SCALE UP
community-driven
bioeconomy development

WS2 Training Programme Protocol

Proceedings of the training sessions in WS2
Session #2
21 November 2023

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VALUE CHAINS AND MARKETS: LINKING PRODUCERS AND STAKEHOLDERS

The second session of Workstream 2: Integrating primary producers into the bio-based value chain was held on Tuesday, 21 November 2023, from 9:00 am to 12:00 pm CEST where total of 51 participants engaged in a comprehensive exploration of value chains and markets, moreover, linking producers and stakeholders in the context of the SCALE UP project. The session began with an introduction by Zoritza Kiresiewa from Ecologic Institute, establishing the context of the project, followed by ice breaking exercise in order to better identify the location of all participants. The first presentation by Patrick Falkensteiner from the Chamber of Agriculture Upper Austria highlighted a successful project consultation focusing on the transfer of knowledge from soil and water protection theory to agricultural practice. This was followed by a second presentation from Guillaume Mesnildrey of the Chamber of Agriculture of Normandy - France, which delved into the involvement of producers in the establishment of a new value chain. This session concluded with a presentation by Prof. dr Jana Klopchevska from the Faculty of Technology and Metallurgy in North Macedonia, exploring the sustainability and circular economy potentials related to food waste.

Following the presentations, participants engaged in breakout rooms moderated in their respective languages by regional facilitators. These discussions allowed for a deeper exploration of the presented topics and fostered dialogue among participants tackling three important questions:

- What are the challenges in connecting upstream and downstream in a value chain? How does the information from consumers or from businesses flow back to producers?
- How individual producers or groups of producers (cooperatives, informal collective) fit into a wider value chain? How to better cluster producers when and where it is needed?
- What are the support structures for integrating producers: economical and regulatory framework, policies and local authorities, local facilitation?

The session reconvened in the Main room for feedback on key outcomes and questions from the breakout rooms. Participants actively shared insights, enabling a synthesis of diverse perspectives. The session concluded with a discussion on next steps and how to move forward, emphasizing collaborative approaches to address challenges in value chains and markets. As a concluding activity, participants provided feedback on the training through a short survey, offering valuable insights to further enhance the effectiveness of future sessions. Overall, Session #2 proved to be a dynamic and interactive platform, fostering knowledge exchange and collaboration among stakeholders in the pursuit of sustainable and resilient value chains.

BREAK-OUT ROOMS

1. What are the challenges in connecting upstream and downstream in a value chain? How does the information from consumers or from businesses flow back to producers?

AUSTRIA (AND GERMANY):

The discussion in this break-out group focused on the challenges and opportunities of integrating primary producers into bio-based value chains in Lusatia – a brown coal region in Germany. One of the participants shed light on the “Land-Innovation-Lausitz” initiative, which explores innovative concepts for a resource-efficient agricultural sector. In several of the 14 projects funded under the initiative, primary producers play a crucial role as practice partners, contributing either through the provision of demo fields or through the cultivation of biomass, specifically lucerne. Lucerne can be utilized as livestock feed or in the manufacturing of natural fiber products like cardboard packaging and car interior trims. Relevant examples from Upper Austria enriched the discussion.

The Lusatia region faces significant challenges in establishing bioeconomy value chains within the region. The region, traditionally focused on brown coal, lacks the necessary infrastructure, networks and processing industries for the bioeconomy. Potential investors are currently not able or willing to set up processing facilities in the region, which leads to considerable logistical hurdles and high transport costs as, in the case of the lucerne value chain, the biomass needs to be transported to other regions for processing, located 300 km and further away. Another obstacle is the absence of innovation startups, which are crucial for economic and technological development at regional level. Land availability for bioeconomy activities coupled with the low quality of soil in the Lusatia region poses another challenge. In general, bringing primary producers and processing industries together still proves difficult. In Upper Austria, the lack of final investment decisions, e.g. related to the establishment of an innovative sunflower press cake value chain, are a key factor that hinders the further development of the regional bioeconomy. Furthermore, up-scaling is hindered by the availability of necessary raw material, as the needed quantities of food side/waste streams for large-scale production of innovative products cannot be guaranteed.

ANDALUSIA, SPAIN

Connecting upstream and downstream in value chain, according to our key contributors for the break-out session, María Pablo-Romero, Full Professor at the Faculty of Economics, Seville University, requires, following M. Porter, the optimisation of the whole value chain, from production, logistics, sales and post-sales and consumption. It is important to understand that the biomass, in most cases, is an additional asset for the farmers and not the main activity. The value chain must be well structured and balanced, centred in the final client, without winners or losers. It is not a good practice to push the farmer to the point where the biomass must be the main source of production, because, according to her research, it is not in most cases. The olive biomass constitutes a subproduct and or a co-product. Cesar Marcos Cabañas, from Alliance for the Protection of the Sustainable Agriculture, emphasized the importance of the generational dialogue and exchange of good practices. From his perspective, upon the aftermath of the pandemic, consumers have acknowledged the importance of agriculture as an essential activity, which can contribute to the dynamism of the value chain information flow and the valorisation of the primary producers' activities in the marketplace.

STRUMICA, NORTH MACEDONIA

Connecting upstream and downstream in a value chain faces various challenges. Firstly, there is a notable high difference in prices along the value chain, creating disparities between producers and buyers. Additionally, there is a low level of communication between these two key players, hindering efficient collaboration. Transparency issues further compound the problem, with incomplete and outdated databases for farmers and producers to establish crucial links. The sustainability of these databases is also a concern. The capacities of existing extension agricultural services are limiting, exacerbating the difficulties faced by small parcel owners. In terms of information flow, it primarily occurs through agricultural distribution centres, but this process lacks the necessary depth. While there is information from the Agency for Financial Support in agriculture and rural development, it is not detailed enough. Some information flows through processing and production facilities. Knowledge transfer and capacity building activities play a role but are not sufficient to address the complexities of the challenges at hand. In essence the information flow from consumers or businesses back to producers is hindered by these multifaceted challenges in the value chain.

MAZOVIA, POLAND

The situation of producers in the region - most of these enterprises are very small, fragmented and have limited access to markets. Their financial and production capabilities give them very limited bargaining power. There is a large imbalance with the recipients on the other side, often large international corporations, also in terms of access to business information. Producers are conservative

in the way they operate and are reluctant to introduce changes in the way they farm, but the market situation, globalization and high competition force them to introduce changes. Integrating them into the broader value chain will be difficult and requires trust. There is a role for the cluster that works closely with small and medium-sized producers.

NORTHERN SWEDEN

Forestry as well as Agriculture have long traditions and are characterized as conservative. New innovations are often met with scepticism and unwillingness to change. To get access to bio resources from primary producers is often difficult. Forest industries in northern Sweden are highly focused on core business and R&D and business development departments are often found in other countries. End users often have interest in more environmentally friendly materials but are not fully committed to be part of new businesses. A solution could be to work with clustering activities for end users.

2. How individual producers or group of producers (cooperatives, informal collective) fit into a wider value chain? How to better cluster producers when and where it is needed?

AUSTRIA (AND GERMANY):

The discussion focused on the primary producers' level of interest in the establishment of new value chains versus their preference to just be a supplier of biomass. It was held that most farmers are primarily interested in generating marginal income and are less interested in shaping specific value chains; they often rely on advisory services and prefer ready-to-implement solutions. However, in the case of Upper Austria there appear to be more and more farmers, especially among the young generation, who actively engage in shaping and setting up new value chains, which often requires changes in crop rotation and binding oneself to specific partners. Thus, there are three categories of actors who might act as facilitators in the development of new value chains: individual farmers with a dedicated entrepreneurial attitude, agricultural cooperatives (where the risk is shared among a larger group of people), and farmers' associations / advisory services.

ANDALUSIA, SPAIN

The discussion focused on the role of cooperatives as a key instrument for the development of the bioeconomy and the dissemination of good practices and the flow of information throughout the whole value chain of the olive biomass. It is also of essential importance in the deployment of strategies to optimize the challenges that the geographic and seasonal concentrations of the biomass production derived from olive trees implies in Andalusia, helping in the mobilization of the biomass. Cooperatives also are essential in the management of the value chain given its heterogeneous nature the biomass, with a multiplicity of subproducts (olive pits, leaves, branches, mud, etc.); the heavily regulated nature of the bioeconomy sector, makes also necessary the intermediation of cooperatives and informal collectives to raise awareness and disseminate information and policies affecting the sector, both at regional and national/European level.

STRUMICA, NORTH MACEDONIA

Individual producers and groups of producers, such as cooperatives and informal collectives, play integral roles in various facets of the wider agricultural value chain in Macedonia. With over 50 cooperatives spanning diverse agricultural areas like beekeeping, fruits, vegetables, and gardening, these entities contribute significantly to the production landscape. Additionally, various networks, including the National Federation of Farmers, the Rural Development Network, and the Rural Coalition,

further connect individual farmers and associations, fostering collaboration and shared resources. Informal gatherings supported by NGOs provide a platform for producers to convey their issues and challenges to the government, facilitating communication and advocacy. Initiatives such as the consolidation of agricultural land and the establishment of a regional training center for agriculture, exemplified by the Center for Sustainable Development, aim to enhance efficiency and knowledge-sharing among producers. The most effective means of clustering producers involves public forums and debates, promoting incremental steps toward collaboration. At the centralized level, municipalities wield authority primarily in disaster risk reduction (DRR), addressing issues like floods and hail. Furthermore, steps toward risk insurance, with a 60% government and 40% farmer contribution, represent incremental progress in supporting producers. In essence, the integration of individual producers and groups into a wider value chain is facilitated through cooperative efforts, network connections, and strategic initiatives aimed at improving clustering, ultimately contributing to the resilience and sustainability of the agricultural sector.

MAZOVIA, POLAND

Connecting upstream and downstream in the value chain will require a good mapping of all its elements to identify bottlenecks, inefficiencies, and potential disruptions in the value chain. This also requires a good management system for acquiring and managing data and using IT tools. These elements should be used to conduct good communication and build cooperation between value chain participants.

NORTHERN SWEDEN

Primary producers are well organized and supported by forest owners' organization as well as federation of Swedish farmers. They can support education and training of new practices in the bio economy in cooperation with cluster organizations.

3. What are the support structures for integrating producers: economical and regulatory framework, policies and local authorities, local facilitation, etc

AUSTRIA (AND GERMANY):

In the Lusatia region, the Brandenburg Investment Bank plays a critical role in providing funding support for young farmers, supplemented by national funding programs initiated by the Federal Ministry for Research and Education and the Federal Ministry of Food and Agriculture. The Common Agricultural Policy, which is a major instrument for the farming sector, has however a limited impact on bioeconomy-related value chains in Brandenburg, especially in areas like agroforestry (cultivation of robinia, wild plants). Regional farm associations, including the Chamber of Agriculture, also play an important role by providing advisory services for farmers. Labelling of regional products can support the introduction of bio-based products to the market as information about their sustainability and the promotion of regional identity stimulates demand. The promotion of agroforestry approaches (regionally produced honey, eggs etc.) can contribute to this process. The Federal Association of the Regional Movement e.V. in Germany was mentioned as a good example to promote and advance these labelling initiatives. The cultivation of spring truffles in the Lusatia region was presented as another good practice example where a small amount could yield high value and illustrates the potential within specific bioeconomy niches. In Upper Austria, the Chamber of Agriculture as well as smaller biomass-related associations are the main support structures for primary producers. It was discussed, that even though a national bioeconomy strategy exists, agricultural primary producers and their support structures see little relevance in the strategy's objectives, since it is mainly focused on forestry and related fields. The promotion of bioeconomy at a local level depends on the personal commitment and interests of individual interest groups.

ANDALUSIA, SPAIN

The integration of producers of olive biomass in Andalusia is supported by various factors such as the regulatory framework, policies, and local facilitation. In Andalusia, Spain, the use of olive-derived biomass for energy purposes is regulated by specific legislation, and there are measures in place to promote the use of olive grove biomass for energy production. The Andalusian Energy Agency has a Energy Strategy for Andalusia from 2020 that outlines the energy strategy for the region. Additionally, there is a significant potential for residual biomass from olive tree cultivation and the olive oil industry in Spain, which can be valorized in a biorefinery context. These support structures, including regulations, energy strategies, and the potential for valorizing residual biomass, contribute to the integration of producers of olive biomass in Andalusia. As part of the support structure, the discussion also included the importance of digitisation in order to enhance the connectivity between producers and consumers through the implementation of internet of things for data collection, smart labelling and the traceability and transparency of the whole value chain of the olive biomass subproducts.

STRUMICA, NORTH MACEDONIA

Support structures for integrating producers encompass a combination of economic and regulatory frameworks, policies, and involvement of local authorities. Regulatory frameworks provide a foundational structure, guiding the actions and interactions within the agricultural sector. Current strategies for agriculture, rural development, and local economic development form policy foundations that shape the overall direction of support. However, there is a noted low level of integration in local policies, highlighting a potential area for improvement. Subventions, primarily provided by the government and to a limited extent by municipalities, offer financial incentives for producers. The support from the Instrument for Pre-accession Assistance for Rural Development (IPARD) serves as a crucial economic entry point for registered farmers, fostering economic viability. Collectively, these support mechanisms contribute to the integration of producers by creating an environment that combines regulatory clarity, strategic policies, and economic incentives, with the potential for enhanced collaboration between local authorities and producers in the pursuit of sustainable agricultural development.

MAZOVIA, POLAND

In the region, there are a number of institutions and solutions supporting producers, both regional and established at the national level, such as EU funds, a network of advisory institutions, and regulations designed to protect smaller entities in relations with large corporations. There are also chambers of producers, local action groups, industry associations and clusters. Due to their specificity, clusters connecting entities from the entire value chain have an important role to play. In our case, the cluster supports the development of IT tools supporting producers and supports the construction of a local brand. Cooperation with entrepreneurs within the cluster may be crucial for the development of bioeconomy in the future.

NORTHERN SWEDEN

Investment support is available for Industrial demonstration but not for full scale production. Investment in the bio economy is often connected with high political risk. New joint venture business models are needed to overcome this risk. Joint venture between a forest company and a new user to upgrade biomass can be successful concept. With this knowledge and control of the whole value chains is represented within the same business.

Cross-regional conclusions/learnings

Integration of primary producers into bioeconomy value chains requires addressing common challenges such as communication gaps, transparency issues, and the need for supportive structures, while embracing regional initiatives and practices tailored to specific contexts.

Common Themes Across Regions:

- **Role of Cooperatives**: Highlighted in Andalusia and North Macedonia as key instruments for the development of the bioeconomy, dissemination of good practices, and managing heterogeneous biomass value chains.
- **Integration Challenges**: Common challenges include low communication, transparency issues, and the need for effective information flow between producers and downstream partners.
- **Support Structures**: Across regions, regulatory frameworks, policies, economic incentives, and support from institutions play crucial roles in integrating producers into bioeconomy value chains.

Specific Initiatives and Practices:

- **Austria and Germany**: "Land-Innovation-Lausitz" initiative focusing on resource-efficient agriculture.
- **Spain**: Regulatory framework, energy strategies, and digitization to enhance connectivity in the olive biomass value chain.
- **North Macedonia**: Initiatives like the National Federation of Farmers, Rural Development Network, and Rural Coalition to connect producers and improve clustering.
- **Poland**: Clusters supporting the development of IT tools and local brands, emphasis on trust-building for integration into the broader value chain.
- **Sweden**: Joint ventures between forest companies and new users to upgrade biomass, highlighting the need for new business models.

Participant feedback

At the end of the training session, the participants were asked to fill in a short survey to evaluate the training session. In the end, 13 participants responded to the survey, of which 5 from Poland, 3 from Spain, 2 from Sweden, 2 from Germany/Austria and 1 from Macedonia. No participants from France responded to the survey. The survey gave the following results:

The participants were asked to rate the quality of the training session on a scale from 1 (poor) to 4 (excellent). Out of the 12 participants, 9 gave the quality of the session a 4 (excellent), while the remaining 4 participants responded with a 3.

Quality

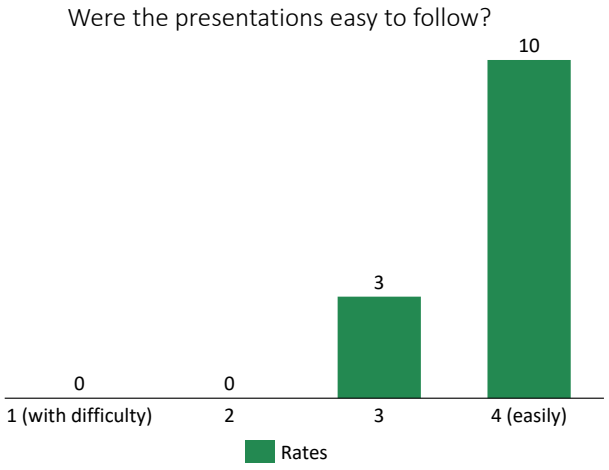
The participants were then asked what went well during the session. The respondents answered that they liked the selection of topics and practical approach of the training, interesting cases and presentations with concrete examples, very good and informative discussions and a helpful exchange of knowledge and experience. Something one of the respondents answered was that they liked that the presenters talked more slowly during the training session.

Next, the participants were asked what could have gone better. Again, two participants mentioned problems with the subtitle translations during the French presentation. One of the participants mentioned that they would have liked the presentations to be more visual and more photos of, for example, hop, beer and beef could have been added.

Then, the participants were also asked how this second training compared to the first training session. Here, one of the participants mentioned an improved quality, while two participants mentioned that it was very good and at a similar level to the first session.

Understandability

The participants were also asked whether the presentations were easy to follow. They were asked to rate this on a scale from 1(with difficulty) to 4 (easily). Out of the 13 participants, 10 gave this a score of 4 (easily), and three participants a score of 3. So even though multiple participants mentioned they had problems with the translation, most participants found the presentations relatively easy to follow overall. The second training session also appears to be easier to follow (average: 3.8), compared to the last session (average: 3.6). So, the presenters talking at a slower pace could have led to the presentations being easier to follow during the second training session.



Topics

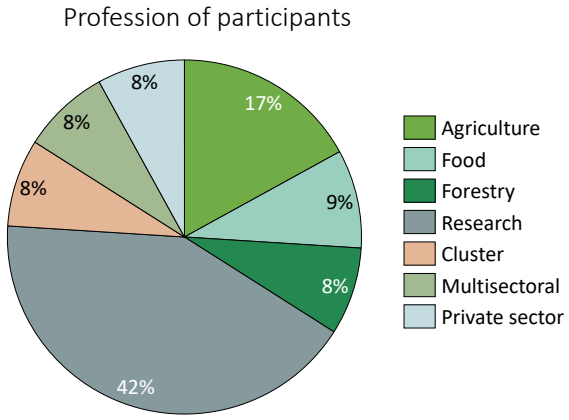
When asked which topic was most interesting, we received the following answers:

- Involving producers in the set-up of a new value chain;
- Food waste value chain;
- Participation of different points of views;
- Biolab;
- How they have been working hands-on with the primary producer;
- Including producers in the value chain;
- How to make society aware of the bioeconomy, what tools to use, what funds are available for this type of activity.

A comment was also made on the report from the breakout rooms. The participant mentioned that this full report could be made more interesting. They advise to focus on the most important or most discussed question in the room.

Field of occupation

The survey concluded with an optional question regarding the participant's field of occupation. the participants came from different areas; 5 from research, 2 from agriculture, and one from food, forestry, cluster, the private sector and from a multisectoral organization.



Participants:

If you wish to get in touch with one of the participants from this session, please contact someone in the SCALE-EP consortium.