Abstract
Developing long-term visions through participatory approaches can be very useful to explore different possible scenarios and pathways to reach desirable futures. This brief report describes a participatory process carried out in the Emilia-Romagna region (Italy) to develop a long-term vision for rural areas by 2040. This approach consisted of: (i) interviews and a focus group carried out with a multi-actor platform (MAP) composed of experts from science-society-policy sectors, and (ii) an on-line questionnaire addressing a larger number of rural stakeholders of the region. Mixing expert-based consultation through the MAP with a more inclusive consultation approach resulted in an effective method to build long-term visions in the very heterogeneous rural context of the Emilia-Romagna. However, this study only constitutes a preliminary step into a more elaborated backcasting approach.

Keywords
Desirable future; Backcasting; stakeholders’ consultation; evidence-based; multi-actor approach
Corresponding author: Emilia Pellegrini (emilia.pellegrini2@unibo.it)

Author roles: **Pellegrini E**: Conceptualization, Data Curation, Formal Analysis, Investigation, Methodology, Writing – Original Draft Preparation; **Raggi M**: Methodology, Project Administration, Supervision; **Viaggi D**: Funding Acquisition, Methodology, Project Administration, Resources, Supervision; **Targetti S**: Conceptualization, Investigation, Methodology, Supervision, Writing – Review & Editing

Competing interests: No competing interests were disclosed.

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The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

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Plain language summary

How do we imagine rural areas of the future? What obstacles should be removed to achieve a desirable future and to empower rural areas and their inhabitants? We tried to answer these questions by engaging rural stakeholders of the Emilia-Romagna region (Italy) in developing their own long-term vision for rural areas by 2040. This report presents the method and the results of the participatory process carried out in the region that led to the creation of two long-term visions for rural areas.

Introduction

The current health and economic crises, originating from the coronavirus disease 2019 (COVID-19) pandemic, have caused several challenges and opportunities for the future of European rural areas. On one hand, the economic gap among urban and rural areas has been exacerbated by the crisis and it is likely to be amplified in the coming years (OECD, 2020). On the other hand, lifestyles and consumption patterns have undergone transformations that are creating new opportunities for rural areas. Many policy documents have stressed the urgency to seize these opportunities to make rural areas the heart of a strategy for a climate neutral Europe, and to make them benefit from a great digital acceleration1. It is in this moment of rethinking the roles and opportunities for rural areas that the European Commission (EC) launched a process of public consultation to develop a long-term vision for rural areas considering 2040 as time horizon with the aim of “gathering a bottom-up evidence base […] on the needs and aspirations of European citizens” (European Commission, 2020).

Visions are often used in sustainability research when complex human-environment problems are concerned, the future is uncertain, and a sense of dissatisfaction with the current state is diffused (Meadows & O’Brien, 2006; Staricco et al., 2019). Developing a vision usually constitutes the first step in backcasting exercises. In contrast to forecasting studies that explore the most likely projections of the future, backcasting is a normative approach to identify desirable futures and their implications (Robinson, 2003). Backcasting, indeed, requires identifying a desirable future (or vision) and trace back from that to determine its feasibility and the policy measures needed to achieve that end-point. Working on visions usually requires multi-actor approaches to bring different expertise and interests into the process. Think-tanks including experts and researchers (Staricco et al., 2019), Delphi surveys with a large pool of experts (Zimmermann et al., 2012), and workshops with stakeholders (Sisto et al., 2017) are some of the most common methods to engage actors into the development of visions.

This brief report describes the multi-actor approach developed for the elaboration of a long-term vision for rural areas of the Emilia-Romagna region (Italy). The study is part of a larger consultation process carried out within the Horizon 2020 project SHERPA (Sustainable Hub to Engage into Rural Policies with Actors) aimed at creating and testing multi-actor platforms (MAPs) at member states and EU level, as a tool to improve dialogue between local rural territories and EU institutions. Given the synergies between SHERPA’s objectives and the EC consultation on long-term vision, the MAPs have worked to create their own visions for rural areas in 2040 since spring 2020. The stakeholder-based information gathered through the MAPs fed into a SHERPA position paper (Chartier et al., 2021) aimed to create a channel of communication among rural territories and the EC.

The following sections describe the process undertaken within the Emilia-Romagna MAP to create a long-term vision for rural areas of the region.

Methods

This study complies with EU GDPR Regulation and written informed consent was obtained from the participants.

Study area

Emilia-Romagna is a region (NUTS2) of the north-east of Italy characterized by very heterogeneous rural areas, ranging from hilly-mountainous areas located along the Apennines ridge, to rural areas located in the Po plain. Characteristics of hilly-mountainous areas are, on one hand, unique environments, extensive agriculture and strong cultural and historical identity. On the other hand, these areas are affected by negative demographic trends, land-abandonment and hydrogeological instability. Rural areas of the plain are characterized by very heterogeneous rural areas, ranging from intensive agriculture to urban sprawling.

Setting up the Emilia-Romagna MAP

A MAP is an arrangement composed of three societal groups (researchers, policy-makers and society) that stimulates dialogue,
engagement and co-construction of knowledge regarding EU rural policy and research agenda (Nordregio, 2020). The first principle guiding the composition of the Emilia-Romagna MAP was to have at least one representative from science, society and policy. A second criterion was to have actors representing both types of rural areas of the region. Lastly, experts with a cross-sectoral expertise on agricultural and rural development were preferred to avoid excessively biased opinions. Eventually, 13 experts were invited to take part to the development of the vision, but only seven replied to the invitation. The experts allowed a good coverage of all types of rural areas of the region, but the policy sector was under-represented (MAP composition: two science; four society; one policy).

Development of long-term vision for rural areas
The stakeholders’ consultation for long-term vision was based on three techniques: interviews, a focus group, and an on-line questionnaire. Interviews and the focus group were conducted with the MAP and can be described as an expert-based consultation that allowed to draft a first version of the vision. The questionnaire, instead, aimed at involving a larger number of stakeholders in the visioning exercise. More information on each technique is provided below.

Interviews. Seven on-line semi-structured interviews were conducted with MAP’s members aimed at identifying: (i) the main challenges and opportunities for rural areas of the region from now to 2040; (ii) a vision for rural areas in 2040; (iii) obstacles to achieving the vision; (iv) enablers to achieve the vision. In the analysis of interviews, the arguments raised by the MAP’s experts were organized around two visions, one for hilly-mountainous rural areas and another for rural areas of the plain.

Focus group. The two visions emerged from the interviews were presented to the MAP during an on-line focus group. The meeting was attended by five members of the MAP (one policy; four society) plus three researchers that facilitated the meeting. Participants were invited to give feedback on the visions and on barriers and enablers for their achievement. The discussion led to a reformulation of the vision for hilly-mountainous areas and the new version was sent by e-mail to all the MAP’s members for additional comments.

Questionnaire. Qualitative data acquired through the interviews and focus group were used to develop a questionnaire (Pellegrini et al., 2021) that was circulated to 87 stakeholders selected for their expertise in the agri-food sector and rural development. Both visions were reformulated in terms of improvements for regional rural areas in 2040: notably, seven possible improvements were identified for hilly-mountainous areas, while four improvements for rural areas of the plain. Following Zimmermann et al. (2012), for each improvement, respondents were asked to rate its desirability on a five point Likert-scale and the probability for it to occur in 2040 (0–100%). Furthermore, participants were invited to provide qualitative arguments related to obstacles for the achievement of desired changes. Arguments were analysed through an inductive coding with the scientific software Atlas.ti 8 that supported the identification of recurring themes.

Validation of the visions. Data collected through the questionnaire were used to reframe and fine-tune both visions. The updated version was sent by email to the MAP for validation.

Results
Both visions presented in this section include the results collected within the MAP and through the on-line questionnaire. The latter was completed by 23 stakeholders (26,4% response rate) the majority of which had a professional background in business/industry (46%) followed by public administration (33%) (research 8%; Other 8%; NGO/civil society 4%).

A vision for hilly-mountainous rural areas

In 2040, infrastructures will be improved in hilly-mountainous areas. This will facilitate mobility of people and goods within the region and the creation of new services in rural areas. The damages related to hydrogeological instability will be prevented and reduced thanks to the enhancement of infrastructures.

Rural areas will be more connected to the global world due to an increase in digital infrastructures. Digitalization will be based on local needs and will lead to the creation of new job opportunities.

The rural economy will be supported by a thriving agriculture based on the valorisation of typical agri-food and wine productions and on the enhancement and remuneration of ecosystem services linked to agriculture. Non-agricultural activities, such as tourism, will also contribute to the viability of rural areas. Rural areas will become the place where a range of services linked to nature, culture and wellbeing will be available to the rural and urban populations.

All the improvements identified by the MAP were considered very desirable by the respondents (Figure 1). However, some changes were considered less probable to occur in 2040 compared to others. To understand the gap between desirability and feasibility of improvements, we analysed the arguments raised by stakeholders on obstacles to desired changes. Here, we report only on the three improvements for which the gap between desirability and feasibility was higher. Barriers to the enhancement of physical infrastructures (roads, bridges, etc.) were identified in the lack of adequate investments and in political inability for long-term programming. Obstacles to a more productive and profitable agriculture were identified in the strong competition created by global markets and in their large-scale distribution systems. These, indeed, penalize local agri-food production systems characterized by niche dimensions due to the territorial conformation and the wide fragmentation of farm structure. Lastly, cultural barriers and lack of awareness were cited as main barriers for the enhancement and valorisation of ecosystem services.
Figure 1. Mean values of desirability and probability to occur (on a 5-point scale) of improvements for hilly-mountainous rural areas of Emilia-Romagna. To ease the readability of the graph, the probability was also represented on a 5-point scale.

A vision for rural areas of the plain

In 2040, rural areas of the plain will be more resilient to climate change. Infrastructures, such as flood retention basins, will be key to enhance resiliency of these areas but a greater economic support to farms and a strengthening of risk management and compensation tools will be also needed. The collaboration among farms in the management of water resources, for example through the creation of collective reservoirs, will be strengthened to face water-related problems. The organization of the supply chain will be improved with a strengthening of the cooperative system. This would allow for the greater participation of farmers in the supply chain and will sustain the consumption of local agri-food products.

The improvements identified by the MAP were considered very desirable by the respondents except for “intensive and competitive agriculture dominated by big players” that in fact was not included in the vision. On the opposite, this change was deemed the most likely to occur in 2040 (Figure 2) because it is more aligned with the current trend. Ensuring the competitiveness of agriculture in the future was highlighted as a priority by the MAP. However, the arguments raised both by the MAP and by respondents to the questionnaire stress the importance of boosting a competitive agriculture based on quality production, both in terms of products and processes, rather than quantity. In this regard, the competitiveness of global markets, that do not valorise the quality of production, was again considered a barrier.

The resistance of farmers to collaborate among each other was mentioned as an obstacle for the achievement of all the other desired changes. Lastly, the incentives that should enable a better organization of supply chain were deemed not appropriate by some respondents.

Conclusions

This brief report describes the multi-actor approach developed to elaborate a long-term vision for rural areas of the Emilia-Romagna region.

The approach employed different methods for stakeholders’ consultation to gather both qualitative and quantitative information; furthermore, expert-based consultation within a MAP was associated with a survey addressing a larger number of stakeholders, in order to bring more perspectives into the visions. Mixing different methods was found to be effective given the range of the topic and the complexity and heterogeneity characterising rural areas of the region. On one hand, having a group of core experts helped to set the boundaries of discussion and to identify the most relevant themes for rural areas. On the other hand, data collected through the questionnaire allowed for a prioritization...
Data availability
Underlying data
AMS Acta: Dataset related to the brief report “Building long-term vision for rural areas through Multi-actor Platform: a preliminary study in the Emilia-Romagna region”

http://doi.org/10.6092/unibo/amsacta/6612 (Pellegrini et al., 2021)

This project contains the following underlying data:
- Dataset_Long-term vision for rural areas of Emilia-Romagna. The Dataset contains: 1 Excel file providing the results of the on-line questionnaire; 1 PDF file containing a blank version of the on-line questionnaire; 1 README file including a description of the Dataset. More information regarding the outputs and analysis of the interviews and the focus group are available at: https://rural-interfaces.eu/wp-content/uploads/2021/02/MAP_Position-Paper_IT_Emilia-Romagna_LTVRA.pdf

Data are available under the terms of the Creative Commons Attribution 4.0 International license (CC-BY 4.0).

Extended data
AMS Acta: Dataset related to the brief report “Building long-term vision for rural areas through Multi-actor Platform: a preliminary study in the Emilia-Romagna region”

http://doi.org/10.6092/unibo/amsacta/6612 (Pellegrini et al., 2021)

This project contains the following extended data:
- A blank version of the on-line questionnaire is provided in the Dataset as extended data. Note: this brief...
report is built exclusively on answers related to the questions on the visioning exercise; however, the on-line questionnaire includes several additional questions whose answers were not included in this study.

Data are available under the terms of the Creative Commons Attribution 4.0 International license (CC-BY 4.0).

Acknowledgments
Authors would like to thank the members of the Multi-actor Platform of the Emilia-Romagna and all the respondents to the questionnaire for their valuable inputs, time and consideration. Authors would also like to thank all the reviewers for their valuable comments. This work does not necessarily reflect the view of the EU and in no way anticipates the Commission’s future policy.

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Open Peer Review

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Version 2

Reviewer Report 27 May 2021

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Pawel Chmieliński
Institute of Rural and Agricultural Development of the Polish Academy of Sciences, Warsaw, Poland

The improved version of the article fully meets the requirements of a 'Brief Report' as defined by Open Research Europe and is definitely worth indexing.

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Rural systems, community-led development, family farms, institutional economics, public policy.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Version 1

Reviewer Report 21 May 2021

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Pawel Chmieliński
Institute of Rural and Agricultural Development of the Polish Academy of Sciences, Warsaw, Poland
A very good, brief study report showing a method of bottom-up work within a multi-actor group of local stakeholders to obtain information about regional challenges, opportunities and long-term vision in a systematic and structured way, which can be used in the preparation of a broader framework for public policy programming.

The results described justify and support the different research techniques: interviews, a focus group, and an online questionnaire used in practice, and allow the formulation of valuable conclusions. The study as a whole, together with the references to broader sources that provide more information on the research techniques of the study, can be regarded as a good reference for studies of a similar nature. This constitutes the universal value of the material presented.

Is the work clearly and accurately presented and does it engage with the current literature?
Yes

Is the study design appropriate and is the work technically sound?
Yes

Are sufficient details of methods and analysis provided to allow replication by others?
Yes

Are all the source data and materials underlying the results available?
Yes

Are the conclusions drawn adequately supported by the results?
Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Rural systems, community-led development, family farms, institutional economics, public policy.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Author Response 24 May 2021

Emilia Pellegrini, University of Bologna, Bologna, Italy

Dear Reviewer, thank you very much for your valuable comments. One of the purposes of this brief report was, indeed, to provide a concise description of the method applied to develop long-term visions in contexts characterized by high heterogeneity. We found that mixing different types of techniques, along with the decision of differentiating the visions according to the type of rural areas, were appropriate methodological choices to organize information on such a broad topic in a way that could be informative for policy documents and regional programming. Kind regards

Competing Interests: No competing interests were disclosed.
Emil Erjavec
Biotechnical Faculty, University of Ljubljana, Ljubljana, Slovenia

The paper is a brief report presenting the results of a participatory process carried out in the Emilia-Romagna region (Italy) to develop a long-term vision for rural areas by 2040. These rural areas are changing due to both long-term and current economic and environmental patterns. The gap between urban and rural areas is not closing but is actually worsening. The discussion of the vision can help to determine the decisive factors for targeted societal changes and to elaborate the appropriate public and private policy mix. The authors' methodology consisted of interviews, focus group and an on-line questionnaire applied within a multi-actor platform (MAP) composed of experts representing different institutions from science, society and policy.

Due to the region's economic and natural characteristics, two visions were developed – one for hilly-mountainous areas and one for flatland (plain) rural areas. The vision for hilly-mountainous rural is driven by two main elements: the development of infrastructure and market valorisation of typical agro-food products based on ecosystem services and promoted through tourism. The vision for the plain areas deals mainly with the strengthening of farm and village resilience to climate change, focusing on water management and farm risk management.

Mixing expert-based consultation through the MAP with an on-line survey approach resulted in a simple and effective method to build long-term visions in this segment of rural areas within the very heterogeneous frame of rural areas in Emilia-Romagna.

The short paper is adequately prepared and well written. The paper can be seen as an example of a research-based alternative for the elaboration of "visions" as strategic papers in the public domain. This is the main value-added part of this paper in addition to the substantive results, which show the importance of making a clear distinction between different parts of rural territories. We can agree with the statement of the authors that this brief study “only constitutes a preliminary step into a more elaborated backcasting approach". The sample is small, the research questions are simplified, narrowed to the elaboration of key priorities and direction of future public and private intervention. However, this type of research is useful and can contribute to the formation of better strategic public documents; I therefore recommend that the paper be indexed.

Is the work clearly and accurately presented and does it engage with the current literature? Yes

Is the study design appropriate and is the work technically sound?
Yes

Are sufficient details of methods and analysis provided to allow replication by others?
Yes

Are all the source data and materials underlying the results available?
Yes

Are the conclusions drawn adequately supported by the results?
Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Agricultural policy, European integration, Political economy of agriculture.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Author Response 19 May 2021

Emilia Pellegrini, University of Bologna, Bologna, Italy

Dear Reviewer, thank you very much for your comments. We are happy to know that you believe this report can contribute to the formation of strategic public documents even though, of course, it was only a preliminary study. We hope, in fact, that this study can provide easily readable information to all those who are interested in rural areas and in applied methods to develop long-term visions.

Kind regards

Competing Interests: No competing interests were disclosed.

Reviewer Report 11 May 2021

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Paolo Prosperi
Mediterranean Agronomic Institute of Montpellier, Montpellier, France

Dear Editors,

Thank you for giving me the opportunity to provide a peer-review of this Brief Report.

The brief report accurately synthetises the methodological effort that authors did to envision a
desirable future for rural areas in the Italian region of Emilia-Romagna, through participatory and transdisciplinary research.

Authors are able to gather science-policy-society actors to formulate, validate, fine-tuning and testing visions for rural areas through three main methodological steps, namely expert interviews, focus group, and an on-line broad questionnaire.

Findings mainly highlight the gap between desirable actions and realistic outcomes that can be reached according to both potential and obstacles that might occur.

The report clearly describes the scientific and methodological approach within the context of a European Horizon 2020 project. The work and its scope are introduced adequately, as well as the methodological approach is properly defined. Authors acknowledge that results are still partial as the sample of experts involved is not enough large and future studies will need larger actors involvement.

Few minor comments:

- While scientific and specialised audience knows what a backcasting technique is, a reader might not interpret correctly such term in this context. I would suggest to add no more than one or two lines to briefly define "backcasting" in the second short paragraph of the introductory section.

- I am not sure that "evidence-based" has its place in the keywords as it is an adjective (even if it is a composed one). This might be replaced maybe by "evidence base".

- In the conclusion I would suggest to add, in the end, few information about the next steps for this MAP exercise.

Is the work clearly and accurately presented and does it engage with the current literature?
Yes

Is the study design appropriate and is the work technically sound?
Yes

Are sufficient details of methods and analysis provided to allow replication by others?
Yes

Are all the source data and materials underlying the results available?
Yes

Are the conclusions drawn adequately supported by the results?
Yes

**Competing Interests:** No competing interests were disclosed.

**Reviewer Expertise:** Agricultural and food economics, food policy, sustainable food systems.
I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Author Response 14 May 2021

**Emilia Pellegrini**, University of Bologna, Bologna, Italy

Dear Reviewer, thank you very much for your accurate revision and comments. We have addressed all the observations that you made in the revised version of the brief report. Notably, we have included a brief explanation of the backcasting approach in the introduction. Moreover, in the conclusion, we have outlined the future activities of the Emilia-Romagna MAP. We could not address your comment on the keywords, instead, because keywords were not editable. Kind regards, Emilia

**Competing Interests:** No competing interests were disclosed.

Reviewer Report 07 May 2021

https://doi.org/10.21956/openreseurope.14363.r26788

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**Carina Folkeson-Lillo**
Research Centre for the Management of Agricultural and Environmental Risks (CEIGRAM), Universidad Politécnica de Madrid, Madrid, Spain

**Isabel Bardaji**
Research Centre for the Management of Agricultural and Environmental Risks (CEIGRAM), Universidad Politécnica de Madrid, Madrid, Spain

**REVIEW**
Brief report:
Building long-term vision for rural areas through multi-actor platforms: a preliminary study in the Emilia-Romagna region
Authors: Emilia Pellegrini, Meri Raggi, Davide Viaggi, Stefano Targetti
Reviewers: Isabel Bardaji and Carina Folkeson-Lillo. CEIGRAM, Universidad Politécnica de Madrid

**Minor observations**
1. In the introduction the authors point that “On one hand, the gap among urban and rural areas has been exacerbated by the crisis and it is likely to be amplified in the coming years (OECD, 2020)”. – what gap? Which gap is referred to? Economic? Social? Could be better specified.

2. They say also than “On the other hand, lifestyles and consumption patterns have undergone deep transformations that are creating new opportunities for rural areas”. Our opinion is
that the wording "deep transformations" is exaggerated. We have no proof for this yet. We only know that during this year, online shopping has increased (but not always that drastically), and that some people have taken the decision to move to the countryside (but a rather limited share of the society, and we don't know if this is a permanent move or only temporary).

3. Another reflection in relation to the analysis of the results obtained concern the potential differences of opinions which may have been captured during the consultation process. Hence, were the differences of opinions between various experts very significant, or was there a general consensus among the experts? And were there great differences of opinions between the experts consulted and the survey respondents? These aspects could be further reflected upon in the paper, as this may provide further insights into the likeliness of obtaining a certain desired outcome. The greater the consensus, the likelier that a desired outcome will also be a probable outcome.

General comments
The brief report raises a timely and relevant topic for the coming EC Communication on the Long-term Vision for rural areas in the 2040 horizon. It focuses on a region, Emilia-Romagna, which has two very different areas with diverse endowments and potential development. A mountainous area, with a high environmental and cultural resources affected by depopulation problems, and another area located in the Po valley with a very competitive agriculture. This diversity enriches the analysis and conclusions.

The methodology used, based on direct semi-structured interviews and focus groups carried out on multi-actor platforms and surveys to selected stakeholder, is well planned and is adequate for the objectives pursued. A reflection about the limitations of participatory methodologies comes out and its use in situations imposed by the current pandemic situation caused by Covid-19 and the need to resort to online meetings. Meetings characterized by less agile debates and greater constraints in oral communication and transmission of ideas and knowledge. To what extent this may have an effect on participation and results obtained is an issue not studied so far and that should receive future attention by the scientific community in the near future in order to improve the use of these methodologies in a confinement situation.

Another reflection arises from the analysis of the results obtained. It has already been mentioned that the long-term vision of two areas with very different features and therefore with different development possibilities is addressed. It is not surprising that the vision of both areas has its own characteristics. However, it is possible to extract common aspects that denote its importance for the future of the rural world: the improvement of infrastructures and the better integration of the agricultural sector in the value chain.

The deficiencies in the provision of infrastructure, social, physical or economic, constitute an important restriction for rural development and its improvement is a necessary, although not sufficient, condition for this to occur. It is not surprising, therefore, that its improvement is included in both cases as a desirable aspect in that long-term vision and that issues such as improving mobility or the creation of new services in the most remote areas or control of flooding in the valley area are included.

Improving the value chain of agricultural and food production has long been a priority objective of agricultural policy and is considered a fundamental instrument to sustain farmers' income. Either
through the valorization of local products and the development of short supply channels in the most remote areas or in the concentration of the supply in cooperatives, it is in both cases a desirable element of that future vision.

Finally, a comment on aspects included as desirable only in the vision of the future of the most mountainous area: digitization and diversification of activities. The first has become in these times of pandemic in a demanded aspect and considered as essential for the future of the rural world¹. Its non-inclusion in the vision of the more developed area is probably due to the fact that it already enjoys a high level of access to new technologies. Regarding the need for diversification of activities, including rural tourism, crafts, forestry sector or offering new services to the urban world, it arises significantly in areas where geographic and isolation conditions have not facilitated the development of a competitive agriculture.

References

Is the work clearly and accurately presented and does it engage with the current literature? Yes

Is the study design appropriate and is the work technically sound? Yes

Are sufficient details of methods and analysis provided to allow replication by others? Yes

Are all the source data and materials underlying the results available? Yes

Are the conclusions drawn adequately supported by the results? Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Agricultural economics and policy.

We confirm that we have read this submission and believe that we have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.

Author Response 14 May 2021
Emilia Pellegrini, University of Bologna, Bologna, Italy

Dear reviewers, thank you very much for your comments and reflections on the brief report. You raised many relevant issues for rural areas as well as for the difficulties of undertaking participatory approaches during the covid-19 era. We have addressed all your observations in the revised version of the brief report. Here, we discuss your observations in a more exhaustive way. Following up on your first observation, the gap we referred to was mainly
interpreted as an economic gap. As highlighted by the OECD report on the policy implications of Covid-19 crisis for rural development (OECD, 2020), the economic gap between rural and metropolitan areas - already widened by the 2008 financial crisis - risks to get worst in the next years due to a much less diversified rural economy and to the demographic trends characterizing rural areas (i.e. ageing) that create a significant gap in terms of opportunities for development for these areas. Concerning your second observation, as you rightly pointed out, the wording “deep transformation” is probably exaggerated. While some transformations have undoubtedly occurred, we cannot infer that they will become permanent. To add a reflection on that, we can argue that the “depth” of such transformations will depend on how the resources derived from the incoming policies (e.g. CAP, Recovery Fund) will be dedicated to increasing the viability of rural areas and encouraging less energy-intensive agricultural systems. As a recent study on Covid-19 and rural landscape in Italy has shown, hilly-mountainous rural landscapes– characterized by non-intensive and more diversified agriculture - exhibit on average 10% fewer cases of contagion compared to urban areas and areas with intensive agriculture (Agnoletti et al., 2020). The study concludes that the payoff that Italy could get from revitalizing non-intensive rural areas through EU funding sources can be very large because it would make the population more resilient to the current and future pandemics. Hence, transformations might become deep if more sustainable agriculture, digitalization, infrastructures, and services will be supported and, in turn, incremented in rural areas. Regarding your last remark, overall, there was a consensus among the participants to the MAP of the Emilia-Romagna region on the visions for rural areas. However, during the focus group with the MAP there was a disagreement on a sentence, included in the vision for hilly-mountainous rural areas, which stated that the care of the territory should be a priority over production. According to some experts, having a productive agriculture is fundamental to ensure the livelihood of rural areas and cannot come after the care of the territory. On the opposite, one stakeholder upheld this argument claiming that the future for hilly-mountainous areas will depend on the care of the territory that is also a trigger for a more productive agriculture, not vice versa. Likewise, all the improvements for rural areas of the future identified by MAP’s experts were confirmed by the respondents to the questionnaire except for the change “intensive and competitive agriculture dominated by big players” that in fact was not included in the vision.

**Competing Interests:** No competing interests were disclosed.