

# Democratising food and agricultural research

Nothing less than a paradigm revolution is needed to democratise food and agricultural research for the common good and the wellbeing of the planet, argues **Michel Pimbert**.

## Expanding grassroots innovation and self-managed research

Historically, knowledge about food and farming has been produced by people without any professional university training. Well before scientific institutions and agricultural research stations existed, farmers and livestock keepers generated a huge diversity of locally adapted crop varieties and livestock breeds by working with nature. Even today, farmers and ordinary citizens are engaged in the production of knowledge on a significant scale outside universities and research institutes.

Self-organising grassroots research and innovation plays an increasingly important role in larger social movements working for food sovereignty, agroecology and biocultural diversity. Farmers, indigenous peoples, pastoralists and other citizens engaged in grassroots research and innovation rarely work alone. They are usually members of a collective of peers, an affinity group, or an association.

Self-organised peasant-led research and innovation processes are typically part of horizontal socio-cultural networks that usually span large geographical areas (Box 1).

These decentralised and distributed forms of people-led research and innovation sharply contrast with the organisation and practice of mainstream science and technological research and

### Box 1: Examples of self-managed research and grassroots innovation networks constructing knowledge for food, agriculture and well being

#### The *Campesino a Campesino* (CAC) movements in Central America and Cuba

*Campesino a Campesino* (Farmer to Farmer) is a grassroots movement that originated in the early 1970s in Guatemala and spread through Mexico, Nicaragua and Cuba. Using their own farms as classrooms, the peasant farmers rely on principles of popular education and peer-to-peer learning to build local capacity, autonomy, and empowerment. The CAC process has generated effective site-specific agroecological solutions and empowering forms of non-hierarchical communication for social change throughout Central America and the Caribbean.

#### The Peasant Seeds Network in France

In 2003, the Réseau Semences Paysannes was created in France by the Confederation Paysanne, the National Coordination of Defenders of Farm Seeds, and several organic farmers' associations. The Réseau Semences Paysannes comprises over 70 member organisations. Members of the network engage in participatory and evolutionary plant breeding and they facilitate grassroots research and innovations in agroecology.

#### URGENCI and community supported agriculture

URGENCI, the international network for Community Supported Agriculture (CSA), emphasises the need to consider citizen-consumers as key subjects in peer-to-peer learning on agroecology and food sovereignty. Popular education about the realities of farming and the entire food system is at the heart of the CSA movement and its knowledge creation processes.

#### L'Atelier Paysan in France and Farm Hack in the USA

These communities of farmers and mechanics use internet platforms to share knowledge about farm tools and machinery they design and build on their farms or in community workshops. These grassroots communities of innovators and self-managed research develop and share open-source tools for resilient agriculture. They also assemble offline in face-to-face meetings, workshops, and hands-on build events. Lastly, these grassroots networks are inclusive of different types of knowledge holders and comprise not only farmers but also people with a common interest: engineers, designers, architects, tinkerers, and programmers.

development (R&D). They work from the bottom up and tend to be organised on the basis of a more horizontal and egalitarian logic.

They often rely on forms of critical education to build the capabilities and confidence of wo/men participants in grassroots networks. Farmers and other citizens are part of non-hierarchical 'peer-to-peer' collectives which typically seek to go beyond the concepts, categories, criteria and epistemology of dominant knowledge in the sciences and humanities. Focussed on problem-solving, the knowledge and innovations they develop can either be conceptual, methodological, technical and/or institutional.

Some horizontal networks for autonomous knowledge-creation distance themselves from the state and rely on self-mobilisation and self-financing. But most peoples' networks promoting the democratisation of food and agricultural research often consciously adopt a dual power approach to transform existing knowledge, policies and practices. For example, farmers, pastoralists and indigenous peoples engage with scientists in participatory research on the basis of clearly negotiated roles, rights and responsibilities, while also maintaining a decentralised network of safe spaces for more autonomous and plural ways of knowing (for example, experiential, local, tacit, feminine, phenomenological).

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This dual approach reflects an awareness of the partial and incomplete nature of all knowledge systems. Self-managed research and grassroots innovation networks also help democratise the politics and production of knowledge by exerting



*The Raita Teerpu: a citizens' jury on the priorities of agricultural research, State of Karnataka, India. (Photo: Pastapur Yesu)*

countervailing power. Reversals from normal practices ensure that peasants – rather than scientists alone – determine research priorities and oversee a power-equalising process of knowledge creation in farmers' fields and the entire R&D cycle.

Deepening democracy and social inclusion in the construction of knowledge for food and agriculture depends on further strengthening grassroots research and innovation networks. This can be done by supporting several mutually reinforcing transformative processes including: education for critical consciousness and place-based learning; horizontal peer to peer learning for the production of collective knowledge; building extended peer communities to validate and protect collective knowledge; and strengthening local organisations to scale out grassroots research and innovation to more people and places.

### **Democratising and transforming public research**

Many farmers and people 'out there' recognise the liberating potential of modern science and technology. A simplistic rejection of all research and science will not do. Instead, the challenge is how to transform existing research systems (e.g. universities and research centres) so that they can embrace more inclusive ways

of knowing and focus on priorities decided by citizens through inclusive processes of *direct* democracy. Some of the transformations required in the governance, culture, organisation and professional practice of public research are briefly highlighted below.

### **Putting citizens at the heart of decision making in research**

Existing governance and funding bodies for R&D can be reformed and opened up to wider citizen participation by including more gender-balanced representation of peasant farmers, indigenous peoples, pastoralists, fisherfolk, farm workers, artisanal food processors, and citizen-consumers. However, this more equitable representation of citizens in structures that govern research (e.g. boards, funding bodies, expert committees) must be complemented by more transformative and direct forms of democracy that create space for the voice and agency of hitherto excluded people.

In practice, a range of methodological approaches and processes can be used to facilitate direct participation of farmers and citizen-consumers in different stages of the R&D cycle. Several institutional and methodological innovations can be used to enable the direct participation of farmers and citizens in the upstream definition of research priorities; the framing of national policies for scientific

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research and development; decisions on research funding and budget allocations and in risk and sustainability assessments. Examples of these methods for deliberative and inclusive processes (DIPs) include citizens' juries and scenario workshops that link hitherto excluded voices in policymaking and agenda setting.

### **Embracing transdisciplinarity and methodological pluralism in research**

Transdisciplinary ways of knowing emphasise the importance of methodological pluralism to integrate different traditions of knowledge and multiple sources of evidence. Novel methodological mixes are needed to dismantle boundaries between disciplines, disrupt knowledge hierarchies, foster respectful intercultural dialogues between the knowledge systems of scientists and farmers, and co-produce knowledge with different social actors. Moreover, this co-creation of knowledge by scientists and peasant farmers should increasingly be part of a participatory process driven by a transformative logic of changing society – rather than just interpreting it.

Transdisciplinary co-inquiry is a challenge for university departments that have historically been engaged in relatively specialised education and research. Building internal capacity to 'walk the talk' of transdisciplinarity first requires recruiting more staff familiar with its theory and practice. Second, the uptake and spread of transdisciplinarity in universities and research centres also requires a large-scale effort to re-orient, re-skill, and train currently employed researchers and teaching staff. Much of this educational effort in universities and research institutes should focus on working with peoples' knowledge and reversing enduring systemic biases against the knowledge of women, indigenous peoples, under-represented ethnic groups, and other disadvantaged groups.

### **Professional reversals and organisational transformation**

Given its emphasis on peoples' knowledge, transdisciplinary co-

inquiry calls for power reversals and new roles for research, donors and development professionals. In essence, people – their knowledge, and the diverse environments that sustain them – become central, instead of university research centres, government departments, scientific peer groups and the narrow 'research excellence' metrics used to evaluate academic papers and their impacts. A significant shift to a new professionalism and participatory praxis for transdisciplinarity also requires profound transformations in the governance, culture, operational procedures, staff training, and reward structures of research organisations and funding agencies.

### **Protecting public research from privatisation and corporate control**

The casualisation of the academic workforce is increasingly widespread and seriously undermines the quality of university education and research. After spending years earning their doctorates more than half (53%) of the academics teaching or doing research in British universities have to manage on some form of insecure, non-permanent contract. Lack of job security militates against the changes in attitudes and behaviours needed for transdisciplinary co-inquiry. It promotes conformity to established research traditions and their cognitive routines. Similarly, it is difficult to see how universities can re-invent and transform themselves for participatory and transdisciplinary ways of knowing when so many academic staff experience job insecurity, stress, low morale, lack of recognition, and low pay. As both the products and victims of the capitalist division of labour, academic workers will probably need to engage in joint action with citizens and social movements to reverse these debilitating trends.

Insulating research from corporate abuse and capture is also a top priority. The Union of Concerned Scientists in the USA has identified key areas where governments can act more to protect science against undue corporate influence and corruption, including protecting scientists from censorship, retaliation and intimidation; reforming the regulatory process;

and strengthening monitoring and enforcement. Significantly increased government funding for public research is also necessary to reverse the privatisation and corporate capture of higher education and research.

### **Reclaiming universities as a commons for knowledge democracy**

Ensuring that the cultural, intellectual and other resources of universities are accessible to all members of society – and are held in common, rather than privately controlled or owned – is key for an inclusive knowledge democracy. Inspiring stories of peoples' struggles to regain control over the commons and the production of knowledge can offer new models for the governance, restructuring, organisation, and practices of agricultural research.

Power-equalising processes are central in the two complementary pathways described here for democratising food and agricultural research. These transformative processes include respecting and valuing all knowledge systems (cognitive justice), reversals from normal professional practice, deep organisational change, the strengthening of horizontal networks of local organisations, as well as institutional and methodological innovations that can enable citizens' direct democratic control over research priorities and its governance.

Deeper-seated political and economic changes are also necessary throughout society, including policies that can reverse the ongoing economic genocide of farmers as well as provide the 'free time' and 'material security' which food producers and other citizens need to fully engage in participatory democracy and the construction of knowledge.

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