

# Stakeholder involvement in impact measurement development: issues and insights from a public initiative to repopulate remote communities

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## Abstract

**Purpose** – This paper aims to investigate how the involvement of stakeholders contributed to the process of developing impact measures for public initiatives and what (if any) technical criticalities might emerge during such a process.

**Design/methodology/approach** – The study is based on action research methodology in which the researchers were involved in the solution of a practical problem represented by the implementation of an impact measurement tool for a public initiative. This initiative's main objective was the repopulation of a remote Alpine community. The context required the researchers to establish a personal link with the indigenous inhabitants of the remote mountain community to combine theory and practice and to solve a practical problem.

**Findings** – This study shows that stakeholders were crucial in determining “what to measure”, “what criteria to use to measure”, “what was the motivation for measurement” and “what data and methods were best to implement”. The specific context of a repopulating initiative for the remote community highlighted that the nuances of the context in which social impact measurement is developed are crucial in shaping both the design and the strategic relevance of the measurement itself. The paper shows that stakeholder involvement was paramount for developing relevant social impact measures, building a common relationship between indigenous and researchers and considering aspects of the initiatives that stakeholders deemed necessary for the community.

**Practical implications** – The study provides insights into overcoming critical aspects that can emerge while designing and implementing an impact measurement system for public initiatives.

**Originality/value** – Stakeholder involvement has mainly been treated from a theoretical point of view. To the best of the authors' knowledge, this study represents one of the few studies that provides evidence of the



importance of stakeholder involvement in identifying viable metrics to measure impacts in a complex context such as public initiatives.

**Keywords** Impact measurement, Stakeholder involvement, Public initiatives, Mountain community repopulation, Non-financial impact measurement

**Paper type** Research paper

## Introduction

Assessing the impacts of public initiatives is a topic that has generated a vivid debate in the literature (Benjamin *et al.*, 2022; Costa and Pesci, 2016; OECD, 2015). Public initiatives present multifaceted impacts that cannot be reduced to the mere financial dimension but encompass social and environmental instances (Ebrahim and Rangan, 2010). Indeed, in such a context, non-financial outcomes can be even more relevant than financial ones (Cordery and Sinclair, 2013; Teerakul *et al.*, 2012).

In the attempt to organise complexity to assess and evaluate non-financial impacts in public initiatives, some scholars (Benjamin *et al.*, 2022, p. 2) have identified the following four questions:

- Q1. What to evaluate?
- Q2. For what purpose?
- Q3. Using which criteria?
- Q4. With what evidence and methods?

The authors (Benjamin *et al.*, 2022) conceptualise the building blocks connected to the answers to each question as helpful theoretical guides to assess impact measures.

Furthermore, Costa and Pesci (2016) suggest that social impact measures should be shaped based on the stakeholders' needs. This perspective challenges the idea that measuring non-financial impacts necessitates a "one-size-fits-all" approach based on predefined standards frameworks (Adams *et al.*, 2020; Luke *et al.*, 2013; Stalker and Phyne, 2014). The approach proposed by Costa and Pesci (2016) can be critical in contexts such as public initiatives, where the mission is not economic *stricto sensu* but related to satisfying the societal needs of different communities (Nguyen *et al.*, 2015).

Thus, we argue that stakeholder involvement represents a key factor that allows us to answer the previously mentioned questions in the realm of public initiatives (Benjamin *et al.*, 2022) and combining the questions of Benjamin *et al.* (2022) with the role of stakeholders (Costa and Pesci, 2016) may provide a novel approach. A similar approach may be particularly relevant when put into practice, given the substantial absence of studies that deliver practical, methodological and procedural insights on how to put stakeholder involvement into practice in the development of impact measures. Then, we argue that in the complex context of public initiatives, the choices on how to develop measures of impact (Cordery and Sinclair, 2013) can be driven by the involvement of stakeholders, and the four Benjamin *et al.* (2022) questions can help in adopting practical simplifications to reduce the overall complexity.

Furthermore, investigating the process of designing a public initiative's impact measurement system is relevant and urgent for three reasons. Firstly, there is growing attention and urgency to measure the non-financial impacts for monitoring and managing public initiatives and to evaluate the achievement of a mission that is complex, multidimensional and relevant for society (Kah and Akenroye, 2020; Spencer *et al.*, 2016; Teerakul *et al.*, 2012). Secondly, involving stakeholders has a strategic relevance, especially if there are contextual specificities, for example, in rural areas, where listening to the voices of local stakeholders allows us to consider aspects that cannot be

easily standardised (Chilisa, 2020; Shepherd, 2018). Thirdly, given the theoretical effort that has been made in the literature directed to developing social impact measurement concepts and tools (Costa and Pesci, 2016; Ebrahim and Rangan, 2010; Benjamin *et al.*, 2022), there is a need to understand the practical implications and limitations of this apparatus.

This paper combines the aforementioned theoretical insights (Costa and Pesci, 2016; Benjamin *et al.*, 2022) into the practice arena of designing an impact measure system to evaluate a public initiative developed in a remote community.

Precisely, this paper aims to shed light on a methodological process useful for practically involving stakeholders in designing impact measures' elements and exploring what critical practical issues might emerge during such a process.

Hence, this paper answers the following research questions:

*RQ1.* How does stakeholder involvement allow the development of impact measures in public initiatives (as per Benjamin *et al.*, 2022)?

*RQ2.* What technical criticalities might emerge when the system is practically adopted?

The present study methodologically relies on action research (Gallos, 2006; Stringer, 2007) conducted by the authors while designing an impact measurement system for a public initiative whose main objective was the repopulation of a remote alpine community. Local and regional authorities involved the authors in the process of defining an impact measurement system for the repopulation initiative. Specifically, the public initiative was implemented to protect the population of a mountain village (located at 1,300 metres above sea level in Northern Italy) from depopulation and consequent local culture and language dissipation. Indeed, the population of this remote mountain village has been progressively decreasing over the years, and in 2021, there will be only 270 inhabitants (Ispat, 2024). The public initiative provided free housing to families with children committed to living and participating in the community. The core of the public intervention is a social housing initiative to introduce new inhabitants to the community (Varady *et al.*, 2015).

The empirical data collected during the action research involved qualitative field observations, interviews, a survey and notes. The analysis shows how the process of designing impact measures can benefit from stakeholder involvement. Stakeholders played a crucial role in defining "what to measure", "what criteria to use to measure", "what was the motivation for measurement" and "what data and methods were best to implement". Contemporary, critical practical issues emerged while collecting data and calculating the indicators. These issues were severe and could hinder the implementation of this tool in future years.

Based on the empirical findings that emerged from the action research, this paper contributes to the literature and debate on the role of stakeholders (Costa and Pesci, 2016) in defining what and how to measure impacts (Benjamin *et al.*, 2022) of public initiatives (Teerakul *et al.*, 2012; Spencer *et al.*, 2016) in contexts where standardised approaches could not be likewise effective due to local specificities (Membretti and Viazzi, 2017; Chilisa, 2020; Shepherd, 2018). It represents one of the few studies that report practical evidence on the value of stakeholders' involvement in designing impact measures for public initiatives, as this topic has been addressed mainly from a theoretical perspective. It shows that the participation of stakeholders is crucial in defining what to measure and explaining the nature of the initiative in a specific context. Therefore, stakeholder involvement becomes a key factor, allowing researchers to understand the initiative and reducing its inherent complexity to measurable issues. In addition, the study provides a practical and methodological perspective that is useful for anticipating possible critical problems that can emerge while designing and implementing an impact measurement system.

The rest of the paper is organised as follows. The first section brings together the essential elements of the debate on impact measurement based on stakeholder involvement and answers the questions regarding what, how, with what criteria and by what method it is appropriate to measure the impact of public initiatives. The second section deals with the methodology used in the paper, referring to the action research. The third section brings together the results of the action research conducted within the social housing project of repopulation of a mountain community. Finally, the last section accommodates the discussion of the paper's conclusions, presenting the paper's main contributions to the existing literature and possible future research avenues on this topic.

## Theoretical background

### *Critical issues in evaluating the impacts of public initiatives involving rural communities*

A significant part of the debate about impact measurement design (Arena *et al.*, 2015) supports the idea that implementing a standard framework to measure impacts leaves little space for (few) internal stakeholders in defining impact measures. Standardised frameworks empower only a small portion of stakeholders, generally directly involved in managing or funding initiatives or organisations, attributing to them the responsibility to choose or design impact metrics. These individuals monologically discriminate what is within and outside the measurement boundaries and how information should be presented within those boundaries, and primarily operate for legitimacy reasons (Kah and Akenroye, 2020; Spencer *et al.*, 2016; Teerakul *et al.*, 2012).

Standardised approaches to assess social impact have been used in several contexts, including studies on depopulation or repopulation of rural areas (Acampa, 2024; Laine *et al.*, 2023). For example, Acampa (2024) has highlighted the importance of predetermined macro categories of indicators to allow for comparison with similar initiatives. Stalker and Phyne (2014) used publicly available macroeconomic data to assess the social impact of depopulation in Nova Scotia (Canada). These typologies of studies adopting a standardised approach allowed the researchers to advance social impact categories (for example, labour market, succession planning, community ties, education and volunteering, social generativity and psychological well-being). Nevertheless, in proposing a predetermined set of indicators or mere macro-economic data, there is the risk of losing the point of view and needs of peculiar locally embedded stakeholder categories.

Therefore, an alternative perspective calls for developing social impact measures, adopting a tailored process with at its core stakeholders who can define what and how to measure impacts (Costa and Pesci, 2016). The idea proposed by Costa and Pesci (2016) conceptually extends the discussion on impact measurements by advancing the ethical and practical relevance of involving stakeholders' perspectives. Stakeholder involvement enables the measurement process to be democratised and impact measures to be dialogically tailored to the actual information needs of specific stakeholders (Chan *et al.*, 2015; Zammuto, 1984). Then, stakeholder involvement allows for a more case-specific definition of the most relevant aspects, which inherently differ from organisation to organisation, project to project and initiative to initiative (Nguyen *et al.*, 2015). This is particularly relevant in public initiatives because they can vary significantly regarding structure, values and expected outcomes (Hack-Polay and Igwe, 2019; Varady *et al.*, 2015). In addition, in the context of public initiatives, there are numerous and heterogeneous stakeholders, involving organisations such as social enterprises, NPOs, institutions and associations and individuals or groups of individuals such as communities, taxpayers and beneficiaries. Furthermore, some public initiatives are implemented in contexts, such as mountain (Pettenati, 2013;

Membretti and Viazzo, 2017) and rural ones (Findlay *et al.*, 2000), in which even the peculiarities of the stakeholders might play a role in determining the impact of the initiative because their strong embedness with the local territory might characterise their reactions and behaviours (Imperiale and Vancley, 2016). Thus, it is particularly significant to adopt methods that consider that indigenous communities have specificities influencing the results of public initiatives (Chilisa, 2020; Shepherd, 2018).

Hence, given the crucial role of different stakeholders in public initiatives that have specificities related to local communities, we argue that their involvement can inform the design process of impact measures. More specifically, stakeholder involvement is critical in answering the four key questions: what to evaluate, for what purpose, using which criteria and with what evidence and methods (Benjamin *et al.*, 2022).

#### *Applying Benjamin's lenses to the development of Social Impact in rural communities*

*The role of stakeholders concerning the first question in public initiatives: What to evaluate?* Identifying what to measure requires deciding the unit of analysis and establishing boundaries that define what is included in the measurement and what remains excluded (Benjamin *et al.*, 2022).

Identifying a unit of analysis is difficult and requires a specification of the central components of an initiative and its expected outcomes (Knowlton and Phillips, 2012).

Therefore, the first boundary to be set in the repopulation initiative is about the central components, which are the community(s) that should be involved in the measurement assessment process. It is established that in rural areas, there are at least two main stakeholder categories in repopulation initiatives: the newcomers and the previous local community (Jedrej and Nuttall, 2013; Membretti and Viazzo, 2017). Focusing on one of these stakeholders separately or including both strongly influences the social impact measure assessment process.

A second issue connected to establishing measurement boundaries concerns the typology of measurement to be developed. Siddiq (2020) identified the available services and connected costs as a key component of a social impact measurement dedicated to depopulated rural areas. According to Buran (1998), indeed, a specific focus of repopulation initiatives is on maintaining services. This research evidences specific features of small villages where developing measures, including service maintenance, is of paramount importance.

Other insights about how to develop meaningful social impact measures for repopulation initiatives in rural areas have been provided by Findlay *et al.* (2000), who find that the net-employment impact of newcomers is an important measure of social impact to be included and interestingly, in their case, newcomers have generated more job opportunities than those they occupied.

Similarly, Pettenati (2013) identified additional impact measures that play a role in repopulating rural areas, such as welfare and social capital. In particular, creating and maintaining social capital (Putnam, 2001) in the community is relevant in public initiatives that aim to repopulate isolated communities.

In rural communities, the local specificities and embeddedness could be linked to particular social and economic nuances that should be considered in the impact measures. Thus, involving stakeholders belonging to different communities in the process of defining units of analysis and expected outcomes is a possible practical and ethical way to establish measurement boundaries and evaluation priorities (Costa and Pesci, 2016; OECD, 2015). Indeed, public initiatives include multidimensional impacts, such as economic and social (Varady *et al.*, 2015) and can be considered as a “double bottom line” (Dart *et al.*, 2010).

Allowing stakeholders to participate in defining an impact measurement tool provides a comprehensive overview of what is crucial to measure from an economic and social point of view.

*The role of stakeholders in answering the second question in public initiatives: What is the purpose of evaluation?* The purpose of impact measurement is a crucial aspect to consider when designing impact measurement systems (Campbell, 1977).

Knight (2003) has identified two primary possible general purposes of repopulation initiatives in rural areas. The first purpose can be to enhance pronatalism by encouraging local couples to have more children, providing extra services and contributions to local inhabitants and promoting their staying in the community and contributing to the community's growth. A second purpose is to move into villages other individuals, the newcomers, to enrich local communities. This second purpose is inherently complex, given the presence of two communities and the fact that non-native people's culture is arguably different from that of the original community.

Considering the prevalence of the second purpose in the repopulation initiatives and the consequent existence of two communities, heterogeneous stakeholders could claim different purposes from the evaluation, and consequently different types of measurement data (Costa and Pesci, 2016).

Furthermore, impact measurement can influence many audiences, including funders, managers, policymakers, beneficiaries and communities (Greene, 2013). Deciding which purpose the measure should serve implies mediating among these multiple audiences.

The involvement of stakeholders, anyway, can be crucial because it could help tailor the measure for specific stakeholders' purposes (Costa and Pesci, 2016). In public initiatives, the informative demands of funders generally take priority and make it challenging to consider the nuances that the evaluation can assume for different stakeholders (Benjamin et al., 2022).

Additionally, the purpose of the social impact measure of a repopulation initiative in a rural community should be locally embedded (Lardiés-Bosque and del Olmo-Vicén, 2023). In this regard, social impact indicators should be designed locally and include integration measures and the generation of ties with the local communities' inhabitants. Indeed, social impact measures should be developed and implemented for strategic reasons. For example, Imperiale and Vancly (2016) state that assessing social impact is fundamental to regional development and building community resilience.

*The role of stakeholders in answering the third question: What criteria should be used in an evaluation to judge merit or worth?* One of the core tasks in impact measurement is identifying criteria for judging the worth and merit of initiatives. Criteria are generally informed by values that discriminate between what is good and what is wrong. Values are omnipresent in social spaces (Shadish et al., 1991), and judgements are required to consider underlying values (Benjamin et al., 2022).

Furthermore, in the case of public initiatives, the issue of time orientation is crucial. Indeed, impact measurement systems significantly depend on time orientation (Avina, 1993) in that what is desirable today can be irrelevant in the future and vice versa. The period covered by the impact measurement system, from the short to the long run, profoundly impacts the shape of such systems (Ebrahim, 2005).

The definition of measurement criteria that keeps values and time orientation into account should rely on a three-step process (Benjamin et al., 2022):

- (1) generation of a large set of possible criteria;
- (2) deciding which of these are relevant; and
- (3) deciding how the evidence related to multiple criteria can be systematised.

Stakeholders' involvement represents an impactful means to address this process and identify relevant criteria for designing an impact measurement system. The criteria should address the inherent ambiguities in every different initiative. [Jedrej and Nuttall \(2013\)](#) highlight the conceptual conflict and ambiguities around the issue of repopulation of remote communities in Scotland, where newcomers reinvigorated the local economy, but the indigenous people can be marginalised. This suggests that measurement criteria should embrace a community approach by measuring the social impact of repopulation on the community as a whole, including newcomers and indigenous people.

*The role of stakeholders in answering the fourth question: What evidence is credible, and what methods are needed to gather that evidence?* Finally, it is worth questioning which evidence is needed to measure impacts and the appropriate methods to gather and analyse this evidence.

Evidence is generally associated with producing measurable results, such as indicators. Although indicators are only one possible type of evidence, their use is prevalent, mainly when a "gold standard" is used ([Adams et al., 2020](#); [Centre for Global Development, 2006](#)).

The multidimensional nature of public initiatives ([Varady et al., 2015](#)) requires reducing the inherent conflictuality between goals and stakeholders into numerical indicators able to capture impacts and present them in a clear, credible and understandable way. While economic impact indicators naturally meet numbers and calculations, evaluating the social effects requires a conceptual and practical effort to translate social dimensions into numbers ([Cordery and Sinclair, 2013](#)).

Stakeholder involvement ([Costa and Pesci, 2016](#)) is a promising conceptual support in implementing impact measurement frameworks ([Benjamin et al., 2022](#)). However, practical implementations of stakeholder involvement in tailoring impact measures are still scarce in the literature. Much academic effort has been devoted to theoretically conceptualising impact measurement ([Ebrahim and Rangan, 2010](#)), while the literature on practical application is still underdeveloped. The development of such literature can help in understanding the difficulties in the process of developing impact measures and illuminating possible solutions. Notably, the inherent complexity brought by measuring the non-financial impacts of public initiatives requires analysing how usable tools have been developed and what the issues are in such a process.

Finally, involving stakeholders plays an important role in assessing the social impact in rural communities, given the specificity of such a context that requires considering indigenous instances that can emerge only by listening to local voices ([Chilisa, 2020](#); [Shepherd, 2018](#)).

## Method

### *Context of the action research*

The action research implied the active participation of the authors in developing an impact measurement system for a public initiative finalised to enhance a remote mountain village's repopulation. Specifically, the repopulation initiative was implemented in a small alpine mountain village in Trentino, Northeast Italy.

An increasing number of mountain alpine villages have witnessed relevant depopulation, threatening services and employment ([Viazzo, 2012](#)). In the analysed village, the local population has decreased by 32% in the last three decades, and only 270 inhabitants currently populate the community ([Ispat, 2024](#)). The community is geographically isolated, and only basic services are available.

A peculiarity of this case is that the population speaks the Cimbrian language, which is a minority language protected by the European Charter for Regional or Minority Languages

and the Framework Convention for the Protection of National Minorities. Along with the language, inhabitants share a traditional rural culture.

The depopulation of the village threatened to dissipate human capital and a unique language and culture. For this reason, some local authorities decided in 2018 to promote a public initiative to address the need to enhance the repopulation of the village and prevent the dissolution of the village's services and culture. The initiative was based on providing free, renewed housing, owned by the local public authority, to four families with children on the condition that they move, remain and integrate into the community for at least five years. The families were chosen through a public call publicised by the local government nationwide. The propensity to live in the mountains and the love for mountain environments were prerequisites of the initiative. Forty families from various regions in Italy submitted applications for the call, and four were chosen based on the criteria indicated above. Eight adults and nine school-aged children relocated to the village in January 2021.

Integration of the new families was a pivotal aspect of the initiative. [Viazzo \(2012\)](#) emphasised the significance of negotiating between new and existing residents to preserve the local cultural identity. [Pettenati \(2013\)](#) showed that individuals who intentionally select to reside in mountainous regions can actively contribute to the local community by fostering social and economic endeavours.

#### *Methodology: Action research*

This paper implemented an action research methodology ([Cunningham, 1993](#); [Gallos, 2006](#); [Peters and Robinson, 1984](#); [Stringer, 2007](#)) in the specific context of repopulation initiatives of a rural area ([Chilisa, 2020](#)).

Action research represents a qualitative research method that proposes to combine the investigation of an issue with the effort to solve it. When conducting action research, a researcher is expected to conduct research and to take practical action simultaneously.

According to [Gallos \(2006\)](#), action research is a collection of theories that aim to solve real issues and contribute to theory. Action research specifically examines and actively involves itself in the intricate dynamics present in any social environment. This approach connects and integrates theories' development with the investigation of real-world issues ([Cunningham, 1993](#)). It identifies efficient solutions to problems that arise in unforeseen circumstances and localised contexts. Furthermore, this methodology contributes to developing a comprehensive knowledge base that improves professional and community practices ([Stringer, 2007](#)).

Consistent with [Gallos \(2006\)](#) and [Stringer \(2007\)](#), this study uses a participatory action research approach. This approach involves a systematic inquiry process where individuals facing a specific problem collaborate with researchers to determine the focus of practical and conceptual knowledge generation, collect and analyse data, and take action to manage, enhance and resolve the problem.

The analysis was conducted in an isolated mountain village in the Italian Alps that is deeply different from an urban context, and where local traditions and the local language have been maintained. Within the specific context analysed, the authors had the remarkable opportunity to be directly involved, and not just to observe, in developing an evaluation system to measure the impacts of a repopulation initiative. A similar context requires the researchers to establish a personal link with indigenous people in the community ([Chilisa, 2020](#); [Shepherd, 2018](#)). In this regard, [Chilisa \(2020\)](#) explains that the identities of local inhabitants must be acknowledged and respected to enhance the research's effectiveness. This link was established by direct personal interaction with local inhabitants to acquire a shared language, culture and values, which proved fundamental for collecting relevant

evidence (Chilisa, 2020). Figure 1 shows the preliminary research steps devoted to creating this link with the local community (approach the context, first connection with the community and enhanced relationship with the community).

Furthermore, the authors took into account the challenges that necessarily emerge in adopting standardised evaluation methods in indigenous contexts (Shepherd, 2018, p. 2), especially in understating the institutional relationships between indigenous. As suggested by Shepherd (2018), some strategies were implemented to overcome these challenges: implementing respectful relationships with local people, determining the reciprocal benefits of the research and defining the relationships and responsibilities of the researchers.

The creation of a link and a relationship with the local community allowed the researchers to identify the main aspects of what and how to measure the social impact of the initiative (Figure 1).

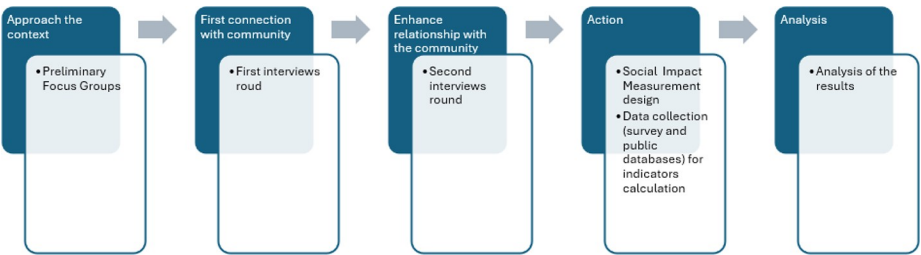
To summarise, the action research process included a few procedural steps: preliminary focus groups, physical visits to the community, interviews and relationship building with stakeholders, second round interviews, social impact measurement tool design, indicator calculation and analysis (Figure 1).

*Stakeholders involved in the initiative*

The stakeholder identification and categorisation process was based on Costa and Pesci's (2016) approach and then involved answering the four questions provided by Benjamin et al.'s (2022) framework. Stakeholders were identified by analysing who was affected by the initiative (Costa and Pesci, 2016). A subsequent mapping of these subjects allowed the categorisation of stakeholders (Table 1).

Then, the stakeholders involved (Table 1) were grouped into the two communities involved in the initiative: the local community and the newcomers.

Interviewed stakeholders' categories, including citizens of the local community and newcomers. The *public authorities* and *entrepreneurs* have been considered relevant stakeholders of the community. In detail, public authorities include the five distinct authorities that played a role in both the development and execution of the programme: the *mayor* of the village; the *Magnificent Community of the Cimbrian Mountains* is an elected governing body with jurisdiction between the municipality and the county; The *county administration* that established the programme to repopulate the village and sought to evaluate its efficacy to use the same repopulation strategy in different settings; the *county agency for public housing* owns the renewed houses, and the *Demarchi Foundation*, a public



**Figure 1.** Graphical representation of the action research process

Source: Authors' own work

**Table 1.** Summary of people interviewed, type of stakeholder and role in the community

| Interview | Interviewee                                                      | Community stakeholder             | Duration (min) | In-person/online |
|-----------|------------------------------------------------------------------|-----------------------------------|----------------|------------------|
| 1         | County government youth plan manager                             | County authorities representative | 9.01           | Online           |
| 2         | President of the association promoting local culture and tourism | Local authorities                 | 8.12           | Online           |
| 3         | President of the magnificent community of the Cimbrian Mountains | County authorities representative | 59.45          | Online           |
| 4         | Municipal registry clerk                                         | Local authorities                 | 53.21          | In-person        |
| 5         | Newcomer                                                         | Newcomers                         | 73.43          | Online           |
| 6         | Museum employee                                                  | Local authorities                 | 62.20          | In-person        |
| 7         | Local restaurant owner                                           | Entrepreneur                      | 45.56          | In-person        |
| 8         | Former member of the local authority                             | Local authorities                 | 67.24          | In-person        |
| 9         | Member of the local authority                                    | Local authorities                 | 58.21          | Online           |
| 10        | Magnificent community of the Cimbrian Mountains employee         | County authorities representative | 68.22          | Online           |
| 11        | Community citizen                                                | Community citizen                 | 40.2           | Online           |
| 12        | Municipal employee                                               | Local authorities                 | 8.32           | Online           |
| 13        | Director of the magnificent community of the Cimbrian Mountains  | County authorities representative | 64.51          | Online           |
| 14        | Community citizen                                                | Community citizen                 | 36.40          | In-person        |
| 15        | Newcomer                                                         | Newcomers                         | 59.19          | Online           |
| 16        | Municipal employee                                               | Local authorities                 | 47.00          | In-person        |
| 17        | Library manager                                                  | Public employees                  | 35.25          | In-person        |
| 18        | School teacher                                                   | Public employees                  | 12.13          | In-person        |
| 19        | Member of local government                                       | County authorities representative | 29.24          | In-person        |
| 20        | Mayor                                                            | Local authorities                 | 53.22          | Online           |

(continued)

Table 1. Continued

| Interview                    | Interviewee | Community stakeholder                                                                                                                                                                                                                                                                                                | Duration (min) | In-person/online |
|------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------|
| FG 1                         | FOCUS GROUP | Newcomers to the village<br>Newcomers to Canal San Bovo<br>(another social housing program)<br>Demarchi foundation<br>Mayor of the village<br>Mayor of Canal San Bovo<br>County government youth plan<br>manager<br>Magnificent community of the<br>Primiero Mountains employees<br>Demarchi foundation<br>Newcomers | 3 h            | In-person        |
| FG 2                         | FOCUS GROUP |                                                                                                                                                                                                                                                                                                                      | 3 h            | In-person        |
| Source(s): Authors' own work |             |                                                                                                                                                                                                                                                                                                                      |                |                  |

organisation supported by the county government, has been responsible for monitoring and providing support for implementing the social housing initiative.

### *Data*

During the action research, 20 semi-structured interviews and two focus groups (respectively, with three and seven participants) were conducted with different community members and stakeholders (Table 1). The researchers physically visited the communities a few times to enhance cultural and perception aspects and build relationships (Cunningham, 1993; Gallos, 2006; Shepherd, 2018). Italian was the language mainly used during the interviews, although some locals spoke an ancient community's language, the Cimbro, as their mother tongue. During interviews, some words in Cimbro were spoken by locals, but the researchers could understand the meaning thanks to their effort in approaching local culture and language adaptation (Chilisa, 2020).

During interviews, some questions were asked to understand stakeholders' perceptions of the relevance of some impacts of the initiative. These questions served to involve the stakeholders' (Costa and Pesci, 2016) discourse towards the definition of "what to evaluate, for what purpose, using which criteria, and with what evidence and methods" (Benjamin et al., 2022, p. 2).

The interviews were meticulously recorded and transcribed, with an average duration of 44.25 min. As for the focus groups, they were condensed into meeting minutes and subsequently shared with the researchers.

Interviewers took notes during the interviews and focus groups, which were used as supplementary sources of information during the analysis and coding process (O'Dwyer, 2004).

### *Social impact measurement design*

The information collected through interviews was coded following O'Dwyer's (2004) protocol. Two researchers reviewed the material after transcribing the interviews and the focus groups to enhance their comprehensive knowledge of the situation (King et al., 2019). Subsequently, the researchers coded the interviews and focus groups separately (O'Dwyer, 2004). The initial phase of coding was carried out independently by each researcher, allowing for diverse perspectives to emerge. After this preliminary coding, the researchers convened in several collaborative meetings aimed at standardising and reconciling their individual codes. This methodological approach was intentionally recursive; as discussions unfolded, the researchers refined their codes to achieve greater clarity and consistency. This dual approach facilitated a deeper understanding and provided greater confidence as the combination of insights contributed to a more nuanced interpretation of the data (Figure 1).

The coding process implemented codes and subcodes identified in the literature (Costa and Pesci, 2016; Benjamin et al., 2022) and new codes and subcodes emerging from the analysis (O'Dwyer, 2004). In detail, the coding followed the definitions of impact measurement (Costa and Pesci, 2016) and the connected elements, such as: "what to evaluate, for what purpose, using which criteria, and with what evidence and methods" (Benjamin et al., 2022, p. 2). In particular, the coding of interviews isolated stakeholders' perceptions of what impacts and outcomes were significant to measure.

This process led to defining one possible set of indicators composing the social impact matrix.

*Data collection and analysis to compute the indicators' results*

Finally, to assess the social impact of the initiative, it was necessary to compute the results of the indicators composing the matrix. Consequently, additional data sources have been defined and mobilised. Firstly, based on the evidence that emerged from the interviews and focus groups, a survey was defined and submitted to the population to compute some of the elaborated tailored indicators. Specifically, the survey data were collected to implement the social impact measure to calculate social indicators. Hence, for the purpose of this paper, survey results have been used in relation to the computation of some indicators, but the survey *per se* has not been the object of a specific analysis since the focus of the paper is on the social impact measure development and implementation. Other data were gathered from different available data sets owned by public authorities, including the statistical office of the province and local public administration offices. In this last phase, some indicators were considered unusable, given the difficulties and time constraints in collecting them.

**Results: stakeholders' involvement in identifying what and how to measure public initiatives' impacts**

The analysis of the empirics collected through the action research suggests that the role of the *stakeholder* was crucial in the process of designing impact measures and, specifically, in answering all four questions of Benjamin *et al.*'s (2022) framework: "what to evaluate, for what purpose, using which criteria, and with what evidence and methods".

Stakeholders supported the process of designing the impact measurement system to evaluate the impacts of the repopulation of public authorities. Tables 2 and 3 collect the final list of indicators designed (31 social impact indicators and 20 economic impact indicators). In addition, the stakeholders played a crucial role in describing the features of the initiatives from diverse perspectives and points of view, allowing the researchers to provide a more precise representation of the context and the initiative.

*How stakeholders contribute to defining: What to evaluate?*

Our findings show that stakeholders brought their ideas about which should be the central outcomes (Knowlton and Phillips, 2012) of the repopulation initiative. For example, an interviewee stated that:

The initiative has an impact on a social, societal level. But, there is also an economic point of view, due to businesses such as our small store, etc. [Interviewee 6, museum employee].

This statement suggested that the initiative was expected to produce economic and social impacts as outlined in previous research in other rural communities (Varady *et al.*, 2015). As such, stakeholders played a crucial role in defining the unit of analysis and establishing measurement boundaries (Benjamin *et al.*, 2022):

Now there are new people in the community, they come from outside but they need to be considered [...] alike the residents [indigenous] [Interviewee 8, Former member of local authority].

Stakeholders suggested several relevant elements to include in the measurement that helped to define the unit of analysis and measurement boundaries:

"The initiative must be evaluated" [Interviewee 20, Mayor] and "the impacts [of the initiative] are those that must be measured in some way" [Interviewee 8, Former member of local authority]

Thus, the metrics associated with the unit of analysis were identified in the public initiative itself and its related, non-financial and financial impacts. Stakeholders suggested

**Table 2.** Social impact indicators

| Indicator number | Indicator                                                                                            | What stakeholders suggested to measure | Criticalities in obtaining the data |
|------------------|------------------------------------------------------------------------------------------------------|----------------------------------------|-------------------------------------|
| 1                | N inhabitants on 1 January                                                                           | Demography                             | Yes                                 |
| 2                | The number of households is over the number of inhabitants                                           | Demography                             | Yes                                 |
| 3                | Average number of members per household at year-end                                                  | Demography                             | Yes                                 |
| 4                | Average age                                                                                          | Demography                             | Yes                                 |
| 5                | Old-age index (as of 1 January)                                                                      | Demography                             | Yes                                 |
| 6                | Structural dependency ratio (as of 1 January)                                                        | Demography                             | Yes                                 |
| 7                | Degree of education                                                                                  | Demography                             | Yes                                 |
| 8                | Female population as a percentage of the total population                                            | Demography                             | Yes                                 |
| 9                | Resident foreigners as a percentage of the total resident population                                 | Demography                             | Yes                                 |
| 10               | Incidence of the 0–2-year-old population on the total resident population at the end of the year     | Demography                             | Yes                                 |
| 11               | Incidence of the 3- to 5-year-old population on the total resident population at the end of the year | Demography                             | Yes                                 |
| 12               | Number of associations present on the territory per inhabitant                                       | Social capital                         | Yes                                 |
| 13               | Participation in the last municipal elections (%) – 2020                                             | Social capital                         | Yes                                 |
| 14               | The number of people in the village to rely on                                                       | Social capital                         | No                                  |
| 15               | Perception of social inclusion                                                                       | Social capital                         | No                                  |
| 16               | Perception of the presence of social tensions                                                        | Social capital                         | No                                  |
| 17               | People who have someone to rely on (%)                                                               | Social capital                         | No                                  |
| 18               | Number of school enrolments 0–6                                                                      | Social capital                         | No                                  |
| 19               | Number of hours of lessons in the Cimbrian language, 0–6 in Lavarone                                 | Social capital                         | Yes                                 |
| 20               | Social/health services 0 = no (unchanged), 1 = yes (increased/maintained at risk of closure)         | Services                               | Yes                                 |
| 21               | Number of catering services per number of inhabitants                                                | Services                               | Yes                                 |

(continued)

Table 2. Continued

| Indicator number             | Indicator                                                                                                        | What stakeholders suggested to measure | Criticalities in obtaining the data |
|------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------------------------------------|
| 22                           | Supply services (shops and consumer goods) 0 = no (unchanged), 1 = yes (increased/maintained at risk of closure) | Services                               | Yes                                 |
| 23                           | Internet connection and telephone services 0 = no (unchanged), 1 = yes (increased/maintained at risk of closure) | Services                               | Yes                                 |
| 24                           | Transport services 0 = no (unchanged), 1 = yes (increased/ maintained at risk of closure)                        | Services                               | Yes                                 |
| 25                           | Early childhood education services 0 = no (unchanged), 1= yes (increased/maintained at risk of closure)          | Services                               | Yes                                 |
| 26                           | Tourist accommodation rate                                                                                       | Services                               | Yes                                 |
| 27                           | Tourist rate                                                                                                     | Services                               | Yes                                 |
| 28                           | Village's Google views                                                                                           | Services                               | Yes                                 |
| 29                           | N newcomers                                                                                                      | Demography                             | Yes                                 |
| 30                           | Associative participation                                                                                        | Events                                 | Yes                                 |
| 31                           | Cultural integration                                                                                             | Demography                             | Yes                                 |
| Source(s): Authors' own work |                                                                                                                  |                                        |                                     |

**Table 3.** Economic impact indicators

| Indicator number | Indicator                                                                                                        | vWhat stakeholders suggested to measure | Criticalities in obtaining the data |
|------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-------------------------------------|
| 1                | Number of co-livers employed in the village                                                                      | Employment                              | Yes                                 |
| 2                | Number of people employed in companies operating in the village                                                  | Employment                              | Yes                                 |
| 3                | Per capita income of the municipality                                                                            | Local economy and housing market        | Yes                                 |
| 4                | School costs 0–3 per pupil (target level: average cost per province)                                             | Services                                | Yes                                 |
| 5                | School costs 3–6 per pupil (target level: average cost per province)                                             | Services                                | Yes                                 |
| 6                | Primary school cost per pupil                                                                                    | Services                                | Yes                                 |
| 7                | Cost of transporting pupils to school (extra compared to Trentino Trasporti ordinary rides)                      | Services                                | Yes                                 |
| 8                | Canteen service costs 0–6 per pupil                                                                              | Services                                | Yes                                 |
| 9                | Cost of ordinary and extraordinary road maintenance to/from the village per inhabitant (SP 9, SP 133 and SS 349) | Services                                | Yes                                 |
| 10               | Cost of seasonal road and equipment maintenance (SP 9, SP 133 SS 349)                                            | Services                                | Yes                                 |
| 11               | Cost of public transport service per inhabitant                                                                  | Services                                | Yes                                 |
| 12               | Cost of resource services (water, electricity, waste and internet) per inhabitant                                | Services                                | Yes                                 |
| 13               | Number of enterprises in the agricultural sector                                                                 | Local economy and housing market        | Yes                                 |
| 14               | Number of enterprises in the production sector                                                                   | Local economy and housing market        | Yes                                 |
| 15               | Number of service companies                                                                                      | Local economy and housing market        | Yes                                 |
| 16               | Percentage of occupied properties out of available ones                                                          | Local economy and housing market        | Yes                                 |
| 17               | Percentage of second homes in the total (and percentage of primary homes in the total)                           | Local economy and housing market        | Yes                                 |

(continued)

Table 3. Continued

| Indicator number             | Indicator                      | What stakeholders suggested to measure | Criticalities in obtaining the data |
|------------------------------|--------------------------------|----------------------------------------|-------------------------------------|
| 18                           | Number of renovated properties | Local economy and housing market       | Yes                                 |
| 19                           | Value of real estate           | Local economy and housing market       | Yes                                 |
| 20                           | Number of property exchanges   | Local economy and housing market       | Yes                                 |
| Source(s): Authors' own work |                                |                                        |                                     |

which elements were the most relevant to measure and, by doing so, supported the establishment of practical and conceptual boundaries between what should be included and what should be excluded from measurement.

Almost all the interviewed people identified crucial elements to be measured:

- community social capital;
- services;
- demography;
- the local economy and housing market;
- employment; and
- events.

*Significant impacts of the initiative on community social capital.* Although the level of social capital (Putnam, 2001) is generally considered a key aspect in repopulation initiatives (Varady et al., 2015), the case of the village is unique because a peculiar shared culture with secular roots characterises the population. Along with the culture, it emerged from the notes that the population speaks an ancient language which has survived only in remote areas. The social connection between the village's inhabitants is enhanced by the culture and the language that unites them. Therefore, social capital is substantial among citizens. The repopulation initiative aimed at increasing the number of people living in the village and improving and maintaining social capital among locals and between locals and newcomers.

The interviews reported that the initiative (positively) impacted social capital. Indeed, newcomers "brought a new level of useful social capital" [Interviewee 13, Director of the Magnificent Community of the Cimbrian Mountains] and "a great portion of the local population created some relationship with them [newcomers]" [Interviewee 11, Community citizen].

From the beginning, newcomers started establishing social capital ties with the locals. Indeed, "no newcomers live here as tourists; everyone participates in the community with us" [Interviewee 11, Community citizen] and "they blend well with all the others" [Interviewee 7, Local Restaurant Owner].

Interestingly, it emerged that children played a unique role in enhancing social capital between locals and newcomers:

It was good for the local families: bringing in these people was very good for the community. The children helped immediately because the bond between the children was immediate and strong [Interviewee 13, Director of the Magnificent Community of the Cimbrian Mountains].

By having the children together, you also form relationships with other families, so for me, it is nice. You increase your chances of having social relationships in such a context, and I have a relationship with all the families that have moved in [Interviewee 11, Community Citizen].

And also the other children, it's not that there's a difference between newcomers' children and the locals' children, I mean they are children, and they have formed bonds of friendship with each other [Interviewee 17, Library Manager].

The interviews revealed that the initiative impacted the community's enhancement and maintenance of social capital (Putnam, 2001).

Furthermore, in terms of measurement, it emerged that "[measuring] the linguistic, cultural and especially social point of view is crucial because it impacts the Community" [Interviewee 6, Museum Employee]. As for the social point of view, it emerged as significant to measure the participation of newcomers in the local volunteerism activities. Many

stakeholders suggested that measuring newcomers' active participation in voluntarism represented a key element for assessing the social impact of the initiative. For this reason, social impact indicators (Table 2), including voluntarism participation of newcomers, were designed to capture social capital and cultural integration.

*Significant impacts of the initiative on services.* Many interviewees highlighted that a relevant possible impact of the initiative was related to the enhancement and maintenance of services in the village (Siddiq, 2020), for example:

On the issue of services [...] the initiative, in addition to repopulating and keeping the community alive, also serves to sustain services. [Interview 8, Former Member of Local Authority].

More families generate more consumption in the services that are already there. It may be the bar, the pizzeria, but the grocery shop that increases in my opinion, maybe not significantly, but more than before for sure [Interviewee 11, Community citizen].

From this evidence, it appeared that repopulating the community could represent a driver for the maintenance of services in the area.

In terms of measurement, some stakeholders stated that it is necessary to develop: "Certain indicators [...] to measure the services that are carried out locally" [Interviewee 20, Mayor].

Considering the emerging relevance of local services, social indicators (Table 2) and economic indicators (Table 3) related to services were added to the impact measurement system. These indicators were mainly associated with the area's maintenance of health, education and transportation services, all of which the stakeholders mentioned.

*Significant impacts of the initiative on demography.* An essential impact of the initiative was connected to enhancing the number of local citizens in the village. For public authorities, a positive outcome of the initiative was to prevent depopulation and promote repopulation (Knight, 2003). This outcome was perceived as relevant by both authorities and the local community.

An authority representative stated, "The investment in the repopulation initiative will provide its positive effects in stopping depopulation and culture leakage" [eight former local authorities].

Another stakeholder suggested that: "the impact of the initiative will be to see if the number of citizens will increase or not [in the village] shortly" [Interviewee 14, Community Citizen].

The outcome of the project must be to repopulate [the community], so you have to monitor how many people remain [Interviewee 5, Newcomer].

Some indicators were included in the system to capture the demographic impact of the initiative in the measurement system (Table 2).

*Significant impacts of the initiative on the local economy and housing market.* A significant impact of the initiative that emerged from interviewees was related to its effects on the local economy and housing market. This awareness consolidated in the community because of the changes in the housing market after the initiative's implementation.

Before the initiative, the village presented a peculiar housing situation where a real "housing market" was absent. As suggested from the notes, the town comprised a few buildings, most used as second houses and occupied only a few weeks per year. Some houses were even abandoned or ruined. This situation was mainly due to a lack of a real housing market in the village. The financial value of buildings in the village was negligible. In the case of unsplit inheritances, which were very common in an emigration-characterised town, the possible financial profit achievable by owners from selling unused buildings could not

overcome the sentimental ties of owners. In addition, “many owners live abroad and reaching an agreement with all is many times impossible” [Interviewee 12, Municipal Employee].

After the public initiative’s start, the community’s housing market changed. Interviewees advanced the evidence that the public initiative impacted and will impact the local real estate market, increasing prices.

Newcomers who decide to remain in the area after the end of the initiative (four years) would advance their interest in renting or buying a house:

After the end of the initiative, if we can find a house to buy, we will stay! But the real estate market here is difficult. Hopefully, we won’t have to go to Pergine [a bigger town 50 minutes away] [Interviewee 5, Newcomer].

Apart from newcomers, after the initiative, other people started to buy or renovate local unused buildings:

After the Coliving project, five old houses in the oldest street of the village were sold and renovated by citizens and people from outside [Interviewee 8, Former Local Authorities].

In terms of measures, the evidence collected recommended including some economic indicators to capture the effects of the repopulation initiative on the housing market of the village. Therefore, the impact measurement system was added to economic indicators (Table 3).

*Significant impacts of the initiative on events.* It emerged from interviews that the public initiative implemented in the village enhanced the number of events organised in the village and that newcomers actively participated:

I have had the chance to get to know some of these families quite closely because I made myself available a little bit to involve these families in the community’s life. As the institute’s representative, I have organised meetings aimed at presenting the history and culture of [the village], and [the newcomers] have participated in these meetings [Interviewee 6, Museum Employee].

At the moment, I see the young people participating actively in the initiatives; we are on the right path; let’s hope it continues like this [Interviewee 10, Magnificent Community of the Cimbrian Mountains employee].

Interestingly, newcomers eagerly participated in the events and actively collaborated with the organisation, providing tangible support:

In the last few years, there have been fewer events in the area; now, with the new families collaborating and helping out, there are more events. From the point of organisation, if more people are helping, maybe we can organise even more. That is also positive, in my opinion. [Interviewee 11, Community Citizen].

“Many participate in the proposed association events, like the race and lunch, where one of the newcomers also helped to check the green pass [...] absolutely they participate in voluntary associations” [Interviewee 13, Director of the Magnificent Community of the Cimbrian Mountains]. And “the fact that newcomers contribute is outstanding and should be monitored” [Interviewee 10, Magnificent Community of the Cimbrian Mountains employee].

Repopulating a remote community implies enriching locals’ daily lives with events and shows. A social indicator has been added to the impact measurement system (Table 3).

*Significant impacts of the initiative on employment.* The possibility for newcomers to find employment represents a crucial aspect of the welfare of new families and the

community ([Hack-Polay and Igwe, 2019](#)). The evidence collected in the case of this specific village shows that within a few weeks, “one member of every new family readily found a job in the village” [Interviewee 5, Newcomer].

Yes, yes! Some newcomers already work in the area. Some in restaurants, etc. [Interviewee 17, Library Manager].

This evidence highlights that the initiative directly impacted local employment ([Findlay et al., 2000](#)), benefiting individuals and the community. It emerged that the community, although small and static, lacked some staff, especially in some fields such as education and services.

An interviewee stated that:

Even though it is an economically depressed area, the presence of labour is good for some sectors. To be measured by a certain indicator [Interviewee 20, Mayor].

For this reason, indicators were added to the impact measurement system ([Table 3](#)).

*The involvement of stakeholders in the initiative is needed to answer the following question: What is the purpose of evaluation?*

Stakeholders’ different interests were associated with intrinsically different information needs; therefore, the measurement system’s purpose depends on this diversity. The literature, indeed, leverages the definition of whether the purpose of the evaluation is related to a single community or both newcomers and the previously existing local community ([Membretti and Viazzo, 2017](#)). Defining the purpose for which the community(s) is the focus of the analysis is a key aspect because the involved communities can be profoundly different. As such, there can be inherent difficulties and contradictions in measuring the impacts of the initiatives ([Jedrej and Nuttall, 2013](#)).

Local citizens, for example, were more interested in the impacts on the maintenance of culture and services:

The schools were in danger of being closed for lack of students and economic unsustainability. With the arrival of the newcomers, it was possible to keep the community [school] service open [Interviewee 11, Community Citizen].

In my opinion, there are two strands: those who are sceptical because they would like the repopulation of the country to be done by families linked to our community. For a linguistic discourse, in my opinion, more than anything else [...] [others, like me] think that if people don’t arrive, the village collapses because you no longer have the numbers to guarantee any service. You don’t justify the grocery shop, the post office, or the bank. [...] It may not be definitive, but it is a step to take [Interviewee 11, Community Citizen].

While for public authorities, a significant aspect was represented by the consensus of local people and the perceived well-being of the population:

Measuring impact on the community, citizens (even old people), if they are happy [8 former local authorities].

Instead, the newcomers need to consider whether the initiative will impact their future. For example, it is necessary to show impact data connected to their future possibility of staying in the valley, for example, the real estate market impacts them.

The evidence shows that different stakeholders require different pieces of information ([Costa and Pesci, 2016](#)). So, this diversity of informative needs must be reflected in the purpose of the measurement system.

*The role of stakeholders is to answer the question: What criteria should be used in an evaluation to judge merit or worth?*

The interviews suggested that the criteria adopted for building an impact measurement system should be designed considering possible time horizons in the case analysed. Specifically, stakeholders' voices recommend including both medium- and long-term measures:

The most important thing is to see the maintenance of the initiative's effects in the long run [Interviewee 8, Former Local Authorities].

Absolutely! I would design a measurement system to verify whether there are some difficulties and understand the necessary interventions in the long run [Interviewee 13, Director of the Magnificent Community of the Cimbrian Mountains].

It is crucial to see the short and long-run impact! [Interviewee 18, School Teacher].

Therefore, the measurement system was designed to be implemented in the following years and to compare years. Implementing the measurement throughout the years (both in the near and distant future) is expected to contribute to understanding the evolution of the initiative's impacts over time.

*The role of stakeholders in answering the question: What evidence is credible, and what methods are needed to gather that evidence?*

Regarding the appropriate methods to measure impacts, stakeholders individually and on the occasion of a focus group (Focus Group 1) confirmed that the different stakeholders perceive the use of indicators as methodological support (Cordery and Sinclair, 2013) to reduce the complexity in interpreting the results of the initiative:

I would use indicators that explain and represent [Interviewee 8, Former Local Authorities].

I believe that evaluating numerically is useful to measure impact objectively [Interviewee 20, Mayor].

However, public initiatives are multidimensional by nature (Varady *et al.*, 2015); while economic impacts were more accessible to translate into numerical indicators, social impacts required reducing ambiguity and translating social dimensions into transparent and credible numbers.

Anyway, in answering this fourth question of Benjamin *et al.* (2022), the role of the researchers in putting into practice the suggestions of the stakeholders was crucial. The answer to this question, indeed, implies the use of appropriate methods and means to manage them. Consequently, regarding the methods to collect the necessary data, the researchers, hearing the opinion of stakeholders, decided to obtain the data in two different ways. Data already available in public authorities' databases were chosen to calculate some indicators (Tables 2 and 3), such as demography, employment and occupation. While for others, such as social capital and well-being, the data were selected to be collected through a survey submitted to the entire population. The risk concerning this last set of data is that the population can be committed to answering the survey only in certain phases of the initiative (such as, for example, the initial phase). Indeed, the collection of survey data was not always unsolicited but, in many cases, required the intervention of external experts. Local inhabitants required the expert to explain the aim and scope of the survey, and often they required to be reminded of the filling out of the survey.

Furthermore, researchers experienced challenges and technical difficulties in calculating the indicators selected based on stakeholders' suggestions. Some interesting critical issues

emerged during the practical phase of calculating the indicators. In particular, the authors experienced different problems in finding the data. Surprisingly, the most significant challenges were found in obtaining existing data from public authorities' databases. Researchers had to engage with the different offices and departments of public authorities dealing with a complex bureaucratic network of departments aggregated around different public authorities and institutions (six in total). Researchers experienced resistance and organisational delays mainly due to the complexity of the organisation of the public authorities and the lack of clarity of where the data were stored, which individuals were responsible for specific data, what the procedures were for extracting and sharing the data, and what the necessary authorisations were to access this data.

Then, a remarkable critical issue for data not already available was related to the need to collect data in the field. This implied physically travelling into the village, conducting interviews, and administering questionnaires in paper form. Being physically present in the field was necessary due to the high average age of the population, the lack of familiarity with computer tools, and the cultural predisposition for distrust towards community outsiders.

### Discussion

The analysis of the action research highlighted that combining a framework dedicated to developing impact measures for public initiatives (Benjamin *et al.*, 2022) with stakeholder involvement (Costa and Pesci, 2016; Ebrahim and Rangan, 2010) is crucial. The research results show that listening to stakeholders allows us to consider all the instances of those who presented an interest related to the outcomes and multifaceted purpose of the initiative, such as repopulation initiatives in rural areas (Jedrej and Nuttall, 2013; Stalker and Phyne, 2014; Membretti and Viazzo, 2017; Pettenati, 2013; Imperiale and Vanclay, 2016). At the same time, it provided significant support in understanding the inherent characteristics of the initiative and its expected impacts. Stakeholder involvement was vital in defining what and how to measure and capture the public initiative's features and impact. Indeed, the specificity of the context in which social impact measurement was developed required the creation of a reciprocal relationship with indigenous peoples to enhance the strategic relevance of the measurement tool itself (Chilisa, 2020; Shepherd, 2018).

In detail, stakeholder involvement allowed the development of impact measures in public initiatives, enabling the researchers to answer all four questions of Benjamin *et al.* (2022). In identifying the components to be measured (*what*), they supported the process of defining the boundaries of impact measurement. The measurement boundaries of the repopulation initiative (Acampa, 2024; Laine *et al.*, 2023) concerned the identification of the central components, which emerged as newcomers and indigenous people (Jedrej and Nuttall, 2013; Membretti and Viazzo, 2017). Crucial elements to measure emerged, such as the impacts on services (Buran, 1998), demography, the local economy and housing market, employment (Findlay *et al.*, 2000), events and community social capital (Putnam, 2001). Specifically, local stakeholders recognised the need for additional services that could be satisfied only through introducing new inhabitants (Knight, 2003), and this led to the inclusion in the matrix of indicators of several measures (see Table 2, indicators from 20 to 28 and Table 3, indicators from 4 to 12). While newcomers identified the need for additional information on the real estate market because it was connected to their future stay in the valley (see Table 3 indicators from 16 to 20). Then, both communities recognised the importance of integration (Viazzo, 2012; Membretti and Viazzo, 2017), which is connected to social capital. Hence, the notion of social capital (Pettenati, 2013) has been included in the social impact measure in its different nuances (see Table 2, indicators from 12 to 18).

In defining the *purpose* of the measurement, given the importance of the success of the repopulation initiative and the role of the two involved communities, it has been essential to address the needs of both communities (Knight, 2003). Given the fact that the ultimate purpose of the initiative was to repopulate a remote area (Lardiés-Bosque and del Olmo-Vicén, 2023), some indicators regarding demography have been included in the impact measure (see Table 2, indicators from 1 to 11).

*Criteria* advanced by stakeholders highlighted the issue of the time horizons of measurement as an essential topic. It emerged that a proper mix of short- and long-term indicators is necessary to build an impact measurement system encompassing all stakeholders' instances and setting the criteria supported in reducing the inevitable ambiguities that every repopulation initiative involves, mainly due to co-existing of newcomers and indigenous in the same community (Jedrej and Nuttall, 2013). *Methods* relied on indicators as a specific measurement technique, which required translating qualitative impacts into quantitative calculations and measures needed to calculate selected indicators, and some practical issues could emerge.

In addition, from a methodological viewpoint, the specificities of a rural context require listening to indigenous voices to consider their instances. In such a context, the researchers cannot fully understand the needs of local communities without being in contact with them and engaging in dialogue with a diverse culture (Chilisa, 2020; Shepherd, 2018). The analysis of this case shows that adopting indigenous methodologies can become crucial for developing appropriate measurement tools able to capture locally embedded social needs (Imperiale and Vancly, 2016). For example, it was essential to develop indicators connected to newcomers' attitudes towards voluntarism or learning a local language that is different from the national one (see Table 2, indicators 12, 30 and 31).

The network of interests related to the success of public initiatives is complex (Barretta and Noto, 2023), and the evaluation of impacts requires considering economic and non-economic possible effects (Corderly and Sinclair, 2013; Teerakul *et al.*, 2012). Stakeholder involvement supported understanding the inherent characteristics and complexities (Kah and Akenroye, 2020; Spencer *et al.*, 2016; Teerakul *et al.*, 2012) of specific initiatives while allowing impact measures to be tailored to actual stakeholders' informative needs (Costa and Pesci, 2016; Ebrahim and Rangan, 2010). In other words, involving stakeholders in tailoring impact measures supported answering: "what to evaluate, for what purpose, using which criteria, and with what evidence and methods" (Benjamin *et al.*, 2022, p. 2).

Finally, our findings show that difficulties and criticalities have emerged in the data collection phase in calculating indicators. The identified criticalities have been crucial in establishing which indicators could become part of the impact measure and which could not. The stakeholder involvement, indeed, helped identify many relevant indicators, but an expert, such as a researcher, must manage time constraints and difficulties in accessing data. As such, the final computation highlighted that despite the relevance of some indicators that ideally should be included in the measure, all of them should be manageable over time, and data sources must be accessible and operationalised in a reasonable amount of time. In addition, some indicators require the collection of survey data that emerged to be challenging as the external experts were required to present and explain the survey to local inhabitants and to incentivise its filling out.

## Conclusions

### *Theoretical implications*

This paper, in contribution to the impact measurement literature, brings together one stream of such literature (Costa and Pesci, 2016; Ebrahim and Rangan, 2010) that has been mainly

developed in the NPOs setting, and the literature on initiatives of repopulation of rural communities (Jedrej and Nuttall, 2013; Stalker and Phyne, 2014; Membretti and Viazzo, 2017). Rural communities, indeed, are a peculiar context where the issue of identifying potential social impacts is even more complex because, by adopting standardised approaches, it is hard to recognise the specificities of the initiatives that can have reverberations in terms of social impacts.

Notably, repopulation initiatives in rural areas are strictly connected with the satisfaction of locally embedded societal needs (Imperiale and Vanclay, 2016) that are dynamically evolving over a relatively short period; hence, a continuous process of refinement and monitoring both the economic and social achievements of the initiative is required. Additionally, contextual elements can be crucial in the context of a public initiative undertaken in a rural area, as such methodologies based on the involvement of indigenous people can be particularly appropriate (Chilisa, 2020; Shepherd, 2018). Some characteristics of the rural context (such as the spoken language, the real estate market or the attitude towards voluntarism) can be highly relevant in determining the initiative's success, and their role can be detected only by listening to the voices of local inhabitants.

Furthermore, the study contributes to the literature on repopulation initiatives that recognise social capital as a crucial element (Pettenati, 2013). It proposes dedicated indicators to measure the existing social capital, recognising its importance based on the stakeholders' voices. Indicators dedicated to social capital that are monitored in the long run can also become strategic instruments for observing changes in the local community's relationships. This opportunity to monitor societal changes is particularly relevant given the importance of the structure of a community in allowing or hindering the effectiveness of other public initiatives.

#### *Practical implications*

Furthermore, this paper advances a practical/methodological contribution on how the insights in the literature (Benjamin *et al.*, 2022; Costa and Pesci, 2016; Molecke and Pinkse, 2017; Teerakul *et al.*, 2012) can be put into practice and what critical issues may occur. The paper suggests that the design of an impact measurement system in practice may bring vital issues that are important to consider. In particular, the study points out that the major critical issues, especially related to the collection and reorganisation of existing data, may emerge during the phase of calculating impact measures in which different data sources must be mobilised. Such a contribution is interesting because the academic literature underestimates the indicators' calculation regarding conceptual complexity. The case brought within this paper points out that indicator computation requires the ability to hold together measurement-related complexity and adaptation mechanisms to balance frictions that can, surprisingly, emerge even in data collection phases. This contribution highlights the importance of operationalising what has been elaborated in the impact measurement literature and providing evidence of its applicability in real scenarios. The associated risk is that an over-sophisticated conceptualisation of a theoretical measurement system cannot entirely translate into practice because of the difficulties in relying on accessible databases.

#### *Policy implications*

Another piece of evidence in the paper is that the need to collect data from public institutions is relevant in public initiatives, and this data can be the most critical and time-consuming phase of the data collection process. Thus, the paper provides evidence of sources of criticalities in the data collection process in remote contexts in some geographical regions. Such evidence can help develop appropriate policies to better organise data sets within public

organisations and create a more user-friendly procedure to access the databases of public authorities. Additionally, the paper provides a list of indicators that can be used to monitor the success of the analysed initiative and can be used as a starting point to develop other impact measures in similar contexts, adopting a similar methodology.

The study acknowledges some limitations. Firstly, it relies on a single action research that is affected by regional peculiarities, and an extension of the analysis to the case of other public initiatives could reinforce and add further flavour to the results. Secondly, the study does not provide long-term insights on the effectiveness of the designed impact measurement system, leaving unexplored opportunities for and difficulties in implementing the system in the following years.

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