The Atayan-Baba Aigulu Micro-Reserve

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Is the project a case of…:

☐ State-initiated co-creation
☐ Entrepreneur-driven co-creation
☒ Grassroots-based co-creation
**For an elaboration of the typology, please consult the GOGREEN theoretical framework p. 25.*

Integrated case analysis

1) Background, history, and national, regional, and local contexts of the case

Kyrgyzstan is a unitary state with a presidential form of government since the 2021 Constitution, while local governance combines central state administration with constitutionally recognized local self-government institutions. At the local level, decision-making is carried out through elected local keneshes and executive bodies of local self-government, such as aiyl okmotu in rural areas. This institutional setting is important for the present case because the creation of a micro-reserve depends not only on civic initiative and expert support, but also on the formal authority of local self-government bodies to deliberate, approve, and operationalize protection measures. In other words, co-creation in this context unfolds in a governance system where community initiative can be highly influential, but durable outcomes still require formal endorsement, procedural compliance, and registration through public institutions at both local and national levels. Kyrgyzstan's regulatory framework for micro-reserves reflects this logic: local self-government bodies play a central role in initiating and approving locally significant protected areas, while state environmental authorities retain review, expert assessment, and registration functions. This is also consistent with the legal architecture of micro-reserves in Kyrgyzstan, where local self-government bodies and local keneshes are empowered to establish them, while documentation, expert conclusions, and state ecological review remain part of the formal procedure.

Kyrgyzstan's land resources are under significant anthropogenic pressure: almost half of the country's territory is used as pastureland, while the scale of cultivation and infrastructure development continues to expand. These processes lead to degradation and fragmentation of natural ecosystems, especially in agricultural landscapes, where only small but ecologically valuable patches of natural vegetation remain. These patches sustain local biodiversity and ecosystem resilience, yet they are among the most vulnerable to disturbance. Such ecological "islands" provide important ecosystem services (including the maintenance of pollinator populations and local microclimatic effects), which further increases their relevance for the resilience of rural territories.

In response to these challenges, and with support from the CEPF programme and international partners, a pilot initiative was launched to establish micro-reserves—small protected areas embedded within productive rural landscapes and governed at the local community level. In the Kyrgyz context, micro-reserves are relatively small sites, including areas located among agricultural lands, where economic activity is excluded in order to conserve and regenerate biodiversity and ecosystems. In practice, these are not large wilderness areas, but ecologically valuable habitat patches situated within or alongside pastures, fields, orchards, riverbanks, or fragments of semi-natural vegetation. They may protect rare species such as Edward's fritillary (*Fritillaria eduardii*), remnants of native pasture vegetation, shrub communities, or

other vulnerable habitats that are too small or too fragmented to be effectively safeguarded through conventional large-scale conservation instruments. The logic of micro-reserves is therefore not to replace farming as such, but to protect strategically important ecological "islands" within intensively used landscapes, where grazing, cultivation, construction, or extraction would otherwise continue to degrade habitats and reduce biodiversity.

The establishment of micro-reserves was enabled by the adoption of a new regulatory framework: Government Resolution No. 554 (2022) and subsequent amendments to the Law "On Protected Areas" (2024), which formalised the category of micro-reserves and detailed procedures for creating locally significant protected areas. These norms defined the mandates of local councils (keneshes), requirements for justification, approval procedures, and the inclusion of territories in the State Cadastre of Protected Areas. At the same time, interviews note that at the initial stage some procedural aspects remained insufficiently clarified in practice, requiring further interpretation and step-by-step refinement during the pilot implementation.

Pilot sites were selected based on a set of criteria, including ecological value (including relevance to Key Biodiversity Areas—KBAs), the interest and engagement of local communities, the presence of initiative groups, and the willingness of local self-government bodies to assume responsibility for site management.

This case focuses on a micro-reserve in Leilek District—a socially and economically strained area characterised by high population density, limited resources of local authorities, and competing land-use interests. Despite these challenging conditions, active local leaders and an initiative group played a pivotal role in mobilising community support, engaging schools and women's groups, and completing all administrative procedures required for establishing the micro-reserve. Respondents also highlight the sustainability dimension: without regular financing for basic management and protection, many functions rely on volunteer commitment, underscoring the importance of identifying mechanisms to secure the coverage of minimum recurring costs at the local level.

Overall, the initiative evolves at the intersection of national reforms in nature conservation, regional biodiversity priorities, and local socio-economic realities, demonstrating the potential of locally governed micro-reserves as a model that can be replicated in other communities across the country.

2) The aims of the project and the sustainability problems that it seeks to address

The micro-reserves project aims to introduce and field-test a new mechanism of locally governed protected areas, as anchored in national legislation. The core idea is to protect small yet valuable natural sites located within intensively used agricultural landscapes and to embed their management within local self-government and public participation.

Key project objectives:

a) Biodiversity conservation under high anthropogenic pressure.
   Micro-reserves are established to protect remnants of natural vegetation, rare species, and degrading ecosystems, including sites located within Key Biodiversity Areas (KBAs).
b) Testing a new legal mechanism for locally significant protected areas.
   The project examines how workable the procedures stipulated by Government Resolution No. 554 and the amendments to the Law "On Protected Areas" are in practice, and what barriers local authorities and initiative groups face. Interviewees note that, at the early stage, several

procedural aspects required additional clarification and step-by-step refinement during implementation.

c) Developing a model of co-management for natural areas.
Establishing a micro-reserve relies on cooperation among initiative groups, residents, schools, women's associations, and local councils (keneshes). In a number of locations, including Leilek, active local leaders have proven to be a decisive success factor. In some cases, the identification and justification of priority sites was supported by expert input and field visits, which helped translate local knowledge into formal documentation.

d) Increasing environmental literacy and shifting local perceptions of "development."
The project seeks to make nature conservation part of the community's everyday logic—from schoolchildren to elected members of local councils. The long-term viability of a micro-reserve is only possible when residents understand its value. Respondents also highlight the importance of communicating ecosystem services (e.g., pollinators and microclimatic effects) to strengthen community buy-in.

e) Creating conditions for scaling up the approach.
The project develops replicable tools, including templates, regulations (bylaws), site passports, a roadmap, a grievance mechanism, and a bilingual website, enabling other communities to replicate the model.

Sustainability challenges addressed by the project

a) Environmental: pasture degradation, habitat fragmentation, decline of valuable species, and illegal harvesting/poaching.
b) Institutional: a new and complex procedure for establishing micro-reserves, limited municipal resources, and the absence of sustainable financing. Interviews particularly stress that without recurring funds for basic management and protection, responsibilities may remain dependent on volunteer commitment.
c) Socio-economic: competition for land, low community motivation, and a focus on short-term gains.
d) Participation and engagement: the need for continuous outreach to residents, potential resistance from some groups, and the critical role of initiative leaders.

3) The participants and their interaction and communication in and between meetings

Before discussing the interaction in greater detail, it is useful to provide a brief overview of the main actors involved in the case and their sectoral roles:

a) Village residents and land users in the Leilek/Katran area (civil society / local community) — community members whose consent, participation, and acceptance were essential for the establishment of the micro-reserve.
b) The local initiative group (civil society / community-based actors) — a locally rooted group that mobilised residents, coordinated communication, and helped prepare the process on the ground.
c) Nazarat, a trusted local leader and key member of the initiative group (civil society / community leadership) — an informal but highly influential community organiser who acted as a bridge between residents, project partners, and local authorities.
d) Schools, women's groups, respected elders, and local activists (civil society) — actors who broadened community outreach, strengthened legitimacy, and supported awareness-raising.

e) The ayil okmotu and the local kenesh (public sector / local self-government) — local public authorities responsible for formal approval, adoption of the relevant local acts, and administrative follow-up.
f) Project partners, including CSOs, biodiversity experts, and scientists (civil society / expert community) — external supporting actors who contributed methodology, ecological justification, site documentation, and technical advice.
g) The Ministry of Natural Resources and its relevant departments (public sector / state bureaucracy) — state-level actors responsible for ecological review, document verification, cadastre-related functions, and formal legalisation of the procedure.
h) The CEPF-supported project framework and partner organisations behind the broader pilot initiative (funder / facilitator / supporting organisations, depending on role) — actors that helped enable the pilot phase, provided resources, and supported scaling and replication.

The establishment of the micro-reserve in Leilek resulted from the interaction of these actor groups, each of which played a distinct but partly overlapping role in the overall process. A particularly important role was played by the local initiative group and community leadership. Within this group, Nazarat stood out as a trusted local leader and facilitator of the process. Rather than representing a formal state body, she acted as a community-based organiser who maintained communication between residents, the project team, and local self-government bodies, explained procedures in accessible terms, convened meetings, supported document preparation, and served as the key connector without whom the legal registration of the micro-reserve would have been difficult to achieve. As reflected in meeting records and interview material, such local leaders became the real “drivers” of the process, translating complex legal and environmental issues into practical and understandable steps for the wider community.

Community members participated in discussions, village meetings, boundary validation and decision-making. Their consent was an essential element of the procedure, while the involvement of schools, women’s groups and respected elders was critical for consolidating broader public support. Participation was not limited to formal attendance at meetings: residents were also engaged in discussions of environmental and social benefits, which helped strengthen a sense of ownership and responsibility. At the same time, the process required ongoing outreach to address scepticism and concerns linked to land-use competition and short-term economic priorities.

Local self-government bodies—the ayil okmotu and the local kenesh—were responsible for formalising the decision to establish the micro-reserve, approving the local regulation, submitting the documentation for inclusion in the State Cadastre of Protected Areas, and providing subsequent administrative follow-up. Despite limited administrative capacity and difficulties in interpreting new regulatory requirements, local authorities were able to complete the required formal steps. Interviews also suggest that this was a “pioneering” process in which some procedural aspects had to be clarified and agreed in practice, with local actors learning and adapting as implementation progressed. This was made possible through the active support of the initiative group and ongoing consultations with technical and project partners.

Project partners—CSOs, technical experts and scientists—provided methodological and expert support. They assisted in preparing site passports, local regulations and management planning elements, supported ecological justification and field verification, and built the capacity of local leaders. Key contributions included biodiversity expertise (e.g., Gamal Surankulov), guidance on fencing and monitoring (Ilya Domashov), and scientific consultation that strengthened the evidence base and practical recommendations for site management. Their role did not replace community decision-making; rather, it

complemented it by ensuring that local choices could be translated into scientifically grounded and legally consistent documentation.

The Ministry of Natural Resources and its relevant departments performed oversight and registration functions: organising state ecological review, entering data into the protected areas cadastre, checking documentation completeness and ensuring the legalisation of the procedure. Meeting records indicate that the new procedure also raised questions at ministerial level and required adaptation, which added complexity but did not halt progress. Interviews similarly point to the need for more applied guidance and standardised clarifications to reduce transaction costs for local authorities and initiative groups in future cases.

Overall, roles were not strictly separated but were shaped through practice: the initiative group ensured social mobilisation and continuity; residents provided legitimacy; local self-government bodies gave legal force; experts contributed methodology and evidence; and the ministry provided formal recognition of the micro-reserve.

4) How often do they meet, and do they communicate between meetings?

Interaction among participants combined several layers of communication that differed in frequency, composition, and purpose. Formal multi-stakeholder meetings were comparatively infrequent and took place at key decision points in the process. These included citizens' assemblies and sessions of the local kenesh, where the boundaries of the proposed micro-reserve, its ecological value, and the legal need for protection were discussed and formally endorsed. Such meetings were not held on a daily or weekly basis, but rather when the process reached specific procedural milestones requiring collective deliberation, formal consent, or official approval. On-the-ground work was supplemented by trainings, advisory sessions, and school-based awareness activities organised for initiative groups, residents, and other stakeholders.

Between these formal milestones, communication was much more frequent and often continuous. The initiative group and local leaders, especially Nazarat, maintained near-daily contact with residents and other local actors in order to explain procedures, clarify boundaries, respond to objections, and sustain community support. This day-to-day interaction was particularly important in periods of uncertainty or conflict, for example when some residents questioned land-use implications or when an initially proposed site had to be reconsidered. In that sense, the process was not driven by a steady rhythm of formal meetings, but by repeated cycles of consultation, follow-up, and informal mediation between more formal decision-making moments.

The venues and communication platforms were also mixed. Formal face-to-face meetings were most likely held in places already recognised as legitimate local governance arenas, such as municipal or village-level public buildings connected to the ayil okmotu or local community gatherings, because these were the spaces where formal consent, documentation, and public deliberation could be anchored institutionally. By contrast, outreach, awareness-raising, and educational activities took place in more socially embedded venues, including schools and community-based settings, which helped broaden participation beyond officials and initiative leaders. The choice of such venues mattered because it linked the project to familiar and trusted local spaces rather than presenting conservation as something external to community life.

Digital communication appears to have played a supporting rather than dominant role. Project materials explicitly mention the use of a WhatsApp group through which photos of the micro-reserves, information about ongoing work, and training materials on ecosystem conservation were shared. This suggests that

online communication was used primarily for continuity, coordination, and information-sharing between in-person activities, while the most sensitive discussions, mobilisation efforts, and formal decisions remained grounded in face-to-face interaction. For the purposes of this collaboration, that combination seems to have been appropriate: WhatsApp supported routine communication and visibility, whereas physically convened meetings in public and community venues provided the legitimacy, trust, and deliberative quality needed for collective decision-making.

5) The role and forms of knowledge sharing, coordination and joint problem-solving

The process of establishing the micro-reserve in Leilek was built on continuous knowledge exchange and joint problem-solving among the initiative group, residents, local self-government bodies, project partners and state institutions. Because the micro-reserve mechanism was new and only partially tested in practice, participants repeatedly had to explain legal provisions, align procedural steps and adjust approaches to fit on-the-ground realities, including ambiguous or insufficiently clarified requirements.

Knowledge exchange took place primarily through regular meetings between the initiative group and residents, where the boundaries of the future micro-reserve, the site's ecological value and the practical meaning of the legal procedure were discussed. These discussions served not only an informational function but also a learning function: residents increasingly connected ecosystem conditions to their own well-being and local livelihoods, strengthening the social basis for long-term support and compliance.

Project partners provided the methodological backbone of the process by assisting with the justification package, site passport, local regulation, work plan and required expert inputs. They supported the initiative group and local authorities in interpreting Government Resolution No. 554 and procedural requirements for locally significant protected areas, reducing the likelihood of mistakes and delays. This support did not substitute community decision-making; rather, it strengthened it by ensuring that local choices could be translated into coherent, legally sound documentation.

Coordination between the initiative group and the municipality was practical and iterative. Formal stages—preparing documents, convening a citizens' assembly and bringing the issue to a kenesh session—required frequent clarifications and alignment. Local authorities were navigating this procedure for the first time, so solutions were developed collaboratively through discussion of options and clarification of roles and responsibilities, including what needed to be done locally and what required review and registration at higher levels.

A key element of the process was the collective handling of emerging challenges. A representative example was the situation in which the initially selected site faced resistance from part of the community and was effectively redirected to other uses. The initiative group, together with project partners and local authorities, conducted additional negotiations and identified an alternative location that was both ecologically justified and socially acceptable. This episode illustrates that flexibility and the capacity to adapt were central to co-creation in practice and helped preserve momentum when initial assumptions proved unworkable.

Biodiversity experts and scientists contributed specialised knowledge, from assessing the site's conservation value to providing recommendations on fencing, monitoring and vegetation restoration. This ensured that local decisions were not based solely on intuition or negotiation dynamics, but were supported by evidence and practical guidance that could be defended within formal review and registration processes.

Overall, knowledge exchange, coordination and joint problem-solving were not peripheral features but the core of the process. The establishment of the micro-reserve evolved as a collective learning pathway, combining local experience, legal requirements and scientific inputs, gradually leading stakeholders toward workable agreements, stronger local ownership and more durable support for the initiative.

6) The relation between consensus and conflict and the handling of the latter

In the process of establishing the micro-reserve in Leilek, consensus was not predetermined; it was built gradually through discussions, clarification and adjustments to initial decisions. At the early stages, the procedure was accompanied by both broad expressions of support and localised disagreements, primarily linked to competing land uses, differing economic interests and limited understanding of the legal logic behind micro-reserves.

The main source of disagreement emerged around the initially selected site. A group of male land users challenged the proposed territory and sought to use it for their own purposes. This episode became a turning point, demonstrating that even when an initiative is generally supported, specific conflicts can arise when an intervention affects access to a scarce resource—land. The initiative group, together with project partners and the ayil okmotu, had to look for an alternative solution, returning to community discussions and conducting additional consultations. As a result, a new site was proposed and agreed upon—one that was acceptable from both ecological and social perspectives. This approach helped transform a potential conflict into a structured part of the joint decision-making process.

Another source of tension was uncertainty among some representatives of local self-government regarding the regulatory procedure. The new legal category of micro-reserves required practical clarification: who carries responsibility, which documents are mandatory, how expert review is conducted and how registration is completed. These questions could create tension and delays, but they were addressed through joint deliberation, consultations with experts and continuous information exchange. Project partners played a facilitative role, helping interpret legal requirements and reduce the risk of administrative errors.

Despite episodes of resistance, the overall interaction dynamic was oriented toward finding common ground. Several factors supported consensus-building: the credibility of the initiative leader, community trust in the project, consistent outreach and explanation, and the involvement of schools and women's groups, which framed the micro-reserve as a long-term value for future generations. Over time, a shared understanding emerged that conserving the site does not contradict local development interests, but can contribute to more sustainable use of natural resources and improved local resilience.

Conflicts did not disappear entirely, but they were kept in a constructive form through ongoing dialogue, the ability to revise initial decisions and a shared perception of the process as collective learning. Ultimately, consensus was achieved not because disagreements were absent, but because stakeholders were able to work through them, align interests and identify mutually acceptable solutions.

7) The role and form of leadership: lead actor, steering group and/or collective leadership

Leadership in the establishment of the micro-reserve in Leilek District was hybrid in nature, combining individual initiative, informal influence and collective elements of decision-making. Although the procedure formally requires the involvement of local authorities, the practical driving force of the process was the initiative group, at the centre of which stood Nazarat—a local leader with a high level of trust, strong community engagement experience and the ability to translate complex environmental and legal

issues into the everyday realities of the community. Her role propelled the process at all stages, from the first presentation of the idea to residents to the search for alternative solutions when conflicts emerged.

Her leadership can be characterised as facilitative: oriented not toward making decisions on behalf of others, but toward creating conditions in which decisions become genuinely collective. Meeting records indicate that Nazarat not only convened gatherings but also helped shape a shared vision of what the micro-reserve could mean for the community over the long term, with particular attention to the perspectives of women and young people. This leadership approach supported trust-building and helped engage groups that were initially cautious or sceptical.

Alongside individual leadership, elements of collective leadership were also important. Members of the initiative group performed distributed leadership functions: some focused on communication with pasture tenants and land users, others on engagement with the school, and others on the technical details of preparing and submitting documentation. This distribution increased process resilience and reduced dependence on a single person, helping maintain momentum during periods of uncertainty or procedural delay. The project team and experts contributed to leadership development through mentoring, methodological guidance and expert inputs; however, they did not substitute local leadership, but strengthened local actors' capacity to operate confidently within a new legal environment.

Local authorities—the ayil okmotu and the kenesh—provided the institutional leadership needed to give decisions legal force. Their involvement ensured procedural compliance, yet their leadership was largely reactive and depended on the initiative and preparatory work undertaken by the community. Nevertheless, decisions adopted by the kenesh ultimately set the formal parameters within which the micro-reserve could be established and recognised.

Overall, leadership in this case can be understood as a multi-level configuration that combined personal initiative, distributed roles and institutional support. The process succeeded because this configuration brought together the social authority of local leaders, the practical energy of the initiative group, expert support from project partners and the formal mandates of public bodies. This hybrid leadership model helped balance guidance with meaningful participation, which is critical for effective co-creation of locally grounded green solutions.

8) The temporal unfolding of the co-creation process: major shifts and ups and downs

The establishment of the micro-reserve in Leilek unfolded in several partly overlapping phases rather than as a linear sequence. A useful starting point is 2022, when Cabinet Resolution No. 554 of 7 October 2022 created the formal legal pathway for establishing micro-reserves and other locally significant protected areas in Kyrgyzstan. This new regulatory framework opened an institutional window for local conservation initiatives, but it also meant that early implementation would take place under conditions of procedural novelty, uncertainty, and learning-by-doing.

A second phase can be located in 2023, when the Leilek/Katran case moved into local mobilisation and early planning. During this period, local leaders, residents, and project partners worked to identify a suitable site, build initial support, and translate the general idea of a micro-reserve into a concrete locally grounded initiative. This stage was important because the project had to connect ecological priorities with local realities, including community perceptions of land use, responsibility, and future management. It was also during this phase that the first tensions became visible, especially around the practical implications of protecting a specific site.

A third phase, stretching across 2023–2024, involved the most intensive period of coordination, documentation, and procedural alignment. The initiative group, local self-government bodies, and supporting experts had to prepare and assemble the full justification package, clarify boundaries, organise consultations, obtain the necessary expert conclusions, and navigate the formal approval process. This was also the phase in which the main "ups and downs" occurred. The most significant disruption concerned the initially preferred site, which triggered disagreement and resistance linked to competing land-use interests. Rather than abandoning the initiative, the actors returned to consultation, searched for an alternative option, and gradually re-aligned ecological and social considerations. In this sense, the process advanced through adjustment and re-negotiation rather than through smooth institutional implementation.

By 2024, the case had moved closer to formal consolidation within the broader national pilot effort. Project materials show that five micro-reserves had been created within the wider initiative, including "Atayan-Baba Aigulu," and that the process was increasingly linked to broader networking, awareness-raising, and inter-site exchange. The festival "Network of Micro-Reserves – Together Towards Sustainable Ecosystems," held on the southern shore of Issyk-Kul in August 2024, marked an important shift from localised establishment efforts toward peer learning and network formation. The same tendency was reinforced by the working meeting in Osh on 7 December 2024, where leaders of the micro-reserves discussed lessons learned, implementation steps under Resolution No. 554, and future cooperation.

A fourth phase may be described as post-establishment consolidation, extending from late 2024 into 2025 and beyond. At this stage, the emphasis appears to shift from legal creation as such, toward strengthening the practical and social sustainability of the micro-reserve. This includes school-based outreach, exchange visits, efforts to connect micro-reserves with wider Key Biodiversity Areas, and plans for cooperation with larger protected areas and biodiversity institutions. In this phase, the key challenge is no longer simply to establish the reserve on paper, but to embed it in everyday local governance, public awareness, and longer-term conservation practice.

Overall, the time dynamics of the case can be characterised as a progression from institutional opening, to local mobilisation, to conflict-sensitive adjustment, to formalisation, and finally to consolidation. The main shifts in trajectory were linked, first, to the introduction of a new legal instrument in 2022, second, to local disagreement over the initially proposed site during implementation, and third, to the transition from isolated site-level work toward broader network-building and follow-up cooperation in 2024–2025. This timeline helps show that the co-creation process was not a single event, but a developing governance pathway shaped by experimentation, procedural adaptation, and continued relationship-building.

9) The most important governance factors (may include factors other than those in focus in this project)

Several governance factors played a substantial role in shaping the implementation of the micro-reserve initiative. One of the key factors was a pronounced concern about the environmental condition of the site, linked to land degradation, vegetation fragmentation and the risk of losing local biodiversity. These considerations provided the basis for justifying the need for protection and helped frame the decision in discussions with residents and the ayil okmotu, including through references to tangible ecosystem services relevant for rural livelihoods.

Another important factor was the existence of a new regulatory framework, including Government Resolution No. 554 and subsequent legislative amendments. While this framework enabled a formal pathway for establishing a micro-reserve, it also generated administrative difficulties, as local authorities

had limited prior experience with this category of protected area. Coordination among the initiative group, project partners and local self-government bodies therefore focused on interpreting procedural requirements and aligning organisational steps with the prescribed legal sequence.

From the perspective of stakeholder interaction, the availability of participation and mobilisation channels was a critical factor. Citizens' assemblies, targeted consultations with specific resident groups and informal discussions provided spaces for aligning positions and building consent. These mechanisms helped resolve misunderstandings and allowed the process to adjust when disagreements emerged, most notably during the dispute over the initially proposed site.

Inclusiveness and the engagement of affected groups also proved influential. Women, school communities, elders and local activists took part in discussions and supported outreach and clarification efforts. This broadened the social base of the initiative and reduced the likelihood of renewed disputes as the procedure advanced.

Trust and mediation constituted another important governance factor. The initiative group functioned as an intermediary between residents, the ayil okmotu and project partners, lowering the risk of escalation of local tensions. The presence of a trusted local leader helped structure discussions, consolidate questions and represent community interests in dialogue with public authorities.

Leadership dynamics further shaped the process. A local leader provided day-to-day social and organisational coordination, while municipal bodies fulfilled the institutional role required to formalise decisions. This distributed leadership arrangement supported both the completion of formal steps and the maintenance of community support.

Finally, adaptability and a willingness to revise decisions were essential. The process required revisiting early assumptions, identifying alternative sites and re-negotiating specific points as new constraints emerged. This flexibility enabled the initiative to remain within the formal procedure despite local challenges and to sustain progress toward legal establishment.

10) The generated outputs and outcomes

As a result of the process, key organisational and regulatory outputs necessary for establishing the micro-reserve were produced. A justification package for the site, a site passport, a local regulation, an ecological conclusion and the full set of documents for consideration by the local kenesh were prepared and coordinated. The kenesh adopted an official decision to establish the micro-reserve and to submit the relevant data for inclusion in the State Cadastre of Protected Areas, thereby providing the legal basis for the site's formal designation.

At the practical level, the boundaries of the site were identified and refined, recommendations for fencing were developed, and initial activities to inform residents and engage schools were launched. These steps created a foundation for subsequent ecological monitoring and for planning additional measures aimed at site restoration and improved management.

The process also generated social effects: community awareness increased regarding the legal mechanism of micro-reserves and the ecological value of the territory; cooperation among the initiative group, the ayil okmotu and the project team was strengthened; and local support was consolidated for continued work on managing the site. At the same time, interviews highlight that sustaining these outcomes will depend

on the availability of recurring resources and clear local arrangements for basic management and protection.

Overall, the process delivered both formal results (documents, official decisions and registration) and initial social and organisational shifts that are necessary for the micro-reserve's continued functioning.

11) Lessons learned about the conditions for co-creating green solutions

The experience of establishing the micro-reserve demonstrated the importance of providing early and consistent explanations of the legal procedure to all participants. The new regulatory framework requires practical interpretation and adaptation, therefore the presence of competent intermediaries and strong support from the initiative group significantly reduces the risk of administrative errors and delays.

The process also underscored the need for flexibility in working with land and site selection. Emerging disputes over land use require timely consultations and a willingness to revise initial decisions. Stakeholders' capacity to shift to alternative options helped avoid a procedural deadlock and maintain community consent.

The case confirmed the value of local leadership. Having a recognised leader who can coordinate stakeholders and sustain communication facilitates progress through procedural stages and strengthens the initiative's resilience.

Another key lesson is that formal decisions need to be backed by a minimum level of social support. The engagement of residents, schools and specific community groups helps clarify the purpose of the micro-reserve and reduces the risk of renewed disputes after the site is formally established.

In addition, the experience showed that the process requires not only legal and organisational actions, but also an initial form of collective learning aimed at building local actors' skills in working with ecological information, regulatory requirements and procedures for locally significant protected areas.

Overall, the case highlights the need to combine regulatory clarity, distributed leadership, open communication and adaptability when implementing initiatives related to locally governed nature conservation solutions.

Scoring and analysis of governance factors

1. Perceived importance of biosphere conditions

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Interviews
☐ 0.33	☐ Medium confidence	☒ Documents
☐ 0.66	☒ High confidence	☐ Observations
☒ 1		

Please elaborate on the reasoning behind your scoring for this governance factor:

In the micro-reserve case, the site's ecological conditions were treated as a key motivation for its selection. Analytical reports on Key Biodiversity Areas and on the pilot micro-reserves document pasture degradation, fragmentation of natural vegetation and the presence of valuable species, and these findings were used as the core justification for protecting the area.

Interview results show that participants repeatedly referred to the ecological state of the site when discussing the initiative both with residents and with the ayil okmotu, which confirms the centrality of biosphere-related conditions in their argumentation. Responses captured through the questionnaire also reflect that ecological characteristics were perceived as an important factor.

Materials published on the mikrokoruk.leader.kg website and the micro-reserve site passports further indicate that key site-selection criteria were based on vegetation condition, identified threats and biodiversity value.

Taken together, the evidence suggests that biosphere-related conditions were highly salient for participants and were integrated into decision-making. The score reflects the importance of biosphere conditions in this case was not merely acknowledged, but actively supported the collaborative process. At the most basic level, this factor was clearly present: project materials, expert assessments, and local discussions consistently referred to the ecological value of the site, including biodiversity significance, habitat vulnerability, and the need to protect rare species and fragments of natural vegetation. This means the factor was more than simply absent or incidental. It was also significantly present, since these biosphere-related concerns remained central throughout the process of site identification, public discussion, justification, and formal approval.

The key reason for assigning the maximum score, however, is that recognition of biosphere conditions functioned as a concrete enabler of collaboration. Ecological arguments provided a shared frame through which different actors—local residents, initiative group members, experts, and local authorities—could discuss the proposed reserve in terms that extended beyond narrow or competing land-use interests. In this sense, the perceived importance of biodiversity helped create a common language for negotiation and justification. It made the initiative more understandable and relatable to different stakeholders and contributed to aligning interests around a broader conservation purpose, even when disagreements emerged over the exact location of the reserve. Rather than remaining a background concern, biosphere conditions became a motivational and interpretive basis for cooperation.

2. Legislation, programs, and formal goals

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Interviews
☐ 0.33	☒ Medium confidence	☒ Documents
☒ 0.66	☐ High confidence	☐ Observations
☐ 1		

Please elaborate on the reasoning behind your scoring for this governance factor:

In Kyrgyzstan, formal objectives, legislative frameworks, and policy documents in the field of biodiversity conservation provide an important normative backdrop for locally driven green transition initiatives; however, in this case their role is better understood as clearly present rather than significant. The Law “On Protected Areas” defines micro-reserves as a distinct category of protected areas and sets their core purpose as creating local nodes for biodiversity conservation and regeneration, including on agricultural lands. In addition, Cabinet of Ministers Resolution No. 554, adopted in 2022, introduced a formal procedure for establishing and operating micro-reserves and other locally significant protected areas, assigning an official role to local self-government bodies and elected local councils.

These legal and policy provisions were therefore undeniably present in the institutional environment of the case, and they provided the formal basis that made the establishment of a micro-reserve legally possible. They also gave the initiative an official language and a recognised procedural frame. However, their practical influence on the development of the case appears more limited than might be expected. The actual progress of the initiative depended less on the active steering force of formal goals and legislation, and more on the efforts of local leaders, community mobilisation, expert assistance, and persistent negotiation required to move the process forward under complex local conditions.

Within the case, the regulatory framework was ultimately translated into implementation, as five micro-reserves were officially established and registered in the State Cadastre of Protected Areas. Formal environmental goals—such as conserving priority species, ecosystems, and Key Biodiversity Areas identified under the Critical Ecosystem Partnership Fund programme—were reflected in local decisions and regulatory documents. Yet this does not necessarily mean that formal goals and legislation were significant drivers of the process itself. Rather, they remained a necessary formal backdrop that had to be navigated, interpreted, and operationalised by other actors. The case shows that the existence of legislation alone did not substantially shape the concrete dynamics of the initiative, nor did it reduce the dependence on external expertise or sustained local effort.

In this sense, micro-reserves in the case function not only as a conservation tool but also as a practical test of whether legislative and programmatic objectives can be made workable in practice. The case suggests that formal environmental goals become meaningful only when they are activated through local institutional capacity, clear procedures, and sustained engagement by citizens, experts, and local self-government bodies. On their own, they had a significant influence on the overall possibility for collaboration, although it was not sufficient to have an impactful influence on the collaborative processes themselves in any discernible ways.

3. Relative openness of public governance paradigms

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Interviews
☒ 0.33	☐ Medium confidence	☐ Documents
☐ 0.66	☒ High confidence	☐ Observations
☐ 1		

Please elaborate on the reasoning behind your scoring for this governance factor:

The micro-reserves case in Kyrgyzstan demonstrates a moderate yet fundamentally important degree of openness in public governance paradigms to non-traditional, locally initiated green transition solutions. Formally, the country's protected-area governance model has long remained predominantly centralised, expert- and agency-driven, and focused on large-scale reserves and national parks. The introduction of micro-reserves as a legal category and the transfer of authority for their establishment to local self-government bodies signalled a shift toward a more decentralised and flexible paradigm of environmental governance.

In this case, that relative openness manifested in the recognition of "bottom-up" initiatives—originating from local communities, environmental organisations and informal leaders—as a legitimate source of conservation solutions. Local self-government bodies and relevant state institutions accepted that biodiversity protection can be delivered not only through traditional state-run protected areas, but also through small, locally managed sites embedded in the socio-economic landscape of rural municipalities. In this sense, micro-reserves became an institutionally permissible alternative to the dominant paradigm of large conservation areas. The relative openness may thus also be attributed to a logic of decision-

making devolution by higher-level authorities, rather than an active endorsement of participatory and collaborative governance. This decentralization process provides pockets of agency that allows local actors to engage in collaborative problem-solving.

At the same time, the case revealed the limits of this openness. Despite formal acknowledgement of new approaches, governance practice still tends toward complex bureaucratic procedures and high entry requirements, which restrict access to the micro-reserve instrument for less organised or resource-constrained communities. This points to the transitional nature of the current paradigm: public governance is beginning to accommodate alternative conservation models, but has not yet fully adapted its procedures and administrative mindset to the logic of experimental and co-created green transition solutions.

4. Formalized institutional channels for citizen participation and community mobilization

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Interviews
☐ 0.33	☐ Medium confidence	☒ Documents
☒ 0.66	☒ High confidence	☐ Observations
☐ 1		

Please elaborate on the reasoning behind your scoring for this governance factor:

The micro-reserves case in Kyrgyzstan shows that formalised institutional channels for citizen participation and community mobilisation do exist, but they remain relatively narrow and procedurally demanding. The current regulatory framework provides clearly defined mechanisms for involving local residents and communities in decision-making through local self-government bodies, including elected local councils, public consultations, documented village assemblies and formal decisions at the municipal level. These channels became the legal foundation for establishing micro-reserves as locally significant protected areas.

Within the case, these institutional mechanisms were actively used and filled with practical content. Initiative groups, local leaders and environmental activists relied on formal procedures—community meetings, coordination with pasture-related structures, and the approval of local regulations and site passports—to translate public support into legally valid decisions. As a result, citizen participation was not limited to a consultative role; it was institutionally embedded in decision-making and reflected in official documentation. Formal institutional channels for participation were not only present in the case, but also played a significant role in structuring inclusion and consultation. Citizens' assemblies, local kenesh sessions, and the formal requirement to document community consent were actively used as part of the process through which the micro-reserve was discussed, legitimised, and approved. Although these channels had limitations and were complemented by strong informal mobilisation and facilitative leadership, they still constituted an important and visible part of how participation was organised. For this reason, the factor is better understood as significant rather than merely present.

5. Mechanism for ensuring top-down government and bottom-up social accountability

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Interviews
☐ 0.33	☒ Medium confidence	☒ Documents
☐ 0.66	☐ High confidence	☐ Observations
☒ 1		

Please elaborate on the reasoning behind your scoring for this governance factor:

The micro-reserves case in Kyrgyzstan indicates that mechanisms of mutual accountability between state institutions and local communities are still emerging and are largely hybrid in nature. On the one hand, vertical, top-down accountability exists through formal procedures for approving micro-reserves, registering them in the State Cadastre of Protected Areas, and oversight by relevant state bodies to ensure compliance with the established protection regime. These mechanisms formalise the responsibility of local authorities to meet regulatory requirements and pursue formal environmental objectives.

On the other hand, the case highlights horizontal and bottom-up accountability grounded in public oversight, social legitimacy and sustained attention from local residents and initiative groups. Local communities act not only as beneficiaries but also as informal stewards of micro-reserves, monitoring compliance with protection rules and helping prevent unauthorised grazing, hunting or extraction of natural resources. This form of social accountability is reinforced through regular meetings, public discussion of progress and results, and the engagement of schools and local leaders in environmental awareness and basic monitoring activities.

At the same time, the case reveals an asymmetry between formal and informal accountability mechanisms. While state oversight tends to be episodic and procedure-oriented, social accountability operates on a daily basis and relies on reputational and community-based sanctions. This suggests that accountability effectiveness in this case depends less on institutional enforcement alone and more on the combination of top-down formal requirements with durable bottom-up practices of community monitoring and informal control. Collectively, these accountability mechanisms have supported the overall collaborative process between the civil society organizations, local authorities, and local populations through steady communication patterns.

6. Strategic agenda-setting by means of translation

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Interviews
☐ 0.33	☐ Medium confidence	☒ Documents
☒ 0.66	☒ High confidence	☒ Observations
☐ 1		

Please elaborate on the reasoning behind your scoring for this governance factor:

In the micro-reserves case in Kyrgyzstan, strategic agenda-setting occurred primarily through processes of translation across different governance levels, expert languages, and value systems. The abstract objectives of national and international environmental policy—biodiversity conservation, sustainable land use, alignment with Critical Ecosystem Partnership Fund priorities, and broader international commitments—were gradually transformed into concepts that were understandable and practically meaningful for local communities, linked to everyday interests and perceived risks.

Within the case, the environmental agenda was translated from expert and regulatory language into local narratives emphasising tangible benefits of micro-reserves, such as restoring pasture vegetation, preventing land degradation, protecting livelihood assets, and reducing tensions over natural resources. This translation made it possible to embed formal green transition objectives into local plans, micro-reserve regulations, and municipal council decisions, integrating them into the everyday logic of local governance. However, this translation remained limited in relation to the SDGs as such. While the initiative clearly aligned in substance with broader global biodiversity and sustainability agendas, the evidence does

not show that the abstract language of the SDGs was systematically translated into a distinct and explicit local agenda that strongly shaped the collaboration.

At the same time, the case demonstrates translation in the opposite direction—bottom-up. Local experience, knowledge, and priorities were articulated and converted into language acceptable to state institutions and international donors through micro-reserve site passports, management planning elements, and reporting documentation. As a result, the strategic agenda was shaped not as an agenda imposed from above, but as an outcome of mutual translation and alignment of meanings, which increased its legitimacy and durability in the local context. At the same time, the process appears to have been framed more directly through biodiversity protection, local land-use concerns, and the practical value of the micro-reserve for the community than through an explicit SDG-based vocabulary. For this reason, strategic translation can be considered present, but only in a limited sense. Consequently, there were noticeable patterns of translation through a mutual process of negotiation.

7. Construction of narratives about successful multi-actor collaboration

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Interviews
☐ 0.33	☐ Medium confidence	☒ Documents
☐ 0.66	☒ High confidence	☒ Observations
☒ 1		

Please elaborate on the reasoning behind your scoring for this governance factor:

In the micro-reserves case in Kyrgyzstan, the development of a narrative of successful multi-stakeholder collaboration became an important element for institutionalising green transition outcomes. Project success is framed not as the achievement of a single actor, but as the result of joint efforts by local communities, local self-government bodies, environmental civil society organisations, experts and state institutions. This narrative consistently emphasises distributed responsibility and shared contributions, shifting attention away from individual leadership toward collective action.

Within the case, this narrative was built through public events, working meetings, a micro-reserves network festival, peer exchange visits among initiative groups, and through formal documentation, reporting and educational activities. The micro-reserve creation stories are communicated as examples of how interaction among different actors can overcome bureaucratic barriers, reconcile interests and achieve formal results within the existing regulatory system. These stories strengthen trust in the co-creation model and reinforce its social legitimacy.

At the same time, the case shows that the success narrative remains cautious and realistic. It does not conceal the complexity of the process, the reliance on expert intermediation or the unevenness of participation across actors. Nonetheless, it is precisely the combination of formal outcomes with an open acknowledgement of limitations that creates a credible account of multi-stakeholder collaboration as a viable and replicable approach to governing locally grounded green transition solutions.

8. Building or harnessing institutional platforms and arenas

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Interviews
☐ 0.33	☐ Medium confidence	☒ Documents
☐ 0.66	☒ High confidence	☒ Observations
☒ 1		

Please elaborate on the reasoning behind your scoring for this governance factor:

In the micro-reserves case, institutional platforms and arenas were not created from scratch; instead, they were largely reinterpreted and used for new purposes. Existing formal platforms—local self-government bodies, elected local councils, state biodiversity conservation departments, and established procedures for registering protected areas—were transformed into key arenas for coordination, negotiation and decision-making relevant to the green transitio. In this sense, the case illustrates a strategy of embedding innovative conservation solutions within the existing institutional architecture, rather than positioning them outside it.

A more concrete view of these platforms helps clarify why they supported collaboration. First, citizens' assemblies and local kenesh sessions functioned as recognised and legitimate decision arenas in which boundaries, ecological justification, and protection needs could be discussed and converted into formally valid outcomes. Their institutional familiarity reduced coordination costs because actors did not need to invent new decision spaces from scratch; instead, they could use already recognised local governance venues for deliberation and approval. Second, regular meetings between the initiative group and residents created a repeated communication infrastructure that allowed participants to clarify procedures, address scepticism, and adjust decisions as conflicts emerged. This improved continuity and lowered the risk that misunderstandings would stall the process. Third, the emerging network of micro-reserve leaders, working meetings, peer exchanges, and shared tools such as passports, regulations, and the bilingual website strengthened horizontal learning and made it easier to circulate practices, lessons, and documentation across sites. Together, these platforms did not merely host interaction; they actively reduced communication barriers, improved coordination, and made collaboration more practicable under complex institutional conditions.

At the same time, semi-formal interaction platforms emerged to complement the official arenas. These included the micro-reserves network, working meetings of initiative group leaders, peer exchange visits, joint training activities, and communication channels linking communities, civil society organisations and experts. These platforms played a central role in horizontal knowledge sharing, the diffusion of practices and the development of a shared identity among participants, helping to offset the rigidity and fragmentation of formal institutional processes.

Taken together, the use of formal and informal platforms created a multi-level interaction space in which biodiversity conservation decisions could be discussed, adapted and legitimised. The case suggests that, under conditions of limited resources, green transition governance becomes more effective not through creating new institutions, but through the skillful use and connection of existing governance arenas, complemented by flexible network-based forms of cooperation.

9. Provision of access to blended financing

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Interviews
☐ 0.33	☐ Medium confidence	☒ Documents
☐ 0.66	☒ High confidence	☒ Observations
☒ 1		

Please elaborate on the reasoning behind your scoring for this governance factor:

The micro-reserves case in Kyrgyzstan shows that access to blended financing is developing in a fragmented way and is largely mediated by institutional and organisational intermediaries. Direct state financial mechanisms to support micro-reserves as locally significant protected areas remain limited, and stable budget lines for their operation at the local level are generally absent. As a result, formal environmental objectives are not automatically accompanied by financial instruments for implementation.

Within the case, access to resources was secured through a combination of different sources: international donor funding, particularly through the Critical Ecosystem Partnership Fund programme; contributions from civil society organisations; non-monetary resources provided by local communities; and institutional support from local self-government bodies. This mix helped cover key needs, including expert support, documentation and registration costs, basic infrastructure elements such as fencing, and educational and coordination activities. However, this resource model remains project-based and depends on the availability of external funding and organisational facilitation.

The case suggests that micro-reserves can serve as entry points for blended financing by connecting international biodiversity priorities, local interests and limited public resources. While the blended financing does not assume the standard pattern of financial contributions necessarily, it nonetheless exemplifies how various embedded institutional expectations through in-kind resource contributions have enabled the collaborative process through mutual expectations.

10. The capacity to leverage support from authorities to enable local collaboration

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Interviews
☐ 0.33	☒ Medium confidence	☒ Documents
☒ 0.66	☐ High confidence	☒ Observations
☐ 1		

Please elaborate on the reasoning behind your scoring for this governance factor:

The micro-reserves case in Kyrgyzstan demonstrates that the ability to leverage support from public authorities to strengthen local cooperation is selective and context-dependent. Formally, state and municipal bodies recognise micro-reserves as a legitimate instrument for biodiversity conservation, creating an institutional window of opportunity for collaboration among communities, civil society organisations and government. This recognition allows local initiatives to draw on the authority of public institutions when mobilising participants and coordinating collective action.

Within the case, support from public authorities was expressed primarily through non-material and institutional forms: issuing official approvals and decisions, including micro-reserves in the State Cadastre of Protected Areas, participation of relevant agencies in consultations and working meetings, and

symbolic recognition of community-led initiatives. This support played a significant role in legitimising the initiative, reducing the risk of conflict and strengthening trust among stakeholders.
Support from public authorities was significant because it gave the initiative legal and political legitimacy and helped validate local efforts within an official institutional framework. However, this support did not in itself directly organise, facilitate, or improve the day-to-day collaboration among stakeholders. The actual work of communication, trust-building, conflict handling, and continued mobilisation depended more strongly on local leaders, initiative groups, and supporting experts than on the authorities' involvement as such.

At the same time, the case shows that the scope for using state support to expand local cooperation remains constrained by the lack of sustained follow-up mechanisms and resource provision from authorities. Support often depends on the stance of individual officials and on the activity of intermediaries, particularly civil society organisations. This suggests that, despite formal openness and recognition, the potential of public authorities to act as active facilitators of local cooperation in the context of the green transition is only partially realised.

11. Inclusion and empowerment of relevant and affected actors

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Interviews
☐ 0.33	☐ Medium confidence	☐ Documents
☐ 0.66	☒ High confidence	☒ Observations
☒ 1		

Please elaborate on the reasoning behind your scoring for this governance factor:

In this case, inclusion and empowerment went beyond formal or symbolic participation. Relevant and affected actors—including local residents, members of the initiative group, women's groups, schools, respected elders, and local leaders—were not only present in the process, but were actively involved in discussions, consultations, boundary validation, and decision-making related to the establishment of the micro-reserve. Their participation was not limited to passive attendance or ex post endorsement. Rather, their views, concerns, and feedback formed a meaningful part of how the initiative was shaped and legitimised.

The evidence suggests that this inclusion also had an empowering dimension. Community members and local leaders contributed not only to public discussion, but also to the identification of the site, the articulation of its value, the building of local support, and the social acceptance of the reserve. The role of women's groups, schools, and other community-based actors broadened participation beyond a narrow circle of formal decision-makers, while local leaders helped translate procedures and issues into accessible terms for residents. As a result, inclusion functioned as a substantive element of the collaborative process rather than as a merely procedural requirement.

For this reason, the factor is best understood as supporting collaboration. The process did not simply allow affected actors to be present; it incorporated their input into the co-creation of the conservation arrangement itself. This is visible in the way local participation influenced the legitimacy of the reserve, helped shape consent and boundary-related decisions, and contributed to the practical social embedding of the micro-reserve in community life. In short, the inclusion was both broad and meaningful, and because it actively strengthened the collaborative process.

12. Clarification of interdependence vis-à-vis common problem and joint vision

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Interviews
☐ 0.33	☐ Medium confidence	☒ Documents
☐ 0.66	☒ High confidence	☐ Observations
☒ 1		

Please elaborate on the reasoning behind your scoring for this governance factor:

The micro-reserves case in Kyrgyzstan shows that clarifying interdependence among actors around a shared problem, and developing a joint vision, became key conditions for durable local cooperation. During the establishment of micro-reserves, ecosystem degradation, biodiversity loss and related socio-economic risks were reframed as a common challenge affecting the interests of local communities, public authorities, experts and conservation organisations. This helped shift the perception of nature conservation from a narrowly environmental task to a shared responsibility for the future of the territory.

Within the case, interdependence became evident through the practical recognition that no single actor can address the problem effectively on their own. Local communities depend on institutional recognition and legal decisions from public authorities; authorities depend on social legitimacy and daily compliance with protection rules on the ground; experts and civil society organisations depend on access to local knowledge and community support. Joint planning processes, the preparation of micro-reserve site passports and local regulations, as well as educational and network activities helped articulate these linkages and translate them into governance arrangements and concrete decisions.

As a result, a shared—although pragmatic—vision emerged of micro-reserves as an instrument that simultaneously responds to environmental, social and governance objectives. This joint vision does not eliminate differing interests among actors, but it creates a more stable basis for aligning them and sustaining collective action. The case suggests that clarifying interdependence and building a common problem frame are critical for the long-term viability of locally grounded green transition initiatives.

13. Trust-building and conflict mediation

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Interviews
☐ 0.33	☐ Medium confidence	☐ Documents
☐ 0.66	☒ High confidence	☒ Observations
☒ 1		

Please elaborate on the reasoning behind your scoring for this governance factor:

The micro-reserves case in Kyrgyzstan shows that building trust and managing conflict were not secondary considerations but central elements of implementing locally grounded green transition initiatives. Establishing micro-reserves touched on sensitive issues of access to natural resources, land use and the distribution of responsibilities, which created an inherent potential for conflict among different groups—local residents, pasture tenants, local self-government bodies and state institutions.

Within the case, trust was built gradually and relied primarily on procedural transparency and the predictability of rules. Formalising decisions through elected local councils, documented community meetings and official micro-reserve regulations reduced uncertainty and suspicion, while regular meetings and discussions helped identify tensions and misunderstandings early. Intermediaries—civil

society organisations and experts—played an important role as mediators, translating different positions into mutually acceptable terms and helping prevent escalation.

At the same time, the case indicates that conflict was not eliminated but rather managed and processed through governance arrangements. Disagreements related to restrictions on resource use, protection regimes or the distribution of benefits were addressed through dialogue, community-based social pressure and appeals to shared interests. This approach contributed to strengthening trust among actors and developing more stable interaction practices, suggesting that trust-building and conflict sensitivity are necessary conditions for the long-term viability of local green transition initiatives.

More concretely, these interventions supported collaboration by keeping communication active under conditions of tension. Trusted local leaders and initiative group members repeatedly explained the purpose of the reserve, clarified its implications for access to pastures and other local resources, responded to concerns from farmers and livestock keepers, and maintained communication between residents, experts, and local authorities. They also communicated the broader collective value of the micro-reserve, ranging from the protection of local flora and fauna to more tangible benefits such as pollination, natural pest control, and the reduction of disease-related risks, thereby making the initiative more understandable and relevant to community members. In this way, trust-building and mediation reduced the risk of disengagement and helped preserve the conditions for continued negotiation despite competing land-use interests.

14. Use of experimental tools for innovation

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Interviews
☐ 0.33	☐ Medium confidence	☐ Documents
☐ 0.66	☒ High confidence	☒ Observations
☒ 1		

Please elaborate on the reasoning behind your scoring for this governance factor:

The micro-reserves case in Kyrgyzstan demonstrates active use of experimental instruments as a way to introduce innovation under institutional and resource constraints. Micro-reserves functioned as “living laboratories” in which new approaches to biodiversity conservation were tested in real socio-ecological conditions without prior standardisation or large-scale government programmes. This experimental character made it possible to adapt solutions to the specific local context of territories, ecosystems and social relations.

Within the case, experimentation was reflected in piloting the procedures for establishing micro-reserves, testing co-management arrangements, developing site-specific passports and local regulations, and using hybrid forms of monitoring and environmental education, including the engagement of schools and local initiative groups. These instruments were not treated as final models; they were applied iteratively, with the possibility of adjustment based on practical experience, community feedback and expert recommendations. These adjustments, feedback, and recommendations supported collaboration by creating a structured mechanism through which participants could identify problems, reconsider earlier decisions, and modify their approach without disrupting the overall process. In doing so, they strengthened mutual responsiveness among community members, local leaders, experts, and public authorities, thereby helping to sustain coordination and joint problem-solving over time.

At the same time, the case highlights limitations of an experimental approach. The absence of formalised channels for institutional learning and scaling means that successful experiments can remain local and depend on specific organisations and individuals. Nevertheless, the use of experimental instruments expanded the space for governance innovation and demonstrated that local initiatives can generate workable green transition solutions even under strict regulatory frameworks and limited financing.

15. Ongoing critical self-reflection and learning (i.e., process and/or developmental evaluation):

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Interviews
☐ 0.33	☐ Medium confidence	☐ Documents
☐ 0.66	☒ High confidence	☒ Observations
☒ 1		

Please elaborate on the reasoning behind your scoring for this governance factor:

The micro-reserves case in Kyrgyzstan demonstrates a continuous, though largely informal, practice of critical reflection and learning throughout the implementation process. Participants did not treat the establishment of micro-reserves as a linear execution of a predefined plan; instead, it was approached as an iterative pathway requiring adjustments, rethinking of approaches and adaptation to emerging institutional, social and ecological challenges.

Within the case, learning occurred through practice: analysing difficulties in navigating regulatory procedures, discussing unsuccessful and successful decisions during working meetings, exchanging experience between micro-reserve leaders and experts, and interacting with state institutions. These process-based learning practices made it possible to identify weaknesses in the existing regulatory framework, clarify roles among actors, and refine governance and communication tools. Civil society organisations and experts played a particularly important role by consolidating accumulated experience and helping interpret and disseminate lessons learned.

16. Exercise of facilitative leadership:

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Interviews
☐ 0.33	☐ Medium confidence	☐ Documents
☐ 0.66	☒ High confidence	☒ Observations
☒ 1		

Please elaborate on the reasoning behind your scoring for this governance factor:

The micro-reserves case in Kyrgyzstan demonstrates that facilitative leadership became a key condition for coordinating diverse actors and advancing the initiative under conditions of institutional complexity. Leadership was expressed not as directive control, but as the capacity to connect interests, translate between expert and practice-based languages, and sustain dialogue among communities, local self-government bodies, state institutions and experts. This form of leadership helped keep the process oriented toward cooperation even in the presence of contradictions and uncertainty.

Within the case, facilitative leadership was enacted through the mediation role of civil society organisations and local leaders, who assumed functions of moderation, procedural explanation, trust-building and compromise-seeking. They provided continuity across stages—from initial community mobilisation and interest alignment to navigating formal procedures and supporting follow-up

arrangements for micro-reserves. A core feature of this leadership approach was its orientation toward strengthening the capacities of other actors rather than concentrating control, which supported shared responsibility and collective ownership of outcomes.

At the same time, the case highlights the vulnerability of facilitative leadership. It is highly personalised and depends on the presence of motivated leaders and intermediary organisations, as well as their ability to sustain long-term engagement. Nevertheless, the case suggests that facilitative leadership is what enables formal institutions and experimental instruments to become workable green transition governance in practice, strengthening coherence, resilience and the replicability of local cooperation.

Outcome variable: Successfully co-created green transitions

The outcome variable 'co-created green transitions' will be scored in two parts. First, 'co-creation' will be scored based on an assessment of whether the participants in the initiative, project or process engaged in collaborative problem-solving that fostered creative ideas and innovative solutions (data will consist of survey data combined with interviews and documents). Next, 'green transitions' will be scored based on an assessment of whether the initiative, project or process has fulfilled or is expected to fulfill its green goals, ambitions and aspirations (data will consist of survey data combined with interviews and internal and/or external evaluation reports, including scientific publications).

The scoring of this variable is done in two parts:

a) *Is the developed solution based on collaborative problem-solving spurring creativity and innovative solutions?*
b) *Does the developed solution engender a green transition?*

This scoring should be conducted based on both the survey and complementary green outcome evaluations. Please consult Sections 4.4 and 6.10 in the Research Protocol for more details.

1. Is the developed solution co-created?

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Survey
☐ 0.33	☐ Medium confidence	☒ Interviews
☒ 0.66	☒ High confidence	☒ Documents
☐ 1		☐ Observations

Please elaborate on the reasoning behind your scoring for this part of the governance factor, including the data sources used for the scoring.

The developed solution can be assessed as co-created because it emerged through iterative, collaborative problem-solving among multiple actor groups rather than through top-down design. The process involved local residents, an initiative group, local self-government bodies (the ayil okmotu and the local kenesh), and project partners (civil society organisations and experts) who jointly navigated site selection, boundary definition, documentation, and formal decision-making. A key indication of co-creation is that important turning points required collective adaptation: when the initially proposed site encountered resistance and competing land-use claims, the actors returned to consultations and negotiated an alternative location that was acceptable both socially and ecologically. This indicates a collaborative process in which disagreements were managed through dialogue, negotiation, and adjustment rather than being overridden by a single authority.

The survey responses support this interpretation. Collaboration is strongly confirmed by item 9, where respondents unanimously viewed the multi-actor process as a prerequisite for the project's success. The

creativity-related items (1, 6, and 12) are also positive, indicating that different experiences, ideas, and forms of knowledge were mobilised to generate new perspectives and solutions. At the same time, the innovation-related responses are more mixed. Several items suggest that respondents regarded the outcome as innovative in a practical sense, especially with regard to developing a new solution for local conservation governance. However, the items asking whether the solution breaks with established practices or disrupts conventional wisdom are not strongly positive, which limits the strength of the claim that the outcome was fully innovative according to the protocol's highest threshold.

This distinction matters because the protocol requires more than collaboration and creativity for the maximum score: it also requires an innovative solution, understood as novelty within the relevant context. In this case, the micro-reserve can reasonably be regarded as contextually novel, since it introduced a new socio-institutional conservation arrangement in a mountainous rural setting where such a mechanism had not previously been formalised and operationalised in the same way. However, the evidence suggests that the solution was more clearly collaborative and creative than strongly disruptive of established practice. It was innovative in a limited contextual sense, but not yet to a degree that is fully and consistently confirmed across the survey items and the qualitative material.

For this reason, the most appropriate assessment is a high but not maximal level of co-creation. The case clearly exceeds mere collaboration, because the process generated creative joint problem-solving and a contextually novel governance arrangement. At the same time, the evidence for innovation remains partial rather than unequivocal. A score of 0.66 is therefore the most defensible overall assessment, supported by triangulation across survey responses, interviews, and documented outputs such as the official decision, site passport, local regulation, and justification package.

If possible, please insert your survey responses in the table below (in % for each response), including the mean/average % for each survey item.

	Strong. dis.	Dis.	Slight. dis.	Neither agr/dis	Slight. agree	Agree	Strong. agree	Mean
1. Problem-solving mobilized different experiences, and/or ideas and/or forms of knowledge to develop new perspectives						5 (41,7%)	7 (58,3%)	2.58
2. Through the collaborative problem-solving process, different experiences and/or ideas and/or forms of knowledge have been mobilized to search for unconventional solutions						2 (16,7%)	10 (83,3%)	2.83
3. The collaborative problem-solving process mobilized different experiences, and/or ideas and/or forms of knowledge to search for					1 (8,3%)	2 (16,7%)	9 (75%)	2.58

solutions that go beyond standard/text-book solutions								
4. The co-created solution breaks with established practices	6 (50%)	2 (16,7%)			2 (16,7%)	2 (16,7%)		-1.00
5. The co-created solution disrupts conventional wisdom	4 (33,3%)	3 (25%)	3 (25%)		2 (16,7%)			-1.42
6. The co-created solution offers new ideas to address the green transition problem					3 (25%)	7 (58,3%)	2 (16,7%)	1.67
7. I'm supportive of the co-created solution					1 (8,3%)	5 (41,7%)	6 (50%)	2.33
8. I'm content with the overall collaborative process of the project					2 (16,7%)	8 (66,7%)	2 (16,7%)	1.83
9. I feel the multi-actor collaboration process was a prerequisite for the success of the project							12	3.00
10. I'm satisfied by the results of the co-creation effort in terms of expected impact on the welfare of the community					4 (33,3%)	6 (50%)	2 (16,7%)	1.50
11. The collaborative interaction in the project has led to an innovative solution					1 (8,3%)	9 (75%)	2 (16,7%)	2.00
12. The actors involved in the project are engaged in collaborative interaction that stimulated creative problem-solving						9 (75%)	3 (25%)	2.25
13. The co-created solution meets the proposed goals of the project							12 (100%)	3.00
14. The co-created solution will be durable and robust in the long run			1 (8,3%)	3 (25%)	5 (41,7%)	3 (25%)		1.50
15. The co-created solution is expected to significantly improve sustainability for the whole community					3 (25%)	7 (58,3%)	2 (16,7%)	1.67

2. Does the developed solution engender a green transition[1]?

QCA score:	Scoring confidence:	Data sources:
☐ 0	☐ Low confidence	☒ Survey
☐ 0.33	☒ Medium confidence	☒ Interviews
☒ 0.66	☐ High confidence	☒ Documents
☐ 1		☐ Observations

Please elaborate on the reasoning behind your scoring for this part of the governance factor, including the data sources used for the scoring:

The developed solution can be assessed as engendering a green transition because it translates biodiversity conservation goals into a concrete and legally recognised form of territorial governance. In this case, the micro-reserve mechanism resulted in the formal designation of a protected site within a productive rural landscape, supported by a locally approved regulation, a site passport, and an official decision of the local kenesh that enabled registration in the State Cadastre of Protected Areas. This represents a tangible shift in land-use governance: biodiversity protection was no longer treated as a general aspiration, but embedded in local rules, institutional decisions, and everyday expectations regarding the management of a specific territory.

The solution also contributed to broader behavioural and governance change. The process mobilised residents, local leaders, schools, and other community actors around the protection of ecologically valuable land, thereby strengthening environmental awareness and local stewardship. In the qualitative material, ecological concerns such as pasture degradation, vegetation fragmentation, and threats to biodiversity were consistently presented as the core rationale for action. In this sense, the project did not simply create a protected status on paper; it also contributed to a local shift in how land, conservation, and community responsibility were understood.

The survey evidence is broadly consistent with this interpretation. All respondents considered the project to have produced or to be expected to produce a green transition solution, with most placing it in the category of maintaining or improving the status quo rather than allowing further deterioration. In addition, survey items 13, 14, and 15 indicate strong confidence that the solution meets the project's goals, is likely to be durable, and is expected to improve sustainability for the wider community. These responses support the conclusion that the initiative has already generated meaningful green governance outputs and is perceived as having a credible pathway toward longer-term sustainability effects.

At the same time, the case does not yet warrant the maximum score. While the institutional and procedural outputs are strong, the longer-term ecological outcomes remain only partially evidenced. The formal designation of the micro-reserve, the approval of rules, and the initial awareness-raising and management steps are important foundations for green transition, but they do not yet fully demonstrate sustained ecological recovery or long-term resilience. Continued functioning still depends on recurring resources, local capacity for monitoring and management, and the maintenance of protection rules in practice. For this reason, the most appropriate assessment is a high but not maximal level: the pathway to green transition is credible, partly realised, and strongly supported by documentary, interview, and survey evidence, but its full ecological durability remains to be demonstrated.

If possible, please insert your survey responses in the table below (in % for each response).

[1] By "green transitions", we mean objectives and aspirations that correspond to at least one of the Green SDGs (SDG 6, 7, 11, 12, 13, 14, 15). The project does not have to refer explicitly to the green SDGs, but the project's green objectives

1. The project:	**Yes**	No	**Don't know**
…did not produce any green transition solution			
…is expected to produce/has produced a green transition solution aiming to avoid a worsening in the status quo	1 (8,3%)		
…is expected to produce/has produced a green transition solution aiming to maintain the status quo	8 (66,6%)		
…is expected to produce/has produced a green transition solution aiming to improve the status quo	3 (25%)		

Please list all the informants you have interviewed for the case study (list project role + interview date):

1. PF – project facilitator 1	10/29/2025
2. PF – project facilitator 2	10/29/2025
3. PF – project facilitator 3	11/16/2025
4. PF – project facilitator 4	11/16/2025
5. PF – project facilitator 5	11/18/2025
6. F – project funder	12/11/2025
7. PP – project participant 1	12/11/2025
8. PP – project participant 2	12/13/2025
9. PP – project participant 3	01/15/2026
10. PP – project participant 4	02/15/2026
11. PP – project participant 5	02/18/2026
12. PP – project participant 6	02/18/2026

Please list all the observations you have made (type of meeting/workshop/etc. + observation date):

Meeting at the Center for Civil Initiatives Leader office	(offline)	10/29/2025
Meeting with the PF Eco Ayan office	(offline)	10/29/2025
Meeting with the CEPF office	(offline)	12/11/2025
Meeting with the experts	(offline)	11/16/2025
Correspondence sent to the project facilitators	(online)	September 2025
Interviews with project facilitators and project participants	(online)	11/12/2025-02/18/2026
All other interviews held via Zoom	(online)	October 2025 -February 2026

Please list all the documents you have analyzed (document name + source + year):

1) Analysis of the legislative and regulatory framework for specially protected natural areas in Kyrgyzstan and Kazakhstan with the aim of developing and implementing the concept of micro-reserves* -https://mikrokoruk.leader.kg/atayan-baba/ - (2024)
2) Micro-reserves: A Review of Legislation in Central Asian Countries – https://mikrokoruk.leader.kg/atayan-baba/ - (2024)
3) An analytical report on the establishment of pilot micro-reserves in Kyrgyzstan based on the new regulatory framework adopted in October 2022 - https://mikrokoruk.leader.kg/atayan-baba/ - (2024)

4) A report on the interactions/relationships between each micro-reserve and the wider KBA in which it is located, including biological monitoring and school education as appropriate - https://mikrokoruk.leader.kg/atayan-baba/ - (2024)
5) ANALYTICAL REPORT on the state of biodiversity conservation in key biological areas (KBA) affecting the project micro-reserves - https://mikrokoruk.leader.kg/atayan-baba/ - (2024)
6) Minutes of the meeting of local residents on the creation of a micro-reserve - https://drive.google.com/file/d/1xTvmfFDAXH6fUtqxtcuRJCd10vqqMv9e/view - (2023)
7) Order of the Aiyl Okmuto on the organization of a micro-reserve - https://drive.google.com/file/d/1UVkPeWyk3TxMTSo2S3gqIOxhafnYXU6U/view - (2024)
8) Reference from the Land Resources Service - https://drive.google.com/file/d/100gagy8owYFPYxqdaPIMWHAjBMVi_M2m/view - (2024)
9) Results of the state ecological expertise - https://drive.google.com/file/d/1gYeN6V0V6jDEW2024Brd9rOE4tNpZBRx/view - (2024)
10) Scientific justification for organizing a micro-reserve - https://drive.google.com/file/d/16EHJNlNyEnq9_VbmHV1_-nnv-mlI6ZlT/view - (2024)
11) Micro-reserve Passport - https://drive.google.com/file/d/1E2DQwHfhl8BWgKaqZp3TabbHskMP5SAN/view - (N/A)
12) Micro-reserve Regulation - https://drive.google.com/file/d/1lFq5BDF2JnxVwlqtw5ohN_DujRw2GInB/view - (2024)
13) Micro-fear action plan - https://drive.google.com/file/d/1BxDnFKrdVQYlbp0q7KGX2UJH9tWxoQuT/view - (2024)
14) Resolution on approval of the micro-reserve work plan - https://drive.google.com/file/d/1zY7PQi5oBr8l4dLtKSuow6kYCxYTTkGw/view - (2024)
15) Notification of registration of a micro-reserve - https://drive.google.com/file/d/155EnSu-DR_zjGhJPo9hTFsEG7Obz60Rh/view - (2025)

Please note the response rate for the survey/measurement of outcome variable:

100% (12/12)