINNOVA Program
Participatory Innovation Development
(PID) in Sudan
What has been done and way foreword

Introduction:

PROMoting Local INNOVation (PROLINNOVA) is an NGO-led initiative to build a global learning network on promoting local innovations in ecologically-oriented agriculture and natural resource management. The focus is on recognizing the dynamics of indigenous knowledge and learning how to strengthen the capacities of family farmers to adjust to changing conditions: to develop and adapt their own site – appropriate systems and institutions of resource management in order to gain food security, sustain their livelihoods and safeguard the environment.

PROLINNOVA Program is not about an academic debate on what is indigenous or traditional and what is not in agriculture and National Resource Management. The PROLINNOVA is focusing on the essentials, i.e. valuing local knowledge. The choice of the term “local innovation” has helped. The primary purpose is to acknowledge the contributions of farmers and other local community members to development and to encourage them to continue to innovate and add value to existing efforts and technologies.

The program is operational in Uganda, Tanzania, South Africa, Senegal, Peru, Niger, Nepal, Mali, Kenya, Ghana, Ethiopia, Ecuador, Cambodia, Burkina Faso, Bolivia and Sudan.

The unique location of the Sudan and its wonderful diversity make it one of the best locations for the PROLINNOVA Program. Practical Action is the coordinating agency. Started in 2005, the Program in Sudan aims at building/strengthening partnerships between the different stakeholders involved in agriculture, Natural Resource Management (NRM), agricultural research and development in the country. Participatory Innovation Development (PID) is a key activity of the Sudan program.

The challenge:

Technology-driven approaches to development assumes that local people, farmers in particular, do not know much about their situation and continue to adhere to “backward” farming practices. Experience shows however, that local people adapt their farming practices and develop appropriate institutions in order to achieve food security, sustain their livelihoods and safeguard the environment. They develop new and better ways of doing things through informal experimentation. It is important for those providing development services such as agricultural/natural resource management research and development organizations to be aware of these processes and be able to engage in them. This engagement will strengthen their capacities to support community-led initiatives through participatory innovation development.

What is Participatory Innovation Development?

In PID the local knowledge of villagers is understood to be just as important as any scientifically generated knowledge. However, the two types of knowledge are very different. The challenge in PID is therefore to arrange for a creative

interaction between the knowledge, the experiences and the information of villagers with that of scientifically trained researchers. The systemic - often unreflected - knowledge of villagers of their own, complex situation is to be combined with scientific analytical skills of scientists. The emphasis then is to conduct practical trials together in the villages.

The objective is to find new things that work (successful innovations). of course, in most cases these are just the clever recombination of elements of familiar technologies, or the combination of known elements with new elements having been brought into an area. Villagers constantly try out new combination and see how they work out. The trick in PID is to arrange for an environment which supports this natural process. The interaction between villagers and scientists often need facilitation, which is best done by experienced extensionists as they have the required communicative skills.

Therefore a triangle composed of: Villagers, researchers and advisors all cooperating in order to develop new things that really work in farmers conditions, whereby the role of the extensionist is mainly the facilitation of the process of PID.

Current situation:

Capacity Building:

To facilitate implementation of the PID in Sudan, capacity building of Sudanese staff formed part of the PID activities of the Program. Three staff attended the international training of PID facilitator in the Philippines (2004), one staff attended the same training held in Uganda (2006) and another one attended the PID training in Ethiopia 2007. The trained staffs are currently working with Practical Action Sudan Country Office (Mohamed Siddig in El Fashir and Mohamed Mabrouk in Khartoum), The Technology Transfer and Extension Administration (TTEA) in Kassala State (Abdel Hakeem Ahmed El Hassan)), Western Sudan Resources Management Program (Ahmed Hanafi in El Obied) and El Obied Agricultural Research Station (Mahmoud Awad Makkie in El Obied).

Training workshops:

During the period 2006-2007 three PID training workshops were convened in El Obied (18-23/December 2006), Wad Madani (24th /February to 1st/March 2007 and Kassala (20-24May2007). Workshops were organized in collaboration of with the Western Sudan Resources Management Program and TTEA (in El Obied), Agricultural Research Corporation (in Wad Madani) and TTEA (in Kassala).

Training Purpose:

Mainstreaming Participatory Innovation Development (PID) into the activities of the researchers, academicians and development workers.

Training Objectives:

- Share experience to build on and scale up farmers based research and development (R&D) approach;
- Raise awareness on the challenges faced by development professionals and scientist in moving local innovations further towards joint experimentation and integrating relevant information and ideas coming from others.
- Stimulate interest among researchers and development workers on participatory development for the local ideas and innovations.

Training Program:

A training program was developed and implemented in all the three workshops.

The program covers:

- Understanding PID
- PID teams
- Situation analysis
- looking for things to try
- Steps and processes in PID.
- Monitoring and evaluation.
- Campaigning, advocacy and Lobbying.

Facilitators to the workshops:

Four of the above mentioned trained personnel facilitated the implementation of the three training workshops held in El Obied, Wad Madani and Kassala. Though he showed readiness to contribute, only one of the trained facilitators (Hanafi) was not able to for he was heavily engaged with his tasks as a coordinator for Western Sudan Resources Management Program. To fill in some facilitation gaps, other experienced facilitators were drawn from the Gazeera Agricultural Research Station (Dr. El Hagwa), Sinar University (Dr. Nageeb Bakheet) and the National Council for Social and Economic Research (Dr. Mirghani Ibn Oaf). The Directors of the TTEA in the three locations participated in most of the training sessions. Discussion was enriched as they correlated session's contents with the on going conventional practices of the TTEA.

Participants to the workshops:

The total number of participants to the three training workshops was 75. The below table shows the number of participants broken by gender and qualification:

PIDs	Total participants	M	F	Qualification			
				Bsc	Msc	Phd	others
1 st PID El Obied	29	17	12	23	4	2	--
2 nd PID Madani	25	21	4	8	7	8	2
3 rd PID Kassala	21	19	2	13	5	1	2
total	75	57	18	44	16	11	4

Participants were working with a number of institutions that included: TTEAs, universities, agricultural research stations, agricultural schemes and farmers. The below table shows the various institutions covered by the three PID training in the different States:

Institutions	Agric. Research	Universities	TTEA	Others (farmers)
States covered	North Kordofan	El Shamalia	North Kordofan	Gazeera
	El Shamalia	North Darfur	North Darfur	Kassala
	North Darfur	El Gazeera	El Shamalia	
	Kassala	Kassala	South Kordofan	
	El Gadarif	El Gadarif	Kassala	
	Red Sea	Red Sea	El Gadarif	
	Gazeera	Sinar	Red Sea	
	Blue Nile		Gazeera	
	Sinar		Blue Nile	
			White Nile	

Methodology adopted:

The training workshop used methodologies that contributed to the personal transformation of participants towards giving value to participatory process,

respect and being agents of learning during PID processes .The workshops were extremely interactive and participatory. The methods used, behaviors and attitudes of the facilitators mirrored the principals of PID. Specially, problem solving methods, small working groups, field visits, interaction with participants and farmers in the field, games and other experimental learning methods were given great emphasis.

Plans and Feedback:

At the end of the training workshops, participants were requested to prepare plans for what they would be doing on the light of what they learned during the workshops. So far no feedback was received as regarding materialization of these plans on the ground.

Way foreword:

- What partners are doing / will do as regarding PID? Challenges and Opportunities.

- Dr. Nageeb paper on including local innovations and PID in the curriculum of the rural universities (to be presented at the forum).
- Pilot PID in Dongola Agricultural Research Station (Grain Sieve Development at Dongola Agricultural Research Station).
- Continue training workshops in the other parts of Sudan e.g. El Shamalia (Dongola) and Blue Nile (Damazein).

Annex (3)

**Institutionalization of Participatory Innovation Development (PID)
Methodology in the Universities of Sudan: a draft paper
By: Dr Nageeb Ibrahim Bakheit**

Most of what are now known as State Universities in Sudan are located in rural areas. This is particularly true of the Faculty of Agriculture (Abu Naama) in the University of Sinnar. Moreover, when Abu Naama College of Agriculture and Natural Resources was first established in the late 70s, the site was chosen near Kinanna Research Station, about just 2km apart. But, these location advantages were never effectively tapped for the development of rural communities near these localities, except for some linkages between the earlier Teaching Staff and the Researchers.

A bibliography of Sudan Agriculture revealed that traditional agriculture had rarely been taught within the curricula and totally ignored by researchers and extensionists (ILEIA LEISA Magazine, 2001), though excellent documentation existed since the first half of the last century (e.g. Tothill, 1948).

The Faculty of Abu Naama has one department for extension, agricultural economics and rural development. There is one course on rural sociology and another one on rural women taught within the Department beside the normal course contents of Agricultural Extension and Economics. Another course on general agriculture is taught in the Department of Plant Production. The nature of all course contents in the Faculty is theoretical. Besides these theoretical aspects there is the problem of mobility, particularly during the rainy season, the time of cultivation, for the staff to outreach the small farming communities near the University. Nevertheless, the Department is trying to seize every opportunity for collaboration with the small scale farmers within Sinnar State. The objective of this paper is to raise awareness among the teaching staff of the University for promoting local innovations and to tap abundant natural and human resources for PID processes:

1. There are close links between the University and the farming community near Abu Naama here. These relations are represented informally by social personal relations between the University Staff (and the Research Station Staff) and formally by the employment opportunities which the University offers to the community. A large group of the University is part of the local community. This counterbalances the heterophillous attitudes or xenophobia which local people might feel against outsiders. In fact, local people here have a stake in the University. They are real stakeholders as they recently rejected a move to shift the Management of the University to an urban area.
2. It is written in the terms of reference of some Universities that their curricula would be community-based, as for example, the University of Gezira (U of G).
3. There is at least one course taught for the under- or post-graduates in the Departments of Extension and Rural Development on extension participatory approaches e.g. farmers field schools (FFS). An apt option is to try university extension which could be adapted to local conditions in collaboration with the State Ministry of Agriculture in Sinja, the capital

town of Sinnar State. Specialists in the four major Departments, Plant Production, and Animal Production, Entomology and Agricultural Economic and Rural development would act as resource persons or Subject Matter Specialists (SMS) and pay visits to different farming localities within the State.

4. Research graduation projects for the students could be directed by PID methodology.
5. Examples of things to try out are breeding aspects of early maturing sorghum varieties, drought resistant and water harvesting techniques. This is because most farmers in the State, particularly those in Jebel Moya Area, West of Sinnar are vulnerable to rain water shortages. 'Gisheish' local variety is very popular in many parts of Sinnar Kassala in eastern Sudan and possibly in other rain-fed sorghum areas of Sudan. The origin of this variety is a small community near the capital town of the State. Perhaps it deserves to investigate the materials and methods of these farmer sorghum breeders.
6. The last point indicates that there is already some sort of existing farmer based extension. These networks can be strengthened by experimenting with farmers, exchange visits and training farmers to build their capacity for managing experiments, analyzing them and sharing results with others. The roles of other stakeholders such as the Farmers Unions (for the demarcated or un-demarcated areas), State Ministry of Agriculture (Department of Agricultural Extension and Technology Transfer) and other community based organizations (CBOs) should be coordinated.
7. The ultimate aim of the Faculty of Agriculture in Sinnar University is to gather all information, document the process and methods of experimentation and diffusion and finally put it as part of the curricula.

Some photos taken at the PID Review workshop – Wad Madani
15/ December 2007



Visibility



Dean Faculty of Agricultural Sciences
University of Gazeera



Facilitators and the workshop coordinator



Dr. IbnOaf, facilitator



Participants to the workshop



Dr. Nageeb presenting his concept note



Participants to the workshop

