

# **PROLINNOVA**

**PRO**moting Local **INNOV**ation  
in ecologically-oriented agriculture and natural resource management

## **INTERNATIONAL CURRICULUM DEVELOPMENT WORKSHOP AND SUSTAINABLE LAND MANAGEMENT TRAINING**



**Makerere University  
Kampala, Uganda**

**3-11 March 2009**

**Compiled by Sabina Di Prima**

Centre for International Cooperation - CIS  
VU - University Amsterdam



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Sabina Di Prima

Centre for International Cooperation – CIS  
VU-University Amsterdam

## Abbreviations and Acronyms

<b>ACP</b>	African, Caribbean and Pacific
<b>AGRA</b>	Alliance for a Green Revolution in Africa
<b>APAARI</b>	Asia Pacific Association of Agriculture Research
<b>ATVT</b>	Academic Technical and Vocational Training
<b>BCC</b>	Behaviour Change Communication
<b>CBD</b>	Community Based Development
<b>CBE</b>	Community Based Education
<b>CC</b>	Climate Change
<b>CD</b>	Curriculum Development
<b>CDMT</b>	Community Development Management Training
<b>CDWG</b>	Curriculum Development Working Group
<b>CEAD</b>	School of Environmental Sciences (University of Kwa-Zulu Natal, South Africa)
<b>CEDAC</b>	Cambodian Centre for Study and Development in Agriculture
<b>CIDA</b>	Canadian International Development Agency
<b>CIS</b>	Centre for International Cooperation (VU-University Amsterdam)
<b>COMUNIC</b>	COMmunity UNiversity Cooperation
<b>CoP</b>	Community of Practice
<b>CPs</b>	Country Programmes (PROLINNOVA)
<b>CRCE</b>	Centre for Rural Community Empowerment
<b>CRESA</b>	Centre Régional d'Enseignement Spécialisé en Agriculture (Université Abdou Moumouni, Niger)
<b>DGIS</b>	Directorate General for International Cooperation (Dutch Ministry of Foreign Affairs)
<b>EA</b>	Environmental Alert
<b>ED</b>	Executive Direction
<b>EU</b>	European Union
<b>FAIR</b>	Farmer Access to Innovation Resources
<b>FARA</b>	Forum for Agriculture Research in Africa
<b>FAS</b>	Faculty of Applied Sciences (University for Development Studies, Ghana)
<b>FOA</b>	Faculty of Agriculture (University for Development Studies, Ghana)
<b>FFS</b>	Farmer Field School
<b>FIDS</b>	Faculty of Integrated Development (University for Development Studies, Ghana)
<b>FLD</b>	Farmer Led Documentation
<b>GH</b>	Ghana
<b>GM</b>	Genetic Modification
<b>IAAS</b>	Institute of Agriculture and Animal Science
<b>IAR4D</b>	Integrated Agricultural Research for Development
<b>IIRR</b>	International Institute of Rural Reconstruction
<b>IK</b>	Indigenous Knowledge
<b>ILEIA</b>	Centre for Information on Low External Input and Sustainable Agriculture
<b>IPM</b>	Integrated Pest Management
<b>IPR</b>	Intellectual Property Rights
<b>IST</b>	International Support Team (PROLINNOVA)
<b>ISWC</b>	Indigenous Soil and Water Conservation
<b>KEA</b>	Kikandwa Environmental Association
<b>KSA</b>	Knowledge, Skills and Abilities
<b>LI</b>	Local Innovation
<b>LISF</b>	Local Innovation Support Fund
<b>MAKECA</b>	Makerere Conservation Association
<b>M&amp;E</b>	Monitoring & Evaluation

PROLINNOVA: International Curriculum Development workshop and SLM training

<b>MOA</b>	Ministry of Agriculture
<b>MoU</b>	Memorandum of Understanding
<b>MU</b>	Mekelle University (Ethiopia)
<b>MUARIK</b>	Makerere University Agricultural Research Institute Kabanyolo (Uganda)
<b>NAPE</b>	National Association of Professional Environmentalists
<b>NGO</b>	Non-Governmental Organization
<b>NSC</b>	National Steering Committee
<b>NRM</b>	Natural Resource Management
<b>NUDIPU</b>	National Union of People with Disabilities
<b>NUFFIC</b>	The Netherlands Organization for International Cooperation in Higher Education
<b>PA</b>	Participatory Approaches
<b>PAC</b>	Participatory Approaches in Cooperatives
<b>PAP</b>	Participatory Assessment and Planning
<b>PAR</b>	Participatory Act
<b>PB</b>	Plant Breeding
<b>PCID</b>	Participatory Curriculum Innovation Development
<b>PCP</b>	Person Centred Planning
<b>PEA</b>	Participatory Extension Approach
<b>PID</b>	Participatory Innovation Development
<b>PLA</b>	Participatory Learning and Action
<b>PME</b>	Participatory Monitoring & Evaluation
<b>PPB</b>	Participatory Plant Breeding
<b>PPTs</b>	PowerPoints
<b>PRA</b>	Participatory Rural Appraisal
<b>PROMOTED</b>	Promoting Participation and Innovation in Agriculture and Natural Resource Management Education
<b>PTD</b>	Participatory Technology Development
<b>QA</b>	Quality Assurance
<b>RC</b>	Resource Centre
<b>RRA</b>	Rapid Rural Appraisal
<b>RRM</b>	Rural Resource Management
<b>RUFORUM</b>	Regional Universities Forum for Capacity Building in Agriculture
<b>SA</b>	South Africa
<b>SIDA</b>	Swedish International Development Cooperation Agency
<b>SLM</b>	Sustainable Land Management
<b>SMHS</b>	School of Medicine and Health Sciences (University for Development Studies, Ghana)
<b>SUA</b>	Sokoine University of Agriculture (Tanzania)
<b>SWOT</b>	Strengths, Weaknesses, Opportunities and Threats
<b>SWC</b>	Soil and Water Conservation
<b>ToR</b>	Terms of Reference
<b>ToT</b>	Transfer of Technology
<b>TTFPP</b>	Third Trimester Field Practical Programme (University for Development Studies, Ghana)
<b>TU</b>	Tribhuvan University (Nepal)
<b>T&amp;V</b>	Training & Visit (Extension system)
<b>UDS</b>	University for Development Studies (Ghana)
<b>UG Sh</b>	Uganda Shillings
<b>UKZN</b>	University of Kwa-Zulu Natal (South Africa)
<b>UL</b>	University of Limpopo (South Africa)
<b>UMADEP</b>	Uluguru Mountains Agricultural Development Project
<b>US</b>	United States

## Summary

In March 2009, two major activities were conducted in Uganda under the auspices of the PROLINNOVA Curriculum Development thematic area:

- Sustainable Land Management (SLM) training
- Curriculum Development (CD) workshop

The activities were attended by representatives, mostly lecturers, of nine PROLINNOVA Country Programmes (Cambodia, Ethiopia, Ghana, Kenya, Nepal, South Africa, Sudan, Tanzania and Uganda). They were sponsored by PROLINNOVA with co-contribution from the represented nine Country Programmes (CPs).

A full account of the above-mentioned activities and a compilation of related documents are presented, respectively, in section I (SLM training) and II (CD workshop) of this report. Below is a synthesis of the activities, their objectives, implementation and main outcomes.

### Sustainable Land Management training

Under the coordination of Mr Ronald Lutalo and Prof. Moses Tenywa of Makerere University's Agricultural Institute, Kabanyolo (MUARIK) the course entitled "Sustainable Land Management" given each year at the VU-University Amsterdam by Dr William Critchley and Ms Sabina Di Prima was piloted at Makerere in four (full) days (3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup>) with an optional field trip to Kikandwa Environmental Association on the fifth day.

The SLM course took place at the Faculty of Food Science and Technology at Makerere University, Kampala, Uganda.

The SLM course had multiple objectives:

- Provide training in SLM to PROLINNOVA members as well as to Makerere University students, staff and others;
- Offer a concrete example of integration of PID and participatory methodologies into university curricula;
- Demonstrate the practical use of teaching methodologies and material;
- Share teaching and learning material with peer lecturers as part of the PROLINNOVA International CD experience;
- Provide first-hand experience on the presented topics (eg SLM techniques, Indigenous knowledge, Farmer Innovation) through a field trip.

The course was attended by 29 participants of whom 12 were PROLINNOVA associated personnel, including delegates from eight Country Programmes (Kenya was not represented). It was a great success – as testified to by the course evaluation (see section I, annex C of this report).

## Curriculum Development workshop

The CD workshop took place on the 9<sup>th</sup>, 10<sup>th</sup> and 11<sup>th</sup> March 2009 at the same venue. The workshop brought together university representatives from the nine PROLINNOVA Country Programmes mentioned in the introduction, three IST members (Laurens van Veldhuizen, William Critchley and Sabina Di Prima) and Ronald Lutalo as host.

The workshop had multiple objectives:

1. Share lessons and best practices on integration of PID approaches into agricultural education and training curricula
2. Develop a framework course on Participatory Approaches in Agricultural and NRM focussing on PID methodology
3. Discuss the way ahead for the development of the PROLINNOVA CD sub-programme
4. Strengthen the PROLINNOVA network / communication around the thematic area of CD

These objectives were largely mirrored in the expectations expressed by the participants at the beginning of the workshop:

- Share experiences and materials;
- Create a “Community of Practice” (CoP);
- Discuss how best to institutionalize and scale out PID in universities;
- Develop the general framework for a PID course;
- Discuss opportunities for a joint project

The first two days of the workshop were devoted to presenting experiences from various countries, discussion and analysis of cases. Key lessons, best practices, challenges and opportunities derived by each case were highlighted, written on cards and discussed. Two cases (Tribhuvan University, Nepal and Limpopo University, South Africa) fully focused on experiences with incorporating PID in universities’ curricula whereas the others presented related experiences and served to show opportunities as well as constraints for integrating PID in university teaching and research.

During the third day a first round of group discussions looked at a possible framework for PID courses, ways for institutionalising and scaling out PID in universities. While no innovative ideas came out from the discussions on the latter two points, a considerable step forward was made in the development of a PID framework course. With the use of effective visualisation, the group in charge of this theme presented a framework with four content components:

- (i) Evolution of approaches towards PID
- (ii) Local /farmer innovation concepts
- (iii) Methodology and
- (iv) Institutionalisation and scaling of PID / LI

to be taught at various level of detail in three course types (A. introductory; B. expanded; C. Specialised). The PID framework course was well accepted by all participants and constructive comments were made on how to make it operational.

A second round of group discussions fed into action planning related to ways to build a “Community of Practice” on PID in universities and the development of a new proposal for fund raising. As a result of the plenary discussion, the participants agreed on a number of (action) points.

**“Community of Practice” on PID in universities:**

- a. The CoP already exists but should include potentially other CPs not represented at the workshop (eg Nigeria, Niger, Peru and Bolivia)
- b. There is the need to draft the CoP statement of objectives and ToR; **responsible person = Abdelaziz Karamalla Gaiballa (Sudan)**
- c. A Curriculum Development Working Group (CDWG) was formed
- d. CDWG members are Dharma Raj Dangol (Nepal), Abdelaziz Karamalla Gaiballa (Sudan), Pamela Marinda (Kenya), Paul Kwami Adraki (Ghana) and Sabina Di Prima (focal person CIS-VU)
- e. ToR for the CDWG should be developed and include the following responsibilities:
  - coordinate the process
  - gatekeep website resources
  - stimulate design/development and circulation of joint materials (copyleft)
  - facilitate events (partners workshops at various levels)
  - prepare donors’ overview
  - develop joint project proposal
- f. The ToR for the CDWG should be drafted; **responsible persons = CDWG members**
- g. Decisions should be made in relation to the contents of the CD page on PROLINNOVA website and contacts should be established with IIRR (webmaster); **responsible persons = CDWG members**
- h. There is need to create a dedicated CD yahoo group based on an inventory of contacts at CP level; **responsible persons = all workshop participants**

**Development of a new proposal for fund raising:**

- Raise profile of CD theme in preparation for new overall PROLINNOVA proposal to be submitted to DGIS; **responsible persons = all workshop participants; by 31 March**
- Strengthen links with potential allies (eg RUFORM, FARA, APAARI, Practical Action, etc)
- Explore funding opportunities as on-going process; **responsible persons = all workshop participants + others (Extended CDWG)**

**Specific potential donors to be contacted and person responsible:**

Potential donor	Person responsible for contact
DGIS	Laurens van Veldhuizen (NL)
Kelloggs Foundation	Ernest Letsoalo (South Africa)
Ford Foundation	Paul Kwami Adraki (Ghana)
Echoeing green	Paul Kwami Adraki (Ghana)
McKnight Foundation	Amon Z. Mattee (Tanzania)
CIDA	Dharma Raj Dangol (Nepal)
AGRA	Pamela Marinda (Kenya)
EDULINK/EU	Sabina Di Prima (NL)
NUFFIC	Sabina Di Prima (NL)

Overall, the workshop went very well. It achieved its original objectives and met participants’ expectations. All participants confirmed their commitment towards the realisation of the common goal: mainstreaming PID in university curricula. Those responsible for undertaking ‘action points’ assured the group that they would follow-up immediately on return to their home countries.

Detailed information on the participants as well as the proceedings of the workshop and related material are presented in section II of this report.



## **Section I: Sustainable Land Management Course**



## Annex A: Sustainable Land Management course outline

Date	Time	Module
3 March	09.00-12.00	<b>Introduction: history of conservation - from failure to new concepts</b> <ul style="list-style-type: none"> <li>• Agriculture in development.</li> <li>• A hundred years of concern.</li> <li>• The “great dust bowl” in USA: soil conservation campaigns.</li> <li>• Why failure of so many schemes? the “old” and the “new” approaches.</li> </ul>
	13.30-16.30	<b>Land degradation</b> <ul style="list-style-type: none"> <li>• Soil erosion: the major component of land degradation; forms of erosion.</li> <li>• Desertification: what it is, and what it is not.</li> <li>• Deforestation: one of the root causes of land degradation in the humid tropics.</li> </ul>
4 March	09.00-12.00	<b>SLM technologies in humid and dry areas</b> <ul style="list-style-type: none"> <li>• Sustainable land management: - focuses, principles and framework of practices.</li> <li>• Support structures – various forms of terraces, vegetative barriers and water harvesting structures.</li> <li>• In-field practices – choice of crop/ mulching/ composting &amp; manuring/ conservation agriculture/ agroforestry/ integration of livestock etc</li> <li>• Irrigation: advantages and disadvantages – potential for greater efficiency</li> <li>• Urban agriculture</li> </ul> <i>Video: Building on Traditions- Conserving land and alleviating poverty</i>
	13.30-16.30	<b>Environment and SLM (1): climate change (impacts and implications), energy and water</b> <ul style="list-style-type: none"> <li>• Climate change (CC)</li> <li>• Mitigation and adaptation strategies</li> <li>• Energy and biofuels</li> <li>• Water: domestic, agricultural &amp; environmental</li> </ul>
5 March	09.00-12.00	<b>Environment and SLM: (2) biodiversity, GM and organic production</b> <ul style="list-style-type: none"> <li>• Organic production</li> <li>• Genetic modification</li> <li>• Biodiversity (including agrobiodiversity)</li> </ul>
	13.30-16.30	<b>Socio-economic factors in SLM</b> <ul style="list-style-type: none"> <li>• Population: why population pressure can be positive as well as negative.</li> <li>• Land tenure: the importance of security of tenure on SLM</li> <li>• Gender: the role of women in SLM; gender equality and mainstreaming</li> <li>• Incentives: are they starters, bribes, shared costs, rewards or compensations?</li> <li>• Marketing and trade: how trade policy and price of products can affect the land.</li> </ul>
6 March	09.00-12.00	<b>Participatory research</b> <ul style="list-style-type: none"> <li>• Why participation? Why it is essential to involve people in their own development.</li> <li>• Participatory methodologies: semi-structured interviews and visualisation.</li> </ul>
	13.30-16.30	<b>Indigenous knowledge and “local innovation”</b> <ul style="list-style-type: none"> <li>• Indigenous knowledge: the meaning, its limitations and why it is important.</li> <li>• Local farmer innovation: an “old but new” approach to research and development in both rural and urban agriculture.</li> </ul> <i>Video: Promoting Farmer Innovation</i>



## Annex B: List of participants in Sustainable Land Management course

	Country	Name	University /Organisation	Position	Contact details	3 March	4 March	5 March	6 March	Number classes attended
1	Uganda	Karim Kalimijabo	NUDIPU (national union of people with disabilities)	community development officer	<a href="mailto:kkalimijabo@yahoo.com">kkalimijabo@yahoo.com</a>	no	yes	yes	yes	3
2	Uganda	Grace Christine Bazaaya	MAKECA (Makerere Conservation Association) advocacy group	executive director	<a href="mailto:bazayagrace@yahoo.co">bazayagrace@yahoo.co</a>	no	yes	yes	yes	3
3	Uganda	John Kaganga	Kikandwa Environmental Association (KEA)	executive director & farmer	<a href="mailto:kikandwaenvasso@yahoo.com">kikandwaenvasso@yahoo.com</a>	yes	yes	yes	yes	4
4	Uganda	Doreen Nakimuli	Environmental Alert	intern	<a href="mailto:nakimulidoreen@yahoo.com">nakimulidoreen@yahoo.com</a>	no	yes	yes	yes	3
5	Cambodia	Vitou Sam	Cambodian Centre for Study and Development in Agriculture	lecturer	<a href="mailto:samvitou@online.com.kh">samvitou@online.com.kh</a>	yes	yes	yes	yes	4
6	Ethiopia	Derbew Belew	Jimma University	lecturer	<a href="mailto:dbelew2002@yahoo.com">dbelew2002@yahoo.com</a>	yes	yes	yes	yes	4
7	Ghana	Paul Kwami Adraki	University for Development Studies (UDS)	lecturer	<a href="mailto:porldraki@yahoo.com">porldraki@yahoo.com</a>	yes	yes	yes	yes	4
8	Nepal	Dharma Raj Dangol	Tribhuvan University	lecturer	<a href="mailto:dharmadangol@hotmail.com">dharmadangol@hotmail.com</a>	no	yes	yes	yes	3
9	South Africa	Ernest Letsoalo	University of Limpopo	lecturer	<a href="mailto:ernestl@ul.ac.za">ernestl@ul.ac.za</a>	yes	yes	yes	yes	4
10	Sudan	Abdelaziz Karamalla Gaiballa	Sudan University for Science and Technology	lecturer	<a href="mailto:gaiballa@gmail.com">gaiballa@gmail.com</a>	no	yes	yes	yes	3
11	Tanzania	Amon Z. Mattee	Sokoine University of Agriculture	lecturer	<a href="mailto:zmattee@suanet.ac.tz">zmattee@suanet.ac.tz</a>	yes	yes	yes	yes	4
12	Uganda	Fred Yikii	Makerere University, Fc. Forestry & Nature Conservation	lecturer (assistant)	<a href="mailto:fyikii@forest.mak.ac.ug">fyikii@forest.mak.ac.ug</a>	yes	yes	yes	yes	4
13	Uganda	Patrick Musinguzi	Makerere University, Fc. Agric.	lecturer (assistant)	<a href="mailto:musipato@yahoo.com">musipato@yahoo.com</a>	yes	no	no	no	1

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14	Uganda	Joy K. Tumuhairwe	Makerere University, Fc. Agric.	lecturer (senior)	<a href="mailto:joykt@agric.mak.ac.ug">joykt@agric.mak.ac.ug</a>	yes	yes	no	no	2
15	Uganda	Moses Tenywa	Makerere University, Dpt. Soil Science	lecturer (senior)	<a href="mailto:tenywamakooma@yahoo.com">tenywamakooma@yahoo.com</a>	yes	no	no	yes	2
16	Uganda	Sheila Kiconco	Environmental Alert	programme officer	<a href="mailto:skiconco@envalert.org">skiconco@envalert.org</a>	yes	yes	yes	yes	4
17	Uganda	Godfrey Andama	Environmental Alert	programme officer		no	yes	yes	yes	3
18	Uganda	Timothy Mukeele	National Association of Professional Environmentalists	programme officer	<a href="mailto:mukeeletim@yahoo.co.uk">mukeeletim@yahoo.co.uk</a>	yes	yes	yes	yes	4
19	Uganda	Medius Bihunirwa	Kabarole Research & Resource Centre	project manager-small holder farmers project	<a href="mailto:bmedius@krcug.org">bmedius@krcug.org</a>	yes	yes	yes	yes	4
20	Uganda	Ronald Lutalo	Environmental Alert	PROLINNOVA CP coordinator	<a href="mailto:rlutalo@envalert.org">rlutalo@envalert.org</a>	yes	yes	yes	yes	4
21	Uganda	Francis Ogwang	Makerere University, Fc. Agric.	staff	<a href="mailto:ogwafa@agric.mak.ac.ug">ogwafa@agric.mak.ac.ug</a>	yes	yes	yes	yes	4
22	Uganda	Margaret Kyakuwaire	Makerere University, Fc. Agric.	student	<a href="mailto:mkyakuwaire@yahoo.uk">mkyakuwaire@yahoo.uk</a>	yes	yes	yes	yes	4
23	Uganda	Innocent Uzatunga	Makerere University, Fc. Agric.	student	<a href="mailto:iuzatunga@yahoo.com">iuzatunga@yahoo.com</a>	yes	yes	no	yes	3
24	Rwanda	Athanase Cyamweshi Rusanganwa	Makerere University, Fc. Agric.	student	<a href="mailto:crkatana@yahoo.fr">crkatana@yahoo.fr</a>	yes	no	no	yes	2
25	Uganda	John Mugerwa	Makerere University, Fc. Agric.	student	<a href="mailto:ismugerwa@yahoo.com">ismugerwa@yahoo.com</a>	yes	yes	yes	yes	4
26	Rwanda	Mathilde Uwizerwa	Makerere University, Fc. Agric.	student	<a href="mailto:uwiz99@yahoo.com">uwiz99@yahoo.com</a>	yes	yes	yes	yes	4
27	Uganda	Brenda Ahumuza	Makerere University, Fc. Agric.	student	<a href="mailto:hmzbrenda@yahoo.co.uk">hmzbrenda@yahoo.co.uk</a>	yes	yes	yes	yes	4
28	Uganda	Martha Abwate	Makerere University, Fc. Agric.	student	<a href="mailto:abwatemartha@yahoo.co.uk">abwatemartha@yahoo.co.uk</a>	yes	yes	yes	yes	4
29	Uganda	Yvette Ampaire	Makerere University	student, graduate In Environmental Mgnt	<a href="mailto:yvette.kana@gmail.com">yvette.kana@gmail.com</a>	no	yes	yes	yes	3
						<b>22</b>	<b>26</b>	<b>24</b>	<b>27</b>	

## **Annex C: Participants' evaluation SLM course**

### **Sustainable Land Management course Makerere University**

3-6 March 2009

#### **- Course evaluation -**

In March 2009, a pilot course on Sustainable Land Management (SLM) was conducted under the auspices of the PROLINNOVA International Curriculum Development (CD) sub-component. The SLM course had multiple objectives:

- Provide training in SLM to PROLINNOVA members as well as to Makerere University students, staff and others;
- Offer a concrete example of integration of PID and participatory methodologies into university curricula;
- Demonstrate the practical use of teaching methodologies and material;
- Share teaching and learning material with peer lecturers as part of the PROLINNOVA International CD experience;
- Provide first-hand experience on the presented topics (eg SLM techniques, Indigenous knowledge, Farmer Innovation) through a field trip.

The course was attended by twenty-nine participants. 38% of the group consisted of lecturers either from Makerere or other universities outside Uganda. 28% of the participants were students from Makerere University. The remaining 34% was more heterogeneous including community workers, staff of Environmental Alert (EA), a representative of the National Association of Professional Environmentalists (NAPE) and last but not least a farmer, Mr John Kaganga, who is also executive director of Kikandwa Environmental Association (KEA). In view of the objectives and purpose of the pilot SLM course, the first two groups (lecturers and students) represent the key audience.

The course was quite international with nine countries being represented: Cambodia, Ethiopia, Ghana, Nepal, Rwanda, South Africa, Sudan, Tanzania and Uganda. The average attendance was of twenty five participants per class (59% of the participants attended, on average, all modules). The most popular modules were the ones on: a) participatory approaches to development; b) local farmer innovation; c) sustainable land management techniques and d) climate change which registered the highest turn out. A complete list of the participants with relevant information (name, country of origin, affiliation, job position, course attendance, etc) is provided in Annex B of this report.

At the end of the course, participants filled in an evaluation form to express their unconditioned opinion on the quality and level of interest for the course. Participants were asked to indicate to which category they belonged to (student, lecturer or other) in order to gather further insight on the course according to different perspectives. It should be noted that the evaluation didn't take into account the field trip to Kikandwa despite it formed an integral part of the course. The decision to collect the evaluation forms before the field trip was justified by the fact that only a limited number of participants took part in it.

The evaluation form consisted of four sections: (I) evaluation of the course overall; (II) further questions; (III) course content; (IV) additional comments and suggestions. In this evaluation report, data is presented according to the above-mentioned structure. The report reflects the

opinion of the twenty two participants (76% of the group) who turned in their evaluation forms at the end of the course. Five out of the twenty two evaluation forms were submitted by lecturers, six by students, two by community workers and nine by others. As for the evaluation forms by the community workers, it should be noted that despite their objective importance, the opinion expressed in them is not relevant for the purpose of this evaluation given the fact that students and lecturers represented the target audience for the SLM course.

## I. Evaluation of the course overall

**Participants found the course very informative and educative.** They gave it an average score of 9.2 on a scale 1 (not informative) to 10 (highly informative). The average score goes up to 9.4 if the evaluations of the community workers are not taken into account. The breakdown per category shows that according to the lecturers the average score of the course in relation to the above-mentioned criteria is 8.4 while for the student is 10.

**Participants largely agree that the course content met its description.** The average score for this question was 9.2 (scoring scale: 1-10; 1 = Not at all, 10 = absolutely). The average score goes up to 9.4 if the evaluations of the community workers are not taken into account. The breakdown per category shows that according to the lecturers the average score of the course in relation to the above-mentioned criteria is 9.2 while for the student is 9.7.

**Overall, the course fulfilled the participants' initial expectations.** It was given an average grade of 8.8. The average score goes up to 9.2 if the evaluations of the community workers are not taken into account. The breakdown per category shows that according to the lecturers the average score of the course in relation to the above-mentioned criteria is 8.6 while for the student is 9.2.

Most of the **participants stated to be already familiar with the concepts of land degradation, indigenous knowledge, local innovation and participatory approaches to development.** This is not surprising considering their academic background and the involvement of some of them in PROLINNOVA.

Conversely, participants found the following **list of topics particularly new and important:** (1) relevance of Sustainable Land Management (SLM) in relation to Climate Change, especially the carbon sequestration potential; (2) range of SLM technologies in humid & dry areas; (3) socio-economic factors in SLM (enabling environment) especially marketing and trade; (6) genetic modification and (7) organic production.

As for the lecturers, the following quote synthesizes well their perspective: "The topics presented were not absolutely new. New information was provided within known topic, adding new angles of thinking".

The participants almost unanimously agreed (only two did not answer this question) that the **SLM course added value to their current studies or teaching from both the content and methodological point of view** (eg use of pictures to illustrate case studies and enhance understanding).

About the length of the course, participants were almost equally divided. 55% of them stated that the course was the right length and had appreciated the good balance between informativeness and conciseness. **45% of the participants thought it would have been better if the course had been longer.** Some of them indicated two weeks as the right length for the course, which would allow a greater level of detail for some key topics and more participation and interaction with the students.

**Generally, students didn't find the course difficult.** The level of difficulty/intellectual challenge for 77% of the participants was 5 (scoring scale: 1-10; 1= Too easy, 5= Just right, 10 = Too difficult).

According to 18% of the participants, the course was satisfactory in its current format. The rest of the participants came up with **suggestions for further improvement**: a. field trip (18%); b. more in depth knowledge on some key topics (eg climate change); c. time for group discussions / debates. It was also recommended to diversify the case studies by introducing more examples from Asia and Latin America. As for the field trip, the assumption is that the respondents were not yet aware of the field trip that would have taken place at the end of the course.

With the exception of the community workers, **participants generally liked the teaching method especially the effective use of visualisation and picture slides to illustrate case studies and techniques.** A participant commented: *"It was an eye-opening experience to see how pictures can explain and simplify topics"*. Participants also appreciated the opportunities offered for participatory group work/ presentations. One participant commented that would have been better to increase the variety of presenters. (Note: the SLM course at the VU University of Amsterdam takes already into account this issue by bringing a different/ relevant guest speaker at the end of each module).

## II. Further questions

The overall support for the course (readers, handouts, logistics, etc.) was rated top quality by 64% of the participants (score of 10 in a 1-10 scale). Due to the short duration of the course (four full days), the question on the relevance and appropriateness of the provided literature had been indicated as non applicable. However, some participants commented that the references were interesting and a useful integration to the lectures but there was too little time to read them.

## III. Course content

In general, participants were quite satisfied about the content of the course and the level of details provided considered the short length of the course. Nevertheless, in relation to some topics such as water harvesting, irrigation, impacts of Climate Change, link between Climate Change & SLM, biodiversity and local innovation a high number of participants showed interest for a more in-depth knowledge. The table below reflect the perception of the majority of participants in regards to the desired level of detail for each topic.

Topic	More please !	Enough	Too much !
1. History of sustainable land management (SLM)		x	
2. Transition from old to new approach		x	
3. Land degradation		x	
4. Soil erosion		x	
5. Nutrient mining		x	
6. Desertification		x	
7. Deforestation		x	
8. SLM technologies: support structures		x	
9. SLM technologies: in-field practices		x	
10. Water harvesting	x		
11. Irrigation	x		
12. Impacts of Climate Change	X		
13. Climate Change & SLM	x		
14. Bio-fuels		x	
15. Water & land		x	
16. Biodiversity	x		
17. Agrobiodiversity	x		
18. Ecosystem functions & services		x	

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19. Genetic modification		x	
20. Organic production		x	
21. Participatory methodologies		x	
22. Population & land		x	
23. Land tenure		x	
24. Gender		x	
25. Incentives		x	
26. Marketing & trade		x	
27. Indigenous knowledge		x	
28. Local innovation	x		
29. Agriculture in development	x		
30. ICT in rural development	x		

### IV. Additional comments

&

### Suggestions

<ul style="list-style-type: none"> <li>▪ Overall, great work! We have gained / learnt a lot.</li> <li>▪ Interesting presentations and nice way of communicating. I liked the interaction.</li> <li>▪ "Thank you for showing kindness to us in your teaching approach. Send us more literature by e-mail".</li> <li>▪ Presenters were knowledgeable, skilled and committed.</li> <li>▪ "Examples were true and made the course interesting".</li> <li>▪ The course was informative, helpful and educative, especially in view of the work with local people. The teaching method was also good.</li> <li>▪ Thank you for the opportunity to attend.</li> <li>▪ "Policy makers should be involved in this training because they influence most of the elements presented in the course".</li> <li>▪ "The course was done very well with respect of time and full of explanations".</li> <li>▪ "This kind of teaching should be organised many times to give chances to many more people to get informed. Those who acquired the knowledge should be facilitated to disseminate at grassroots level".</li> <li>▪ "The course content was good for students and lecturers but for practitioners more has to be done in repackaging the content: build on what is already happening on the ground".</li> <li>▪ "This is a good way of communicating / disseminating information.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Include more group work. It is particularly beneficial if people from different countries are involved.</li> <li>▪ Increase time for debates on specific topics.</li> <li>▪ Lengthen the duration of the course (six days at least).</li> <li>▪ The lecture hall requires structural improvements (eg blinds in front of the windows). The excess of light reduces the clarity and visibility of the power point presentations.</li> <li>▪ Improve the balance between pictures and slides with information / definition / statements.</li> <li>▪ "IK may be addressed on the way how it can be enhanced to serve the purposes of SLM".</li> <li>▪ Include field trip and practicals</li> </ul>
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## Annex D: Field trip to Kikandwa

Martha Abwate and Margaret Kyakuwaire  
Master's students, Faculty of Agriculture, Makerere University, Uganda

Edited by Sabina Di Prima  
Centre for International Cooperation – VU University Amsterdam (CIS-VU)

On the 7<sup>th</sup> March 2009, a group of participants from the training course in Sustainable Land Management held at Makerere University went on a field trip to Kikandwa, Mityana district. The main objective of the field trip was to gather first-hand experience on some of the topics presented during the course (eg SLM techniques, Indigenous Knowledge, Farmer Innovation); the field trip was also a good opportunity to let farmers, researchers, students and community workers interact in a constructive and relaxed atmosphere.

The field trip comprised a visit to three farmers who are associated the Kikandwa Environmental Association (KEA.)<sup>1</sup>.

The key lesson drawn from the field trip is that farmers have come up with simple but effective innovations, involving agricultural techniques / systems, to solve their farming problems under their specific environmental conditions.

These include a wide range of locally made / adapted innovations including pesticides, acaricides, soil amendments, beehives, intercropping patterns, seed selection, and grafting techniques.

Most of the innovations observed during the field trip were based on SLM concepts and principles:

- maintenance and recycling of nutrients;
- maintenance of vegetative cover;
- diversity of crops; and
- integration of farm livestock domestic animals within the agricultural systems

The following is a brief and preliminary documentation of some of the innovators met during the field trip and their innovations. Further documentation of the innovations developed by members of the Kikandwa Environmental Association led by Mr John Kaganga can be found in the Master's thesis produced by Kim Hagen under the supervision of Dr William Critchley (CIS-VU).

\*\*\*\*\*

Farmer : **Mzee Kitaali Leonard**  
Parish: **Bukalamuli**

### Area of innovation

Combined herbal pesticide / fertiliser. The solution has multiple effects:

- boosts soil fertility
- causes rapid growth of crops
- kills numerous local pests but it is non – specific
- repels mosquitoes due to its strong smell.



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<sup>1</sup> KEA is one of the community associations which have benefitted from the Local Innovation Support Fund (LISF); a fund supported by PROLINNOVA and its partners under the Farmer Access to Innovation Resources (FAIR) project.

Ingredients of the solution:

- Tithonia: (*Thithonia diversifolia*)
- Dodo: (*Amarathus spp*)
- Black jack (*Bidens pilosa*)
- Pumpkin leaves
- Pig droppings



Process:

Plants are collected, crushed and mixed in water then put in jerricans with tops cut open. Pig droppings are added to the mixture. The solution is left to ferment for 21 - 25 days. Then it sieved and put in containers ready to be sprayed on crops such as maize and vegetables but also banana plants. The solid residues left after the solution is sieved are not wasted but incorporated into the soil.

Notes from the farmer:

Mr Kitaali has been experimenting in order to find the right mix of plants for its solution. Some plants have been discarded from the solution, possibly because they had a high C:N ratio. Furthermore, some of the crops sprayed with the herbal solution got scorched due to its high concentration. Mr Kitaali has requested the involvement of researchers/ subject matter specialists to improve the formula of his herbal pesticide/ fertiliser and to establish the correct dilution ratio.

\*\*\*\*\*

Farmer: **Kiseka Christopher**  
Parish: **Namwene**

#### Area of innovation

Charcoal briquettes as fuel and money saving technology

Materials:

- charcoal dust
- soil (especially clay)
- banana peelings
- water



Process:

Banana peelings are dried and burnt to ash. The charcoal dust, ash and clay soil are mixed with an appropriate amount of water. Then the mud-like mixture is moulded into small balls. The balls are placed under the sun to dry.

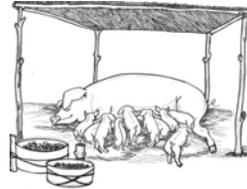


Notes from the farmer:

Mr Kiseka said that the briquettes are a very efficient cooking fuel (5 small balls required to boil water for one cup of tea). He also added that his charcoal briquettes are particularly suitable when ironing with an iron box. They don't break into pieces like wood and charcoal, hence no risk of burning clothes.

The use of charcoal briquettes, combined with other innovative money saving techniques, allowed Mr Kiseka to start a piggery which in turns contributes to the food security and increased income of his household.

He raises pigs of the cambrough breed which, according to the farmer, have good traits in terms of breeding age and number of piglets produced as well good market price (about UG Sh 40,000 per piglet). Mr Kiseka has constructed a shelter to protect the pigs from direct sun and rain. The feed waste and faeces of the pigs are taken to his land to increase soil fertility.



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Farmer: **Senyonga Mohammed**  
Parish: **Nakasita**

#### **Area of innovation**

Design /construction of beehives and bee farming

#### **Materials**

- plant stems (thin and long)
- cow dung
- old iron sheets
- Jatropha plants for support



#### **Process:**

Plant stems are woven into cylindrical baskets then bamboo thin sheets are put on the inner wall of the hive structure. A mixture of cow dung and soil is smeared inside and outside the hive to smooth the surface and ease the subsequent collection of honey. One end of the basket is covered with dry banana fibre tied into a tight fitting ring. The other side is closed by a clay lid with holes big enough to let the bees in. Beehives are sheltered by iron sheets and located on Jatropha plants.



#### **Notes from the farmer:**

Mr Senyonga explained that the traditional design for beehives entails the use of hollow tree trunks. He stopped cutting trees for this purpose and started using more versatile materials (plant stems and cow dung). In his field, Mr Senyonga has 150 operating beehives from which he harvests honey twice a year. A beehive of 1.5 m high yields about 20 litres of honey which he sells at UG Sh 150,000 -170,000.

#### **Notes from SLM group:**

The beehive designed by Mr Senyonga represents an improvement compared to the traditional one which makes use of tree trunks. With the improved design no tree cutting is necessary in order to satisfy the demand of the flourishing honey market. However, Mr Senyonga makes abundant use of cow dung to coat his beehives. The cow dung would serve a better purpose however if applied to the soil so as to increase its fertility. Mr Senyonga was advised by the SLM group to look for an alternative glueing material. Additional advice was given on how to improve the overall status of his land through in-field practices (eg intercropping) and agroforestry.



## **Section II: Curriculum Development Workshop**



## Annex E: Workshop programme

Day one: 9 March 2009	Activity	Responsible person
<b>MORNING ACTIVITIES</b>		
9:10 – 9:15	Welcome speech	Christine Nantongo (ED Environmental Alert)
9:15 – 9:30	Official opening	Dr Gorettie Nabanoba (Dean Faculty of Forestry and Nature Conservation, Makerere University)
9:30 – 9:35	Opening remarks from PROLINNOVA International representative	Laurens van Veldhuizen (PROLINNOVA secretariat)
9:35 – 9:40	Synthesis of previous activities and objectives of the workshop	Sabina Di Prima (CIS – VU University Amsterdam)
9:40 – 10:00	Round of self-introduction	All participants
10:00 – 10:30	Uganda: presentation of CD experience	Moses Tenywa
10:30 – 10:45	Round of questions and discussion	Pamela Marinda (chair)
10:45 – 11:15	- Tea break and group photo -	
11:15 – 11:30	Expectations of participants	All participants
11:30 – 12:00	Nepal: presentation of CD experience	Dharma Raj Dangol
12:00 – 12:15	Round of questions and discussion	Pamela Marinda (chair)
12:15 – 12:30	Pair-work: discussion of Uganda and Nepal experiences (constraints, challenges, lessons and best practices)	All participants
12:30 – 13:00	Plenary discussion	Pamela Marinda (chair)
13:00 – 14:00	- lunch break -	
<b>AFTERNOON ACTIVITIES</b>		
14:00 – 14:30	South Africa: presentation of CD experience	Ernest Letsoalo
14:30 – 14:45	Round of questions and discussion	Dharma Raj Dangol (chair)
14:45 – 15:00	Pair-work: discussion of South Africa experience (constraints, challenges, lessons and best practices)	All participants
15:00 – 16:00	Plenary discussion	Dharma Raj Dangol (chair)
16:00 – 16:30	- coffee & tea break -	
16:30 – 17:00	Wrap-up session	All participants
Day two: 10 March 2009	Activity	Responsible person
<b>MORNING ACTIVITIES</b>		
9:00 – 9:15	Expectations of participants	All participants
9:15 – 9:30	Round of key points day one	Ernest Letsoalo (chair)
9:30 – 9:35	Presentation of SLM course evaluation	Sabina Di Prima
9:35 – 10:15	Cambodia: presentation of CD experience, course demonstration and	Vitou Sam

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	questions	
10:15– 10:45	Ghana: presentation of CD experience and questions	Paul Kwami Adraki
10:45 – 11:15	- coffee & tea break -	
11:15 – 11:45	Ethiopia: presentation of CD experience at Mekelle University and questions	Dereje Assefa
11:45 – 12:15	Ethiopia: presentation of CD experience at Jimma University and questions	Derbew Belew
12:15 – 12:45	Sudan: presentation of CD experience and questions	Abdelaziz Karamalla Gaiballa
12:45– 13:00	Round of questions and wrap up morning session	Ernest Letsoalo (chair)
13:00 – 14:00	- lunch break -	
<b>AFTERNOON ACTIVITIES</b>		
14:00 – 14:30	Tanzania: presentation of CD experience and questions	Mattee Amon
14:30 – 15:00	Kenya: presentation of CD experience and questions	Pamela Marinda
15:00 – 15:45	Pair-work: discussion of Country Programmes' experiences (constraints, challenges, lessons and best practices)	All participants
15:45– 16:00	- coffee & tea break -	
16:00– 16:45	Plenary discussion	Dereje Assefa (chair)
16:45– 17:00	Wrap-up day two and setting up agenda day three	All participants

<b>Day three: 11 March 2009</b>	<b>Activity</b>	<b>Responsible person</b>
<b>MORNING ACTIVITIES</b>		
9:00 – 11:30	Thematic discussion: <ul style="list-style-type: none"> <li>• Framework PID course (group A)</li> <li>• Institutionalisation (group B)</li> <li>• Scaling out (group C)</li> </ul>	All participants
11:30– 11:45	- coffee & tea break -	
11:45– 13:00	Presentations, questions and plenary discussion	Mattee Amon (chair)
13:00 – 14:00	- lunch break -	
<b>AFTERNOON ACTIVITIES</b>		
14:00 – 15:00	Group discussion: <ul style="list-style-type: none"> <li>• Community of Practice on PID in universities</li> <li>• Joint- proposal and fund raising</li> </ul>	All participants
15:00 – 15:45	Plenary discussion	Vitou Sam (chair)
15:45– 16:00	- coffee & tea break -	
16:00– 16:45	Synthesis of discussion & future planning	Sabina Di Prima
16:45– 17:00	Closing remarks	Laurens van Veldhuizen, William Critchley Mattee Amon

## Annex F: Information on participants

Country	Name	Profile
Cambodia	Sam Vitou (MSc) 	Director of the Cambodian Centre for Study and Development in Agriculture (CEDAC), Phnom Penh, Cambodia. Lecturer at the Faculty of Agriculture and Rural Development of the International University (IU), Phnom Penh. Responsible for teaching undergraduate students at IU on the topic of Participatory Innovation Development and Community Based Natural Resources Management. Has supervised students supported by PROLINNOVA Cambodia programme. Currently working with the Royal University of Agriculture, Kampong Cham National School of Agriculture, and Prek Leap National School of Agriculture facilitating student/lecturer-centred learning. Has worked with PROLINNOVA since 2006. In 2007, became national coordinator. <a href="mailto:samvitou@online.com.kh">samvitou@online.com.kh</a>
Ethiopia	Derbew Belew (PhD) 	Head of School of Agriculture, Coordinator of the Postgraduate Program of Jimma University, College of Agriculture and Veterinary Medicine. Also coordinator of the PROLINNOVA Ethiopia Coffee-based platform. PhD in horticulture. In the past, served as Dean of Students, and Head of Continuing and Distance Education Division of Jimma College of Agriculture. Involved in various Curricula Development endeavours of the Jimma College of Agriculture, especially in Horticulture. Has not been previously involved in innovation-based Curriculum Development activities. <a href="mailto:dbelew2002@yahoo.com">dbelew2002@yahoo.com</a>
Ethiopia	Dereje Assefa, Aberra (PhD) 	Director, University Industry Community Linkage of Mekelle University. Assistant Professor of Plant Pathology at the Department of Dryland Crop & Horticultural Sciences. He has been teaching post graduate courses of IPM and Research methods in agriculture, currently he is a member of the Agro-ecology curriculum designing taskforce at my university. He also coordinated the curriculum change processes at the college of Agriculture, which was finalized last September. Currently, he coordinates community services/out reach programmes and creates formal links for collaborations. <a href="mailto:derejeaa@yahoo.com">derejeaa@yahoo.com</a>
Ghana	Paul Kwami Adraki (MSc) 	Lecturer at the University for Development Studies, Department of Agricultural Economics and Extension. B Sc in Agricultural Technology (Agricultural Economics and Extension Option) and MSc in Management of Agro-Ecological Knowledge and Social Change (Rural Development Sociology Option), Wageningen University, The Netherlands. Specialised in Rural Development Sociology, Interactive Change Processes, Microfinance, Ethnoveterinary Medicine, Gender and Development. In the area of CD, assisted in developing the CDMT training modules with UDS and Okanagan University of British Columbia for courses in Human Resource Management, Monitoring and Evaluation etc. Is assisting Dr. Obeng (M&E focal person) on the CD aspects of PROLINNOVA activities in Ghana. Previous engagement with PROLINNOVA- assisted with LISF Study for Ghana Country programme. <a href="mailto:porldraki@yahoo.com">porldraki@yahoo.com</a>

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Kenya	<p>Pamela Marinda (PhD)</p> 	<p>Lecturer at the Masinde Muliro University of Science and Technology, Kenya. Obtained her MSc in Home Economics from Kenyatta University in 2001. She participated in the Master of Science programme, «<i>Agricultural Sciences, Food Security and Natural Resource Management in the Tropics and Sub-tropics</i>» at the University of Hohenheim. From 2002 to 2005, she worked as a research associate at the Institute of Agricultural Economics and Social Sciences in the Tropics and Sub-tropics at the University of Hohenheim. In 2005, she was awarded a PhD in Agricultural Economics from the University of Hohenheim. In 2007 became the coordinator of Kenya PROLINNOVA Country Programme.</p> <p><a href="mailto:ayiera@yahoo.co.uk">ayiera@yahoo.co.uk</a></p>
Nepal	<p>Dharma Raj Dangol (PhD)</p> 	<p>Associate Professor at the Institute of Agriculture and Animal Science, Tribhuvan University, Rampur, Chitwan, Nepal. Responsible for teaching undergraduate and post-graduate students as well as supervising students supported by PROLINNOVA Nepal program. Secretary of the Subject Matter Committee of Agriculture Environmental Science of the IAAS. The main responsibility of the committee is to develop and revise curriculum in areas such as Agrobiodiversity, Conservation Ecology and PID. Working with PROLINNOVA since 2006 as focal person from the Institute of Agriculture and Animal Science, Tribhuvan University. In the past, participated and presented his work related to indigenous knowledge (ethnobotany) in the PROLINNOVA meetings and workshops in Nepal and Africa (Senegal and Ethiopia). Since 2006, involved in PROLINNOVA CD activities, more specifically the design of two courses: for BSc and MSc Agriculture.</p> <p><a href="mailto:dharmadangol@hotmail.com">dharmadangol@hotmail.com</a></p>
South Africa	<p>Ernest Letsoalo (MSc)</p> 	<p>Coordinator of the Centre for Rural Community Empowerment (CRCE) which is an outreach programme of the School of Agricultural and Environmental Sciences, University of Limpopo (TURFLOOP CAMPUS). His role is to manage the centre's staff and implement outreach activities of the school as well as teach agricultural Extension courses to all the second, third and final year BSc. Agric students. Master's in agricultural extension (M.Agric. Exten.). Even if not directly involved with CD activities in the University, he started pushing indirectly towards PROLINNOVA CD activities by involving master's students in the monthly PROLINNOVA Provincial Task team meetings. He also included some Participatory methodologies (e.g PID and PEA) in one of the courses he teaches. The course is taken by third and final years BSc Agric students. Member of PROLINNOVA SA NSC since its inception in 2004 as the coordinator for PROLINNOVA activities in the Limpopo Province.</p> <p><a href="mailto:ernestl@ul.ac.za">ernestl@ul.ac.za</a></p>
Sudan	<p>Abdelaziz Karamalla Gaiballa (PhD)</p> 	<p>Associate Professor Sudan University of Science and Technology and Dean of the Institute for Family and Community. Previously, was Dean of the college of Forestry and Range Science. PhD in Natural Resources and Pastoral Communities Development. Diversified experience in research, teaching, field work, and consultancies.</p> <p><a href="mailto:gaiballa@gmail.com">gaiballa@gmail.com</a></p>

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Tanzania	<p>Amon Z. Mattee (PhD)</p> 	<p>Associate Professor in the Department of Agricultural Education and Extension and Director of the Development Studies Institute. PhD in Agricultural Education and Extension which covered aspects of curriculum development.</p> <p>In the past, was Head of Department, Associate Dean, and Director of the Centre for Sustainable Rural Development and Coordinator of the University Teaching and Learning Improvement Programme. Has throughout had occasion to be involved in Curriculum Development.</p> <p>Linked to PROLINNOVA through PELUM – and specifically through his coordination of the ULUGURU MOUNTAINS AGRICULTURAL DEVELOPMENT PROJECT (UMADEP) which uses participatory approaches in promoting sustainable land use management. Has not been directly involved in PROLINNOVA CD activities in the past.</p> <p><a href="mailto:zmattee@suanet.ac.tz">zmattee@suanet.ac.tz</a></p>
Uganda	<p>Moses Tenywa (PhD)</p> 	<p>Director of Makerere University Agricultural Research Institute, Kabanyolo (MUARIK). As Associate Professor of Soil and Water affiliated to the Department of Soil Science he has taught graduate and undergraduates, supervised 4 PhD and 20 MSc over a period of over 17 years. Engaged in outreach activities particularly using soil test kit to add value to indigenous knowledge. Currently focussed on facilitating multi-stakeholder learning innovation platforms to generate experiences for switching university teaching practice to student centred facilitated learning. In the past, attended one of the PROLINNOVA training workshops.</p> <p><a href="mailto:tenywamakooma@yahoo.com">tenywamakooma@yahoo.com</a></p>
Uganda	<p>Lukman Mulumba (PhD)</p> 	<p>Lecturer, Department of Soil Science, Makerere University. He has taught graduate and undergraduate students. Supervised 1 PhD and 4 MSc. Engaged in research and outreach programs in Soil and water management.</p> <p>Has previously worked with the Ministry of Agriculture as an agriculture officer, the National Agricultural Research Organisation as a Research Officer. Lukman also worked with ActionAid Uganda's Farmer Participatory Research for two years.</p> <p><a href="mailto:lukman@agric.mak.ac.ug">lukman@agric.mak.ac.ug</a></p>



**Annex G: Workshop proceedings**



**PROLINNOVA  
International Curriculum Development Workshop.**

**Makerere University, Uganda,  
9-11 March 2009**

**Summarised proceedings**

## Introduction

The first PROLINNOVA International Curriculum Development workshop took place from 9-11 March 2009 at the Faculty of Food Science and Technology at Makerere University, Kampala, Uganda. The workshop brought together university representatives from nine PROLINNOVA Country Programmes (Cambodia, Ethiopia, Ghana, Kenya, Nepal, South Africa, Sudan, Tanzania and Uganda), three IST members (Laurens van Veldhuizen, William Critchley and Sabina Di Prima) and Mr Ronald Lutalo (coordinator Uganda Country Programme) as host.

As for the SLM training course, the actual implementation of the workshop was made possible by the joint financial contribution of PROLINNOVA and the nine involved Country Programmes (CPs).

The workshop had multiple objectives:

1. Share lessons and best practices on integration of PID approaches into agricultural education and training curricula;
2. Develop a framework course on Participatory Approaches in Agricultural and NRM focussing on PID methodology;
3. Discuss the way ahead for the development of the PROLINNOVA CD sub-programme; and
4. Strengthen the PROLINNOVA network / communication around the thematic area of CD

The original schedule of the workshop was adjusted and kept flexible in order to accommodate the needs and expectations of the participants. The actual schedule of the three-day workshop is presented in Section II, Annex E of this report.

## Opening session

The workshop began with a welcome speech by Mrs Christine Nantongo, executive director of Environmental Alert, followed by the official opening speech by Dr Gorettie Nabanoba, Dean, Faculty of Forestry and Nature Conservation, Makerere University. Mr Laurens van Veldhuizen made some opening remarks on behalf of the PROLINNOVA secretariat. The opening session was concluded by Ms Sabina Di Prima, CIS-VU University Amsterdam, who made a synthesis of past PROLINNOVA CD activities and ideas for the future.

The key points made in the opening session are summarised in the circulated note – as follows:

*The international PROLINNOVA programme's main objective is to promote participatory approaches to farmer-led innovation and experimentation in ecologically-oriented agriculture and Natural Resource Management (NRM). As part of this programme, the PROLINNOVA partners have chosen Curriculum Development (CD) and specifically the integration of Participatory Innovation Development (PID) approaches into higher education systems as one of its focal areas of attention.*

*Curricula in developing countries are under many contradictory pressures such as the reliance on classical top-down models of curriculum development which are very product oriented, and on the other hand innovative participatory approaches focused on the 'learning process'. At the same time, educational institutes in developing countries are burdened with many challenges in terms of capacity, resources and governance.*

*PROLINNOVA can play an important role in alleviating and addressing the above-mentioned pressures and challenges by stimulating improved curricula and improved capacity in developing countries. The concept of PID can be crucial hereby as it can stimulate documentation and exchange about what is already being changed within the universities and colleges, which could then lay the basis for mutual learning about how this could be done better.*

## PROLINNOVA: International Curriculum Development workshop and SLM training

*PROLINNOVA's commitment in the area of CD was strongly emphasised during the international partners' meeting in Cambodia in March 2006 and continues up until now. Your participation in this workshop – sponsored by PROLINNOVA with co-contribution from your nine Country Programmes (CPs) - is evidence of it.*

*Several steps have been made since 2006. The most relevant of these are the development of a proposal to set up a sub-programme on Participatory Curriculum Innovation Development (PCID) under the general Prolinnova programme. PROMOTED is the short title of the proposal which represented the outcome of a joint effort and close collaboration between nine Country Programmes (CPs) and the international support team. PROMOTED which stands for Promoting Participation and Innovation in Agriculture and Natural Resource Management Education was submitted to the African, Caribbean and Pacific (ACP) – European Union (EU) cooperation programme in Higher Education (EDULINK).*

*Even though the proposal was not funded, it set the basis for future collaboration. In parallel, CPs have continued working in this area and explored how attention to participatory research and development approaches can be strengthened in the curricula of universities and how experiences of Prolinnova partners can help in this. Successful examples come from various CPs: Nepal, South Africa, Ethiopia, Ghana just to mention some. The challenge now facing the PROLINNOVA partners is to find viable, practical ways to systematically exchange experiences and learn from each other.*

*This brings us to the objectives of this workshop: three intensive days to cover four main objectives:*

- 1. Share lessons and best practices on CD (taking stock)*
- 2. Develop a framework course on Participatory Approaches in Agricultural and NRM focussing on PID methodology*
- 3. Discuss the way ahead for the development of the PROLINNOVA CD sub-programme*
- 4. Strengthen the PROLINNOVA network / communication around the thematic area of CD*

*This should be possible if we share ideas, mutually support each other and thereby come to a common understanding of the way forward.*

### **Participants' expectations**

Participants were asked to write their expectations of the workshop on cards. For practical reasons, this exercise was actually done at the beginning of the second day but it didn't affect the smooth continuation of the process. On the contrary, it provided useful input for the planning of the last day.

A variety of expectations were indicated by the participants. These could be grouped as follows (details in Table 1):

- To learn more about PID and its utility for research and extension practice;
- To share experiences, materials and proposing a mechanism for creating a "Community of Practice" (CoP) among the participants;
- To develop a framework of the PID course as well as modalities for its monitoring and evaluation and ensuring its sustainability;
- To see how best to institutionalize /scale-up PID in higher learning institutions;
- To see how best to scale out PID experiences both within and outside universities;
- To decide how best to carry forward a joint project under EU (EDULINK) or other donors;
- To determine how to address the challenges and constraints that have been identified.

Table 1: Expectations of Participants

<b>Issue</b>	<b>Expectations expressed (cards)</b>
Learn about PID and its utility for research and extension practice	<ul style="list-style-type: none"> <li>• Become familiarized with the utility of PID in research and education</li> </ul>
Share experiences, materials and propose a mechanism for creating a CoP among the participants	<ul style="list-style-type: none"> <li>• Get information that assists in supporting PROLINNOVA (GH) linkage with UDS</li> <li>• Formation of a CD sub-committee within PROLINNOVA International</li> <li>• Develop a “Community of Practice” (CoP)</li> <li>• Concrete ideas on how to work together</li> <li>• Learn from different experiences in different countries</li> <li>• Learn from what other countries are currently doing with CD, PID</li> <li>• Get to know where others are in terms of the PID curriculum</li> <li>• Learning and sharing of experiences</li> <li>• Exchange teaching material on PID and other participatory methods.</li> <li>• Create basis for better sharing of modules, learning materials, presentations in the future</li> <li>• Learn about content of PID in different courses</li> </ul>
Design framework PID course and M & E	<ul style="list-style-type: none"> <li>• Common PID course framework formation</li> <li>• Get common curriculum guidelines on PID</li> <li>• Develop a PID framework that can be adopted by different countries</li> <li>• Design a framework for monitoring of PID curricula</li> </ul>
Institutionalize PID in university	<ul style="list-style-type: none"> <li>• Learn institutionalization process of PID</li> <li>• Explore ways to support individual initiative in the process of PID institutionalisation</li> <li>• Get to know the best approach for mainstreaming PID in our university curricula</li> <li>• Get experience on how to integrate PID in the existing curriculum</li> <li>• Identify means for systematic enhancement for PID to be part of the curriculum</li> <li>• Identify ways for mainstreaming PID concept in existing modules</li> <li>• Develop ideas for PID pedagogy</li> <li>• Set guidelines for PID/CD sustainability</li> </ul>
Scale out PID experiences both within and outside universities	<ul style="list-style-type: none"> <li>• Understand challenges and ways to scale out</li> <li>• Sustainability of PID curriculum</li> <li>• Quality assurance</li> <li>• Scale out success stories of innovation and IK</li> </ul>
Joint project	<ul style="list-style-type: none"> <li>• Promote the EDULINK project for institutional capacity building</li> </ul>
How to address challenges and constraints	<ul style="list-style-type: none"> <li>• Discuss possible ways to address the challenges/ constraints highlighted by the participants</li> </ul>

## Sharing CD Experiences: Presentations from Country Programmes

The first two days of the workshop were devoted to presenting experiences from various countries, clarifying discussions alternated with pair wise analysis of cases using cards. Two cases (Nepal and South Africa) directly discussed experiences with incorporating PID in universities' curricula, whereas the others presented related experiences and served to show opportunities as well as constraints for integrating PID in university teaching and research.

Below is a brief overview of the experiences in the order they were presented. The overview consists of an outline of selected slides and key points raised after each presentation. (The full-fledged presentations can be made available upon request).

### Day One: 9 March 2009

#### Uganda

**Title of presentation:** *Curriculum Review and Content Development*

**Presenter:** *Dr Moses Tenywa, Director Makerere University Agricultural Research Institute, Kabanyolo (MUARIK)*

#### **Makerere University strategic plan 2008/09-2018/19 (SLIDE 5)**

Seeks to reposition Makerere University to be able to meet emerging development challenges  
Strategic foci:

- Learner-centred problem based instruction providing experiential and flexible learning
- Research driven university where research and teaching/learning are mutually reinforcing
- Knowledge transfer partnerships and networking

#### **Approaches to curriculum development (SLIDE 7)**

- Strategic academic quality assurance-framework
- Student experiential learning and review of curricula
- Multi-stakeholder learning approach to curriculum review, design & content development

#### **Student experiential learning and review of curricula-service learning (SLIDE 8)**

- Active participation of learners
- Identification and addressing challenges
- Documentation
- Sharing experiences and lessons learnt

#### **How is it implemented at MUARIK? (SLIDE 9)**

- Learners are grouped into manageable teams with selected team leaders
- The different teams are assigned to different service units
- Each member in different teams identifies ranks and documents challenges in the different service units
- Brainstorming challenges and solutions
- Team reports are compiled and submitted to the service learning coordinator.
- Action on different challenges
- Reflection on the action
- At the end of each working period, teams are interchanged in the different service units.
- Learners share their experience through a joint report, or play (drammer)

The key points /comments that were raised in relation to this presentation were:

**1. To what extent are you involving those lead agriculturalists in your pilot experiential learning and review of curricula services?**

**Answer:**

- Through one of the strategic foci of the University, eg the multi-stakeholders partnership there is an attempt to address them.
- However, it is important to identify the most relevant people and invite them to workshops in the future.

**2. Is the approach of experiential learning applied only to the soil science course, but also to other fields?**

**Answer:**

- In operationalising the approach, we are looking to the different value chains and all different innovation platforms for example the livestock value-chain. Soil science is also important with respect to its potential value chain. So the approach looks at all aspects of the value-chain.

**3. Is there any systematic way in which the academic staff are trained to put the PID concept into their respective syllabi?**

**Answer:**

- To address this issue we are working with the quality assurance teams, which are directly responsible for this.

**4. How do you internally link/interact to share experiences of this way of learning approach?**

**Answer:**

- We had training and implementation of IAR4D research linking different stakeholders; we also encourage internal and external links, for example in producing teaching materials jointly, through incorporating various experiences.

**5. Do you start such experiential learning approaches during the first or last year of the course?**

**Answer:**

- The approach is started in third year of the program at the Faculty of Agriculture.

**6. Is the approach already institutionalised in all the faculties in the University?**

- Basically it is an individual effort than being institutionalised, so most faculty staff use the traditional teaching approach.

**Nepal**

**Title of presentation:** *Integrating Participatory Innovation Systems in Academic Institutions*

**Presenter:** *Dr.Dharma Raj Dangol, Tribhuvan University (TU), Institute of Agriculture and Animal Science, Rampur, Chitwan, Nepal*

**Six steps in Curriculum Development (Nepal) (SLIDE 2)**

- Consultation (In-house and International)
- Prepare draft outlines for course curriculum
- Sharing draft outline of course curriculum
- Approval from "Ag Environmental Science Subject Matter Committee (IAAS/TU)"
- Approval by Faculty Board (TU); Approval by Academic Council (TU)

**Status of new courses focused on PID (SLIDE 9)**

- Approved BSc Ag & MSc Ag courses by Subject Matter Committee (Ag Env.Sc.) 2007
- Approved MSc Ag Participatory Innovation Research and Development Studies (2+1) by Faculty Board February 25, 2009

**Capacity building amongst faculty members (SLIDE 11)**

## PROLINNOVA: International Curriculum Development workshop and SLM training

- Participation in seminar and talk programs - 2006
- Participation in workshop and interaction programs - 2006
- Study visit: 2 faculties - 2007
- PROLINNOVA International Meeting - 2007
- PID: Training for Facilitators - 2007
- Cross-country visit - September 7-14, 2008
- Participated in the NWG meetings 2006-2008
- Participated in SLM Course - March 2009

### **Capacity building of students in PID (SLIDE 21-22-23)**

- a. Through thesis scheme
  - Academic year: 2006-2008  
MSc Student identified: Ram Hari Timsina  
Advisors: Prof. Badri Bahadur Singh Dongol, Dharma Dangol, Narayan Joshi  
Thesis Title: "Assessment of documentation, promotion and dissemination of local innovation: a case of Chitwan and Dhading districts of Nepal"
  - Academic year: 2007-2009  
MSc Students: 2 (1 student is conducting thesis research)  
Advisors: JP Datta, PP Regmi, DR Dangol  
Thesis Title: "Local Innovation Documentation and Economics of Production and Marketing of Apples from Mustang District of Nepal"
- b. Participation in talk program & seminars (many students attended the seminar of Dr. Pratap, Mariana and Suman)- 2006
- c. Participation in PID training (4 students)- 2006
- d. Participation in Policy Workshop & Innovators Interaction Programs (8 students)- 2006
- e. Participation in NWG meeting (1 student)-2007

### **Integration into existing courses (SLIDE 25)**

BSc Ag. : Fundamentals of Ethnobiology

- Practical exercises eg: "Inventory of local innovations"- in 2007
- An exam question on PROLINNOVA eg: "PROLINNOVA Nepal program is an important program for strengthening ethnobiology/ ethnobotany education at IAAS. Justify your answer with suitable examples"

Ecological Research Methods

- Students (conservation ecology) met Suman Manandhar in 2007 to understand about PID in PROLINNOVA Nepal Program

### **Establishment of a knowledge centre for the promotion of local innovation (SLIDE 29-30)**

Components or Units of Resource Centre (RC)

- Museum/local innovations collections
- Ethnobotanical garden (Ecological Agricultural Park)
- Art gallery (Innovators & their Innovation/Promoters)
- Library and Documentation Unit
- Research & Training Unit (educators, research associates)

### **Future plans (SLIDE 41)**

- Preparation of educational materials including course packs
- A new building as a Local Knowledge and Innovation Resource Centre for displaying the collections of information on local innovations and indigenous knowledge on agriculture and NRM
- Large scale collection of information on local knowledge and innovation(s) from all over Nepal
- Capacity building of faculties, students, and staff through academic and non-academic approaches
- Exchange Program for faculties and students
- Conducting PhD in PID
- Longitudinal participatory research program on local knowledge and innovation development
- Conducting training courses

The key points /comments that were raised in relation to this presentation were:

**1. There appears to be an overlap between participatory courses designed for undergraduate and postgraduate level: so if they have done it at the BSc level do they have to take it again at post-graduate level?**

**Answer:**

- The undergraduate course is a core (compulsory) course for all BSc agricultural students, but MSc level it is an elective course, so they are not obliged to take it again, except for MSc students at the department of Environmental science, where it is a compulsory course.

**2. How do you introduce the PID course into the existing curricula, and have you displaced one course to replace it with PID?**

**Answer:**

- In the undergraduate curricula, we may have to displace other less relevant courses to introduce a new course. However this requires the approval of various curriculum/subject matter personnel, the faculty board and ultimately the academic council. At post graduate level, it is possible to introduce important/relevant courses without displacing an existing course.

**3. Without building sustainable capacity in the PID approach, how risky is it to rely on (your) individual commitment only? For example if you leave the institution?**

**Answer:**

- Realising this potential risk, I am training others. We are working to develop a new generation by introducing MSc and PhD thesis work on PID-related issues.
- As part of the capacity building process, teaching materials are prepared in collaboration with other staff (eg from the Extension Faculty).

**4. What was the most challenging issue you faced in promoting PID?**

**Answer:**

- To convince myself to change my professional career (ie as a botanist) into a broader professional outlook embracing the innovation system philosophy.
- Secondly an overload of tasks, as the focal person for creating and maintaining links with institutions and farmers. The job/task is time demanding and creates pressure in all educational tasks (supervising, teaching, publishing, research articles, etc.)

**5. In both the MSc and BSc courses you principally focused on the relevance of local innovation: so how do you treat other participatory approach or tools?**

**Answer:**

- We also have participatory courses focussing on participatory approaches/methodologies; but in these MSc and BSc courses we focus on the local innovation approach.

**Follow-up Comments:**

- In the courses syllabus, instead of giving lectures focused on PROLINNOVA and LISF it would be better to focus on the philosophy of PID and use these as case studies/examples of its application.
- To ensure sustainability of the introduced courses, it would be good to integrate the concept of PID into the strategic plan, mission statement and quality assurance elements/criteria of the University.
- When you consider capacity building in PID, you should also look at partnership and linkage strengthening.

## **South Africa**

**Title of presentation:** *Integrating PID into curricula*

**Presenter:** *Mr Ernest Letsoalo, Centre for Rural Community Empowerment (CRCE), School of Agricultural and Environmental Sciences, University of Limpopo (TURFLOOP CAMPUS).*

## PROLINNOVA: International Curriculum Development workshop and SLM training

Mr Ernest Letsoalo presented on behalf of the University of Limpopo and University of Kwa Zulu-Natal.

### Introduction (SLIDE 2)

- PROLINNO SA –active in four of the nine Provinces of SA.
- Two institutions (University of Limpopo- UL and University of Kwa-Zulu Natal- UKZN) are members of the PROLINNOVA SA NSC.
- Both Universities have outreach programmes for rural development:
  - Centre for Rural Communities Empowerment/UL
  - Centre for Environmental and Agricultural Development /UKZN

### Experiences from UL & UKZN (SLIDE 5- 8)

Description	UL	UKZN
Course	Introduction to Agricultural Extension	Extension Methods (Communication and Innovation)
Degree	Bachelor of Agricultural Science (Soil, Animal, Plant and Agric. Economics)	Batchelor of Agriculture (Rural Resource Management)
No. of Students	Around 40 students or more	Average 35 students
Programme	Agricultural Extension	Humanities
Level	Undergraduate and Post Graduate Degree ( CRCE interns)	Undergraduates
School and Department	School of Agriculture and the Environment ( CRCE )	School of Environmental Sciences (CEAD)
Proportion of PID	One week out of semester course	One hour out of 36 hours
Topics covered in PID	<ul style="list-style-type: none"> <li>- Basics about PID,</li> <li>- Identifying Farmer innovations</li> <li>- Role players in PID</li> <li>- PID as a methodology</li> <li>- Importance of PID</li> </ul>	<ul style="list-style-type: none"> <li>- Local innovation(s)</li> <li>- Farmer innovations</li> </ul>
Practicals	No practicals for undergraduates	<ul style="list-style-type: none"> <li>- Field trips</li> <li>- Identification of farmer innovations</li> </ul>
Methods used	<ul style="list-style-type: none"> <li>- Class discussions</li> <li>- Assignments</li> <li>- Examination</li> </ul>	<ul style="list-style-type: none"> <li>- Journal</li> <li>- Individual presentation</li> <li>- Examination</li> </ul>

The key points /comments that were raised in relation to this presentation were:

Ernest outlined the focus of PROLINNOVA activities basically as it relates to teaching and other activities like community work with the community. A few issues came up in relation to the integration of PID into curricula namely

- a) Still teaching “Transfer of Technology” approaches in addition to the new ideas - and the challenges and confusion this potentially poses.
- b) Challenges of doing practical work and organising field trips because of the limited slot for teaching. The centres currently work to service other departments which have competing times and demanding schedules.
- c) Challenges of involving students as interns and assisting with the documentation process of PROLINNOVA and presentation of documents as research papers that can help in the documentation process of PROLINNOVA activities.

- d) Methodologies employed for teaching and assessment including practical sessions, lectures, group assignments and exams. The distinguishing feature is that the University of Limpopo has one week out of a semester on PID, and the University of Kwa Zulu Natal has only one hour out of 36 hours.

**Questions:**

1. **Innovations focused on homelands. What about emerging small-scale commercial farmers/innovators? Is innovation on the basis of individual technical or community/social innovations?**

**Answer:**

The response was that students were introduced to the process and were involved in studying how innovations have evolved with farmers who have recently been beneficiaries of cattle. They work also with farmers' groups, community groups and cultural groups, and they also have a platform for farmers through which ideas are shared.

2. **As a lecturer, how do you handle participatory approach issues while teaching the transfer of technology approach?**

**Answer:**

The response was that the TOT is taught to students to explain why it failed and how we can adjust to make it work better. Participatory approaches are presented as a viable alternative. There is also a community of lecturers who embrace the concept of participatory methods as part of a general approach.

3. **How, in the full semester, is the teaching of PID/participatory approaches allocated?**

**Answer:**

The response was that one week covers participatory methods and there may be a little time allocated for on-farm trials.

4. **How is documentation carried out in relation to the South African programme?**

**Answer:**

The response was mainly through posters on local innovation, and also video documentation.

5. **Another question related to the fact that participatory approaches are relatively new – and thus how is it best to teach them?**

**Answer:**

The answer was that PID can be introduced in three ways (i) have a specific dedicated course; (ii) integrate into an existing course and/or (iii) make it a cross cutting theme.

6. **Another question dealt with the capacity (i) whether Ernest was the only one teaching the course; and (ii) after the training, how do students incorporate the training into the other courses or situations they deal with.**

**Answer:**

The answer to the first question was that since 2006 he was teaching alone but now has a colleague who assists (but has not been specifically trained in PID). The response to the second question was through assignments, and encouraging students to see the relevance of participatory methodology in practice.

7. **It was asked whether there were any guidelines to assist the teaching of the course in the absence of the lecturer.**

**Answer:**

The response was that the contents of the course serve in themselves as a guide for teaching.

**Day Two: 10 March 2009**

**Cambodia**

**Title of presentation:** *Participatory Action Research* (course demonstration)

**Presenter:** *Mr Vitou Sam, Centre d'Etude et de Développement Agricole Cambodgien (CEDAC).*

**Main Course for BSc in Agriculture and Rural Development (cont.) (SLIDE 4)**

VI. Community Development (9)

- Community Participation and Empowerment (3)
- Participatory Action Research and Extension (3)
- Community-based organizations (3)
- Community-based natural resources management (3)
- Community-based tourism (3)

**PAR course programme (SLIDE 6-7-8)**

- 1: Introduction: Terminology - evolution of an approach
  - Research/researcher/participation.
  - Green revolution concept
  - Green revolution versus farming system approach
  - Why failure of farmers to adopt new technologies
- 2: Main component and characteristic of PAR (1)
  - The problem originates in the community itself and is defined, analyzed and solved by the community
  - The ultimate goal of the research
  - Participatory research involves full and active participation
- 3: Main component and characteristic of PAR (2)
  - PAR involves a whole range of powerless groups of people
  - The process of PAR can create a greater awareness of people
  - In PAR the researcher is a committed participant
- 4: Types of participation in development program
  - Passive participation
  - Participation in information giving
  - Participation by consultation
  - Participation for material incentives
  - Functional participation
  - Interactive participation
  - Self-mobilization
- 5: Theory of social change and participatory action research: (1) PAR and theory
  - Participatory action research in community development
  - Theories of social change in relation to the focus of research and the nature of change
- 6: Theory of social change and participatory action research: (2) Some participatory approaches
  - Summary of assumption of participatory research
  - Some participatory approaches
- 7: Participatory research in agriculture (1)
  - Applied research
  - Adaptive research
- 8: Participatory research in agriculture (2)
  - Farming system research (and action)
  - Farmer participatory action (and research)
- 9: Agriculture project approach according to project function
  - Research project
  - Extension oriented project
  - Community development oriented project
- 10: Method of PAR: Six phases of PAR methodology (1)
  - a. Problem identification
  - b. Problem analysis (of possible causes)
  - c. Formulation of (action) hypothesis
- 11: Method of PAR: Six phases of PAR methodology (2)
  - d. Design and implementation of the plan of action
  - e. Data collection and analysis
  - f. Evaluation
- 12: Rapid rural appraisal and Participatory Rural Appraisal
  - Rapid Rural Appraisal (RRA)
  - Participatory Rural Appraisal (PRA)

The key points /comments that were raised in relation to this presentation were:

## PROLINNOVA: International Curriculum Development workshop and SLM training

- All universities in Cambodia teaching agriculture have been encouraged to join PROLINNOVA.
- A small fund was provided to each university to facilitate staff and students to work with farmers on joint experimentation. The aim is to improve the innovation development system so that technical as well as social innovations can be identified.
- Lecturers are also stimulated to come together regularly to share their experiences in lecturing on PID.
- Universities are integrating PID into existing courses because it is very challenging to change existing university curricula.
- Cambodia is also working with private universities because they are more flexible in matters of curriculum than public universities.
- It was noted that the PAR course that was presented did not mention PID or local innovation per se!

### Ghana

**Title of presentation:** *Experiences in Curriculum Development: the field practical training programme of the University for Development Studies, Tamale, Ghana*

**Presenter:** *Mr Paul Kwami Adraki, University for Development Studies, Tamale, Ghana*

#### **Distinguishing features of UDS (SLIDE 9)**

- The curricula of the faculties of the UDS emphasize community entry, community dialogue, extension and practical tools of inquiry
- Students are continuously encouraged to discuss the importance of indigenous knowledge and how that knowledge can be effectively combined with scientific knowledge
- PRA, PTD and behaviour change communication (BCC) methodologies are incorporated in appropriate places in various curricula to ensure that students appreciate the poor as partners in attempts to reduce or eradicate poverty

#### **UDS and the 3rd trimester programme (SLIDE 11-12)**

- The UDS calendar is divided into three trimesters of 14, 14 and 8 weeks
- In the third trimester (of 8 weeks), all students in all faculties (except MSc students) live and work in rural community settings
- Students identify development challenges, goals and opportunities with the people and design ways of working towards meeting those goals and aspirations together
- With the Third Trimester Field Practical Programme (TTFPP), students acquire nearly a year of field practice, sandwiched into their four-year programme

#### **Emerging challenges (SLIDE 15-16)**

- The programme started in 1993 with only 35 students. It now averages about 5,000 students - putting pressure on resources of the University
- Low student/lecturer contact hours in the field
- Inadequate documentation and dissemination of rich experience from the field
- Problems of the assessment and grading, where external evaluators grade unjustifiably too high or too low
- The absence of permanent units or structures within the faculties/schools to be responsible for the TTFPP. Responsibilities currently on a few people who are over tasked
- Poor orientation of partners

#### **Sustainability and future plans (SLIDE 17-18)**

- A more proactive stakeholder involvement in the financing of the programme
- Intensify fund mobilisation drive. Currently students and University alumni are willing to pay a special fee towards running the programme
- External sourcing of funds by university authorities
- University setting aside 30% of the academic facility user fees and 10% of funds generated from application fees for the TTFPP
- Comprehensive orientation of communities by field co-ordinators

**Some practical advice** (SLIDE 19-20)

- At the design and curriculum development stage, consultation should be as wide as possible. This ensures “buy-in” by the various constituencies
- Non-traditional approaches require committed, bold and consistent leadership able and willing to set the tone in robust language in order to deal with a sceptical audience and a potentially hostile reception from the establishment
- There is need for orientation and re-orientation for academic staff, most of whom have been trained in “traditional environments” and might not have been exposed to the importance of local innovation.
- This requires the need to exhibit great patience in dealing with people who need time to adjust to the process
- There is a need for careful scrutiny of institutional statutes, procedures and processes to ensure consistency with the innovation development process
- The innovation development process calls for hard work!

The key points /comments that were raised in relation to this presentation were:

- Community involvement is enshrined in the vision and mission of the University.
- The TTFPP is additional to other practicals that are conducted within the trimester as required for each degree programme.
- There is an introductory course that serves to orient students on the TTFPP.
- There also other regular courses that focus on participatory methodology.
- How to objectively assess students’ performance is still a challenge.

**Ethiopia**

**Title of presentation:** *Participatory Approaches /PID in Agriculture & NRM at Mekelle University* (experience and course demonstration)

**Presenter:** *Dr Dereje Assefa, Director, University Industry Community Linkage of Mekelle University, Ethiopia*

**Participatory Approaches in Agriculture & NRM at Mekelle University (MU)** (SLIDE 2)

Participatory approaches (PID) in the existing curriculum at MU both at under & postgraduate levels are incorporated in various ways:

- At course level (full course)
- At chapter (s) level in a course
- At sub-chapter level in a course
- Community service (PAP, research eg Agri-Service Ethiopia initiatives)

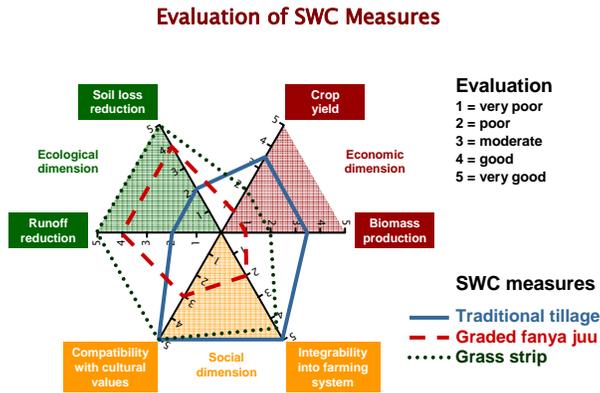
**PID at MU** (SLIDE 3)

- At course level:
  - Participatory Approaches in Cooperatives (Undergraduate level) 2 credit hours [50-60 students per year]
- At chapter (s) level:
  - Plant Breeding (BSc level)
  - Advanced Approaches in Sustainable Land Management (MSc level)
- At sub-chapter/ section level:
  - Farming systems
  - Research methods
- Community service:
  - Research on PID (PAP undergraduate students, PhD & MSc theses, publications)
- Developing a project concept note on ‘*COMUNIC*’
  - Stimulate Knowledge Sharing & Sustaining Linkages between Rural Communities and Agricultural Universities in Ethiopia
- Mainstreaming PID into Curriculum of ATVTV through:
  - Training of Trainers (ToT) to experts of MoA and academic staff from ATVTV, and training within Farmers Training Centres

**PID at MU - A course demonstration (SLIDE 5)**

- A course module and students case study presentation: examples of PID from the Advanced Sustainable Land Management (postgraduate course)
- Indigenous Knowledge & Participatory Technology Development

**Evaluation of SWC Measures (SLIDE 7)**



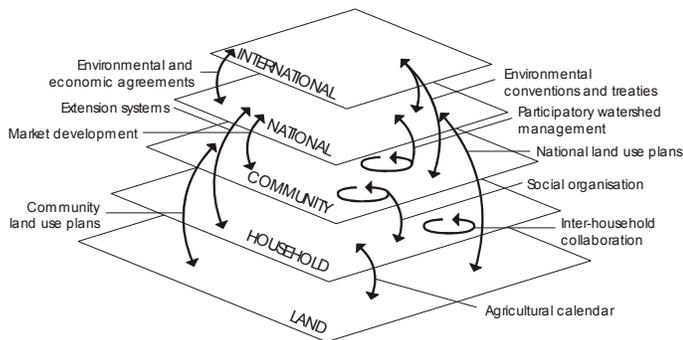
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**Exercise: different perspectives on SWC (Slide 10)**

How would you manage your resources, if you were a ...

- Poor farmer
- Wealthy farmer
- Development agent
- Decision-maker at the regional level

**Multi-Level-Multi-Stakeholder Approach (SLIDE 11)**



The key points /comments that were raised in relation to this presentation were:

- PID has been integrated into the University curriculum at different levels including programme and course levels, and even specific topics/chapters within a course.
- The materials demonstrated were deemed very useful for sharing with other universities.
- While the PID was well mainstreamed in the soil and water conservation (SWC) course that was demonstrated, this was not yet the case for other courses.
- Mekelle is currently reviewing its curriculum to make it more student-centered and this will be an opportunity to insert PID at various levels within the curriculum.

## Ethiopia

**Title of presentation:** Integrating PID in Jimma University Curricula

**Presenter:** *Dr Derbew Belew, Head of School of Agriculture, Jimma University, Ethiopia*

**The Philosophy of Jimma University: Community Based Education (CBE)** (SLIDE 4)

- CBE is a means of achieving educational relevance to community needs
- Uses the community extensively as a learning environment
- Students, teachers, members of the community, and representatives of other sectors are actively engaged throughout the educational experience
- Benefits both the students and the community

**CBE as Entry Point for Integrating PID in Jimma University Curricula** (SLIDE 9)

- PID integrated in various courses
- Identification of farmers innovators and their innovations
- Documenting local innovations
- Identification of problems associated with farmers' innovations
- Prioritization of problems for possible intervention

**Way Forward** (SLIDE 12-13)

- Familiarizing the PID concept among different stakeholders
- Mainstreaming PID in various courses
- Developing PID course content
- Planning joint experimentation
- Strengthening documentation of indigenous knowledge and local innovations under the coffee-based platform
- Creating linkages among different stakeholders to scale up and scale out PID

The key points /comments that were raised in relation to this presentation were:

- There is challenge of how to build the capacity of other staff within the University as a way of scaling out.
- Agri-Service Ethiopia is working on introducing PID in Diploma Training institutions: perhaps PROLINNOVA should consider this possibility as well since it will have a direct impact on frontline extension staff.

## Sudan

**Title of presentation:** Mainstreaming PID in Sudan University of Science and Technology.

**Presenter:** *Dr Abdelaziz Karamalla Gaiballa, Associate Professor Sudan University of Science and Technology.*

**Current situation** (SLIDE 1)

- Many colleges teach and carry out research
- IK and PID are part of rural development courses (extension, rural communities development)
- In Sudan University of Science and Technology there is a separate course for MSc students – Community Forestry (IK and Natural Resource Management)
- Participatory research methodologies are taught in postgraduate and selected undergraduate courses for range management students
- PROLINNOVA NSC has three university staff members
- Efforts are towards endorsement within the University's curricula

The key points /comments that were raised in relation to this presentation were:

- There are more than 15 colleges in the country teaching agriculture. Within the University three colleges are involved in teaching agriculture and NRM.

## PROLINNOVA: International Curriculum Development workshop and SLM training

- The University is currently reviewing its curriculum and this is an opportunity to mainstream PID into existing undergraduate or stand-alone postgraduate courses within the revised curriculum.
- The plan is to bring together a team of like-minded staff to write a book or manual on PID to be used by the different universities.
- The challenge is how can we best market PID as an approach that can be applied in different disciplines.

### Tanzania

**Title of presentation:** *Potential for mainstreaming PID in the curriculum at Sokoine University of Agriculture, Tanzania.*

**Presenter:** *Prof Mattee Amon, Department of Agricultural Education and Extension, Sokoine University of Agriculture, Tanzania.*

#### **BSc Agricultural Education & Extension (SLIDE 3-4-5)**

- Programme has been offered for six semesters
- Aims to train change agents who work directly with farmers
- Provides opportunity for mainstreaming PID into the SUA curriculum
- Some relevant courses within the programme:
  - Extension Methods
  - Introduction to Research Supervised Enterprise Project (SEP)
  - Research Project
  - Participatory Methods
  - Comparative Extension Methods
- In addition: two semesters of supervised practical training comprising field attachment where students can work directly with farming communities
- Currently the programme is under review alongside all other University programmes to incorporate aspects of quality assurance (QA)

#### **Mainstreaming PID (SLIDE 6-7)**

- Learning outcomes relate to Knowledge, Skills and Attitudes (KSA)
- Thus we need to decide what exactly we want to achieve with PID mainstreaming:
  - Do we want to simply sensitize our students to PID?
  - Do we want to impart PID-specific skills?
  - Do we want to change students' attitudes on how they relate to farmers?
- This will have implications on where exactly we insert PID concepts in the university curriculum:
  - At the university mission level
  - At programme goal and objectives level
  - At course or module level

### Kenya

**Title of presentation:** *Integrating PID in University Curriculum*

**Presenter:** *Dr Pamela Marinda, Lecturer at Masinde Muliro University of Science and Technology*

#### **Course development (SLIDE 4)**

- Process started in the 2006/07 academic year
- Committee was set up to develop the curriculum
- Team from USA working with the University team
- Team came up with two courses:
  - Process of Innovation I
  - Process of Innovation II
- Multi-disciplinary approach

#### **Course content (SLIDE 5)**

- Definition of innovation

- Conceptualizing innovation
- Process of innovation

**Emerging challenges (SLIDE 11)**

- Resource constraints:
  - Time
  - Human resources
  - Space
  - Funds
  - Reference material
- Students from different levels on same course?
- Multi-stakeholder approach?
- Process in progress?
- No clear guidelines - esp. on examination

The key points /comments that were raised in relation to this presentation were:

- a. Possibility of making funds available for students (working on PID related activities) on a competitive basis; suggested potential source: PROLINNOVA country program
- b. Making use of existing internal grant for those working on PID

**Questions:**

**1. What was the need to develop these courses?**

**Answer:**

- To make the students more creative to develop skills for potential self-employment.

**2. How do you accommodate students of different discipline (eg medicine)?**

**Answer:**

- This is a point to be considered

**3. Do you feel that PID principles are accommodated in this approach?**

**Answer:**

- Yes, but not fully.

**Country Programmes' experiences: emerging issues and lessons learnt**

During the first two days of the workshop, the presentations by Country Programmes' representatives were alternated with brainstorming (in pairs) on lessons learnt, best practices, constraints / challenges and opportunities for future work.

A considerable number of cards was generated as a result of the brainstorming sessions. Then, cards were clustered and discussed in the subsequent plenary sessions. Below is a record of the card content for each of the four areas of analysis.

<b>Lessons learnt on what is taking place in universities represented:</b>
<ul style="list-style-type: none"> <li>- PID should be in agenda of university (mission and strategy)</li> <li>- Need for endorsement for institutionalisation</li> <li>- Involvement of all partners</li> <li>- Process needs time</li> <li>- Individual dynamic</li>   <li>- Effective introduction of PID at course level</li> <li>- Mainstreaming of PID in various disciplines for example, agriculture, forestry, etc</li> <li>- Streamlining of PID course into learning outcomes (KSA)</li>   <li>- Need to acknowledge value of local innovators</li> <li>- Continuously evolving (improving) and “exploiting” the full potential of IK and LI</li> <li>- Students’ involvement with farmers’ innovations</li>   <li>- Using and borrowing from various partners/networks to develop own program/curriculum</li> <li>- Involvement of NGOs sharing similar objectives</li> <li>- Establishing links, role of outreach centre critical (now funded by the university)</li>   <li>- Development and extension material (eg PROLINNOVA Limpopo leaflet)</li> <li>- Video documentary film</li> </ul>

<b>Best practices:</b>
<ul style="list-style-type: none"> <li>- Use of multipronged approach</li> <li>- Making use of opportunities in ongoing curriculum review processes</li> <li>- Capacity building in PID in mid-level colleges</li> <li>- Involvement of other partners</li> <li>- Systematic inclusion of PCP into the University</li> <li>- Resource centre as an advantage</li>   <li>- Integration of PID into existing courses</li> <li>- Introducing PID into conventional module on extension</li> <li>- Importance of diversity (TOT vs. PID etc)</li> <li>- Integration of PID into other fields like Ecotourism, Ethnobotany</li> <li>- Multidisciplinary: cutting across all disciplines</li> <li>- Introduce PID progressively</li>   <li>- Consider students in CD</li> <li>- Emphasis on student-centred approach to learning</li>   <li>- Use of practical-oriented assignments in the class</li> <li>- Experiential learning</li> <li>- Field involvement (practical training)</li>   <li>- Close linkage with farmers</li> <li>- Community-university cooperation</li> <li>- Documentation of local innovations</li> <li>- Translation of material into local language</li> <li>- Incentives for lecturers working with farmers (joint experimentation):             <ul style="list-style-type: none"> <li>o make it a systematic process to create interest of university</li> <li>o need budget for doing PID</li> <li>o creates opportunities for students’ field visits</li> <li>o possibility of allocating PROLINNOVA funds for research</li> <li>o university setting aside budget for practicals</li> </ul> </li> </ul>

Challenges / constraints:
<ul style="list-style-type: none"> <li>- Changing of mindsets ( especially colleagues) needed</li> <li>- How do we get PID actors to change their mindset? (motivation?)</li>   <li>- Little human capacity for PID education</li> <li>- So: need to building capacity of colleagues</li> <li>- Creating a critical mass of those who can implement PID</li>   <li>- Resource constraints (time, human, materials, funding)</li> <li>- Limited opportunity for practice / lack of practicals</li> <li>- Integration in university curriculum takes time</li> <li>- Takes time to set up a new curriculum and have it approved</li> <li>- Time allocated is often inadequate</li>   <li>- Dependence on the effort of individuals (champions)/ lack of involvement of other staff</li>   <li>- PID integration in university should not depend heavily on external fund</li> <li>- Reliance on external donors for setting up pilot experiential learning(Uganda)</li>   <li>- Sustainability and scaling up</li> <li>- Systematic institutionalisation</li> <li>- Depends on the lecturer's interest</li> <li>- Quality control</li> <li>- Scaling out: limited participation of other faculties</li> <li>- Weak linkage to other disciplines</li>   <li>- Need more commitment and involvement, demand from other organisations</li>   <li>- Best strategy: go for elective course or compulsory one?</li>   <li>- How to find space within the allocated course duration to include PID</li>   <li>- Dangers of curriculum changes by new teachers</li>   <li>- Experiential learning in the field and the classroom</li>   <li>- No clear-cut guidelines for student evaluation system</li>   <li>- Variation on PID from wide approach to promoting local innovation</li>   <li>- Too much focus on technical innovation</li>   <li>- How to resolve conflicts of interest between participating parties?</li>   <li>- In identifying constraints, how can we come to the same perspective as the farmers?</li>   <li>- Course content is too much (Nepal)</li> <li>- Niche course/ Overlap BSc and MSc (Nepal)</li> <li>- Vulnerability in case of students' reduced demand</li> <li>- No clear guidance (sustainability and continuity)</li>   <li>- Lack of course outline/format for teaching(Uganda)</li>   <li>- Lack of PID-based teaching material (South Africa)</li>   <li>- Teaching material, questionable quality control</li> </ul>

<b>Future opportunities:</b>
<ul style="list-style-type: none"><li>- Enabling environment both local and global</li><li>- Take advantage of on-going curricula review processes in order to develop new courses focused on PID / integrate PID into the course content of existing university curricula</li> <li>- Have standard PID curriculum framework internationally with CP case studies</li><li>- Get more ideas to develop one curriculum</li> <li>- Opportunities for guest lecturing across countries; exchange programme among different universities in different countries</li> <li>- Start PhD program in PID through research</li><li>- Scholarships and/or action research with internal funding focusing on participatory approach</li> <li>- PID as cross cutting theme in any ongoing course</li> <li>- Capacity building: train staff from different disciplines on PID education and research</li><li>- Capacity building on PID methodology for more staff</li><li>- Intensive / refresher training</li> <li>- Look for good combination of NGO literature/ with theory/ scientific<ul style="list-style-type: none"><li>o PID-NGO experiences in peer-reviewed journals</li><li>o prepare educational materials on PID</li><li>o "copy left": use of each others' teaching material (eg SLM course PPTs)</li></ul></li><li>- Potential to use existing material for additional courses</li> <li>- International students helping with M &amp; E of CD/PROLINNOVA</li></ul>

## **Focused discussion**

The last day of the workshop focused on the discussion of five key issues perceived by the participants as the most important. These issues were raised in a number of expectation, future opportunity and challenge / constraint cards.

The five key issues for in-depth discussion were:

1. Development of a framework for a PID course
2. PID: institutionalisation /scaling up
3. PID: scaling out within and outside universities
4. Creation of a PID Community of Practice (CoP) among universities/ strengthening of CD PROLINNOVA network /sharing of experiences as well as teaching and learning material
5. Prospective PROLINNOVA CD sub-programme: joint-proposal and fund raising

The first three points were covered in the morning session (one issue per group). Brainstorming in small groups was followed by presentations and plenary discussion. The same approach was used in the afternoon session with the only difference being that each group worked on both remaining issues. Below is a synthesis of the group presentations and main points raised during the discussion.

### **1. PID course framework**

*Discussed by: Dereje, Dharma, Ernest, Laurens and Will*

*Presented by: Laurens*

**Focus:** NRM / Sustainable Agriculture

**Course type:** One on methodology and approach. In other words, the PID course should be a crosscutting course as much as other research methodologies oriented courses.

**Assumption:** PID courses are possible with different lengths, with their own rationale. The framework below applies for all.

**Three types of PID courses are being considered:**

*PID Course A (introductory):* refers to 1-4 hours introduction course; maybe a chapter in another course

*PID Course B (expanded):* 1-2 credit course, over 1 semester generally, BSc level; alternatively the content of such course could be given in a one or two week full time course; eg as in service training for professionals (with specific emphasis)

*PID Course C (specialised):* MSc course- full course and potentially associated research programme.

**Framework has four main content components:**

1. *Evolution of approaches* towards PID knowledge (K) and attitude (A); From TOT to participatory approaches to PID (K, A)
2. *Local or farmer innovation concepts;* comparison with IK/ traditional knowledge; long history of farmers own research, exchange and dissemination; comparison of LI / IK with introduced technologies; comparison with scientific research process; need for hybrid between LI and science.
3. *Methodology*
  - Identification and documentation of FI identification
  - Joint experimentation (roles of different actors)
  - PME
  - Spread / dissemination of LI and joint experimentation results
  - Facilitation community skills
4. *Institutionalisation and scaling of PID/LI*

While the above mentioned four content components will be present in all three type of courses (introductory, expanded, specialised), some topics would be taught more in depth in the longer courses.

**Specific topics to be lengthened /included in longer courses**

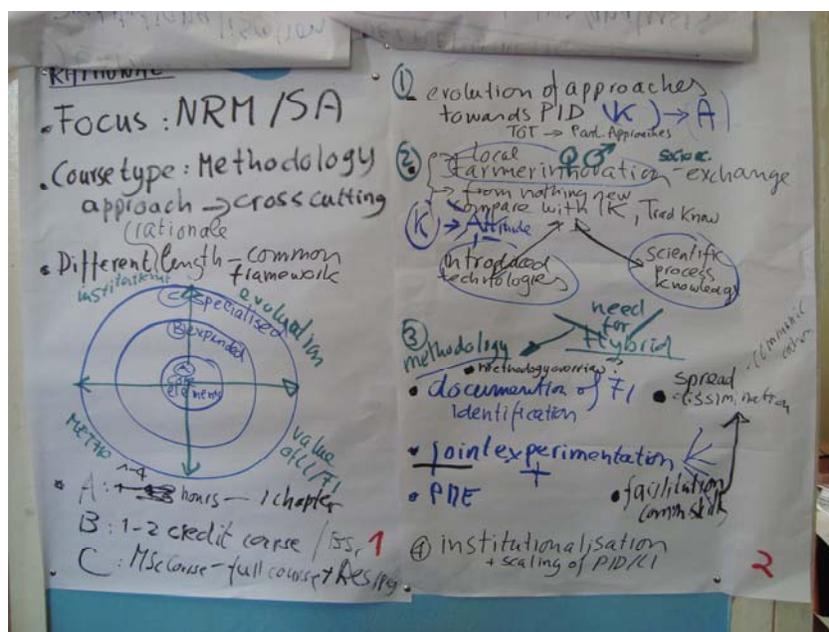
PID Course B (expanded):

- Compare PID with PRA, FFS other participatory approaches
- Values/principles in PID
- Intellectual Property Rights (IPR)
- Farmer Led Documentation (FLD)
- Limitations of PID
- From PID to innovation systems
- PID/LI and adaptation to climate change
- Institutionalisation processes

PID Course C (specialised):

- Incentives for PID and funding mechanisms (eg LISF)
- Methodology part: Research project part
- IPR-policy/laws
- Value chain and marketing

Visually this framework with four content components across 3 course types was represented on the left of the flipchart shown below.



### Delivery approach and methodologies

- Use of case studies and analysis of them
- Use of examples / visuals / FL documentaries at all levels
- PPT / lectures / notes
- Write a summary paper
- Stimulate attitudinal changes through a/o:
  - interaction with farmers (innovators)
  - guest resource persons / peers with PID experiences (provide inspiration)
  - role plays
  - field visits to farmer innovators and experienced PID farmer

### Assessment:

Prevent subjective assessment through:

- Multiple choice examination
- Paper review by 2 supervisors

How to assess attitudinal changes:

- Use simple evaluation/assessment forms at the end of the course; use indirect means, observations

Understanding if attitudinal changes have occurred is not important for grading but mainly for lecturers' knowledge.

The main points raised in the plenary discussion on the PID course framework:

- it was suggested to include communication and facilitation skills within the course.
- participatory methodologies should be included in all course types (A, B, C).
- this framework can be used for BSc and MSc with flexibility
- facilitators / lecturers need grounding in PID
- flexibility necessary in the course contents
- should we consider the framework also for non-formal education?
- need to emphasize PID methodology when training in-service students

## 2. PID: institutionalisation /scaling up

Discussed by: Lukman, Mattee, Ronald, Sabina and Vitou

*Presented by: Vitou*

**Key messages:** *Profile raising on PID, PID champions, lobbying, activate process and use windows of opportunity, link PID to regional (eg RUFORUM), national and international agenda (eg climate change), link to university vision and mission statement.*

**Actors and strategies for institutionalisation of PID in universities (and beyond)**

- **Departments (lecturers, head of departments, students)**

Strategy: profile raising on PID, adoption/adaption of PID methodology, inclusion of PID in courses

Activities:

- profile raising: seminars, workshops, trainings (national and international training workshop), exchanges of lecturers and students, fund allocation and
- Adoption/adaptation: review of teaching methodology
- Inclusion of PID: Use opportunity of curriculum review (theoretical and practical)

- **Faculties (Head of departments, Dean, Deputy Dean, Faculty Board)**

Strategy: profile raising on PID and change of mindset toward the review of curricular

Activities:

- profile raising: seminars, workshops, trainings, exchanges national and international of lecturers and students
- review of curriculum: needs assessment, curriculum revision workshop for head of department and development guideline (theoretical and practical)

- **University level (Academic Board, Senate, Vice Chancellor, University Council)**

Strategy: Create of conducive environment for approval of proposal

Activities: Lobbying, strategic alliance, involvement in activities (eg seminars, workshops) and follow up (eg report and information)

- **University Outreach Centre**

Activities: facilitate the linkage between universities, NGOs and rural communities, exchange of students and lecturers with other institutions

- **Directorate of Research**

Strategy: to influence the university research agenda

Activities: to review policy research guideline and prioritize

- **Graduate School**

Strategy: to influence student research toward farmer innovation and local knowledge

Activities: to develop PhD sandwich program on PID and to involve PhD students in teaching

- **Alumni Association**

Activities: to contribute to students field based activities and establish fund for student prizes

- **Ministry level (National and regional)**

Strategy: Awareness creation and change mindset

Activities: Lobbying through formal and informal network, send progress report and to organize field trip to the success stories

The main points raised in the plenary discussion on institutionalisation of PID in universities:

- PID needs to be incorporated along with the PROLINNOVA programme.
- the PROLINNOVA programme itself is an innovative approach to institutionalization.
- when running courses in PID, need to involve PhD research.

## PROLINNOVA: International Curriculum Development workshop and SLM training

- support fund required for joint research between students and farmers. PROLINNOVA CPs could play a role.
- need to link with important international agendas/issues like climate change, gender, and poverty reduction.
- universities need to link with national and international organizations.
- media need to be involved in the process.
- getting support at the foundation level (eg department) in order to convince higher levels.

### 3. PID: scaling out within and outside Universities

*Discussed by: Abdelaziz, Derbew, Pamela and Paul*

*Presented by: Paul*

Result of the group work was formulated in the form of a power-point presentation with the following title: "Promoting PA/PID within and among PROLINNOVA countries"

#### **What is scaling out?**

- spreading PID concepts from one community to another, one country to another
- PROLINNOVA not confined to ideas but making it relevant and part of university curricula; using university as an important conduit to scale out
- scaling out lessons will be based on country experiences and how these can be shared by the PROLINNOVA family
- scaling out requires a "framework of enhancement" with a focus on means of identification, validation, documentation & IPR

#### **How do we scale out?**

- focus on three areas: academic field, community level and cross-country level
- a number of country-specific strategies need to be considered
- undertaking advocacy activities which may deal with:
  - o creating a model of PID promotion, for example a university, and using this model to reach out to the others (eg other universities) through activities such as a national workshop, production of books, manuals, leaflets on participatory methods to be supported by PROLINNOVA
  - o activating PID integration into research proposals as a requirement for sourcing funds
- PROLINNOVA country co-ordinating offices need to collaborate with the leading universities and make use of their members to spread ideas
- provide scholarships for students / research funds for researchers who focus on PID
- regional organisation: organise country specific PA /PID workshop and involve guest speakers / resource persons from other member country programmes to present issues that can help convince people
- strengthen university linkages within countries and between countries through MoUs and using exchange visits for students /staff
- create a network or a community of practice
- training and short courses for lecturers
- scaling out needs adequate financing

The main points raised in the plenary discussion on scaling out of PID:

- funds are required for different activities and transparency is needed..
- it is possible to produce books once PID is incorporated in our education systems.
- individual champions cannot change the whole system: they can initiate the process.
- piggybacking is possible in order to promote PID at other seminar/meetings (optimising the use of limited funds).
- CPs have funds that can be potentially used for promoting CD in PID.
- develop collaboration with other faculties.
- it was noted that no new points / innovative approaches came out from the discussion on both institutionalisation and scaling out. It was suggested to look for best practices at CP level and share with others.

#### **4. Creation of PID Community of Practice (CoP) among universities; strengthening of CD PROLINNOVA network; sharing of experiences, teaching and learning material**

Below is the compilation of key points raised by the three groups (A, B, C) organised in thematic clusters.

- Assumption: our group shares common objectives
- The foundations of CoP on PID among universities have already been established
- CoP composition: universities represented at the PROLINNOVA CD workshop and others (eg Prof. Adam Toudou, CRESA, Université Abdou Moumouni, Niger)
  
- Communication mechanism: CD yahoo group
- Create & constantly update CD group mailing list in order to improve direct communication / sharing of information
- PROLINNOVA websites as networking tool
  
- PROLINNOVA website as platform for sharing material /information on PID in CD
- Material produced by CoP members and made available to others will be subject to the “copy left” agreement
  
- Joint writing on identified themes
  
- Workshops: international, regional level and country level
- Integrate workshops with other activities (eg guest lectures, joint writing, etc)
- Exchange visits at various levels
  
- Set up CD task force team to work with CIS-VU
- PROLINNOVA CD sub-committee is needed
- Sub-committee needs TOR and code of conduct to become operational
- PROLINNOVA CD group focal person: Sabina Di Prima
- CD sub-committee members: 5 volunteers among CD workshop participants
- CD sub-committee should spearhead CD group joint initiatives (eg joint proposal, events)

As a result of the plenary discussion, the participants agreed on the following action points:

- CoP: we are already a “Community of Practice” including potentially other CPs not represented at the workshop (eg Nigeria, Niger, Peru and Bolivia)
- Draft CoP statement of objectives and TOR; **responsible person = Abdelaziz**
- A Curriculum Development Working Group (CDWG) was formed
- CDWG members: Dharma, Abdelaziz, Pamela, Paul and Sabina (focal person)
- Develop TOR for the CDWG; **responsible persons = CDWG members**
- TOR for the CDWG, including:
  - o coordinate the process
  - o gatekeeping website resources
  - o stimulate design/development and circulation of joint materials (copyleft)
  - o facilitate events (partners workshops at various levels)
  - o develop joint project proposal
  - o prepare donors’ overview
- Decide on the contents of the CD page on PROLINNOVA website and establish contacts with IIRR (webmaster); **responsible persons = CDWG members**
- Create a dedicated CD yahoo group based on an inventory of contacts at CP level; **responsible persons = all workshop participants**

#### **5. Prospective PROLINNOVA CD sub-programme: joint- proposal and fund raising**

Below is the compilation of key points raised by the three groups (A, B, C) organised in thematic clusters.

## PROLINNOVA: International Curriculum Development workshop and SLM training

- Need for a CD focused project
- Use / expand EDULINK project proposal
- Review and update of existing EDULINK proposal
  
- Look actively for funding opportunities
- Fund raising from potential donors for PID promotion, training, etc
- Identify potential donors
- Potential allies (RIFORM, FARA, APAARI)
  
- Who will take the lead: (southern part)
- One of the CPs to take lead in the development of new proposal
- CD sub-team to take the lead

As a result of the plenary discussion, the participants agreed on the following action points:

- Raise profile of CD theme in preparation for new overall PROLINNOVA proposal to be submitted to DGIS; **responsible persons = all workshop participants; by 31 March**
- Strengthen links with potential allies (eg RIFORM, FARA, APAARI, Practical Action, etc)
- Explore funding opportunities as on-going process **responsible persons = all workshop participants + others (Extended CDWG)**
- Specific potential donors to be contacted and person responsible:

<b>Potential donor:</b>	<b>Person responsible for contact:</b>
DGIS	Laurens
Kelloggs Foundation	Ernest
Ford Foundation	Paul
Echoing green	Paul
McKnight Foundation	Mattee
CIDA	Dharma
AGRA	Pamela
EDULINK/EU	Sabina
NUFFIC	Sabina

### Workshop evaluation and closing remarks

All participants voiced their overall satisfaction with the outcomes of the workshop and the way it was conducted. They confirmed their commitment towards the realisation of the common goal: mainstreaming PID in university curricula.

Some closing remarks were made by Pamela, Mattee, Abdelaziz, Will and Laurens. Quite significant was the fact that, according to Prof Amos Z Mattee (Sokoine University, Tanzania) the workshop was an eye-opening experience on the potential for mainstreaming of PID in university curricula.

The organisers, hosts and sponsors were thanked very much for all they had done in preparation for, and implementation of, this constructive experience.

Those responsible for undertaking ‘action points’ assured the group that they would follow-up immediately on return to their home countries.

## **Annex H: Mainstreaming PID into university curricula - CPs information on existing / perspective courses suitable for PID integration**

Information is presented per country according to alphabetical order:

- Cambodia: International University
- Ethiopia: Mekelle University
- Ethiopia: Jimma University
- Ghana: University for Development Studies
- Nepal: Tribhuvan University
- South Africa: University of Limpopo
- South Africa: University of KwaZulu-Natal
- Sudan: Sudan University of Science and Technology
- Tanzania: Sokoine University of Agriculture

Participatory approaches / PID in Agriculture and NRM  
**International University, Phnom Penh, Cambodia**

- Curriculum Development Information Sheet –  
 Compiled by Sam Vitou and Yang Saing Koma

20 February 2009

Name of course under which participatory approaches / PID modules in Agriculture and NRM are offered	Participatory Action Research (PAR)
Level (undergraduate, diploma, master's, etc)	Bachelor's level
Diploma / degree programme where participatory approaches / PID modules in Agriculture and NRM are offered	PAR is a main course under various Bachelor's program including: <ul style="list-style-type: none"> <li>- Community Based Natural Resources Management</li> <li>- Community Participation and Empowerment</li> <li>- Soil Fertility Management</li> </ul>
School, Department/Section in which course is offered	IU/Faculty of Agriculture and Rural Development
Course focus	Action research aims to contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. Thus, there is a dual commitment in action research to study a system and concurrently to collaborate with members of the system in changing it in what is together regarded as a desirable direction.
Targeted students	Aimed at students separates this type of research from general professional practices, consulting, or daily problem-solving is the emphasis on scientific study, which is to say the researcher studies the problem systematically and ensures the intervention is informed by theoretical considerations
Are there any academic entry requirements for the course	Bachelor's degree in relevant subject
Since when has the course been offered?	2007 (developed from a pilot in 2005)
How many times a year is the course offered?	Once per group which there has two groups per year
On average, how many students participate	20 students

PROLINNOVA: International Curriculum Development workshop and SLM training

in the course each year	
What proportion of the course was dedicated to participatory approaches / PID in Agriculture and NRM	48 hours out of 64 specifically, though participatory approaches constitutes a cross-cutting theme
Topics covered in participatory approaches / PID modules in Agriculture and NRM.	Participatory Learning and Action (PLA) Indigenous knowledge (IK) Local Innovation Farmer Innovation
Were practicals / field work included in the course? In what way were students involved in the practicals?	There is class group work on participatory methodologies as well as field work including a short essay and presentation of the essay.
Teaching modalities	The interactive lecture is done in 12 weeks with illustrated case studies from Cambodia and some specific country; each lecture is structured in two parts: 2hr and 45mn teaching by the main lecturer with some interval presentation by a guest speaker on a related topic. The course is a combination of theory and practice. The students go to stay one week in the village to study the exiting project and write their essay. It is conducted and examined in Khmer.
Assessment	Paper (50% of the mark); student work in group and make an essay per group and presentation Final written, closed book, examination (50% of the mark)
References used	Compulsory reading: Book "Participatory Action Research part I and II" Additional reading: List of selected articles and book on farmer innovation
Name of lecturer/s for participatory approaches / PID modules in Agriculture and NRM	Sam Vitou and Yang Saing Koma
Future plans	There is currently plan to offer the course to other School and University under PROLINNOVA programme

PAR course content:

- 1: Introduction: Terminology - evolution of an approach
  - Research/researcher/participation.
  - Green revolution concept
  - Green revolution versus farming system approach
  - Why failure of farmers to adopt new technologies
- 2: Main component and characteristic of PAR (1)
  - The problem originates in the community itself and is defined, analyzed and solved by the community
  - The ultimate goal of the research
  - Participatory research involves the full and active participation
- 3: Main component and characteristic of PAR (2)
  - PAR involves a whole range of powerless groups of people
  - Process of PAR can create a greater awareness of people
  - Researcher is a committed participant
- 4: Types of participation in development program
  - Passive participation
  - Participation in information giving
  - Participation by consultation
  - Participation for material incentives
  - Functional participation
  - Interactive participation
  - Self-mobilization
- 5: Theory of social change and participatory action research: (1) PAR and theory
  - Participatory action research in community development
  - Main component and characteristic
  - Theories of social change in relation to the focus of research and the nature of change
- 6: Theory of social change and participatory action research: (2) Some participatory approaches
  - Summary of assumption of participatory research
  - some participatory approaches
- 7: Participatory research in agriculture (1)
  - Applied research
  - Adaptive research
- 8: Participatory research in agriculture (2)
  - Farming system research (& R-D)
  - Farmer participatory (A- R)
- 9: Agriculture project approach according to project function
  - Research project
  - Extension oriented project
  - Community development oriented project
- 10: Method of PAR: Six phases of PAR methodology (1)
  - Problem identification
  - Problem analysis (of possible causes)
  - Formulation of (action) hypothesis
- 11: Method of PAR: Six phases of PAR methodology (2)
  - Design and implementation of the plan of action
  - Data collection and analysis
  - Evaluation
- 12: Rapid rural appraisal and Participatory Rural Appraisal
  - RRA
  - PRA

Participatory approaches / PID in Agriculture and NRM

**Mekelle University, Ethiopia**

- Curriculum Development Information Sheet –

Compiled by Dereje Assefa

March 01, 2009

Name of course under which participatory approaches / PID modules in Agriculture and NRM are offered	Plant Breeding (PB); Participatory Approaches in Cooperatives (PAC)
Level (undergraduate, diploma, master's, etc)	Both courses for undergraduate level (BSc)
Diploma / degree programme where participatory approaches / PID modules in Agriculture and NRM are offered	PB: is a major course in two programs, Crop Sciences and Horticultural Sciences at BSc Level.  PAC: is a major course for Cooperative Studies, at BSc. level
School, Department/Section in which course is offered	Two departments at the College of Dryland Agri. & Natural Resources: <ul style="list-style-type: none"> <li>• Department of Dryland Crop &amp; Horticultural Sciences</li> <li>• Department of Cooperative Studies</li> </ul>
Course focus	PB:- main focus is on principles of plant breeding and how this knowledge can be used for improving crops, but also on the importance and function of Participatory plant breeding.  The focus of the PAC course is: to impart knowledge and training among the students on the application of participatory approaches, tools and techniques in cooperatives and produce them with a spirit of becoming best cooperative worker.
Targeted students	3 <sup>rd</sup> year students of crop and horticultural fields at undergraduate level
Are there any academic entry requirements for the course	For the plant breeding course there is a pre-requisite course. In general, there is admission requirement for all programmes, but this is not a course specific requirement.
Since when has the course been offered?	The plant breeding course: since 2004, The PAC since 2008
How many times a year is the course offered?	Once a year
On average, how many students participate in the course each year	A total of 100 – 120 students per year for the two courses
What proportion of the course was dedicated to participatory approaches / PID in	In Plant Breeding: a chapter, which covers 5-7hrs including some case studies practices

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Agriculture and NRM	out of 48 hr, While in PAC the whole course is dedicated to participatory approach ie 32 hrs.
Topics covered in participatory approaches / PID modules in Agriculture and NRM.	In Plant Breeding: Participatory versus conventional plant breeding Participatory varieties selection Participatory plant breeding In PAC: Participation in Cooperatives Participatory approaches Participatory planning, Monitoring & Evaluation in Cooperatives
Were practicals / field work included in the course? In what way were students involved in the practicals?	Students will do practical case studies and some of the exercises of participatory approaches tools and techniques in the field as part of their assignment.
Teaching modalities	Lecture, PowerPoint, Audio-Visual aids, Lab work, Group assignments, discussions, & Consultation.
Assessment	The assessment mode is a combination of continuous assessment and final summative exam: Formative assessment (50%) Quizzes Practical Mid term Exam Assignments Report on Field Visit & Presentation Summative assessment Final exam 50%
References used	See annexed course outlines
Name of lecturer/s for participatory approaches / PID modules in Agriculture and NRM	Dr. Fetien Abay, for the Plant Breeding Mr. G. Cherkos, for the Participatory Approaches in Cooperatives
Future plans	The College of Dryland Agri. & Natural Resources may consider to develop PID course as a methodology course and incorporate it into existing MSc course, like in Rural Development and as an elective course in the other undergraduate programmes in the college; In addition, the college is developing a new MSc program in Agro-ecology, PID could be offered as compulsory course, but it need developing a well formulated course of PID.

**Course content:**

***Annex-1***

**Course Title: Plant breeding**

**Course Code: DLCS 322**

**Credit Hours: 3(2+1)**

**Pre-requisite Courses: Plant genetics, morphology and anatomy of crops**

**Course Rationale:**

Plant breeding is a uniquely multidisciplinary, integrative science, through which diverse technologies and knowledge are translated into biological products and knowledge that impact science, agriculture and society at multiple levels. Because of its multidisciplinary, analytical and team-oriented, students trained in plant breeding are capable of identifying, analyzing and solving complex needs that are crucial to our future. It is a visionary science that is providing solutions today and will provide solutions tomorrow.

Plant breeding is an essential national investment. An improved economy and exports, especially in our vital agricultural sectors, based from strong plant breeding efforts. The experiments set in motion today and tomorrow will provide unique scientific revelations and technological innovations in the future that are essential to Ethiopian agricultural success. Therefore, this course tries to address its importance by introducing students into the science of breeding.

### **Course Objectives**

The overall objective of the course is to introduce students to principles of plant breeding and how this knowledge can be used for improving crops. The specific objectives of this course are to:

- To develop general familiarity with the overall science of plant breeding, especially as it relates to the improvement of agronomic crops
- To understand how directed selection for crop improvement is affected by plant mating systems, available genetic variation, environmental influences, selection strategies, and the social context
- To gain an understanding of the processes involved in natural evolution and directed selection and manipulation by humans
- To become familiar with prominent techniques for directed plant improvement.
- To discuss the importance and function of Participatory plant breeding
- To assist the development of critical thinking, and to improve skills in written and oral analysis of specific topics related to crop breeding
- To introduce and lay the foundation for the study of more advanced plant breeding methodology and quantitative genetics eg molecular–marker assisted determination of quantitative trait locus variation
- Describe the extent within species variation plant species and its potential value for breeding programs

### **Course description:**

The course will cover fundamental principles and theories utilized in the science of plant breeding and cultivar development, and the role breeding plays in plant improvement. Students will learn both theoretical and practical aspects of plant breeding. They will be thought the need for plant breeding and current status of breeding in Ethiopia.

### **Course Contents:**

#### Section I Introduction and plant breeding objectives

1. Introduction to plant breeding
  - 1.1. A brief History of Plant Breeding in Ethiopia
  - 1.2. Branches of science related to Plant Breeding
  - 1.3. Objectives of Plant Breeding
  - 1.4. Some important achievements
  - 1.5. Challenges ahead
  - 1.6. International Agricultural Research Centres involved in plant breeding

#### Section II. Principles self pollinated crops

2. Selection in Self pollinated crops
  - 2.1. History of selection
  - 2.2. The progeny test
  - 2.3. Pure line theory
  - 2.4. origin of variation in pure lines
  - 2.5. Genetic advance under selection

3. Hybridization : techniques and consequences
  - 3.1. History and objective of hybridization
  - 3.2. Types and procedures of hybridization
  - 3.3. Consequences of hybridization

Section III- Methods of self breeding crops

4. Breeding methods self breeding crops
  - 4.1. Mass selection
  - 4.2. Pure line
  - 4.3. Pedigree
  - 4.4. Bulk method
  - 4.5. Back cross method

Section IV Principles: Cross-pollinated crops

5. Genetic composition of cross pollinated crops
  - 5.1. The Hardy-Weinberg law and factors disturbing the equilibrium in population
  - 5.2. Systems of mating
6. Selection in cross pollinated crops
7. Heterosis and inbreeding Depression
  - 7.1. Effects and degrees of inbreeding depression
  - 7.2. Manifestation of heterosis
  - 7.3. Genetic basis of heterosis and inbreeding depression
  - 7.4. Commercial applications

Section V methods cross pollinated crops

8. Breeding methods for out breeders (cross pollinated crops)
  - 8.1. Population improvement
    - 8.1.1. Mass selection
    - 8.1.2. Recurrent and reciprocal recurrent selection
  - 8.2. Hybrid and Synthetic varieties
    - 8.2.1. History and operations in production of hybrid varieties
    - 8.2.2. Operations in producing synthetic varieties

Section VI Polyploidy and PPB

9. Polyploidy and Molecular breeding
  - 9.1. History and Polyploidy applications in plant breeding
  - 9.2. Introduction and applications of Marker assisted selection in plant breeding
10. Participatory plant breeding (PPB)
  - 10.1. Need and rationale for PPB
  - 10.2. Participatory versus conventional plant breeding
  - 10.3. Participatory varietal selection: experiences and applications
  - 10.4. Participatory plant breeding: experiences and applications
  - 10.5. Practical cases and experiences of PVS & PPB

**Delivery Methods:**

Lectures, PowerPoint, Audio-Visual aids, Lab work

**Course Requirements (assessment):**

Practical and assignment 25%  
Mid-term exam 25%  
Final exam 50%

There is a need to set-up labs and off-season nurseries to undertake the needed lab and practical crossing work.

**Reference materials:**

1. Allard (1960) Principles of Plant Breeding
2. Kuckuck H, Kobabe, G. Wenzel, G (1991) Fundamentals of Plant Breeding

3. Haward, M.D, Bosemark, N.O. and Romoagosa, I (1993) Plant Breeding: Principles and Prospects. Champan and Hall University press, Cambridge
4. Borojevic, S. (1990) Principles and methods of plant breeding
5. Wood, D.R. (1980) Plant Breeding
6. Witcombe, J. Virk D.S. and Farrington J (eds) Seeds of Choice Oxford and IBH Publishing Co PVT LTD Newdelhi

## **Annex-2**

**Course Title: Participatory Approaches in Cooperatives**

**Course Code: Coop332**

**Credit hours: 2**

**Year/semester: II/II**

**Course category: Major**

**Pre-requisite: Not applicable**

### **Rational:**

Cooperatives are the agencies for sustainable development of rural people. Understanding the rural development techniques is paramount to the students of cooperatives. The course will impart the principles and practices of participatory approaches in cooperative democratic decision-making process.

### **Course description:**

The inputs incorporated in the course include: the concept, philosophy & definition of participatory development, characteristics of participatory cooperatives, how participatory approaches to development are different from conventional practice. Participation as a process, key elements in the practice of participation – participation as a strategy – as an element, as dynamic of the activity; important principles of participatory practice – the primacy of people, people's knowledge, the role of external support & agents, groups as social action – self-help / self-reliance. Identification of participation problems in cooperatives, participatory, participatory approaches tools and techniques as applicable to cooperatives, participatory planning, monitoring & evaluation in cooperatives.

### **Course Objective:**

The primary objective of this course is to impart knowledge and training among the students on the application of participatory approaches, tools and techniques in cooperatives and produce them with a spirit of becoming best cooperative worker.

Through out the course illustrative examples will be drawn from objectively sensible realities.

### **Course content:**

#### Chapter One: Introduction to Participation

- Meaning of Participation
- Definition of Participation
- Typology of Participation
- Types of Participatory approaches
- Main features of Participatory approaches
- Challenges in adopting Participatory approaches

#### Chapter Two: Tentacles of participatory rural appraisal (PRA)

- Approaches to development intervention
  - ✓ Community Development Approach
  - ✓ Sector Approach
  - ✓ Target Approach
  - ✓ Area Approach
  - ✓ Minimum needs approach
  - ✓ Integrated Approach
- Sources of PRA
- What is PRA?

- Assumption and Principle of PRA

Chapter Three: Participation in Cooperatives

- Meaning of participation in Cooperatives
- Importance of participation in Cooperative
- Members participation Cooperatives
- Participation of board of Management
- Problems in Administration of cooperatives
- Participation of employees of cooperatives
- Participation of cooperative officials.

Chapter Four: Identification of participation problems in cooperatives

- Problems in Constitution of Cooperatives
- Problems in Management of Cooperatives
- Problems in Administrations of Cooperatives
- Problems in the services of cooperatives

Chapter Five: Participatory Approaches: Tools and techniques as applicable to Cooperatives

- Survey method
- Case studies
- Focus group Discussions
- Venn diagrams
- Ranking Exercise
- Problem identification And Prioritization

Chapter Six: Participatory planning, Monitoring & Evaluation in Cooperatives

- Participatory planning in cooperatives
- Monitoring & evaluation of cooperatives.

**Delivery Methodology:**

Lecture, Group assignments, discussions, & Consultation

\*Students are expected to do some of the exercises of participatory approaches tools and techniques in the field as part of their assignment. Assignment topics will be discussed and allotted to the group of students' on the classroom.

**Methods of Assessment and evaluation**

Continuous Assessment will be adopted:

- ✓ Quizzes
- ✓ Mid term Exam
- ✓ Assignments
- ✓ Report on Field Visit and Presentation
- ✓ Final Exam

**References:**

1. Participatory Technology Development: Agricultural University (1989): A selection of ILEIA publications, Proceeding of ILEIA PTD Workshop, Leausdew, Netherlands
2. National Institute of Rural Development (1990). National workshop on Development of Monitoring and evaluation mechanism for impact of cooperatives at members' level.
3. Participatory Rapid Appraisal for community development, ILED. London , united kingdom

Participatory approaches / PID in Agriculture and NRM

**Mekelle University (MU), Ethiopia**

- Curriculum Development Information Sheet –

Compiled by Dereje Assefa

March 06, 2009

Name of course under which participatory approaches / PID modules in Agriculture and NRM are offered	Advanced Approaches to Sustainable Land Management
Level (undergraduate, diploma, master's, etc)	Postgraduate level (MSc level) (2+1) Cr.hr.
Diploma / degree programme where participatory approaches / PID modules in Agriculture and NRM are offered	The course incorporates participatory approaches (PTD) and Indigenous Soil and Water Conservation at chapter level in agriculture and NRM programs, MU
School, Department/Section in which course is offered	The department of Land Resources Management and Environmental Protection at the College of Dryland Agriculture & Natural Resources
Course focus	The focus is to ensure that students are able to understand and use the theoretical knowledge of IK and PTD to identify, analyze and characterize land degradation problems in different land use systems, communal resources management approaches and socio-economic implications
Targeted students	Postgraduate students of the Tropical Land Resources Management at postgraduate level
Are there any academic entry requirements for the course	BSc in agriculture is admission requirement for the postgraduate programmes
Since when has the course been offered?	Since 2006,
How many times a year is the course offered?	Once a year
On average, how many students participate in the course each year	A total of 10 – 17 students per year
What proportion of the course was dedicated to participatory approaches / PID in Agriculture and NRM	A chapter or a module
Topics covered in participatory approaches / PID modules in Agriculture and NRM.	Theoretical background of PTD and ISWC
Were practicals / field work included in the course? In what way were students involved in the practicals?	Students will do practical case studies and some of the exercises of participatory approaches tools and techniques in the field as part of their assignment.
Teaching modalities	Lecture, PowerPoint, Audio-Visual aids, Lab work, Group assignments, discussions, & Consultation
Assessment	The assessment mode is a combination of

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	<p>continuous assessment and final summative exam:                      Formative assessment (40%)                      Exercises/Assignments                      Report on Field Visit &amp; Presentation                      Summative assessment                      Final exam 60%</p>
References used	<p>Mitiku H., Herweg K. and Stillhardt B. 2006. Sustainable Land Management- A New Approach to Soil and Water Conservation in Ethiopia.</p> <p>Reij C. and Waters-Bayer A. 2001. Farmer innovation in Africa: a source of inspiration for agricultural development. Earthscan Publications Ltd.</p>
Name of lecturer/s for participatory approaches / PID modules in Agriculture and NRM	<p>Prof. Mitiku Haile, Dr. Kindeya G.Hiwot, and Dr Girmay Tesfay.</p>
Future plans	<p>The College of Dryland Agri. &amp; Natural Resources may consider to develop PID course as a methodology course and incorporate it into existing MSc course, like in Rural Development and as an elective course in the other undergraduate programmes in the college;                      In addition, the college is developing a new MSc program in Agro-ecology, PID could be offered as compulsory course, but it needs developing a well formulated course of PID</p>

**Course content:**  
**Annex-1**  
**Mekelle University**

**Faculty: DANR**  
**Department: LaRMEP**  
**Program: Postgraduate**  
**Discipline: Tropical Land Resources Management**  
**Course: Advanced Approaches to Sustainable Land Management (LaRMEP 422)**  
**Credit hours: 3 (2+1)**

**Course content:**

Module 1: Introduction

- Introduction, goals of the course, reference to previous courses
- Approaches, concepts, schools of thought
- Land degradation (global aspects, on-site, off-site effects, processes, features, direct factors of influence)
  - Soil erosion
  - Deforestation
  - Socio-economic causes of land degradation

Module 2: Methodological Approach

- Soil Conservation Research Methodology
  - Approach: Agro-climatic zones
  - Different levels of measurement
  - Erosion Values- extreme and average

## PROLINNOVA: International Curriculum Development workshop and SLM training

- Data management concept, measurement and interpretation (implication), error estimation (data quality)
- Case studies: exercise (interpretation) from SCRIP data and presentation
- Agro-forestry
  - Data generation, analysis and interpretation
  - Case studies and presentation
- Socio-economic aspects
  - Modelling bio-physical-productivity linkage
  - Exercise and presentation

### Module 3: Conservation Categories and Technologies

- Principles of physical soil and water conservation measures
  - Case studies presentations
- Agro-forestry for sustainable land management
  - Case studies presentations
- Evaluation of land conservation measures
  - Costs and benefits
  - Adoption of land conservation technologies
  - Case studies and presentations

### Module 4: Sustainable land management

- Definition and dimensions
  - Define sustainability
  - Dimensions of sustainability
  - Indicators of sustainability
- Factors
  - Factors influencing sustainability, externalities, socio-economic issues on different levels (farm, community, state)

### Module 5: Participatory Technology Development and Indigenous Soil and Water Conservation

- Theoretical background and experience
- Case studies and presentations

### Module 6: Impact Monitoring

- Techniques and approaches
  - For decision support system
  - Sustainable evaluation methodologies

### Evaluation:

Exercises and presentations 40%  
Final exam 60%

### References:

Mitiku H., Herweg K. and Stillhardt B. 2006. Sustainable Land Management- A New Approach to Soil and Water Conservation in Ethiopia.

Reij C. and Waters-Bayer A. 2001. Farmer innovation in Africa: a source of inspiration for agricultural development. Earthscan Publications Ltd.

Participatory approaches / PID in Agriculture and NRM  
**Jimma University, Ethiopia**

Curriculum Development Information Sheet –  
 Compiled by Derbew Belew

*Integration of PID in Jimma University Courses through Community-based Training Program*

The Community-based Training Program of Jimma University in Ethiopia is an integrated institutional program that runs in phases from the first year to graduation. It involves students, teaching staff, commerce and industry, civic leaders, communities within a 50 km radius, and government departments responsible for health, education, agriculture, water and sanitation, and technology.

**Objectives of the Community-based Training Program**

At the end of the program students are expected to:

- Define demographic, socioeconomic, political and environmental aspects of a given community,
- Be able to make a community diagnosis and draw up a sound action plan, which would enable them to suggest appropriate interventions,
- Use the concept of community participation and a multi-sectoral approach to organize intervention measures, and
- Plan and conduct problem-oriented and community-based research

The program has enabled the university to train students in a wide variety of fields within the community setting. It has promoted an integrated, holistic approach in addressing societal problems. The university has also managed to embed the learning culture that uses the community extensively as a learning environment, in which not only students but also teaching staff, community members, and representatives of other sectors are actively engaged throughout the educational experience.

Recently the Jimma University is coordinating Coffee-based Platform of PROLINNOVA Ethiopia.

**Experiences of Integration of PID in Jimma University**

S.N	Training Departments (Disciplines) Integrating PID Through Community-based Training Program	PID Activities	On going Research Activities to promote PID
1	College of Agriculture & Veterinary Medicine Animal Sciences Horticulture Plant Sciences Natural Resources Management Agricultural Engineering Agricultural Economics	Identification of innovator farmers and their innovation Documenting local innovation Identification of problems associated with farmers' innovations Prioritization of problems for possible intervention Development of proposal and conducting research (usually in a group)	Identify easy and fast propagation methods of medicinal plants (herbs identified by innovator farmers) Optimizing doses of herbal extracts against selected pests Improving efficiency of farmers' innovations:
2	Technology Faculty		Micro-hydropower generator Manually operated dry coffee pulping machine Improved beehives made from local materials

## PROLINNOVA: International Curriculum Development workshop and SLM training

Collaborating institutions in research undertaking:

- Jimma Zone Agriculture and Rural Development
- District level Agriculture and Rural Development
- Jimma Rural Technology Research Centre

Financial support for undertaking PID research:

- Jimma University
- PROLINNOVA Ethiopia

Participatory approaches / PID in Agriculture and NRM  
**University for Development Studies,**  
**Tamale, Ghana**

Curriculum Development Information Sheet –  
 Compiled by Paul Kwami Adraki

February 23, 2009

Name of course under which participatory approaches / PID modules in Agriculture and NRM are offered	Agricultural Extension Education
Level (undergraduate, diploma, master's, etc)	Undergraduate Level
Diploma / degree programme where participatory approaches / PID modules in Agriculture and NRM are offered	Bachelor of Science Degree in Agricultural Technology with options in Agronomy, Horticulture, Soil Science, Mechanisation and Irrigation Technology, Biotechnology, Agricultural Economics and Extension, Renewable Natural Resources
School, Department/Section in which course is offered	Faculty of Agriculture, taught course of the department of agricultural economics and extension
Course focus	Equipping students with practical knowledge and skills in communicating(creating and sharing information between farmers and extension staff/change agents in commonly understandable ways); and helping students appreciate different ways in engaging farmers and assessing their current circumstances
Targeted students	Third year course and as preparatory course for students intending to specialise in agricultural economics and extension
Are there any academic entry requirements for the course	none
Since when has the course been offered?	Since 1994
How many times a year is the course offered?	Once (First Trimester)
On average, how many students participate in the course each year	450
What proportion of the course was dedicated to participatory approaches / PID in Agriculture and NRM	50
Topics covered in participatory approaches / PID modules in Agriculture and NRM.	The PTD approach, Community based development approach, participatory rural appraisal approaches, PRA tools in practice
Were practicals / field work included in the course? In what way were students involved in the practicals?	Yes. Students sent to the field to carry out practically approaches taught; Field Practical Training Programme, Farming for the future project, excursions and group work
Teaching modalities	One hour lecture, one hour practical once every week
Assessment	Mid-trimester paper/assessment (25%) and final exam (75%)
References used	Various
Name of lecturer/s for participatory approaches / PID modules in Agriculture and NRM	Currently-Alhaji Seidu Iddi and Victor Lolig, but changes based on lecturer engagements or availability

## PROLINNOVA: International Curriculum Development workshop and SLM training

Future plans	Reviewing course and developing it into a short course for training purposes for extension staff and other professionals
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### Course content:

1. Introduction
2. Presentation on agricultural extension methods with special focus on the T&V system
3. Participatory Technology Development Approach
4. The Community Based Development Approach
5. Problem Identification using different PRA tools (such as transect walks, flow diagrams, problem tree and ranking methods)
6. Practicals: PRA tools in practice
7. Special subjects
  - a. The rural farmer and his/her attitude
  - b. Gender Issues and agricultural extension
8. The design of an extension project
9. Course Evaluation

Participatory approaches / PID in Agriculture and NRM  
**University for Development Studies,  
 Tamale, Ghana**

Curriculum Development Information Sheet –  
 Compiled by Paul Kwami Adraki

February 23, 2009

Name of course under which participatory approaches / PID modules in Agriculture and NRM are offered	Third Trimester Field Practical Programme
Level (undergraduate, diploma, master's, etc)	Undergraduate
Diploma / degree programme where participatory approaches / PID modules in Agriculture and NRM are offered	All-BSc FOA, FIDS, SMHS, FAS
School, Department/Section in which course is offered	ALL as above
Course focus	Build in students essential skills for community work relying on an integrated approach and make students appreciate challenges of rural life and work and through the process, analyse and assess issues in rural areas and proffer solutions that aim at addressing identified programmes in rural communities
Targeted students	Students in all year groups and all programmes offered by the University at the undergraduate level
Are there any academic entry requirements for the course	None, but must pass previous year practical programme to be enrolled in new programme, otherwise repeated with new batch of new students for that year group
Since when has the course been offered?	Since 1993
How many times a year is the course offered?	Once, during the third trimester
On average, how many students participate in the course each year	The whole student population at undergraduate level but at least 3000 students yearly
What proportion of the course was dedicated to participatory approaches / PID in Agriculture and NRM	All but course has a sort of 'free-wheeling' focus and not targeted at any particular areas. Community decides where focus of practical programme lies with a particular community
Topics covered in participatory approaches / PID modules in Agriculture and NRM.	See course outline below
Were practicals / field work included in the course? In what way were students involved in the practicals?	Yes. Stay in community for six weeks every year from first year to third year each trimester, and application of participatory approaches to the analysis and assessment of issues at the community level
Teaching modalities	Two hours weekly in every trimester to teach students modules
Assessment	See attached sheet(s)
References used	Several, depending on topics and issues discussed
Name of lecturer/s for participatory approaches / PID modules in Agriculture and NRM	All staff of various faculties, Year Group co-ordinators and management team for programme

Future plans	Arrangements for sustainable funding of the programme; linking NGOs to the community proposals developed at the end of the third year in the same community; creating a website to put information gathered and earning some funds from subscription to the site to fund the programme
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**Course content:**

Note that every year of the programme has an intended objective as follows

Year one: Gathering and Collecting Information on various issues in the community including population, housing and settlement types, income levels, economic activities, indigenous technologies etc.

Year two: problem and potential identification

Year three: Review of problems and potentials and preparing a community proposal

Year four: presentation of community proposal and continuation of practical programme with selected department of students' choice

**Course Content:**

1. Introductory remarks and caution on health and other issues
2. Specific Year TTFPP objectives and tasks
3. Community entry and exit skills and guidelines
4. Qualitative data collection and analysis (including use of semi-structured Interviews, Focus group Discussions, trend lines etc)
5. Quantitative data collection methods and analysis (eg use of questionnaires, use of Lorenz curves, population pyramids etc)
6. Problems and Potentials analysis using basic statistical computations, simple testing, ranking, problem tree analysis, SWOT analysis, Gender analysis, participation analysis, agro-ecological systems analysis etc
7. Report writing and presentation techniques and skills
8. Review of problems and potentials using Problem tree analysis, stakeholder analysis, participatory analysis, gender analysis
9. Basic data analysis tools
10. Preparing a community project proposal using ideas on objective setting, the Logical framework
11. Proposal writing and presentation techniques

Note this outline is not year specific, but has put together all topics covered over the 4 year period

PROLINNOVA: International Curriculum Development workshop and SLM training

Participatory approaches / PID in Agriculture and NRM  
**Tribhuvan University, Institute of Agriculture and Animal Science, Nepal**

Curriculum Development Information Sheet –  
 Compiled by Dharma Raj Dangol

February 20, 2009

Name of course under which participatory approaches / PID modules in Agriculture and NRM are offered	Participatory Innovation Development Studies (2+1)
Level (undergraduate, diploma, master's, etc)	BSc Agriculture
Diploma / degree programme where participatory approaches / PID modules in Agriculture and NRM are offered	We are incorporating this course in agriculture and NRM education in IAAS.
School, Department/Section in which course is offered	Developed courses will be offered in the Department of Environmental Science
Course focus	Local innovations, PID, Promotional initiatives, Networking, etc.
Targeted students	BSc Agriculture
Are there any academic entry requirements for the course	I.Sc. for BSc Agriculture
Since when has the course been offered?	Not offered yet, Subject Matter Committee has approved, but in the process of approval from Faculty Board and TU Council at the time of course revision of BSc Ag next year.
How many times a year is the course offered?	Once a year
On average, how many students participate in the course each year	BSc Course will be enrolled by 150 students
What proportion of the course was dedicated to participatory approaches / PID in Agriculture and NRM	Whole course will be dedicated to participatory approaches/PID in Agriculture and NRM
Topics covered in participatory approaches / PID modules in Agriculture and NRM.	Farmer innovation Participatory innovation development Networking Policy and laws
Were practicals / field work included in the course? In what way were students involved in the practicals?	field work or practical weighted 15 classes, 2 hrs/class
Teaching modalities	Interactive lecture cum class discussion, PowerPoint
Assessment	Theory: FM: 50; Quiz 10 and 40 Final Practical: Full mark 25; Written, oral, Assignments, Practical records
References used	Publications of PROLINNOVA International and PROLINNOVA Nepal program; course packs prepared by the PROLINNOVA Nepal
Name of lecturer/s for participatory approaches / PID modules in Agriculture and NRM	Dharma Raj Dangol (course coordinator), Faculties, Guest lectures, Farmer innovators and Focal persons from PROLINNOVA Nepal partners
Future plans	Preparation of educational materials including course packs Collection of samples of innovations from all

PROLINNOVA: International Curriculum Development workshop and SLM training

	<p>over Nepal Capacity building of faculties, students, and staff. Exchange Program for faculties and students Longitudinal participatory research program on local knowledge and innovation development.</p>
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Course content:

Level: BSc Agriculture

Course Title: Participatory Innovation Development Studies (2+1)

Theory

Units	Units and Details	Classes
1	Introduction	2
	Concepts of Innovations, Local knowledge and Innovators; Understanding vision, mission and working modality of PROLINNOVA Nepal and International Partners; Challenges and opportunities of PID.	
2	Local Innovation	2
	Types of local innovations; Status, trend and prospects of local innovations in Nepal	
3	Documentation Process and Methodology	4
	Guiding principles and modality of field documentation; Field documentation process; Data editing, entry and analysis, and reporting; Database preparation, Publication of local innovations	
4	Participatory Innovation Development	2
	Evolutionary process of innovation development; Status and trend of PID in Nepal; Good practices of participatory innovation development on plant breeding, pest management and local medicine	
5	Participatory Innovations Promotion	3
	Understanding different models of promotion; PROLINNOVA approach for promoting local innovation in Nepal, LISF; Constrains and opportunities of participatory promotion mechanisms	
6	PID Initiatives	3
	Overview of PID initiatives of National and international partner organizations; Understanding PID initiatives (eg LISF) design, implementation and institutionalization	
7	Networking and Partnerships Development	2
	Importance of networking and partnership development for PID; Ways of networking and partnership.	
8	Ethics, Laws and Policy Advocacy	4
	Overview, Review and analysis of existing policies related to PID (innovative research and development), Intellectual property right, Patent right, Farmers' rights.	
9	Organizations on the Crossroad of Local Innovation Development	4
	Organizations and their contribution and role for promoting local innovations through education, research and development; Sharing success stories on local innovations development and promotion	
10	Value Addition to PID	4
	Concept and process of value addition; Linking local innovations and knowledge with enterprises for the enhancement of livelihood and conservation of ecological agriculture and natural resource management	

Practicum

PN	Practical exercises	Classes
1	Orientation to practical classes	1 class
2	Study of documentation format and guidelines	1 class
3	Identify local innovators and their innovations	3 classes
4	Conduct field documentation in participatory approach	3 classes
5	Collect field data, edit, entry in database, analyze, and prepare report	1 class

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6	Conduct experiment to test efficacy of local innovation (eg Gitimal, Jholmal) on crop productivity or ecological pest management	3 classes
7	Organize PID Awareness Camps or seminar/workshop and present findings of the practical exercises	3 classes
	Total	15

Participatory approaches / PID in Agriculture and NRM  
**Tribhuvan University, Institute of Agriculture and Animal Science, Nepal**

Curriculum Development Information Sheet –  
 Compiled by Dharma Raj Dangol

February 20, 2009

Name of course under which participatory approaches / PID modules in Agriculture and NRM are offered	Participatory Innovation Research and Development Studies (2+1)
Level (undergraduate, diploma, master's, etc)	MSc Agriculture
Diploma / degree programme where participatory approaches / PID modules in Agriculture and NRM are offered	We are offering this course in degree program in agriculture in IAAS.
School, Department/Section in which course is offered	Developed courses will be offered in the Department of Environmental Science
Course focus	Local innovations, PID, Promotional initiatives, Networking, etc.
Targeted students	MSc Agriculture
Are there any academic entry requirements for the course	BSc Agriculture for post-graduate in Agriculture
Since when has the course been offered?	This course has been approved by the faculty board and will be offered by coming session (summer semester starting from August)
How many times a year is the course offered?	Once a year
On average, how many students participate in the course each year	MSc Course will be enrolled by at least 5 students
What proportion of the course was dedicated to participatory approaches / PID in Agriculture and NRM	Whole course will be dedicated to participatory approaches/PID in Agriculture and NRM
Topics covered in participatory approaches / PID modules in Agriculture and NRM.	PID chapters in agriculture and NRM
Were practicals / field work included in the course? In what way were students involved in the practicals?	Field work or practical weighted 15 classes, 3 hrs/class
Teaching modalities	Interactive lecture and discussion followed by practicum work by students.
Assessment	Theory (Full mark: 100): Term paper writing (25%), Quiz (25%), Final exam (50%) Practical (Full mark: 50) : Written, Oral, Presentation, Practical record
References used	Publications of PROLINNOVA International and PROLINNOVA Nepal program; course packs prepared by the PROLINNOVA Nepal
Name of lecturer/s for participatory approaches / PID modules in Agriculture and NRM	Dharma Raj Dangol (course coordinator), faculties, Guest lectures (national and international), Farmer innovators and Focal persons from PROLINNOVA Nepal partners
Future plans	Preparation of educational materials including course packs

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	<p>New Building for Local Knowledge and Innovation Resource Centre for displaying the collections of local innovations.</p> <p>Large scale collection of information on local knowledge and innovation(s) from all over Nepal</p> <p>Capacity building of faculties, students, and staff through academic and non-academic approaches.</p> <p>Exchange Program for faculties and students</p> <p>Conducting PhD in PID</p> <p>Longitudinal participatory research program on local knowledge and innovation development</p>
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Course content:

Level: M. Sc. Ag.

Course Title: Participatory Innovation Research and Development Studies (2+1)

Theory

Units	Units and Details	Classes
1	Introduction	2
	Background, history and role of farmers and local community in participatory research and development; perception and rationale of local knowledge and innovation; farmers research and innovation	
2	Local Innovation	2
	Concepts, characteristic feature, and typology of local innovation; local vs scientific knowledge and innovation; scope and relevance of local innovation in research and development; overview of local innovations of Nepal and global.	
3	PROLINNOVA International and Nepal Initiatives	3
	Evolution, vision, mission and objectives and program structure of PROLINNOVA International program; countries, partners; working modality and interaction fora. PROLINNOVA Nepal and its scope and status.	
4.	Documentation and Analysis of Local Innovations	5
	Locating farmers' innovations, documentation methods of local innovation; data handling and analysis; developing, maintaining and managing database.	
5	Participatory Innovation Research and Development	5
	Concepts and rationale of participatory research in innovation development; joint experimentation, experimental design, role of statistics in experimentation and data analysis.	
6.	Participatory Monitoring and Evaluation and Impact Assessment	2
	Concepts, principles and methods of PM&E and impact assessment, data collection and analysis and reporting	
7	Local Innovation Support Fund (LISF)	3
	Concepts, significance, historical development, establishment and management of LISF, LISF granting process; capacity building and fund management and reporting.	
8	Awareness, Recognition and Institutionalization	2
	Importance and methods of raising awareness about and recognition of local innovation and innovators; institutionalizing PID and LISF at farming community level and building their capacity for self-managing and sustaining at local level.	
9	Partnership, Networking and Wide Dissemination	3
	Importance of partnership and networking for the promotion, joint implementation and dissemination; modalities of partnership; ways of networking; local innovation network and for exchanging expertise and experiences and lobbying.	

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10.	Ethics, Policy, Laws and Advocacy	3
	Ethics of documentation and sharing local innovations; policy and legal support of local innovation; production, promotion and marketing, IPR protection; importance and means of advocacy	
	Total	30

Practicum

Pr #	Titles	Classes
1	Prepare typology of local innovations provided/	1 class
2	Search literature and prepare bibliography on local innovation	1 classes
3	Prepare action plan for the documentation of local innovations on a selected topic to be chosen by student	2 classes
	Study format, procedure and guidelines for documentation of local innovations	1 class
4	Collect, edit and analyze field data on local innovations	1 class
5	Make a documentary film or take digital photographs and prepare slide documentation as appropriate	2 classes
6	Prepare educational material on local innovation	1 class
7	Write feature article on PID for publishing in newsletters, newspapers, magazines or journals	2 classes
8	Organize travelling seminar/mobile camp to raise awareness among farmers and farming communities on PID	2 classes
9	Organize talk programs or participate in seminar/workshop/conference and present paper	2 classes

Participatory approaches / PID in Agriculture and NRM  
**University of Limpopo (Turfloop Campus), South Africa**

Curriculum Development Information Sheet –  
 Compiled by Ernest Letsoalo

Name of course under which PID is offered	Introduction to Agricultural Extension 3 <sup>rd</sup> year course; this course sometimes carry final year (4 <sup>th</sup> year) students
Degree where PID material is offered	Bachelor of Agricultural science (Soil Science, Plant production) and Bachelor Agricultural economics
What are the prerequisites for the course	None
Since when has the course been offered? On average, how many students participate in the course each year	No trace, it depends on enrolment of students in the above mentioned degrees Normally this class carry around 40 students or more
Programmes that students undertaking the course belong to	Soil Science Plant Production Agricultural Economics *NB: Agric. extension course is given as a service course for all undergraduate BSc Agriculture students
Level at which material is offered (Undergraduate, Honours, Post-graduate Diploma, Masters)	Undergraduate and Post Graduate Degree (specifically for students doing internship with CRCE)
School, Department/Section in which course is offered	School of Agricultural and Environmental Sciences; Centre for Rural Communities Empowerment
What proportion of the course was dedicated to PID	one week out of semester course
Topics covered in PID (indicating sections where practicals are undertake). Give a brief description of each topic covered in the course	Basics about PID Identifying farmer innovations Role players in PID PID as a methodology Importance of PID
Were practicals included in the course? In what way were students involved in the practicals	There is no time for practicals for undergraduates; it is very difficult since students are from various disciplines of the school. For fulltime postgraduate students mainly in workshop arranged by Provincial task team.
Methods used for assessing students' understanding of concepts	Sharing of innovations/indigenous knowledge known to be useful in their areas (during class discussions). Tests, group assignment and individual assignments. Normally assessments used are test and assignment plus exam for undergraduate. Test (60%) Assignments (40%) and a final exam only if a student qualifies to write. For postgraduate students doing internship a detailed report is required by CRCE on PID activities undertaken with extension officers and researcher lessons learned.

Participatory approaches / PID in Agriculture and NRM  
**University of KwaZulu-Natal, South Africa**

Curriculum Development Information Sheet –  
 Compiled by Maxwell Mudhara

Name of course under which PID is offered	Extension Methods (Communication and Innovation)
Degree where PID material is offered	BSc Agriculture (Rural Resource Management)
What are the prerequisites for the course	None
Since when has the course been offered? On average, how many students participate in the course each year	On average 35 students take the course.
Programmes that students undertaking the course belong to	BSc Agriculture, Humanities
Level at which material is offered (Undergraduate, Honours, Post-graduate Diploma, Masters)	Undergraduate
School, Department/Section in which course is offered	School of Environmental Sciences; Centre for Environment, Agriculture & Development
What proportion of the course was dedicated to PID	One hour out of 36 hours
Topics covered in PID (indicating sections where practicals are undertaken). Give a brief description of each topic covered in the course	Local innovation(s), farmer innovations
Were practicals included in the course? In what way were students involved in the practicals	Students go on a field trip where they can look at the different innovations that farmers use and how such innovations have been developed. Students interview a few farmers to get insight into the innovations and factors motivating their development. They compile a report on the field trip.
Methods used for assessing students' understanding of concepts	Examination, journal (15%), individual presentation (20%) 1 test (15%), 3hr examination (25%) field report (25%)

Participatory approaches / PID in Agriculture and NRM  
**University of KwaZulu-Natal, South Africa**

Curriculum Development Information Sheet –  
 Compiled by Maxwell Mudhara

Name of course under which PID is offered	Advanced Communication and Innovation
Degree where PID material is offered	Post Graduate Diploma in Rural Resource Management (RRM)
What are the prerequisites for the course	None
Since when has the course been offered? On average, how many students participate in the course each year	10
Programmes that students undertaking the course belong to	Post Graduate Diploma in RRM Honours – BSc Agriculture
Level at which material is offered (Undergraduate, Honours, Post-graduate Diploma, Masters)	Post Graduate Diploma
School, Department/Section in which course is offered	School of Environmental Sciences Centre for Environment Agriculture and Development
What proportion of the course was dedicated to PID	One week out of a 12-week module
Topics covered in PID (indicating sections where practicals are undertake). Give a brief description of each topic covered in the course	Promoting farmer innovations Partnering for innovation Screening innovations
Were practicals included in the course? In what way were students involved in the practicals	Practicals are undertaken as part of course project (see below). A video is shown to illustrate promotion of innovations. A practical session on screening innovations is held. A set of criteria are identified and used for screening innovations. Results of the screening are presented in plenary.
Methods used for assessing students' understanding of concepts	Students undertake a project where they interact with a rural community. Students select a topic to focus based on the issues obtaining in the rural community. PRA tools are used for understanding issues solutions a developed jointly with communities. Paper (40%), project plan (10%), final project paper (40%), presentation (10%).

Participatory approaches / PID in Agriculture and NRM  
**Sudan University of Science and Technology**  
**College of Forestry and Range Science**

- Curriculum Development Information Sheet -  
 Compiled by Abdelaziz Karamalla Gaiballa

Name of course under which participatory approaches / PID modules in Agriculture and NRM are offered	Indigenous Knowledge and Natural Resources Management
Level	Master's level MSc Community Forestry
Diploma / degree programme where participatory approaches / PID modules in Agriculture and NRM are offered	Incorporating the IK of local communities within sustainable and successful natural resources management frames.
School, Department/Section in which course is offered	College of Forestry and Range science – Sudan University of Science and Technology
Course focus	The course aims to create strong conceptual and workable knowledge related to understanding and application of IK in natural resources management. To ensure the involvement of the local communities through validation and enhancement of their IK within community oriented natural resources management.
Targeted students	Students enrolled in this program are those working at the departments related to natural resources management or NGOs working in related aspects in addition to research work.
Are there any academic entry requirements for the course	Bachelor's degree in relevant subject, but mostly agric, forestry, rangeland management
Since when has the course been offered?	2005
How many times a year is the course offered?	Once a year within the second semester of one year course followed by preparation of dissertation
On average, how many students participate in the course each year	Around 20 students
Topics covered in participatory approaches / PID modules in Agriculture and NRM.	Indigenous knowledge community Innovation
Were practicals / field work included in the course? In what way were students involved in the practicals?	Class discussion Presentations.
Teaching modalities	Teaching depends mainly on initiating issues for discussion, based on the common understanding of the conceptual aspects and relates case studies and stories
Assessment	Group work discussion and presentation in addition to writing an essay – 30%. Final written examination -70%
Name of lecturer/s	Abdelaziz karamalla Gaiballa
Future plans	- Continuous improvement of the contents

	-Design IK as a package for undergraduates - Share experience with others
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The course contents

■ Indigenous knowledge

The concept of IK

Importance of IK

Types of IK

■ IK features related to communities

IK features

Peculiarities

■ IK and Development

IK and development process

IK and poverty

■ IK and gender

- Gender and NRM

- Gender and IK

■ Participatory natural resources Management

Sustainable natural resources management

Elements of successful natural resources management

Community based natural resources management

IK and development process

■ IK and NRM

- Indigenous practices

- IK and Awareness raising

■ Applications of IK (means and prospective)

- NRM

- Agriculture

- Livestock raising

- Related livelihood aspects

- Participatory research

■ Exchange of IK

Gap identification

Transfer and adoption

Barriers

■ Enhancement of IK

Intellectual property rights

National policies and IK

Validation

Documentation

■ Controversial aspects of IK

Participatory approaches / PID in Agriculture and NRM  
**SOKOINE UNIVERSITY OF AGRICULTURE, Tanzania**

Curriculum Development Information Sheet –  
 Compiled by A Z Mattee

16<sup>th</sup> March 2009

Name of course under which participatory approaches / PID modules in Agriculture and NRM are offered	EE 308: Comparative Extension Systems
Level (undergraduate, diploma, master's, etc)	Undergraduate level
Diploma / degree programme where participatory approaches / PID modules in Agriculture and NRM are offered	BSc Agricultural Education & Extension
School, Department/Section in which course is offered	Department of Agricultural Education and Extension in the Faculty of Agriculture
Course focus	The course intends to expose students to different extension systems in terms of approaches, methodologies, delivery and funding mechanisms
Targeted students	Offered to third year BSc Agricultural Education & Extension students
Are there any academic entry requirements for the course	No specific requirements but students are expected to have completed the basic course on principles of extension
Since when has the course been offered?	Since the inception of the degree programme in 19
How many times a year is the course offered?	Once every year
On average, how many students participate in the course each year	Around 60 students
What proportion of the course was dedicated to participatory approaches / PID in Agriculture and NRM	About 10 percent
Topics covered in participatory approaches / PID modules in Agriculture and NRM.	Definition and Rationale of PTD Role of indigenous knowledge in PTD Techniques of involving farmers in PTD Challenges in implementing PTD
Were practicals / field work included in the course? In what way were students involved in the practicals?	The course does not include practicals
Teaching modalities	Mostly through lectures and class discussions where students analyse and share experiences on various extension projects and programme that are implemented in the country in terms of the approaches and methodologies that are used.
Assessment	Assessment for the course involves written tests and assignments during the semester that account for 60% of the final score and an end of semester examination that accounts for 60% of the final score that the student will

	eventually get for that course.
References used	
Name of lecturer/s for participatory approaches / PID modules in Agriculture and NRM	Prof A Z Mattee Department of Agricultural Education and Extension, Sokoine University of Agriculture
Future plans	

**Course content:**

- Organisational Structure for Agricultural Extension
- Conditions for effective extension organisation
- The Ministry-based extension
- Commodity-based extension
- University-based extension
- District-based extension
- Issues in extension organisation
- Major Extension Approaches/Systems
- Conventional approach
- Training approach
- Farming Systems approach
- Integrated Approach
- Participatory Technology Development Approach
- Farmer Field School Approach
- Delivery Mechanisms
- Ministry of Agriculture
- Local government authorities
- NGOs
- Private agribusinesses
- Farmers' organisations
- Funding Mechanism
- Public funding
- Private funding
- Mixed funding