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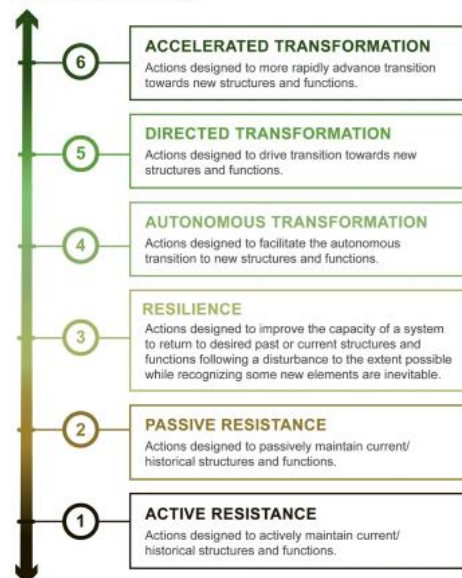
[Workshop 2], [Session 3]

Stakeholders' Actions to tackle the Consequences of Climate Change in three Mountain Value Chains in Europe

The European project MOVING (GA 862739) aims to study 23 European mountain value chains, with a main question on the resilience and sustainability factors of these chains in the current context of climate change. A theoretical approach with the Ostromian framework of ecological and social systems has allowed us to collect data from the literature, data on climate and land use systems, as well as on the functioning of the value chains with qualitative surveys of the actors who are part of or influence the value chains.

Inspired by the “RESISTANCE – RESILIENCE - TRANSFORMATION” typology from Peterson et al. (2021), we discuss the preliminary results from observations of three case studies in the Mountains area, where local actors were asked regarding their perceptions and actions to tackle climate change effects on their value chains.

TRANSFORMATION



RESISTANCE

Within this framework, we analyze the logics of local actors, based on the opinions expressed by different types of actors during three participatory workshops in three regions that are part of the project. These regions are: The Swiss Jura, with the Tête-de-Moine PDO cheese sector, Sjenica in the Dinaric Mountains with the Sjenica lamb meat and cheese PDOs in Serbia, and the initiative of the “Cold-mountain Shelter eco-village” in the Transdanubian Mountains in Hungary.

In Switzerland, in the context of the Tête de Moine PDO value chain, data collection shows that producers have a largely wait-and-see attitude towards climate change as they perceive it. They are aware of changes in temperature and rainfall and the acceleration of extreme weather events. Their strategies focus on short-term palliative adaptations, such as buying outside fodder when grazing has been less productive due to drought. No clear strategy for reducing emissions or changing production intensity has been identified at this stage. The downstream actors in the sector (processing, sales) are not concerned by the issue of climate change, as for the time being, raw material deliveries are not significantly modified, neither in quality nor in quantity. Stakeholders outside the sector, such as environmental NGOs, are much more sensitive and would like to see extensification and a reduction in the impact of agricultural practices on natural resources, in particular a reduction in carbon emissions and pollutants in water and soil, in relation to the climate and biodiversity. Public policies, be they European, national or local, propose few action plans or measures dedicated to reducing emissions. The standards do not change, and the measures are financial supports whose amounts are often not incentive enough. Rural dynamics are more related to the high price paid for the "milk" used for PDO cheese, rather than to any other factor such as new technological factors.

In Serbia, the PDO "Sjenica lamb" is a recent PDO value chain, which is more recent than the PDO "Sjenica" cheese. Both PDOs are based on natural pastures and very extensive farming. The farmers are convinced that climate change does not have a major impact on their value chain. As in the Swiss Jura, farmers have access to additional very extensive hay, and this is the most common adaptation measure adopted by farmers. Another adaptation of pastoralism is to reduce the duration of grazing, and to bring water to the sheep by truck. There are also opportunistic switches, depending on the available fodder resources, between meat and cheese production as the ewe breed is quite mixed. Subsidies are not an incentive to adapt to climate change. These direct aids are the same for all farmers in Serbia, and not specific to the mountains, but to the type of production. Organic production is subsidised but has no influence on adaptation or mitigation of CC. Rural dynamics are currently weak, which is partly due to the lack of sufficient income for livestock farmers. Indeed, the remuneration of products is too low to provide sufficient income to motivate young people and to invest in the renewal of livestock facilities and buildings. Therefore, only a strong connection to wider social networks is able to ensure the survival of rural communities. This is partly achieved through family support, including remittances from the diaspora.

In Hungary, the Cold-Mountain Shelter eco-village is developing a total and true re-birth, on a totally abandoned area where no one was living there anymore. This initiative is based on low-input and low-technology way of farming, renewing ancient varieties, and circular economy principles for being autonomous in energy and water. The vision is very much inspired by permaculture way of farming. The 2 main factors which influence this ecovillage way of rural renaissance are the lack of water and the socio-economic trends (rapid growth of urbanization, and demand for rural reconnection). The use of new technologies is combined with old but very adapted way of building, and farming. The income of this initiative comes through the knowledge gained by learning-by-doing and disseminating through trainings and courses, and practice camps. The economic viability is not at core, but the initiators develop an alternative way of living, based on harmony with nature and as much as possible being independent from any monetary or energy sources.

In conclusion

For Switzerland, which is economically very developed and very generous in terms of direct public financial support to farmers, the effect of the PDO is significant and the rural dynamic is quite stable. Paradoxically, farmers are in a predominantly "RESISTANCE" mindset, and the many incentives they receive do not particularly push them to adopt innovative technologies or to change their farming practices to proactively adapt to the known effects of climate change.

For Serbia, the dynamic is dominated by a negative demographic trend due to a high level of rural poverty. There is an accumulation of difficulties: the PDO has not yet unfolded its positive effects on prices and incomes, and the situation of farmers is weakened by an economic capacity of the state that does not allow any specific support for extensive mountain farming. The logic of the local community in relation to pressures such as climate change is "RESILIENCE" through the individual activation of external domestic solidarity mechanisms (financial support by migrant family members) and an adaptation of agricultural practices, with a willingness of local actors and technical partners to push for the development of the PDO effect through connections and synergies with other value chains in the same region.

The Cold-mountain Shelter area has been abandoned by farmers for a long time. It has been recultivated in recent years by young urban migrants who are concerned about the environment and their way of life, with the aim of creating an alternative to modern global life. They are the most advanced of the three cases in the logic of "TRANSFORMATION", inventing new practices based both on old traditions and on new technologies. They are creating a local knowledge economy, where the economic basis of their lifestyle is based on both self-subsistence and the sale of their lived knowledge.

Awareness raising and demonstration of interventions that can influence the reduction of emissions and the adoption of agricultural practices adapted to the new climate regimes need to be defined in a participatory manner with stakeholders. The European MOVING project is about developing collective foresight activities with participatory workshops in the next two years. Consortium members will then draw conclusions and formulate recommendations for different types of actors at local, national and European levels.

References

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