A place based analysis of stakeholders’ advancing sustainability in remote and isolated communities: The case of North Aegean Islands

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Abstract. During the pandemic crisis, the study of sustainability in remote and isolated communities requires holistic approaches in a multi-dimensional context. To understand remote communities within their natural and constructed environments as dynamic ecosystems, we need to take into account different levels of research and analysis, types of structures, areas of human activity, and actors. It is of particular importance to identify and distinguish the different types of stakeholders who interact in these domains, as well as the dynamics among them, taking into consideration limitations and opportunities set by natural and constructed environments. We reconstruct traditional views and key pillars of sustainable development based on an extensive literature review of relative cases worldwide, to develop a conceptual framework, and to guide research on sustainability in remote and isolated island communities. Thus, this paper is focused on human activities and the wellbeing of remote communities, aiming to propose a “place-based” typology of stakeholders. By investigating the cases of the Greek remote islands’ communities (North Aegean), we critically discuss this evolving conceptual framework, identifying a multi-layered approach in stakeholder analysis that pertains to the civil society that emerged as a key actor. Building on Giddings’ et al. [1] anthropocentric view, we synthesize and enrich human activity and wellbeing with several factors, such as natural environment, critical infrastructure, regulatory frame, remoteness, connectivity, cohesiveness, equity, eco-efficiency as well as stakeholders’ multi-identity.

1. Introduction
In the last decades, sustainability has emerged as a necessity for addressing societal and environmental challenges. Technological advancements and economic growth brought in the foreground environmental concerns and societal issues that needed to be handled to attain sustainable development (SD). Sustainability is widely conceptualized in terms of three dimensions: society, economy, and environment. These three dimensions are often depicted in intersecting or nested concentric circles. Although this three-pillar paradigm has a great impact on policymaking, it seems rather simplistic and arbitrary [1, 2]. According to Purvis, Mao, & Robinson’s [2] review, there is a need to critically examine the conceptualization and operationalization of “sustainability”. Moore, Mascarenhas, Bain, & Straus [3] also highlight the importance to define “sustainability”, because, as
they argue, consistent definitions are absent, even in sustainability assessment studies. The use of many synonym terms (e.g. “maintenance”, “continuation”, “green growth”, for the latest see [4]) sets further challenges in research designs in this field, and in the measurement of related concepts. In a similar vein, Geissdoerfer, Bocken, and Hultink [5] proposed a value ideation process supporting sustainable business model innovation, which builds on the ‘triple bottom line’ of people, planet, and profit [6] complementing traditional objectives of business strategy with a wider range of stakeholder interests [7]. The observed variety in terms and definitions is, to a great extent, originating from the different epistemological paradigms, and underlying political ideologies, that can be traced in the discourse on sustainability [2]. Moore et al[3] reviewed a wide range of individual and organizational sustainability definitions, concluding that some of the most important aspects/elements of sustainability definitions refer to the duration in time, the maintenance and adaptability of change, and the benefits produced. Despite these anchor points, another difficulty in defining the concept of sustainability is the different levels of analysis encompassed: individual, organization, system, community, etc.

How we define sustainability and sustainable development affects how we understand “reality” and hence how we identify, discuss, prioritize, make decisions and act on issues that require action and intervention. Therefore, the existing variability in the conceptualization and operationalization of sustainability sets challenges not only to researchers, but also to policy planners and policymakers, managers, and other stakeholders. Since 1992, the United Nations (UN) has tried to develop a comprehensive action plan to guide policies and implementations concerning sustainability and sustainable development. In Agenda 21, the UN proposed local, national, and global actors a vision, and an action plan to promote ecosystems’ wellbeing and prosperity [8]. The latest Agenda 23 is aiming at stimulating future action in sections of critical importance for human beings and the Earth. In total, 17 Sustainable Development Goals (SDG) and 169 targets are included in this agenda. Among the Sustainable Development Goals are included: good health and wellbeing, quality of education, decent work, and economic growth, industry, innovation, and infrastructure, reducing inequalities, reasonable consumption and production, climate action, and sustainable cities and communities [9].

The “sustainable cities and communities” SD goal refers to partnerships for the goals, focusing mainly on implementation; on how we are going to achieve these goals to promote “economic growth, social inclusion, and environmental protection” in our societies [9]. Stafford-Smith et al[10] argue that we should take into consideration the issues that emerge from the interrelatedness of SD goals. For example, a critical issue is how hard infrastructure can ameliorate living conditions, without destroying the environment. To provide better and practical support to the final SDG, in other words, to address the means of implementation, it is recommended to concentrate on interrelations between different sectors of the economy, different actors in societies, and different levels of economic development [10].

This integration of SDG proposed above is a first step that needs to be taken, but only after we have a clear understanding of what SD means for everyone who is involved in and is affected by SD policies and actions. Sustainable development needs holistic and adaptive approaches that will help construct more comprehensive conceptualizations of the phenomenon, something that, in turn, will facilitate the identification and negotiation of networks of practical and realistic SD goals. Axelsson et al [11] characterize sustainable development as a collective societal process, engaging multi-level and multi-sector stakeholders who are, more or less, salient in the societal field and who hold different social power. To clearly define sustainability and sustainable development, and develop a comprehensive framework we should take into consideration the distinctive characteristics of an area and its constructed and natural landscape. Island communities are usually characterized by remoteness, isolation, lack of infrastructures, limited biodiversity, seasonality, migration, etc. There are complex, fluid, and fragile balances that need to be addressed among different aspects of SD. Development in islands often results from the extensive exploitation of local resources or from less aggressive, but fragmentary, poorly organized, attempts to develop the place in accordance with its socio-cultural and physical environment. To overcome such issues, Connell [12] describes the development as a place-
based phenomenon that requires holistic understanding, and negotiation between stakeholders, which is necessary to strike a balance between ecology, politics, and economic goals.

2. Towards a 360° Placed-based SD Framework For Remote and Isolated Communities (RIC)

The proposed framework presented in figure 1, is based on a synthesis of a series of views about sustainability we adapted for SD in remote and isolated communities (RIC).

![Figure 1. Conceptual framework of sustainability building on remoteness & connectivity of isolated areas.](image)

2.1. Emphasis on dynamics and interdependencies in RICs

Sustainable development interventions of any scale have, from the outset, take into account all systems and activities in RICs. Existing SD frameworks tend to deal with what is identified as the key pillars of SD, namely “economy”, “society” and “environment”, either linearly or concentrically. In effect, this approach emphasizes the relative independence of these pillars. Furthermore, they tend to adopt a hierarchical structure, where pillars are placed in some kind of order (e.g. temporal or from the core to the outer pillars). However, particularly in remote and isolated communities even small positive changes (e.g. new or improved activities) in one pillar, may have highly undesirable direct and immediate consequences on other aspects of the same pillar or other pillars and activities. Quite commonly, the separation of the economy from other pillars of SD and the activities associated with them inflates the importance of economic growth that the expense of the holistic RICs SD.

In contrast, our framework proposes that emphasis should be placed on the dynamics and interdependencies that develop within and between economy, society, and the environment in RICs, viewing them as a whole "living" dynamic and interactive system. Inspired by Giddings, Hopwood & O’Brien [1], who argue in favor of an approach that breaks down the boundaries between society and economy and opens up to the environment, we propose an integrated scheme of analysis of SD in RICs.

Extending Giddings et al’s [1] model, we added the legislative system that exerts normative power on any SD activity, by setting the rules (e.g. laws, regulations) governing the interdependencies between and within human activities and the environment. The environment in our approach is determined by the perspective of its objective material realities that exert their own practical, physical,
power on any SD activity and its outcomes. The materiality of the environment that is perceived as “natural” is identified only in contrast to the part of the materiality of the environment that surrounds RICs that is not perceived as “natural”. However, it is both the materiality of the “nature” and the materiality of what we call generically (existing) “infrastructures” that can shape SD activities.

2.2. Identification of the multiple and overlapping RIC stakeholders

Furthermore, the proposed framework recognizes and values the multiplicity of social identities of the actors involved in the fields of human action, identifying successive and interrelated layers. Stakeholders’ multiple identities across domains are presented in figure 2. Each domain offers stakeholders a particular way of understanding the self and the world around, providing a distinctive set of identity formation qualities and processes related to this domain. Since stakeholders act in multiple domains simultaneously, and taking into account that all domains are connected and interrelated, stakeholders develop multiple identities (e.g. [13]). For example, a stakeholder may at the same time construct and negotiate the identities of a long-term inhabitant, a consumer, and a sociopolitical actor.

In particular, regarding the first layer embracing people or individuals in RICs, a critical distinction is made in terms of people’s permanent residence and roots in the place. RICs can be homes to various groups of people with a varying degree and quality of attachment to the place (e.g. [14, 15, 16]). People may live there for generations, some may be descendants of native people, others of colonizers. Other people may not have family roots in the place but still consider it as their “home”, at least for now: students in local universities, refugees/immigrants living there, seasonal workers, etc. A RIC can also be attracting short-stay visitors, such as tourists, or just be an intermediate stop to other destinations. Based on a distinction between “long-term inhabitants” and “short-stay visitors”, one could understand the dynamics that develop in the field in terms of “primary” and “secondary” stakeholders, depending on their direct or indirect interest in the place.

The next layer is aimed to identify RIC stakeholders in terms of economic activity. From “producers” to “consumers” we have a variety of economic actors forming an identity related to this domain (e.g. farmers/stockbreeders/fishermen, traders, civil servants, tourist services, finance, construction, handicrafts, local industries, transport, logistics, etc.), acknowledging critical supply chain networks (see [17]). Moreover, in this layer business and economic activities are viewed as interrelated to the natural environment (e.g. supply chain, [18, 19]).

All stakeholders in RICs are at the same time socio-political actors and participate in one way or another actively or not in sociopolitical and cultural processes in their communities, through their involvement in cultural, sporting, artistic, religious, or other bodies, associations, organizations, networks, events and activities (e.g. see [20]). The literature on civil society contributes to a better understanding of the stakeholders in RICs as “socio-political actors”, mainly through the prism of the intermediate space between the State and the economy (see also e.g. sharing economy [21]). Indicatively, in this intermediate space various formal or informal collectives are included that make claims to the State and its local representatives, and volunteers to offer support and address local problems through direct action [22]. Therefore, NGOs, social enterprises, social movements, religious associations, charities, and voluntary organizations, as well as employers' and professional organizations, as well as trade unions, can all be part of a RIC’s civil society and influence SD planning, decision-making and outcomes.

Finally, there is yet another layer that refers to the State and local government officials and services present in RICs, which includes, for example, the respective Region and the Local Authorities, as well as the various public services and bodies. Our framework also shares similarities with entrepreneurial ecosystems referring to dynamics and interactions among stakeholders (see [23]).
2.3. Participatory SD planning and implementation
In RICs, top-down, “imported” SD interventions are likely to fail because locals do not have the necessary ownership of the project and local knowledge tends to be undervalued or completely ignored. Different stakeholders may hold different views and visions on SD, and, therefore, there is a need to negotiate a shared understanding of the issues involved and a participative approach in decision making and planning. According to our framework, it is important to promote local engagement that is connected to local capacity and respects local knowledge and knowledge-building processes. This is an essential step to design and apply interventions, improvements, and solutions related to sustainability and sustainable development in RICs [10].

3. Conclusions
Based on an extensive literature review of relative RIC cases worldwide, we reconstruct traditional views and key pillars of sustainable development to develop a conceptual framework, and to guide research on sustainability in remote and isolated island communities. This approach is focused on human activities and the well-being of remote communities, aiming to develop a “place-based” typology of stakeholders. By investigating the cases of the Greek remote islands’ communities (North Aegean), we critically discuss this evolving conceptual framework, identifying a multi-layered approach in stakeholder analysis that pertains to the civil society that emerged as a key actor. Building on Giddings’ et al [1] anthropocentric view, we synthesize and enrich human activity and well-being with several factors, such as natural environment, critical infrastructure, regulatory frame, remoteness, connectivity, cohesiveness, equity, eco-efficiency as well as stakeholders’ multi-identity. Thus, the proposed holistic framework recognizes and values the multiplicity of social identities of the actors involved in the fields of human action building on interrelated successive layers (residents, visitors, economic actors, socio-political actors, government bodies), boosting fruitful multi-actor multicriteria decision making towards sustainability challenges and crisis mitigation in RICs.
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