PROmoting Local INNOVAtion as a way to link farmers with agricultural extension, academics and research in Ethiopia

15 September 2016

by

Best Practice Association (BPA) and

PROLINNOVA—Ethiopia National Steering Committee
1. Aims of the meeting

The PROLINNOVA National Steering Committee of Ethiopia organised a national stakeholders meeting on 15 September 2016. The purposes of the meeting were to evaluate the CLIC–SR (Combining Local Innovative Capacity with Scientific Research) project and revitalise the PROLINNOVA–Ethiopia network. This will help PROLINNOVA–Ethiopia to sensitise and reconnect members for a better networking and serving smallholder farmers. The specific objectives of the meeting were to:

a. To evaluate the CLIC–SR implementation process and the contribution of farmers’ innovation for the agricultural extension, research and development in Ethiopia.

b. Review the status of the PROLINNOVA–Ethiopia.

c. To define the way forward.

2. Outcomes of the meeting

At the end of the meeting the expected outcomes of the meeting will be as follows:

a. Participants of the meeting will be inspired from the experiences shared by farmers.

b. The positive and negative drawbacks of the CLIC–SR implementation process will be identified.

c. The current situation of PROLINNOVA–Ethiopia will be identified.

d. PROLINNOVA–Ethiopia will have identified clearly strategies for the way forward.

3. Presentations in the meeting

3.1 Indigenous knowledge: The case of ethnoveterinary medicine in Ethiopia by Tafesse Mesfin

He presented generalities about ecosystem and traditional management. He described about the country that Ethiopia has diverse ecosystems and diverse ethnic people. To manage such diverse ecosystems, local people have developed a management culture distinct/unique for each ethnic group over many centuries.

The indigenous knowledge status - the indigenous knowledge is our national resource or heritage that has received little attention from researchers and policymakers. As a result it is rapidly declining or getting eroded even before we document it.

He said Indigenous knowledge is a broad subject to present, but I try to mention issues that will bring discussions among participants in the area of natural resource management (NRM) in general and ethnoveterinary medicine in particular.

He also asked a question in his presentation that “Is indigenous knowledge still important?” He answered himself by saying that “The indigenous knowledge is useful in governance, conflict resolution and resource management in short. It requires knowing literature/philosophy, range management, irrigation, crop husbandry, gene
conservation, and the like. Indigenous knowledge is an integral part of development as development is the result of globalisation.”

He also again explained to participants about the case of human and ethnoveterinary medicine. The Chinese and Indians have documented their indigenous medical practices knowledge 5000 and 4000 years ago respectively. Today they are the largest exporters of herbal medicine. World trade of herbal medicine has reached over 100 billion USD.

Again he presented some cases about Ethiopia such as the case of a plant waginos (Brueca antidysenterica), with which James Bruce, the Scottish explorer, was successfully treated when he fell sick with dysentery over 200 years ago. There are a number of plant-based, animal-based and mineral-based treatments practised by traditional healers in various communities.

There are also specialised healers such as mid-wives, bone setters and magico-religious practitioners.

Example of plant-based herbal treatment:

- **Gara/Girawa (Vernonia amygdalina)** – the leaves are fed with traditional mineral soil (ado) for diarrhoea
- **Udder infection and antibiotic** – an case of udder infection/mastitis is treated instead of using conventional medicine (antibiotics)
- **Konkuraite** – treatment for mastitis South Omo (Hor)
- **Higisha maro (Clutia abyssinica)** – treatment is for mastitis (it is an experience from Gamo-Gofa)
- For external parasites: **Incata hara (Nicotiana glauca)** has shown effectiveness against sarcoptic mange in goats in Abala, Afar Region. Also **Aloe pirottiae** has shown effectiveness against ticks in South Omo
- He also presented his exemplary work in ethnoveterinary in Ethiopia with communities by establishing a team of knowledgeable traditional practitioners selected by community members.
- Indigenous veterinary practices of Gamo-Gofa people deal with herding, the management of manure for crop husbandry, beliefs and practices, diseases and their treatments. Over 200 plants used for various purposes are recorded. The manuscript was not edited and published since 2009 due to fund limitation.
In his conclusion, he suggested:

1. Documentation: support for universities and research centres
2. Create and support institutions/ associations where individuals can share their knowledge
3. Action-oriented research is very essential
4. Cultivate medicinal plants and decrease overexploitation
5. Indigenous knowledge is our national resource or heritage that has received little attention from researchers and policymakers. It requires supportive policy.
6. Development has to include indigenous knowledge wherever necessary.

**Question 1:** Tesfahun asked about Intellectual property rights over herbal medicine.

**Answer:** Dr Tafesse said documenting the knowledge of herbal medicine and making this public is minimising the risk of theft and transferring knowledge to the next generation. As long as it is community property, it is open for theft. We had better strengthen knowledge in database.

3.2 Evaluation: Looking at 10 years’ experiences of PROLINNOVA–Ethiopia:

Laying a foundation for a pathway to a lasting partnership with innovative farmers, by Amanuel Assefa and Tesfahun Fenta

- They have presented the long process of PROLINNOVA–Ethiopia (PE) by saying PROLINNOVA is an international learning network that involves more than 20 countries all over the world, including Ethiopia. It works for the recognition and mainstreaming of local innovation and Participatory Innovation Development (PID) in the major research, extension and education systems of the country. “Local innovation” refers to the process of creating new values by innovative farmers through improving traditional knowledge and/or customising introduced technologies to their context. Innovative farmers conduct informal experimentation often without being trained, mentored or supported by outsiders.

- The core business of PROLINNOVA is not restricted to identification and documentation of local innovations but is to facilitate PID by bringing together researchers, extension agents and private-sector actors. The group in Ethiopia is one of the founding members of PROLINNOVA. The founding meeting was held in Ethiopia in March 2004. PE conducted an assessment on participatory research.

- Pool together most of the organisations working on research, education, extension from both Government and NGOs. We worked for 10 years with different institutional arrangements. The objective of this presentation is to share on impacts, challenges, lessons and way forward. AgriService Ethiopia (ASE) and Poverty
Action Network Ethiopia (PANE) were the two host organisations and now Best Practice Association (BPA) is coordinating PROLINNOVA work in Ethiopia.

- A Steering Committee drawn from various organisations manages the PROLINNOVA national programme. In the first few years, it took a long time to find a common working ground because of the diversity in institutional culture and value systems. Four regional innovation platforms were created based on commodity (2 Typical Ethiopian Highlands, 2 Cash-Crop Areas, i.e. Coffee innovation and Enset innovation). A platform in pastoral areas had also been planned.

- Two important changes took place in the last 10 years: 1. Moving from a cumbersome national and regional structure to a project-based platform. 2. Moving from ASE to PANE – a process that took long and was caused by government policy challenges.

- Some issues related to the institutional arrangements – We were aiming at changing the way organisations think and work, in the light of PROLINNOVA principles and values. However, we also expect them to put in resources to support the change process, already from the start, without doing enough to show cases to convince them. This was not possible, because we spread the seed money from PROLINNOVA over too many regional platforms. We operate in a country where NGOs are used to donor money and the initiatives of the network were considered to bring money to the table. The government legislation to govern CSOs was very critical for PE, because most of its work was considered administrative and no one was interested to host the network. PANE was not allowed by law to make financial or programmatic engagements with non-PANE members.

- Programmatic interventions – activities funded by the Directorate General for International Cooperation (DGIS) through the PROLINNOVA International Secretariat in the Netherlands were: setting up four regional platforms included providing training in the four platforms, identifying local innovation and publishing innovation catalogues. DURAS (French Government), DGIS and the Rockefeller Foundation supported the Farmer Access to Innovation Resources (FAIR) project in three sites of the country. ActionAid Ethiopia supported the activity Facilitation Communication and Innovation Capacity Advancement (FACICA). The World Bank/Ministry of Agricultural (MoA) and Oxfam America supported a national-level PID training for senior extension agents.

- Together with ETC, PE coordinated an international PID training in Ethiopia. With Rockefeller Foundation support, it carried out the CLIC–SR project.

**Impacts:**

1. Increased knowledge and innovativeness of farmers
2. Increased confidence of farmers
3. Increased confidence of extension workers
4. Economic benefits for farmers
5. Gender equity within the farming community and extension work
7. Impacts at institutional level: PE made important impacts on the working culture of the following: Ethiopian Institute of Agricultural Research (EIAR), MoA, ASE, Institute of Sustainable Development (ISD) and BPA.
Challenges:

• Policy related: Legislation of the government to govern CSOs (administrative/programme costs).
• Institutional issues: Lack of a reliable host organisation: PANE led PE into crisis.
• Limited scope of innovation: Focus only on technical innovation. Market, institutional and organisational innovations have never been considered by PE, despite their importance.
• Limited programmatic scope and resources: Small innovations of farmers, with limited impacts on the local economy.
• Limited showcase on PID

Lessons, questions, way forward:

• Institutional arrangements: adapting to the changes in context
• Advocacy agendas: putting first things first: identification and promotion of local innovations should come first, while PID comes next.
• New agendas of innovation – how to recognise more local innovation cases that lead to a paradigm shift in an economic sense?
• Internal resource mobilisation
• Going beyond the project cycle mentality
• Supporting grassroots organisations for innovation.

Conclusions

• Important impacts were noticed at farmers’ level.
• More work is necessary to find advocates for the cause of PROLINNOVA.
• More efforts are still needed to bring a real institutional change in the major research, extension and education organisations.
• The institutional issue of PE requires immediate attention of the PE family to ensure sustainable solutions.

3.3 The contribution of CLIC–SR project to agricultural extension, research, academics and farmers, by Hailu Araya, BPA

After explaining the vision, mission and objectives of BPA, he continued briefing of the objectives of the CLIC–SR project. He listed the following:

• Strengthen resilience of smallholders, especially women, by enhancing their innovative capacity through PID
• Build capacity of organisations working on agriculture and NRM
• Increase insights and awareness on relevance and effectiveness of PID sharing and learning
• Mainstream PID as an accepted approach in policies related to agricultural development, NRM and adaptation to change, including climate change.

Then he listed some 20 innovations identified and documented. He invited four farmers to present their innovations conducted as joint experimentation. These are:
i. **Chicken sex determination by egg shape, by farmer Abadi Redehey**

They started the experimentation with a hypothesis: shallow egg is female while the round is male. The farmer researchers identified different criteria and procedures for the joint experimentation: i) identifying egg shapes; ii) identifying good season for the joint experimentation, i.e. not too wet or too hot weather; iii) the hens should be the local breed; iv) identifying and selecting volunteer farmers for the experimentation.

Results show 90% of those judged as female became female and 100% of those judged as male became male. To experiment by shape should be done in separate location – not to mix the eggs up. The number of eggs one hen can hatch properly varies from 10–12 depending on the size of the chicken (hen); otherwise, it will be a problem to incubate all at one time. As a result, farmers and experts are working together to use and share with other farmers. Based on this experimentation, farmers started planning for the production of male chickens during festivities.

**Question** – who started this innovation?

**Answer** – we got it from a women farmer at the East African Innovation Fair in Nairobi, Kenya, in May 2013.

ii. **Shibaka multiplication through cutting, by Gidey Hagos**

The purpose of this innovation is to increase vegetation cover, animal feed, etc. But the problem was that it is not successful throughout the year. It is grown by cutting but needs identifying the right season. He told the participants the right season is one month before the rainy season or after the rainy season. This plant is not good to be planted during the wet season because it rots easily. Now it is spreading throughout the neighbourhood and in the district.

iii. **Haricot bean (bolokie) crop pest control, by farmer Damtie Birhanu**

The problem was haricot bean is highly affected by pests in the rainy season. It is one of the exportable crops – a cash crop for farmers in East Gojjam. Then the farmers wanted to solve the problem by experimenting with the time of sowing.

**Experimentation**

- Farmers start to practise sowing of haricot bean in three different periods.
- They divided their land into three plots and started to sow haricot bean
  a) Before the wet season, when the soil has no moisture,
  b) After a little rain, when the soil has a little moisture, and
  c) During the main wet season, when the soil became full of moisture.

From their experimentation, the first treatment, i.e. planting the crop before the wet season, has given the farmers good yield without pest problem. Now the farmers and the extension staff are using this result as a solution to the pest problem.

iv. **Chicken sickness, by farmer Yeshanew Embiale**

Yeshanew Embiale comes from Enebse Sar Midir, East Gojjam. His innovation is on curing chickens when seriously sick. The medicine is made from *Mehan Endod* and *Areg Resa* mixed with water. He soaks the chicken feed with the prepared medicine.
3.4 ENHANCING CAPACITY TO INNOVATE: key to sustainable development – PROLINNOVA strategy 2016–20: summary by Yohannes GebreMichael

He presented a summary of the 5-year strategic plan of the PROLINNOVA international network. The main points presented were:

- Strengthening the network
- Documentation of innovation processes in different parts of the country and by different member organisations.
- Institutionalising the philosophy of the network into different institutions.
- Developing a strategic plan in line with the international network.

4. Action points

Participants were much encouraged to strengthen the network and they agreed on the following points to be taken as action in the way forward in order to strengthen the network:

- Organising regular experience/information sharing among members as awareness creation
- Identifying the needs of the farmers and the government policy – this will help in supporting the government policy and the urgent needs of the farmers.
- Making an inventory in different locations in collaboration with regional agriculture and universities – this will help in covering large part of the highly diverse country.
• Supporting some of the innovations through verification by stakeholders/partners.
• Recognising best farmer innovators
• Documentation, promotion, establishing database (website)
• Networking and interlinking
• Influencing policy and informing the very close government organisations and NGOs like Ministry of Science and Technology, Ministry of Agriculture and Natural Resources, Ministry of Environment, Forest and Climate Change, etc

5. Core group

As proposed by the participants, a taskforce of volunteers was established. The following are the new members of this core group (in alphabetical order):

1. Amanuel Assefa – Precise Consult International (PCI/WB)
2. Daniel Temesgen – Ethiopian Society of Animal Production (ESAP)
4. Hailu Araya – BPA / Participatory Ecological Land Use Management (PELUM) Ethiopia
6. Sue Edwards – ISD
7. Tafesse Mesfin – Private
8. Tesfahun Fenta – McKnight Foundation
9. Tezera Getahun – Pastoralist Forum Ethiopia (PFE)
10. Yohannes GebreMichael – Addis Ababa University (AAU)

The mandate of the taskforce includes reviewing past experience and the new strategy, expansion and intensification of PROLINNOVA principles and design, mainstreaming of PROLINNOVA principles in different institutions including school curriculum, and drawing up a short- and long-term strategy.

Finally, the closing was by a farmer Ato Gebre, who highlighted how the meeting was productive and a good springboard to strengthen and expand the networking and motivate farmers to experiment and innovate.
Some photos of the workshop
### Annex 1: Programme of the 15 September 2016 CLIC–SR meeting

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic / Activity</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30–8:45</td>
<td>Briefing on the objectives of the meeting</td>
<td>Yohannes GebreMichael</td>
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<tr>
<td>8:45–9:00</td>
<td>Introduction of participants</td>
<td>Hailu Araya</td>
</tr>
<tr>
<td>9:00–9:20</td>
<td><strong>Opening</strong>: Insight on indigenous knowledge/practices with special focus on livestock</td>
<td>Tafesse Mesfin</td>
</tr>
<tr>
<td>9:20–10:00</td>
<td>Conceptual insights of inventory of innovators/innovations with 10 years PROLINNOVA–Ethiopia</td>
<td>Amanuel Assefa / Tesfahun Fenta</td>
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<tr>
<td>10:00–10:30</td>
<td><strong>Tea break</strong></td>
<td>Organising team</td>
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<tr>
<td>10:30–11:30</td>
<td>The contribution of PROLINNOVA/CLIC–SR to women, food security, climate-change adaptation, extension, research, nutrition, etc</td>
<td>Hailu Araya with farmers</td>
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<tr>
<td>11:30–11:50</td>
<td>PROLINNOVA Strategic Plan</td>
<td>Yohannes GebreMichael</td>
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<td>11:50–13:00</td>
<td>Discussion</td>
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<tr>
<td>13:00–13:10</td>
<td>Closing</td>
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<tr>
<td>13:10–14:30</td>
<td>Lunch</td>
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Table 1: List of participants with their addresses

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<tr>
<th>No.</th>
<th>Name</th>
<th>Organisation</th>
<th>Address</th>
<th>Contact address</th>
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<tr>
<td>1</td>
<td>Tezera Getahun (M)</td>
<td>Pastoralist Forum Ethiopia (PFE)</td>
<td>Addis Ababa (AA)</td>
<td>0911604843/ <a href="mailto:tezerag@yahoo.co.uk">tezerag@yahoo.co.uk</a></td>
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<tr>
<td>2</td>
<td>Daniel Temesgen (M)</td>
<td>ESAP</td>
<td>AA</td>
<td>0911666468/ <a href="mailto:danieltermesgen20011@yahoo.com">danieltermesgen20011@yahoo.com</a></td>
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<td>3</td>
<td>Nega Megersa (M)</td>
<td>VWDO</td>
<td>AA</td>
<td>0911716023/ <a href="mailto:negat1958@yahoo.com">negat1958@yahoo.com</a></td>
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<tr>
<td>4</td>
<td>Taffesse Mesfin (M)</td>
<td>Private</td>
<td>AA</td>
<td>0911771792/ <a href="mailto:tafmes@gmail.com">tafmes@gmail.com</a></td>
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<td>5</td>
<td>Sue Edwards (F)</td>
<td>ISD</td>
<td>AA</td>
<td>0911200834/ <a href="mailto:sustaindeveth@gmail.com">sustaindeveth@gmail.com</a></td>
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<td>6</td>
<td>Amanuel Assefa (M)</td>
<td>PCI/WB</td>
<td></td>
<td><a href="mailto:kidus_aman@yahoo.com">kidus_aman@yahoo.com</a></td>
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<td>7</td>
<td>Yohannes GebreMichael (M)</td>
<td>Addis Ababa University</td>
<td>AA</td>
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<td>8</td>
<td>Hailu Araya (M)</td>
<td>BPA/PELUM Ethiopia</td>
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<td>9</td>
<td>Tesfahun Fenta (M)</td>
<td>McKnight Foundation</td>
<td>AA</td>
<td>0911649912/ <a href="mailto:tfenta@yahoo.com">tfenta@yahoo.com</a></td>
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<td>Gebremedhin Birega (M)</td>
<td>Wolayta Development Association/ Consumer Association</td>
<td>AA</td>
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<td>Abebayehu Tenaw (M)</td>
<td>Development agent</td>
<td>Mertule-mariam</td>
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<td>Yeshanew Embi’ale (M)</td>
<td>Farmer</td>
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<td>13</td>
<td>Damtie Birhanu (M)</td>
<td>Farmer</td>
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<td>14</td>
<td>Abadi Redehey (M)</td>
<td>Farmer</td>
<td>Wukro Marai</td>
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<td>Haleka Gidey Hagos (M)</td>
<td>Farmer</td>
<td>Wukro Marai</td>
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<td>16</td>
<td>Demoz Hishe (M)</td>
<td>Journalist</td>
<td>Tigray</td>
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<td>17</td>
<td>Dawit Solomon (M)</td>
<td>PADD (Protestant Agency for Diakonia and Development)</td>
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<td>0922560135/ <a href="mailto:dawit.solomon@bregional.org">dawit.solomon@bregional.org</a></td>
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<td>Haile Deressa (M)</td>
<td>GIZ/ISFM (German International Cooperation/ Integrated Soil Fertility Management)</td>
<td>AA</td>
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<td>Tadesse Amera (M)</td>
<td>PAN (Pesticide Action Network)–Ethiopia</td>
<td>AA</td>
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<td>Sara Aseffa (F)</td>
<td>Hope University College/ AgriProFocus Ethiopia</td>
<td>AA</td>
<td>0919313031/ <a href="mailto:sara.asefa@gmail.com">sara.asefa@gmail.com</a></td>
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<td>Adane Bulo (M)</td>
<td>Ethiopian Development Research Institute (EDRI)</td>
<td>AA</td>
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<td>Bamlaku Amente (M)</td>
<td>AAU</td>
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<td>23</td>
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<td>ISD</td>
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