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THE CONTEMPORARY CONCEPT OF PROTECTED AREAS AS A SPECIAL FORM OF SOCIAL INNOVATION

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Abstract

Protected areas (PAs), key elements in environmental policy, have undergone significant evolution in terms of spatial scope and conceptual approach. The traditional model of isolated, centrally managed conservation "islands" has shifted towards more complex structures integrated with socio-economic systems and ecological networks. Modern protected areas (new protected areas – NPAs) integrate nature conservation with social, cultural, and economic priorities, relying on the active participation of local communities, businesses, and other stakeholders. Operating at a local level, they contribute to global sustainability goals. These changes reveal a new field of research and justify defining the contemporary concept of PAs as a particular form of social innovation (SI), adopted as the main objective of the article. The analysis follows two concurrent lines: (1) "organization – social institution – social innovation", exploring the evolution of the NPA model, and (2) "invention – innovation – social innovation", placing NPAs in the research tradition of innovativeness. This combined perspective enables a chronological and logical explanation of the NPA model, offering new diagnostic possibilities for PAs. The methodology includes a theoretical discussion that integrates literature review with conceptual work, using SI as an explanatory tool (explanans) to understand its diagnostic value in the context of PAs. Consequently, SI serves as an analytical category for NPAs, enabling a multifaceted diagnosis and a tool to determine both the boundary conditions for the legitimacy of NPAs and the chances of dissemination of the model. As such, SI draws a line of transposition between the two extreme models: the "Ark" Park and the "Hub" Park.

Keywords: social innovation, protected areas, national parks, sustainable development, social institution, social-ecological systems)

INTRODUCTION

A natural protected area (PA) is a concept that can be approached from various perspectives, not only natural, but also managerial, organizational, social, cultural, and even philosophical and ethical. The multitude of possible approaches demonstrates both the vast thematic scope of the concept and the need to undertake interdisciplinary research for its better understanding. PAs are characterized not only by their developed and diverse functionality, but also, and perhaps most importantly, they are structures subject to various transformations. In global terms, the evolution of the concept of PAs is seen as a shift from a model of "islands" (enclaves) of nature conservation, to areas viewed as elements of ecological networks, functionally linked to socio-economic systems (Jungmeier, 2014; Mose & Weixlbaumer, 2016; Palomo et al., 2014;

Phillips, 2003; Zawilińska 2025). This new perspective takes into account not only the interconnectedness, but also the complexity and variability of natural and socio-economic systems. The integration of the natural, social and economic spheres, and the combination of environmental protection goals with social (including cultural) and economic development is of key importance. The role of PAs is assessed both from a local perspective and in terms of achieving global goals, in particular the Sustainable Development Goals (Becken & Job, 2014; Dudley et al., 2010, 2022; Lopoukhine et al., 2012; Rodríguez-Rodríguez, 2012; Watson et al., 2014). These changes affect all aspects of the operation of protected areas, leading to the search for new goals, management methods and solutions. Broad public involvement is crucial in these processes. The above-mentioned changes also justify viewing the contemporary concept of PAs as social innovation (SI) and treating their history as a process of transformation from an organization to a social institution.

PURPOSE AND METHOD OF ANALYSIS

The purpose of this article is to define the contemporary concept of PA as social innovation. Consequently, the main objective of the analysis is to investigate the model in terms of the possibility of improving its structure and application potential. As a consequence, the titular concept of social innovation becomes a method of diagnosis rather than just an issue to be explored.

This analysis will be conducted in a well-defined conceptual grid, composed of the following terms (Fig. 1): innovation, organization, institution and social innovation, and diffusion of innovations. The concepts indicated herein will form two concurrent lines of analysis:

1: organization – social institution – social innovation

2: invention – innovation – social innovation

The former line of analysis demonstrates the linkages and "extraction" of the new PA (NPA) model from previous solutions used in national parks (NP)¹, aimed at forming a social order (social organization and institution). The second line helps integrate the NPA concept with innovation and its research tradition. Combined, the two lines of analysis lead to an explanation

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¹ According to the IUCN definition, a protected area is "a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values". A national park is one of the categories of protected areas (category II) and is defined as "large natural or near-natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational and visitor opportunities" (Dudley, 2008).

of NPAs in chronological and logical order, revealing new diagnostic possibilities for protected areas.

These lines constitute the structural framework of the entire analysis and determine the overall organization of the manuscript. The manuscript comprises several interconnected sections. The methodological section outlines the principles of reasoning, followed by a review of the research tradition on innovation. The literature review not only identifies specific innovations but, more importantly, focuses on a particular type of innovation – social innovations – which form the subject of further analysis. The subsequent section examines the construction of a national park, which can ultimately be interpreted as a social innovation.

The method of analysis comprises a discussion of categories and concepts supported by reference to their respective research traditions. Through this approach, the article combines literature review with conceptual work. To mention only the most important studies, one can refer to the works of Cajaiba-Santana (2014), Seyfang and Smith (2007), and Mulgan, Tucker, Ali, and Sanders (2007).

The SI category can consequently be learned as a diagnostic tool (explanans), rather than the object of diagnosis (explanandum), which is also linked with the usefulness of the term applied. The method of analysis follows the scheme: analysis – synthesis – comparison – generalization. The next steps include: defining the various concepts and terms (including social innovation, protected area, national park), indicating their relations, and the variety of implementations and functional generalizations. The analysis was based on a thought process, typical of conceptual research, systematized through:

- 1. Rationale: initial claims, taking the following wording:
 - 1.1 The portrayal of the NPA as SI is well-grounded in the research tradition of innovation
 - 1.2 The reference to the concept of SI has diagnostic value, making SI an auxiliary category to the NPA and determining its potential.
- 2. Conclusions: formulated in the final stage using the deductive method. The process involves the formulation (by logical consequence) of new theses based on primary findings accepted as true. The method applied justifies a reference to the rich tradition of innovation research, allowing the formulation of general regularities regarding the diagnosis of NPA as SI.

Figure 1 Analytical framework

Conceptual grid						
Analytical categories:	Organization	Institution	Social Innovation	Diffusion of Innovation		
Lines of analysis: Line 1: organization → social institution → social innovation Line 2: invention → innovation → social innovation Methodological steps						
 Definition of concepts Linking concepts Analysis of realizations and functional generalizations Synthesis, comparison, generalization Drawing conclusions 						

Source: Author's own elaboration.

The analysis is grounded in a comprehensive body of literature, encompassing both theoretical and empirical studies. This literature reflects a long-standing tradition of innovation research, with the earliest sources dating back to the early 20th century, primarily from anthropological studies, and the most recent drawn from contemporary publications. Given the interdisciplinary nature of the topic, the analysis engages with scholars from various fields, including sociology, geography, and management, from both Europe and the United States. Collectively, these studies examine the construction, emphasis, and dissemination of innovations across nearly every continent.

INVENTION AND INNOVATION: RESEARCH TRADITION AND BASIC MEANING OF THE CONCEPTS

The research tradition of innovation is old, rich, and as such integrates the output of: anthropologists (Barnett, 1953; Czarnowski, 1956; Kroeber, 1937; Linton, 1936; Wissler, 1923), sociologists (Coleman et al., 1966; Griliches, 1957; Hoffer, 1942; Jones, 1967; Kollmorgen, 1941; Lionberger, 1952; Ogburn, 1922, 1946, 1950, 1964; Ryan & Gross, 1943; Sheppard, 1960; Tarde, 1895; Wilkening, 1950; Willson, 1927), geographers (Hägerstrand, 1952; Męczyński, 2007), economists (Schumpeter, 2021), specialists in communication and management (Bass, 1969; Boswijk & Franses, 2005; Deutschmann & Fals Borda, 1962; Rogers, 1983; Rogers & Kincaid, 1981; Shannon & Weaver, 1949; Stremersch, 2008; van den Bulte, 2000; Venkatesan et al., 2004; Wuyts et al., 2004). The very term "innovation" means a

new thing, a novelty, or even a reform. The literature on the subject differentiates this term, as a rule, from invention, the meaning of which is narrowed down to the creation of new solutions. Innovation is invention applied. The scientific discourse around innovation encompasses different schools and research approaches. In principle, however, one can point to three paths of explanation: the first derived from social anthropology (which views innovation in terms of its ability to disrupt the social order and the cognitive efforts of the individual); the second derived from growth theory (which exposes the importance of innovation in the economy and entrepreneurship); and the third associated with technological determinism (which embeds innovation in the role of a tool that causes social change) (Zdun, 2016). As far as diagnosing the structure of innovation is concerned, the first of these approaches seems to be the most relevant. In an anthropological perspective, innovation means a previously unknown solution that can cause a disruption in a social system. The anthropological approach has its roots in research conducted in the early 20th century among primitive societies.

Innovation, as presented by anthropologists, is structured as a hybrid. It is a combination of the tame and safe and of the foreign and demanding attention. Innovation (defined at this level of generality) is created through the mechanism of subsidizing an underperforming component: in the old solution, only a part of it – usually the least efficient – is replaced, and a better-functioning component appears in its place. This solution is useful, but unknown, and as such raises concerns (Barnett, 1953).

A key structural feature of an innovation is its compatibility, i.e., its ability to blend with the existing environment. Numerous studies document that the emergence of novum imposes farreaching adaptations in the social system. Barnett (1953), followed by Rogers (1983) and Merton (1949) conclude that innovation is usually the hope of the contesters and the curse of the guardians of the old order. At the same time, the extensive scientific output of the divisionists proves the co-occurrence of forms of cognitive and axiological legitimization of the novum, which means that the acceptance, implementation and potential diffusion of the innovation is determined not only by the utility of the innovative solution, but also by its compatibility with the prevailing system of values. Rogers (1983) also mentions in this context three types of innovation compatibility: with cultural values, with the previous solution, and with needs.

Pioneering studies on innovation (its structure and mode of dissemination) make it possible to identify its three important specific features. Innovation is:

1) the object of cognition with a hybrid construction, combining a known and unknown element (Barnett, 1953)

- 2) a solution with the potential to cause disruption, "creative turbulence" in the social and economic system (Linton, 1936; Rogers, 1983; Schumpeter, 1960; Wellin, 1955)
- 3) a solution subject to dual legitimacy: cognitive (by defining its utility) and axiological (by evaluating the degree of compatibility with applicable norms and values) (Barnett, 1953; Rogers, 1983).

SOCIAL INNOVATION AS A SPECIAL TYPE OF INNOVATION

Innovation, like many other scientific concepts, shows susceptibility to typological qualification. Typologies are never limited by the multitude of varieties of a phenomenon, but rather by the applied criteria. Innovation is very similar in this respect. The literature on the subject enables identification of many types of innovations, and their distinction is facilitated by the criteria of: purpose and area of destination (Janasz & Kozioł, 2007), the complexity of the acceptance process (Pietrasiński, 1971), the level of originality, novelty (Pomykalski, 1997), or revolutionary nature of the implied changes (Abernathy & Clark, 1985). We can also speak of mixed types, e.g., occurring in some sphere of interaction, and at the same time characterized by a certain degree of revolutionariness. Social innovation seems to be such a type of innovation. On the one hand, social innovation can be applied across various domains, including entrepreneurship, crisis management, social integration, environmental protection, and the improvement of quality of life; on the other hand, it may represent a change that is more or less radical.

It would not be an overstatement to say that every innovative solution (even strictly technical) has its social component. Otherwise, it would have no absorptive capacity and would not be able to blend into the social system. Social innovation is a particular type of innovation, a specific variation of it. As a peculiar type, social innovation is characterized by both relatedness and difference from other innovations. The relatedness is determined by the basic design of the new element, based on the initial hybrid. The difference, in turn, results from defining the term innovation with the adjective "social".

The "social" character of innovation should be understood in three ways (Zajda, 2022):

1) First, as a structural feature – when "socialization" is associated with the very construction of the innovation. It is social, which means that it is made up of people. It is a "novel institution" in the sense given by Berger and Luckmann (1983). It is also a network of connections between people and the rules that govern these connections. Social innovation is the developed version of a social institution – its structure and order to solve

problems in better ways. In this perspective, the social nature of innovation is primarily due to its interactive nature. Examples of such social innovations include senior support groups, community theater programs, and collaborative homework initiatives.

- 2) Second, as a functional characteristic when innovation is understood as a novel solution that demonstrates its functionality in the social sphere. Social innovation should demonstrate its ability to affect the social sphere, and not just be an innovative organizational form. A good example of an innovation that illustrates this feature is the Local Time Bank. This initiative enables community members to offer their skills in exchange for assistance from others, functioning as a system of time-based service exchanges.
- 3) Third, as a (non-)market feature when innovation is understood as a way of solving a problem rather than generating profits. As a consequence, innovation is no longer a product (market solution). Instead, it involves the realization of an idea, a non-profit objective, whose analysis exposes the missionary, Promethean nature of the novelty and thus requires the identification of an axiological basis. A good example of an innovation that illustrates this function is Food Sharing Networks, a non-profit initiative that facilitates the distribution of surplus food within local communities.

Social innovation has been playing an increasingly important role in societies that reject industrial approach. This fact is to be linked to the changing economic paradigms (greater importance of human and social capital, knowledge economy and networks) and social axiologies (expressed, among others, in the concept of sustainable development). For this reason, SI has become an important component of the economic policy of the EU (Kwaśnicki, 2015). Pol and Ville (2009) explain the contemporary interest in SI by the growing importance of the quality of life. According to these researchers, the primary goal of SI is to achieve prosperity, and this includes raising the quality of life. The literature on the subject (Haskell et al., 2021) tends to define SI in an even more general way, assigning to the concept certain sets of practices that provide a better way to solve problems. Concurrently, the implementation of SI is fraught with rigor, requiring changes at the level of institutions, practices, social relations and even lifestyles (Haskell et al., 2021). The majority of research findings also define social innovation as a micro-phenomenon that co-creates the process of change (Howaldt & Schwarz, 2021), therefore, such an innovation can constitute the "neuron" of local development (Eichler & Schwarz, 2019).

The increased interest in social innovation is associated with broader, ideological transformations of societies, including the exposure of so-called post-materialist values – democracy, egalitarianism, social inclusion, citizenship. Consequently, the beginning of interest in social innovation has to be dated after the end of the Second World War (Sikandar et al., 2020). According to McGowan et al. (2017), social innovation began to be stimulated by the post-war code of values and the inherent calls of the new era, including those related to social policy, urbanization, the concept of sustainable development, environmental crises, migration, climate change.

Ravazzoli and Valero (2019) integrate the concept of SI with the concept of welfare. In their perspective, SI is a reconfiguration of social practices that, while solving a problem, leads to prosperity at the same time remaining a tool for civic engagement. Baker and Mehmood (2015) in turn relate the concept of SI with the concept of social capital. In this context, the researchers point to the important features of SI, i.e. scale (e.g., the number of people covered by SI), scope and resonance (i.e., how it affects public awareness). The distinguishing feature of SI becomes the fact that SI is "socially consumed" by society and not by the individual, thus also showing an association with well-being as a social category.

SI understood in this way operates on three levels: micro (when it concerns the satisfaction of tangible and intangible human needs – then needs are the force that triggers innovation); meso (affecting relations between individuals or social groups); macro (forming a common identity, shaping relations between civil society and the state). These levels correspond in turn to the areas of: individual initiatives and implementation (micro), disciplines of practice (meso), and finally policies (macro) (Zajda, 2022). This distinction can be illustrated with examples: at the micro level, a neighborhood tree-planting initiative; at the meso level, an environmental education program run by a non-profit organization; and at the macro level, relevant legislation in the field.

The reasons for the emergence of social innovations are primarily needs and crises, and their implementation affects both social and economic development, as well as the local environment and related resources. Going further, Biggs et al. (2010) note that SI is a transformational tool for ecosystem management, and its opportunities are enhanced by: financing system, incubation conditions, opinion leaders, promotion, involvement of social actors, and an open management system.

Bock (2012) identifies three perspectives of SI analysis that reflect the two levels of the already indicated legitimacy of novum: cognitive and axiological. According to the author, SI should be evaluated in terms of: 1) social mechanisms, including an indication of the normative

and cultural foundations of SI; 2) social effects, especially social responsibility of SI; 3) the potential for social inclusion.

Social innovation (as a tool modeled not only in managerial, but also in social terms) cannot be completely planned. It is not a product, but a social construct. By the same token, the conditions for the implementation of this novelty derive from the processual and configurational nature of the innovation itself. SI is usually the impetus for deeper change (Bukowski et al., 2012). The emergence of SI and its development is supported by two types of knowledge: explicit and tacit. The former is codified and technically transferable, while the latter comes in the form of know-how, skills and competencies that are not codified (Bukowski et al., 2012). The peculiarity of social innovation is that it includes a relational component (Perinić et al., 2023). As such, it cannot be regarded a novelty that penetrates the social system from the outside and spreads within it, but rather it constitutes the product of social interactions. In this sense, we can also talk about the production of social innovations, not just their acceptance or diffusion.

From a conceptual perspective, innovations can be understood as phenomena that emerge through the process of institutionalization. The process of institutionalization involves the fusion of values and interests, which means that it involves employing a system of values and the corresponding involvement of social actors in the task structure. Created through the process of institutionalization, the structure combines values, people, market principles and political principia, and as a result becomes the base for subsequent transformations. Correspondingly to the above, social innovation is a form of organization, regulation and lifestyle, which is not only the result of institutionalization, but is also constantly influenced by that process (Howaldt & Schwarz, 2021). This means that the diagnosed line of transformation is to become cyclical. Social innovation, by its very nature, cannot be the last link in any transformation: rather, it is constantly subject to change in the innovation – institution – innovation cycle. Social innovation in this perspective can be described as an innovative institution, or an institution in status nascendi – in a state of constant creation.

According to Selznick (1992), to institutionalize means "to inspire with the value of the task at hand". However, this process does not just mean equipping the organization with an axiological framework, but also involves the exposure of ideological components in the structure of social innovation. In other words, for a social institution, the ideological basis for its creation is not sufficient. Many organizations have such basis. The distinguishing feature of an institution is that it operates based on the value system of the social actors comprising it. In contrast to an institution, an organization is reminiscent of a machine model: it is a structure of

formal relations and functionalities; it is also a construct aimed at solving top-down goals. The institution, on the other hand, "is founded on values, moral commitment, loyalty" (Morawski, 2012). These are the elements that make this very type of social order a spur for social innovation and determine subjective inclusion in development.

SOCIAL INNOVATION AND SUSTAINABLE DEVELOPMENT

In effect, the concept of SI can be described as a solution that corresponds to the Sustainable Development Goals (SDGs) (Millard, 2018). Accordingly, SI is applicable in the area of biodiversity. The importance of SI in this sphere is well documented by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Report (Ziegler et al., 2022). Concurrently, the report (IPBES) defines SI in three contexts: nature, technology and co-management. The former allows us to address SI as nature-based solutions. In this area, SI aims to protect, manage and restore natural ecosystems, while addressing social challenges. Examples include wetland restoration projects designed to enhance biodiversity and mitigate floods, rewilding initiatives that restore natural habitats, and the creation of urban green infrastructure (such as "green corridors" that improve residents' quality of life). The second context makes it possible to conceptualize SI as local experiments and grassroots activities in which technology is applied according to agroecological principles. Examples include community gardens and urban farming initiatives that combine food security with biodiversity protection, as well as citizen science projects that engage residents in biodiversity monitoring and enable their participation in knowledge development. Finally, the last of these - the governance context – addresses SI as the result of cooperation aimed at dealing with the drivers of biodiversity loss. In this context, SI can be exemplified by participatory management in protected areas (including co-management schemes in UNESCO biosphere reserves), or collaborative partnerships among NGOs, local authorities, and landowners, jointly safeguarding specified areas or endangered species.

The analysis of the research interest in SI in the context of its application to the field of sustainable development, biodiversity conservation, and related fields allows for the identification of three distinct periods that trace the evolution of this concept. Each phase is characterized by specific keywords reflecting the dominant research themes of the time. According to Vatananan-Thesenvitz et al. (2019), these periods are as follows:

• 1985–2005 (keywords: industrial ecology, sustainable cities, and city planning);

- 2005–2012 (keywords: environmental management, cleaner production, competitiveness, corporate social responsibility, and eco-efficiency);
- 2012–2018 (keywords: Sustainable Development Goals, eco-innovation, social innovation, CSR, and entrepreneurship);

These periods reveal a thematic shift from technical issues, through economic and managerial perspectives, towards the growing incorporation of social dimensions, reflecting the gradual integration of environmental, social, and economic aspects of innovation for sustainable development. Since 2018, research has increasingly focused on climate change adaptation, resilience, the circular economy, and the role of social innovation in advancing the SDGs (Popescu et al., 2022; UNECE, 2023; Howaldt et al., 2024; Carreño-Ortiz et al., 2025).

It should be noted that a marked increase in interest in SI topics in general had not been noted until 2010. More than 50% of the research in this area was published after 2016, and 9% of all publications deal with the natural environment (Sikandar et al., 2020).

At the same time, an analysis of the academic output attributes the greatest interest to several countries: United Kingdom, China, the United States, the Netherlands and Germany (Leal Filho et al., 2022). In the analyses conducted so far, several primary categories of analysis can be identified, such as participation, problem solving, social impact, social teaching and learning, involvement, and the balance of theory and practice.

The importance of SI in conservation and sustainable management efforts has been demonstrated by numerous studies, including those conducted by Haskell et al. (2021). The starting point in this diagnosis is a statement concerning the inadequacy of technological and economic solutions to overcome environmental crises. According to the cited authors, social innovations is an effective tool for change, since, while rooting their functionality, they become an effective counterbalance to technological and economic solutions that do not guarantee the implementation of deep changes which could reach the level of social practices, system of norms and values. Baker and Mehmood (2015) note that SI-based values have another important feature: they produce results primarily at a level beyond the individual. Their effectiveness, relevance and other attributes are "consumed" at the social level and, for this reason, they naturally blend in with the local community and ecosystem. At the same time, in their view, SI is capable of modeling the ecological characteristics of a place by influencing it, rather than merely functioning within it.

Specific applications of SI in the area of biodiversity have become the subject of diagnosis by (Biggs et al., 2010). They analyzed Kristianstads Vattenrike – an area of wetlands

downstream of Helgeå in southern Sweden, where a UNESCO biosphere reserve has been established. These wetlands are a valuable ecosystem. Other areas chosen were the Sabie River in Africa (in Kruger National Park) and Yahara Lakes in Wisconsin, US. In each of the cases analyzed, SI revealed great transformative potential. Importantly, SI is also highlighted in the SI-DRIVE (2017) report, which argues that SI counteracts short-term strategies, profit maximization and deficits in thinking in terms of long time horizons. The analyses performed also demonstrate that the natural locus of SI is the local world, and concrete examples of its application included, inter alia, initiatives to reduce food waste, the development of urban beekeeping, urban gardens, the sharing economy, environmental efforts by non-profit organizations, among others. For this reason, SI is analyzed in the context of the possibility of supporting it with public policies. Although it will materialize in the local world, it does not exist in isolation from external conditions. And in this context, it requires thorough diagnosis. Concurrently, while making demands for support, SI participates in developing new public policies. Whitfield (1975 after: Leal Filho et al. 2022) claims that the result of SI has to be evaluated in terms of both the scale and depth of the impacts, and its functionality is never reduced to a single application, but involves a whole series of activities. Therefore, SI displays its usefulness in the field of nature conservation. Moulaert et al. (2013) argue that SI sets a new dimension of management in naturally valuable areas, based on coordination of collective action and provision of social services. Based on research conducted in Costa Rica at the Juan Castro Blanco National Water Park, Castro-Arce et al. (2019) conclude that SI requires a tailored management system, wherein its structure can also be described as an interesting combination of public, private and social mechanisms. The use of SI in protected areas is described in the context of social-ecological systems (SES) management. Such an approach implies the adoption of a perspective in which society becomes closely linked to nature: protected areas become a social creation established for the benefit of present and future generations. The SES model can consequently be characterized as governance that is: adaptive (flexible and following change); participatory (requiring the involvement of various actors: the state, organizations, local communities); pluralistic (based on a diversity of values); conciliatory (aimed at resolving conflicts).

In relation to the SES model (Moulaert et al., 2013), SI can additionally be described as a tool for social transformation, combining: 1) satisfaction of the needs and interests of actors; 2) changes in socio-political systems; 3) empowerment of actors participating in the implied SI change (Moulaert et al., 2013).

The discussed conceptual relationships between SI and sustainable development are further systematized in Table 1, which outlines the main features of SI, its correspondence with the SDGs, and illustrative examples.

Table 1 Social Innovation and Sustainable Development Goals

Features of Social Innovation	Links to Sustainable Development Goals (SDGs)	Examples / Indicators	
Social functionality	Improving quality of life, health and well-being, decent work and economic growth (SDGs 1, 3, 8)	Initiatives to reduce food waste, urban beekeeping, community gardens, sharing economy projects, pro- environmental activities undertaken by non-profit organizations	
Novelty / social change	Innovative environmental and social solutions (SDGs 9, 11)	Establishment of nature reserves, local initiatives in protected areas, new models of environmental protection and spatial management	
Social participation	Strengthening social capital, equality, active civic engagement (SDGs 10, 16)	Community participation in projects, residents' co-decision-making, involvement of social actors and local institutions	
Capacity for diffusion (scalability)	Potential for implementation in other communities, responsible consumption and production (SDGs 8, 12)	Scaling up good practices in public policies and governance systems, educational programs, initiatives replicated across regions	

Source: Author's own elaboration.

THE ORIGINAL CONCEPT OF THE PROTECTED AREA AS A FOREGROUND FOR SOCIAL INNOVATION

At this stage, the analysis of the concept of PA will be presented chronologically, showing the development of social innovation along the axis of succession: organization – institution – innovation. In this context, the original concepts of nature reserves and national parks do not meet the rigorous criteria of SI, but rather play the role of its foreground. From the perspective of the institutionalization process, national parks and later forms of area-based conservation with a more lenient regime (e.g., natural, landscape, and regional parks), should be viewed as organizations capable of becoming institutions (these areas will be referred to briefly as parks in the remainder of this paper).

In the case of PAs, the base organization for the formation of social innovation is the historical concept of NPs. Following the model hatched in the US, where the world's first Yellowstone NP was established in 1872, the park was to be state-owned and included vast areas of naturally valuable land excluded from settlement and economic use. It was created mainly for idealistic but also utilitarian purposes, as it delimited areas designated for the

development of commercial tourism (Keiter, 2013; Mulder & Coppolillo, 2005; Sellars, 1997). The axiology underlying these goals also served as an ideological justification, but it did not derive from the beliefs of the social actors (and certainly not the local actors excluded and displaced from the parks), who, based on their professed ideas, would call into existence a specific organization (Colchester, 2003; Hess, 2001; Phillips, 2003, 2004; Spence, 1999). At this stage, social actors acted more as functionaries carrying out statutory tasks, while NP itself can be described as a technical organization. Naturally, even at this stage, social actors were capable of performing the tasks entrusted to them with far-reaching conviction; nevertheless, the NP formula implies, first of all, the implementation of statutory orders, while also responding to current social and economic changes. Some of these were the result of rapid territorial expansions on US western lands, combined with rapid industrialization and the overexploitation of natural resources. Under these conditions, NP constituted a protective formula. It became a kind of rigor, the rule of which is supplemented over time by the concept of public space, which resonated with increasingly stronger power throughout the 19th century. NP was supposed to be an area of rigor on the one hand, and a public space whose use was also governed by certain rules, on the other (Jones, 2012; Keiter, 2013).

As a public space, NP was supposed to perform important social functions, including promoting respect for the beauty of nature, serving the development of culture and education, as well as the propagation of physical culture and sports. At the same time, the area of NP was intended to be a meeting place for various social classes. The formation of the original concept of NP was very strongly influenced by the development of tourism, which, with the discovery of the category of "leisure time", became an increasingly important economic sector and area of social activity. For this purpose, the US Congress exempted the land from settlement and private ownership by determining that it was "a public park or pleasuring-ground for the benefit and enjoyment of the people" (OFR, 1872). In order to manage NPs, they soon began to compose their respective organizational structures, establishing National Park Service in 1916. The mission of this authority was to preserve the landscape (scenery), natural and historical sites and wildlife, while making these areas accessible in such a way as to pass them on intact to future generations (OFR, 1916). Consequently, the organizational purpose of NPs expanded. In this formula, NP primarily meets the criteria of a formal organization: it has a purpose, regulations, scope of operation and functionaries. The presented stage found its straightforward continuation in the next one – identified by the Keiter (2013) – the stage of NP development. This stage dated from 1916 to the 1960s, a time when NPs, while protecting naturally valuable areas, primarily served recreational functions. Thus, they were primarily intended to be a territory providing a safety valve for industrial societies. For this reason, they were managed as a "national playground system" Keiter (2013), in which protection of living nature and scientific considerations were secondary issues. As a "territory", NP became the subject of logistic investments (providing access to its territory), as well as projects within the boundaries of the parks themselves. Tourist infrastructure (including hotels and swimming pools) was developed and various forms of recreation (e.g. fishing, golf, downhill skiing) were promoted in these areas. Concerned for the comfort of leisure guests, the authorities even decided to interfere with the environments, e.g. processes and species considered harmful (e.g. wolves) were eliminated, and in turn, with an eye to the entertainment aspect of "leisure time", "natural spectacles" were organized, for example, in the form of feeding the bears (Keiter, 2013; Sellars, 1997; Wright, 1999). Such an image was closely linked to the implementation of the NP concept in the structure of a formal organization, in which the entire functionality is dependent on the main purpose. The operation of this structure is determined by law, not by the values that people themselves bring to the organization. The human actors in this arrangement are the functionaries, carrying out the statutory tasks and guidelines of the adopted policy. Significant changes, allowing one to speak of "taking a course" on the institutionalization of NPs can be weighed in the third period identified by Keiter, which occurred during 1960s and is associated with a change in the concept of management in US national parks. This is also when management models stared to become scientific in nature. The object of regulation and conservation activities was no longer just the landscape, but also the processes of its change, which involved a significant reduction in human intervention in the environment (Keiter, 2013; Wright, 1999).

The conceptual and terminological appeal of the "national park" has significantly contributed to the global dissemination of this form of nature protection. In Europe, the establishment of national parks began in Sweden in 1909. After World War II, the concept of the national park spread widely across the continent. The American model – based on creating parks in areas free from economic use, intended for the "benefit and enjoyment of the people" – was gradually adapted to European conditions. In this context, the idea evolved to include inhabited and human-transformed landscapes. As a result, the term "national park" came to be applied to designated areas differing in protection objectives, size, ownership structures, and degrees of economic use. The postwar period also saw the emergence of other protected area categories

beyond the national park label. In response to the growing number and diversity of such areas, and the lack of clear definitions and naming guidelines, the IUCN began efforts to establish criteria, classification systems, and records of diverse forms of nature protection worldwide. These efforts began with the formulation of a definition of the "national park", specifying its objectives, scope, and regulatory framework, and laying the foundation for a coherent global system of protected areas (IUCN, 1973). In the 1970s, the defined NP construct was supplemented by a classification that included other forms of protected areas (IUCN, 1978). This division, after modifications, still functions today, classifying NPs as category II (Dudley, 2008). Also in the 1970s, the UNESCO Man and Biosphere program initiated the development of yet another conservation concept - biosphere reserves. The same period witnessed a civilizational breakthrough, marked by a paradigmatic shift in the human–nature relationship, conceptualized in sociology as the New Ecological Paradigm (Catton & Dunlap, 1978). In the following decade, the emerging concepts of sustainable development and biodiversity conservation profoundly influenced the understanding of protected areas. This shift was reflected in the fundamental revision of the principles and guidelines governing UNESCO biosphere reserves, which introduced a new operational framework for protected areas (Batisse, 1997; Bridgewater et al., 1996; Hammer, 2016; UNESCO, 1996; Weixlbaumer et al., 2020).

A key element of NPA is the statement that parks cannot be managed as conservation islands, but rather should be subject to regulations appropriate to more complex and internally diverse wholes – ecological and socioeconomic systems. Management of these systems requires broad public participation, in particular the inclusion of local government authorities, local communities, business entities, as well as other stakeholders. The park thus became a social institution. These assumptions, however, were not fulfilled by earlier PAs. The activities of these parks were based on legislation and the axiom of "public space", without penetrating the social fabric. Moreover, earlier models treated the individual spheres: natural, economic and social, as separate, rather than intersecting. Lange and Jungmeier (Jungmeier, 2014; Lange & Jungmeier, 2014) emphasize that first-generation parks were characterized by authoritarian, top-down management, based on traditional administrative structures, with a dominant perspective of natural sciences and no consideration of interdisciplinarity. Mose and Weixlbaumer (2016) refer to this earlier model as "segregationist", which, as opposed to the contemporary "integrationist" model, assumed the existence of a dichotomy: protected area – economy. This approach disregarded the needs of local communities, isolating them from the park's construction. All this means that earlier generation parks can be considered a prelude to

the formation of social institution, whose goal becomes the premise for the formation of such an institution, while the trite way of implementation, based on the rigor of obedience and a system of orders and prohibitions, becomes the obstacle.

The park acquires institutional features when segregation is replaced by integration; authoritarianism by participation; and particularism by interdisciplinarity. The NPA construct is formed at this stage, and can be described as the realization of social innovation. The stages of development of the PA concept, indicated by authors analyzing these developments (Keiter, 2013; Lange & Jungmeier, 2014; Mose & Weixlbaumer, 2016; Phillips, 2003), seem at the same time to reflect the successive stages of the development of societies. The early stage of PA development is associated with the formation of industrial societies, while the contemporary period is associated with post-industrialism. Therefore, the axiological assumptions of postindustrialism should be considered as the ideological background of NPAs. Post-industrialism, also referred to as late modernism, however, does not consist of an escalation of the developmental tendencies of an earlier era (i.e., industrialism), but rather is the result of a radicalization of earlier tendencies. Hence, post-industrialism brings completely new proposals, including a change in approaches concerning the place of man in the economy, society and the environment. The result is a shift from a politics of expansion to a politics of responsibility, from a 'game against nature' towards a 'game between persons' (Bell, 1974) and from the implementation of materialist values to a non-materialist axiology that emphasizes the importance of social inclusion, democracy, sustainability and quality of life. Concurrently, breaking down dichotomies and pointing out the necessity of integrating different orders in networks becomes the intellectual tendency of this era. This trend is equally expressed by relationalism, emphasized among other concepts Archer (2000). According to this scholar, the individual is subject to various pressures – social, natural, and practical – but nevertheless remains an essential autonomous being. Therefore, they are capable of defining these orders (Domecka, 2013), rather than merely becoming merged with them. According to these assumptions, social actors are endowed with reflexivity, through which they can pursue goals, articulated in the form of "concerns" and not just profits or benefits. Concerns, as basic manifestations of the will, build relationships between the individual and all orders, and their configuration forms social and personal identity (Domecka, 2013). The two types of identity, however, remain interdependent and "contribute to shaping – and transforming – the social world". Any involvement of social actors is, in effect, a result of the realization of concerns. "We are who we are because of what we care about" (Archer, 2000).

NPA must be evaluated as a model already formed on this principle, and thus meets all the criteria of an institution and then social innovation. In the NPA concept, previously isolated spheres begin to intermingle, complement and cooperate with each other. An inclusive model is being implemented at the management level, which determines the real commitment of social actors, who carry out not only the statutory functions assigned to them, but also the mission they believe in. When describing this model, Pigliacelli and Teofili (2015) use the metaphor of Noah's ark. In their view, the new paradigm of protected areas (giving rise to the formation of SI) corresponds to the transition from "Ark-Park" to "Hub-Park". The former protects nature as an autarkic sphere – isolated from humans and interrelations with the economy. The latter is the center of linkages, breaking rather than perpetuating the dichotomy. Above all, it becomes a field of activity for various stakeholders and social actors. As a result, the park is no longer just a natural territory, but is also a social and economic area, and its management makes use of local initiatives and thus addresses the quality of life of local residents, including solving their current problems. This is also how NP acquires institutional traits, and by engaging in solving local and most current challenges it becomes a social innovation.

The evolution of the protected area concept reflects not only the changing paradigms of conservation policy, but also the broader civilizational and axiological transformations of societies. The transition from industrialism to post-industrialism has redefined the position of humans in relation to nature, economy, and community, transforming the park into an arena of participatory governance and social innovation. In this context, the protected area becomes a laboratory of new social relations, institutional arrangements, and local development models. These processes – spanning from segregation to integration, from hierarchy to participation, and from isolation to cooperation – illustrate the progressive institutional and social transformation of protected areas toward social innovation, as summarized in Table 2.

Table 2 Phases of institutional and social transformation of protected areas toward Social Innovation

Phase	Approximate timeframe	Institutional and social framework
Formative / pre- institutional phase	1870s – 1960s	Emergence of national parks, early development of national systems of protected areas, establishment of national legal and administrative frameworks; focus on nature preservation and scenic values; industrial society, top-down, segregative management model (nature conservation separated from socio-economic issues), exclusion of local communities

Table 2 (continued)

Phase	Approximate timeframe	Institutional and social framework
International conceptualization and institutionalization	1970s–1990s	Emergence of international frameworks (IUCN, UNESCO), categorization of PAs, development of the biosphere reserve concept; shift toward sustainable development and integration of social and economic systems; transition from industrial to post-industrial society; emergence of new public management models with reduced state control and enhanced social participation; integration replaces segregation; participation replaces authoritarianism, and interdisciplinarity replaces sectoral approaches.
Consolidation and operationalization of the new paradigm	2000s-present	Parks act as multi-functional institutions and "hubs" of cooperation, integrating ecological, social, and economic goals; addressing local challenges while contributing to global sustainability, enhancing social well-being and quality of life; post-industrial society context, multi-actor, participatory, place-based governance; institutionalized social innovation

Source: author's own elaboration.

NPA AS SOCIAL INNOVATION

While the first line of analysis identifies the genesis of NPA as SI, the second focuses attention on the final link in the chain of transformation. The diagnosis at this stage is based on the analysis of NPA as a category that meets the definitional rigor of innovation. This means that two stages will be used in this diagnosis. In the first, innovation will be differentiated from invention, and in the second, its structural specifics will be defined. Stage one is thus the verification of the transition from idea to implementation, corresponding to the transposition: invention - innovation. Part of this transition is made evident by the chronology of transformations. It seems crucial to identify the "initiating event" which is responsible for putting the invention into practice, and therefore also for producing the innovation. While it is not easy to unequivocally date the origin of this hybrid, its origins can be dated back to the 1982 Third World Congress on National Parks in Bali, Indonesia. The theme of the congress: "National Parks and Protected Areas in Support of Social and Economic Development" reflected a new way of thinking and provided the impetus for the formation of a novel construct that demolishes previously diagnosed dichotomies and composes them into a coherent whole (IUCN, 1982). The provision expressed in the theme has been translated into the functionality of PAs. The first practical examples of this approach appeared as early as the 1980s, and were largely associated with the development of ecotourism, which promoted the preservation of nature and local cultural heritage, while engaging local communities and providing them with social and economic benefits (Ceballos-Lascuráin, 1996).

The second criterion, concerning the identification of structural features, boils down to demonstrating the hybrid nature typical of social innovation, the potential of the analyzed solution to generate "creative disruption", the requirement for dual legitimacy and functional specifity.

- 1. The hybrid nature of the construct is to be associated with the sequence of transformations documented in the first line of analysis, which leads to the incorporation of "foreign elements" economy, local community, local culture into the concept of PAs. The hybrid thus arises from the breaking of previously functioning dichotomies and is a consequence of the realization of relationality. Parks are not only adopting a network-like construction themselves, but they also begin to cooperate with one another as network structures.
- 2. Potential to induce change the implementation of this criterion is determined precisely by the last of the indicated characteristics: the ability to develop within networks. The concept of NPAs implies that a park is not an isolated entity, but develops as part of worldwide networks. This gives it the trait of diffusivity: by functioning in networks, it transforms the world in remote areas. At the same time, networks, as systems of linkages, are not only channels for dissemination of the model, but also provide opportunities for improvement, i.e. exchange of experience and mutual support. This is, naturally, a diagnosis of the potential for change on a global scale. At the local level, the ability to induce transformation, including the introduction of "creative disruption", has to be linked to the social construction, i.e. consisting of people and institutions. By supporting territorial development organizations, the construction of NPAs triggers the process of involvement of social actors and forces the breaking down of barriers between the world of big politics and local issues. This means change in a dual sense. First, the change is about solving specific problems with the use of local initiatives. Second, this change is related to the very activity of social actors, who, by engaging in undertakings, make a shift from passivity and a sense of helplessness in the face of afflicting problems, to a sense of pride in their accomplished endeavors.
- 3. Dual legitimacy NPA as SI is subject to dual legitimacy. On the one hand, it becomes a practical solution, as it stimulates local development by integrating socio-economic issues into the park's structure. The concept is based on scientific premises, making it

- cognitively legitimate. On the other hand, it constitutes the realization of the mission expressed in the axioms of post-industrialism, which gives it ideological legitimacy.
- 4. Functional specificity is primarily associated with relationality, the measure of which is not only the networked structure of the NPA, but also the coexistence of different orders: natural, practical and ideological. At the same time, the functional specificity is also diagnosed by the criteria already cited above:
 - 4.1 Satisfying social needs and demands which is accomplished both through the fact of the engagement of social actors and the targeting of specific environmental problems and the cooperation of different spheres. An example is proper tourism management that minimizes negative impacts on the natural environment and limits negative impacts on local communities, while maximizing benefits from tourism for local residents and their fair distribution. This is achieved through the appropriate design of a network of trails and other tourist facilities, the location of entry points, the development of public transportation, the promotion of various forms of tourism, cooperation with local entrepreneurs, the implementation of joint projects and events, and the creation of jobs for local residents.
 - 4.2 Efficient and effective use of resources implemented through the exploitation of human and social capital and utilization of a variety of resources, not only natural, but also economic and cultural. Examples include promoting local products (regional foods, handicrafts), organizing events related to local natural and cultural heritage (educational initiatives, festivals, concerts) that attract tourists and integrate the community, supporting local associations, creating local networks, organizing workshops and training for local residents that contribute to the development of their professional potential (especially in areas related to the operation of the park, such as tourist guiding).
 - 4.3 Improving the quality of life of residents and visitors for example, by providing recreational areas, access to clean water and clean air, supporting initiatives that integrate residents and strengthen social ties and local identity.
 - 4.4 Changes in relationships and existing practices manifested by breaking down barriers between previously isolated areas, moving away from rigid organizational structures to more flexible solutions, in which officials (functionaries) carrying out top-down orders are replaced with the engagement and invention of employees, and the inclusion and cooperation of various stakeholders. An important part of this

change is also the abandonment of an approach based solely on orders and prohibitions, in favor of building public awareness of conservation.

In summary, the identified characteristics demonstrate that NPAs embody a comprehensive transformation of the protected area model, encompassing value systems, institutional arrangements, governance patterns, and social functions. Table 3 summarizes these shifts, showing the evolution from the conventional toward the contemporary concept as a special form of social innovation.

Table 3 Transformation of protected area models: from the conventional to the contemporary concept as a special form of Social Innovation

Core dimensions	Conventional model	Contemporary model (NPA)	Examples of social innovations
Axiological basis	Industrialism: preservation-oriented, resource-centered governance with expansionist logic, hierarchical governance	Post-industrialism / late modernity: value-diverse governance, responsibility, democracy, quality of life, sustainable development, nature as a common good	Participatory governance platforms, citizen science, environmental stewardship programs, policy co-creation initiatives
Institutional dimension	Park as an administrative institution (public space regulated by orders and prohibitions)	Park as a social institution, a hub of ecological, social, and economic linkages	Cooperative networks, cross-sectoral partnerships, circular economy initiatives
Management model	Authoritarian, top- down, based on legal regulations and traditional administrative structures	Participatory, inclusive, co-management with the involvement of stakeholders (particularly local communities)	Local advisory boards, co-management committees, social consultation platforms, participatory planning workshops
Relation with local communities	Residents' needs ignored, residents isolated from park governance	Inclusion of local communities in decision-making and management practices	Environmental education programs, sustainable tourism initiatives, citizen engagement projects, volunteer programs for park maintenance and monitoring
Approach to natural, social, and economic spheres	Segregated, dichotomous: nature – economy – society	Integrative, interconnected spheres, relational approach	Projects combining nature conservation with local development, protected-area-inspired local products, ecolabeled local products
Social functionality	Limited to natural space, no social engagement	Social functions realized, addressing community needs and improving quality of life	Job creation locally, local time banks, community gardens, senior support initiatives, participatory cultural programs

Source: author's own elaboration.

DISCUSSION

The concept of NPA, presented as a social innovation in this article, ultimately leads to the identification of opportunities and threats associated with this concept. A review of the rich, interdisciplinary literature also allows for the identification of limitations inherent to the concept of social innovation. Social innovation, like other forms of social organization, is never realized in an ideal-typical form. This means that the indicated outcomes of social innovation (e.g., the ability to integrate communities, improve quality of life, address local issues within the framework of non-profit organization) are always achieved with a certain "cost intensity," which often does not balance with the results obtained. The social benefits of social innovation (e.g., engaging local communities) appear insufficient if economic effects are lacking. Another significant limitation is the superficiality of social impact—its short-term nature or the inability to expand relational structures among social actors. Assessing quality-of-life effects is also problematic due to the multiplicity of possible indicators.

From a structural perspective, managing a model based simultaneously on participation and institutionally defined objectives is challenging. Therefore, a fundamental threat to social innovation is the lack of translatability between local perspectives and public policy domains. For this reason, a barrier to the development of social innovation is the difficulty of coordinating communication across local and global levels, as well as between social innovation domains (social, economic, environmental, cultural).

Thus, treating NPA (protected area) as a social innovation, the limitations include:

- **difficulty in coordinating different spheres** integrating multiple domains and stakeholders may lead to conflicts and decision-making challenges.
- **risk of fragmentation** despite network connections, the lack of a hierarchical structure may result in chaotic actions.
- **dependence on community engagement** lack of local community involvement may limit effectiveness.
- quality of social actor engagement conflicts of interest or pursuit of private goals may hinder outcomes.
- **challenges in measuring effects** the multidimensional nature of social and environmental impacts complicates evaluation.

Conversely, the opportunities include:

• effective integration of different spheres – natural, social, economic, and cultural.

- **genuine**, **rather than superficial**, **social participation** active engagement of communities in decision-making.
- ethics of responsibility alignment with post-industrial values and sustainable development principles.
- appropriate participatory and transparent management model promoting accountability and collaborative governance.

The NPA understood as a form of social innovation embodies the transition towards an integrated, territorially rooted, and sustainability-oriented model of governance. It operationalizes the theoretical assumptions of endogenous development, emphasizing the activation of local potentials, the strengthening of social capital, and the creation of new institutional arrangements fostering cooperation between nature protection and socio-economic development.

CONCLUSIONS

The concept of PAs has undergone a significant transformation, resulting in the formation of the NPA model. In the context of the new operational paradigm of protected areas, this transformation reflects a shift from sectoral conservation to a territorially integrated and sustainability-oriented approach. According to the new model, PAs are complex and multifunctional structures that integrate nature conservation goals with broader social, cultural and economic development. While functioning at the local level, they pursue global conservation and development goals. They operate on the basis of extensive networks, involving local communities, businesses and other stakeholders in the management and development of these areas. In the new model, protected areas are not seen merely as organizations that protect nature and manage resources, but as social institutions that are dynamic constructs, capable of evolving and adapting to changing conditions. In this view, NPAs can be regarded as social innovations, and parks operating under this model can be seen as social institutions that institutionalize innovation processes and create conditions for their further development.

Based on recommendations from a long tradition of innovation research, the key features of NPAs were analyzed that justify acknowledging the concept as SI. The following characteristics should be emphasized in that respect: hybrid design, potential to induce change, dual legitimacy (cognitive and ideological), and functional specificity, including in particular the pursuit of

social needs and demands, efficient and effective use of resources, improvement of the quality of life of residents and visitors, and changes in relationships and existing practices.

Given the continuous evolution of the NPA concept, the dynamic nature of the structures of parks operating under this model, and the successive SI developing within their framework, it is imperative that these issues be the subject of further empirical research. In the context of the specifics of SI and the theoretical foundations derived from past research on innovation, the following recommendations can be made regarding their key areas:

- 1. Recognizing the structures of PAs in terms of breaking internal dichotomies, which means identifying the degree of consistency of the "hybrid" in terms of binding together natural, economic, social, cultural aspects
- 2. Recognizing functionalities for their potential to induce change, which can be measured by solving local problems, improving the quality of life
- 3. Diagnosis of the level of socialization, which includes determining the extent, forms and characteristics of participation in the structure, barriers to participation and types of social geometry produced
- 4. Diagnosis of diffusion potential, i.e., assessment of the possibility of transferring specific solutions to another location, which involves determining the degree of networking of the innovation, that is, demonstrating cooperation with other locations of its application
- 5. Recognizing the foundation for the legitimacy of innovations, both in pragmatic and ideological terms, which boils down to diagnosing the usefulness of solutions and the perception of their mission.

SI should be seen as an important conceptual and analytical framework that facilitates the study and analysis of reality and provides a deeper understanding of the dynamic interactions taking place between communities and the environment. By analyzing these innovations, we became capable of identifying key relationships and mechanisms that affect the effectiveness of conservation and sustainable development activities. From a theoretical perspective on social innovation and territorial governance, the development of coherent analytical frameworks should be considered fundamental to further progress in this field. Such an approach not only contributes to strengthening the conceptual basis of social innovation research, but also provides a foundation for empirical inquiry and informed policymaking in the management of protected areas.

All of this suggests that this article should be treated as a starting point for the development of a research tool for assessing NPA as a social innovation. It seems that NPA as a social innovation should be diagnosed using a standardized tool (survey/in-depth interview), covering the following thematic blocks:

- 1. Levels of legitimacy: practical and axiological
- 2. Structural coherence: the degree of integration of natural, economic, social, and cultural aspects within a given park (NPA model)
- 3. Functionality
- 4. Socialization
- 5. Potential to induce change
- 6. Diffusivity

In conclusion, the theoretical model of NPA as a social innovation provides not only a framework for understanding the integrated functioning of protected areas but also a foundation for developing practical instruments of evaluation and participatory management aligned with the paradigm of sustainable, place-based, and endogenous development. It highlights the importance of social inclusion, deliberative participation, and co-responsibility as essential conditions for the effective and equitable management of protected territories. The novelty of this concept lies in the integration of social innovation theory with the territorial governance perspective, resulting in a new analytical framework that links the institutional evolution of protected areas with their social and developmental functions. This approach goes beyond traditional conservation models by redefining protected areas as active, and socially embedded systems of institutions.

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REFERENCES

Abernathy, W. J., & Clark, K. B. (1985). Innovation: Mapping the winds of creative destruction. *Research Policy*, 14, 3–22.

Archer, M. S. (2000). Being human: The problem of agency. Cambridge University Press.

Baker, S., & Mehmood, A. (2015). Social innovation and the governance of sustainable places. *Local Environment*, 20(3), 321–334.

Barnett, H. (1953). Innovation: The basis of cultural change. New York: McGraw-Hill.

Bass, F. M. (1969). A new product growth for model consumer durables. *Management Science*, 15(5), 215–227.

Batisse, M. (1997). Biosphere reserves: A challenge for biodiversity conservation and regional development. *Environment*, *39*(5), 6–33.

- Becken, S., & Job, H. (2014). Protected areas in an era of global-local change. *Journal of Sustainable Tourism*, 22(4), 507–527.
- Bell, D. (1974). Coming of post-industrial society. A venture in social forecasting. London: Heinemann.
- Berger, P. L., & Luckmann, T. (1983). *Społeczne tworzenie rzeczywistości*. Warszawa: Państwowy Instytut Wydawniczy.
- Biggs, R., Westley, F. R., & Carpenter, S. R. (2010). Navigating the back loop: Fostering Social innovation and transformation in ecosystem management. *Ecology and Society*, 15(2), 9.
- Bock, B. B. (2012). Social innovation and sustainability; how to disentangle the buzzword and its application in the field of agriculture and rural development. *Studies in Agricultural Economics*, 114, 57–63.
- Boswijk, H. P., & Franses, P. H. (2005). On the econometrics of the bass diffusion model. *Journal of Business & Economic Statistics*, 23(3), 255–268.
- Bridgewater, P., Phillips, A., Green, M., & Amos, B. (1996). *Biosphere reserves and the IUCN system of protected area management categories*. Australian Nature Conservation Agency, IUCN, UNESCO-MAB Programme.
- Bukowski, A., Rudnicki, S., & Strycharz, J. (2012). Społeczny wymiar innowacji. *Public Governance*, 2(20), 13–23.
- Cajaiba-Santana, G. (2014). Social innovation: Moving the field forward. A conceptual framework. *Technological Forecasting and Social Change*, 82, 42–51.
- Carreño-Ortiz, J., Escobar-Sierra, M., & Lopez-Perez, F. (2025). Theoretical relationship between circular economy and social innovation from a sustainable development perspective. *Humanities and Social Sciences Communications*, 12, 1549.
- Castro-Arce, K., Parra, C., & Vanclay, F. (2019). Social innovation, sustainability and the governance of protected areas: Revealing theory as it plays out in practice in Costa Rica. *Journal of Environmental Planning and Management*, 62(13), 2255–2272.
- Catton, W. R., & Dunlap, R. E. (1978). Environmental Sociology: A New Paradigm. The American Sociologist, 13(1), 41–49.
- Ceballos-Lascuráin, H. (1996). *Tourism, ecotourism, and protected areas: The state of nature-based tourism around the world and guidelines for its development.* Gland: IUCN.
- Colchester, M. (2003). Salvaging nature: Indigenous peoples, protected areas and biodiversity conservation. Moreton-in-Marsh: Forest Peoples Programme.
- Coleman, J. S., Katz, E., & Menzel, H. (1966). *Medical innovation: A diffusion study*. New York: Bobbs-Merrill Co.
- Czarnowski, S. (1956). Dzieła, T1. Warszawa: PAN.
- Deutschmann, P. J., & Fals Borda, O. (1962). Comunication and adoption patterns in an Andean village. San José, Costa Rica: Programa Interamericano de Información Popular, Report.
- Domecka, M. (2013). Introduction to the Polish translation of the book M.S. Archer. In *Człowieczeństwo. Problem sprawstwa (the Polish translation of the book: M.S. Archer, Being Human: The Problem of Agency)*. Kraków: Nomos.
- Dudley, N. (Ed.). (2008). Guidelines for applying protected area management categories. Glans: IUCN.
- Dudley, N., Kettunen, M., Gorricho, J., Krueger, L., MacKinnon, K., Oglethorpe, J., Paxton, M., Robinson, J., & Sekhran, N. (2022). Area-based conservation and the Sustainable Development Goals: A review. *Biodiversity*, 23(3–4), 146–151.
- Dudley, N., Stolton, S., Belokurov, A., Krueger, L., Lopoukhine, N., MacKinnon, K., Sandwith, T., & Sekhran, N. (2010). *Natural solutions: Protected areas helping people cope with climate change*. Gland, Washington, New York: IUCNWCPA, TNC, UNDP, WCS, The World Bank, WWF.

- Eichler, G. M., & Schwarz, E. J. (2019). What Sustainable Development Goals do social innovations address? A Systematic review and content analysis of social innovation literature. *Sustainability*, 11(2), 2.
- Griliches, Z. (1957). Hybrid corn: An exploration in the economics of technological change. *Econometrica*, 25(4), 501–522.
- Hägerstrand, T. (1952). The Propagation of innovation waves. Royal University of Lund.
- Hammer, T. (2016). Biosphere reserves: An instrument for sustainable regional development? The case of Entlebuch, Switzerland. In I. Mose (Ed.), Protected Areas and regional development in Europe: Towards a new model for the 21st century, New York: Routledge.
- Haskell, L., Bonnedahl, K. J., & Stål, H. I. (2021). Social innovation related to ecological crises: A systematic literature review and a research agenda for strong sustainability. *Journal of Cleaner Production*, 325, 129316.
- Hess, K. (2001). Parks are for people—But which people? In T. Anderson & A. James (Eds.), *The Politics and economics of park management*. New York, Oxford: Rowman and Littlefield, Lanham, Boulder.
- Hoffer, Ch. R. (1942). Acceptance of approved farming practices among farmers of Dutch descent. Michigan Experiment Station, Special Bulletin.
- Howaldt, J., Hölsgens, R., & Kaletka, C. (2024). Social innovation and sustainable development. In S. Sinclair & S. Baglioni (Eds.), *Handbook on Social Innovation and Social Policy*. Cheltenham & Northampton: Edward Elgar.
- Howaldt, J., & Schwarz, M. (2021). Social Innovation and social change. In J. Howaldt, Ch. Kaletka, & A. Schröder (Eds.), *A Research agenda for social innovation*. Edward Elgar Publishing.
- IUCN (1978). Categories, objectives and criteria for protected areas. A final report prepared by Committee on Criteria and Nomenclature Commission on National Parks and Protected Areas. Morges: IUCN. https://portals.iucn.org/library/node/5988. Accessed: 3.10.2025.
- IUCN (1982). *The World National Parks Congress*, Bali, Indonesia, 11-22 October 1982. Gland: IUCN. https://portals.iucn.org/library/sites/library/files/documents/1982-005.pdf. Accessed: 3.10.2025.
- Janasz, W., & Kozioł, K. (2007). *Determinanty działalności innowacyjnej przedsiębiorstw*. Warszawa: Polskie Wydawnictwo Ekonomiczne.
- Jones, G. E. (1967). The adoption and diffusion of agricultural practices. Word Agricultural Economic and Rural Sociology Abstracts, 9(3).
- Jones, K. R. (2012). Unpacking Yellowstone: The American national park in global perspective. In B. Gissibl, S. Hohler, & P. Kupper (Eds.), *Civilizing nature: A global history of national parks*. Oxford: Berghahn Books.
- Jungmeier, M. (2014). In transit towards a third generation of protected areas? Analysis of disciplines, forming principles and fields of activities by example of recent projects in protected areas in Austria. *International Journal of Sustainable Society*, 6(1–2), 47–59.
- Keiter, R. B. (2013). *To conserve unimpaired. The evolution of the national park idea.* Washington, Covelo, London: Island Press.
- Kollmorgen, W. M. (1941). The German Swiss in Franklin County, Tennessee: A Study of the Significance of cultural considerations in farming enterprises. Mimeo Bulletin.
- Kroeber, A. (1937). Anthropology. Harcourt.
- Kwaśnicki, W. (2015). Innowacje społeczne nowy paradygmat czy kolejny etap w rozwoju kreatywności człowieka? In W. Misztala, A. Kościanski, & G. Chimiak (Eds.), *Obywatele wobec kryzysu. Uśpieni czy innowatorzy?* Warszawa: IFiS PAN.
- Lange, S., & Jungmeier, M. (2014). *Parks 3.0—Protected Areas for a Next Society*. Verlag Klagenfurt: Johannes Heyn.

- Leal Filho, W., Fritzen, B., Ruiz Vargas, V., Paço, A., Zhang (Jane), Q., Doni, F., ... Wu, Y. J. (2022). Social innovation for sustainable development: Assessing current trends. *International Journal of Sustainable Development & World Ecology*, 29(4), 311–322.
- Linton, R. (1936). The Study of Man. Appleton—Century.
- Lionberger, H. F. (1952). The Diffusion of farm and home information as an area of sociological research. *Rural Sociology*, *1*, 132–143.
- Lopoukhine, N., Crawhall, N., Dudley, N., Figgis, P., Karibuhoye, C., Laffoley, D., ... Sandwith, T. (2012). Protected areas: Providing natural solutions to 21st Century challenges. S.A.P.I.EN.S. Surveys and Perspectives Integrating Environment and Society, 5.2.
- McGowan, K., Westley, F., Tjörnbo, O., Westley, F. R., McGowan, K., & Tjörnbo, O. (2017). The history of social innovation. In *The evolution of social innovation: building resilience through transitions*. Cheltenham, Northampton: Edward Elgar Publishing.
- Męczyński, M. (2007). Przestrzenne zróżnicowanie i dyfuzja technologii informacyjnokomunikacyjnych. Poznań: Bogucki Wydawnictwo Naukowe.
- Merton, R. K. (1949). *Social Theory and social structure (STSS)*. New York: Columbia University.
- Millard, J. (2018). How social innovation underpins sustainable development. In J. Howaldt, Ch. Kaletka, A. Schröder, & M. Zirngiebl (Eds.), Atlas of social innovation: New Practices for a better future. Dortmund: Technische Universität Dortmund.
- Morawski, W. (2012). Socjologia ekonomiczna: Problemy, teoria, empiria. Warszawa: PWN.
- Mose, I., & Weixlbaumer, N. (2016). A new paradigm for protected areas in Europe? In I. Mose (Ed.), *Protected areas and regional development in europe: Towards a new model for the 21st century*. New York: Routledge.
- Moulaert, F., MacCallum, D., & Hillier, J. (2013). Social innovation: Intuition, precept, concept, theory and practice. In F. Moulaert, D. MacCallum, A. Mehmood, & A. Hamdouch (Eds.), *The international handbook on social innovation. Collective Action, social learning and transdisciplinary research.* Elgar.
- Mulder, M. B., & Coppolillo, P. (2005). *Conservation: Linking ecology, economics, and culture*. Princeton University Press.
- Mulgan, G., Tucker, S., Ali, R., & Sanders, B. (2007). *Social innovation: What it is, why it matters and how it can be accelerated.* London: University of Oxford.
- OFR (1916). An act to establish a National Park Service, and for other purposes. (1916). U.S. Statutes at Large, Vol. 39, 535. Office of the Federal Register (OFR), National Archives and Records Administration (NARA), Washington. https://www.govinfo.gov/app/collection/statute/ 39-1913-1917. Accessed: 3.10.2025.
- OFR (1872). An act to set apart a certain tract of land lying near the head-waters of the Yellowstone River as a public park. (1872). U.S. Statutes at Large, Vol. 17, Chap. 24, 32–33. Office of the Federal Register (OFR), National Archives and Records Administration (NARA), Washington. https://www.govinfo.gov/app/collection/statute/ 22-1863-1883. Accessed: 3.10.2025.
- Ogburn, W. (1922). Social change: With Respect to culture and original nature. New York: B.W. Huebsch Inc.
- Ogburn, W. (1946). The Great man versus social forces. In O. Ducan & W. Ogburn (Eds.), *On culture and social change. Selected papers*. Chicago: University of Chicago Press.
- Ogburn, W. (1950). Social change with respect to culture and original nature. New York: Viking Press.
- Ogburn, W. (1964). On culture and social change. Selected papers. Edited and with an Introduction by Otis Dudley Duncan. Chicago: University Press Chicago.

- Palomo, I., Montes, C., Martín-López, B., González, J. A., García-Llorente, M., Alcorlo, P., & Mora, M. R. G. (2014). Incorporating the social–ecological approach in protected areas in the anthropocene. *BioScience*, 64(3), 181–191.
- Perinić, L., Denona, N., & Cegar, S. (2023). The Role of social innovations in the green transition of cities. In S. Drezgić, A. Host, M. Tomljanović, & S. Žiković, *Economics and business of the post COVID 19 world*. Rijeka: University of Rijeka.
- Phillips, A. (2003). Turning ideas on their head: The new paradigm for protected areas. *The George Wright Forum*, 20(2), 8–32.
- Phillips, A. (2004). The history of the international system of protected area management categories. *Parks*, 14(3), 4–14.
- Pietrasiński, Z. (1971). *Ogólne i psychologiczne zagadnienia innowacji*. Warszawa: Państwowe Wydawnictwo Naukowe.
- Pigliacelli, P., & Teofili, C. (2015). From P-Arks to P-Hubs. In R. Gambino & A. Peano (Eds.), *Nature policies and landscape policies: Towards an alliance.* Cham: Springer.
- Pol, E., & Ville, S. (2009). Social innovation: Buzz word or enduring term? *The Journal of Socio-Economics*, 38(6), 878–885.
- Pomykalski, A. (1997). Innowacje. Łódź: Politechnika Łódzka.
- Popescu, C., Hysa, E., Kruja, A., & Mansi, E. (2022). Social innovation, circularity and energy transition for environmental, social and governance (ESG) practices A comprehensive review. *Energies*, 15(23), 9028.
- Ravazzoli, E., & Valero, D. E. (2019). Social innovation: An instrument to achieve the sustainable development of communities. In W. Leal Filho, A. M. Azul, L. Brandli, P. G. Özuyar, & T. Wall (Eds.), *Sustainable cities and communities*. Cham: Springer.
- Rodríguez-Rodríguez, D. (2012). New issues on protected area management. In B. Sladonja (Ed.), *Protected area management*. Rijeka: InTech.
- Rogers, E. (1983). Diffusion of innovation. London: The Free Press.
- Rogers, E. M., & Kincaid, D. L. (1981). Communication networks: Toward a new paradigm for research. New York: Free Press.
- Ryan, B., & Gross, N. C. (1943). The diffusion of hybrid seed corn in two Iowa communities. *Rural Sociology*, *I*, 15–24.
- Schumpeter, J. (1960). Teoria rozwoju gospodarczego. Warszawa: PWN.
- Schumpeter, J. (2021). The Theory of Economic Development. London: Routledge.
- Sellars, R. W. (1997). *Preserving nature in the National Parks. A history*. New Haven, London: Yale University Press.
- Selznick, P. (1992). *Moral commonwealth. social theory and promise of community*. Berkley: University of California Press.
- Seyfang, G. & Smith, A. (2007). Grassroots innovations for sustainable development: towards a new research and policy agenda. *Environmental Politics*, 16(4), 584–603.
- Shannon, C. E., & Weaver, W. (1949). *The mathematical theory of communication*. Urbana: The University of Illinois Press.
- Sheppard, D. (1960). Neighborhood norms and the adoption of farm practices. *Rural Sociology*, 3, 356–358.
- SI-DRIVE. (2017). Social innovation in environment and climate change: Case study results; Project report: Social innovation: Driving force of social change. Dortmund: Technische Universität Dortmund.
- Sikandar, H., Kohar, U. H. A., & Salam, S. (2020). The evolution of social innovation and its global research trends: A bibliometric analysis. *Systematic Literature Review and Meta-Analysis Journal*, 1(2), 2.
- Spence, M. D. (1999). Dispossessing the wilderness: Indian removal and the making of the national parks. New York, Oxford: Oxford University Press.

- Stremersch, S. (2008). Health and marketing: The emergence of a new field of research. *International Journal of Research in Marketing*, 25(4), 229–233.
- Tarde, G. (1895). Les lois de l'imitation. Paris: Alcan.
- UNESCO. (1996). Biosphere reserves: The Sewille Strategy and Statutory Framework of the world network. Paris: UNESCO.
- UNECE (2023). *Innovation for Sustainable Development. Review of Armenia 2023*. Geneva: United Nations Economic Commission for Europe.
- van den Bulte, C. (2000). New product diffusion acceleration: Measurement and analysis. *Marketing Science*, 19(4), 366–380.
- Vatananan-Thesenvitz, R., Schaller, A.-A., & Shannon, R. (2019). A Bibliometric Review of the Knowledge Base for Innovation in Sustainable Development. *Sustainability*, 11(20), 5783.
- Venkatesan, R., Krishnan, T. V., & Kumar, V. (2004). Evolutionary estimation of macro-level diffusion models using genetic algorithms: An alternative to nonlinear least squares. *Marketing Science*, 23(3), 451–464.
- Watson, J. E. M., Dudley, N., Segan, D. B., & Hockings, M. (2014). The performance and potential of protected areas. *Nature*, *515*(7525), 67–73.
- Weixlbaumer, N., Hammer, T., Mose, I., & Siegrist, D. (2020). Das Biosphere Reserve-Konzept in Deutschland, Österreich und der Schweiz Paradigmatische Entwicklung und zukünftige Herausforderungen im Spannungsfeld von Regionalentwicklung und globaler Nachhaltigkeit. In A. Borsdorf, M. Jungmeier, V. Braun, & K. Heinrich (Eds.), Biosphäre 4.0. Berlin, Heidelberg: Springer Berlin Heidelberg.
- Wellin, E. (1955). Water Boiling in a Peruvian Town. In B. D. Paul & W. B. Miller (Eds.), *Heatlh, Culture and Community. Case Studies of Public Reactions to Health Programs*. New York: Russel Stage Fundation.
- Whitfield, P. R. (1975). Creativity in Industry. London: Penguin Books.
- Wilkening, E. A. (1950). A socio-psychological approach to the study of the acceptance of innovation in farming. *Rural Sociology*, *15*(1), 352–364.
- Willson, M. C. (1927). Influence of bulletins, news stories, and circular letters upon farm practices, with special reference to methods of bulletin distribution. *Extension Circular*, 57.
- Wissler, C. (1923). Man and Culture. New York: Crowell Compaby.
- Wright, R. G. (1999). Wildlife management in the national parks: Questions in search of answers. *Ecological Applications*, 9(1), 30–36.
- Wuyts, S., Stremersch, S., Van Den Bulte, C., & Franses, P. H. (2004). Vertical marketing systems for complex products: A triadic perspective. *Journal of Marketing Research*, 41(4), 479–487.
- Zajda, K. (2022). Wdrażanie innowacji społecznych przez wiejskie organizacje pozarządowe i lokalne grupy działania. Łódź: Uniwersytet Łódzki.
- Zawilińska, B. (2025). Model zintegrowanego funkcjonowania parków narodowych w Karpatach (Model of the Integrated Functioning of National Parks in the Carpathians). Kraków: Instytut Geografii i Gospodarki Przestrzennej Uniwersytetu Jagiellońskiego.
- Zdun, M. (2016). *Innowacje. Perspektywa społeczno-kulturowa*. Lublin: Katolicki Uniwersytet Lubelski.
- Ziegler, R., Balzac-Arroyo, J., Hölsgens, R., Holzgreve, S., Lyon, F., Spangenberg, J. H., & Thapa, P. P. (2022). Social innovation for biodiversity: A literature review and research challenge