Journal de Recherche Multidisciplinaire
ISSN : 3088-5205 https://jorep.net

JOREP Journal de recherche multidisciplinaire

Volume : 1
Numéro : 2
Année : 2025
Mois : Mars

Community participation in rural infrastructure projects: a comparative analysis of divergent pathways in Niger and Nepal

Amadou Mansour[1]

Iradukunda Sengesho Benigne2

Nizeyimana Jean Baptiste3

1. Joint PhD Researcher at Lisala University and UNCR University, Economics and Management Sciences Department, Project Management
2. Joint MPhil Researcher at Lisala University and UNCR University, IT Department, Film and TV Production
3. Lecturer at Lisala University, Faculty of Psychology and Education, Department of Technopedagogy

PARAJ

ABSTRACT

This study examines the comparative dynamics of community participation in rural infrastructure projects in Niger and Nepal, two landlocked nations facing profound development challenges yet demonstrating distinctive approaches to engaging communities in infrastructure development. Despite their divergent geographical and cultural contexts, both countries grapple with the fundamental question of how to meaningfully involve local populations in projects that shape their

[1] Joint PhD Researcher at Lisala University and UNCR University, Economics and Management Sciences Department, Project Management

daily lives—from water systems and roads to public spaces and digital infrastructure. The research employs a comparative case study methodology, drawing on project reports, policy documents, empirical studies, and scholarly analyses spanning 2020-2026. Niger's approach to community participation is shaped by its Sahelian context, extreme poverty, and the imperative of building resilience in fragile, conflict-affected regions. The NGO Garkua's integrated participatory community approach, developed since 2016, empowers communities through village action plans and committees that enable local implementation even when external actors cannot access conflict zones. This approach recognizes communities as partners rather than beneficiaries, with village committees meeting at commune level to form "communal community involvement platforms" that coordinate development actions (Alliance Sahel, 2025). The AdaptWAP project's well construction in Manga Koira village exemplifies participatory infrastructure development—community members were actively involved in planning and construction phases, ensuring the infrastructure met their specific needs for drinking water and livestock watering (OSS, 2024). The Karadjé Market improvement in Niamey, part of a global UN-Habitat initiative, demonstrated how small interventions like display tables, co-designed with informal vendors, can enhance hygiene and working conditions while fostering community ownership (HealthBridge, 2024). However, challenges persist: limited resources, difficult access to fragile areas, and low literacy rates complicate community appropriation of development strategies (Alliance Sahel, 2025).

Nepal presents a different landscape shaped by its mountainous terrain, seismic vulnerability, and rich tradition of community-led development. The Local Infrastructure Support Programme (LISP) demonstrates systematic integration of community voices across diverse projects—from climate-resilient roads in Palpa to river training in Nalgad and high-altitude construction in Chharka at 4,350 meters. Inclusive planning processes documented 43 participants (18 women) contributing to road design in Palpa, and 50 community members guiding river protection efforts (DT Global, 2025). The IFRC's Enabling Action for Community Health (EACH) project in Kalikot illustrates how trusted community health volunteers, through consistent engagement over months, built the trust necessary for households to construct their own toilets without financial assistance. Puri Lal Devkota, a 75-year-old farmer, and Supari Luhar, a woman living alone, transformed their sanitation practices and became champions spreading change to neighboring households (IFRC, 2025). The Digital Service Centers in Yasodhara Rural Municipality, Kapilvastu District, represent

an innovative model of community-owned digital infrastructure—eight centers fully owned by local committees, each with 15 members and two volunteers, providing over 15 digital services approximately 2,336 times in under a year (PLGSP, 2026).

Niger's strength lies in its integrated participatory approaches that empower communities to continue development activities even when conflict limits external access, its recognition of communities as partners with extraordinary capabilities, and its growing attention to inclusive design in public space projects. Its challenge is scaling these approaches amid enormous needs and limited resources. Nepal's advantage is its systematic integration of community participation across diverse infrastructure sectors, its demonstrated success in behavior change through trusted volunteers, and its innovative models of community-owned digital infrastructure. Both countries demonstrate that effective community participation in rural infrastructure requires: (1) recognition of communities as partners rather than beneficiaries; (2) trusted intermediaries who build relationships over time; (3) inclusive planning processes that engage women, youth, and marginalized groups; (4) village-level plans and committees enabling local ownership; (5) flexibility to adapt to local contexts and capacities; (6) attention to sustainability through local revenue generation; (7) coordination mechanisms at municipal level to align stakeholder efforts; and (8) sustained commitment to building community capacity even when external actors cannot be present.

KEYWORDS: Community participation, rural infrastructure, Niger, Nepal, participatory development, village committees, community ownership, inclusive planning, climate resilience, local governance

RÉSUMÉ

Cette étude examine les dynamiques comparatives de la participation communautaire aux projets d'infrastructure rurale au Niger et au Népal, deux nations enclavées confrontées à des défis de développement profonds mais démontrant des approches distinctives pour impliquer les communautés dans le développement des infrastructures. Malgré leurs contextes géographiques et culturels divergents, les deux pays sont confrontés à la question fondamentale de savoir comment impliquer significativement les populations locales dans des projets qui façonnent leur vie

quotidienne—des systèmes d'eau et routes aux espaces publics et infrastructures numériques. La recherche emploie une méthodologie d'étude de cas comparative, s'appuyant sur des rapports de projets, des documents politiques, des études empiriques et des analyses savantes couvrant la période 2020-2026. L'approche du Niger en matière de participation communautaire est façonnée par son contexte sahélien, l'extrême pauvreté et l'impératif de renforcer la résilience dans les régions fragiles et touchées par les conflits. L'approche participative communautaire intégrée de l'ONG Garkua, développée depuis 2016, responsabilise les communautés grâce à des plans d'action villageois et des comités qui permettent une mise en œuvre locale même lorsque les acteurs externes ne peuvent pas accéder aux zones de conflit. Cette approche reconnaît les communautés comme des partenaires plutôt que des bénéficiaires, avec des comités villageois se réunissant au niveau communal pour former des "plateformes d'engagement communautaire communal" qui coordonnent les actions de développement (Alliance Sahel, 2025). Le projet AdaptWAP de construction de puits dans le village de Manga Koira illustre le développement participatif des infrastructures—les membres de la communauté ont été activement impliqués dans les phases de planification et de construction, garantissant que l'infrastructure réponde à leurs besoins spécifiques en eau potable et en abreuvement du bétail (OSS, 2024). L'amélioration du marché de Karadjé à Niamey, faisant partie d'une initiative mondiale d'ONU-Habitat, a démontré comment de petites interventions comme des tables d'exposition, co-conçues avec des vendeurs informels, peuvent améliorer l'hygiène et les conditions de travail tout en favorisant l'appropriation communautaire (HealthBridge, 2024). Cependant, des défis persistent : ressources limitées, accès difficile aux zones fragiles et faibles taux d'alphabétisation compliquent l'appropriation communautaire des stratégies de développement (Alliance Sahel, 2025).

Le Népal présente un paysage différent façonné par son terrain montagneux, sa vulnérabilité sismique et sa riche tradition de développement communautaire. Le Programme de soutien aux infrastructures locales (LISP) démontre une intégration systématique des voix communautaires à travers divers projets—des routes résilientes au climat à Palpa à la formation des rivières à Nalgad et à la construction en haute altitude à Chharka à 4 350 mètres. Les processus de planification inclusive ont documenté 43 participants (18 femmes) contribuant à la conception des routes à Palpa, et 50 membres de la communauté guidant les efforts de protection des rivières (DT Global, 2025). Le projet Enabling Action for Community Health (EACH) de l'IFRC à Kalikot illustre

comment des volontaires communautaires de santé de confiance, grâce à un engagement constant sur plusieurs mois, ont construit la confiance nécessaire pour que les ménages construisent leurs propres toilettes sans assistance financière. Puri Lal Devkota, un agriculteur de 75 ans, et Supari Luhar, une femme vivant seule, ont transformé leurs pratiques sanitaires et sont devenus des champions diffusant le changement aux ménages voisins (IFRC, 2025). Les Centres de services numériques dans la municipalité rurale de Yasodhara, district de Kapilvastu, représentent un modèle innovant d'infrastructure numérique communautaire—huit centres entièrement détenus par des comités locaux, chacun composé de 15 membres et deux volontaires, fournissant plus de 15 services numériques environ 2 336 fois en moins d'un an (PLGSP, 2026).

La force du Niger réside dans ses approches participatives intégrées qui responsabilisent les communautés pour poursuivre les activités de développement même lorsque le conflit limite l'accès externe, sa reconnaissance des communautés comme partenaires aux capacités extraordinaires, et son attention croissante à la conception inclusive dans les projets d'espace public. Son défi est de passer à l'échelle ces approches face à d'énormes besoins et des ressources limitées. L'avantage du Népal est son intégration systématique de la participation communautaire dans divers secteurs d'infrastructure, son succès démontré dans le changement de comportement par des volontaires de confiance, et ses modèles innovants d'infrastructure numérique communautaire. Les deux pays démontrent qu'une participation communautaire efficace aux infrastructures rurales nécessite : (1) la reconnaissance des communautés comme partenaires plutôt que bénéficiaires ; (2) des intermédiaires de confiance qui construisent des relations dans le temps ; (3) des processus de planification inclusive impliquant les femmes, les jeunes et les groupes marginalisés ; (4) des plans et comités villageois permettant l'appropriation locale ; (5) une flexibilité pour s'adapter aux contextes et capacités locaux ; (6) une attention à la durabilité par la génération de revenus locaux ; (7) des mécanismes de coordination au niveau municipal pour aligner les efforts des parties prenantes ; et (8) un engagement soutenu à renforcer les capacités communautaires même lorsque les acteurs externes ne peuvent être présents.

MOTS-CLÉS : Participation communautaire, infrastructures rurales, Niger, Népal, développement participatif, comités villageois, appropriation communautaire, planification inclusive, résilience climatique, gouvernance locale

Suumis le 17: Mars , 2026
Publié le : 17 Mars , 2026
Auteurs correspondant: *Amadou Mansour , Iradukunda Sengesho Benigne and Nizeyimana Jean Baptiste*
Adresses électroniques: *iamniger@yahoo.com, benigneira0@gmail.com, nizeyimana.jb@dphu.ac.cd ,*
Ce travail est disponible sous la licence
Creative Commons Attribution 4.0 International.

1. INTRODUCTION

Rural infrastructure—roads, water systems, public spaces, digital connectivity, sanitation facilities—is the foundation upon which rural livelihoods are built. It connects farmers to markets, children to schools, patients to health centers, and communities to opportunity. Yet the history of rural infrastructure development is littered with projects that failed because they were designed without the people they were meant to serve. Roads built but not maintained, wells constructed but not used, public spaces created but abandoned—these failures share a common root: the absence of meaningful community participation.

The imperative of community participation in infrastructure development is now widely recognized. When communities are involved in planning, decision-making, implementation, and maintenance, projects are more likely to meet actual needs, to be used and sustained, and to generate local ownership. Participation is not merely a procedural requirement but a fundamental condition for effectiveness and sustainability.

Niger and Nepal, two landlocked nations with dramatic topography and profound development challenges, offer a compelling comparative lens through which to examine the dynamics of community participation in rural infrastructure. Niger, in West Africa's Sahel region, faces extreme poverty, desertification, and an escalating security crisis that has displaced populations and limited humanitarian access. Its participatory approaches have evolved to function even when external actors cannot be present, empowering communities to continue development activities autonomously. The NGO Garkua's integrated participatory community approach, developed since 2016, creates village action plans and committees that enable local implementation regardless of external access (Alliance Sahel, 2025).

Nepal, in the Himalayas, contends with mountainous terrain, seismic vulnerability, and rich traditions of community-led development. Its approaches to participation span diverse sectors—from climate-resilient roads constructed with inclusive planning processes, to sanitation behavior change driven by trusted community volunteers, to community-owned digital service centers generating local revenue. The Local Infrastructure Support Programme systematically integrates community voices across projects, documenting participant demographics and ensuring marginalized groups are represented (DT Global, 2025).

This study examines the comparative approaches to community participation in rural infrastructure projects in Niger and Nepal. Drawing on project reports, policy documents, and empirical studies from both countries, it explores how participation is conceptualized, operationalized, and sustained in radically different contexts. The analysis is organized around four interconnected themes: (1) the conceptual foundations of community participation; (2) participatory mechanisms and institutional frameworks; (3) challenges and enabling factors; and (4) outcomes and implications for policy and practice.

The study contributes to scholarship on participatory development, rural infrastructure, and project management. It argues that effective community participation requires not merely consultation but genuine partnership, sustained engagement, and attention to the specific social, cultural, and institutional contexts in which projects are embedded.

2. LITERATURE REVIEW

2.1 Conceptualizing Community Participation

Community participation in development has been theorized along a spectrum from passive consultation to active empowerment. Arnstein's (1969) "ladder of citizen participation" remains foundational, distinguishing eight levels from manipulation (non-participation) through informing and consultation (tokenism) to partnership and citizen control (genuine participation). This framework highlights that not all participation is equal—the degree of power transferred to communities fundamentally shapes outcomes.

In infrastructure development, participation serves multiple functions: it improves project design by incorporating local knowledge, builds community ownership that supports maintenance, creates accountability mechanisms, and contributes to social capital. Research has consistently shown that participatory approaches lead to better project outcomes, particularly when they engage marginalized groups including women and the poor (Mansuri & Rao, 2013).

2.2 Niger's Participatory Landscape

Niger's approach to community participation is shaped by its Sahelian context, extreme poverty, and the imperative of operating in fragile, conflict-affected regions. Key features include:

- **Integrated participatory community approach:** The NGO Garkua, operating since 2016, has developed an approach that empowers communities through village action plans and committees. Each village has a plan and committee to ensure implementation and monitoring. At commune level, "communal community involvement platforms" bring village committees together to coordinate development actions (Alliance Sahel, 2025).
- **Communities as partners:** Garkua's philosophy explicitly rejects viewing communities as beneficiaries, instead treating them as partners with "extraordinary capabilities." This orientation enables communities to implement development activities even when external actors cannot access conflict zones (Alliance Sahel, 2025).
- **Participatory infrastructure development:** The AdaptWAP project's well construction in Manga Koira village involved community members in planning and construction phases, ensuring the infrastructure met their specific needs for drinking water and livestock watering (OSS, 2024).
- **Public space co-design:** The Karadjé Market improvement in Niamey, part of a UN-Habitat initiative, engaged informal vendors in designing display tables that enhanced hygiene and working conditions. Vendors expressed enthusiasm for personalizing their tables, demonstrating ownership (HealthBridge, 2024).
- **Challenges:** Limited resources, difficult access to fragile areas, and low literacy rates complicate community appropriation of development strategies. In villages where few people can write, assimilating development concepts becomes difficult (Alliance Sahel, 2025).

2.3 Nepal's Participatory Landscape

Nepal's approach to community participation is shaped by its mountainous terrain, seismic vulnerability, and rich traditions of community-led development. Key features include:

- **Systematic inclusive planning:** The Local Infrastructure Support Programme (LISP) documents community participation across diverse projects. In Palpa, 43 participants (18 women) contributed to planning a climate-resilient road benefiting 1,407 households, nearly half from marginalized groups. In Nalgad, 50 community members guided river training efforts protecting 40+ households (DT Global, 2025).
- **Trust-based behavior change:** The IFRC's Enabling Action for Community Health (EACH) project in Kalikot demonstrates how trusted community health volunteers, through consistent engagement over months, built the trust necessary for households to construct their own toilets without financial assistance. Puri Lal Devkota, 75, and Supari Luhar transformed their practices and became champions spreading change (IFRC, 2025).
- **Community-owned digital infrastructure:** The Digital Service Centers in Yasodhara Rural Municipality represent an innovative model—eight centers fully owned by local committees, each with 15 members and two volunteers, providing over 15 digital services approximately 2,336 times in under a year, generating NPR 52,000 in revenue (PLGSP, 2026).
- **Post-disaster community-led reconstruction:** Following the Jajarkot earthquake, UN-Habitat sought NGO partners to facilitate community-led processes for restoring and constructing small-scale community infrastructure, emphasizing co-design and active community participation (fundsforNGOs, 2025).
- **Community health volunteers:** Nepal's extensive network of female community health volunteers provides a trusted intermediary infrastructure for health and sanitation interventions.

2.4 Comparative Perspectives on Participation

Comparative research on community participation highlights the importance of context. Participation functions differently in stable versus fragile contexts, in mountainous versus Sahelian terrain, in societies with strong community health volunteer networks versus those without.

Key insights from comparative literature include:

- **Trust is foundational:** The Nepal case demonstrates that behavior change requires trusted intermediaries who engage consistently over time (IFRC, 2025).
- **Community ownership enables sustainability:** The Digital Service Centers model shows that when communities own infrastructure, they generate revenue and maintain services (PLGSP, 2026).
- **Flexibility is essential:** Niger's experience shows that participatory approaches must adapt to contexts where external actors cannot be present, empowering communities to continue development autonomously (Alliance Sahel, 2025).
- **Inclusion requires intentionality:** LISP's documentation of participant demographics demonstrates that inclusive planning requires deliberate effort to engage women and marginalized groups (DT Global, 2025).

3. RESEARCH QUESTIONS

This study addresses the following research questions:

1: How do the conceptual foundations and operational approaches to community participation in rural infrastructure differ between Niger and Nepal, and what factors explain these differences?

2: What participatory mechanisms and institutional frameworks exist in each country, and how effectively do they engage communities in infrastructure planning, implementation, and maintenance?

3: What challenges and enabling factors shape community participation outcomes in each context, and how do participatory approaches adapt to these conditions?

4: What lessons can be drawn from comparative analysis for strengthening community participation in rural infrastructure across diverse contexts?

4. METHODOLOGY

This study employs a comparative case study methodology to examine community participation in rural infrastructure projects in Niger and Nepal. The research design integrates document analysis of primary sources with synthesis of secondary literature to develop a comprehensive understanding of participatory dynamics in both countries.

Primary sources analyzed include: project reports from Alliance Sahel (2025), OSS (2024), HealthBridge (2024), and Block by Block (2025) for Niger; program documentation from DT Global (2025), IFRC (2025), PLGSP (2026), and fundsforNGOs (2025) for Nepal.

The comparative framework examines four dimensions of community participation: (1) conceptual foundations and philosophical approaches; (2) participatory mechanisms and institutional frameworks; (3) challenges and enabling factors; and (4) outcomes and sustainability.

The analysis covers the period from approximately 2020 to 2026, capturing recent developments including Garkua's evolving approach, LISP's community consultations, and the Digital Service Centers' establishment.

5. RESULTS

5.1 Conceptual Foundations and Philosophical Approaches

Niger: Niger's approach to community participation is grounded in the recognition of communities as partners with extraordinary capabilities. Key features include:

- **Communities as partners, not beneficiaries:** Garkua's philosophy explicitly rejects the traditional development paradigm of beneficiaries. "The big mistake development actors often make is to consider communities as beneficiaries. We see communities as partners, and are achieving extraordinary results by building on local capabilities" (Alliance Sahel, 2025).
- **Empowerment for autonomous action:** In fragile areas where conflict limits external access, participatory approaches are designed to enable communities to continue development activities independently. Village committees and plans ensure continuity regardless of NGO presence (Alliance Sahel, 2025).

- **Integrated approach:** Garkua's work spans humanitarian aid, development, and peacebuilding, with participation integrated across all three. "Cash for work" actions simultaneously address immediate needs and rehabilitate degraded land for long-term development (Alliance Sahel, 2025).
- **Inclusive design:** The Karadjé Market project engaged informal vendors in designing display tables, recognizing their expertise in their own working conditions (HealthBridge, 2024).
- **Community capabilities emphasized:** Garkua's permanent secretary emphasizes that "communities have extraordinary capabilities" and that building on these capabilities achieves extraordinary results (Alliance Sahel, 2025).

Nepal: Nepal's approach to community participation is grounded in systematic inclusive planning and trust-based relationships. Key features include:

- **Inclusive planning processes:** LISP systematically documents participant demographics, ensuring women and marginalized groups are represented. In Palpa, 43 participants (18 women) contributed to road planning; in Nalgad, 50 community members guided river training (DT Global, 2025).
- **Trust as foundation for behavior change:** The EACH project in Kalikot demonstrates that lasting change requires trusted intermediaries who engage consistently over time. Community health volunteers built relationships over months, enabling households to take action without financial assistance (IFRC, 2025).
- **Community ownership of infrastructure:** The Digital Service Centers are fully owned by local committees in each ward, with 15 members per committee and volunteers appointed to provide services. This ownership structure generates revenue and ensures sustainability (PLGSP, 2026).
- **Gender-responsive design:** High-altitude construction projects incorporate gender-responsive design and local workforce engagement (DT Global, 2025).
- **Community champions:** Supari Luhar's transformation from beneficiary to champion—visiting neighboring households and guiding around ten households to improve sanitation—illustrates how change spreads organically (IFRC, 2025).

Table 1: Comparative Conceptual Foundations

Dimension	**Niger**	**Nepal**
Philosophical grounding	Communities as partners; building on local capabilities (Alliance Sahel, 2025)	Inclusive planning; trust-based relationships (DT Global, 2025; IFRC, 2025)
Role of communities	Autonomous action in fragile contexts	Co-design; ownership; revenue generation
Key innovation	Village action plans enabling continuity despite conflict	Community-owned digital infrastructure; behavior change through trusted volunteers
View of community capabilities	"Extraordinary capabilities" (Alliance Sahel, 2025)	Capacity for transformation and championing change (IFRC, 2025)
Integration across sectors	Humanitarian, development, peacebuilding	Infrastructure, sanitation, digital services

5.2 Participatory Mechanisms and Institutional Frameworks

Niger: Niger has developed participatory mechanisms adapted to its context of limited resources and conflict. Key features include:

- **Village action plans and committees:** Each village where Garkua works has a village action plan and a committee to ensure implementation and monitoring. These structures enable communities to carry out development activities even without external presence (Alliance Sahel, 2025).
- **Communal community involvement platforms:** Village committees meet at commune level to form platforms that coordinate development actions. This structure empowers communities to implement actions even in areas difficult for partners to access (Alliance Sahel, 2025).
- **Community relays:** In areas where Garkua has not developed the full participatory approach, community relays serve as endogenous animators who can continue implementing activities even when access is difficult for NGOs (Alliance Sahel, 2025).

- **Participatory planning for specific infrastructure:** The AdaptWAP project's well construction in Manga Koira involved community members in planning and construction, ensuring the infrastructure met their specific needs for drinking water and livestock watering (OSS, 2024).
- **Co-design workshops:** The Karadjé Market project used participatory workshops where informal vendors helped design display tables, creating ownership and enthusiasm for personalizing their spaces (HealthBridge, 2024). A similar workshop in Cité Fayçal engaged two teams of nine people each in imagining new possibilities for park development, prioritizing playgrounds, water, agricultural space, plants, and trash cans (Block by Block, 2025).
- **Municipal coordination:** Garkua is introducing joint planning at municipality level, where all partners meet at the start of the year to draw up a joint plan ensuring coherence across humanitarian, development, and peace actions (Alliance Sahel, 2025).

Nepal: Nepal has developed systematic participatory mechanisms across diverse infrastructure sectors. Key features include:

- **Community consultations and feasibility studies:** LISP supported community consultation and feasibility study for the Gorkhekot–Aarukharka–Hatemalo Chowk to Siddhartha Highway Agri-Road Upgradation Project, engaging 43 participants (18 women) in inclusive planning (DT Global, 2025).
- **Community-led river training:** The Bagar Bheri Nadi River Training initiative was guided by consultations with 50 community members, protecting 40+ households and critical local assets from river erosion (DT Global, 2025).
- **Gender-responsive high-altitude construction:** The Chharka RCC Road project at 4,350 meters focuses on gender-responsive design, local workforce engagement, and resilience in high-altitude construction (DT Global, 2025).
- **Trusted community health volunteers:** The EACH project worked through community health volunteers who visited households monthly for about a year, building strong trust through respectful and consistent engagement. These volunteers are from the same communities, enabling deep relationships (IFRC, 2025).
- **Community-owned digital service centers:** Eight digital service centers are fully owned by local committees in each ward, each committee comprised of 15 dedicated members. These

committees appoint two volunteers per center to provide daily services. A minimal service charge ensures sustainability and makes services affordable (PLGSP, 2026).

- **Community-led post-disaster reconstruction:** UN-Habitat's call for proposals following the Jajarkot earthquake sought NGO partners to facilitate community-led processes for restoring and constructing small-scale community infrastructure, including co-design and active community participation (fundsforNGOs, 2025).

Table 2: Comparative Participatory Mechanisms

Dimension	**Niger**	**Nepal**
Planning mechanisms	Village action plans; communal platforms (Alliance Sahel, 2025)	Community consultations; feasibility studies (DT Global, 2025)
Community structures	Village committees; community relays	Local committee ownership (Digital Centers) (PLGSP, 2026)
Trusted intermediaries	Community relays	Community health volunteers (IFRC, 2025)
Design participation	Co-design workshops (Karadjé Market, Gadafawa) (HealthBridge, 2024; Block by Block, 2025)	Gender-responsive design; local workforce engagement (DT Global, 2025)
Coordination mechanisms	Municipal joint planning (Alliance Sahel, 2025)	District-level coordination
Sustainability mechanisms	Community implementation without external presence	Revenue generation through service charges (PLGSP, 2026)

5.3 Challenges and Enabling Factors

APARAITRE

Niger: Niger's participatory approaches face significant challenges but also benefit from enabling factors.

Challenges:

- **Limited resources:** Niger is vast, with 265 municipalities and tens of thousands of villages. The needs are enormous, and funding is increasingly scarce (Alliance Sahel, 2025).
- **Access constraints:** Access to certain communities and fragile areas has been difficult due to conflict. While strategies exist to enable communities to continue development activities, this challenge persists (Alliance Sahel, 2025).
- **Low literacy rates:** With very low school enrollment rates in rural areas, there are villages where hardly anyone knows how to write. This complicates the assimilation of development strategies and concepts (Alliance Sahel, 2025).
- **Security concerns:** The Karadjé Market project noted safety concerns for nighttime use, leading to security recommendations and scheduled activities to increase public usage (Block by Block, 2025).

Enabling factors:

- **Community capabilities:** Garkua's permanent secretary emphasizes that communities have "extraordinary capabilities" that enable extraordinary results when development actors build on local strengths (Alliance Sahel, 2025).
- **Youth population:** Over 70% of the population encountered in villages are young people. Developing their capacity through training and employment opportunities offers long-term potential (Alliance Sahel, 2025).
- **Existing community structures:** Village committees and communal platforms provide institutional infrastructure for participation.
- **Partner coordination:** Garkua participates in consultation frameworks via thematic clusters coordinated by OCHA and is introducing joint municipal planning to align stakeholder efforts (Alliance Sahel, 2025).

Nepal: Nepal's participatory approaches face distinct challenges but benefit from strong enabling factors.

Challenges:

- **Difficult terrain:** High-altitude construction at 4,350 meters presents immense logistical challenges (DT Global, 2025).
- **Seismic vulnerability:** The Jajarkot earthquake demonstrated the need for disaster-resilient infrastructure and community-led reconstruction (fundsforNGOs, 2025).
- **Marginalization:** Ensuring participation of marginalized groups, including nearly half the population in some project areas, requires deliberate effort (DT Global, 2025).
- **Climate vulnerability:** River erosion threatens communities and infrastructure, requiring ongoing adaptation (DT Global, 2025).

Enabling factors:

- **Community health volunteer network:** Nepal's extensive network of female community health volunteers provides trusted intermediary infrastructure for health and sanitation interventions (IFRC, 2025).
- **Local government support:** The Digital Service Centers are jointly funded by Yasodhara Rural Municipality and Lumbini Province Government, demonstrating local government commitment to innovation (PLGSP, 2026).
- **Community champions:** Individuals like Supari Luhar become champions who spread change organically, multiplying impact (IFRC, 2025).
- **Systematic documentation:** LISP's documentation of participant demographics enables monitoring of inclusive planning (DT Global, 2025).

Table 3: Comparative Challenges and Enabling Factors

Dimension	**Niger**	**Nepal**
Key challenges	Limited resources; access constraints; low literacy; security (Alliance Sahel, 2025)	Difficult terrain; seismic vulnerability; marginalization; climate vulnerability (DT Global, 2025; fundsforNGOs, 2025)

Key enablers	Community capabilities; youth population; existing community structures; partner coordination (Alliance Sahel, 2025)	Community health volunteer network; local government support; community champions; systematic documentation (IFRC, 2025; PLGSP, 2026; DT Global, 2025)

5.4 Outcomes and Sustainability

Niger: Outcomes from Niger's participatory approaches demonstrate both achievements and persistent challenges.

- **Village action plans:** Each village where Garkua works has a village action plan, enabling communities to implement development actions even without external funding. A large proportion of activities can be implemented by the community itself (Alliance Sahel, 2025).
- **Community continuity in fragile areas:** The participatory approach ensures continuity of development actions even when access is difficult for NGOs. In areas where the full approach hasn't been developed, community relays continue implementing activities (Alliance Sahel, 2025).
- **AdaptWAP well construction:** The Manga Koira well, constructed with community participation, provides drinking water to households and watering for livestock—dual functionality crucial for the local economy (OSS, 2024).
- **Karadjé Market improvements:** Display tables enhanced hygiene and working conditions for informal vendors, with vendors expressing enthusiasm for personalizing their tables (HealthBridge, 2024).
- **Gadafawa park development:** The park developed with community participation now has borders of fencing and greenery, irrigation systems supporting fertile ground, a colorful playground, and space for food concession stands to promote local economy (Block by Block, 2025).
- **Sustainability concerns:** Safety considerations for nighttime use led to recommendations for scheduled activities to increase public usage (Block by Block, 2025).

Nepal: Outcomes from Nepal's participatory approaches demonstrate significant achievements and promising sustainability models.

- **Climate-resilient infrastructure:** The Gorkhekot–Aarukharka–Hatemalo Chowk road project, planned with community participation, will benefit 1,407 households, nearly half from marginalized groups (DT Global, 2025).
- **River protection:** The Bagar Bheri Nadi River Training initiative protects 40+ households and critical local assets from river erosion, guided by community consultations (DT Global, 2025).
- **Household sanitation transformation:** Puri Lal Devkota and Kalashi constructed their own toilet within seven days after months of trust-building by a community health volunteer. They now boil drinking water and use clean containers, bringing security and well-being (IFRC, 2025).
- **Community champions:** Supari Luhar mobilized local workers to build her own toilet after eight months of engagement. She now visits neighboring households, sharing what worked for her, and around ten households have improved their sanitation practices through her guidance (IFRC, 2025).
- **Digital service centers:** Eight centers have provided over 15 digital services approximately 2,336 times in under a year, generating NPR 52,000 in revenue. Services include online forms for driving licenses, e-passports, COVID-19 vaccine cards, national identity cards, accident registration, electricity bill payments, PAN numbers, and Public Service Commission exam forms (PLGSP, 2026).
- **Sustainability through revenue:** Minimal service charges make services affordable while generating revenue for ongoing operations. The success has instilled optimism and innovation in local government (PLGSP, 2026).

Table 4: Comparative Outcomes and Sustainability

Dimension	**Niger**	**Nepal**
Infrastructure outcomes	Village wells; market improvements; park development (OSS, 2024;	Climate-resilient roads; river protection; digital centers (DT Global, 2025; PLGSP, 2026)

	HealthBridge, 2024; Block by Block, 2025)	
Social outcomes	Community continuity in fragile areas (Alliance Sahel, 2025)	Household sanitation transformation; community champions (IFRC, 2025)
Economic outcomes	Food concession spaces for local economy (Block by Block, 2025)	Revenue generation (NPR 52,000); affordable services (PLGSP, 2026)
Sustainability mechanisms	Community implementation without external presence	Revenue through service charges; local government support
Reach	Village-level plans across multiple communities	1,407 households (road); 40+ households (river); 2,336 digital services

5.5 Summary of Comparative Findings

Table 5: Comprehensive Comparative Analysis

Dimension	**Niger**	**Nepal**
Philosophical foundation	Communities as partners; building on local capabilities (Alliance Sahel, 2025)	Inclusive planning; trust-based relationships (DT Global, 2025; IFRC, 2025)
Key participatory mechanisms	Village action plans; communal platforms; community relays; co-design workshops (Alliance Sahel, 2025; HealthBridge, 2024)	Community consultations; local committee ownership; community health volunteers (DT Global, 2025; PLGSP, 2026; IFRC, 2025)

APERÇU AVANT

Infrastructure types	Water wells; markets; public parks	Roads; river training; sanitation; digital centers
Trusted intermediaries	Community relays	Community health volunteers (IFRC, 2025)
Inclusion focus	Informal vendors; communities in fragile areas	Women (documented participation); marginalized groups (DT Global, 2025)
Key outcomes	Village plans enabling autonomous action; wells meeting dual needs (OSS, 2024)	2,336 digital services; 10+ households transformed through champion (PLGSP, 2026; IFRC, 2025)
Sustainability approach	Community implementation without external presence (Alliance Sahel, 2025)	Revenue generation; local government ownership (PLGSP, 2026)
Key challenges	Limited resources; access constraints; low literacy (Alliance Sahel, 2025)	Difficult terrain; seismic vulnerability; climate risks (DT Global, 2025)
Key strength	Empowering communities for autonomous action in fragile contexts	Systematic inclusive planning; trusted volunteer networks; revenue-generating models
Key lesson	Participation enables continuity when external actors cannot be present	Trust built over time enables behavior change without financial incentives

A PARAITRE

6. DISCUSSION OF RESULTS

6.1 Explaining Divergent Pathways: Context and Capabilities

The differences between Niger's and Nepal's approaches to community participation reflect fundamentally different geographical, social, and security contexts.

Niger's approach is shaped by its Sahelian geography, extreme poverty, and the imperative of operating in fragile, conflict-affected regions. The participatory mechanisms—village action plans, communal platforms, community relays—are designed to function even when external actors cannot be present. Garkua's philosophy of communities as partners with "extraordinary capabilities" reflects a pragmatic recognition that in contexts of limited external access, communities must be empowered to continue development autonomously (Alliance Sahel, 2025). The emphasis on youth (over 70% of village populations) reflects both demographic reality and strategic potential.

Nepal's approach is shaped by its mountainous terrain, seismic vulnerability, and rich tradition of community health volunteers. The systematic documentation of participant demographics in LISP projects reflects a commitment to inclusive planning that ensures women and marginalized groups are represented (DT Global, 2025). The trust-based behavior change model of the EACH project builds on Nepal's extensive network of female community health volunteers, who can engage households consistently over months (IFRC, 2025). The community-owned digital service centers model leverages local government support and generates revenue for sustainability (PLGSP, 2026).

6.2 The Power of Trusted Intermediaries

Both countries' experiences highlight the critical role of trusted intermediaries in enabling community participation. In Niger, community relays serve as endogenous animators who can continue implementing activities even when access is difficult for NGOs (Alliance Sahel, 2025). In Nepal, community health volunteers built trust through consistent monthly visits over about a year, enabling households to take action without financial assistance (IFRC, 2025).

The Nepal case is particularly instructive. Puri Lal Devkota's transformation—"I was convinced in a single day"—followed months of relationship-building. Supari Luhar's journey from beneficiary to champion—now visiting neighboring households and guiding around ten families

to improve sanitation—demonstrates how trust-based engagement can create multiplier effects (IFRC, 2025).

The implication is that effective participation cannot be rushed. It requires investment in relationships, consistency of engagement, and intermediaries who are genuinely trusted because they are from the communities they serve.

6.3 Community Ownership and Sustainability

The Digital Service Centers in Nepal offer powerful lessons about community ownership and sustainability. Eight centers fully owned by local committees, each with 15 members and two volunteers, providing over 2,300 services and generating NPR 52,000 in revenue in under a year (PLGSP, 2026). This model demonstrates several key principles:

- **Ownership structure matters:** Local committee ownership creates accountability and commitment that external ownership cannot replicate.
- **Revenue generation enables sustainability:** Minimal service charges make services affordable while funding ongoing operations, reducing dependence on external donors.
- **Local government support amplifies impact:** Joint funding by rural municipality and province government demonstrates commitment and creates pathways for scaling.
- **Technology can be democratized:** Even in remote border regions, community-owned digital centers can bridge connectivity gaps.

Niger's approach to sustainability is necessarily different. In fragile contexts where revenue generation may not be feasible, sustainability means empowering communities to continue development activities independently. Village action plans and committees enable implementation even without external funding or presence (Alliance Sahel, 2025).

6.4 Inclusion as Intentional Practice

Both countries demonstrate that inclusion requires intentional practice, not passive aspiration. LISP's systematic documentation of participant demographics—43 participants (18 women) in

Palpa, 50 community members in Nalgad—reflects deliberate effort to ensure women and marginalized groups are represented (DT Global, 2025). The gender-responsive design of high-altitude construction projects similarly demonstrates intentional attention to inclusion.

In Niger, the Karadjé Market project's engagement of informal vendors—often marginalized in formal planning processes—reflects intentional inclusion. Vendors' enthusiasm for personalizing their tables demonstrates ownership that only genuine participation can generate (HealthBridge, 2024). The recognition that low literacy rates complicate development strategy assimilation (Alliance Sahel, 2025) highlights the need for communication approaches adapted to local capacities.

6.5 Adapting to Context: Flexibility as Core Principle

Both countries' experiences demonstrate that participatory approaches must adapt to local contexts. Niger's approach is designed for contexts where external actors cannot always be present—village action plans enable continuity regardless of NGO access. Nepal's approach adapts to mountainous terrain through gender-responsive high-altitude construction and to seismic vulnerability through community-led reconstruction.

The EACH project's success in Kalikot required adapting to household-specific circumstances—Puri Lal and Kalashi, elderly farmers living alone; Supari Luhar, a woman living alone in her hillside home. The community health volunteer's consistent, respectful engagement over months built the trust needed for each household to take action (IFRC, 2025).

The implication is that participation cannot be standardized. It must be flexible enough to respond to diverse individual and community circumstances.

6.6 Implications for Project Management and Development Practice

The findings have significant implications for project management and development practice.

First, trust is foundational and takes time. The Nepal case demonstrates that behavior change requires consistent engagement over months. Projects must budget time and resources for relationship-building, not just technical implementation.

Second, community ownership enables sustainability. The Digital Service Centers model shows that when communities own infrastructure, they generate revenue and maintain services. Project design should prioritize ownership structures that create accountability.

Third, participation must be inclusive by design. LISP's documentation of participant demographics demonstrates that inclusion requires deliberate effort. Projects must actively engage women, marginalized groups, and those often excluded from formal planning.

Fourth, flexibility is essential. Niger's approach adapts to conflict contexts; Nepal's adapts to mountainous terrain and seismic vulnerability. Participatory approaches must be flexible enough to respond to local conditions.

Fifth, communities have extraordinary capabilities. Garkua's philosophy of communities as partners rather than beneficiaries (Alliance Sahel, 2025) and Supari Luhar's transformation into a community champion (IFRC, 2025) both demonstrate that development actors often underestimate community potential.

Sixth, coordination matters. Garkua's introduction of joint municipal planning to align partner efforts (Alliance Sahel, 2025) addresses the fragmentation that often undermines development impact.

Seventh, sustainability takes different forms in different contexts. In stable contexts, revenue generation may be possible; in fragile contexts, sustainability means empowering autonomous community action.

7. CONCLUSION

This comparative analysis of community participation in rural infrastructure projects in Niger and Nepal reveals two distinct but complementary approaches shaped by fundamentally different

contexts. Niger, operating in a context of extreme poverty, conflict, and limited external access, has developed participatory mechanisms that empower communities to continue development activities autonomously. Village action plans, communal platforms, and community relays enable continuity even when NGOs cannot be present. Garkua's philosophy of communities as partners with "extraordinary capabilities" reflects both pragmatic necessity and genuine respect for community potential (Alliance Sahel, 2025).

Nepal, with its mountainous terrain, seismic vulnerability, and rich tradition of community health volunteers, has developed systematic inclusive planning processes, trust-based behavior change models, and innovative community-owned digital infrastructure. LISP's documentation of participant demographics ensures women and marginalized groups are represented (DT Global, 2025). The EACH project demonstrates how trusted volunteers, through consistent engagement over months, can enable households to transform their sanitation practices without financial incentives (IFRC, 2025). The Digital Service Centers model shows how community-owned infrastructure can generate revenue and bridge digital divides (PLGSP, 2026).

Several cross-cutting conclusions emerge from this analysis.

First, trust is foundational and takes time. The Nepal case demonstrates that lasting change requires relationships built through consistent, respectful engagement over months. Projects must invest in relationship-building, not just technical implementation.

Second, community ownership enables sustainability. The Digital Service Centers model shows that when communities own infrastructure, they generate revenue and maintain services. Ownership structures that create accountability should be prioritized.

Third, inclusion requires intentional practice. LISP's systematic documentation of participant demographics demonstrates that inclusion does not happen by accident. Projects must actively engage women, marginalized groups, and those often excluded from formal planning.

Fourth, flexibility is essential. Niger's approach adapts to conflict contexts; Nepal's adapts to mountainous terrain and seismic vulnerability. Participatory approaches must be flexible enough to respond to local conditions.

Fifth, communities have extraordinary capabilities. Garkua's recognition of communities as partners (Alliance Sahel, 2025) and Supari Luhar's transformation into a community champion (IFRC, 2025) both demonstrate that development actors often underestimate community potential.

Sixth, coordination amplifies impact. Garkua's joint municipal planning (Alliance Sahel, 2025) addresses fragmentation and ensures coherence across humanitarian, development, and peace actions.

Seventh, sustainability takes different forms. In stable contexts, revenue generation may be possible; in fragile contexts, sustainability means empowering autonomous community action.

For Niger, the path forward involves scaling successful participatory approaches despite limited resources, continuing to innovate in contexts of limited access, and building on the extraordinary capabilities of communities. The recognition that youth (over 70% of village populations) represent enormous potential suggests investing in training and employment opportunities (Alliance Sahel, 2025).

For Nepal, the path forward involves expanding community-owned digital infrastructure, strengthening the community health volunteer network, and ensuring that inclusive planning documented in LISP projects becomes standard practice across all infrastructure sectors. The Digital Service Centers model offers a replicable template for bridging digital divides in remote areas (PLGSP, 2026).

For the broader community of scholars and practitioners, this comparison underscores that community participation is not a technical procedure to be applied uniformly but a relational achievement to be cultivated contextually. It requires trust built over time, ownership structures that create accountability, inclusive design that engages marginalized groups, flexibility that adapts to local conditions, and recognition that communities are not beneficiaries but partners with extraordinary capabilities. In a world of increasing fragility, climate volatility, and inequality, these lessons are more urgent than ever.

8. LIMITATIONS OF THE STUDY

This study has several limitations that should be acknowledged. First, the comparative analysis relies primarily on secondary sources and project documentation rather than primary data collection. Direct fieldwork in both countries, including interviews with community members, project managers, and policymakers, would strengthen comparative insights.

Second, data availability differs between the two countries. Niger's documentation, while valuable, is less extensive than Nepal's, particularly regarding systematic participant demographics.

Third, the study focuses on community participation in infrastructure with limited attention to the broader political and economic contexts that shape participation possibilities.

Fourth, the voice of community members—particularly those who may not have benefited from participatory processes—is mediated through reports rather than captured directly.

Fifth, the study covers a period of rapid change; findings may require updating as new projects and policies emerge.

9. ACKNOWLEDGMENTS

The author acknowledges the foundational contributions of institutions and practitioners whose work enables this comparative analysis. Alliance Sahel's interview with Garkua's permanent secretary (2025) provides essential insights into Niger's participatory approaches. The Sahara and Sahel Observatory's documentation of the AdaptWAP project (2024) illuminates participatory infrastructure development. HealthBridge's (2024) and Block by Block's (2025) documentation of Niamey's public space projects demonstrates community co-design in practice. DT Global's LISP updates (2025) provide systematic documentation of Nepal's inclusive planning processes. The IFRC's story of the EACH project in Kalikot (2025) offers powerful evidence of trust-based behavior change. PLGSP's success story of Yasodhara's Digital Service Centers (2026) demonstrates innovative community-owned infrastructure. UN-Habitat's call for proposals (fundsforNGOs, 2025) shows commitment to community-led reconstruction. The author also acknowledges the countless community members, volunteers, and project staff whose daily efforts build the infrastructure that sustains rural livelihoods.

10. AUTHOR CONTRIBUTIONS

The author conceived the study, designed the comparative framework, conducted the literature review and document analysis, synthesized findings across countries, and drafted the complete manuscript. The author takes full responsibility for the accuracy of information presented and interpretations offered.

11. COMPETING INTERESTS

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential competing interest.

12. AUTHORS' CONTRIBUTIONS

As sole author, I performed all roles including conceptualization, methodology development, investigation, formal analysis, writing, review, editing, and project administration.

13. FUNDING INFORMATION

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

14. DATA AVAILABILITY

All sources analyzed in this study are publicly available documents, including project reports, international organization publications, and media reports. Primary sources are cited in the references and accessible through the referenced publications and organizations.

15. DISCLAIMER

The views expressed in this article are solely those of the author and do not necessarily reflect the views of any institution or organization with which the author may be affiliated. The analysis is provided for scholarly purposes and should not be construed as policy guidance or investment advice. Community participation practices are subject to change, and readers should consult current official sources for specific information about Niger, Nepal, and participatory development.

16. REFERENCES

Alliance Sahel. (2025, March 26). Integrated Participatory Community Approach: The NGO Garkua Strategy in Niger. https://www.alliance-sahel.org/en/news/integrated-participatory-community-approach-ngo-garkua-strategy-niger/

Block by Block. (2025, December 10). Building Space to Gather and Garden in Niamey, Niger. https://www.blockbyblock.org/projects/niamey

DT Global. (2025, October 21). From riverbanks to high mountain passes, our Local Infrastructure Support Programme (LISP) continues to strengthen climate resilience and connectivity across Nepal [LinkedIn post]. https://www.linkedin.com/posts/dt-global_nepal-wearedtglobal-lisp-activity-7386676490127548416-y56U

fundsforNGOs. (2025, May 28). CFPs: Livelihoods Improvement and Disaster Resilience Enhancement in the areas affected by Earthquake in Jajarkot and Rukum West

(Nepal). https://www2.fundsforngos.org/latest-funds-for-ngos/cfps-livelihoods-improvement-and-disaster-resilience-enhancement-in-the-areas-affected-by-earthquake-in-jajarkot-and-rukum-west-nepal/

HealthBridge. (2024, December 5). Livable Cities Mini-Projects. https://healthbridge.ca/impact-stories/livable-cities-mini-projects

IFRC. (2025, November 18). From trust to toilets: Community-led change in Nepal's mountains. https://www.ifrc.org/article/trust-toilets-community-led-change-nepals-mountains

PLGSP. (2026, January 20). Bridging the Digital Chasm in Yasodhara Rural Municipality Through Digital Service Centers. https://www.plgsp.gov.np/bridging-digital-chasm-yasodhara-rural-municipality-through-digital-service-centers

Sahara and Sahel Observatory (OSS). (2024). Inauguration of a Well in Kirtachi, Niger: A Crucial Step in Implementing Concrete Adaptation Actions as Part of the AdaptWAP Project. https://oss-online.org/en/node/803