GRASSROOTS

TECHNOLOGICAL

Innovation

Assembly

October 18-21, 2023
As food producers confront climate crises, corporate capture, and the new extractive technologies of AG 4.0, smallholders are organizing their own innovation and knowledge-sharing networks. Most of these organizations work regionally, with few opportunities to join forces with aligned organizations globally. In 2023, a unique opportunity arose for representatives from 12 grassroots innovations groups from around the world to gather in person to articulate shared values, share experiences, build trust and initiate an international Grassroots Innovations Assembly. This report documents the facilitation methods, findings, creations, and future plans that came out of this gathering.

The convening brought together organizations with a wide range of perspectives, expertise, and questions as small farmers, peasant unions, knowledge sharing networks, agroecology schools, farmer makerspaces, software developers, and more. Representatives of these organizations gathered at a beautiful farm stay in Gallese, Italy for three days of workshops, community bonding, inspiration, and organizing future work together. On the fourth day, the group presented the insights from the convening at the Data Working Group of the Civil Society and Indigenous People Mechanism to the Committee on World Food Security (CSIPM). The gathering was organized emergently, including lots of play and co-creation. The host organizations provided a container to get started, and after the first day we took turns facilitating and deciding the agenda.

The first two days of the gathering gave space for intensive discussion on topics that are central to grassroots innovations work. The first session was dedicated to discussing what “grassroots innovations for agroecology” means to each person. The participants voiced that grassroots innovation is agroecology; it is the power to create the future. It is inherent, constant, ongoing, and necessary for survival as agroecological food producers. While capitalist innovation creates learned helplessness for farmers, grassroots innovations are created through smallholders’ lived experience as a form of empowerment.

The group compared different innovations processes and shared an abundance of practical methods to mobilize networks and innovate together, from co-builds, to innovation catalogues, to innovations fairs. The discussion explored the role that digital tools should play in all of this, understanding both the risks and the potential. Participants exchanged guidance about when and how to form effective partnerships, and debated the importance of knowledge protection strategies. Many common challenges emerged where participants could share advice, coming from a diversity of sizes, levels of development, expertise, models, and contexts.

On the last day, the sessions focused on the creation of a Grassroots Innovations Assembly. The group expressed belief in this space as a global force for technological sovereignty, and dreams for further collaboration that continues the environment of trust, creativity, and equal say that emerged at the gathering. Through a facilitated consensus-building process, all of these ideas came together into a plan to form a long-lasting collectively-led Assembly. The participants formed three working groups for communications, drafting a collective charter, and planning the next gathering. Everyone left energized and inspired, with a commitment to sustain this emerging community for knowledge sharing and global advocacy.
Visual scribing of the gathering
Introduction

This report documents the first international gathering of the Grassroots Innovations Assembly from Oct 18-21 in Gallese, Italy. As food producers confront climate crises, corporate capture, and the new extractive technologies of AG 4.0, smallholders are organizing their own innovation networks for agroecological methods. The work of these networks demonstrates that peasant autonomy is possible through grassroots innovation, knowledge-sharing, research, and collaboration.

The idea for an international grassroots innovations assembly was seeded in 2018 when the organizers of the gathering, a group of established innovation networks like Farm Hack, L'Atelier Paysan, and Schola Campesina, first crossed paths at the UN Food and Agriculture Organization (FAO) summit on innovation. This encounter sparked an ongoing conversation that brought to light the potential for deeper global collaboration across the growing number of organizations who are taking action towards technological sovereignty for smallholders.

The need to amplify the global visibility of this work is intensified in the face of AG 4.0, which dominates narratives about the future of agriculture in global forums. AG 4.0 is a new digital phase in a centuries-long feedback loop of emerging technologies driving corporate concentration, higher costs for farmers, and increasingly unsustainable modes of production.

In 2023, the organizers of this gathering received funding to build out an international coalition interested in alternative pathways for technology, including funds for an in-person strategic meeting. In the lead up to the gathering, the organizers began a cartography of the grassroots agricultural innovation landscape, shared a position paper on grassroots innovations, and hosted online meetings for the participants to get to know each other’s work and collaborate with aligned researchers.

The in-person convening in Italy brought together 12 organizations from around the world for four days of knowledge exchange, strategic brainstorming, and action, leading to the initial formations of an international assembly. This first convening has already led to learning, inspiration, and new collaborations. More critically, we believe that our unified envisioning has the power to make technological sovereignty a reality.

Thank you to the organizers: Schola Campesina, Farm Hack, OpenTEAM, and 11th Hour Project. Jenni Ottilie was our visual scribe to document and synthesize our conversations through drawing. This report is by Maya Cohen, with illustrations from Jenni Ottilie’s visual scribing.

Note to the Reader

Everything here is an amalgamation and paraphrasing of thoughts, opinions and questions that were expressed by participants during the gathering. These amalgamations do not represent a consensus reached by the participants. Even when the word “we” is used, the content should be taken as a collage of the diverse opinions shared by the participants. The ideas expressed in this report should not be considered as my own.
Who Came?
Why does innovation even matter? Does the word innovation encourage creating new things when they aren't necessary? By the definitions of grassroots innovations surfaced during the gathering,

Innovation is inherent, constant and ongoing.
Innovation is a necessity to live differently.
Innovation is the power to choose the way we live.

Our innovations grow from ancestral knowledge. Innovation does not have to be new, it may be something which worked and was forgotten or erased. What is common in one place, or at one time, is an innovation in another context.

Our innovations solve real problems. An innovation starts with users' needs, often the need to adapt to a changing environment.

Our innovations come from the grassroots and are tested in the grassroots. They are local solutions to local problems that rely on the resources we have at our disposal and the generational knowledge of agroecological farmers. Even GMO seeds require an ancestral peasant-created seed to modify. They are a result of farmers' inherent experimentation that is a necessity just to survive. There has never been stability, or a “way it's always been.”

Our innovations encompass the complexity of agroecology, including the social, political and ecological dimensions. Our innovations address ecosystem health and the wellbeing of our communities, not only food production. Our innovations may be mechanical, technological, or social; they may be a method rather than an object or artifact. We may innovate the innovation process itself.

Community governance and feedback systems determine the success of our innovations and make sure they do not create new problems. We recognize that governance requires increasing our communities' capacity to critically discuss technology.

We discussed many innovation questions that agroecological farmers must tackle. How do we farm without fossil fuels? Without plastic? How do we survive the effects of climate change? How do we make tools accessible to all bodies? How do we advocate for our needs as smallholder farmers? How do we ethically engage with digital tools for our own empowerment?
Grassroots innovations for agroecology sustain autonomy and create independence from extractive economies.

Autonomy does not mean individualism, but a choice of who we want to work with and how, within a strong network of resilient farms and territories. Autonomy is built into the way we innovate using horizontal and bottom-up innovation that is always evolving in response to feedback.

Grassroots innovation empowers us to create our own solutions, whereas capitalism teaches us to be passive, waiting for a solution to be sold to us.

Grassroots innovations come from peasants, whereas capitalism tells us that innovations come from academics, trained scientists, and engineers.

Grassroots innovation trains farmers to be artists, engineers, organizers, and scientists, whereas capitalist economies turn food producers into consumers that purchase seeds, tools and chemicals.

Grassroots innovations are simple tools to do complex tasks whereas capitalism sells us complex and difficult to repair tools to do simple tasks.

Grassroots innovations are driven by shared values, whereas top-down innovation is driven by profits.

Innovation provides a common ground for our movements for autonomy to expand. For Tzoumakers, their makerspace is becoming a hub for a multisectoral cooperative. Fabriek Paysan shared that conservative farmers “talk really easy with us because we talk only machinery or innovation...Once we say that we are some activism in climate change they say, ah ‘but I thought that all the climate activists were against us.’ And once we begin to talk and we say no we are not against you, we are against the system and...they begin to understand everything.”

Facilitation Method: Pasta Families

The discussions defining grassroots innovations for agroecology started by breaking into our “pasta families.” These were small groups (each named by a pasta shape) assigned by the organizers that we used for small group discussions and reflections. Having these small groups made it easy to get to know each other quickly.
Facilitation Methods

Following the same values and methods that direct our grassroots innovation, the gathering was organized collaboratively and emergently. We loosely used an “Unconference” format, but we started with a baseline agenda and facilitation by the organizers on the first day. After that, participants took on facilitating different sessions and changed the schedule as needed. We used a big physical calendar on the wall to modify the agenda and co-create facilitation ideas. Taking turns facilitating gave space for all our diverse expertise, perspectives and priorities, and brought in methods that led to some of our most impactful sessions together.

We created a shared facilitator’s toolbox to brainstorm facilitation methods that we used throughout the gathering. Because the goal of the gathering was not only to learn but to connect and create, we played with many methods to foster connection and creativity. We learned that variety is important to keep our minds and bodies engaged.
We gathered at Giulia di Gallese, a beautiful farm stay in an agricultural village about an hour from Rome. The setting was welcoming, peaceful, and allowed lots of space for spontaneous walks and one-on-one conversations. We were served phenomenal food made with ingredients from neighboring farms. Being in such a lovely place gave us the energy and joy to build a creative community.

Facilitation Method: Sculpture Making

To explore our collaboration processes, we did a sculpture making activity that simulated the innovation process. Each small group was tasked with making a sculpture using found materials, and given a different constraint about what types of materials they could use. Afterwards, we presented our sculptures to the group and discussed our process. For example, some groups chose the symbolic meaning of their sculpture before making it in order to be able to work together. Others came up with the meaning while constructing, iteratively discussed the meaning and created, or noted they could find many more meanings after it was made. Most groups chose to make sculptures related to food sovereignty, so the art also led to meta discussions about our own work. We did this activity on our first day, which opened up the space for playfulness throughout the gathering.

**Watch out for the notes on our facilitation methods throughout the report**
What we Created:
How we collaborate within our networks

------
Collaboration methods

The group came up with a long list of practical methods, events, and systems we use to collaborate and communicate. Here is an aggregated list:

- **Innovation catalogs** and magazines sharing alternative solutions
- Video documentation, including everyday techniques because what seems normal to one farmer may be an innovation to another
- Knowledge-sharing **databases** and wikis
- **Parties**, big social gatherings, and **festivals**. Having fun together!
- Agroecology **schools** and **summer school** for farmers as an alternative to the corporate-controlled university extension system
- Finding a volunteer farmer for each local area who provides general support to answer neighboring farmers’ questions
- **In-person building workshops** where everyone goes home with their own tool
- Hackathons and **collabathons**
- Mobile workshops and on-farm tool repair
- **Makerspaces** and shared workshops
- **Trips** to scout existing grassroots innovations
- **Hub farms** that help organize feedback on innovations
- **Innovations fairs** - social forum for innovators, opportunity to document innovations, opportunity for officials to recognize smallholders’ innovations, which helps push for policy change.

Collaboration principles

We also discussed general **principles** we follow, regardless of what specific methods are used:

- Always start with problems that farmers raise
- Before making something new, assess existing solutions
- Facilitate collaboration between peasants, technologists, and researchers
- Where we meet matters. Host events in community spaces (farms, schools, churches), not institutional spaces
- Use knowledge sharing (horizontal) not communication (unidirectional)
- Documenting processes and products is necessary for results to matter and to create inspiration, replication and adaptation.
- Use digital tools, don’t focus on digital tools as a goal
- Give space for individuals with disruptive ideas
- Base innovations in traditional knowledge

Top-down innovations often tell a story of an individual genius innovator, but grassroots innovations embrace collaboration as the force that powers our work. Collaboration also takes work and is itself a process that we are innovating. So naturally, it was a primary topic for knowledge exchange between participants. Through many discussions at the gathering, we exchanged experiences on what works and what doesn’t to communicate, innovate, build enthusiasm, and get resources within our networks.
Successes and Challenges in Collaboration

To discuss what has and hasn’t worked within our own networks, we did a post-it activity (recreated on the following page). Everyone was asked to write down what has led to success in collaboration for them, and what has been challenging. Afterwards, we grouped them into common themes. On the successes side, there was creativity, fun, strong relationships, partnerships, empowerment, and actually achieving results. On the challenges side, there was a lack of time, capacity, money, and resources, as well as rigid hierarchies, mistrust and issues in relationships. We discussed resource capture by corporations and people in power, and how these resources seem to disappear into an unretrievable “black box.” We drew connections that reinforce different obstacles, such as policy directing money towards corporate solutions while corporate money directs policy.

We also noticed that “results” was the biggest category on the “successes” side and discussed why, acknowledging that focusing only on results rather than the process is unsustainable. We discussed that a result means creating a solution to an actual problem, not just a pretty tool. For some groups, that means taking time to get feedback and iterate. It means people using the knowledge, tools and methods we are innovating. Other groups focused on less tangible results, like the empowerment of skillbuilding or sustained collaboration. Our definition of results is determined by how we define the problem we wish to solve. This connects results to other themes of facilitation, trust, and shared values, which create a common idea of the problem and therefore the desired result. Sometimes the pressure for results is external - we need results to get funding and publicity, and we need funding to get results. Because tool creation requires expensive supplies, it is difficult to get started without funding. Sometimes the pressure for results is peer pressure from our own community, and farmers needing results to prove the work is worth their time. Once people see results, they believe in the possibility of technological autonomy. Results can be a way to empower and create a sense of ownership.
Exploit publicity for motivating more people

Focus on a farm challenge/problem statement first

A compelling invitation

Cooperative workshops

scaling up and out innovations

reaching the tipping point of prototype testing

stories of success inspire people

Connections of researchers with farmers

answered a real need

Ownership

Fun & Friendship

built on friendship

show food andtake a community space

space-for testing the ideas

feeling for farmers to be treated with similar knowledge

creating a comfortable container

sharing values

Facilitation & Trust

Built professional products

Building the social and political change, supporting agricultural change

people too busy working for money

People too busy working for money

mentoring and guiding for young people

Building a strong community

space for testing the ideas

common ideology

Connections of researchers with farmers

effective innovation concepts that are not available on the market

Results

Interdisciplinary Collaboration

Successes

Fun & Friendship

elders and young people

farm parties

shared training meets feeling at one on my farm

sharpen the ideas

people not open to changes

Challenges

Challenges spark innovations

Publicity

Clear organization

ordered space & functional collaboration

A compelling invitation

Cooperative workshops

Fun and joyful

working together

built on friendship

Fun & Friendship

fun and joyful

local driven

unlocking partnerships and guidance for young people

balancing affinity and bringing communities

building trust

flexibility to change

Ownership

Facilitation & Trust

Results

Resource capture

Redirecting resources

Money

Policy

Knowledge management

Alternative Futures

Successes

Creativity is an organizing principle

Black Box

Challenges

Money

Policy

Knowledge management

Alternative Futures

“you can't grow fast because when you're growing fast, you don't have the good structure to do with others. Be careful with this trap.” - L'atelier Paysan
Digital tools

Digital tools are a big part of how we collaborate. They are a part of how coordinators communicate, how we receive feedback and questions, how we record our needs mapping, and how we share updates. We facilitate decentralized communication for our networks through emails, docs, video calls, listservs, forums, and wikis. We share videos and documentation of our innovations and innovation processes.

We are also aware of the risk of overemphasizing digital tools as a goal in and of themselves. We discussed the need for tools that are actually useful to our networks and, because the Assembly includes software experts, we have the potential to realize these dreams. Two of the participants have already created their own digital tools to meet their needs - Bilim, a co-designed knowledge sharing platform which Schola Campesina helped create, and Hylo, a social networking platform which OpenTEAM helped create.

In all uses of digital tools, we have to consider a tool's ethical and ecological impact. The same principles we follow in our agriculture apply to our use of digital tools. Food sovereignty includes sovereignty over Earth’s energy, water, and minerals that are needed to make digitalization possible. Food sovereignty also includes data sovereignty, in opposition to corporate control through digital platforms. We use the tools, the tools don’t use us.

We are actively exploring what data sovereignty means in practice, for example Schola Campesina helped create a Vision Statement on data in the food system and OpenTEAM facilitated a community process to write Ag Data Use Agreements. While we want to use alternatives to monopolistic tools like Google or Facebook, we also recognize these platforms are familiar, user-friendly, and accessible. There are many ongoing questions to address. Where should we store our data? How do we deal with the discrepancies within the Assembly, since in some of our networks many farmers aren’t online? How do we address language barriers in digital content? The Assembly is a space to discuss these questions as we put digital sovereignty for smallholders into practice.
What we Created:

Working with partners
As a group, we recognized that there are many benefits and risks of working with partners for our newly forming Assembly. To advance agroecological innovations and have an impact on society, we need an alliance that unites a diversity of skills based on shared values and trust. This alliance must facilitate dialogue and co-creation across different types of knowledge, centering smallholders’ knowledge. With this goal in mind, we took some time to share our experiences, opinions, and dreams for working with different types of partners.

We named many reasons to form partnerships:

- To broaden our knowledge sharing and co-creation: Building alliances enables dialogue between different knowledge hubs and brings in a diversity of necessary skills from translation to critical analysis. It gives us access to innovation networks, inspiration, and feedback on our innovations. With broader networks we can reach a larger range of smallholders, beyond those who are already politically aligned.
- To access funding: We know from experience that we can accomplish a lot with minimal funding, but we also understand that funding is necessary to purchase materials, document our process, disseminate innovations, and pay people for their work.
- To increase the recognition of grassroots innovations: Rigid hierarchies within research means that grassroots innovations often go unrecognized. Our networks deserve this recognition because we deliver real results. This recognition increases rural communities’ and farmer-innovators’ own sense of accomplishment and empowerment.
- To reach a capacity to have political influence and transform society: We recognize the need to influence policy and challenge power relations because otherwise policies directly impede grassroots innovations. For example, the Kenyan Peasants League shared that the Kenyan Seeds and Plant Varieties Act is criminalizing seed exchange between farmers. This includes research and education policy, which currently works against us.
- To reach a capacity to influence narratives, for example to challenge the myth of linear progress in technology, or to uphold the well-supported narrative that smallholders already feed the world. By influencing these narratives, we can uproot funding patterns that privilege corporate ag-tech and redirect these resources towards smallholders’ innovations and survival.
Many people voiced concerns and negative experiences working with powerful institutional partners (such as academia, philanthropy, government or large international NGOs) because institutions are often guided by money. It is difficult to trust institutions knowing that the affiliation with our groups can be used for greenwashing and to fulfill public commitments. We risk our data being mined, and losing clarity of our own values ("selling your soul to the devil," in the words of one post-it). The Kenyan Peasants League voiced that "We won't waste time telling them change it [laws]...We are going to live our own realities....And we're going to live with a good law that is our livelihoods." Others also expressed the immense time, energy and bureaucracy that sometimes come with institutional partners.

However we were given advice from an institutional representative in the room that “if you are let down, you have to find your good people inside these organizations..and through that build a bridge." **Participants have also had many good experiences working with institutional partners.** For example, Tzoumakers was started by a research group and got its beginning thanks to funding from academia and the government. Other participants have successfully:

- had a building paid for by the local government
- partnered with researchers to study what influences people's perceptions of technology
- collaborated with the government to provide recognition for grassroots innovators
- collaborated with the government to support the development of open source tools and agricultural knowledge commons resources

**Successful partnerships are ones based on trust and shared values,** and give smallholder farmer-innovators decision-making power at all steps of the process. For example, for researchers this can look like participatory action research. This means we co-create throughout the whole process, from developing a concept that will spark action to choosing how to use the information.
What we Created:
Knowledge Management
How we manage our knowledge so that it is protected from misuse while disrupting extractive norms of knowledge commodification is a constant question in grassroots innovations. We discussed each participating group’s thoughts on knowledge management strategies including open-source, intellectual property rights (IPR), and third options. Currently, the participants use all of these strategies.

We discussed the use of IPR as a legal tool to protect innovators from corporate capture. Some people were hesitant that the tools created for a capitalist economy, like patents, could be used to create autonomy, but other participants use patents in order to disrupt capitalism. For example, GIAN has filed 502 patents in the name of grassroots innovators to protect their innovations from co-option by large companies, while only 2-3% of those who receive patents go on to commercialize their innovations.

This example brought up the distinction between commercialization of innovations versus IPR, which conventionally go hand-in-hand. Some groups commercialize their innovations without keeping the building plans proprietary, such as La CAPÉ which sells build-it-yourself kits for their tools. Some participants expressed that there is nothing wrong with making money from our innovations as long as it is not done in an exploitative way. Selling innovations is a way to generate funds to continue grassroots innovations projects.

Many of us make our knowledge and tool plans open source or freely available. We discussed that open-source is itself a form of protection, because the enthusiasm and commitment to an open-source community makes it difficult to compete. But this protection has limitations when work from an open source project is commercialized in a different cultural context where the original creators are unknown. On the other hand, there may be a low risk of co-option – if the most likely scenario is that only 1% or less of our open-source work is co-opted, then maybe we are better off devoting our energy elsewhere. There is plenty of other work needed to improve our existing knowledge sharing and management, like increasing farmers’ visual communications skills and improving the quality of the documentation and designs that are available to all.

Many felt the need for alternative governance that protects from corporate capture more than open source, but allows easy sharing with others that have aligned values. We want our knowledge to be protected but dynamic. Multiple groups use Creative Commons licenses as an alternative to open source or IPR, but others expressed that these licenses are inadequate because they do not provide enough protection, or because they prevent commercialization across the board.
At the end of our first gathering as an Assembly, we felt determined to continue this space for knowledge sharing and building our global power as grassroots innovations networks. We began with a puzzle activity (shown to the right) that brought out the values and principles that are central to our vision for the Assembly. The puzzle revealed our shared recognition that being part of a global assembly can give the members new capacity and power, and our agreement to function like a functioning family based in trusted and equal relationships. A respectful process for our collaboration will allow every member to bring their strengths so we can mutually grow. This means avoiding patronizing forms of “help,” being honest about who has more or less time to invest in the Assembly, and tackling Western-centricism that is present from the Assembly being initiated by North American and European organizations.

From this activity, we moved into a fishbowl consensus-making process (described on the next page) to organize the next steps for our internal structure, future gatherings, and building our shared voice.
To synthesize and come to consensus on our next steps for the future of the Assembly, we used a “fishbowl” exercise with three rounds of discussion. We split into 3 small groups. Each group started with 15 minutes to come up with 4 points they wanted to advocate for regarding the future of the Assembly. Each group then chose a representative. Everyone sat in a circle and the three representatives sat at the center. The representatives had 15 minutes to discuss and defend the points written by each group. We repeated this process of group discussion and representative discussion with 10 minute time limits and then with 5 minute time limits. Throughout the activity we took extensive iterative notes. This proved to be a very efficient and effective method to turn our many ideas into a cohesive plan outlining our next steps as an Assembly.

Facilitation Method: Fishbowl

To start brainstorming for the future of the Assembly, we did a puzzle exercise. Everyone started with one piece of the puzzle and wrote a word on it to represent what they wanted for the future of the Assembly. Then we randomly exchanged pieces. On the piece you received, you wrote a sentence expanding on the word that had already been written on it. Each person read their piece out loud, and then we put the puzzle back together as a group. The completed puzzle became a guide and source of inspiration for our ongoing discussions about the future of the Assembly.

Facilitation Method: Puzzle
Next Steps

Our next step as an Assembly is to transition from leadership by the steering group which organized our gathering to self-governance by all participants. To this end, we formed three working groups that will initiate our work:

1. Communications – to set up internal communications systems and share our work with others.
2. Next year’s meeting – to plan our second international gathering where we can both meet internally and have a platform to publicly advocate for technological sovereignty.
3. Charter – to start building our shared voice through the creation of a charter that outlines our scope, our rules of governance, and our common values, based on the principles of agroecology and peasant’s rights. These values include no hierarchy, gender equality, keeping farmers and other smallholder natural resource users at the center of the network, and our shared goal of food system transformation.

Through the creation of the Charter, we will start to work out our many ongoing questions such as how we add members to the Assembly, or how we can work ecologically as an international group, taking into account the environmental impact of digital tools and flights. Walking away from an incredibly fruitful first gathering that demonstrated the potential of the Assembly to support a growing smallholder-driven technological sovereignty movement, it is clear that we have much work to do.
After our three-day gathering, we shared our creations and findings at the annual forum of the Civil Society and Indigenous People's Mechanism (CSIPM) to the World Committee on Food Security (CFS).

We chose this forum because the CFS is one of the few international governance bodies where civil society has a strong influence - through the CSIPM. The CSIPM fights for the right to food and the rights of smallholders through the CFS. The CSIPM has also become a space to discuss an agroecological vision about the future of agri-food technology. This year, the CSIPM participated in a CFS workstream called Data for Food Security and Nutrition, and took the opportunity to discuss a global civil society stance on agricultural digitalization.

The Assembly brings the perspective of alternative futures to this forum, moving beyond the critiques of extractive technologies to existing empowering solutions. The Assembly builds our power to resist policies that support corporate technologies, and fight for policies that serve food sovereignty. Our successes in grassroots innovations demonstrate that peasants do not need corporate technologies in order to feed our communities or fight climate change. We are already collecting and using data to support our food security and nutrition. For example, our needs mapping projects are data collection that provide evidence about the types of technologies that should be supported by policy in order to benefit smallholders.