LIFE ViVaCCAdapt

LIFE15 CCA/SI/000070

ADAPTING TO THE IMPACT OF CLIMATE CHANGE IN THE VIPAVA VALLEY

CLIMATE CHANGE ADAPTATION STRATEGY FOR AGRICULTURE IN THE VIPAVA VALLEY FOR THE PERIOD 2017-2021

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1. Address by Development Agency ROD

Climate change has not only been in the domain of experts for quite some time now; it is a measurable fact. Moreover, we are witnessing the effect it has on the way we live, where we live, and how we operate. Such change is largely a result of human behaviour and activity.

Keeping abreast of the latest news and simply looking up to the sky raises the question of whether we are aware of such change at all. Such awareness is the basis of our adaptability and readiness for every day ahead.

You are at the beginning of your reading of the Climate Change Adaptation Strategy for Agriculture in the Vipava Valley, one of LIFE ViVaCCAdapt's key documents, financed by the LIFE Programme and the Ministry of the Environment and Spatial Planning of the Republic of Slovenia. The project team, made up of representatives from education and research, and economic decision-makers, developers and representatives, have spent the last year actively preparing this document. All of the important stakeholders from the various spheres operating in the area of the Vipava Valley were included in the project team's activities, which has provided us with insight into the actual situation on the field, and enabled us to get closer to local need.

Therefore, we can claim, with certainty, that this document is a response to local user need, a reflection of the situation on the field, and that it includes measures which comply with sustainable development guidelines.

"It is vital to continue with investment in enhancing our collective knowledge of the impact of climate change and concomitant adaptation methods, as well as expanding collaboration and connection, increasing education, competence, awareness, impact information and necessary measures", wrote the designers of the Strategic Framework for Climate Change Adaptation this year at the Ministry of the Environment and Spatial Planning. In addition to promoting the development and enhancement of knowledge, there is much more behind their words: education. First of all, our own education, followed by our future generations'. It is an inevitable fact that in order to live, stay and operate tomorrow, we must know, be aware of and evaluate today's situation. The situation requires us not only to maintain, but to adapt. The situation requires us to thoroughly deliberate on how we will operate and how we will prepare future generations for climate change.

I kindly invite you to read the Climate Change Adaptation Strategy for Agriculture in the Vipava Valley. I welcome your learning and understanding; and finally, I welcome your taking action! Every one of us can help make ours an even better society.

Brigita H. Štolfa

Director of Development Agency ROD Ajdovščina

2. Vision, purpose and objectives

Vision

By 2021, the agricultural sector in the Vipava Valley will implement the key adaptation measures aimed at improving agriculture's resilience to the expected climate change impact.

Purpose

The purpose of this document is to provide the necessary strategy for implementing otherwise numerous measures for improving agriculture's local capacity for climate change adaptation. By providing the stIt will help manage the risk of droughts, floods, frost and strong winds, to maximise the ability to capitalise on the opportunities presented by climate change.

Objectives

1. To provide the evidence-base for adapting local agriculture to climate change.
2. To determine the priority measures for adapting local agriculture to climate change.
3. To provide guidelines for implementing measures for adapting local agriculture to climate change.

This strategy provides short-term guidelines for adapting local agriculture to climate change in the Vipava Valley for the period 2017–2021.

3. Starting points

3.1 Climate change

The Vipava Valley has outstandingly favourable natural conditions for the development of intensive agriculture [1]. Unfortunately, it is exposed to natural disasters, drought, floods, frost and strong winds, which are becoming more frequent due to the effects of climate change. The objectives of the project "Adapting to the Impact of Climate Change in the Vipava Valley, LIFE ViVaCCAdapt, LIFE15 CCA/SI/000070", active between 1 July, 2016 and 30 June, 2021, are: the preparation of a regional analysis to support climate change adaptation (action A1); the preparation of a strategy for adapting the agricultural sector to climate change in the Vipava Valley (action C1); the establishment of a pilot decision-support system for irrigation (action C2); and the establishment of a demonstration windbreak area aimed at spreading information about windbreaks and their benefits (action C3).

The basis for the preparation of guidelines to adapt agriculture to climate change is the assessment of agricultural vulnerability to climate change. The results of all six projections anticipate a gradual increase in Vipava Valley's average air temperature by the end of the 21st Century; average annual temperature is expected to increase by 0.8°C (0.5–1.2°C) in the near future, 1.4°C (1.1–2°C) by the middle of the century, and 1.8°C (1.4–2.4°C) by the end of the century. In the near future, the average of projections for the seasons (0.9–1°C) is similar to the annual value, with the exception of spring, 0.5°C. The biggest differences between projections are evident in the autumn (0.2–1.3°C). In later periods, the differences between models increase. For the middle and end of the century, the lowest increase in temperature is expected in spring (1.2 and 1.5°C, respectively) and autumn (1.3 and 1.8°C, respectively), and the highest in summer (1.8 and 1.9°C, respectively) and winter (1.6 and 2.1°C, respectively). The differences between projections are smallest in summer (0.5 and 1°C, respectively) and largest in autumn (1.4 and 1.6°C, respectively) [2].

Taken as an average and annually, climate change projections anticipate a small increase in precipitation by the end of the 21st Century. Even so, change in average precipitation amounts strongly differs amongst projections, but they are supposed to increase by 3% in the near future (-2–7%), by 4% (-1–11%) in the middle of the century, and by 9% (0–19%) by the end of the century. Projections show large seasonal differences, although the majority anticipate an increase in average precipitation amounts at wintertime (13%, 15%, and 23%) and springtime (10%, 12%, and 12%); precipitation is expected to decrease less-markedly in the summers between 2011-2040 and 2041–2070 (-4%, -7%, respectively); for autumn, models do not anticipate any significant differences. The difference between projections are significant for summer and winter, exceeding 20% in the summer and winter between 2011–2040 and 2041–2070, and winter between 2071–2100, 30% between winter between 2041–2070, and 40% between summer between 2071–2100 in terms of the two most extreme projections [2].

Average climate change projection results anticipate a less-marked increase in reference evapotranspiration, that is, the quantity of water that evaporates from reference plants and soil, in the Vipava Valley by the end of the 21st Century. Average annual evapotranspiration is

expected to increase by 3% (0–5%) in the near future, 6% (3–9%) by the middle of the century, and 6% (2–9%) by the end of the century. Evapotranspiration is also expected to increase in all seasons, primarily autumn, 6%, 8% and 9% respectively, and summer, 3%, 7% and 6%, respectively, and less so in spring, 1%, 4% and 4% respectively, and winter, 2%, 3% and 6% respectively. This will increase plant water requirements. Increased water requirements by agriculture will increase the pressure on local water resources [2].

3.2 Possible effects of climate change on agriculture

In the Vipava Valley, agriculture is not resilient to extreme weather conditions such as drought, floods, frost and strong winds. The financial impact of extreme weather conditions in recent years in municipalities Vipava, Ajdovščina, Nova Gorica, Renče-Vogrsko, Miren-Kostanjevica and Šempeter-Vrtojba was significant. The most noticeable damage was caused by [4]:

- 2012's bora wind, incurring agricultural damage in the amount of €0.4m,
- 2012 and 2013's droughts, respectively causing €4.5m and €4.7m in damage, and
- 2014's flood, resulting in a further €5.6m in agricultural damage.

Agriculture is greatly exposed to climate change. Climate change and related extreme weather conditions, such as wind, flood and drought, also deliver increasing crop and agricultural facility damage. Effects being seen in longer and shorter growing periods thereof, species and agricultural plant variety change, production location change, production in elevated areas, increased water demand due to changed precipitation patterns, higher temperatures, and increased evapotranspiration. But there are also positive effects alongside the overabundance of negative ones, such as an earlier start to growing periods, crop quantity and quality change, and relatively negligible damage to crops and production pursuant to pest and disease number increase.

3.3 Water resoruces

Plant production depends on water availability. The starting point for the use of water for irrigation from surface and groundwater bodies is favourable, though unfavourable for substantially-transformed water bodies. The starting point for the use of water for irrigation in surface water bodies, Hubelj, Vipava Brje-Miren and the upper part of the Vipava River basin – Brje, is good, as both chemical and ecological status have been assessed as good. Moderate ecological potential provides an unfavourable starting point for the use of water for irrigation from the substantially-transformed Vogršček Retention Basin, despite its good chemical status. Disregarding groundwater source accessibility, reliability and abundance, the starting point for the use of water for irrigation from the groundwater body Goriška Brda and Trnovsko-Banjška plateau is qualitatively favourable [3].

Regardless of the above, we know that water availability problems have, in practice, appeared, pursuant to its undeveloped water distribution system, shortage of irrigation systems, and poor functioning of said systems. In certain parts, water resources are so limited in the summer's months that the introduction of a wastewater use for irrigation should be considered in future.

3.4 Existing good climate change adaptation practice

Agriculture in the Vipava Valley offers some good practice examples for reducing vulnerability to climate change (Figure 1). Such practice includes anti-hail nets, examples of well-preserved and functional green windbreaks, suitable plant-support planning, production in greenhouses, use of irrigation, local water retention for increasing water availability, inclusion of plans for building new water resource in local development documents, cover crop management in orchards, testing and gradual introduction of new plant cultures and varieties resistant to higher air temperatures and wind, and local monitoring of agro-meteorological variables ([5] and [6]).

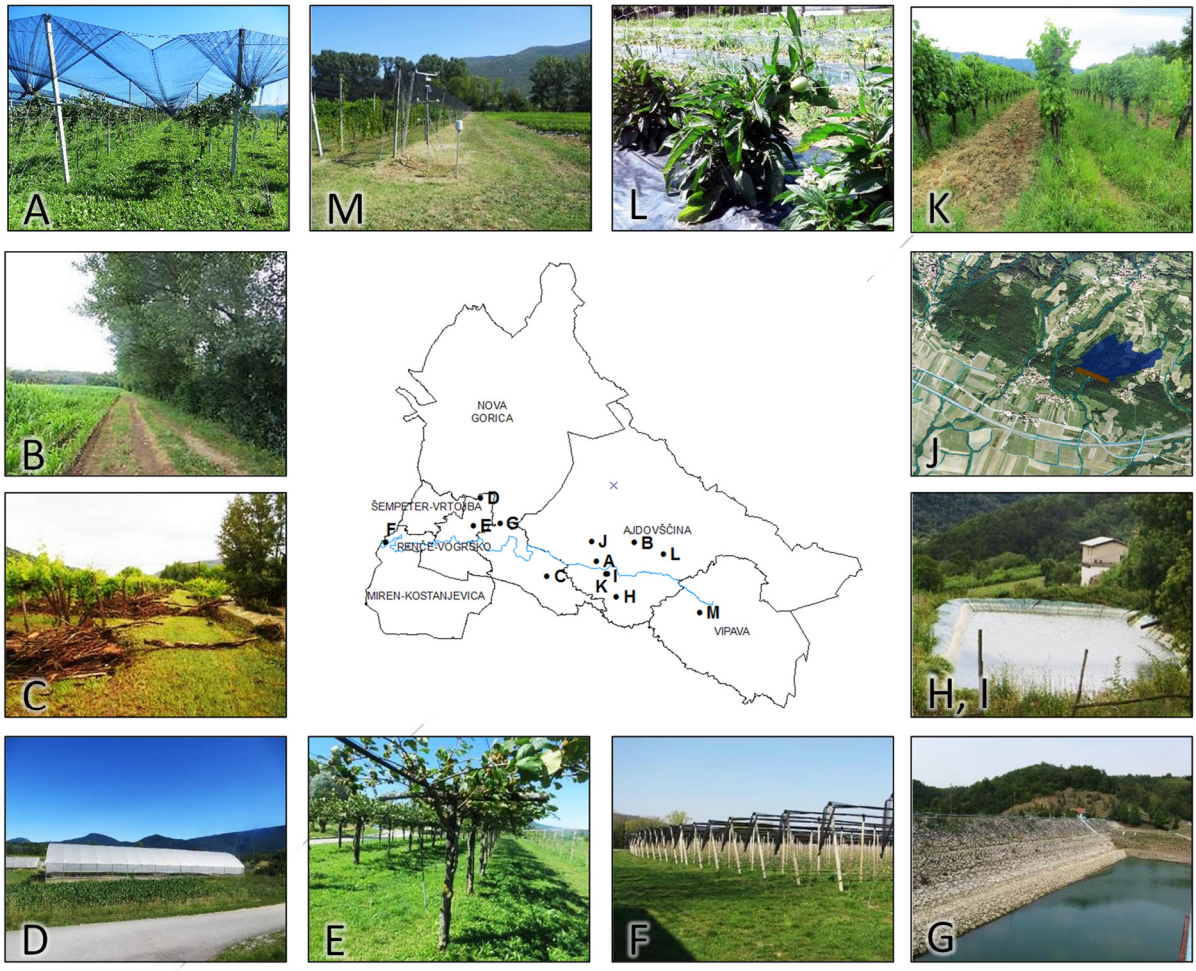

Figure 1: Some of the good practices of climate change adaptation in the Vipava Valley.

Some of the measures such as the development of green wind breaks and irrigation infrastructure has already been implemented on a larger catchment scale in the past. The reasons for their limited functionality today are mostly lack of maintenance, gradual shrinkage or damage. Most common quality green windbreak weaknesses in the Vipava Valley include incomplete windbreak profile, interrupted windbreaks due to for example power line corridors, or windbreak gaps due to dilapidating trees. Today green wind breaks systems major re-

generation as only few good examples still exist. Similarly, Vogršček reservoir problems started 25 years after its construction. Rehabilitation process proceeded immediately on recognition, however remains unfinished. From identifying the cause of the reservoir leakage and adaptation of irrigation water uptake, the process has transitioned into ensuring project documentation for the reconstruction of the reservoir dam that is expected to enter implementation phase in the coming years. In parallel to modernisation, the process of ownership from the state (Ministry of Agriculture, Forestry and Food of the Republic of Slovenia) to municipalities in the Vipava Valley is in progress.

3.5 Climate change adaptation policy

Climate change adaptation and mitigation is increasingly and widely included in various national strategic documents. In reviewing the existing documents and management models, 93 measures were identified in the "agriculture and forestry" set, accounting for nearly 60% of all identified measures. The number of measures intended for direct and/or indirect climate change adaptation has increased for 2014–2020 when compared to previous periods, 1991–2006 and 2007–2013. Nevertheless, as much as a third of the planned measures, on average, have not been implemented, pointing to a huge implementation-deficit in terms of climate change adaptation. Especially problematic are the measures whose successful implementation requires simultaneous and coordinated operation of several stakeholder groups on different levels (farmers, decision makers, regulators) [9].

3.6 Agricultural vulnerability in the Vipava Valley

On the basis of the exposure, sensitivity and adaptation capacity assessment, it has been estimated, with a high-degree of confidence, that agricultural vulnerability to climate change is high in the Vipava Valley. The reasons for this being its high exposure, great sensitivity to climate change and low adaptive capacity [10].

4. Approach to prioritising implementation of climate change adaptation measures

Initially, an extensive list of measures in the field of agricultural adaptation to climate change was summarised, including all key national development documents in the field of agriculture (Rural Development Programme of the Republic of Slovenia 2014-2020), and water management (River Basn Management Plan for the Danube and Adriatic Sea River Basins) and various local development documents, which include measures connected, directly or indirectly, with climate change adaptation [1], [11], [9], [12], [13], [14] and [15].

From the extensive list of measures, **top priority measures** were selected based on:

(a) the analysis of agricultural vulnerability to climate change (Deliverable of Action A.1: Regional analysis to support adaptation of agriculture to climate change).
(b) the process of consultation with the public, that is, municipalities, expert institutions in the field of agriculture and nature, and water conservation, and producers (Action C.1), and

(c) the importance of the measure in the context of the adaptation of local agriculture to climate change.

To support the process, two workshops were organised, one with experts and decisson makers from municipalities on 11 April, 2017, the other with farmers on 20 April, 2017. Based on the information feed in from the workshop the importance of measures in the context of the adaptation of local agriculture to climate change was rated separately by every researcher using a five-level scale from 1, not important, to 5, very important. The final of measure importance rating is based on an average of all individual measure ratings. This way, an environment-specific range of measures was created from the initial range.

Policy implementation success is influenced by the mechanism or method used for measure implementation. In this context we distinguished between two types of measures, namely those requiring the activation of a few stakeholders at one or two levels, and measures requiring the activation of a larger number of stakeholders at various levels, and their coordinated operation. Since the involvement of stakeholders, interaction between stakeholders and prevailing level of stakeholders' operation differ in relation to measure, we compared the initial list of measures using the stakeholder landscape approach [16] based on the following three parameters:

a) ***stakeholder involvement*** (0 = not involved in measure; 1 = low, very important for implementation, but only occasionally involved in implementation; 2 = medium, regularly involved in implementation and key current measures; 3 = high, very important for implementation pursuant to having key role in terms of the financing measure or in measure implementation);
b) ***necessary stakeholder interaction among*** (least-frequent, frequent, and most-frequent); and
c) ***prevailing stakeholder operation level*** (micro-local, local and state).

Each of the participating researchers has made a qualitative assessment. In cases of opposing rates, we entered into discussion and reached uniform rates. Based on such rates, we visualised stakeholder landscape for each of the measures using Programme R (Appendix 1).

We estimated local communities have an especially important role in adapting to climate change. Therefore we categorised measures into three groups: (a) locally-important measures for whose implementation the maximum direct activation of local communities will be necessary; (b) locally-important measures that will require local community activation, but largely rely on the activation of other stakeholders; and (c) locally-important measures that will primarily base on the activation of agricultural holdings and advisory services.

5. Measures and strategic action plan for their implementation

All measures together with objectives, indicators and the way they contribute to reducing climate change vulnerability are included in Appendix 1.

THE LOCALLY-IMPORTANT MEASURES FOR WHOSE IMPLEMENTATION THE MAXIMUM DIRECT ACTIVATION OF LOCAL COMMUNITIES WILL BE INVESTED:

1. Demonstration activities intended to display machinery, procedure, technology, and device utilisation (M1.2).
2. Agricultural-holding support investment, such as purchasing and setting up nurseries and pertaining equipment, anti-hail nets, agromelioration work implementation, individual irrigation system arrangement and its technological modernisation, and irrigation equipment purchase (M4.1):
3. Irrigation-system construction investments intended for several users and technological modernisation of irrigation systems intended for various users (M4.3),
4. Investments in the establishment and development of non-agricultural activities, such as local supply, green tourism, organic waste management and electricity generation from renewable energy sources, such as wood, biomass, manure and liquefied manure, water, wind and the Sun (M6.4).
5. Effective and sustainable water use promotion (R5a).
6. Flood safety arrangement of area along the Vipava River (R3).
7. New plant species and agricultural variety cultivation testing (DP1).
8. The comprehensive renovation of windbreaks in the Vipava Valley (DP2).

These measures will enhance knowledge in the field of sustainable water use, and the development of new, and modernisation of the existing, infrastructure for effective water use. Moreover, they will provide for other infrastructure investments, such as anti-hail nets, nurseries and generating electricity from renewable energy sources, which will also contribute to climate change adaptation.

The implementation of these measures will follow close interaction of several stakeholders at various levels, and their coordinated operation. Local community will strategically focus on implementing these measures by actively engaging in the implementation of projects (M4.3) and/or, indirectly, by promoting local stakeholder connection and implementation projects, and raising awareness of the importance of the implementation of measures to allow for successful climate change adaptation (M1.2, M4.1 and M6.4). Also directly connected to the successful implementation of the M4.1 and M4.3 measures is the successful implementation of the R5a measure and measure from the regional development programme (Development of Irrigation in the Vipava Valley and Goriška Brda (R2).

In implementing the M1.2 measure, trained experts will facilitate courses, workshops, lectures and practical presentations. According to the previously expressed need for enhancing knowledge in the field of various irrigation techniques' use, this measure will be used to prepare

a demonstration project for displaying how to effectively use said techniques, which is also one of the priority measures included in the draft Plan for Irrigation Development and Water Use for Irrigation in Agriculture in the Republic of Slovenia by 2020 [17].

Agricultural holding wil play a key function in implementing the M4.1 measure. For specific investments, they will make use of the services of project designers and, as with measure M6.4, local agricultural advisory service experts.

Municipality of Ajdovščina's will upgrade and continue the project which enables cultivation and testing of new plant species and agricultural varieties (DP1).

A locally important measure in terms of climate change adaptation, not anticipated in existing documents and having no financial coverage based on public cooperation, is the comprehensive renovation of green windbreaks (DP2). This measure will with help of local municipalities and agricultural extension service experts be included in the post-2021 Rural Development Programme or financed from other resources.

The arrangement of flood safety along the banks of the Vipava River has been recognised as a priority measures (measure R3); in terms of measure implementation, municipalities will play an important role and will aply for funding from EU Cohesion and Regional Fund and Cross-Border Cooperation Fund activation (measure P1).

THE LOCALLY IMPORTANT MEASURES THAT WILL REQUIRE LOCAL COMMUNITY ACTIVATION, THOUGH PRIMARILY BASED ON OTHER STAKEHOLDER ACTIVATION:

9. Investment in eliminating the damage to and rehabilitating of forests pursuant to 2014's glaze ice and the arrangement of skid trails necessary for forest rehabilitation (M8.4).
10. Implementation of agri-environment-climate measures for the management of agricultural holdings in a way which reduces negative farming impact on the environment, contributes to the impact mitigation and climate change adaptation, and ensures the implementation of socially important services and intangible public assets (M10.1).
11. Implementation of measures aimed at improving animal welfare, for example, breeding with release and pasture (M14.1).
12. Support for horizontal and vertical supply chain actor cooperation to establish and develop short supply chains and local markets (M16.4).
13. Diversification of agricultural activity in relation to health care, social inclusion, community-supported farming, and environmental and food education (M16.9).
14. Implementation of local development utilising the "bottom-up" approach (M19.1–M19.4).
15. Collaboration of various actors in the field of agriculture and rural development for joint actions in terms of climate change adaptation mitigation (M16.5).
16. Promotion of sustainable water use, enabling various types of water use, taking into account the long-term conservation of water resources in terms of quantity and quality (R1a and R3a).
17. Upgrading the support system for water use-related decisions (R1b1).
18. Monitoring surface and groundwater in light of achieving good water and other water-related ecosystem status (OS6a).

Local communities will not play a direct role in the implementation of the aforesaid measures. With regard to the local importance of the aforementioned measures, the local communities will instead contribute to a more successful implementation of measures through promotion and awareness campaigns.

Measure M8.4 and its importance for the local-rehabilitation of forest resources was discussed at a workshop organised as an expert consultation in Ajdovščina on 18 May, 2017. The measure is already being implemented. The measure will be successfully fully implemented in collaboration by forest owners and users and Slovenia forest service and ministry responsible for agriculture.

Of great local agriculture importance is the implementation of agri-environment-climate measures for the management of agricultural holdings in a way which reduces the negative impact of farming on the environment, contributes to impact mitigation and climate change adaptation, and ensures the implementation of socially-important services and intangible public assets (M10.1). Particularly important for climate change mitigation is the implementation of operations in the field of agriculture, vegetable cultivation, winegrowing, sustainable grassland and water resources, and for climate change adaptation propagation, and the preservation of genetic plant resources, which are exposed to the risk of genetic erosion. The Agricultural Advisory Service, the central support stakeholder for producers who apply and implement measures, will continues to be the key in the implementation of the M10.1 measure; of equal importance will be the implementation of measures for animals, such as breeding with release and pasture (M14.1), which is implemented through similar mechanism to the previous measure.

The M16.9 measure, sub-measure "diversification of agricultural activities", will be used to support performance of activities related to environmental and food education. It will directly contribute to raising awareness concerning the local offer and local-market, self-supply importance, thus indirectly contributing to the development of the local food market, and thus how partially reduce environmental greenhouse gas emission in terms of food market-supply methodology choice.

Funding strategically addressing local and specific climate topics will be enabled by measures M19.1–M19.4, which assisting the commencement and continuation of activities aimed at preparing a local, community-led, development strategy. These measures are ranked amongst the complex, as they require the creation of local action groups. In the area of the Vipava Valley, two local action groups, namely LAS Vipavska dolina and LAS v objemu srca, were formed as part of the programme for 2014–2020. In their local development strategies, these two groups address climate change mitigation and adaptation through anticipated activities in the field of local self-supply, the development of local markets and short supply chains, and raising awareness of the importance of buying local produce (A and B). The measures related to the implementation of local development utilising the "bottom-up" approach are, thus, already being implemented.

Actor cooperation in the field of agriculture and development of rural areas for joint action aimed at mitigating against and adapting to climate change (M16.5) will support projects in the

field of the environment and climate change which will help achieve environmental and nature conservation objectives.

Ministry of the Environment and Spatial Planning and bodies therein will award water rights for agricultural use so that a long-term water conservation will be assured (R1a measure). Successful implementation of the measure is in direct relation with measure R3a determines water use limitation, prohibition and condition, as applied by the Ministry of the Environment and Spatial Planning and its bodies when awarding water use rights for agriculture, thus enabling strategic decision-making in terms of method and quantity.

The implementation of the R1b1 measure is dependent on the Ministry of the Environment and Spatial Planning and bodies therein, and it will enable an upgrade of the water-use, decision-making system. The measure is simultaneously strategic and locally important.

The monitoring of surface and groundwater in light of achieving good water status and other water-related ecosystems status (OS6a) is the basis for strategic decisions concerning water resource availability. Locally, it is very important and the key stakeholder for its sucesfull implementation will be the Ministry of the Environment and Spatial Planning and bodies therein.

THE MEASURES LOCALLY AND INDIRECTLY IMPORTANT, AND PRIMARILY BASED ON THE ACTIVATION OF AGRICULTURAL HOLDINGS, ADVISORY SERVICES AND OTHER STAKEHOLDERS, AND LESS SO ON LOCAL COMMUNITY ACTIVATION:

19. Support for vocational training and skills acquisition action (M1.1)
20. Support in seeking help utilising relevant advisory services (M2.1).
21. Support for new participation in quality schemes (M3.1).
22. Support for information and promotion activities carried out by internal market producer groups (M3.2).
23. Support for investment in processing/marketing and/or development of agricultural products (M4.2).
24. Young farmer business start-up aid (M6.1),
25. Investment for the purchase of new machinery and equipment for wood felling, harvesting and pre-industrial wood processing (M8.6).
26. Small farm, business start-up development (M6.3).
27. Broadband infrastructure support (M7.3).
28. Establishment of subcontractor groups and organisations agricultural and forestry (M9.1).
29. Support for the preservation, sustainable use of and development of agricultural genetic resources (M10.2),
30. Focus on and maintenance of organic farming practices (M11.1 and M11.2):
31. Maintaining the arability of agricultural land in mountainous areas (M13.1) and other areas with special restrictions (M13.3).
32. Support for pilot projects and development of new products, practices, processes and technology (M16.2) in connection with the P2 and P3 measures.

33. Preparation of a range of indicators for the announcement of droughts/water shortage strength and thresholds (OS3.2b8)

The implementation of measures M1.1-M6.3 will be made possible by sucesfully partnership and interaction between agricultural holdings, advisory services and the Ministry of Agriculture and bodies therein.

In measure 7.3, the municipality/municipalities which are the final beneficiaries of support will be the key to establishing the public-private partnerships.

Successfully implementation of measure M10.2 will be reached with active participation of research institutions.

Indicators for drought (OS3.2b8) will be defined by the Ministry of the Environment and Spatial Planning and bodies therein.

The implementation of measure M8.6 is related to the measure “Establishment of a Forestry-Wood Processing Chain and Increased Industry and Energy Use of Wood (R1)”.

The main part of priority measures has access to financing within the framework of the existing financial perspective, e.g. in RDP RS 2014–2020’s framework, though other national sources for (co)financing, such as the Climate Change Fund and international sources of (co)financing, such as the EU’s structural and other funds, and other international financial institutions are also possible.

The present strategy provides a plan of action in the field of agricultural adaptation to climate change in the Vipava Valley for the period 2017–2021. Several stakeholders on different levels will contribute to its implementation. This document will help municipalities in monitoring mid-term and final implementation of the recommended measures for adapting agriculture in the Vipava Valley to climate change.

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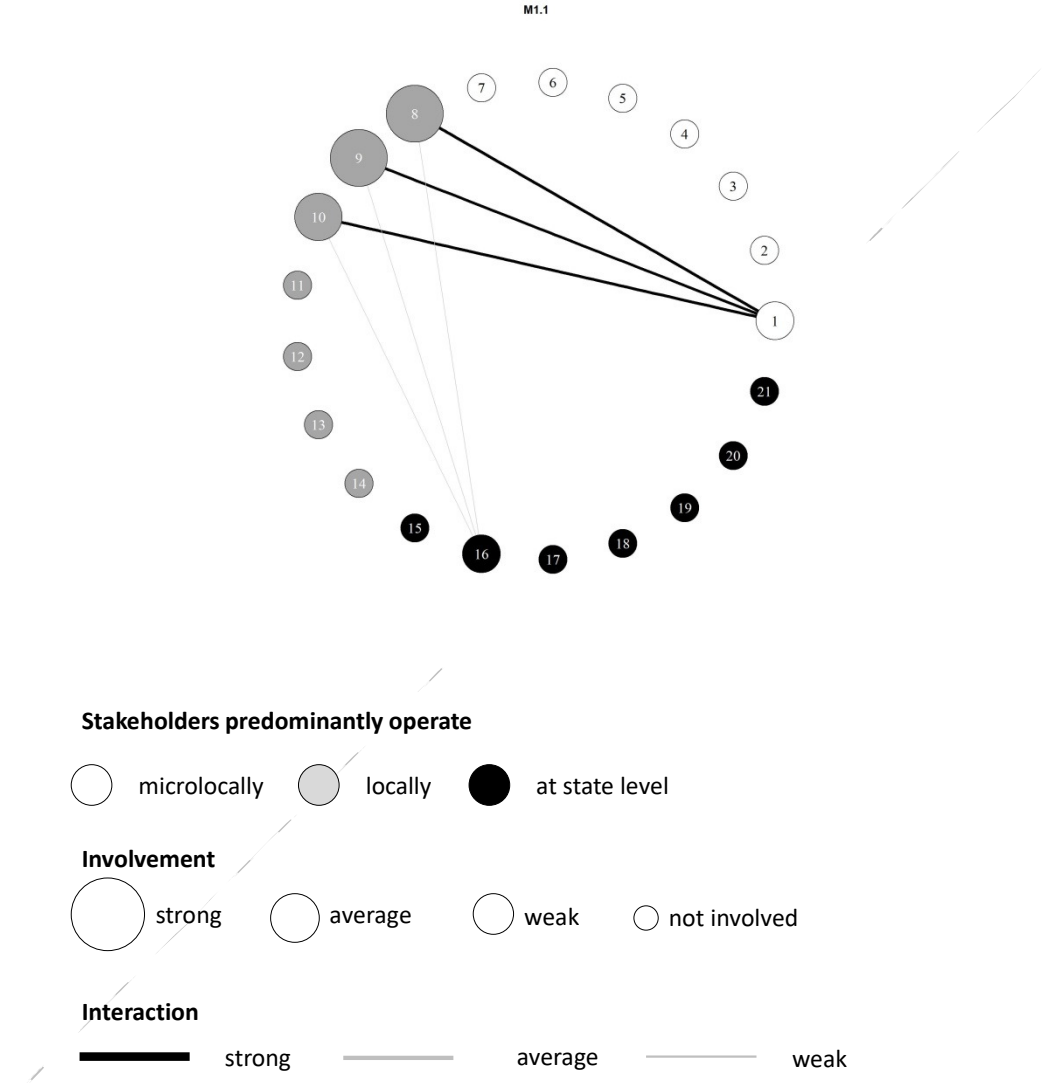
17. MKGP, *Plan for Development of Irrigation and Agricultural Water Use by 2020 and Programme of Measures for the Implementation of the Plan for Development of Irrigation and Agricultural Water Use by 2020,* 2015, Ministry of Agriculture, Forestry and Food, Ljubljana.

7. Appendix 1

Measure	Support for Vocational Training and Skills Acquisition Action
Abbreviation	M1.1
Policy	RDP RS 2014–2020
Objective	Knowledge enhancement.
Indicators	Total public expenditure, number of supported operations, and implemented training days and participants.
How does it contribute to climate change vulnerability reduction?	Indirectly through courses, workshops, demonstrations, and the like.



Stakeholders
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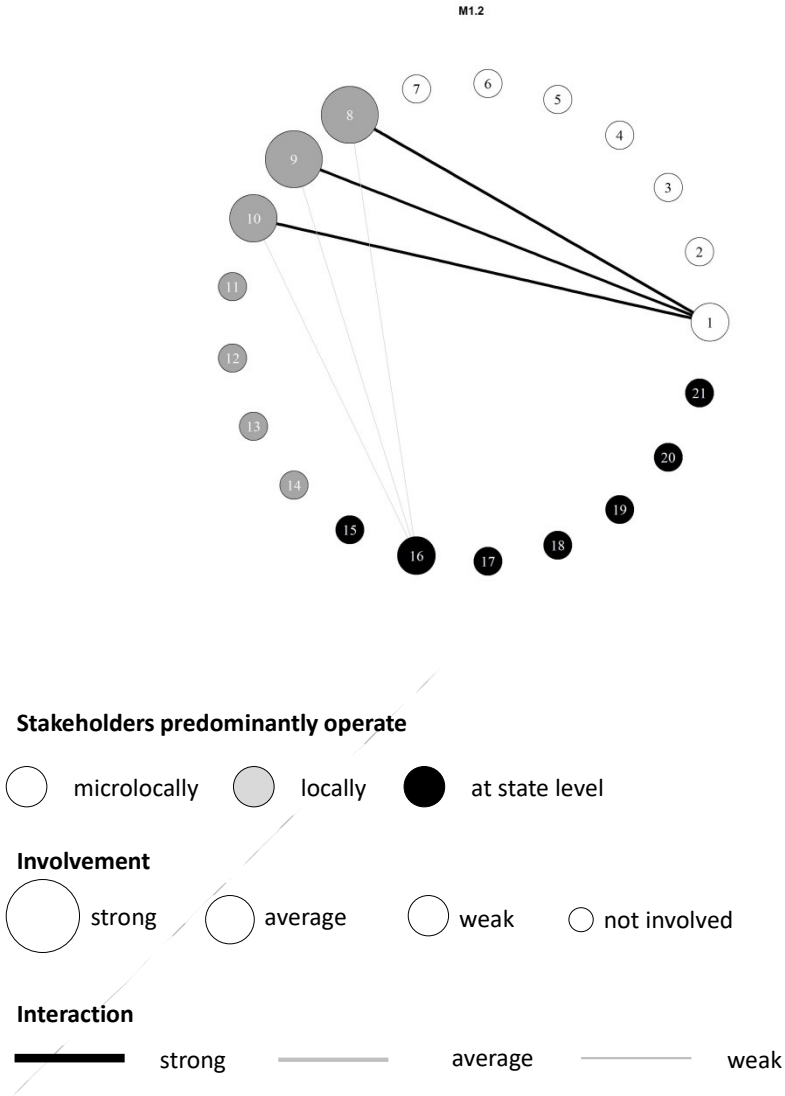
Measure	Support for Demonstration and Information Activity
Abbreviation	M1.2
Policy	RDP RS 2014–2020
Objective	Knowledge enhancement.
Indicator	Number of supported operations.
How it contributes to climate change vulnerability reduction	Indirectly through courses, workshops, demonstrations, and the like.



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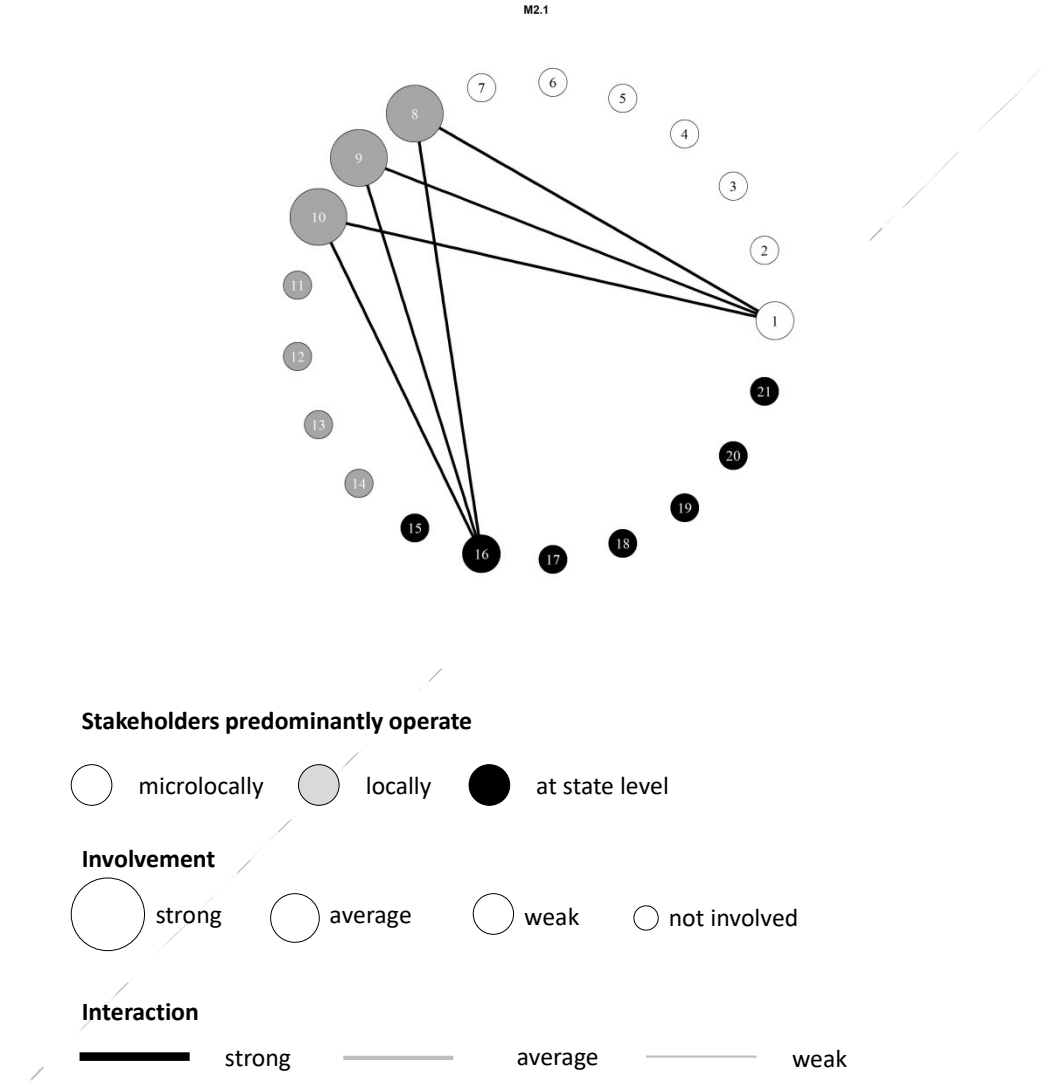
Measure	Support for Help in Using Advisory Service
Abbreviation	M2.1
Policy	RDP RS 2014–2020
Objective	Knowledge enhancement.
Indicator	Number of supported operations and beneficiaries.
How it contributes to climate change vulnerability reduction	Indirectly through advisory service regarding content that is a perquisite for the following measures: organic farming, agri-environment-climate, and animal welfare.



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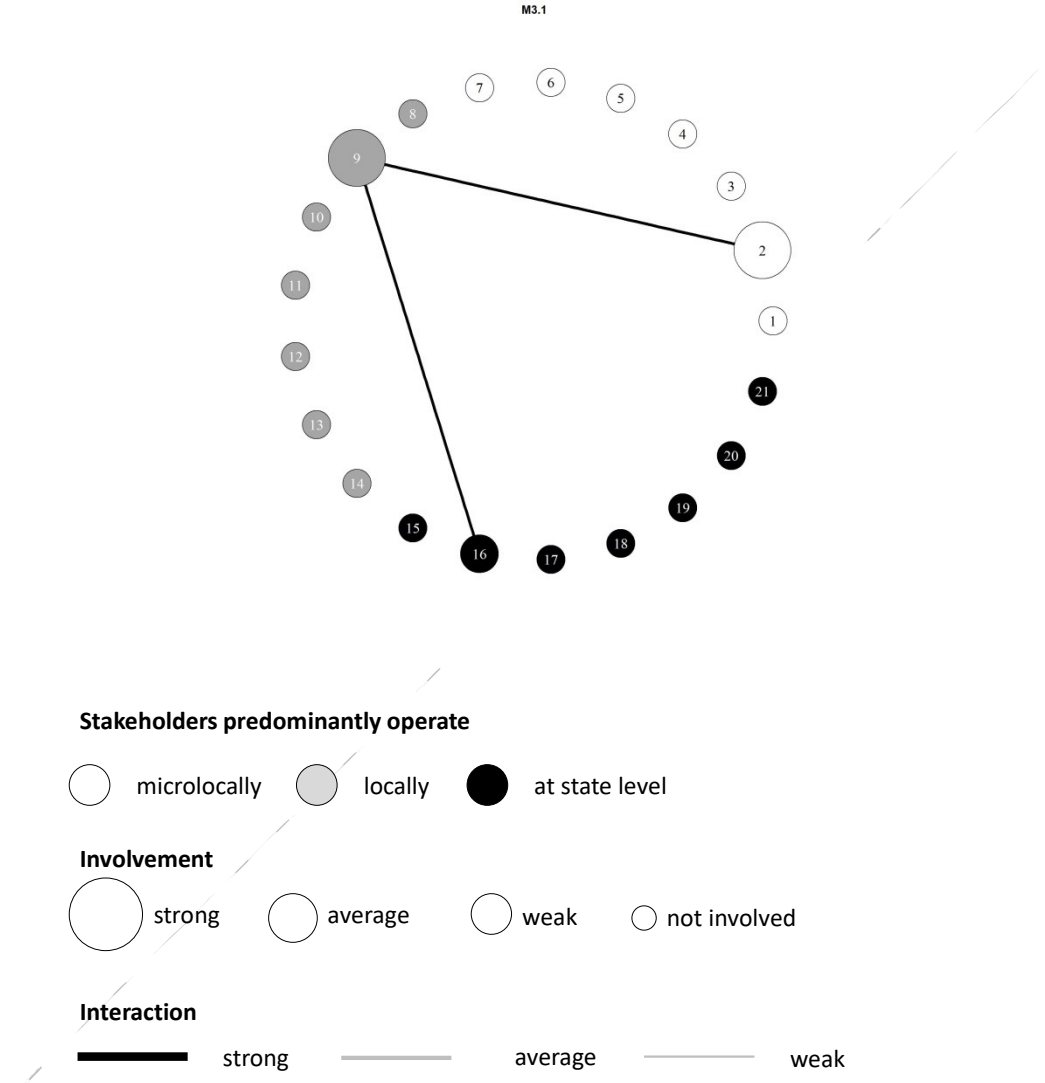
Measure	Support for New Quality Scheme Participation
Abbreviation	M3.1
Policy	RDP RS 2014–2020
Objectives	To certify locality and related higher quality.
Indicator	Number of holdings/beneficiaries receiving aid.
How it contributes to climate change vulnerability reduction	Indirectly through origin certification, special features, cultivation method, excellence, locality, and the like.



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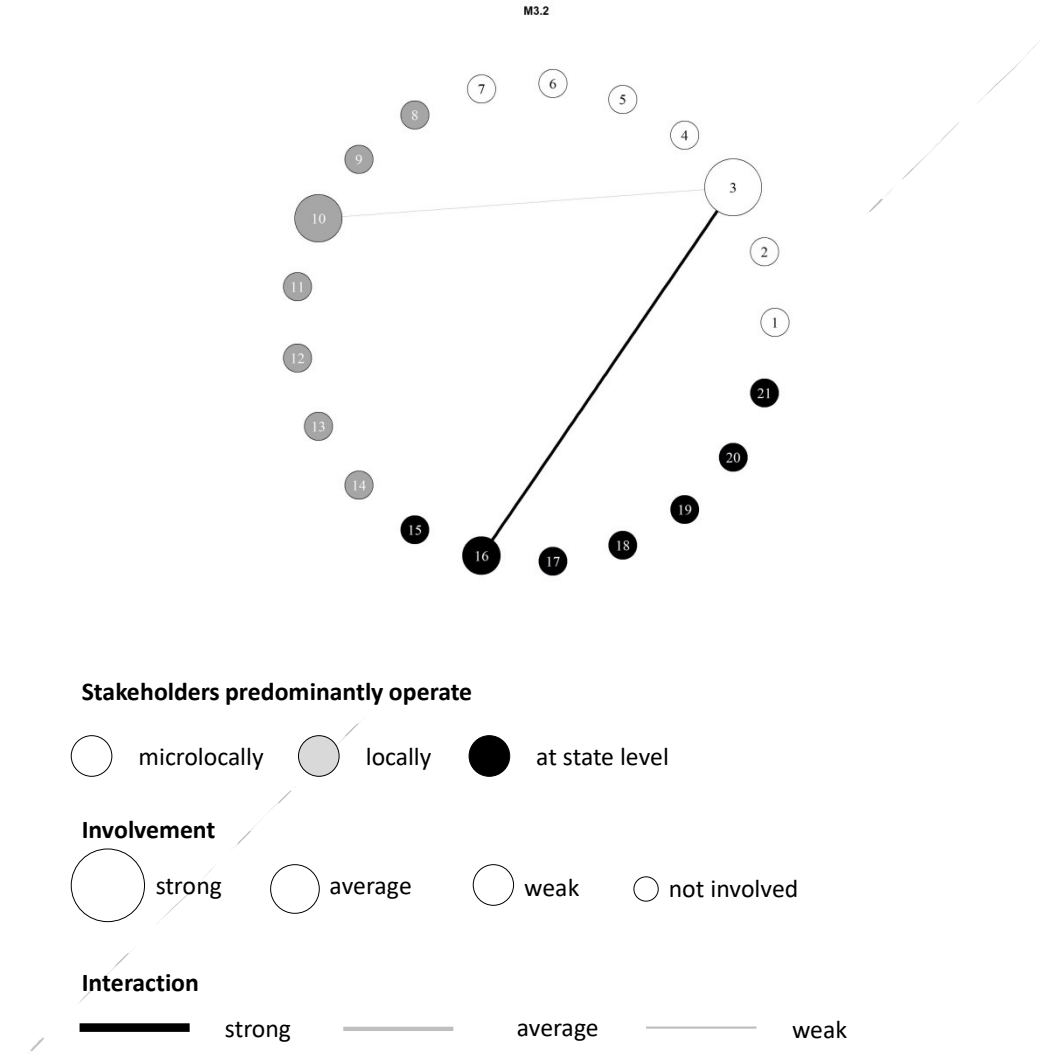
Measure	Support for Information and Promotion Activity Facilitated by Internal Market Producer Groups
Abbreviation	M3.2
Policy	RDP RS 2014–2020
Objectives	Raise awareness, inform and encourage consumers to use quality scheme products.
Indicator	Total public expenditure.
How it contributes to climate change vulnerability reduction	Indirectly through raising awareness, and informing and encouraging consumers to use quality scheme products.



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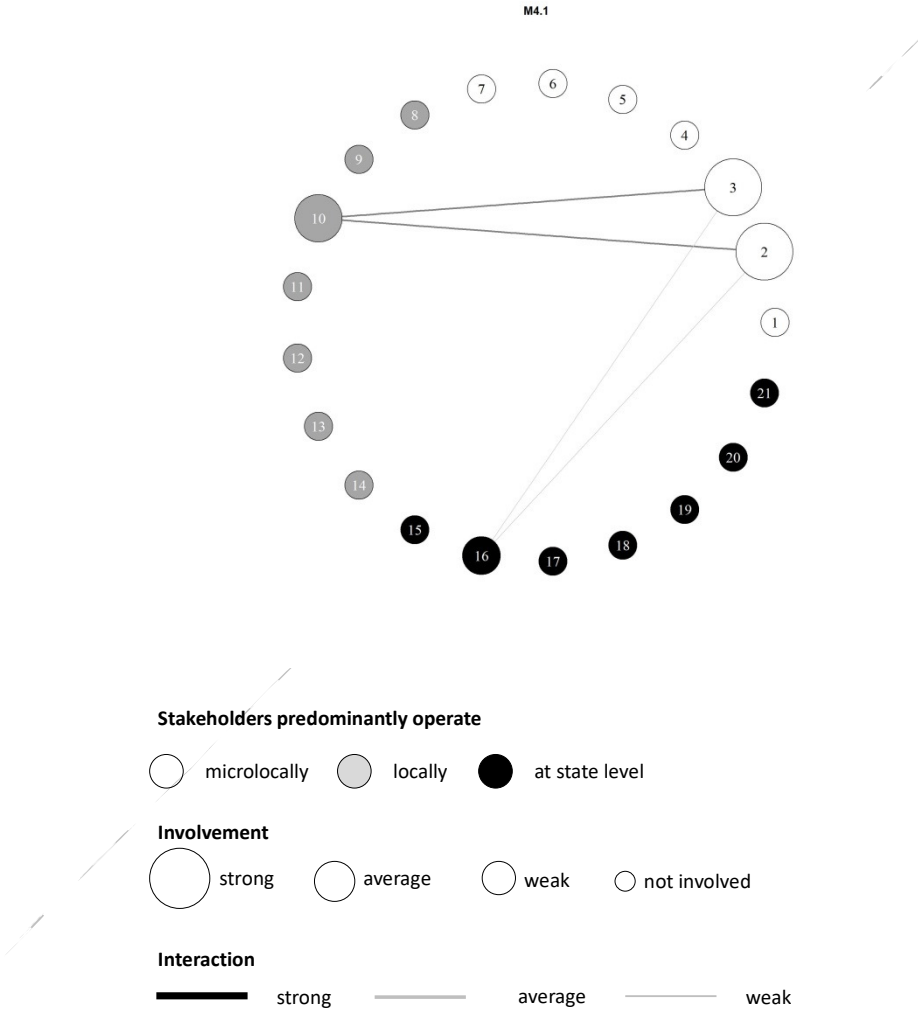
Measure	Support for Agricultural Holding Investment
Abbreviation	M4.1
Policy	RDP RS 2014–2020
Objectives	To increase agricultural holding productivity, and economic and environmental effectiveness.
Indicators	Total public expenditure, and number of supported operations and holdings/beneficiaries receiving aid.
How it contributes to climate change vulnerability reduction	Directly through the purchase and setting up of nurseries, anti-hail nets, anti-crack-fruit-blight protective foil, protective anti-bird netting, effective energy use investment, agromelioration work implementation, "small" irrigation system arrangement, its technological modernisation, its purchase, and irrigation equipment set up.



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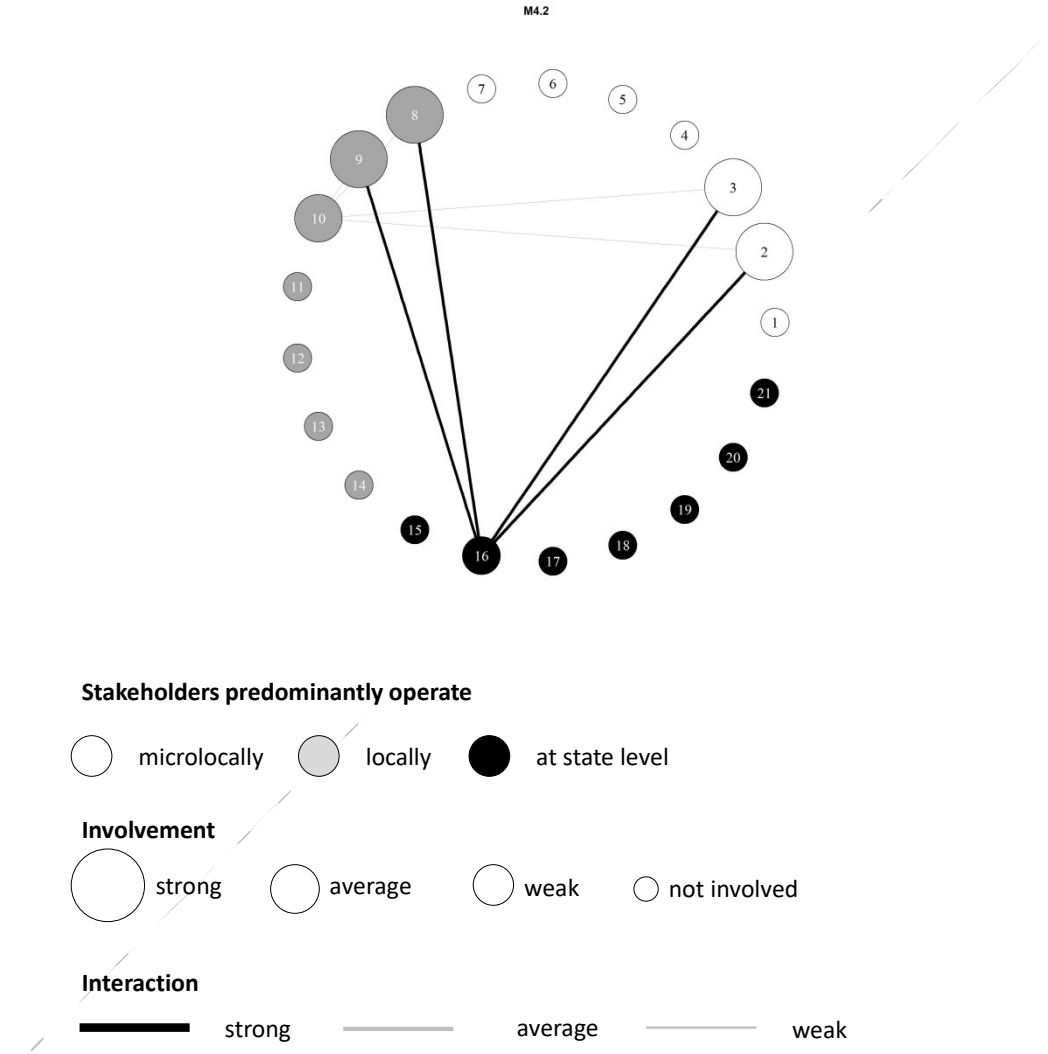
Measure	Support for Investment in Processing/Marketing and Development of Agricultural Products
Abbreviation	M4.2
Policy	RDP RS 2014–2020
Objectives	Enabling purchase of technology for more effective energy use and renewable energy source utilisation.
Indicators	Total public expenditure and number of supported operations.
How it contributes to climate change vulnerability reduction	Directly through investment in effective processing-energy use and investment in renewable energy resources, electricity generation at agricultural holdings.



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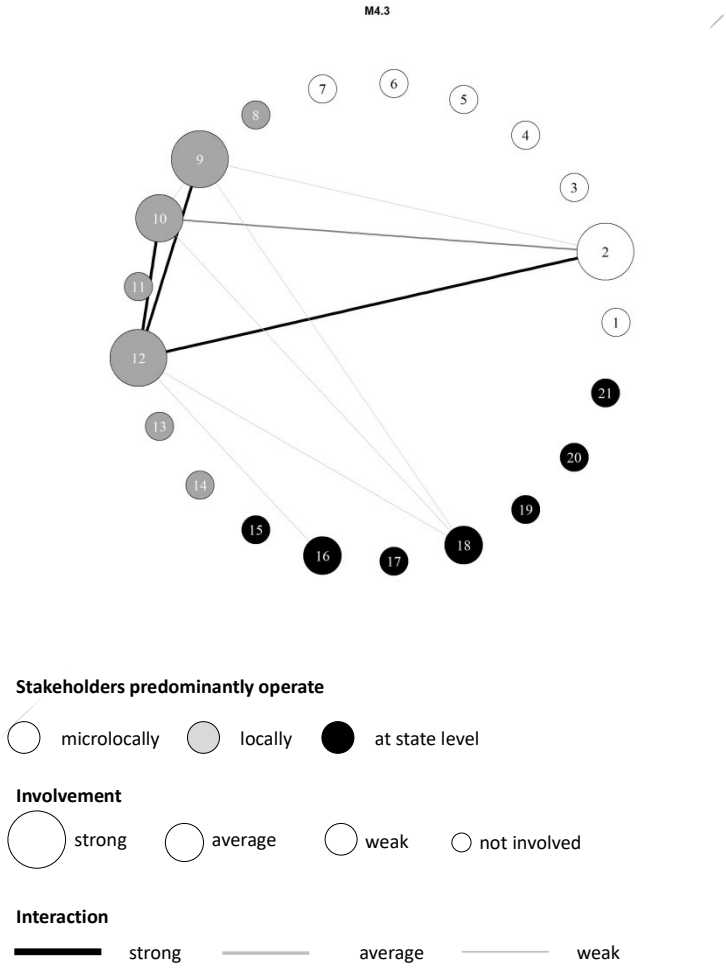
Measure	Support for Investment in Infrastructure Related to Development, Modernisation and Adaptation of Agriculture and Forestry
Abbreviation	M4.3
Policy	RDP RS 2014–2020
Objectives	More favourable ownership structure, a reduced number of paths necessary for supply to all plots of land, decreasing fuel – energy use, reduced irrigation system water loss, enabling a reduction in demand, and the use of water pursuant to the irrigation timetable which, in comparison with individual offtake, optimises current water use, consequently reducing overall water body pressure.
Indicators	Total public expenditure and number of supported operations.
How it contributes to climate change vulnerability reduction	Directly by obtaining funds for agromelioration implementation in consolidation areas, construction of irrigation systems intended for various users, and technological modernisations of irrigation systems intended for various users.



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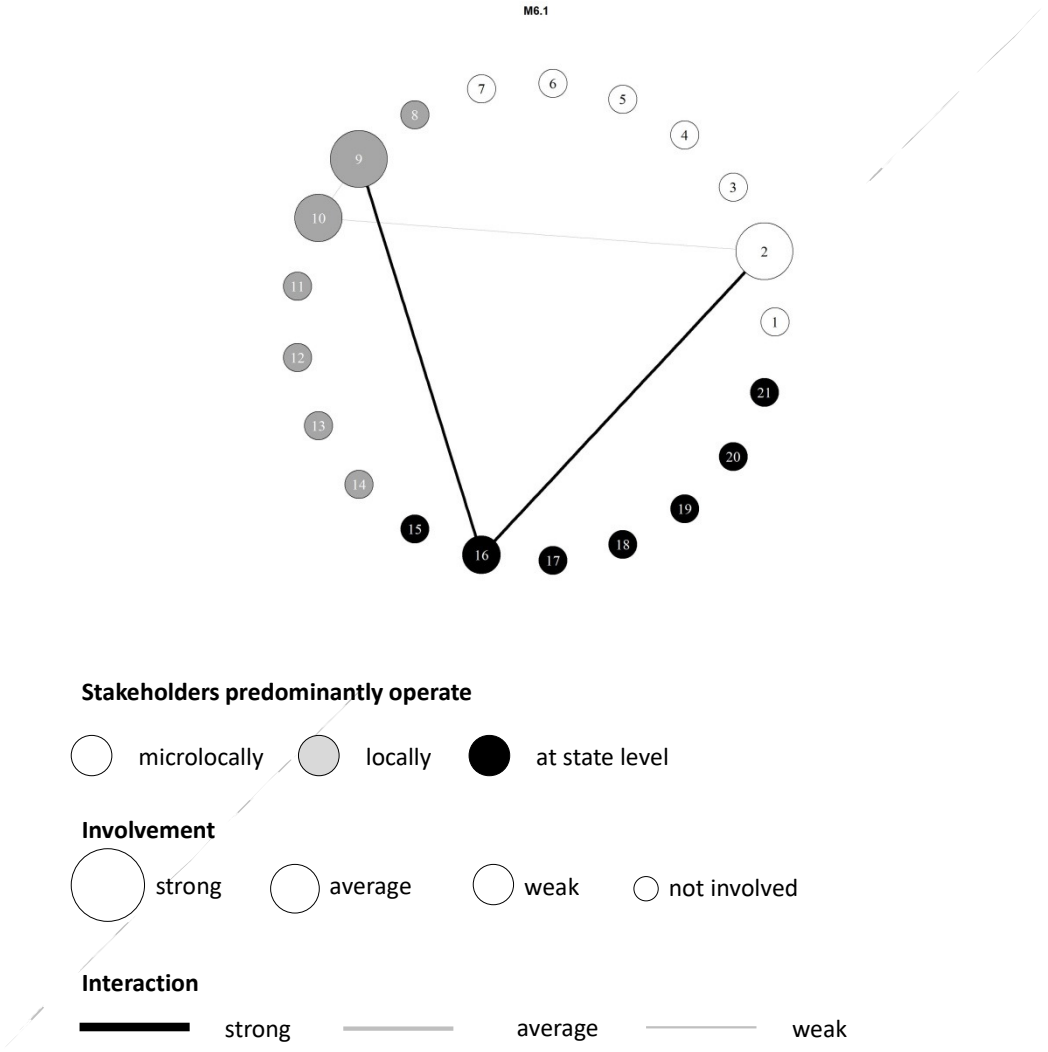
Measure	Young Farmer Business Start-Up Aid
Abbreviation	M6.1
Policy	RDP RS 2014–2020
Objective	Business start-up with farmers open to innovation and environment-focused, promoting the continuation of agricultural activity for local market supply.
Indicators	Total public expenditure and number of holdings/beneficiaries receiving aid.
How it contributes to climate change vulnerability reduction	Indirectly through young farmer business start-up aid provision.



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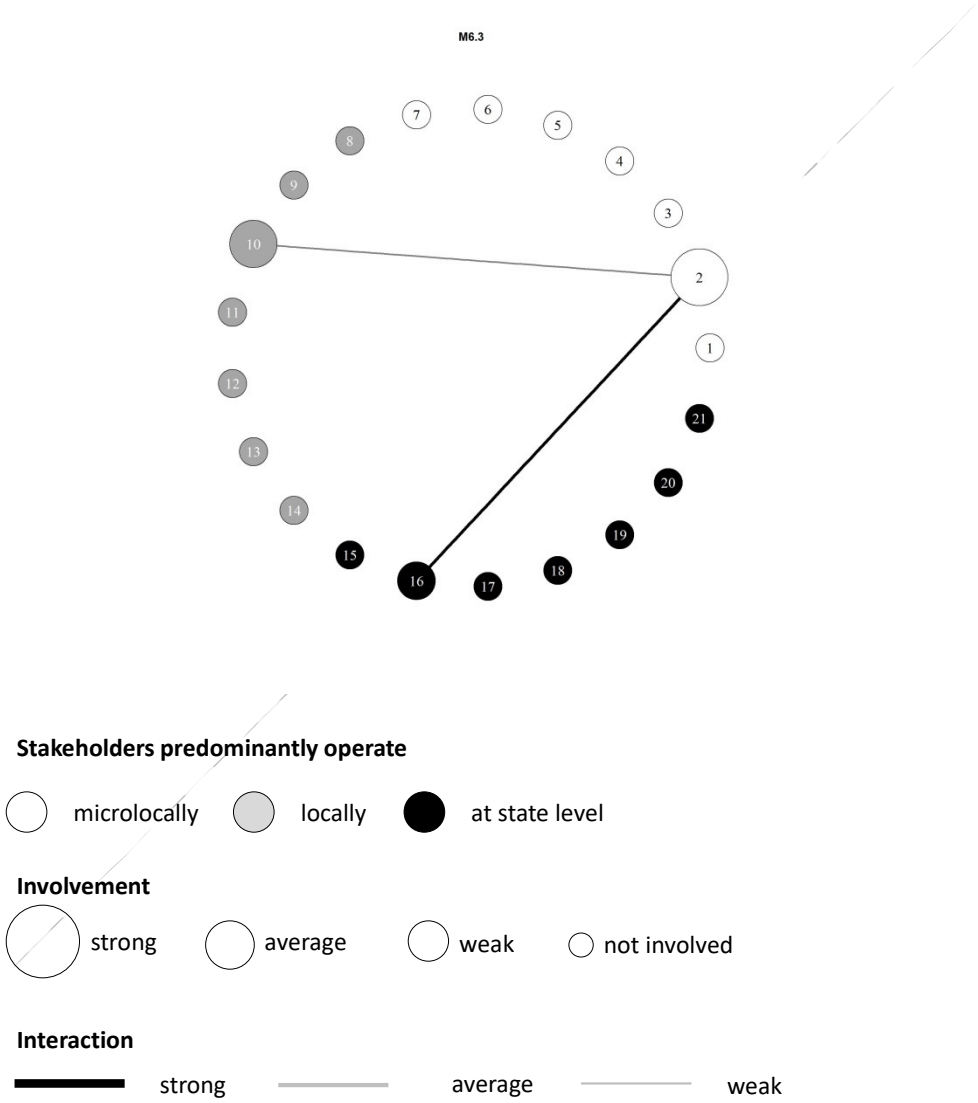
Measure	Business Start-Up Aid for the Development of Small Farms
Abbreviation	M6.3
Policy	RDP RS 2014–2020
Objective	Business start-up of small farms in less favoured areas (LFA), with implications for environmentally-friendly pasturing, the cultural landscape, and local food production.
Indicators	Total public expenditure and number of holdings/beneficiaries receiving aid.
How it contributes to climate change vulnerability reduction	Indirectly through financial support provision based on three-year business plan intended for the development of small farms whose land lies predominantly in LFA.



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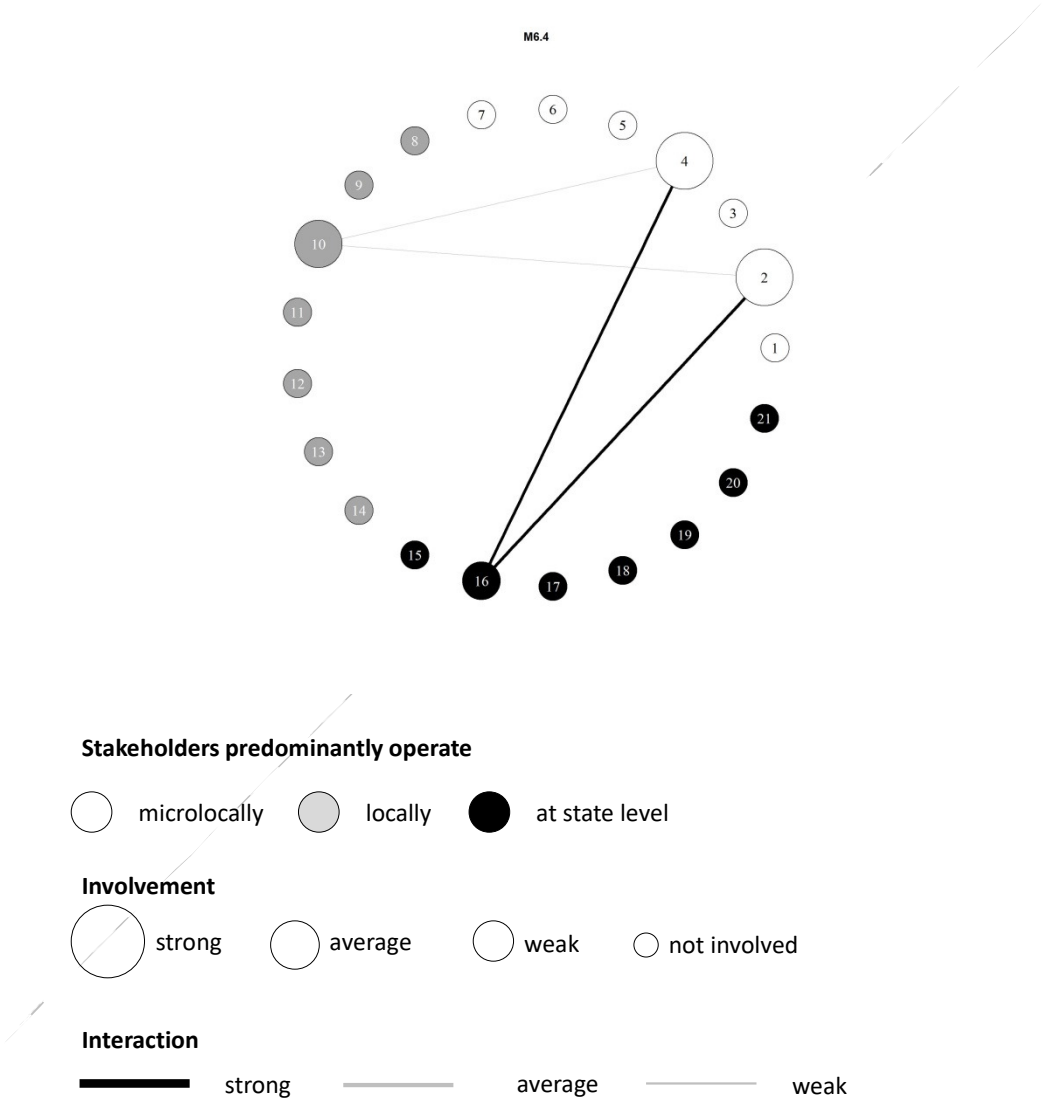
Measure	Support for Investment in the Establishment and Development of Non-Agricultural Activities
Abbreviation	M6.4
Policy	RDP RS 2014–2020
Objective	Promoting the development of farms for local supply, green tourism, social entrepreneurship, organic waste management, and the generation of renewable-source, thermal energy.
Indicators	Total public expenditure and number of holdings/beneficiaries receiving aid.
How it contributes to climate change vulnerability reduction	Indirectly through establishing and developing non-agricultural activity.



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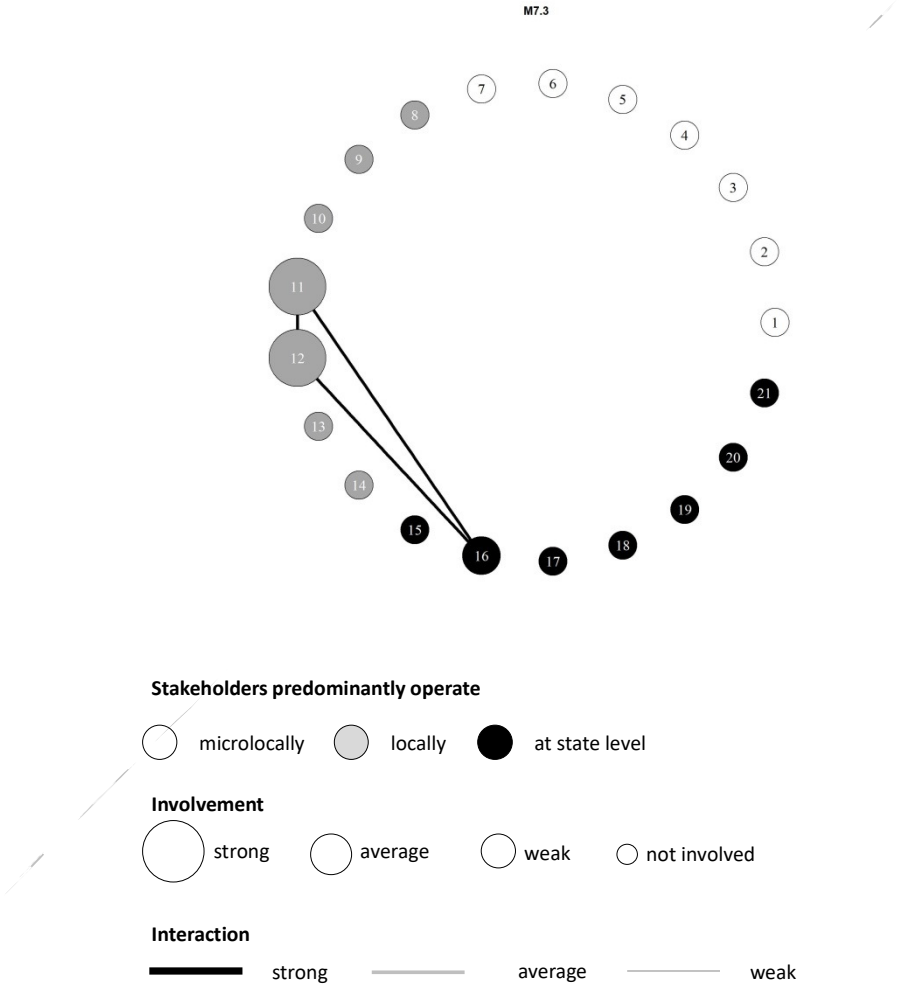
Measure	Support for Broadband Infrastructure, Including its Set Up, Improvement and Extension, Passive Broadband Infrastructure, Broadband Internet Access Assurance, and e-Administration Related Solutions
Abbreviation	M7.3
Policy	RDP RS 2014–2020
Objective	Enabling broadband network access and electronic communication for rural populations and economies.
Indicators	Joint investment, total public expenditure, number of supported operations, population receiving improved services/infrastructure, information technology, and the like.
How it contributes to climate change vulnerability reduction	Indirectly through broadband network development, enabling better access to data relevant to, for example, improvement in water use effectiveness.



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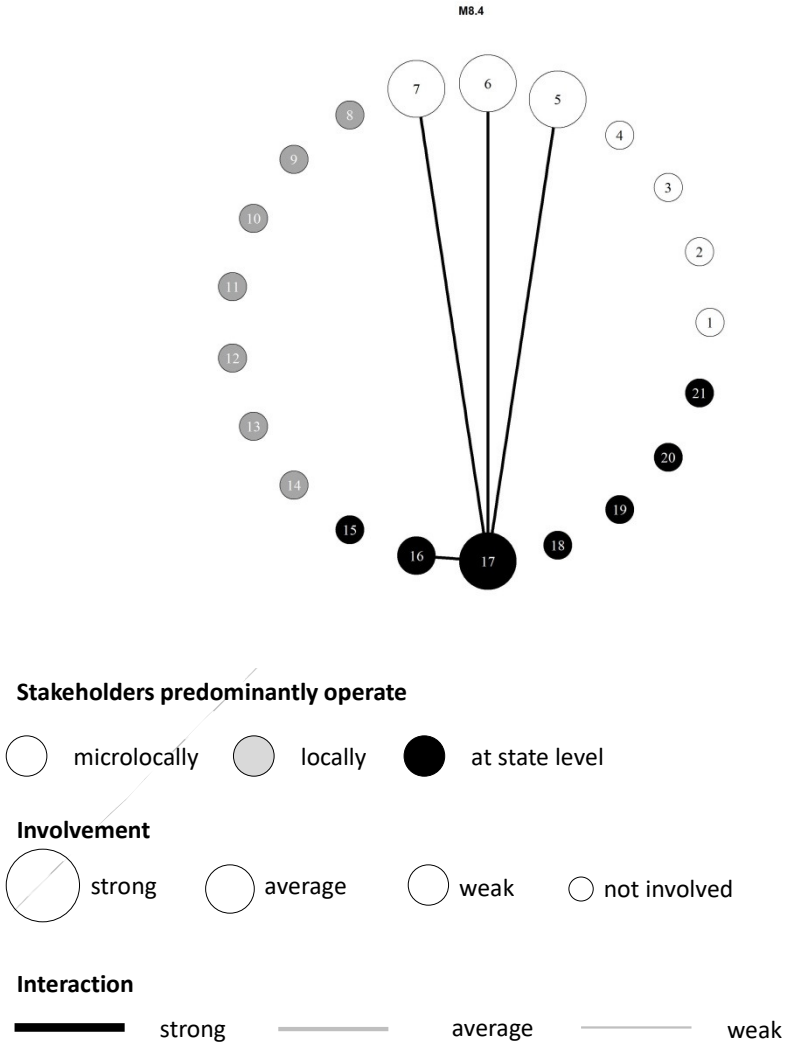
Measure	Support for the Elimination of Damage in Forests Resulting from Forest Fire, Natural Disaster and Catastrophic Events – Elimination of Damage and Forest Rehabilitation Pursuant to Natural Disasters
Abbreviation	M8.4
Policy	RDP RS 2014–2020
Objective	Eliminating damage and rehabilitating forests pursuant to glaze ice, and its resulting plant disease and insect-overpopulation infestation.
Indicators	Total public expenditure, number of holdings/beneficiaries receiving aid, and total surface area.
How it contributes to climate change vulnerability reduction	Directly through rehabilitation and improvement of forest ecological function and CO_2 sink function.



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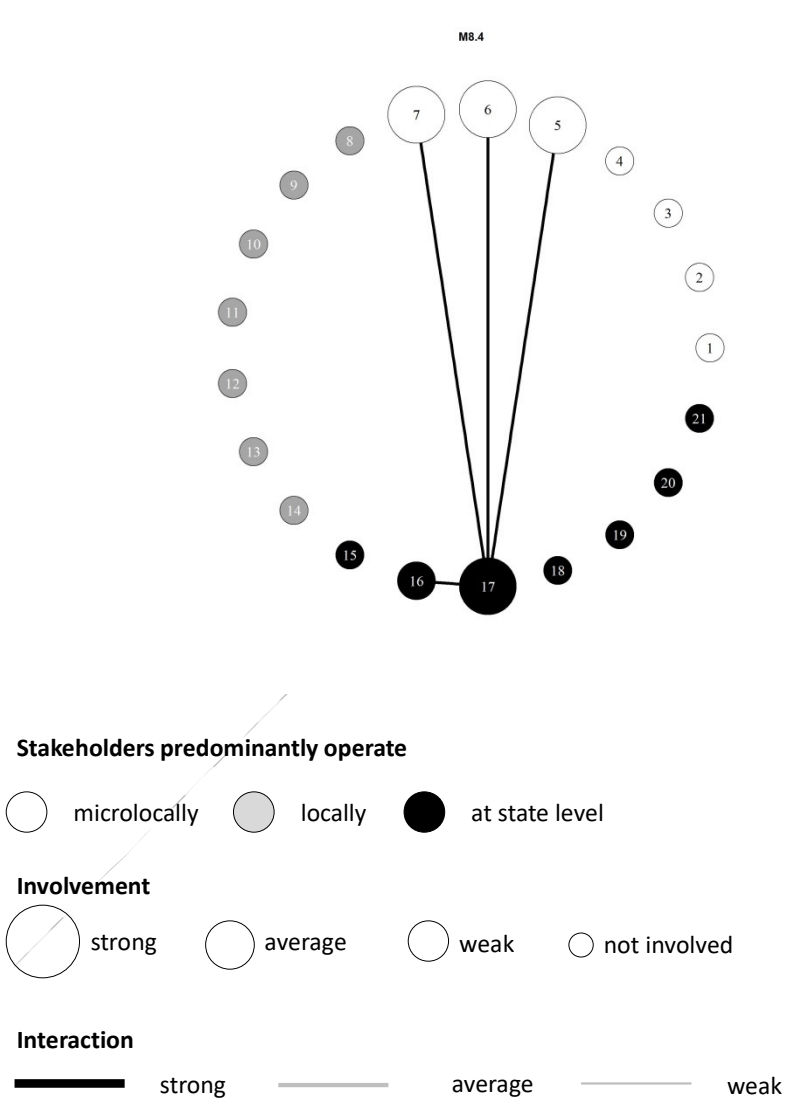
Measure	Support for the Elimination of Damage in Forests Resulting from Forest Fire, Natural Disaster and Catastrophic Events – Arrangement of Skid Trails for Forest Rehabilitation
Abbreviation	M8.4
Policy	RDP RS 2014–2020
Objective	Arrangement of skid trails necessary for forest rehabilitation.
Indicators	Total public expenditure, number of holdings/beneficiaries receiving aid, and total surface area.
How it contributes to climate change vulnerability reduction	Indirectly through forest rehabilitation pursuant to glaze ice; rehabilitation enables forest ecological function improvement and CO_2 sink function rehabilitation.



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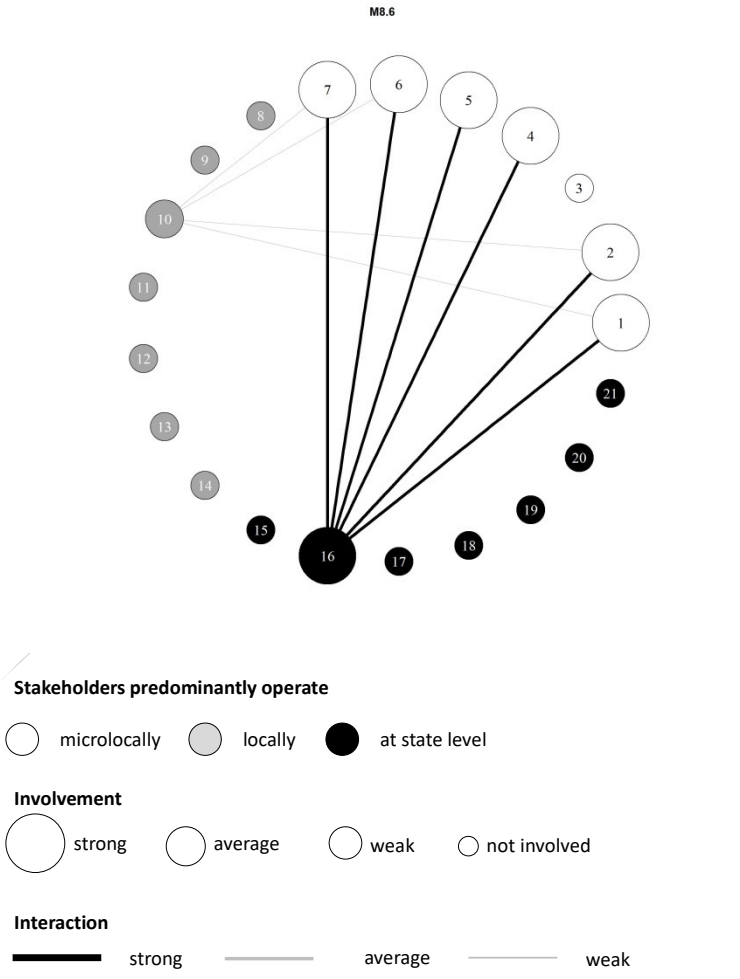
Measure	**Support for Investment in Forestry Technology, and the Processing, Mobilisation and Marketing of Forest Products – Investment in the Purchase of New Machinery and Equipment for Wood Felling and Harvesting**
Abbreviation	M8.6
Policy	RDP RS 2014–2020
Objectives	Forest management intensification, especially for private forests, increased felling, forest work professionalisation and concomitant reduction of work-related accidents, and the introduction of effective and environmentally acceptable technology for the felling and harvesting of wood.
Indicators	Total public expenditure, joint investment, and number of supported operations.
How it contributes to climate change vulnerability reduction	Indirectly through the improvement of local market supply possibility, meaning reduced CO_2 environmental pollution resulting from shorter supply chains if realised.



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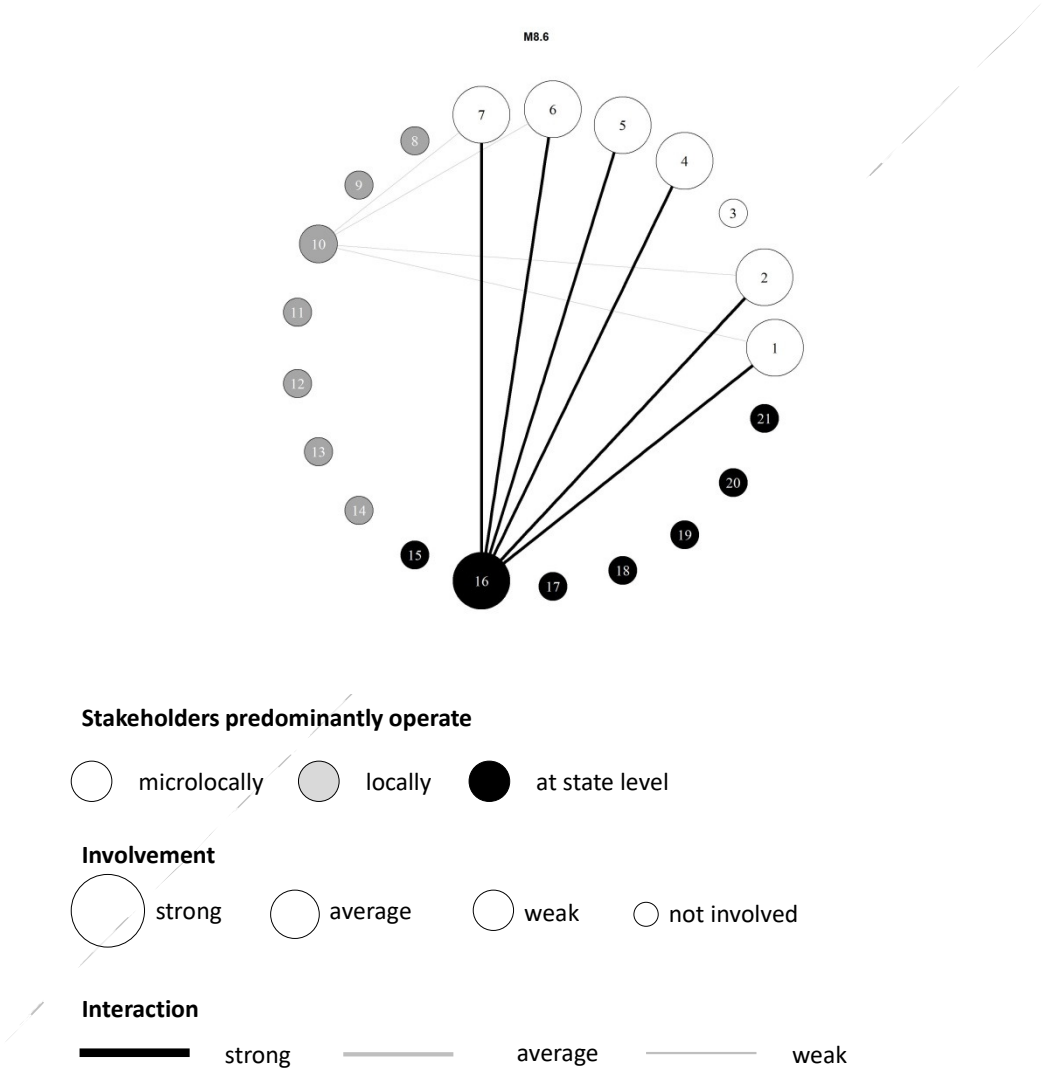
Measure	Support for Investment in Forestry Technologies, and the Processing, Mobilisation and Marketing of Forest Products – Investment in Pre-Industrial Wood Processing
Abbreviation	M8.6
Policy	RDP RS 2014–2020
Objective	Forestry product added value.
Indicators	Total public expenditure, joint investment, and number of supported operations.
How it contributes to climate change vulnerability reduction	Indirectly through the improvement of local market supply possibility, meaning reduced CO_2 environmental pollution resulting from shorter supply chains if realised.



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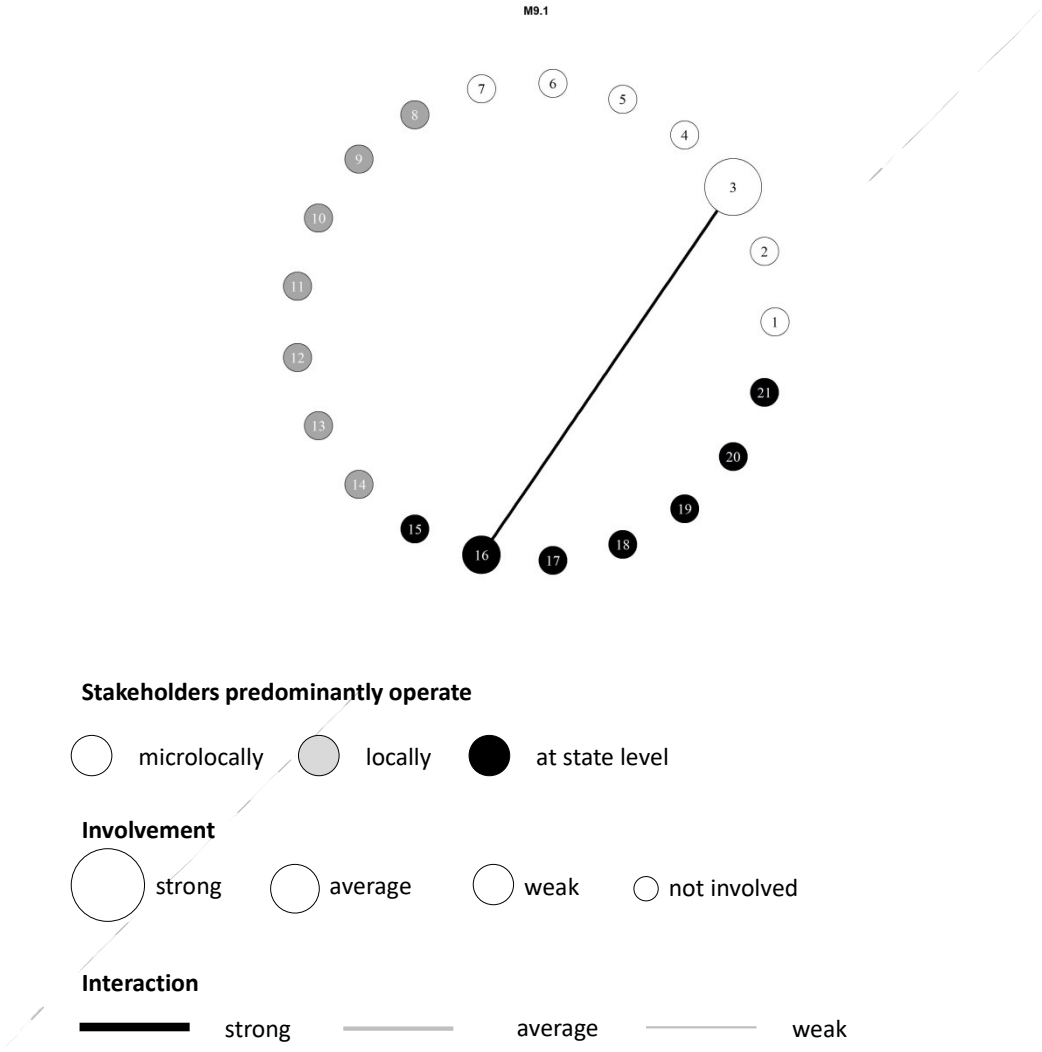
Measure	Establishment of Agricultural and Forestry Groups and Organisations
Abbreviation	M9.1
Policy	RDP RS 2014–2020
Objectives	To enhance agricultural and forestry sector connection, and market orientation through organised sale and joint market operation.
Indicator	Number of newly established groups/organisations.
How it contributes to climate change vulnerability reduction	Indirectly through the improvement of local market supply possibility, meaning reduced CO_2 environmental pollution resulting from shorter supply chains if realised.



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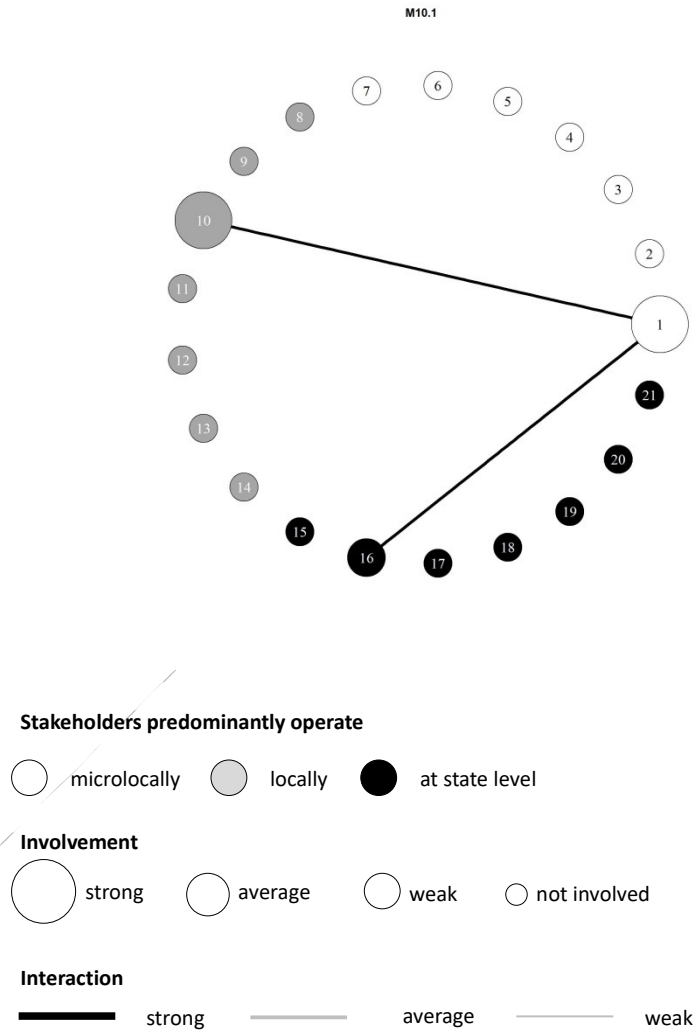
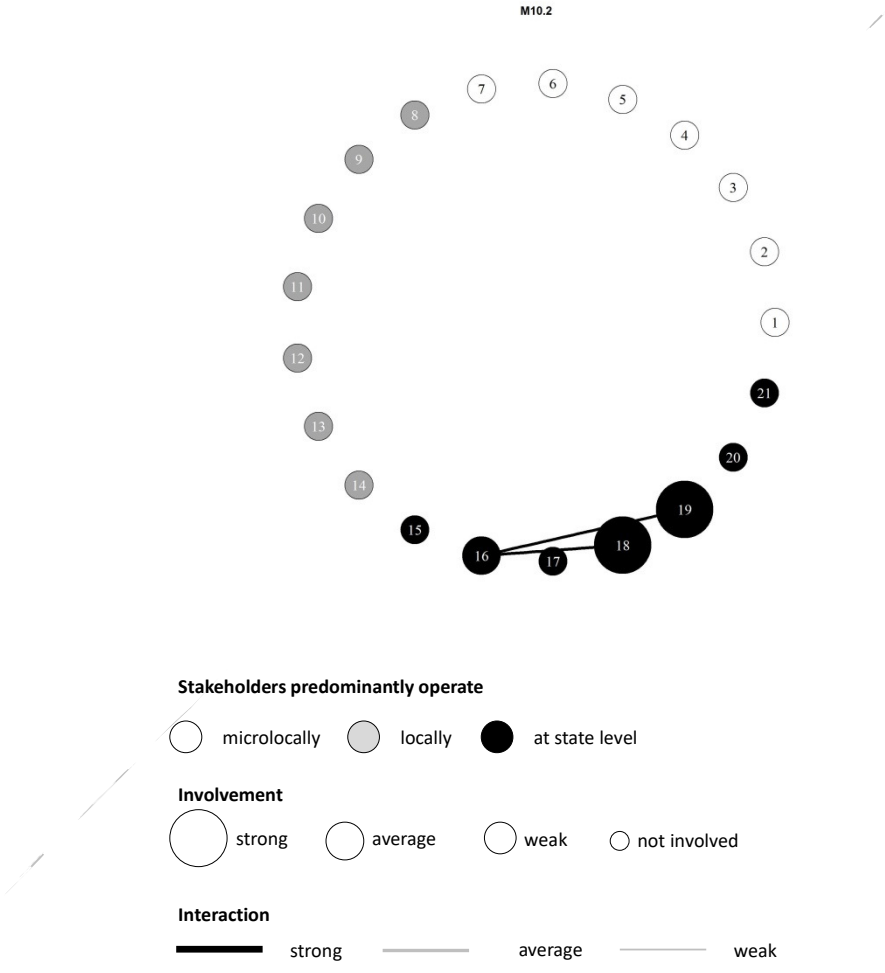
Measure	Agri-Environment-Climate Measure Payment Obligations
Abbreviation	M10.1
Policy	RDP RS 2014–2020
Objective	To encourage agricultural holdings to manage agricultural land in a way that diminishes the negative impact of agriculture on the environment, contributing to climate change mitigation and adaptation, and assuring the implementation of socially important service and intangible public goods.
Indicators	Total public expenditure, total surface area (ha) and number of supported contracts.
How it contributes to climate change vulnerability reduction	Directly by mitigating negative environmental impact through sustainable agricultural practices, and maintaining biodiversity, landscape and suitable water and soil management. This indirectly contributes to the mitigation and adaptation of agriculture to climate change.



Stakeholders
1 individual farmers, 2 agricultural holdings, 3 producer groups: legal entities, cooperatives, social enterprise, and the like, 4 micro-entities, 5 forest ownership (public), 6 forest co-ownership, agrarian communities, 7 forest ownership (private), 8 other public bodies, 9 other private entities, 10 the Agricultural Advisory Service (specialised public body), 11 private partners in public-private partnership with municipalities, 12 municipality (territorial public body), 13 other legal entities engaged in non-profit activity in the area of health care and the social inclusion of vulnerable social groups, 14 local action group partnerships (LAS), 15 legal entities in the field of education, health care education, health care and social assistance, 16 Ministry of Agriculture, Foresty and Food and bodies therein, 17 Slovenian Forest Service (specialised public body), 18 research institutions (public bodies), 19 research institutions (private bodies), 20 Ministry of the Environment and Spatial Planning and bodies therein, 21 Farmland and Forest Fund of the Republic of Slovenia

Measure	Support for Agricultural Genetic Resource Preservation, its Sustainable Use and Development
Abbreviation	M10.2
Policy	RDP RS 2014–2020
Objective	This sub-measure is intended for activities supporting the preservation of plant genetic resources *in situ*, that is, the preservation of genetic material in ecosystems and natural habitats, the preservation and restoration of survival-capable populations of plant species and varieties in their natural environment, and in the case of cultivated plant species, in the environs of agricultural holdings, and *ex situ*, that is, genetic material preservation outside its natural habitat.
Indicators	Total public expenditure and number of supported contracts.
How it contributes to climate change vulnerability reduction	Directly and indirectly through the preservation of genetic material in ecosystems, natural habitats, and outside natural habitats to facilitate enrichment procedures for the development of climate-change-adapted species.



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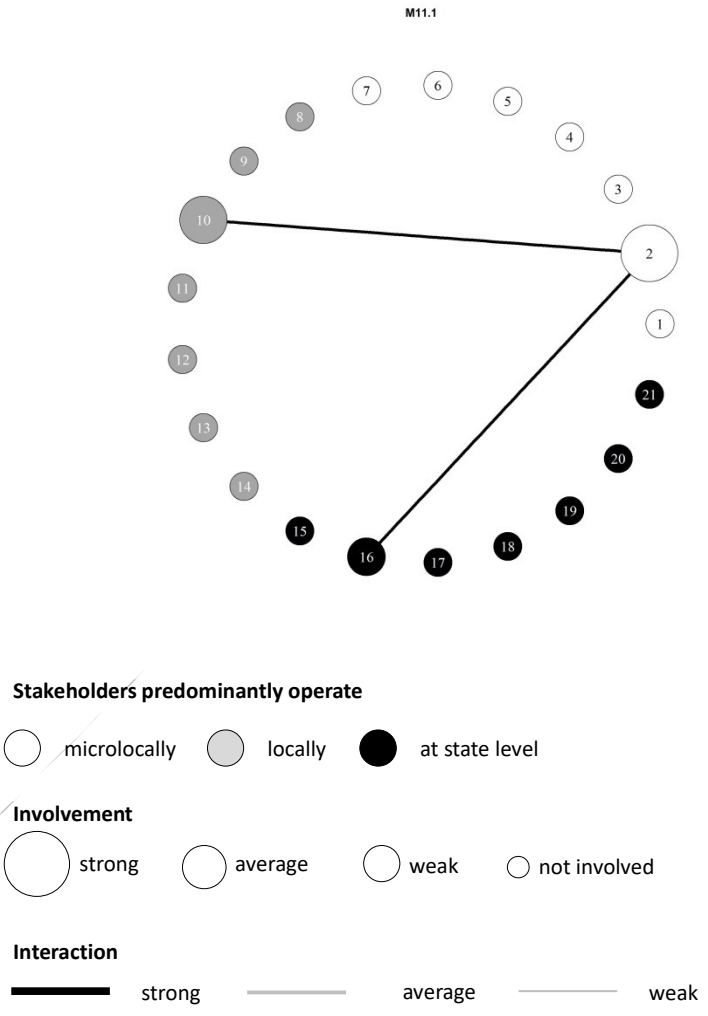
Measure	Payments for Conversion to Organic Farming Practices and Methods
Abbreviation	M11.1
Policy	RDP RS 2014–2020
Objectives	The implementation of farming that enables the protection and improvement of the environment, landscape elements, natural resources and biodiversity, and climate change adaptation. It is granted to those who voluntarily convert to organic farming practices and methods, such as determined by Regulation 834/2007/EC.
Indicator	Total surface area (ha).
How it contributes to climate change vulnerability reduction	Indirectly through professional assistance and pursuant professional fitness of beneficiaries in terms of high-quality food cultivation, which protects people's health and enables a maximal decrease in negative environmental impact, especially in terms of preventing agricultural groundwater pollution.



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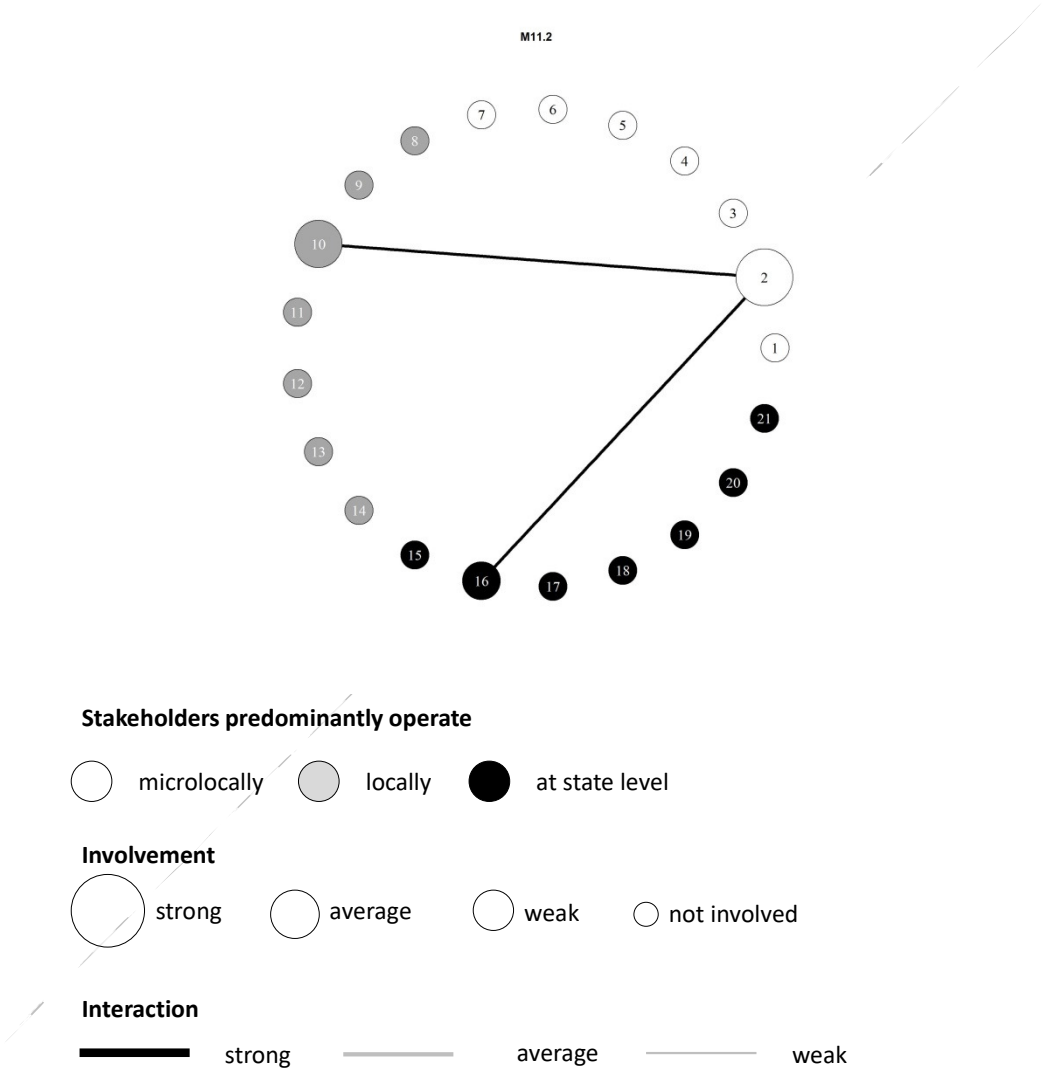
Measure	Payments to Maintain Organic Farming Practices and Methods
Abbreviation	M11.2
Policy	RDP RS 2014–2020
Objectives	The implementation of farming which enables the protection and improvement of the environment, landscape elements, natural resources and biodiversity, and climate change adaptation.
Indicator	Total surface area (ha).
How it contributes to climate change vulnerability reduction	Indirectly through professional assistance and pursuant professional fitness of beneficiaries in terms of high-quality food cultivation, which protects people's health and enables a maximal decrease in negative environmental impact, especially in terms of preventing agricultural groundwater pollution.



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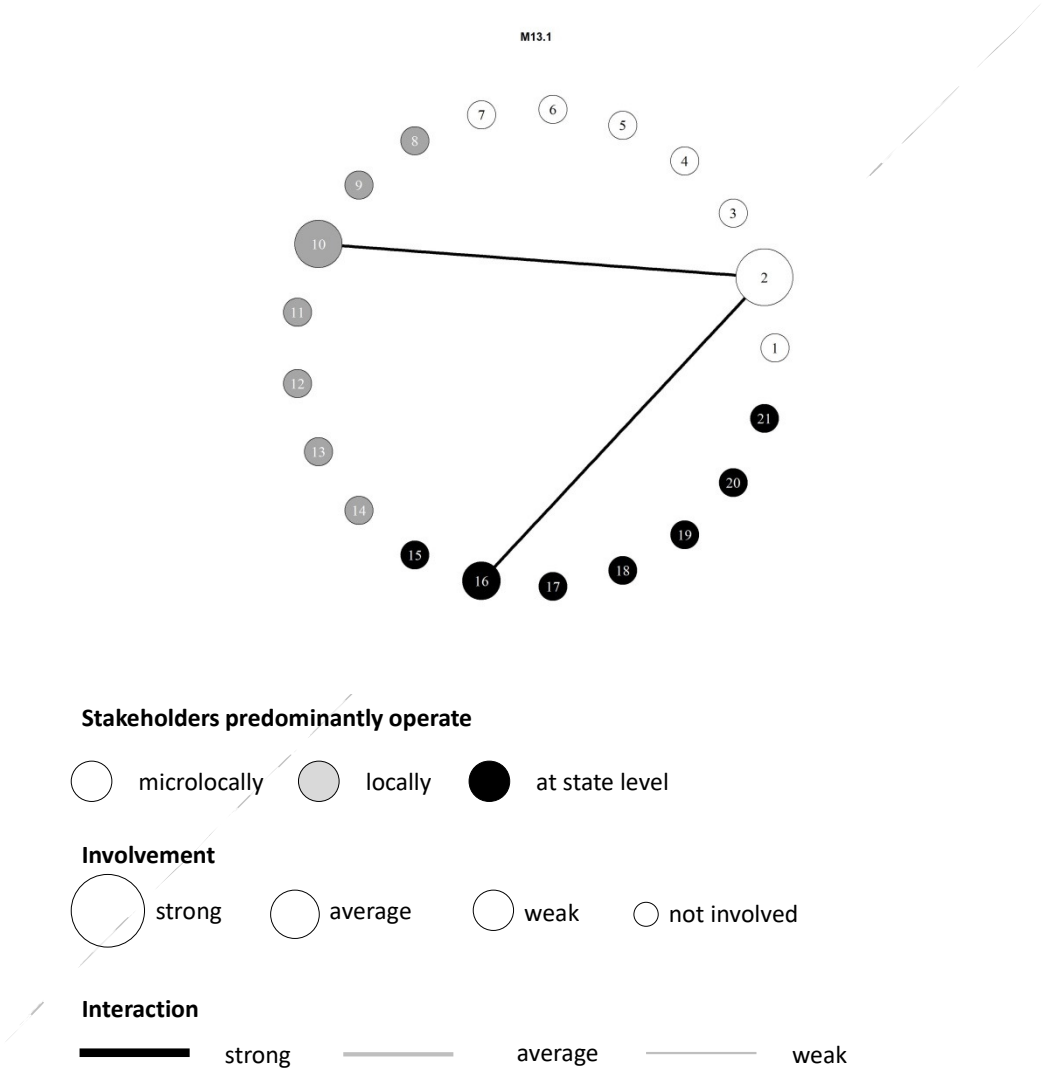
Measure	Payment of Mountainous Area Compensation
Abbreviation	M13.1
Policy	RDP RS 2014–2020
Objectives	The maintenance and further cultivation of agricultural land, rural settlement maintenance, and ensuring the public benefits in areas with natural and other special limitations (LFA).
Indicators	Total public expenditure and total surface area (ha).
How it contributes to climate change vulnerability reduction	Indirectly through the maintenance of landscape by promoting land management in spite of difficult farming conditions, and related soil protection pursuant to erosion, landslides, and diminished biodiversity.



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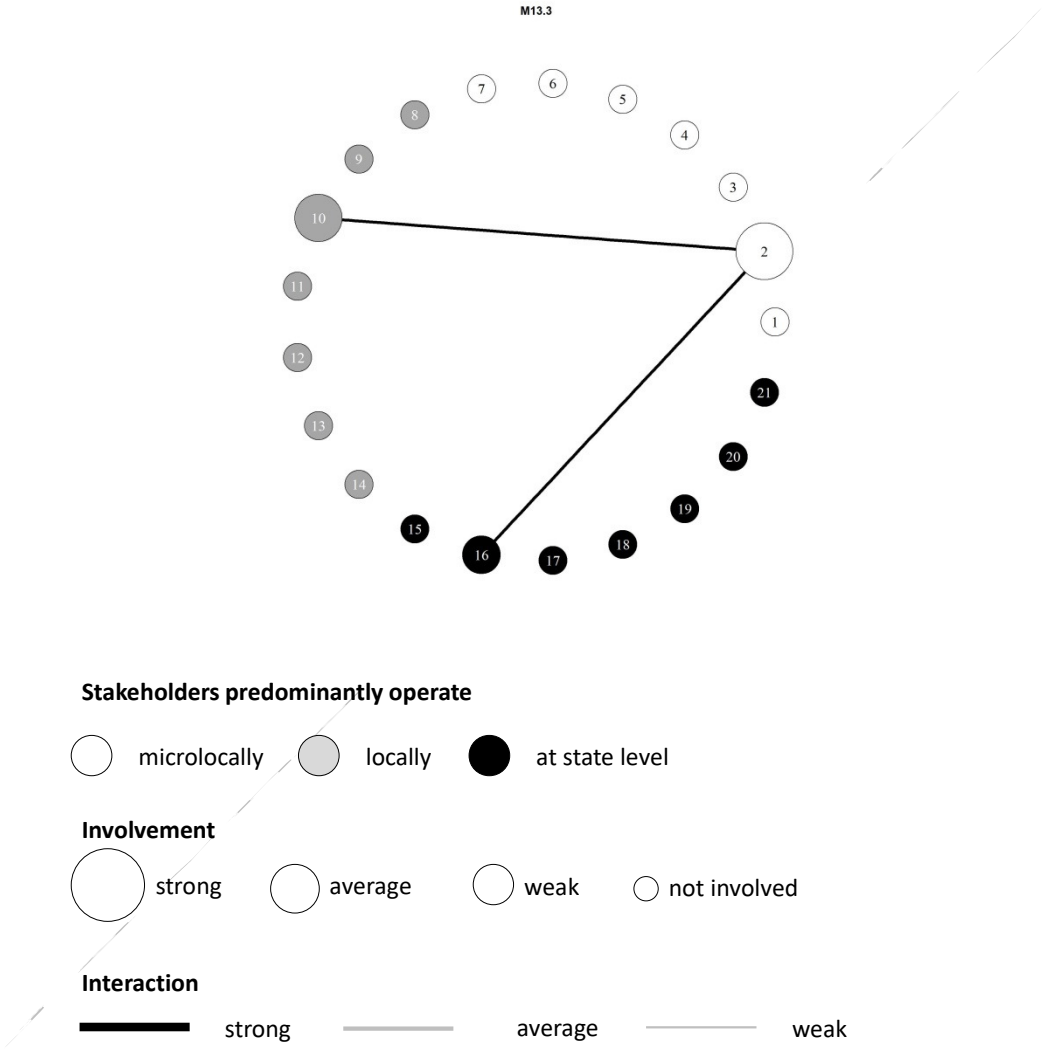
Measure	Payment of Compensation for Other Less Favourable Areas
Abbreviation	M13.3
Policy	RDP RS 2014–2020
Objectives	The maintenance and further cultivation of agricultural land, rural settlement maintenance, and ensuring the public benefits in areas with natural and other special limitations (LFA).
Indicators	Total public expenditure and total surface area (ha).
How it contributes to climate change vulnerability reduction	Indirectly through the maintenance of landscape by promoting land management in spite of difficult farming conditions, and related soil protection pursuant to erosion, landslides, and diminished biodiversity.



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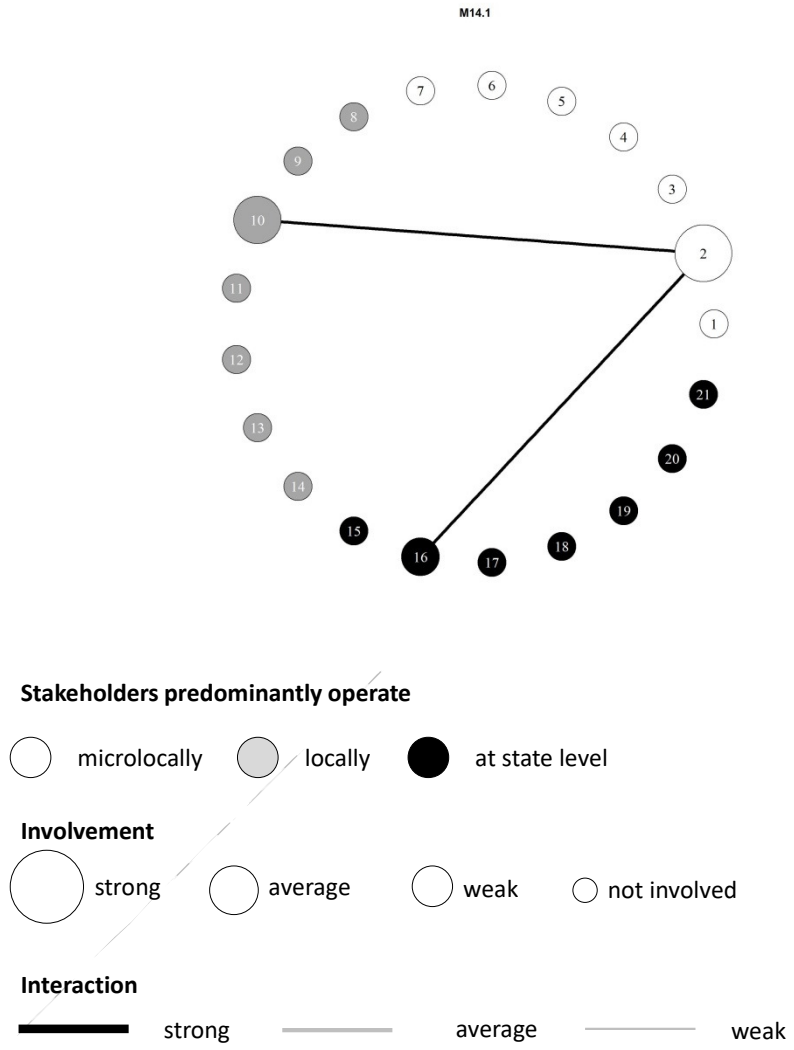
Measure	Payment for Animal Welfare
Abbreviation	M14.1
Policy	RDP RS 2014–2020
Objective	To encourage breeders to implement above-standard animal breeding methods.
Indicator	Total public expenditure.
How it contributes to climate change vulnerability reduction	Indirectly through the implementation of above-standard animal breeding methods.



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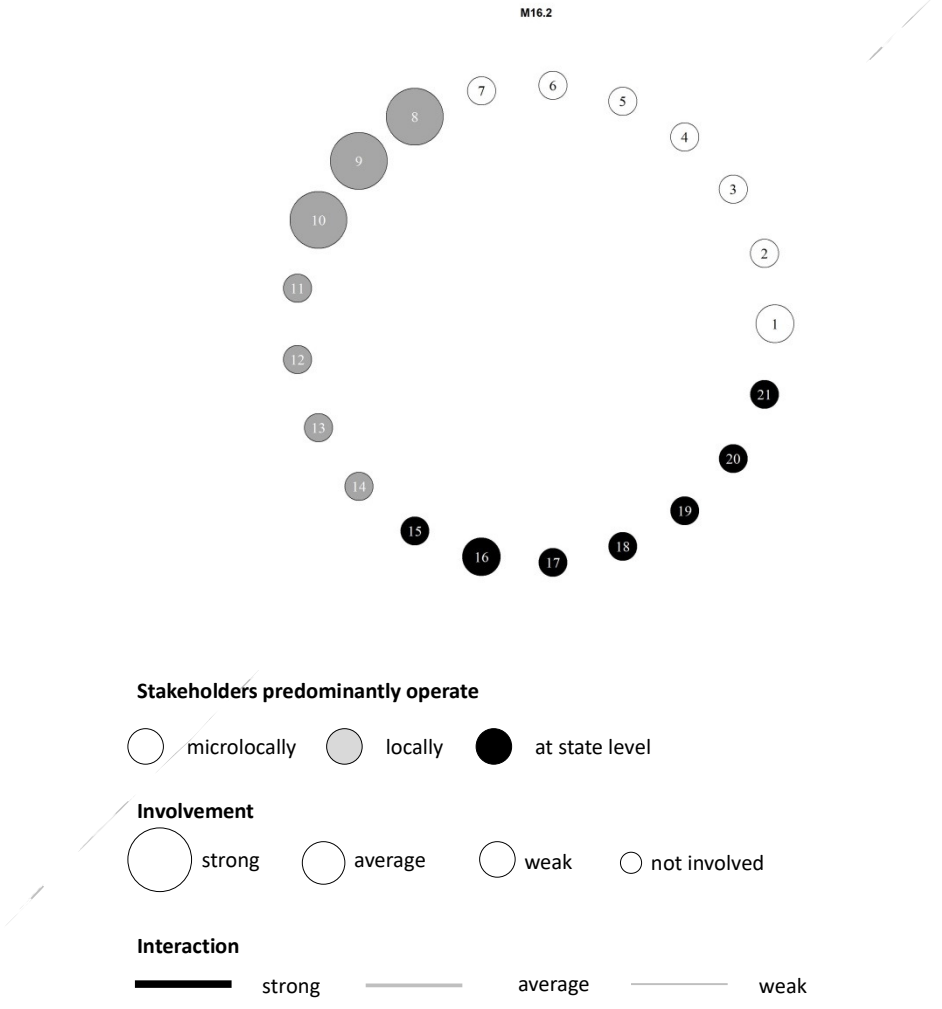
Measure	Support for Pilot Projects and Development of New Products, Practices, Processes and Technology
Abbreviation	M16.2
Policy	RDP RS 2014–2020
Objective	To establish cooperation amongst the various actors in the field of agriculture and rural development with regard to implementation of projects related to technological development in agriculture, forestry and food, which will help achieve rural development objectives.
Indicators	Total public expenditure and number of supported operation collaborations, bar the European Innovation Partnership.
How it contributes to climate change vulnerability reduction	Directly through pilot project achievement, solutions and innovation in the field of agricultural, forestry and food technological development, which will indirectly affect the adaptation of agriculture, forestry and food to climate change.



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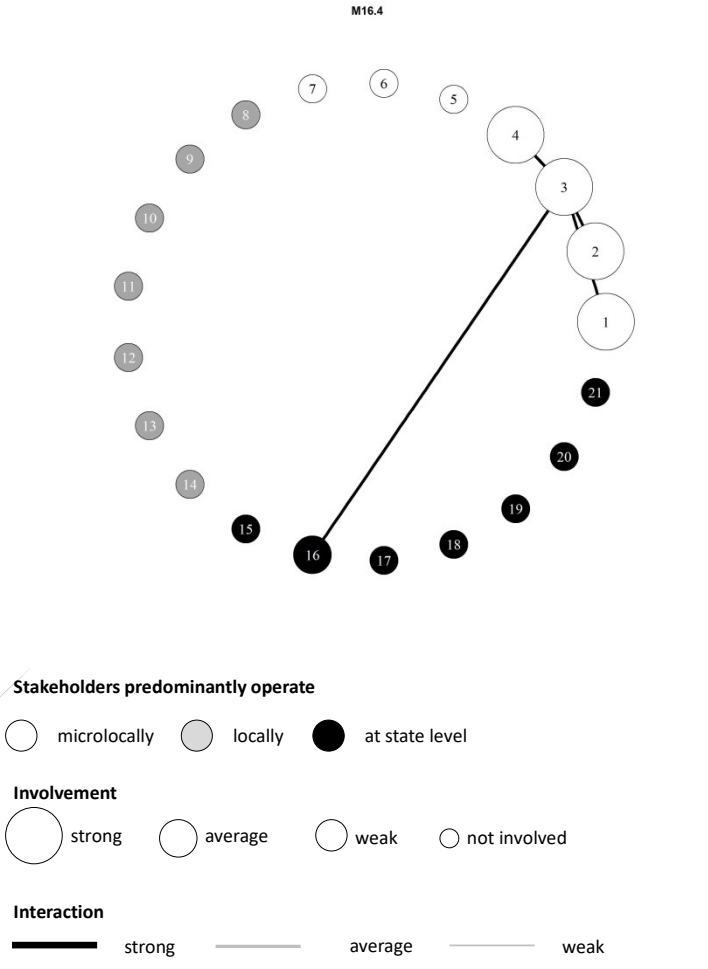
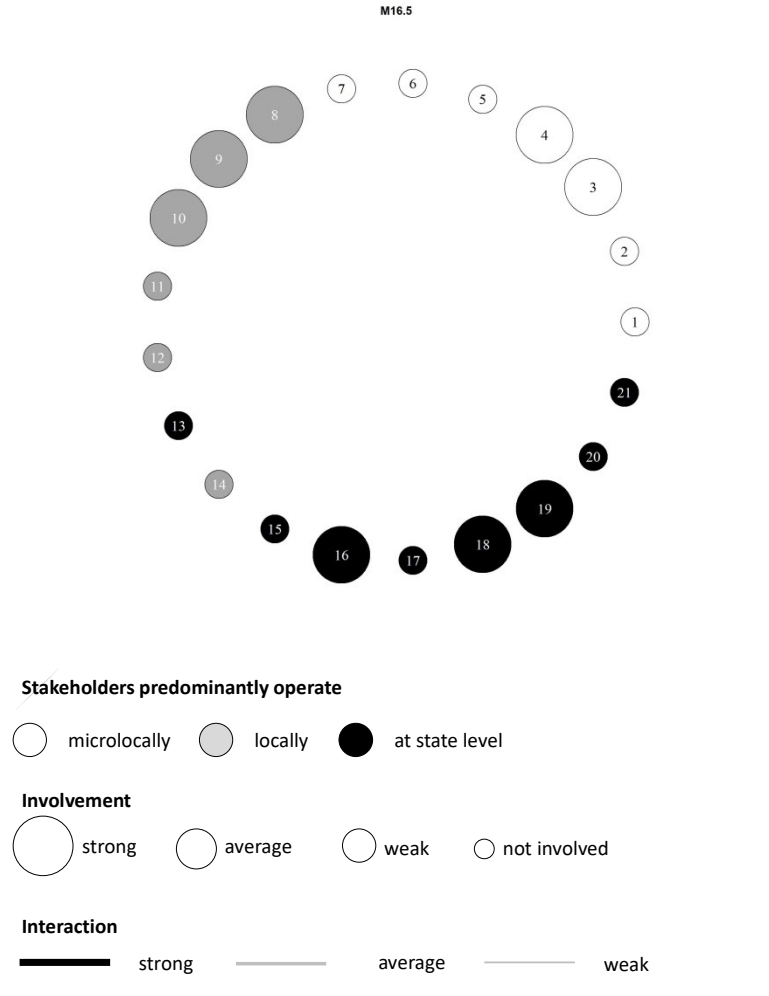
Measure	**Support for Supply Chain Actor Horizontal and Vertical Cooperation for the Establishment and Development of Short Supply Chains and Local Markets, and for Promotional Activities at the Local Level Connected to Short Supply Chains Development**
Abbreviation	M16.4
Policy	RDP RS 2014–2020
Objectives	To establish new, short supply chains and local markets, innovative approaches in these areas, and promotional activities at the local level connected to the development of short supply chains and local markets.
Indicators	Total public expenditure, number of supported operation collaborations, bar the European Innovation Partnership, and number of holdings involved in supported schemes.
How it contributes to climate change vulnerability reduction	Indirectly through the improvement of local market supply possibility, meaning reduced CO_2 environmental pollution resulting from shorter supply chains if realised.



Measure	Support for Joint Action Aimed at Climate Change Mitigation and Adaptation, and Joint Approaches for Inclusion in Environmental Projects and Permanent Environmental Practices
Abbreviation	M16.5
Policy	RDP RS 2014–2020
Objective	To establish cooperation amongst the various actors in the field of agriculture and rural development in terms of project implementation in the field of environment and climate change, which will contribute to the achievement of rural development objectives.
Indicators	Total public expenditure and number operation collaborations, bar the European Innovation Partnership.
How it contributes to climate change vulnerability reduction	Indirectly, the projects supported as a priority will be those that contribute to achieving environmental and nature conservation objectives, especially for training and improving the status of NATURA 2000 species and habitat types, and care and effective management of natural values and projects that will contribute to mitigate negative impacts of agriculture on the quality of surface waters and groundwaters.



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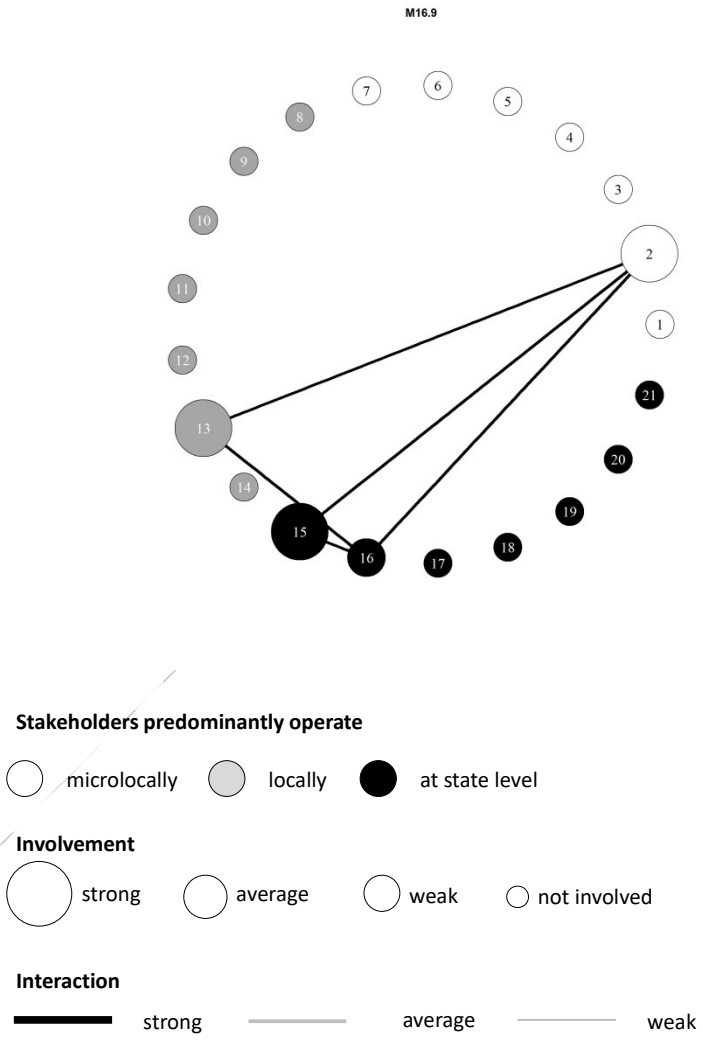
Measure	Support for Diversification of Agricultural Activities in Relation to Health Care, Social Inclusion, Farming Supported by the Community, and Education About the Environment and Food
Abbreviation	M16.9
Policy	RDP RS 2014–2020
Objective	To analyse development possibility for agricultural activities related to the areas of education, health care, social assistance and protection of disabled people.
Indicators	Total public expenditure, number of supported operation collaborations, bar the European Innovation Partnership.
How it contributes to climate change vulnerability reduction	Indirectly through the development of agricultural activities related to education, health care, social assistance and protection of disabled people.



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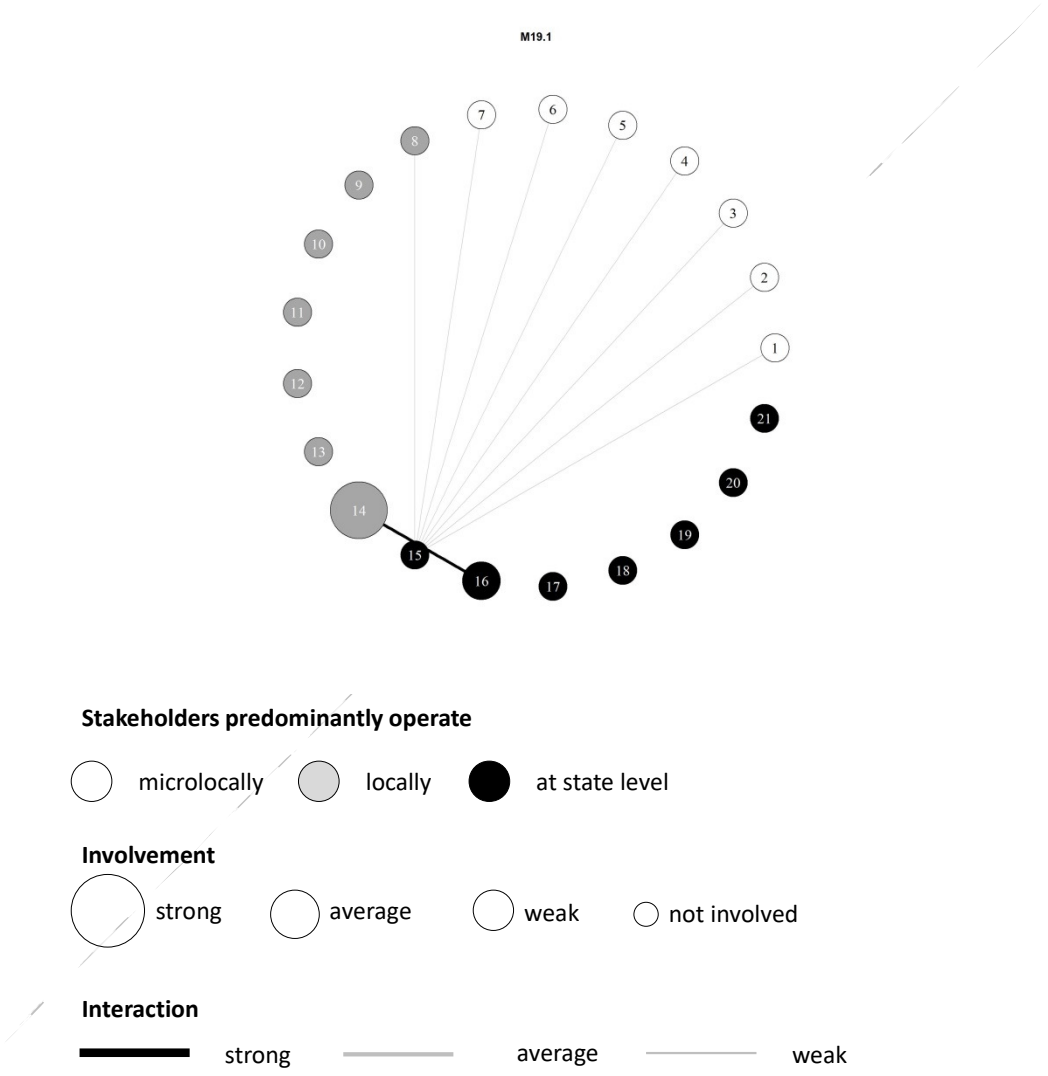
Measure	Support For Local Development in the Context of the LEADER Programme – Preparatory Support
Abbreviation	M19.1
Policy	RDP RS 2014–2020
Objectives	To enhance local partnership formation and strengthen institutional capacity; and training and networking for the preparation and implementation of local, community-led, development strategy (LDS).
Indicator	Total public expenditure
How it contributes to climate change vulnerability reduction	Indirectly through the formation of partnerships for the preparation of local development strategy (LDS).



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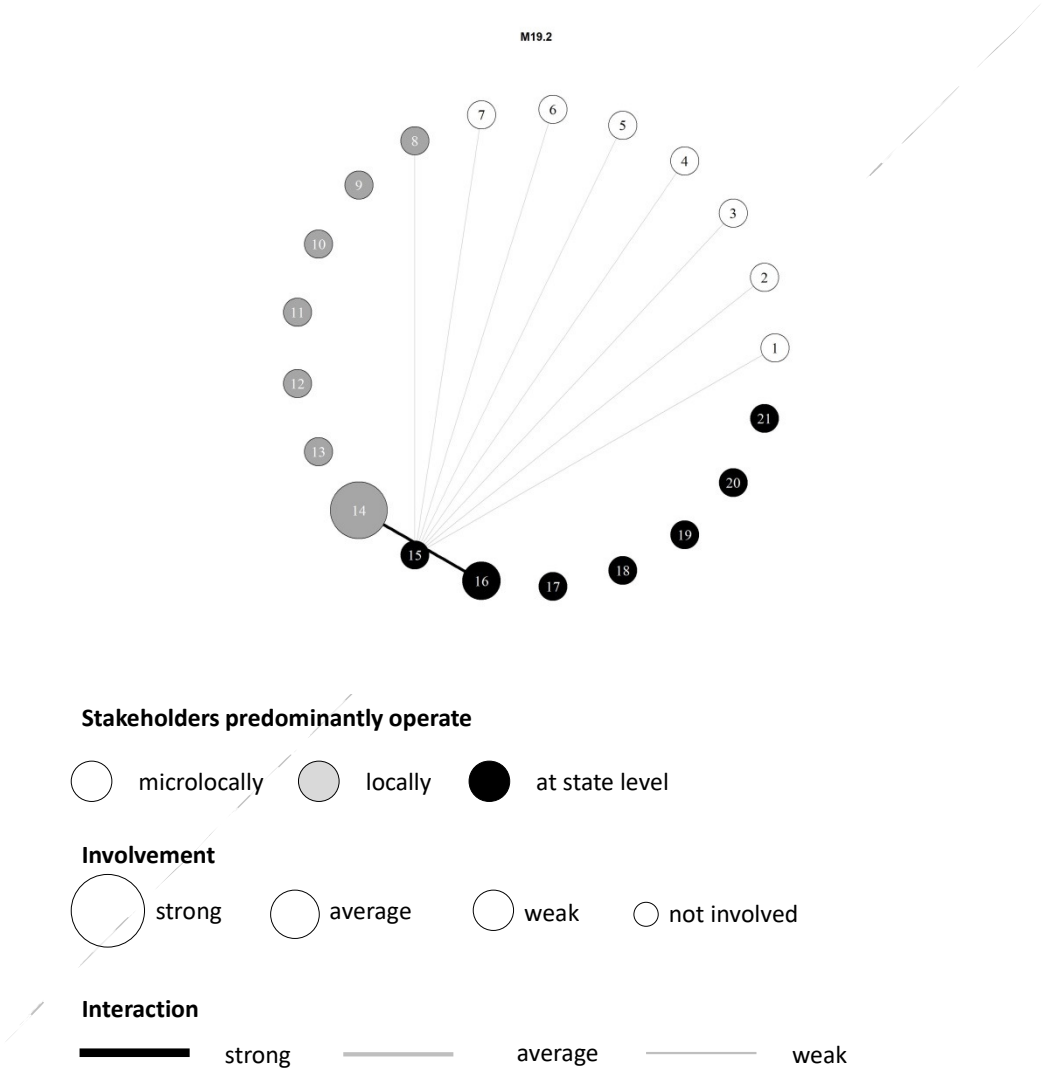
Measure	Support for the Implementation of Operations in the Context of Local, Community-Led Development Strategy
Abbreviation	M19.2
Policy	RDP RS 2014–2020
Objective	In the context of this measure, there are no specific operations and types of measures for implementation, as operation type is dependent on individual, local-development-strategy objectives.
Indicators	Total public expenditure and number of LEADER-supported projects.
How it contributes to climate change vulnerability reduction	Indirectly through its contribution to vulnerability reduction, and dependent on LDS-defined objectives and measures.



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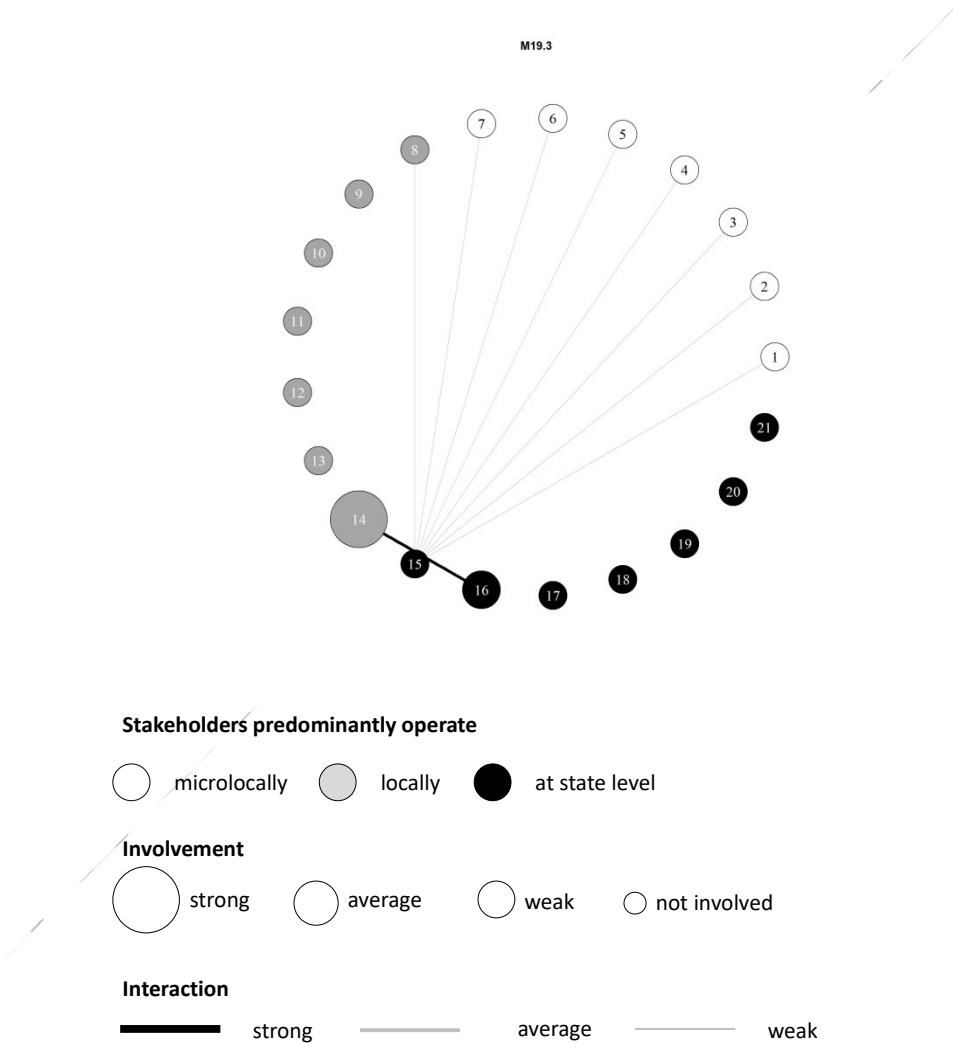
Measure	Preparation and Implementation of Local Action Group Co-operation Activity
Abbreviation	M19.3
Policy	RDP RS 2014–2020
Objectives	Partnership collaboration in the context of local, community-led development is especially important in terms of the exchange and transfer of good practice and promotion of successful project ideas.
Indicators	Total public expenditure and number of LEADER-supported projects.
How it contributes to climate change vulnerability reduction	Indirectly through solving specific local problems, good practice transfer amongst local action groups, finding connections, and new knowledge. Collaborative operations contribute to RDP 2014–2020 objective attainment and place emphasis on the pooling of local, common-interest action group skills and knowledge, new idea generation, and innovative approach development.



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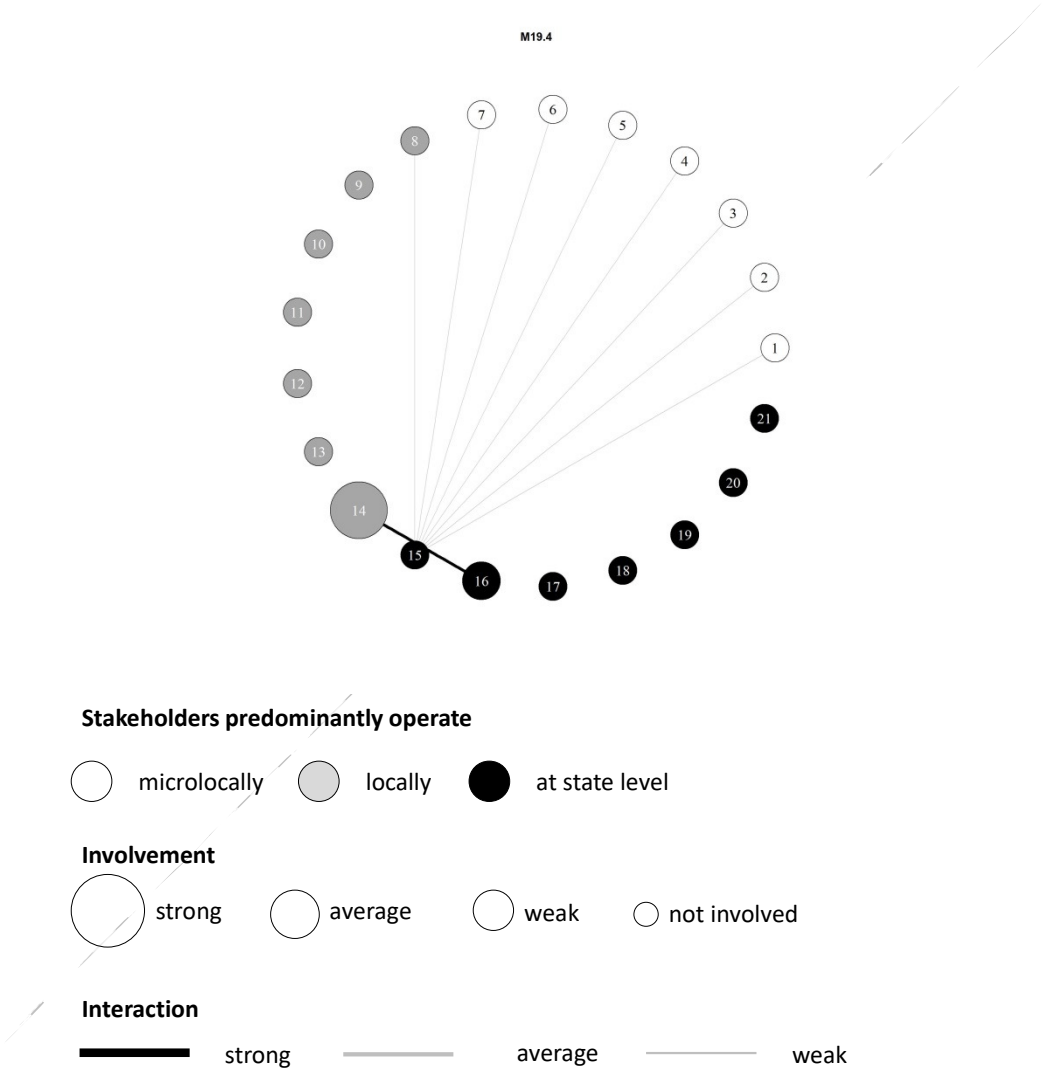
Measure	Support for Running Costs and Animation
Abbreviation	M19.4
Policy	RDP RS 2014–2020
Objectives	Support arising from this measure is purposed for the co-financing of costs incurred in terms of local action group management and operation, including LDS monitoring and evaluation, animation of local action group environs, and aid for potential beneficiaries to develop ideas and prepare operations.
Indicators	Total public expenditure and number of LEADER-supported projects.
How it contributes to climate change vulnerability reduction	Indirectly through co-financing local action group operating costs, including LDS promotion and implementation costs; its contribution to reduced vulnerability is dependent on LDS-defined objectives and measures.



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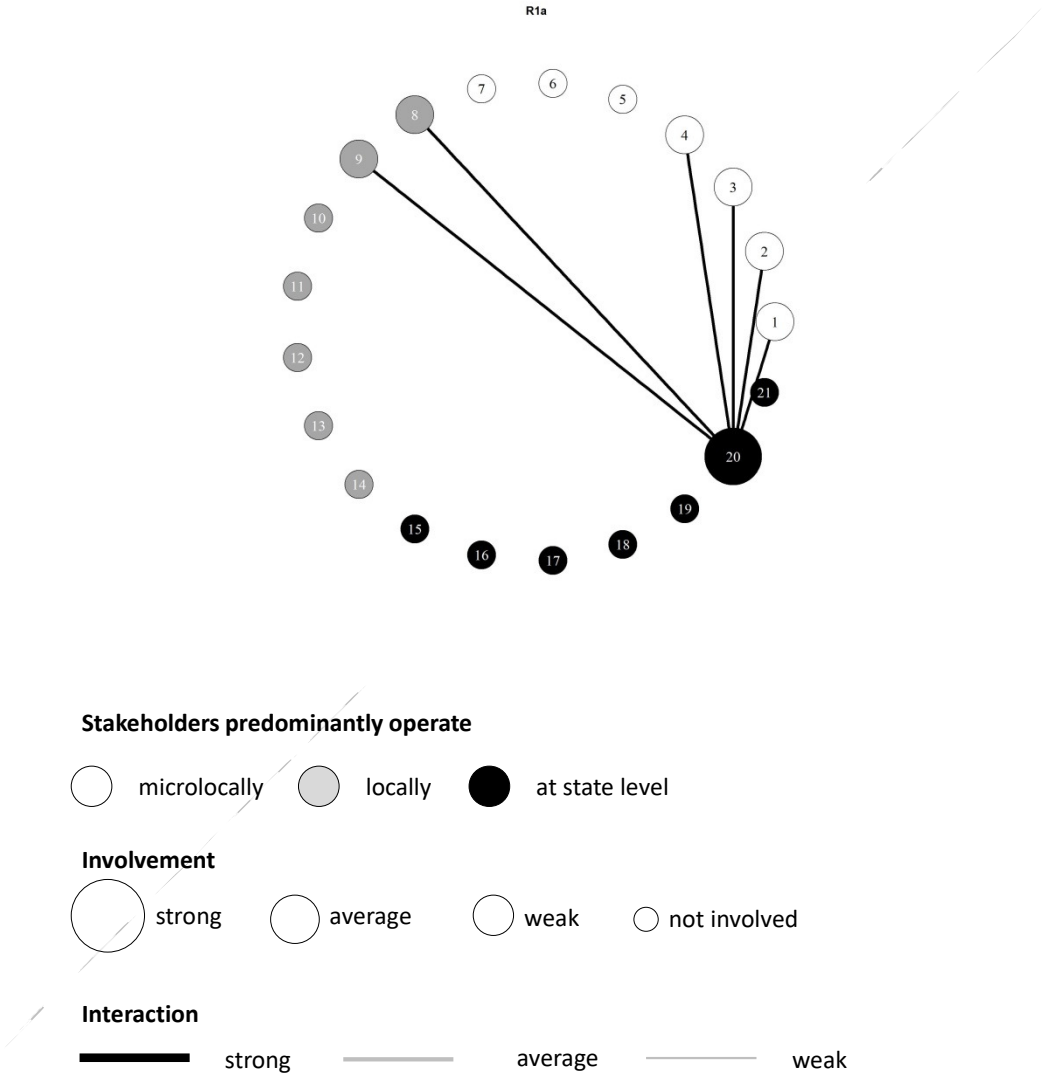
Measure	Water Rights Award System
Abbreviation	R1a
Policy	NUV II
Objective	Promotion of sustainable water use to enable various types of water use through taking account of the long-term conservation of available water resources and their quality.
Indicator	Number of rights to water issued and adopted.
How it contributes to climate change vulnerability reduction	Indirectly promotes the sustainable use of water through awarding water rights, supervision and recording in accordance with the Water Act, directly impacting water regime and status.



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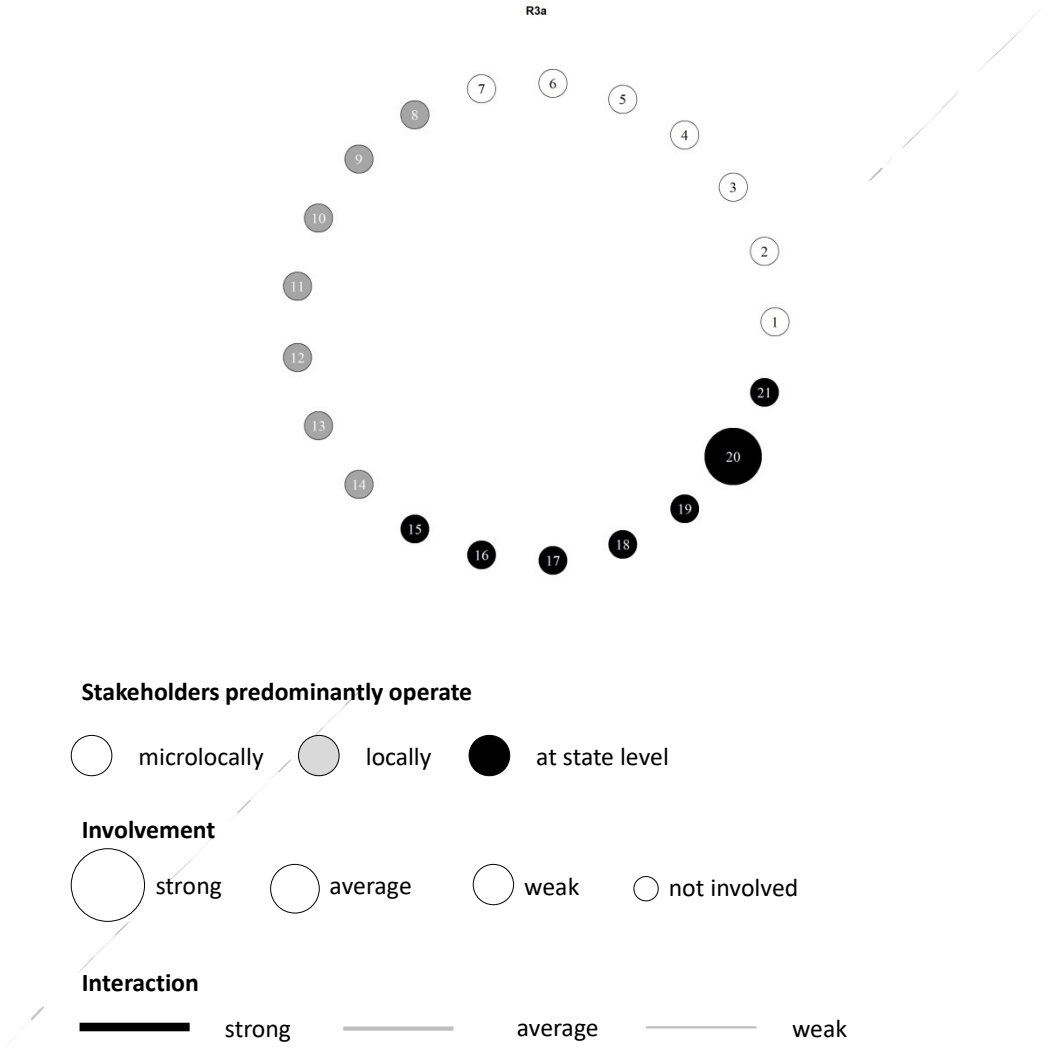
Measure	Water Use Limitation, Prohibitions and Conditions
Abbreviation	R3a
Policy	NUV II
Objective	Promotion of sustainable water use to enable various types of water use through taking account of the long-term conservation of available water resources and their quality.
Indicator	Reduced water use is a prerequisite for objective achievement.
How it contributes to climate change vulnerability reduction	Indirectly through the promotion of economic and sustainable water use, which reduces the risk of achieving objectives based on requirements arising from certain regulations.



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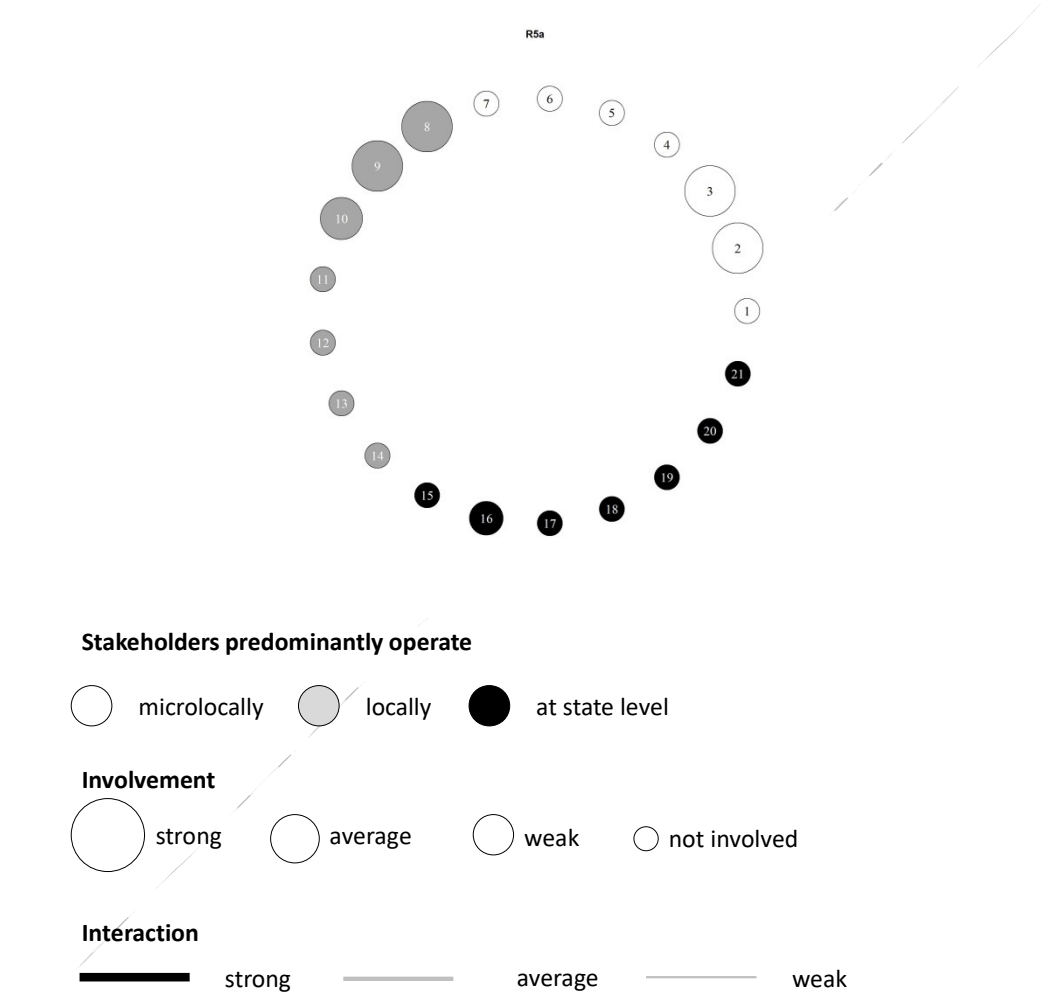
Measure	Promotion of Effective and Sustainable Water Use
Abbreviation	R5a
Policy	NUV II
Objective	Promotion of sustainable water use to enable various types of water use through taking account of the long-term conservation of available water resources and their quality.
Indicator	Reduced water use is a prerequisite for objective achievement.
How it contributes to climate change vulnerability reduction	Indirectly through intersector collaboration for the introduction of effective and sustainable water use by means of various instruments, such as: implementing RDP 2014–2020 measures; activities to reduce water network loss; raising user awareness of mandatory, municipal, public service providers, and the like.



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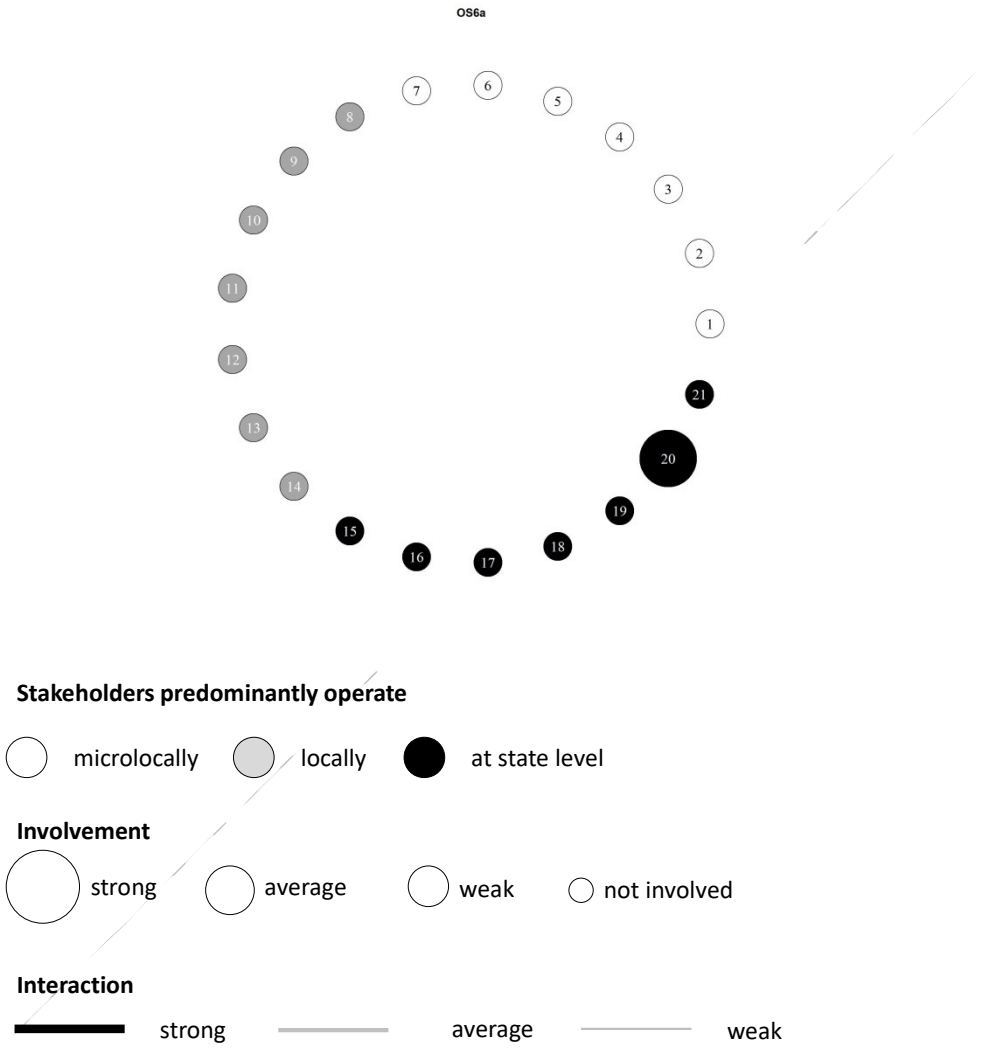
Measure	Surface and Groundwater Monitoring
Abbreviation	OS6a
Policy	NUV II
Objective	Achieving good water and other water-related ecosystem status.
Indicator	Annual monitoring programme implementation.
How it contributes to climate change vulnerability reduction	Indirectly through the monitoring of Slovene water status data, which enables assessment of the chemical and ecological status of surface water, groundwater quantity and chemical status, and special requirement area water status.



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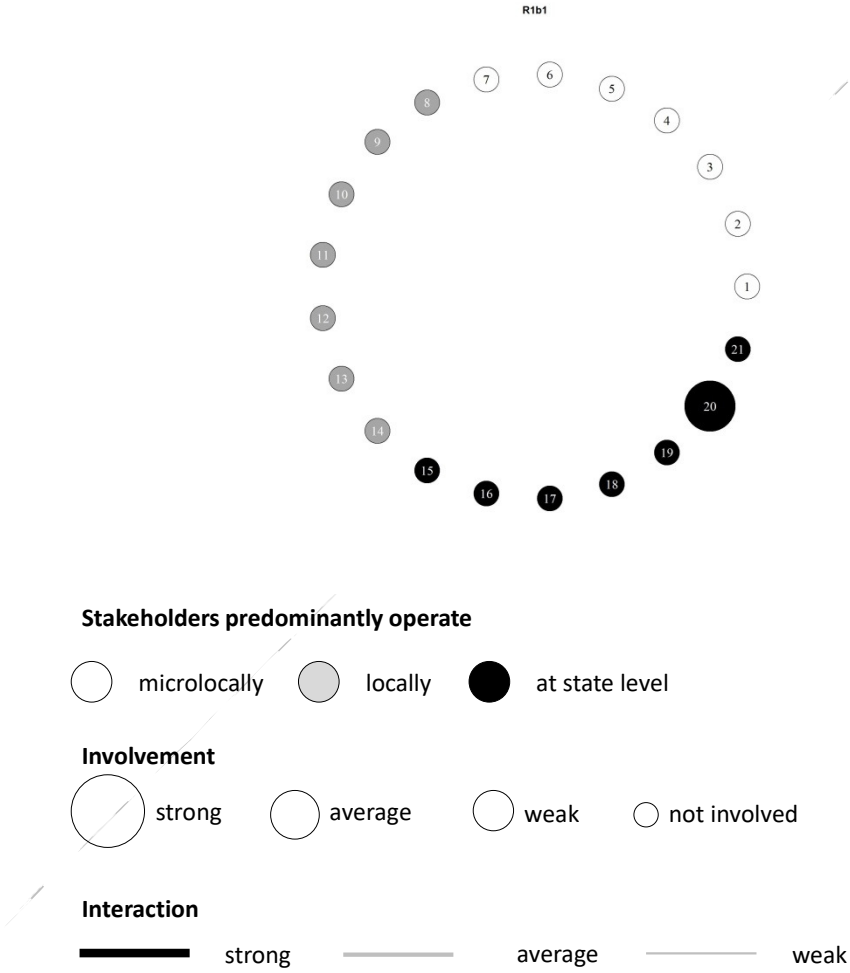
Measure	System for Upgrading Water Use Related Decision-Making
Abbreviation	R1b1
Policy	NUV II
Objective	The system of support for water use related decision-making will primarily be used to assess surface water suitability and groundwater availability for further use at the strategic level, support water use related decision-making, support the Water Management Plan, especially preparation of input data for the Assessment of Environmental Objective Achievement Probability, and to support the preparation of a price policy in the field of water. The measure is also intended to rationalise administrative procedure pertaining to the awarding of water rights.
Indicator	The establishment of system to support water use related decision-making.
How it contributes to climate change vulnerability reduction	Indirectly through measure results, which form the preliminary information for determining whether a location has a higher or lower probability of obtaining water rights. The measure is also intended for use in strategic water use planning.



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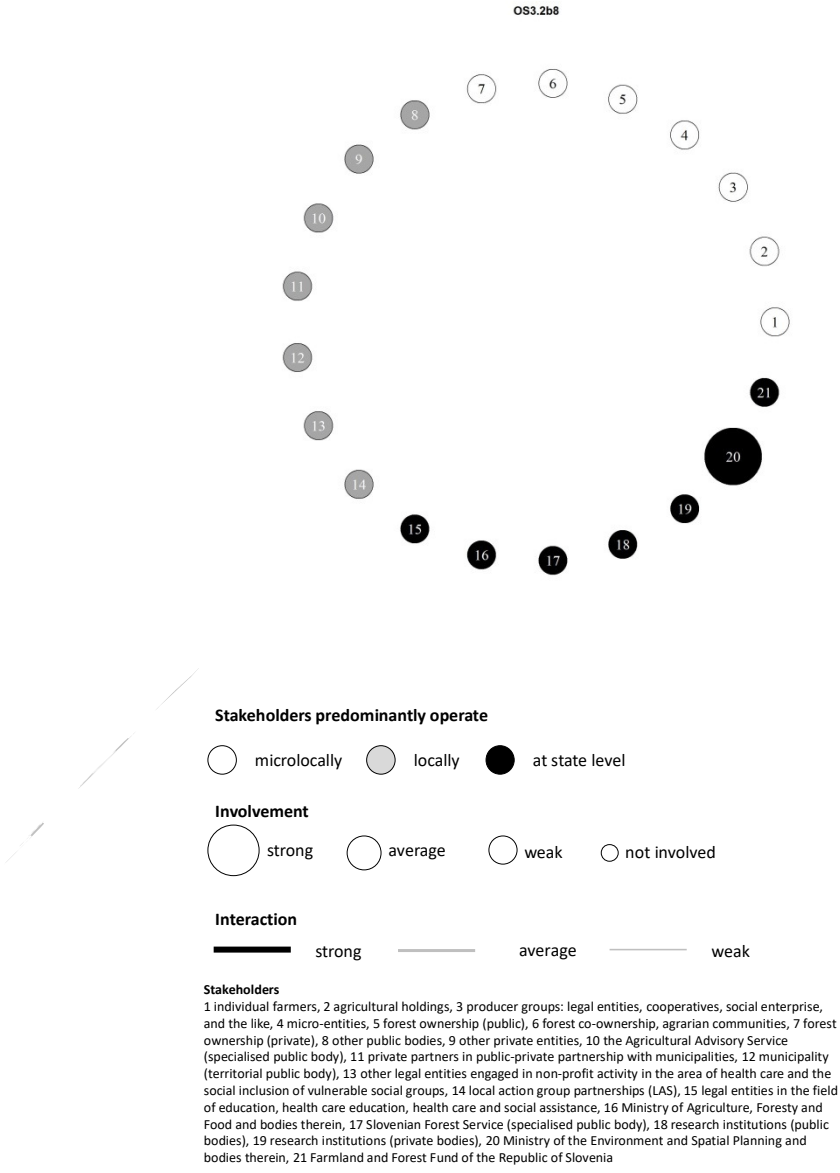
Measure	Preparation of a Range of Indicators for the Announcement of Drought/Water Shortage Strength and Threshold Levels
Abbreviation	OS3.2b8
Policy	NUV II
Objectives	1. Analysis of Slovenian Environment Agency indicator data for various drought/water shortage types and analysis of previous, drought-episode indicator values and their connection to effects. 2. Preparation of threshold proposal for the announcement of various drought/water shortage types and levels. 3. Analysis of climate change impact on drought/water shortage.
Indicator	The development of indicators for announcing various drought/water shortage strength and threshold levels.
How it contributes to climate change vulnerability reduction	Indirectly through the development of indicators for announcing various drought/water shortage strength and threshold levels related to the, as yet to-be-defined, areas exposed to the damaging effect of drought; a range of indicators and threshold indicator values defining various drought/water shortage levels and strength are to be prepared.



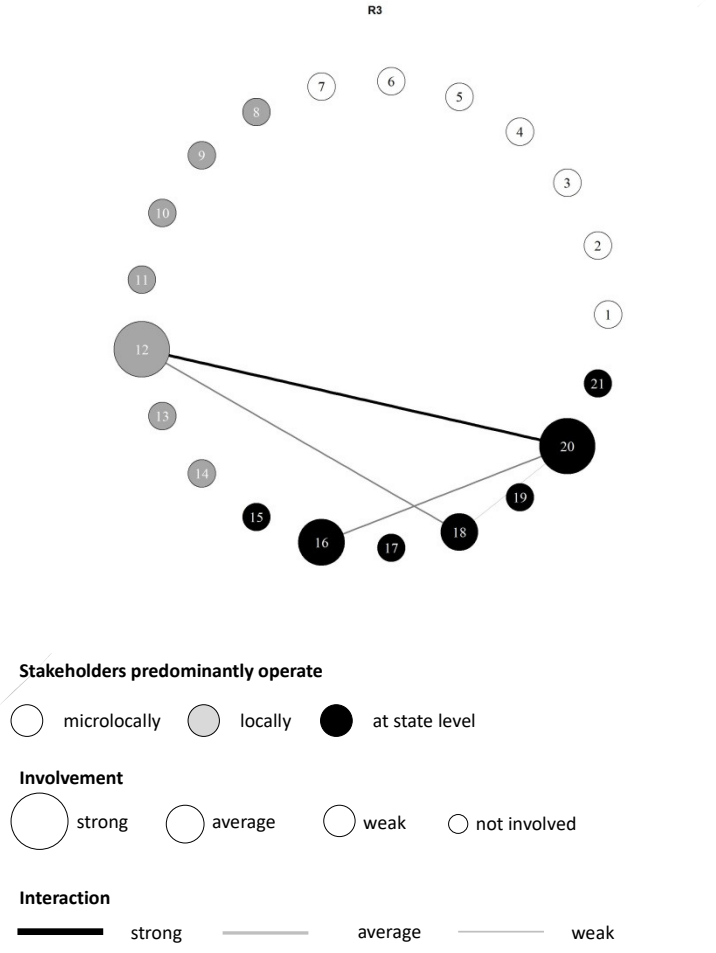
Measure	Establishment of Forestry-Wood Processing Chain and Increased Use of Wood in Industry and Energy Sectors
Abbreviation	R1
Policy	Regional Development Programme for Northern Primorska 2014-2020
Objectives	To develop strategies for the effective and sustainable use of wood biomass in the region. To support forestry-wood chain initiatives and promote development thereof. To enable better decision-making when making decisions on the use of wood biomass as a local energy product. To process local raw material, wood, and add value. To connect forest owners. To develop stronger market appearance. To reap the benefits of wood supplier and processor synergy. To design a regional biomass logistics centre. To maintain existing jobs in the wood-processing chain and create new ones. To set up a pilot forestry-wood processing chain. To establish pilot biomass logistics centres. To establish a functional smart organisational network. To promote wood biomass as a local energy product representing rural area potential. To identify and present examples of good practice.
Indicator	The establishment of forestry-wood processing chains.
How it contributes to climate change vulnerability reduction	Indirectly through sustainable management of forests in the region and related revival of the wood-processing industry in the region, and better regional energy self-supply utilising industry and forestry residue. Reduced CO_2 environmental pollution resulting from shorter processing chains.

SEE MEASURE M8.6

Measure	Development of Irrigation in the Vipava Valley and Goriška Brda
Abbreviation	R2
Policy	Regional Development Programme for Northern Primorska 2014–2020
Objectives	The stabilisation of food production with the arrangement of retention basins and irrigation systems, and prevention of loss caused by ever-frequent drought to impact on climate change mitigation.
Indicator	Number of hectares with the option of irrigation and new irrigation systems.
How it contributes to climate change vulnerability reduction	Indirectly through the promotion of projects focused on the technological modernisation of existing systems and establishment of new, rational, economically-sustainable and environmentally acceptable irrigation systems and other necessary systems for the improvement of the situation in the agricultural sector.

For stakeholder landscape, see measures M4.1 and M4.3.

Measure	Flood Safety on the Banks of the Vipava River
Abbreviation	R3
Policy	Regional Development Programme for Northern Primorska 2014–2020
Objectives	Assuring the flood safety of areas significantly affected by flood in the Soča River Basin; ensuring a comprehensive water arrangement concept for the Soča River Basin by selecting optimal project solutions for the implementation of flood safety measures, which will enable the multi-purpose use and connection of various sector financial resources, and, consequently, the most suitable solution from the technical, environmental and cost perspective.
Indicator	The volume of investment in flood safety and consequent elimination measures when compared to the initial situation expressed as an index.
How it contributes to climate change vulnerability reduction	Directly by diminishing the consequences of increasingly frequent natural disaster – floods.



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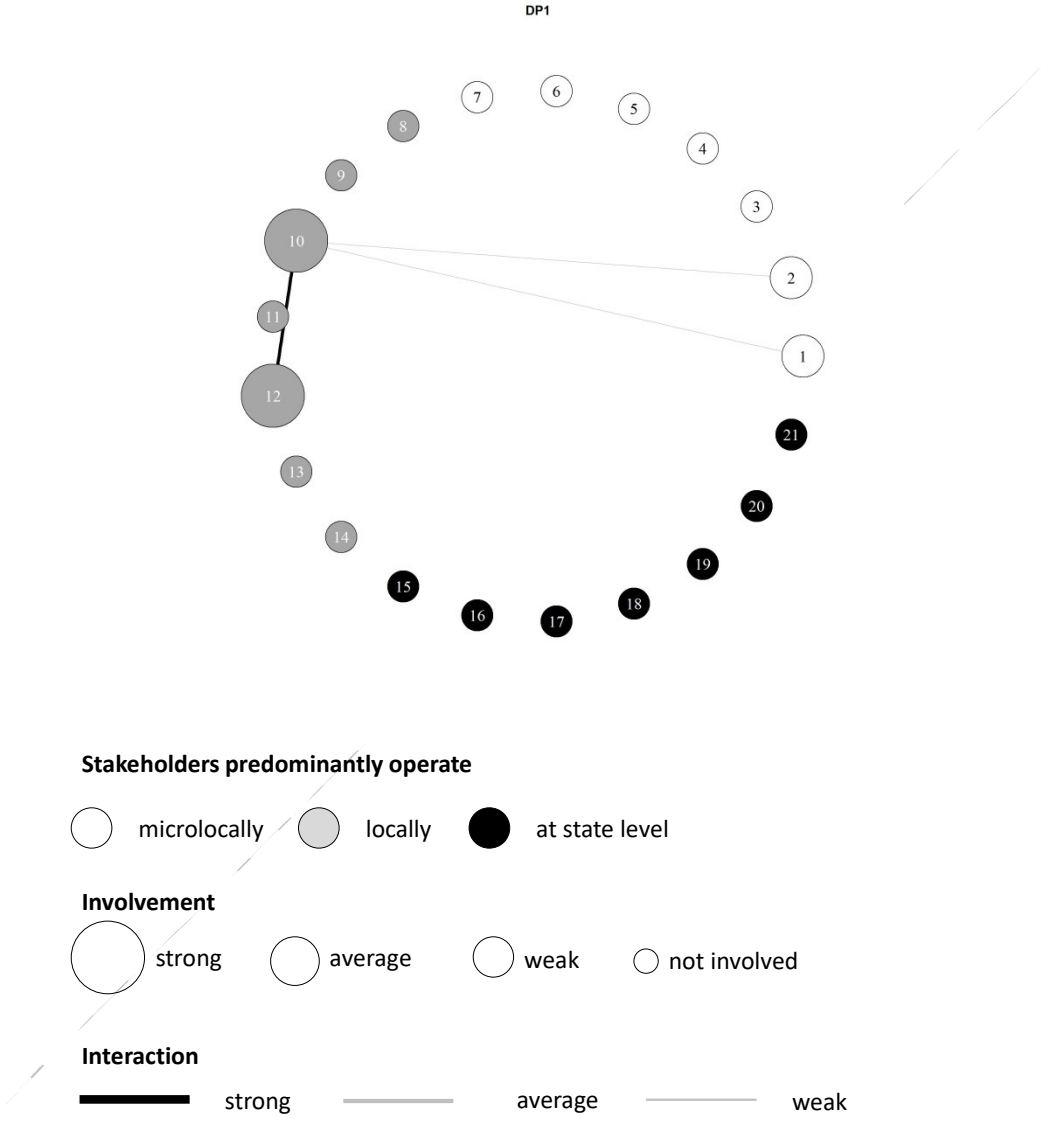
Measure	Cultivation Testing of New Plant Species and Agricultural Varieties
Abbreviation	DP1
Policy	Municipal budget funding
Objectives	Climate change adaptation and development of new market niches.
Indicator	Number of new plant species and agricultural varieties.
How it contributes to climate change vulnerability reduction	Direct adaptation through the cultivation of cultures resistant to unfavourable weather conditions, such as wind, flood and drought.



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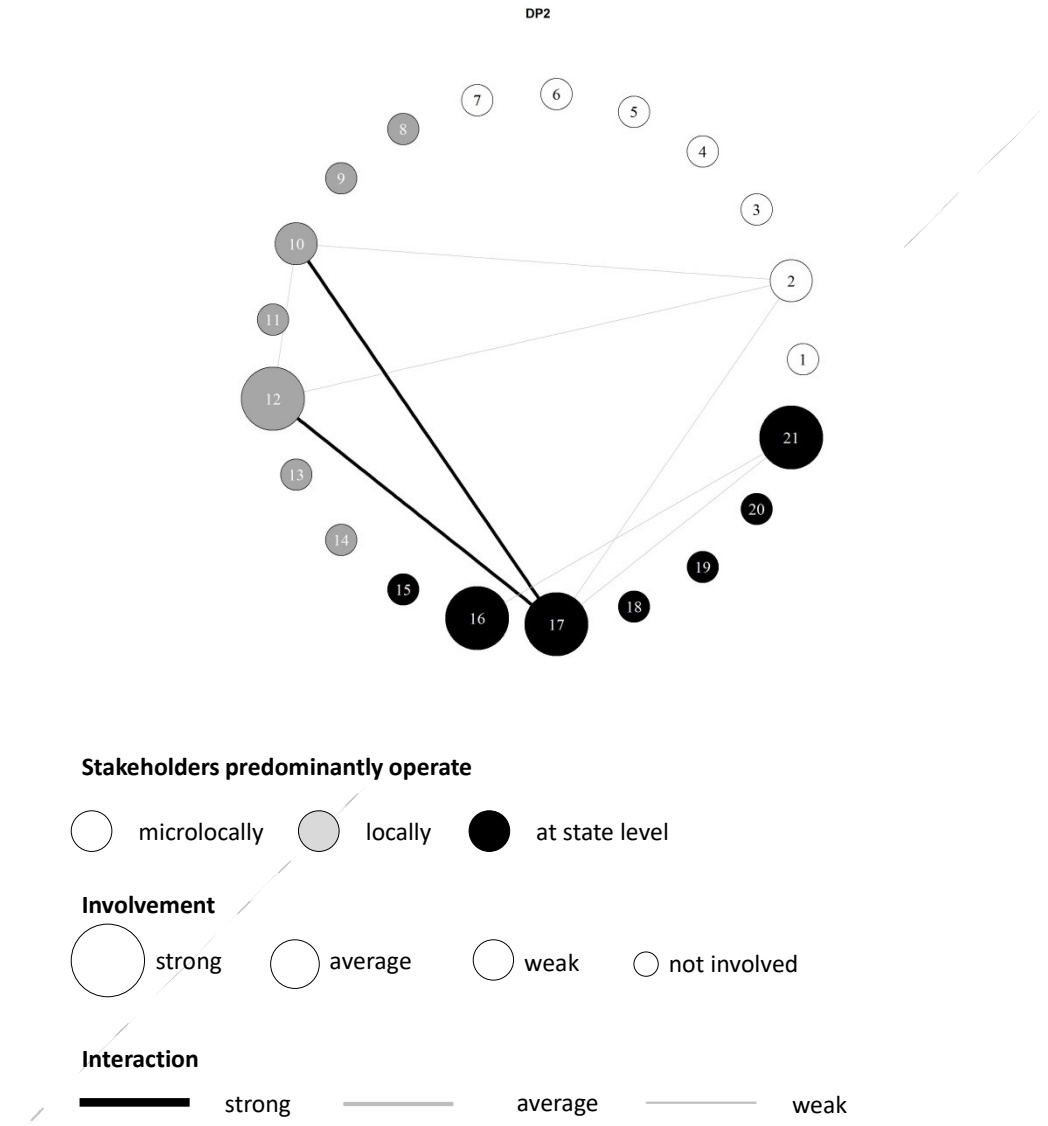
Measure	**Comprehensive Renovation of Windbreaks in the Vipava Valley**
Abbreviation	DP2
Policy	None
Objective	To diminish wind erosion impact.
Indicator	Volume of supported operations.
How it contributes to climate change vulnerability reduction	Directly and locally reduces wind speed, thus diminishing the probability of wind erosion.



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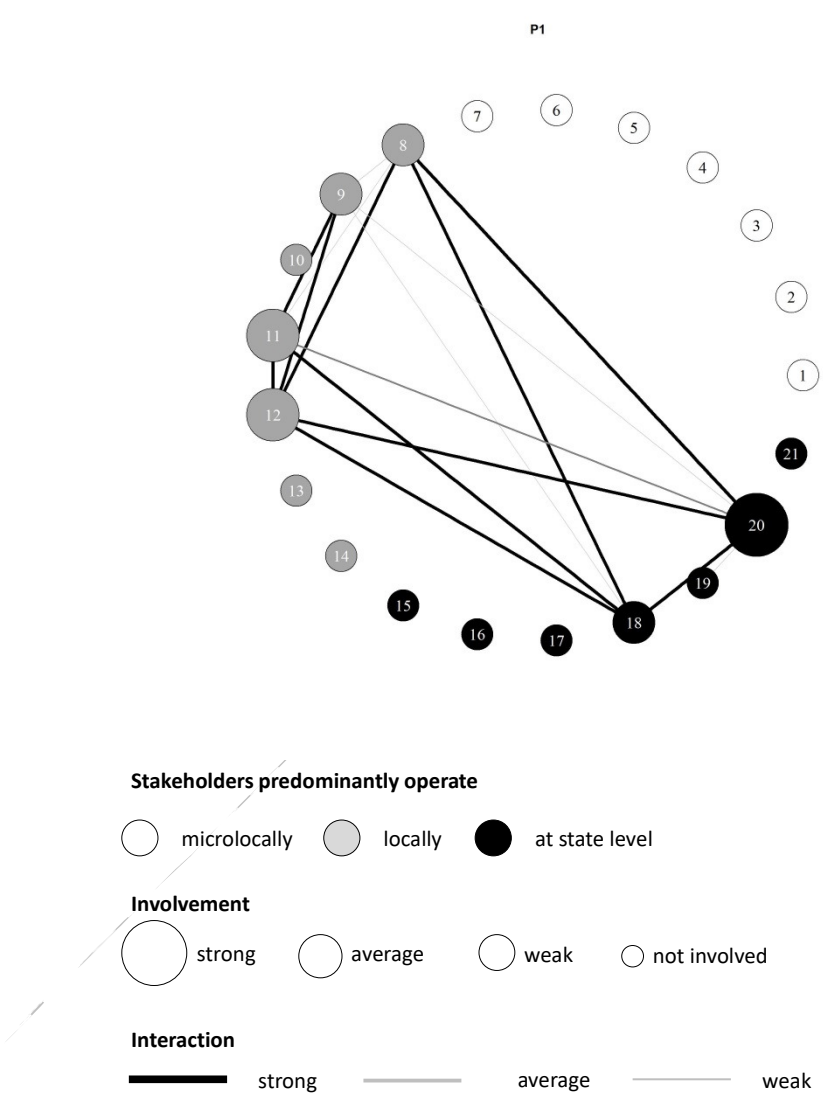
Measure	**Better Activation of Funds from the EU Cohesion Fund, Regional Fund, Cross-Border Cooperation and Other Programmes in the 2014–2020 Financial Perspective for the Implementation of Flood-Prevention Measures, Including the Activation of Funds**
Abbreviation	P1
Policy Objectives	Action plan of flood-related intervention activity
	Support for special-purpose investment and climate change adaptation, including ecosystem-based approaches.
Indicators	Total public expenditure and number of supported projects.
How it contributes to climate change vulnerability reduction	Indirectly through the financing of construction, non-construction flood-prevention measures, alarm systems, flood records and danger/risk studies.



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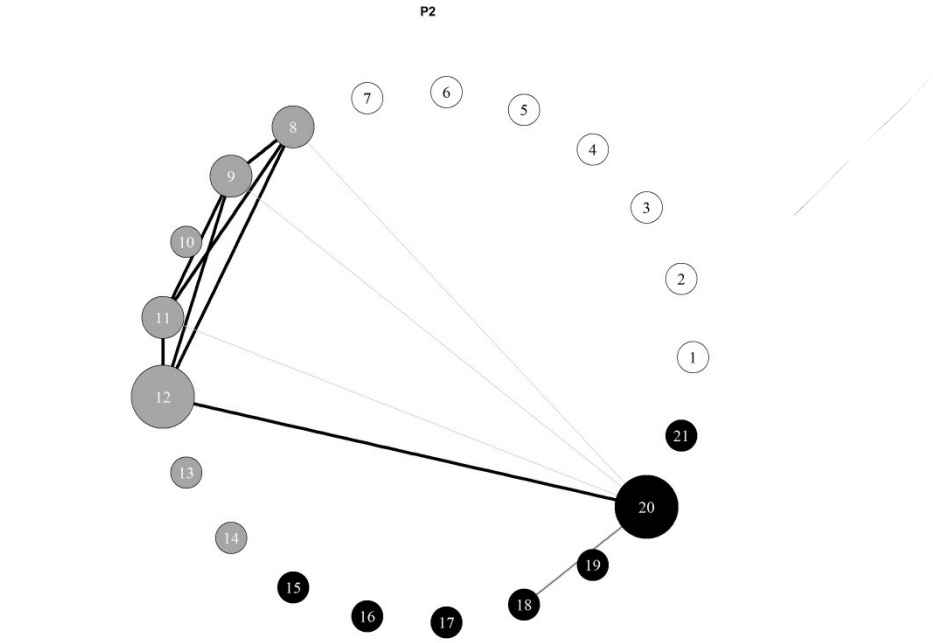
Measure	**Better Activation of Funds from the Climate Change Fund for the Implementation of Flood-Prevention Measures**
Abbreviation	P2
Policy Objective	Action plan of flood-related intervention activities
Indicators	(Co)financing flood-prevention measures.
How it contributes to climate change vulnerability reduction	Total public expenditure and number of supported projects. Indirectly through (co)financing of flood-prevention measures.



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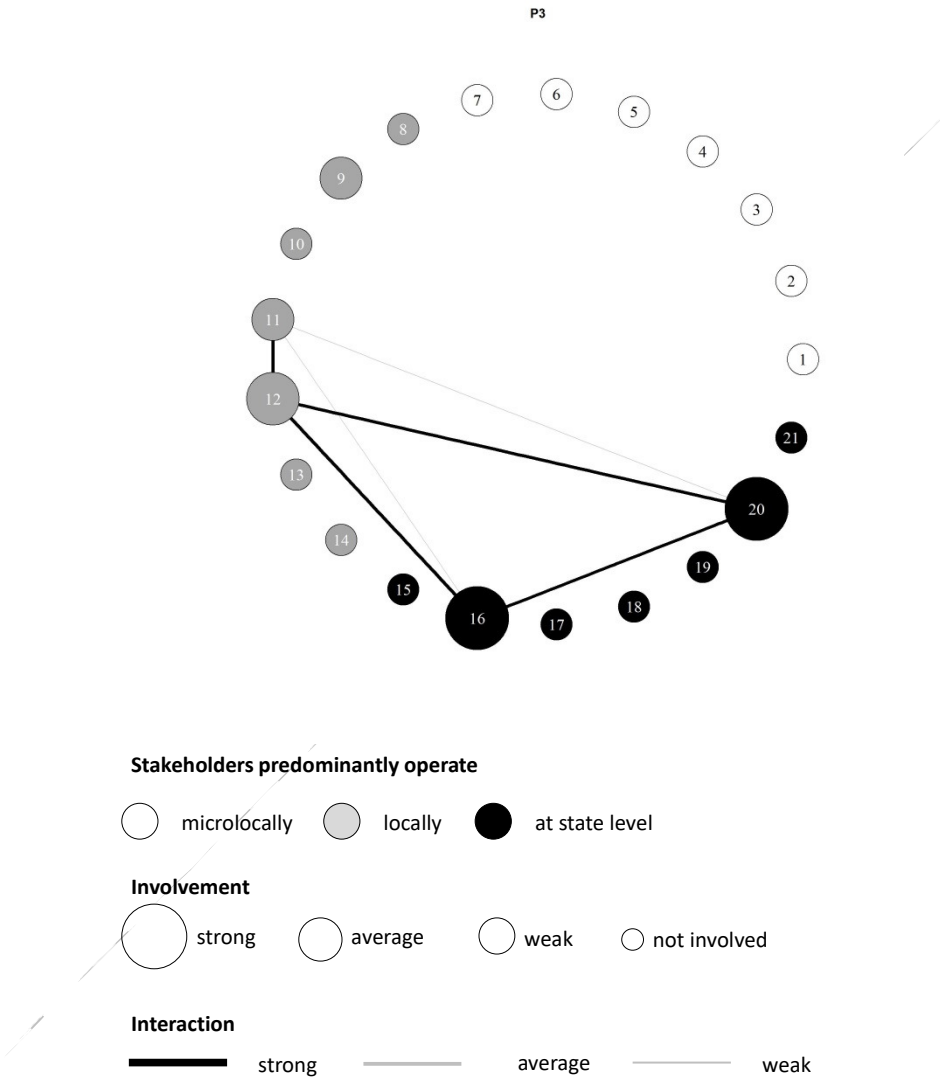
Measure	**Better Activation of Funds from the Rural Development Programme in the 2014–2020 Financial Perspective for the Implementation of Flood Prevention Measures**
Abbreviation	P3
Policy Objective	Action plan of flood-related intervention activities. Implementation of specific flood-prevention measures related to climate change adaptation.
Indicators	Total public expenditure and number of supported projects.
How it contributes to climate change vulnerability reduction	Indirectly through (co)financing of flood-prevention measures.



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