

# Report of the Symposium Participatory Research to foster Innovation in Agriculture at the ETH Zürich

Thursday, 28<sup>th</sup> August 2014

## Program

Program		
Time	Activity	Presenter
09:00	Introduction	Dr. G. Bhullar (FiBL)
09:05	Welcome address from Zurich-Basel Plant Science Center - IDB BRIDGES	Dr. Melanie Paschke (IDP BRIDGES)
09:15	Welcome address from FiBL	Prof. Urs Niggli (FiBL)
09:30	Methods for coproducing knowledge	Dr. Christian Pohl (ETHZ)
10:00	Participatory v/s conventional approaches in agricultural research	Prof. D. Neri (UNIVPM, Italy)
10:30	Discussion	
10:45	Coffee Break	
11:15	Challenges of Participatory plant breeding in Europe	Prof. Edith Lammerts van Bueren (WUR, NL)
11:45	Participatory cultivar evaluation and breeding for organic cotton in India	Prof. S.S. Patil (UAS Dharwad, India)
12:15	Discussion	
12:30	Lunch Snack with Poster Presentations on Participatory Research	
13:30	Introduction to "World café"	Dr. R. Home / M. Messmer (FiBL)
13:45	World café: on different topics / systems (visiting researchers discuss with local partners and student groups)	active participation of all
15:15	Coffee Break	
15:30	Presentation of Results	Participants
16:20	Final Discussion and Synopsis for successful Innovations in Agriculture	Dr. R. Home / Dr. M. Messmer
16:45	Closing of the Workshop and word of thanks	G. Bhullar
17:00	Apéro	



The organising team at FiBL (L-R): David Bautze, Lin Bautze, Gurbir S. Bhullar, Monika Messmer and Steffen Schweizer

## Anticipated Audience and Participants

**Anticipated Audience:** Project Partners of Green Cotton and SYSCOM from India, Kenya and Bolivia, Students, Postdocs, Professors from IDP BRIDGES, Mercator Fellowship, Zurich Basel Plant Science Center, World Food System Center, Global South, ETH, University of Basel, University of Zürich, University of Bern, HAFL, ZHAW, FHNW, FiBL, and all Persons interested in Participatory Research in Agriculture

Surname	Name	Country
Adamtey	Noah	Switzerland
Andres	Christian	Switzerland
Baumgartner	Isabelle	Switzerland
Bautze	David	Switzerland
Bautze	Lin	Germany
Bernet	Thomas	Switzerland
Bhat	Nisar Ahmed	India
Bhullar	Gurbir	Switzerland
Bischof	Andrea	Switzerland
Blaser	Wilma	Switzerland
Bos	Swen	Switzerland
Bossard	Martin	Switzerland
Cano	Freddy Felix Alcón	Bolivia
Costerousse	Benjamin	Switzerland
Decock	Charlotte	Switzerland
Devang	Devang	Switzerland
Dray	Anne	Switzerland
Egli	Barbara	Switzerland
Fehle	Pia	Switzerland
Felix	Nadine	Switzerland
Gianalberto		Switzerland
Goethe	Tina	Switzerland
Grüter	Roman	Switzerland
Haldule	Sae	Germany
Hofer		Switzerland
Hofmann	Anett	Switzerland
Home	Robert	Switzerland
Huangzhihong		Switzerland
Huaylla	Octavio Atanacio	Bolivia
Huber	Beate	Switzerland
Huber	Stephanie	Switzerland
Johnattan		Switzerland
Kadzere	Irene	Switzerland
Karanja	Edward Nderitu	Kenya
Kariyat	Rupesh	Switzerland
Kern	Fritz	India
Kidane	Yohannes	Switzerland
Klaiss	Matthias	Switzerland

Küffer Heer	Susanna	Belgium
Kunz	Markus	Switzerland
Lammerts von Bueren	Edith	Netherlands
Ledermann	Samuel	Switzerland
Locqueville	Jonathan	France
Mader	Sarah	Switzerland
Marca	Fortunato Velasques	Bolivia
Mathimaran	Natarajan	Switzerland
Messmer	Monika	Switzerland
Milz	Joachim	Bolivia
Mucheru	Monica Wanjiku Mucheru	Kenya
Müller	Isabel	Switzerland
Nay	Michelle	Switzerland
Neri	Davide	Italy
Nesper	Maike	Switzerland
Niggli	Urs	Switzerland
Oberson	Nathalie	Switzerland
Owuor	Peter Omolo	Kenya
Padrout	Fried	Switzerland
Paschke	Melanie	Switzerland
Patel	Dharmendra	India
Patidar	Ishwar	India
Patil	S.S.	India
Pereira	Engil Isadora	Switzerland
Peter	Marty	Switzerland
Pohl	Christian	Switzerland
Ponta	Nicole	Switzerland
Richter	Thoralf	Switzerland
Roner	Tina	Switzerland
Roth	Morgane	Switzerland
Sana	Ramprasad	India
Schaad	Julia	Switzerland
Scherer	Paul	Switzerland
Schneider	Monika	Switzerland
Schütz	Lukas	Switzerland
Schwank	Othmar	Switzerland
Schweizer	Steffen	Germany
Scolobig	Anna	Switzerland
Shrivvas	Yogendra	India
Singh Mandloi	Lokendra	India
Singh Sisodya	Bhupendra	India
Soth	Jens	Switzerland
Stucki	André	Switzerland
Suter	Christa	Switzerland
Thieme	Michael	Switzerland

Turco	Silvia	Switzerland
Utz	Claudia	Switzerland
Vonzun	Seraina	Switzerland
Vouillamoz	José	Switzerland
Waweru	Michael Nduati	Kenya
Wele	Dharmendra	India
Wilde	Benjamin	Switzerland
Wyden	S.	Indonesia
Zweifel	Juliana	Switzerland

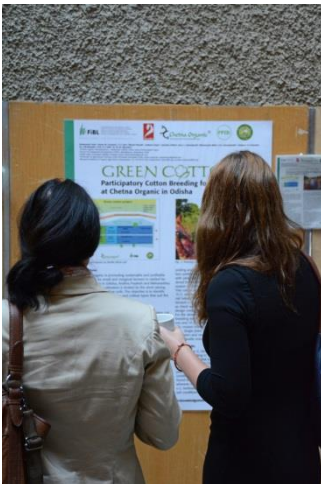
## Presentations and Poster Sessions

The morning of the event started with several presentations held by experts around the topics of “Participatory Research to foster Innovation in Agriculture”. After the welcome address by the Zürich-Basel Plant Science Center, presented by Melanie Paschke, and the FiBL, presented by the director of the Institute Prof. Urs Niggli, the lectures started. The first presentation by Dr. Christian Pohl from the ETHZ dealt with the question what methods do exist for coproducing knowledge. Take home messages were that transdisciplinary research and heterogeneous teams are needed, as the world’s problems are complex, too. For organizing and structuring this research and teamwork, Dr. Christian Pohl presented diverse tools and methods that can be applied.



*Participants during the presentations held by international experts*

The second presentation dealt with the different approaches in agriculture research as being participatory v/s conventional. Prof. Davide Neri presented different case studies around the world and showed the advantages of participatory research structures over conventional methods. Afterwards, Prof. Edith Lammerts van Bueren presented the challenges of participatory plant breeding in Europe. During her presentation, she discussed the problem of seed availability and how participatory breeding programs and involvement of farmers in research can help solving such problems. The last presentation for the day was held by Prof. S.S. Patil, where he elaborated the participatory cultivar evaluation and breeding for organic cotton in India. During his presentation, the problematic of Bt cotton and the lack of organic seed availability became a clear picture. He presented the Green Cotton Project to cope with this challenge by developing organic cotton cultivars by decentralizing participatory breeding programs in collaboration with farmer organizations.



*Exchange and discussions among participants*

Additionally to the lectures, the participants had the possibility to inform and discuss with each other about different themes of global participatory research that were visualized on more than 20 posters during the coffee and lunch break.

Presentations are available by the following link: <http://www.greencotton.org/?cat=6&lang=en>

## World Café

The afternoon session has been intensifying the contacts and knowledge exchange between the Swiss and international participants. By the organization of a World Café that consisted of 9 tables, everybody received the possibility to contribute to the moderated discussions. This method helped to discuss a diverse variety of relevant topic, while developing solutions that can be internationally disseminated by the participants itself. At the end of 3 discussion rounds with each 20 minutes, the group facilitator summarized the group discussions and findings and presented them to all participants. The discussions led to diverse results, reflecting the active participation during the event.



*Dialogue between the international participants*

### **1. What is the contribution of organic farming for food security in the next 30 years?**

The first group discussed about the contribution of organic farming for food security. Their main results were that organic agriculture is the more sustainable version and thus by including in the future the externalities into considerations, the organic system would be more profiting for future generations. This would help in developing a healthy environment, while ensuring the food security of the Globe.

### **2. What are the main drivers to foster innovation in agriculture?**

The group discussions led to the result that the Western view influence the reference system of innovation. While something like genetically modified organisms (GMOs) are referred as a big innovation, the potential of smaller innovations (e.g. “how to shorten the compost making”) should be exploited in the future. The main function of innovation has been recognized as the better understanding of nature, its usage in the future and the holistic world view. Mostly, innovation is local driven and fewer global driven while transparency, communication and limiting resources will change innovation types and perceptions.

### **3. What are tools and methods that can be utilized for group learning?**

Different tools and methods have been discussed. E.g. the use of role play for communication between researcher and farmer can be used. After the role play about an innovation, finding etc., the farmers can explain what they have learnt. Also the use of smartphone technologies (e.g. pictures and videos) can be used for dissemination of knowledge. Here, the farmers can communicate with each other and exchange their technologies or practices that they use. One of the main needs for group learning has been identified as the provision for socializing and networking during the eating, where different farmers can get to know each other and diverse farming practices at the same time. Additionally, the demonstration of developed techniques is essential for farmers, because this increases motivation. Lastly, the improved facilitation skills of researchers are essential for the whole process. By closing the gap between researcher and farmer by respecting cultural heritage, language and knowledge, teamwork can be enhanced.

### **4. How can smallholder farmers in Africa be linked with markets?**

Essential for linking smallholder farmers in Africa with markets are access to the market, transportation to the market and prizes at the market (in particular of conventional products in comparison to organic products). One solution that has been mentioned was the certification of organic product. Especially, group certification (collaboration of several smallholder farmers) can be helpful in raising the awareness of the customer (for higher prices of organic products) and the understanding of the

organic products benefits. Direct marketing and community supported agriculture can furthermore help to reduce the distance between farmer and consumer.



*Discussions during the World Cafe*

### **5. How to ensure long term engagement of participants?**

The fifth group found that all the time during a project, the role of a facilitator is essential for the success of the project. He/she should balance the interests (import/export/self-sufficiency) of the stakeholder and help in finding a common goal that should be settled by signing a contract among all the participants. The identification of short and long-term goals and scheduling of meetings according to the preferences of the participants (consider times of farmers), help in ensuring long-term commitment of self-same. In some cases, compensation for farmers and invitation of experts from outside to give new insides, might help increasing motivation. It is

essential during the whole process, that rooms for different priorities of the partners are considered. By contacting the partners before meetings and by understanding their wishes for an outcome, problems can be solved beforehand. Lastly, the identification of people that are responsible for the project after funding has finished might help to create responsibility and ownership for the project. The establishment of fixed events (e.g. potato day), where people will come back to the project on a regular basis, may help in running the project after funding.

### **6. How will innovation derived from participatory research be spread among rural areas of the same region, country or internationally?**

One of the main issues that have been discussed was how to communicate results properly for the beneficiaries. Social and natural scientists need to understand the perspectives of the beneficiaries and thus adapt their dissemination of results according to the target group. It has been stated, that at least 10% of the available project funding should be allocated to communicate research results. Here, in particular the donors perspectives should be considered and different media used for dissemination of knowledge. E.g. social media, extension worker, radio and mobile phone may help in communicating. Nevertheless, it is essential to reflect afterwards if the communicated results had an impact. For the follow up, adoption surveys and additional funding should be considered to promote the spread of improved technologies.

### **7. How can farmers, especially female farmers, get more involved in agricultural development?**

The female involvement of farming depends on the country specific culture. E.g. in Kenya around 70-80 % of farming and marketing is done by women, while in European countries (Switzerland, Germany and France), according to the participants, farming is perceived as a “men job”. In India farming is done by women that take care of certain activities (such as seed sowing, harvesting, picking etc.), whereas the marketing is still done by men that receive the final price of the product.

The participants discussed several factors that influence the involvement of female farmers in agriculture practice and research, such as:

- Education level (workshops especially designed and trained for women would have a positive influence instead men training women),
- free time availability (most women take care of children, houses and farming activities so that they do not have time to do research),
- appreciation (in some countries women have not been asked to participate in research and their knowledge has not been appreciated),
- traveling distance (women sometimes have no driving license, so that they cannot travel far from home) and
- cultural barriers (in some cases the husband need to agree for his women to take part in research – ask the husband, if you want female contribution).

One well-functioning example of female involvement has been mentioned by a Kenyan participant. In Kenya an organisation solely for women farmers exists. Here, female farmers exchange their farmer products directly with one another. As they save some money due to direct marketing (traveling costs, market costs etc.) they invest into a fund from which only other women farmers can borrow money to invest in future farms with low interest rates. This helps ensuring that female farmers receive the financial benefits of farming directly, that they become independent from their husbands permissions for investments and that new female farmer receive the possibilities to invest into farming systems.

#### **8. How can researchers become more interested in participatory research?**

Besides showing the researcher other case studies of participatory research successes, the role of donors have been discussed. If donors and funding agencies expect the researcher to integrate participatory research and if researchers see the improved impact than participatory research approach will be well appreciated. By the creation of melting points, e.g. laboratory of the researcher is shifted to the farm, so that the farmer and researcher can learn directly from the other, might help in motivating for interdisciplinary and transdisciplinary research.

#### **9. How to overcome challenges of on-farm trials?**

Decentralized on farm trials are very demanding in terms of time and labour management and especially in the collection of reliable data. A pre-screening of farmers might be essential to minimize conflicts beforehand. By providing all farmers the same information at the same time, integrity of the researcher can be enhanced. It is also important to involve farmers to define research objectives Furthermore, farmers should be included in writing reports and collecting results and social events (e.g. dancing) should be held on a regular basis. By integrating all the farmers (instead of one lead farmer) during the research, cooperation will be fostered. Along the way, the researcher needs to understand its role as the communicator between the farmer and the donor/funding agency. In case of conflicts, the involvement of experts from outside (e.g. NGOs) and agreeing on contracts may help in finding a solution.

### **End of the Day**

After the World Café discussions and presentations, the participants were ending the day with an Apéro and the final group foto in front of the ETH Zürich.

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## Evaluation of Participants and Outlook

All participants were asked to fill out a feedback form and hand this in anonymously. Out of nearly 90 participants, 42 evaluated the Symposium Event. The grading scheme ranged from 1 (very good) to 4 (not satisfying). The overall grading has been 1.15, showing that most of the participants enjoyed the Symposium Workshop.

Participants enjoyed the combination of input lectures and World Café discussions. Regarding the question which topics the participants would be interested in for future events, the following have been named:

- Effective and efficient on-farm research and extension methodologies (6 times mentioned)
- Seeds related issues (breeding) (3 times mentioned)
- Evaluation and reflection in group work (2 times mentioned)
- Alternative production systems (e.g. agroforestry, permaculture) (2 times mentioned)
- Effect of global political economy and agriculture i.e.- labour practices, commodity crops, chemical subsidies etc. (2 times mentioned)
- Difference between “tropical” and “western” participation/organic farming issues (2 times mentioned)
- Bio pest control (2 times mentioned)
- Energy in Agriculture (once mentioned)
- How can organic farming contribute to food security? Adaptation, resilience and coping mechanisms to climate change (once mentioned)
- Female involvement in organic agriculture (once mentioned)