# Naryn

## Kyrgyz Republic

## 2023-2024

### Enhancing Resilience through Integrated Spatial and Investment Planning

# Naryn Design Guidelines

UN-HABITAT

Schweizerische Eidgenossenschaft
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AKDN
AGA KHAN DEVELOPMENT NETWORK

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**Naryn Design Guidelines**



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# INTRODUCTION

Change in cities is inevitable, and when managed effectively, it can serve as a powerful driver of urban progress. The rise and decline of cities are often responses to shifting political, economic, and social forces, which continuously reshape market demands and create new challenges. However, these forces of change also present cities with opportunities to respond creatively and strategically to improve their infrastructure, economy, and overall quality of life. As urban theorist Lewis Mumford remarked, "in the city, remote forces and influences intermingle with the local: their conflicts are no less significant than their harmonies" (Mumford, 1940, p. 4). Naryn, like many cities, stands at a pivotal moment, where the intersection of these forces creates both challenges and opportunities for regeneration.

The collapse of the Soviet Union triggered an economic downturn that profoundly impacted Naryn, transforming it from a thriving regional agro-industrial hub into a city marked by closed factories, deteriorating infrastructure, and scattered, under-utilized industrial land. This decline has fragmented the city, diminished its vibrancy, and negatively affected its socio-economic fabric, leaving it more vulnerable to external shocks, including economic crises and climate-related risks.

Robson's (1988) work on urban change highlights four key elements that are particularly relevant to Naryn's situation (Robert.P 2000).

- **Economic transition and employment change**

The collapse of the Soviet Union led to a breakdown of Naryn's traditional economic structures, as industries that once thrived became obsolete. The city, once part of a regional value chain, saw investments and capital shift elsewhere, leaving factories shuttered, unemployment rising, and economic vulnerability growing. Naryn's attractiveness and employment opportunities plummeted. This reflects Hannington's (1937) observation that when basic industries fall into continuous decline, the traditional urban economic order collapses. In Naryn's case, this economic downturn is part of a broader process of restructuring, where the city struggles to adapt to new economic realities, trading demands, and infrastructure needs.

- **Social and community issues**

While economic transition plays a significant role, it is not the sole factor driving social problems. Socio-demographic shifts, the breakdown of traditional family and community structures, and the impact of urban policies have all contributed to the decline. Population movement away from Naryn to more attractive cities, especially among the youth, has weakened its social vibrancy. The loss of traditional employment, crumbling infrastructure, environmental decay, and a lack of social facilities have eroded community bonds, leading to further vulnerability. This breakdown has tarnished the city's image, making it less appealing as a place to live, undermining its ability to offer a high quality of life.

- **Physical obsolescence and new land and property requirements**

Many areas in Naryn suffer from decaying buildings, derelict sites, outdated infrastructure, and changing accessibility needs. These factors create significant challenges for regeneration. Additionally, derelict and contaminated land, the high cost of clearing and redeveloping sites, and land ownership issues further complicate the process. Beyond the physical obstacles, institutional limitations often hinder the ability to address decline effectively. Without adequate capacity to intervene, regeneration efforts are slowed.

Therefore, urban regeneration efforts in Naryn require more than just traditional land-use planning; they demand a comprehensive strategy that integrates investment, social action, physical intervention, and strategic planning.

- **Environmental quality and sustainable development**

Although urban areas often contribute to environmental costs, such as high energy consumption, inefficient resource use, and pollution, they also offer significant environmental benefits. These include public transport networks, economies of scale in waste management, and the potential for redeveloping brownfield land. For Naryn, aligning urban regeneration with sustainable development is key to restoring its attractiveness as a resilient, vibrant, and economically prosperous town. Regeneration efforts present an opportunity to explore new development models that balance growth with environmental stewardship, making sustainability a central focus in urban policy and planning.

## NURP PROJECT

Recognizing the need for a transformative approach, local politicians, developers, landowners, planners, and citizens have begun exploring how best to steer Naryn's future growth while preserving its unique identity. Urban regeneration, in this context, is essential not just for reversing the effects of decay but also for positioning Naryn as an attractive, resilient, and sustainable city. Under the Naryn Urban Resilience Programme (NURP), in collaboration with the Aga Khan Development Network (AKDN) and UN-Habitat, a comprehensive urban resilience strategy has been developed for Naryn. This strategy outlines an integrated planning approach that addresses socio-economic vulnerabilities while enhancing the city's adaptability to climate change and natural hazards. A central element of this strategy is the regeneration of Naryn's numerous under-utilized lands and former industrial sites, which currently contribute to the city's fragmentation, create hotspots for crime, and lower the quality of the urban environment. These vacant and decaying spaces, shaped by complex economic, social, and spatial factors, present significant potential for Naryn's future. They offer an opportunity to reimagine the city and become catalysts for a forward-looking urban development model that aligns with Naryn's vision of becoming a vibrant, inclusive, and resilient city.

## THE PURPOSE OF THE GUIDELINES

The urban design guidelines for urban regeneration in Naryn have been developed as a strategic response to address the city's pressing urban challenges. Urban regeneration is seen as a suitable approach for revitalizing Naryn's underutilized spaces, tackling the legacy of fragmented development, decaying infrastructure, and socio-economic vulnerability. These guidelines are designed to assist urban planners, architects, practitioners, city officials, and key urban stakeholders in implementing effective regeneration projects that are aligned with the city's master and strategic plans.

The guidelines provide comprehensive design principles at various scales, from neighborhood planning to site-specific interventions. They emphasize an integrated approach to regeneration, ensuring that the reshaping of the urban fabric contributes to creating a more resilient, inclusive, vibrant, and well-connected city. By focusing on the technical aspects of urban design—such as spatial organization, public space design, transportation networks, and sustainable infrastructure—the guidelines aim to transform Naryn's physical environment into one that supports both community well-being and economic development.

A key feature of these guidelines is their use of Naryn's unique local conditions, particularly its vacant, underutilized, and former industrial sites, as case studies for innovative regeneration strategies. These areas, which currently contribute to the city's fragmentation and economic stagnation, are reimagined as potential hubs for creative urban interventions. By redeveloping these spaces, Naryn has the opportunity to enhance its urban resilience, strengthen its infrastructure, and integrate these sites into the broader city development strategy. The guidelines outline how these spaces can be catalysts for economic growth, job creation, and investment attraction. Through targeted urban regeneration efforts, these sites can help improve the city's image and functionality, making Naryn a more attractive place to live, work, and invest.



## WHAT IS URBAN REGENERATION?

Urban regeneration is a multifaceted concept, and various definitions attempt to capture its complexity. It is often confused with other approaches, such as urban renewal or urban upgrading, which focus more narrowly on specific aspects of city improvement.

UN-Habitat alongside relevant like-minded institutions and professionals around the world understands that urban regeneration is in essence a process that "preserves, protects and enhances socio-economic conditions, natural heritage and tangible and intangible" social and "cultural heritage", as highlighted in paragraph 38 and 97 of the New Urban Agenda.

Integration is a central feature of urban regeneration, and this feature helps to distinguish urban regeneration from earlier partial attempts to manage change in urban areas (Lichfield, 1992). For instance, urban regeneration differs from urban renewal, which as Couch notes, involves "a process of essentially physical change" (Couch, 1990, p. 2). It also surpasses urban revitalization (or rehabilitation), which, while acknowledging the need for action, fails to specify a precise method of approach.

In contrast, urban regeneration requires a holistic, long-term strategy that not only addresses physical challenges, but also the social, environmental and economic challenges to ensure sustainable, city-wide improvements (Robert.P 2000).

Urban regeneration involves the revitalization of different types of land and urban spaces, each of which presents unique challenges and opportunities. Understanding the distinctions between the different spatial typologies is essential for shaping effective regeneration strategies.

a. ***Brownfield sites*** are former industrial or commercial areas that have been abandoned or are underused, often with some degree of contamination due to previous industrial activity. These sites are prime candidates for urban regeneration because they offer the potential to restore and reintegrate fragmented parts of the city. Brownfield regeneration can be more costly due to necessary environmental remediation, but it aligns well with sustainable development goals by reducing land consumption and making better use of existing urban infrastructure.

b. ***Greyfield sites*** are typically older, underperforming properties, such as outdated retail centers, parking lots, or commercial buildings, that no longer serve their original purpose. These sites are often located in low-density urban zones and present opportunities for redevelopment into higher-density, mixed-use projects. Greyfield redevelopment can rejuvenate neglected areas, bringing new economic activity and housing options without the challenges of environmental contamination typically found in brownfield sites. Greyfield sites could be repurposed to meet modern needs, such as creating new residential, commercial, or civic spaces.

c. ***Urban Void and Under-Utilized Spaces*** are spaces within the city that have been left vacant or are underutilized due to various reasons, such as obsolete infrastructure, disinvestment, or urban shrinkage. Regenerating these spaces can significantly enhance the city's spatial and functional connectivity, turning them into productive areas that contribute to the city's overall vibrancy. Such spaces—whether large plots of vacant land or small unused parcels—can be transformed into parks, community spaces, or new developments that improve quality of life.

d. ***Edge-of-City Development*** are typically areas located at the periphery of urban centers, which may have developed in a fragmented or uncoordinated manner. Edge-of-city developments often suffer from poor connectivity to the urban core and can contribute to inefficient land use patterns. Urban regeneration efforts in these areas focus on creating better links with the city center and ensuring that peripheral growth supports rather than detracts from the city's overall sustainability goals.

e. ***Infill Development*** refers to the development of vacant or underused parcels within an already developed urban area. This form of regeneration helps to increase density, reduce urban sprawl, and make more efficient use of existing infrastructure. Infill development is particularly relevant for Naryn, where opportunities exist to densify the urban core, enhance public spaces, and improve infrastructure in line with the city's long-term goals for resilience and connectivity.

f. ***Adaptive reuse*** of old industrial sites is a key strategy in urban regeneration projects, involving the repurposing of defunct or underutilized industrial buildings and land for new functions. This approach breathes new life into aging infrastructure by transforming it for residential, commercial, cultural, or mixed-

use purposes, while preserving historical and architectural value. By integrating these sites into the broader urban fabric, adaptive reuse contributes to sustainable development, reduces environmental impact, and revitalizes local economies, enhancing the city's character and functionality.

Each of these spatial typologies offers different pathways for urban regeneration, and successful strategies will often require a combination of these approaches. For Naryn, focusing on brownfield and greyfield regeneration, coupled with selective infill and urban void activation, can help reshape the city's physical landscape while addressing its socio-economic and environmental challenges. This multifaceted approach ensures that regeneration efforts contribute to Naryn's vision of becoming a more resilient, inclusive, and vibrant urban center.

## Process of urban regeneration

Successful urban regeneration requires a clear framework that addresses each step of the process, from initiation to implementation. A World Bank report identifies four main phases that are typically involved in the regeneration process, namely scoping, planning, financing and implementation (World Bank 2016).

### i. Scoping

Scoping is a critical phase in urban regeneration, where decision-makers conduct a strategic evaluation to identify regeneration opportunities for a city or specific areas, such as ports, downtowns, or neighborhoods. This process involves creating a long-term vision for transformation, providing city leaders with a strategic "road map" for making informed choices about their city's future. Through scoping, city leaders assess key spatial, economic, social, and physical characteristics, and analyze regional and global positioning to identify both opportunities and barriers to regeneration. They also evaluate the city's capacity for change across public, private, and community sectors. By integrating quantitative and qualitative data with participatory planning, scoping generates a clear vision and actionable steps, allowing for community involvement and informed decision-making. This process is both forward-looking, focusing on future success, and backward-looking, drawing on the city's historical and cultural context to shape its regeneration.

### ii. Planning:

The planning phase in urban regeneration is pivotal, going beyond the mere creation of master plans or design guidelines. It encompasses the entire process of orchestrating development, ensuring that the best organizational structures are in place to harness the capacities of the public, private, and civic sectors. This phase is vital in laying the groundwork for a city's regeneration, as it involves not only technical planning but also building broad, diverse coalitions that can drive the project forward. Effective planning includes early identification of leadership and key stakeholders, mapping out the networks that will be crucial to the project's success. This ensures that political, business, and community leaders are engaged and motivated, aligning their interests with the regeneration goals.

Time is a crucial factor in urban regeneration projects; delays in infrastructure delivery or approvals can stall land development, jeopardizing funding and missing market opportunities. A key consideration is how the regeneration program will endure over its long lifespan, navigating economic and political cycles. The program must be resilient enough to withstand shifts, such as transitions from recession to boom or changes in political leadership, from conservative to progressive regimes.

By designing an inclusive and strategic planning process, the city can better prepare for the complexities of urban regeneration, ensuring that both leadership and capital sources are ready to support long-term transformation.

*a. Defining the Implementation Process and Institutional Arrangements*

Establishing effective institutional arrangements is critical to the success of urban regeneration projects. The structure of these arrangements can vary widely, from formal entities with clear authority and accountability to more informal networks for coordination and oversight. The choice of institutional framework depends on the project's goals, whether it's driven by the public or private sector, and the complexity of the tasks involved. Various

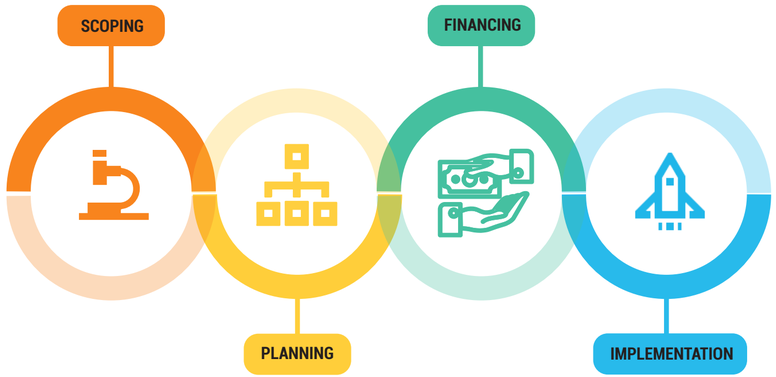



Figure 1. Urban regeneration process
Source: Based on World Bank 2016





governance models can be implemented to ensure the project is guided, monitored, and delivered effectively. These entities must have the appropriate powers and responsibilities to manage coordination, ensure accountability, and drive the regeneration process forward, adapting as needed to the project's evolving requirements.

Urban regeneration projects can be managed through various organizational structures, each offering different levels of authority and involvement. One option is the creation of public development corporations, which are highly formal entities with a wide range of powers, including land use, financing, construction, and marketing. These corporations oversee the entire project, from planning to handover, depending on the political will and project complexity. Another model is a public-private board, which can range from formal joint legal entities to more flexible contractual arrangements like concession leases. If the public sector contributes land or other resources, it becomes an equity partner and can have a significant role in decision-making and oversight. Even without equity, joint ventures can facilitate shared decision-making and project management. Planning commissions represent a more limited public sector role, where the private sector takes the lead on delivery, with the public sector providing regulatory oversight to ensure adherence to the approved master plan. In contract management arrangements, the project is driven by contractual obligations between the public and private sectors. An advisory board may be established to monitor progress and resolve disputes, but the relationship is primarily defined by performance under contract terms. The least formal structure is a steering committee, which brings

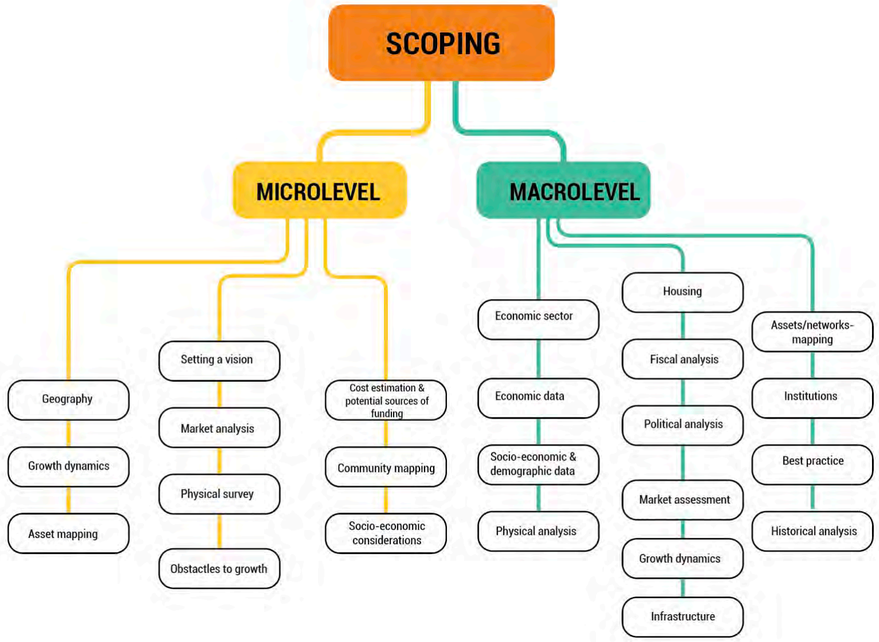



Figure 2. The scoping process
Source: Based on World Bank 2016





together key stakeholders to monitor the project, resolve issues, and provide guidance. This structure is often used to complement more formal arrangements or in private-sector-led projects where the committee helps maintain the project's profile, galvanize resources, and address tensions.

### iii. Financing:

Transformative urban regeneration projects are typically large-scale, multiuse, and complex, often requiring the assembly of land and significant public infrastructure investment. Due to the high costs involved, it is rare for such projects to be financed solely by either the public or private sector. Most cities, even the largest, do not have the financial capacity to fully fund these projects on their own. As a result, cities usually combine internal resources, such as municipal revenues and land, with external funding like intergovernmental transfers, grants, or borrowing. Strategic partnerships with the private sector and the use of policy and regulatory tools also play a critical role in securing financing. Given the multi-year timeline and uncertainty in estimating costs, especially for infrastructure upgrades, financing plans can become highly complex.

The choice of financing mechanisms—whether led by the public or private sector—depends on the project's goals and scale.

| FINANCING TYPE | FINANCING TOOLS | | | DESCRIPTION |
|---|---|---|---|---|
| Municipal finance | Capital investment planning | | | A capital plan provides a link between the municipality's strategic vision, its urban land use plan, and its annual budget. This type of plan would identify anticipated public infrastructure and investment projects, as well as a financing approach. |
| | Intergovernmental transfers | | | Intergovernmental transfers can provide valuable funding for planning and construction projects. However, they can also increase dependency on central government and distort local decision-making. The amount and timing of transfers can also be unpredictable. |
| Land specific financing | Public land | | Sale or long-term lease (Arms-Length transaction) | Direct sales or lease of land by subnational governments, with the goal to raise maximum funds to invest in urban regeneration and sustainability efforts. |
| | | | Strategic negotiated transactions | This consists of strategic, direct and negotiated land disposition with specific, large-scale developers to mobilise private capital to finance projects align public and private interests. |
| | | | Land swaps | A land swap is a tool that empowers a city to trade a municipally owned site with a privately owned one deemed of equivalent value. |
| | | | Equity contribution (joint venture) | *a municipality uses the value of its land as an equity contribution toward a joint venture with a developer.* |
| | Private land | Financial tools | Developer exactions/impact fees | *Development impact fees are required contributions by the private sector to cover the cost of additional public infrastructure and services.* |
| | | | Betterment levies | *Betterment levies are a form of tax or a fee levied on land that has gained in value because of public infrastructure investments. They are considered the most direct form of value capture.* |
| | | | *Business Improvement Districts* (BID) | BID is a PPP in which property and business owners elect to make a collective contribution to maintenance, development, and/or promotion of their commercial district. |
| | | | Tax Increment Financing (TIF) | TIF is a value capture revenue tool that uses taxes on future gains in real estate values to pay for new infrastructure improvements. |
| | | Regulatory tools | Density bonus | A density bonus is an incentive-based tool that permits a developer to increase the maximum allowable development on a site in exchange for either funds or in-kind support for specified public policy goals. |
| | | | Up-zoning | Up-zoning entails changing the zoning to allow for higher-value (for example, from industrial to residential) or more dense use (for example, increasing allowable FAR). |
| | | | Transferable Development Rights (TDR) | TDR are a zoning tool that allows landowners to transfer the development potential of one property to another, often to preserve open space or historic sites while enabling higher-density development in designated areas. |
| | | | Direct grants | A fiscal incentive that typically consists of a reimbursement for allowable expenses to a commercial building owner or space user in exchange for certain actions, such as the hiring of local residents or adopting specified design standards. |
| | | | Low-cost loans | Low-cost loan programs are used to encourage businesses or development to locate in designated urban areas. |
| | | | Tax incentives | Tax-based incentives involve an indirect exchange of funds between the public and private sectors. They could be given to private sector developers or to individual residents of a neighbourhood to foster area-based regeneration. |

Figure 3. Selection of financial tools for urban regeneration
Source: World Bank 2016

**iv. Implementation**

The implementation phase of urban regeneration involves turning the long-term vision into actionable financial, contractual, and institutional agreements between the public and private sectors. Given the complexity and duration of urban regeneration projects, these sectors are interdependent, with each providing essential elements such as infrastructure, funding, land, regulatory approvals, and political support. A clear implementation strategy is critical to ensure the success of the project and its benefits to the community.

The implementation phase also involves clearly defining the objectives and roles of all stakeholders, while ensuring a shared understanding of the key priorities for all parties involved in these complex transactions. The overarching goals of the regeneration project must remain central throughout the process, guiding and shaping contract negotiations to align with the broader vision of long-term transformation.

*a. Creating an appropriate institutional structure.*

The establishment of an administrative structure tasked with leading the regeneration process is key to the project's success. The role of these structures should also include developing sound contracts to translate the vision into a tangible partnership between the public and private sectors, specifying the timeline, milestones, and incentives to achieve approvals.

*b. Ensuring continuous political leadership.*

Political leadership is crucial for keeping the regeneration initiative on track amidst the inevitable controversies and conflicts that arise during any large-scale transformation. Without strong political guidance, these projects can stall, leading to a loss of momentum, confidence, and ultimately, failure. Effective leaders must also promote the project's vision among investors and local communities, maintain communication channels with stakeholders, establish transparent planning and implementation processes. They should also be agile in addressing genuine concerns and criticisms, making necessary adjustments to enhance the project and increase public acceptance.

*c. Phasing*

To ensure the successful implementation of large-scale regeneration projects, it is essential to break them down into manageable components. Key safeguards should be established, including phased transfers of public land ownership, protection against land-banking, provisions for claw-backs of unspent funding, and clear definitions of profits along with public participation timelines. The handover process must consider the intricate interdependencies between large investments, such as major infrastructure (utilities, transportation, parks, and brownfield remediation), and the timely delivery of functional commercial and residential developments that establish a "sense of place," even as the overall regeneration unfolds over an extended period.

*d. Mitigate risks:*

Urban regeneration projects inherently involve significant risks, with numerous challenges to establishing successful public-private partnership (PPP) models. The private sector is unlikely to invest without a strong commitment from the public sector, which plays a crucial role in fostering confidence and reducing investment risks. Public sector involvement is particularly vital when private investors face considerable uncertainties, as it can provide direct financing through land contributions and subsidies. Risks vary throughout the project lifecycle and can be categorized into several types: (a) project risks, which emerge during implementation; (b) commercial risks, tied to economic fluctuations and real estate market expectations; (c) external risks, stemming from community demands and civil society pressures; and (d) political risks, linked to political stability and potential changes in policies or regulations.

## THE GUIDELINES

This section of the document presents comprehensive urban design guidelines tailored to the unique context of Naryn. Thes guidelines are intended to assist the city, practitioners, and stakeholders in aligning with and achieving Naryn's urban development strategy.

While some are broadly applicable, others focus specifically on urban regeneration, enhanced by examples, tips, diagrams, and sketches to facilitate understanding and implementation.

The guidelines are organized across six key spatial dimensions, ensuring that every aspect of urban development is effectively addressed:

1. **Building:** This includes guidance on adaptive reuse of buildings, building form, resilience strategies, and the preservation of architectural heritage.

2. **Block:** Emphasizing connectivity, fine-grain urban fabric, permeability, mixed-use development, and fostering a sense of place within city blocks.

3. **Street:** Focusing on the design of multimodal streets, integration of public transport, and promoting walkability and active mobility.

4. **Public Space:** Guidelines for creating resilient, inclusive, and multifunctional public spaces that incorporate climate-sensitive design principles.
5. **Neighborhood:** Addressing inclusivity, placemaking, identity, and vibrancy to create thriving and cohesive urban neighborhoods.

6. **Citywide:** Guidance that considers the broader urban context, ensuring citywide connectivity, integration, and sustainable urban growth.

# BUILDING

## Adaptive reuse

Adaptive reuse refers to the process of repurposing old industrial buildings for new functions while maintaining their historical and architectural integrity. In Naryn, where many decayed industrial structures hold historical significance, adaptive reuse can boost the city's vibrancy by creating new economic, cultural, and social opportunities.

- Structural and environmental Assessment: Conduct a thorough evaluation of each building's structural integrity and adaptability for new uses. Reinforce where necessary while preserving key architectural features. An assessment of the level of contamination is also necessary to make sure that the industrial structures and their surrounding do not pose any health hazards to the local population.

- Socioeconomic Impact Assessment: Evaluate the potential socioeconomic benefits of adaptive reuse projects, including job creation, increased local investment, and enhanced property values.

- Heritage Preservation: Retain and showcase historical elements that connect the building to Naryn's industrial past. Incorporate design elements that celebrate this heritage in the new function, creating a link between the old and the new.

- Creation of a Sense of Place: Reimagine these buildings as cultural, social, or commercial hubs that reflect the community's identity. Mixed-use developments can combine cultural spaces (galleries, museums) with economic functions (offices, shops) to enhance the site's relevance.

- Adherence to Safety Measures: Ensure all repurposed structures comply with modern safety standards, including fire safety, seismic resilience, and accessibility. Emergency evacuation plans and sustainable practices should be integrated into the design.

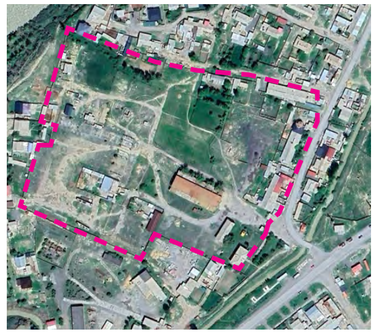


Figure 4. Area proposed for regeneration

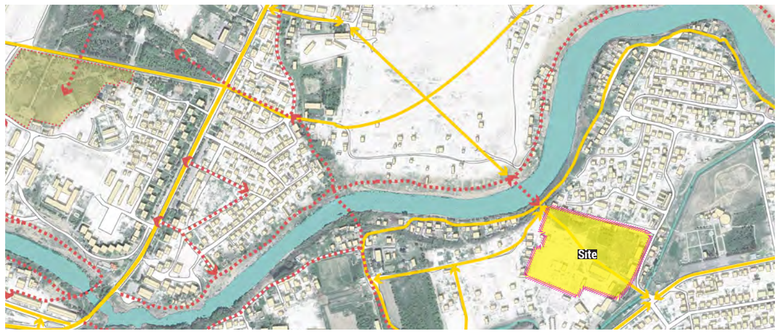



Figure 5. Connectivity plan of proposed regeneration area (in yellow)

Figure 7. Existing condition of the industrial site

Figure 6. Visual illustration: Potential regeneration of the industrial site

## Example: Adaptive reuse of former industrial site in Naryn

One exemplary case of adaptive reuse and urban regeneration is the redevelopment of the former industrial site at [location], previously an active warehouse facility along [road]. After years of abandonment, the city of Naryn acquired the property for future regeneration. Strategically positioned between the city center and its expanding neighborhoods, and bordering the Naryn River, the site holds immense potential to act as a physical and social bridge between otherwise fragmented parts of the city. Its proximity to the river enhances its attractiveness, especially with the planned development of the waterfront and the construction of a pedestrian bridge, which would seamlessly connect the northern and southern sides of the river, catalyzing further development on the river's northern bank. The site consists of two large hangars, several concrete structures, and a significant parcel of vacant land interspersed with a few residential buildings. Given its strategic location, the area is already informally used by residents as a shortcut to access neighborhoods near the river.

This makes it an ideal candidate for a comprehensive urban regeneration project that transforms it into a vibrant, mixed-use neighborhood. By capitalizing on its prime location and preserving its industrial heritage, the regeneration will foster a distinct sense of place. The project can incorporate residential developments, creative industries, commercial spaces, and public amenities, creating a dynamic and diverse urban environment.

Connectivity will be a cornerstone of this regeneration effort, with particular attention to improving pedestrian and non-motorized mobility. Walkability will be enhanced





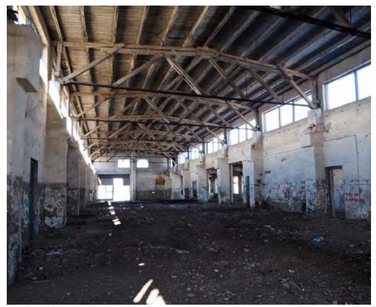


Figure 8. Existing condition of the warehouse

through the development of green corridors, public amenities, and commercial facilities that line the streets and walkways, creating inviting spaces for leisure, social interaction, and cultural activities.

The existing industrial structures should be thoughtfully repurposed and integrated into the broader site development. These historic buildings can serve as multifunctional spaces for community gatherings, exhibitions, events, and conferences, significantly boosting the neighborhood's cultural and economic vibrancy. Revenue generated from these activities can fund the ongoing maintenance and further development of the site.


Figure 9. Visual illustration: Potential adaptive reuse of the warehouse

Key to this approach is the careful preservation of the site's historical and architectural character. The regeneration should emphasize the original architectural details, materials, and color schemes, clearly distinguishing between the restored elements and any modern additions.

Moreover, the adaptive reuse strategy will incorporate elements of resilience and social infrastructure. For example, the concrete structures could be converted into a large greenhouse for urban farming, connected to an elevated café or restaurant. This multifunctional facility would not only provide a panoramic view of the neighborhood, acting as a social hub, but also promote sustainable practices and local food production.

Surrounding these repurposed structures is a network of open and green spaces, designed to offer safe and attractive environments for the community. These spaces will also integrate green infrastructure to manage stormwater, promote biodiversity, and serve as educational areas where residents and children can learn about urban resilience, sustainability, and the local ecosystem.

Figure 10. Visual illustration: Potential adaptive reuse of the industrial structure

Figure 11. Existing condition of industrial structures

## Promote high-quality urban & architectural design

Promoting high-quality urban design and creative architecture is not only the task of planners and architects, but of the community as a whole. Strategies that incentivise developers and individuals to invest in innovation and modern interpretations of local/traditional architecture should be developed and integrated in the city's development policy.

Provide room for experimentation and innovation with architectural styles and materials that take into consideration the local context.

For instance, the city can establish schemes to provide land to cooperatives constituted of city's residents willing to collectively build multi-family houses based on competition between best project proposals in terms of their architectural design, sustainability, and resilience concepts. Cities such as Tübingen, Germany, have been using this to boost creativity and develop highly sustainable and creative neighbourhoods.

Furthermore, the city can provide support for research and innovation on the reinterpretation and adaptation of traditional building techniques to its changing social and economic conditions, with the aim to preserve the cultural and spiritual meanings of traditional design.

## Preserve architectural and territorial heritage

Architectural heritage is an irreplaceable asset that needs to be preserved and highlighted as a fundamental element of the city's culture, history and identity.

Heritage sites and buildings with significant historical, aesthetic and cultural value should be registered, restored and preserved based on collaborative programs between the city and the owners.

Use local traditional architectural styles and materials to reflect the unique character and cultural heritage of the city. This can promote a sense of belonging, preserve local culture, and enhance the aesthetic quality of the built environment and contribute to economic development.

This can include incorporating local architecture to the new buildings as well as integrating modern uses in historic ones or integrating them in new development projects.

Old industrial sites can also be preserved and re-purposed to reflect the site's transformations through time and showcase its identity.

The development of historical buildings needs continual communication between the different stakeholders in order to succeed, places of dialogue should be established between architects, planners and the communities; designs should be available publicly.

## Ensure Accessibility in Building design

Providing accessible design is crucial for both enhancing the use and the inclusiveness of the building. Ensure that buildings provide accessible entrances for all in accordance with principles of universal design (ensuring ramps with correct design and inclination (10%), tactile features, etc.

Buildings with more than 4 storeys must have well dimensioned elevators to guarantee access to disabled people and wheelchairs.

In lower buildings, universal access must be provided in apartments on the ground floor.

Public buildings and social facilities should follow universal accessibility standards.

To ensure convenient and safe circulation, universal access should be provided to all elements of the block and adjacent spaces, such as internal courtyards, semi-private, parking spaces, etc.

## Encourage multi-scale and integrated green system solutions in buildings

Integrated green systems encompass a range of strategies, from energy-efficient designs and renewable energy sources to green roofs and water management systems. These solutions not only enhance a building's capacity to endure climatic variations but also contribute positively to its ecological footprint, fostering harmony between the built environment and the surrounding ecosystem.

Architects and developers can embrace sustainable building practices, such as designing structures with energy-efficient materials, incorporating natural lighting, and integrating on-site infrastructure at the building and neighbourhood levels. Such practices could also reduce the energy demand.

In the face of disasters, these resilient buildings and neighbourhoods become islands of stability, capable of maintaining essential services and providing a haven for occupants.

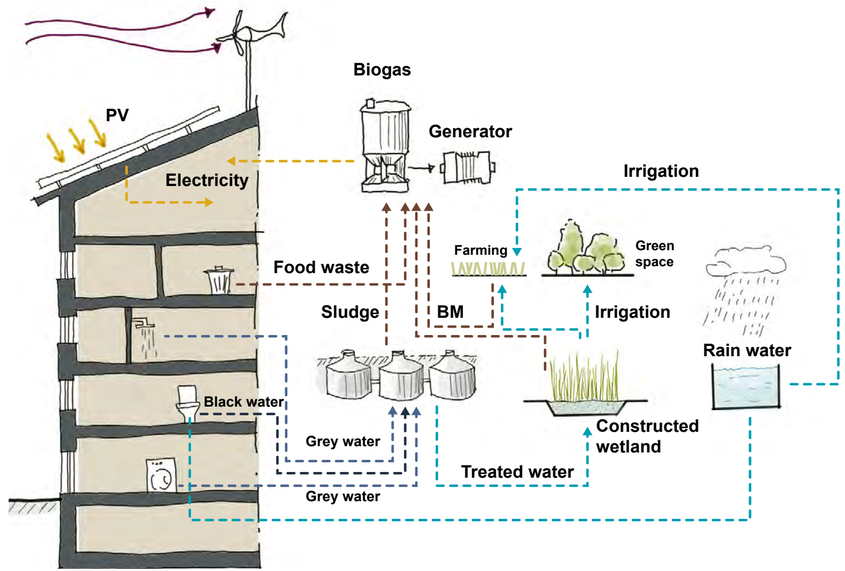



Figure 12. Integrated green solutions in architectural design
Source: UN-Habitat 2018

BLOCK

### Limit the amount of single function blocks or neighbourhoods

Single function blocks are usually linked to low levels of social inclusion. This could create unsafe neighbourhoods prone to crimes. Therefore, land-use specialization should be avoided, and replaced by mixed-use zoning that guarantees the use of the street at all hours of the day and night, provides a feeling of safety, and reduces city congestion and car dependency.

Urban blocks should therefore be designed to include a variety of uses (residential, commercial, cultural institutional, recreational, etc.) especially along the primary mobility axes. This would assist local government in providing walkable, vibrant neighbourhoods with convenient transit and pedestrian linkages, proximity to jobs, access to nearby public services, public spaces, and activity-oriented destinations.

**UN-Habitat recommends that single function blocks should cover less than 10 % of any neighbourhood.**

### Promote fine-grain development

Fine-grain development refers to urban fabrics made of small and clustered parcels, as opposed to coarse grain (large, dispersed parcels).

Fine-grain development models align exceptionally well with mountainous contexts, as smaller blocks and less massive buildings are better suited to navigate the challenges posed by sloped and unstable terrains.

There is a strong positive correlation between areas that follow a mixed-use and fine-grained approach and mix of use, mix of ownership, and mix of business. This is because fine-grained areas are naturally more diverse and walkable as smaller plots and blocks provide more destinations and choices to walks to within short distances (buildings, shops, offices, etc), which in turn promotes urban sustainability and liveability.

Fine-grained urban fabric can evolve over time by responding and adapting to what will come afterwards. This evolutionary process creates places that are not frozen in time and allows for an intensification process to happen.

Furthermore, land sale is open to a whole variety of investors and developers, from individuals to large companies and institutions, which is important to achieve a lower cost of entry and increased affordability.

### Plan for Temporary uses on regeneration sites as experimentation and activation tools

Temporary uses and spatial experimentation are crucial in urban regeneration projects, as they activate vacant or underutilized sites, fostering community engagement and attracting interest before permanent redevelopment. By hosting participatory activities like art installations, public events, community initiatives, or urban farming, these spaces can serve as creative incubators and social hubs, revitalizing areas while long-term plans are underway. These temporary interventions not only bring life and vibrancy to dormant areas but also offer a testing ground for innovative ideas, helping shape the vision for the future use of the space based on real-time community feedback and interaction.

### Activate the urban regeneration project's interface with its edges

In urban regeneration projects where the site is bordered by a natural feature or barrier, such as a river, it is crucial to design an active public space or street between the edge and adjacent buildings. This creates a vibrant interface, encouraging public use and interaction. When barriers or edges have limited pedestrian activity or when adjacent buildings face away from the edge, these spaces can become underused and pose security risks. To enhance safety and encourage use, it is essential to ensure sufficient public lighting and design buildings at a scale that allows for passive surveillance, increasing the sense of security for users.

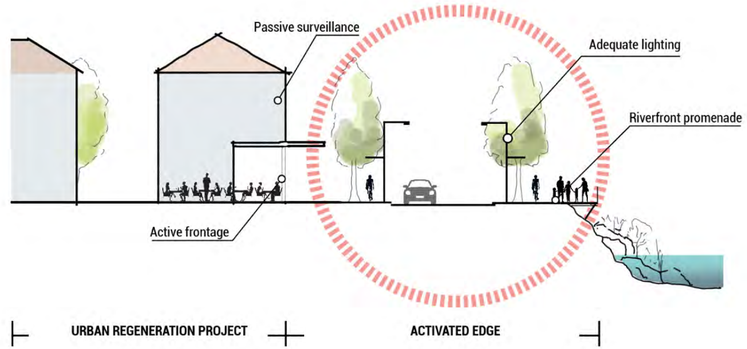



Figure 13. Activation of urban development edges

## Design regeneration projects to be sites for innovation and creativity

Urban regeneration projects can transform neighborhoods into vibrant, creative hubs by integrating art, culture, and innovation. This can be achieved through the promotion of creative industries, providing affordable spaces for artists, designers, and entrepreneurs to flourish. Public art installations and innovative lighting can revitalize streetscapes, while cultural hubs offer spaces for performances, exhibitions, and community events. Flexible spaces for coworking, cultural activities, and public encounters should be central to the design, encouraging collaboration and social interaction. A balanced mix of residential areas, commercial amenities, and public spaces ensures a lively and inclusive environment.

## Include hazard exposure in all urban projects

Urban regeneration projects should include hazard consideration to ensure that project sites incorporate disaster risk reduction measures into their basic design, and do not increase existing levels of vulnerability.

It is therefore recommended to elaborate different land development scenarios that factor disaster risk considerations in order to understand the implications (within geographical and time frames) of disaster risk on proposed land use and develop policies and regulations to ensure all occupancy types can be safely undertaken (Fig.14)

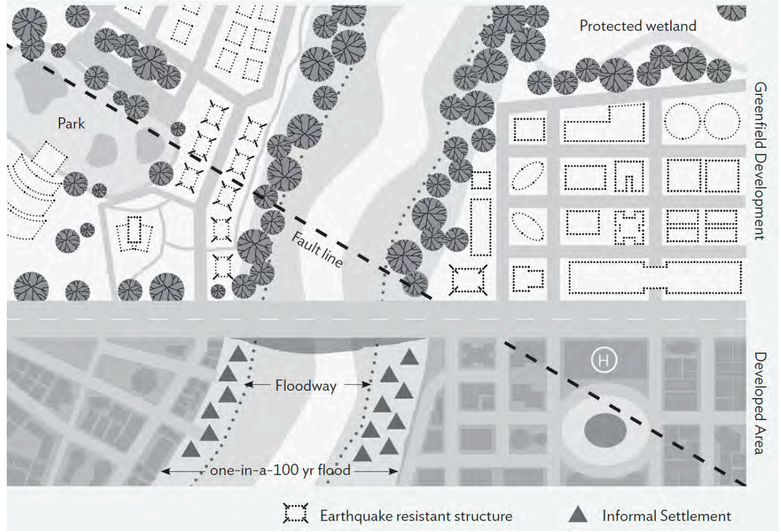



Figure 14. Example of hazard mitigation and adaptation measures for greenfield development (source: WB2016)





## Include special regulations and zoning in hazard-prone areas

Special regulations and zoning should be assigned to hazard prone areas following the risk analysis map. Setbacks or buffers should be introduced along fault lines, as well as in avalanche, landslide, rockfall and flood prone areas.

The zoning should define these buffer zones depending on the intensity and the extent of risk areas.

**In order to protect the riverbank and minimize the impact of flooding, Naryn's strategic plan recommends a 100m buffer zone along Naryn River, and 50m buffer zone along the irrigation canal.**

The buffer zones can be designed to accommodate promenades, green spaces, sport and leisure facilities, etc. The zoning can also provide incentives to homeowners whose buildings are in flood-prone areas to convert their ground floors to freeboards above the base flood elevation (BFE) in order to avoid future flood damage (see Fig. 15).

## Conduct environmental assessment in contaminated sites

Many of the sites considered for urban regeneration are derelict and underused land and may have real or perceived contamination problems.

Treating contaminated industrial land, also known as brownfield sites, is a crucial step in urban regeneration to ensure the land is safe for future development and contributes to the overall sustainability of the urban environment. The process, often referred to as remediation, involves several key steps and considerations that must be approached strategically to address both environmental concerns and the broader goals of urban regeneration.

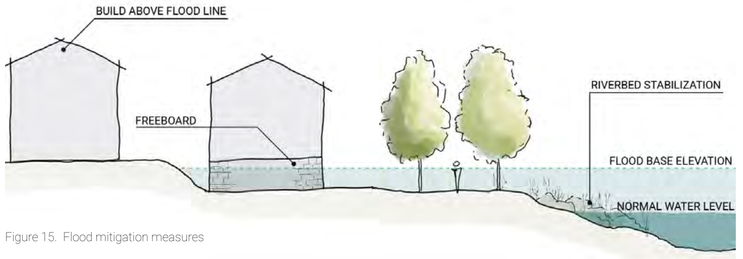



Figure 15. Flood mitigation measures

a) ***Site Assessment and Investigation:*** Before any intervention, a thorough environmental impact assessment should be conducted to identify the extent and nature of contamination. This includes sampling soil, groundwater, and air to detect pollutants such as heavy metals, hydrocarbons, and industrial chemicals. This also includes historical review of the area to Understand the past industrial activities on the site and anticipate the types of contaminants present, whether chemical, biological, or physical.

b) ***Risk Assessment:*** After identifying contaminants, a risk assessment is essential to evaluate the potential hazards to human health, groundwater, ecosystems, and future land use. This assessment informs the level and type of remediation required based on the site's intended future use, whether residential, commercial, or recreational.

c) ***Remediation Strategies:*** Depending on the contamination type and severity, several remediation techniques can be applied, either physical or chemical. Nature-Based Solutions can also provide eco-friendly alternatives, especially to chemical remediation approaches (see box 01).

## BOX 01: TREATING CONTAMINATED SOIL THROUGH NBS

Nature-based solutions (NbS) offer an eco-friendly and sustainable approach to treating contaminated brownfield sites in urban development and regeneration. These methods leverage natural processes to manage and remediate environmental challenges, enhancing ecosystems and human well-being simultaneously. When applied to brownfield sites, NbS focus on using plants, microbes, and natural systems to detoxify, restore, and regenerate contaminated land.

**1. Phytoremediation** uses plants to absorb, accumulate, and detoxify pollutants from soil and water. This process helps clean up heavy metals, organic pollutants, and other contaminants from brownfield sites while promoting biodiversity and green spaces.

***a) Phytoextraction:*** Plants absorb contaminants (such as heavy metals like lead, cadmium, or arsenic) from the soil into their biomass (roots, stems, or leaves). These plants are then harvested and safely disposed of.

***B) Phytodegradation:*** Certain plants can break down and transform organic pollutants, such as petroleum hydrocarbons or pesticides, into less harmful substances through metabolic processes.

***c) Phytostabilization:*** Plants prevent contaminants from migrating by stabilizing them in the soil, reducing their bioavailability and preventing groundwater contamination.

***d) Phytofiltration:*** Plants and their roots filter out pollutants from water, reducing contamination in soil and nearby water bodies.

**2. Bioremediation** involves the use of microorganisms, such as bacteria and fungi, to break down and detoxify pollutants in contaminated soil and water.

***a) Mycoremediation:*** This method uses fungi, particularly mycorrhizal fungi, to break down organic pollutants such as petroleum hydrocarbons, pesticides, and industrial chemicals. Fungi secrete enzymes that degrade complex pollutants into simpler, less harmful compounds.

***b) Bacterial Bioremediation:*** Certain bacteria metabolize contaminants, converting harmful substances like oil spills, chlorinated compounds, and industrial waste into non-toxic byproducts. The introduction of beneficial bacteria can enhance natural soil recovery processes.

**3. Soil Amendments** involve adding organic matter or minerals to contaminated soils to neutralize pollutants and restore soil health.

Biocapping: This technique involves covering contaminated soil with organic material or clean soil, creating a barrier that prevents pollutants from spreading while allowing natural vegetation to grow on top.

a) For sites where contamination cannot be fully removed, containment measures can be applied to block the movement of contaminants and prevent them from emerging.
b) Monitoring and Management: Continuous monitoring of the site is essential during and after remediation to ensure that contaminants do not re-emerge or spread. Monitoring includes soil, water, and air quality testing over time, particularly if the site remains in use for urban development.

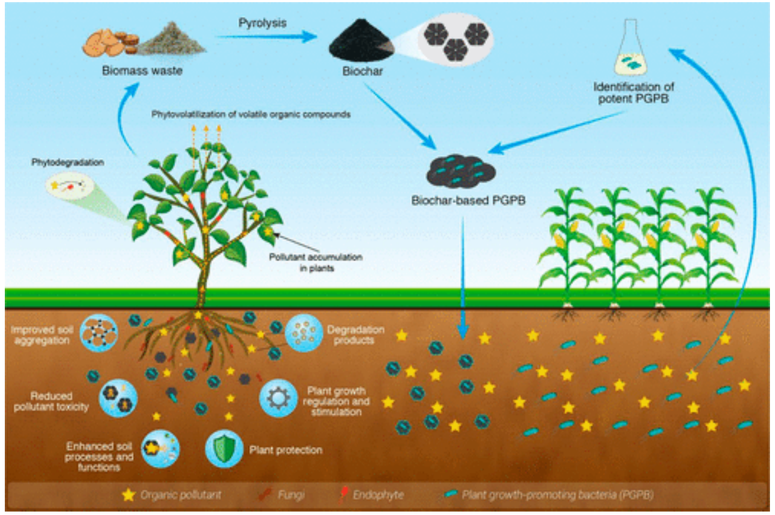



Figure 16. Soil remediation through NBS

Source: Xiang et.al. https://pubs.acs.org/doi/10.1021/acs.est.2c02976

## Use nature-based solutions to enhance the project's social and environmental resilience

Nature-based solutions involve working with nature to address societal challenges and deliver infrastructure, services and integrative solutions that benefit human well-being and biodiversity. This innovative approach can be integrated in urban design and planning to complement and strengthen existing risk management interventions.

Natural processes and elements such as urban forests, wetlands, green spaces, or flood plains can be utilised to build robust and interconnected ecosystems that add value to the urban quality of life and provide ecosystem services to its inhabitants (urban cooling, slope stabilization, water filtration, etc.).

For instance, bioengineering techniques can be used in the renaturation of rivers and the stabilization of riverbanks using plants, rocks and other natural elements to reduce water velocity or influence the river's hydrodynamics for flood and erosion risk reduction.

Strategies such as afforestation, river and stream renaturation, urban farming, coupled with the strengthening of the green space network can improve biodiversity, reduce the impact of storms by allowing increased absorption, infiltration, and storage of storm water, reduce heat island stress, stimulate local economy, and improve the quality of life (Fig.17).

To be successful, Nature-Bases Solutions require a strong understanding of the local ecosystem and the complexity of the human-nature interface. Hence, NBS should be contextualised and built upon the assessment of their functions, benefits, location, suitability, and costs.


Figure 17. Example of a bio-swale for stormwater collection
Source: water.phila.gov/gsi/tools/wetland/





## Integrate natural elements in the design of regeneration projects

Topography, landform features, altitude, water bodies and climatic patterns are some of the elements that give Naryn particular climatic characteristic that influence wind dynamics, air flow, temperature, and sunlight.

These climatic features and their daily and seasonal changes should be considered as decisive factors in the massing, building and street orientation, urban morphology, vegetation, energy performance, etc.

For instance, buildings should be oriented in a way that ensures optimal ventilation and natural light no matter the climatic conditions. An optimal orientation would also allow for better energy performance of buildings and neighbourhoods (i.e. passive heating/cooling).

Streets and open spaces should be designed to serve as air flow corridors, ensuring permanent ventilation of the city and reducing the heat-island effect in hot days. Vegetation can be used to reduce wind velocity and provide shade.

### 1. Wind

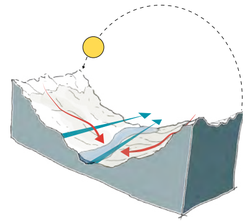
Mountainous areas are known for their dynamic wind flows both on a daily and seasonal basis. The changing temperature patterns have a direct impact on the direction and velocity of winds.

Understanding the horizontal and vertical wind movements and their impact on the local micro-climate can help identify the adequate massing and orientation of buildings, streets and ventilation corridors. These are important elements that should be integrated early in the planning process, and translated into zoning and regulations that specify the level of urban density, building heights, as well as the strategic positioning of vegetation along green corridors in order to provide effective solutions to control wind velocity, limit air pollution and the heat-island effect in the city.

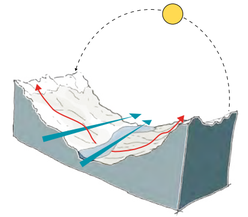
***a. Use wind corridors to ensure optimal ventilation and reduce heat island effect***

Urban ventilation corridors refer to a wide array of open spaces such as parks, forests, urban water bodies, roads, etc, that channel airflows into the urban fabric, leading to the diluting of pollutants and trapped heat in urban areas.

Ventilation corridors are therefore a major urban green infrastructure that could provide a variety of eco-system services and Nature-Based Solutions to mountainous cities. They can also be integrated in a larger network of urban parks, forests, and water bodies in a way that increases biodiversity, achieves stronger urban-rural connectivity, and improves public health and well-being.



**Katabatic Wind –** A downhill wind, usually at night. The mountain summits cool down quicker than the valleys causing the cold (and denser) air to rush down towards the valley floors. Adequate massing and orientation of buildings is required to reduce wind velocity, especially in winter.



**Anabatic Wind** – uphill wind, usually in the afternoon. The sun warms the mountain slopes causing warm air above them to rise. This in turn draws up air from the valleys below to replace it. It is recommended to create wind corridors to allow for this air movement to occur. This would limit the heat-island effect in the city

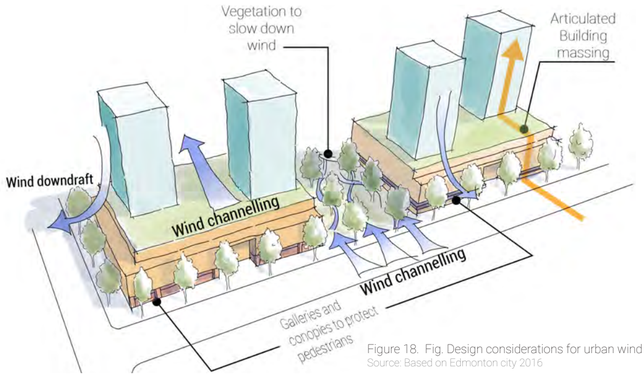



Figure 18. Fig. Design considerations for urban wind comfort
Source: Based on Edmonton city 2016

To ensure a sustainable and resilient urban development, urban planning strategies and regulations should be well informed, and must be based on urban climate studies that map wind systems, air pollution rates, air temperature, solar radiation, etc. These are important information required to identify the strategic air flow channels and to elaborate the adequate measures to protect them. This includes:

- Identifying the location and width of strategic ventilation corridors.

- Elaborating zoning and building restrictions such as building heights, orientation, low-density zones and encroachment bans.

- Specifying the positioning and type of vegetation along ventilation corridors.

The analysis of prevailing winds, their direction and intensity should also inform the zoning and location of potentially polluting land-uses (e.g. industry, landfills) in a way that directs emissions away from the city.

***b. Consider the micro-climatic impacts of tall buildings***

Building height is of particular importance as it can have direct impact on the quality of life, construction costs, safety, urban comfort, just to name a few.

Building heights should be defined based on impact studies of the building scale and form on the micro-climate, as well as its resistance to strong winds and natural hazards.

If not planned properly, towers and tall buildings tend to create worse micro-climates. They also cause strong wind turbulences at the pedestrian level and cast long shadows on streets and public spaces for long periods of the day. Variations in building heights along a block length can reduce ground-level speed. In low- and medium rise buildings, a variation of one- or two storeys can be effective (Fig.18).

In the case of high-rise building[5], there are special consideration that need to be looked at in order to mitigate risks and minimise the potential negative impact of high-rise buildings on the city's micro-climate.

5 High-rise buildings typically include buildings of more than 7-10 storeys or 23-30 m





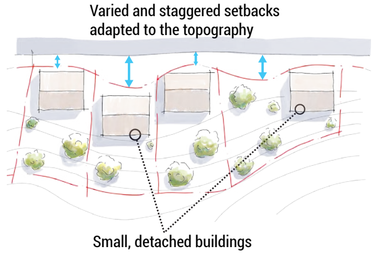



Figure 19. Example of buildings positioning and setbacks on a slope
Source: Bases on City of Manairmo 2005

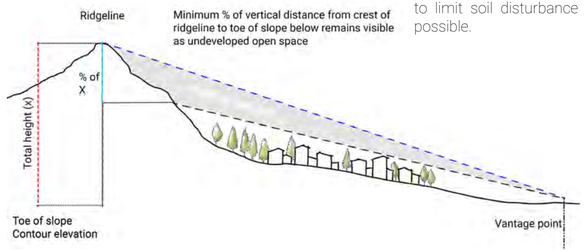



Figure 20. Ridgeline protection measures
Source: Based on Moraga California Municipal Code

## 2. Topography

***a. Geotechnical surveys and building considerations***

Conducting a thorough geotechnical survey and evaluation is crucial before embarking on site planning or design processes. The topographic survey should include an assessment of both existing surface and subsurface conditions, allowing for a holistic understanding of the site's geological makeup.

It should also identify hazards and risks associated with the development of the site, and practical recommendations encompassing safety measures, site protection strategies, and development and mitigation guidelines, forming a robust foundation for sustainable and secure site planning and design.

- Develop a grading plan for any intervention that alters the natural topography. The plan should aim to limit soil disturbance and earthwork as much as possible.

- Develop drainage management plan based on the geotechnical and hydrometeorological data to design and maintain stormwater routing systems, which should be well integrated into Naryn's extensive network of drainage ditches and irrigation canals.

- Develop erosion control plans that assess the risk of erosion and sedimentation, outlining measures to minimize this potential both before, during, and after site development. Nature-based solutions can be considered to minimise erosion and sedimentation both at the level of Naryn's BNC and in erosion-prone sections of the river.

***b. Building considerations:***

- Use varied and staggered building setbacks in a flexible manner to protect slopes and natural features from development encroachments (Fig. 19).

- On sloped terrains, smaller, detached buildings contribute more to slope stability than large building blocks. Avoid large, unbroken expanses of wall and long building masses. Rather, design buildings with smaller or less massive building components which reflect the sloped character of the site.

***Regulate building height to protect ridgelines and view corridors***

Ridgelines and view corridors are defining natural features of Naryn.

Building height regulations should protect views to ridgelines and maintain the relationship of the city and

its natural landscape context. In this regard, building free zones need to be defined based on the identification of strategic vantage points and selected ridgeline sections.

Figure 20 shows how a building free zone can be defined to protect ridgelines. The recommended free building zone can differ from once city to another. For instance, Hong Kong's metropolitan guidelines recommend 20% to 30% building free zone below the ridgelines, while the town of Moraga recommends 35%.

However, allowing flexibility for relaxation on individual merits and for special landmark buildings to give punctuation effects at suitable locations.

## 3. Sunlight

As a mountainous town, Naryn contends with sunlight limitations caused by the shadows cast by the surrounding mountains, a challenge accentuated in winter when the sun is low, and temperatures plummet. Consequently, the formulation of effective urban design strategies becomes imperative, emphasizing the appropriate orientation of streets and the tailored height and massing of buildings to facilitate sunlight penetration. This approach is essential to ensure sufficient sun exposure and elevate overall comfort for residents throughout the year.

***a. Design streets to allow for maximum sunlight in winter.***

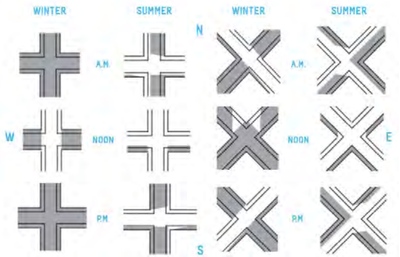



Figure 21. Demonstration of shadow cast study in summer and winter, with three-storey buildings (10m) and a building-to-building distance of 15m
Source: Based on Edmonton city 2016

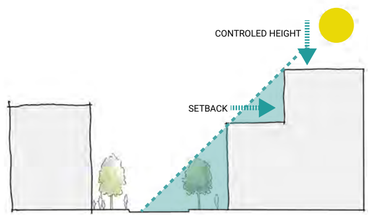



Figure 22. Building setbacks for optimal sunlight
Source: Based on Victoria State urban design guidelines

Street orientation is a key factor in maximizing users' comfort through the control of shadows and sunshine exposure in different climatic conditions.

Shadow studies should therefore be conducted to determine the optimal street layout that allows the maximum number of streets to receive enough sunshine even during winter (Fig.21).

- Locate and arrange the building to allow daylight and winter sun access to key public spaces and pedestrian street spaces. Use setbacks to create sun traps and shelters from the wind. Reflected or radiated heat from surfaces within sun traps can provide year-round spaces for restaurant patios and retail.

- Accommodate taller structures on the north side of streets to avoid excess shadow-casting over sidewalks, patios, and outdoor spaces.

- Use street width, building height and landscape design to create a sense of enclosure for street users. Consider designing the street wall, or podium for medium and tall buildings, to be no higher than the width of the road, ideally creating a 1:1 ratio.

Figure 23. Building setbacks for optimal sunlight
Source: Based on Victoria State urban design guidelines

## 4. Vegetation

- Leverage open space development, diverse lot sizes, and configurations to safeguard tree stands and other vegetation communities, preserving their environmental value, such as habitat, biodiversity, heritage trees, etc. This approach ensures the retention of soil stability, establishes a buffer between development cells, and defines the character of the neighbourhood.

- In areas where vegetation removal is necessary, it is essential to formulate a tree retention/removal plan. This plan should aim to minimize the impact of the intervention on the existing environment and should try to restrict land clearing to critical site development, public safety improvement projects, or to fire hazard mitigating measures.[6]

- Phase land clearing to avoid creating large expanses of bare slopes at any one time, and thereby reduce the potential for erosion, land slumping and dust generation. Phasing may be service related (eg, clear initially only enough to install roads and main service lines), or spatially related (ie, clearing only one portion of the parcel at a time, completing development and revegetation to control erosion before starting the next portion).

- For areas of the site where vegetation must be removed but no construction will occur, leave soil intact (ie, avoid compaction, excavation, filling, etc) to allow for more successful replanting in these areas.

- Employ restoration specifically tailored to address the type and degree of disturbance and the specific conditions of the site.

- On forested slopes, conserve trees and tree-stands spanning various age groups to promote natural succession and ensure the enduring sustainability of the forest ecosystem.

- When selecting vegetation, it is essential to take into account the specific traits of plants, particularly their resistance to fire. Dry slopes or areas constantly exposed to sunlight should be adorned with drought-tolerant and fire-resistant vegetation. The table below outlines the characteristics distinguishing flammable from fire-resistant vegetation (City of Manaimo 2005). This should be complemented by other fire-prevention measures and silvicultural interventions (thinning, cleaning, pruning and prescribed fire).

| Flammable vegetation | Fire resistant vegetation |
|---|---|
| Areas of largely dead vegetation (forest with disease or insect infestation) | Little or no accumulation of dead vegetation |
| Resinous plants that produce flammable sap or pitch (eg, pine or juniper) | Non-resinous plants (most other deciduous species) |
| Drought intolerant plants (many shallow rooted or wetland species subjected to drought) | Drought tolerant plants (e.g. Deeply rooted plants with thick heavy leaves) |
| Trees with lots of lower branches that can "ladder" a ground fire into the crown | Trees with fewer branches between ground and the canopy |
| High maintenance vegetation (plants that grow or reproduce rapidly such as annual grass) | Low maintenance vegetation (slow growing plants that require little care) |
| "flash fuel" vegetation (plants that ignite easily and burn rapidly such as dry grass) | Plants that require prolonged heating to ignite (those with woody stems and branches) |

Table 02. Characteristics of flammable and fire resistant vegetation
Source: City of Manaimo 2005, Steep slope guidelines

6 Street widening projects often come at the cost of mature trees and tree lines. It is essential for these projects to integrate existing trees into the street design whenever possible, ensuring that both the environmental quality and safety of the street are preserved.

# STREET

## Design streets to be active public spaces

Street design should not be dictated only by the requirements of cars, it should not have a single solution and type of section, meaning that other functions and the climatic, socio-cultural, and economic context must be considered. The design should reflect a shift from streets as mere functional axes to active public spaces. Hence, the hierarchy level of each street type should express the urban character of the hosted functions and provide specific design elements that support them.

## Promote multi-modal streets

Car-oriented Street designs have for long influenced the use and function of streets, very often reduced them to mere transport axes at the expense of the ecological, economic, and social dimensions that streets can have in cities.

As an alternative to this design model, multi-modal streets offer ample possibilities to improve urban resilience. By reducing the space allocated to private cars and the integration of more sustainable and diverse mobility modes (cycling, walking, public transport), multi-modal streets can bring in new economic, socio-cultural, and climatic functions, while enhancing accessibility and safety of streets. Furthermore, the redistribution of allocated spaces allows for a variety of non-mobility activities such as seating and resting, bus stops, trees, and green infrastructure strategies (Fig.24).

## Promote Connectivity

Connectivity affects the degree to which transportation networks such as streets, walking and cycling paths, connect people to their destinations (including intermediate destinations such as public transport services).

The level of efficiency of a road network depends on two essential factors. i)Road provision, and ii) how the elements that compose it are distributed (permeability).

Road provision is reflected in the length of street segments, calculated in linear km, as well as the density of nodes/intersections per km$^2$. The higher the density of these two elements, the greater the provision.

Road network permeability brings a finer grain to the analysis, as it relies on both the location (proximity) of streets and the relationship between them. A highly permeable network has many short links, numerous intersections, and minimal dead-ends. As permeability increases, travel distances decrease and route options increase, allowing more direct travel between destinations, creating a more accessible and resilient transportation system (Victoria Transport Policy Institute 2017).

**UN-Habitat recommends a benchmark value of 100 intersections per km2, and a street density ranging between 6% and 36% to achieve higher levels of connectivity in a city.**

**Street density =** Total street length/Total of urban surface





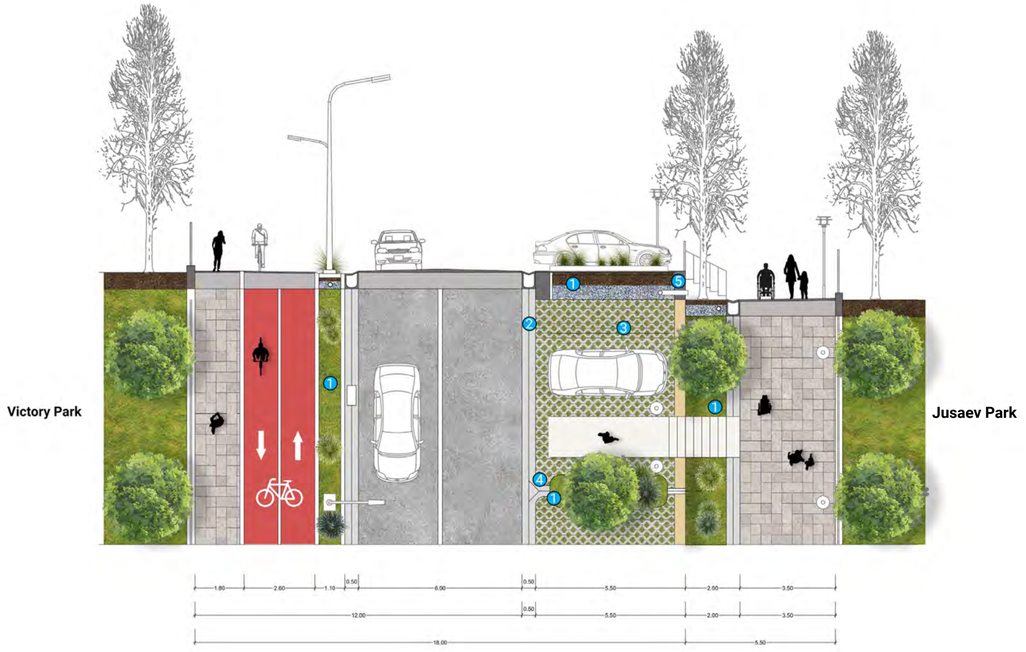



Figure 24. Illustration of the proposed street redesign of Razzakov Street, Naryn

For instance, urban forms that have many culs-de-sac tend to reduce the road network's permeability and encourage longer journeys by car.

Street connectivity can be further enhanced when combined with adequate density, mixed-use planning, and fine-grained urban development.

Regeneration projects should be well integrated in their surrounding areas in order to achieve a continuous connectivity and homogeneous movement network. This includes streets, roads, public transport services, pedestrian, and bicycle paths.

Figure 25. Continuous connectivity between old and new development

At least two 'through' streets across the new neighbourhood in a development site should be provided, linking 'centre to edge'. Large development sites may require additional through routes (Fig.26).

Figure 26. Provide at least two "through" streets across the project

In addition to street connectivity, new development sites should ensure the provision of the necessary facilities, open spaces, and services, especially if they are lacking or are insufficient in the adjacent neighbourhood.

For instance, the provided open spaces should be designed to complement the existing open/green space network and should serve both the intensity and the type of development (density, character, use, etc.).

Figure 27. Complement existing green network

Where the street block perimeter is greater than 600 metres, create cross-block pedestrian links.

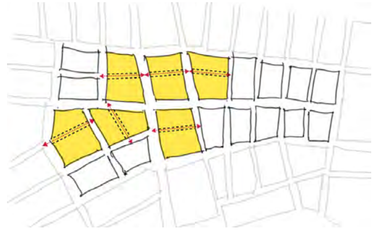


Figure 28. Create cross-block pedestrian links in large blocks





Locate higher intensity activities on well-connected streets within a development site.

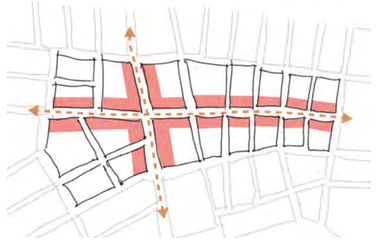


Figure 29. Activity areas along well-connected streets

## Enhance safety through adequate street design

Creating safe streets for all users is a crucial responsibility shared by designers, regulators, and the community. Some of the most common causes of traffic conflicts are primarily linked to the failure of street designs to provide adequate solutions that protect both users and their environment. In mountainous and hilly areas, topographic and geological features add extra challenge to planners, and require therefore additional consideration.

- Streets and roads should follow the contours of the natural terrain to minimize cuts, fills, and retaining walls associated with road construction.

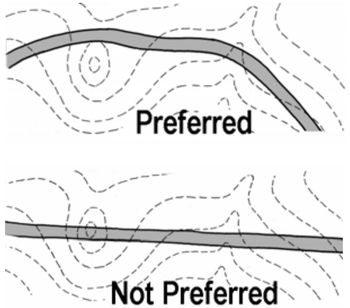



Figure 30. Conform road to natural topography
Source: City of Nanaimo 2005, Steep slope guidelines

- Minimise the road network's footprint in slope areas. Streets and driveways could be provided that are narrow, single loaded, and/or split level to minimize slope disturbances.

- Street lighting is a crucial component of street safety in urban areas. It also enhances safety for street users and improves the quality of life on the street.

- Enhance horizontal and vertical visibility in intersections and in sloped streets. In intersections, splays can be included to driveway exits from laneways, buildings, and car parking facilities to maintain sightlines from vehicles.

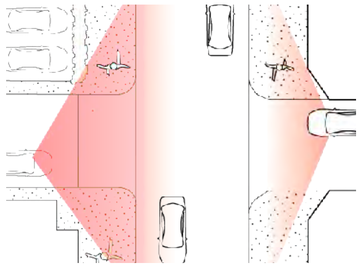


Figure 31. Crossover design features to maximise visibility and pedestrian safety
Source: Victoria State urban design guidelines

- Wide streets without refuge spaces or protection for pedestrians make crossings unsafe especially for the elderly and vulnerable people.

- Bus bays and other public transport boarding areas should be designed to ensure safe boarding and alighting of transit users.

- The provision of cycling lanes can reduce the exposure of cyclists to crashes with motor vehicles.

- Surface degradation, potholes, and obstacles are major sources of danger and discomfort for pedestrians, cyclists, and disabled people. Even trees, street lighting or benches can turn into dangerous obstacles if not positioned properly.

## Consider efficient snow management strategies in street design

Street design should consider factors such as snow, ice, and snow storage in order to make snow removal operations easy, efficient, and cost-effective. Specified standards for snow clearing are key to ensure a safe and reliable transportation network while protecting the environment and providing uninterrupted service to the community.

The following recommendations can help achieve better snow-clearing results:

• Design sidewalks to contain a buffer area where cleared snow can be stored along the road. Boulevards, which usually have wider sidewalks, are an important snow-storage area, and result in reduced operational snow removal costs.

• Ensure proper grading to direct snowmelt towards roadways and drainage/irrigation ditches, and away from building entries and pedestrian zones to avoid slippery conditions during freeze-thaw cycles. Ditches should be periodically cleared to facilitate snowmelt drainage. Landscaping can also be used to direct snow drifts away from buildings entrances and public walkways, thus reducing the frequency of snow removal.

• Cleared snow usually contains contaminants such as salt and toxic compounds from vehicular tires. Therefore, snow storage should be located away from creeks, rivers, or natural areas. Site drainage plans should account for the run-off during freeze-thaw cycles.

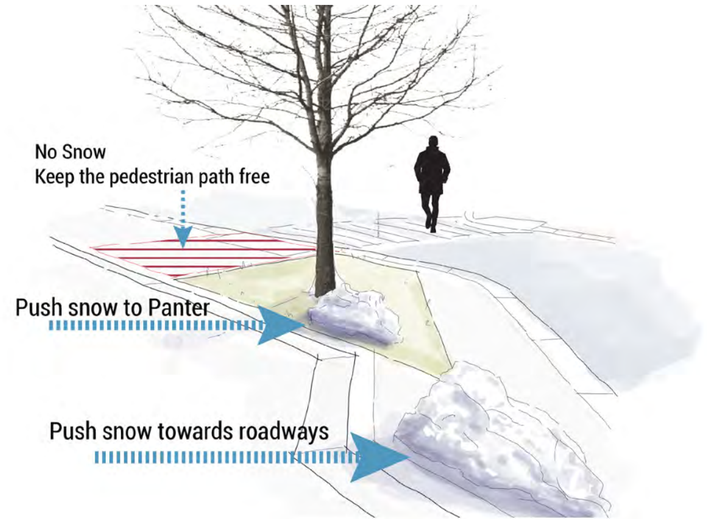



Figure 32. Snow removal strategies in street design
Source: Based on snow removal design recommendations, City of Leduc





• Select paving materials that are durable enough to withstand the harsh impacts of winter snow management and the corrosive effects of salt, as well as freeze-thaw cycles, while still being safe, slip-proof, and easy to maintain.

• Plan for smaller snow storage areas with solar access, rather than one large, shaded area, as the snow would melt faster. Balance the need for local snow storage with other considerations, such as walkability, aesthetics, and parking.

## Integrate durable, comfortable and aesthetically pleasing street furniture

Street furniture is an important component of the streetscape as it contributes to the qualification of collective spaces. It consists of physical objects such as benches, signposts, lighting, bike racks, dumpsters, bus stops, shelters, etc. Their design and configuration should be adapted to the specific needs of the city and the population without jeopardizing the safety or obstructing movements especially on sidewalks and crowded spaces.

- Street furniture should be comfortable, protected and, adequately oriented in order to maximize exposure to sunlight for outdoor seating in winter. It should also include some kind of overhead protection from snow, rain, sunlight and wind when necessary.

- Ensure that street furniture is robust and made of durable, comfortable and aesthetically pleasing materials that withstand different weather conditions. For instance, metal and stone can get very hot or cold, making it usually uncomfortable for users.

- Ensure that street furniture is easy to maintain especially during winter.

- Ensure that street furniture is carefully placed to avoid obstructing people's movement and emergency vehicles.

- Consider the use of temporary and movable street furniture as they can add quality to public space and give more flexibility to users. Ensure that the use of temporary furniture is regulated to avoid possible movement obstruction (Fig.33).

Figure 33. Example of seating possibilities through different types of urban furniture (permanent and temporary)
Source: New York City's privately owned public spaces

## Prioritize pedestrian, non-motorized mobility

Walkability is key to promoting a sustainable city. It is supported by the connectivity of the street network and by a pleasant and comfortable urban landscape that should be diverse and rich in experience in a sufficiently dense space.

Streets are primary public spaces that should embody safe and pleasant spaces for all users following universal design principles.

Special attention must be paid to the design of intersections based on a thorough analysis of pedestrian and vehicle movements, land use, crosswalks, view corridors, attractions, and junction functionality.

The design of intersections should lead to the integration of their design elements with the entire public realm in a holistic way to create vibrant, safe, and seamless public spaces.

## Design safe Sidewalks and pathways

Sidewalks and pathways should be of an appropriate width convenient for all street users and compatible with the character of the street, providing a safe space for walking, cycling, stopping, socializing, resting, turning around in a wheelchair, etc. The average sidewalk width might vary depending on the context and character of the street. Rather than following a specific recommendation, it might be useful to consider several indicators of ergonomic design such as:

3 m width is sufficient for multiple users to have a conversation while walking, a wheelchair user needs 1,5m to turn around and 1,8 to pass other wheelchairs, etc.

Furthermore, the function of the street is a defining factor for the width and design of sidewalks. For instance, boulevards and commercial streets may require wider sidewalks to accommodate higher pedestrian flows, terraces, green spaces, benches, etc. The design of sidewalks should ensure that there are no conflicts between those elements, and that they all contribute to the enhancement of the street quality.

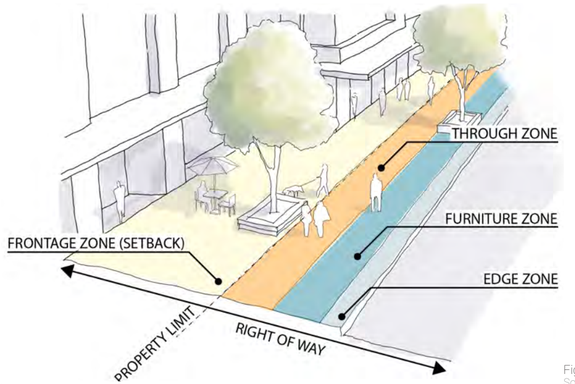



Figure 34. Sidewalk design elements
Source: Based on "Seattle urban design guidelines"

## Bridge Design considerations

Bridges are essential connection points in mountainous cities. However, bridge projects should be based on thorough diagnosis of deficit areas as well as on the social, economic, and spatial impacts within their area of influence.

Bridges should be designed/upgraded to accommodate pedestrian paths and cycling lanes and ensure the safety and comfort of all users. They should also be aesthetically pleasing and structurally durable.

- Bridges provide excellent opportunities for panoramic views on the river. Creative design can leverage these opportunities by integrating landscape elements, viewing platforms and street furniture where appropriate.

- Consider reviewing snowmelt and drainage patterns bridges to prevent hazardous, icy conditions. Appropriate materials should be used to increase the safety users.

- Provide pedestrian-oriented lighting and signage along the bridge.

Figure 35. Integration of urban furniture in bridge design
Source: Steve Kroodsma, design by Inform Studio + Buro Happold

## Integrate open space as a core component of urban development projects

Open space gives vibrancy to urban life, and it is intimately linked to the sizing, scaling and to the rhythm of the urban fabric.

A hierarchical, interconnected system of natural spaces, ranging from regional natural parks to pocket green spaces, should be a main structuring element of the city.

This principle reflects the importance of identifying and preserving natural systems and features, strategic landscape patterns, and distinctive landforms which protect valuable ecosystem services and biodiversity hotspots.

As a mountainous city, Nary's open spaces can take on various forms and scales that reflect unique features and support a variety of ecological, recreational, and aesthetic benefits.

- ***Mountain trails and hiking paths:***

Given the natural topography, Naryn can develop several hiking trails and mountain paths. These spaces can provide opportunities for outdoor activities, recreation, tourism, and a closer connection to the surrounding natural environment.

- ***Vegetated slopes:***

Vegetation on Naryn's steep slopes offers both ecological and economic benefits. With many residents relying on livestock, the mountain pastures overlooking the city are vital assets. Therefore, the development and sustainable management of pasture land is crucial for Naryn. This involves practices that maintain the ecological balance, protect against erosion, ensure long-term productivity, and create visually pleasing green spaces.

- Avoid overstocking to prevent soil compaction, erosion, and excessive nutrient depletion. Adjust livestock numbers based on carrying capacity and the productivity of the pasture.
- Rotate livestock across different sections of pasture to prevent overgrazing in any single area. This allows vegetation to recover and helps maintain soil integrity.
- Techniques like terracing and contour plowing on slopes can help control water runoff, reduce soil erosion, and improve moisture retention.
- Grazing at the appropriate times of year (such as summer and early fall) allows vegetation to establish before winter, reducing erosion risk.

***Ventilation corridors:***

In mountainous context, where topography can influence temperature variations and air circulation, the strategic placement of ventilation corridors is instrumental in preventing the build-up of heat and air pollution in urban areas. When combined with green space strategies, ventilation corridors can further contribute to cooling by providing shade and enhancing the overall air quality (See page 29).

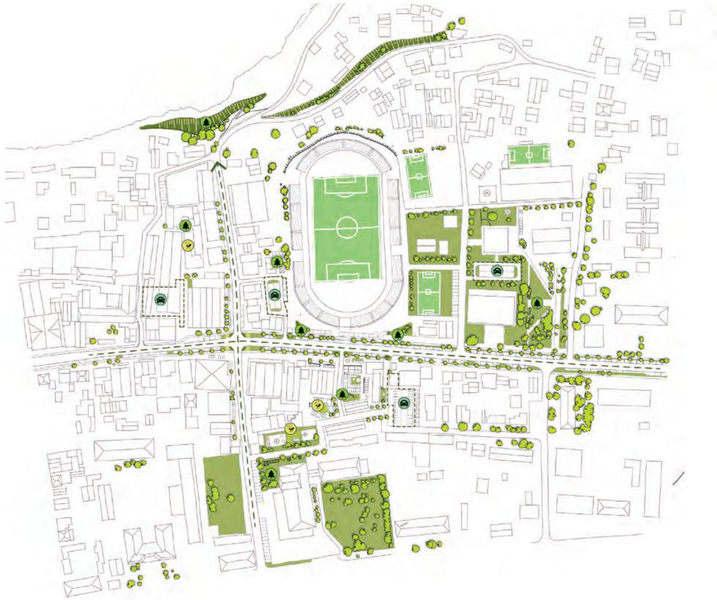


Figure 37. Design proposal of integrating green space in the regeneration of Naryn's central market

- ***Buffer zones:***

Open spaces in the form of green belts or buffer zones are designed to protect against natural hazards like landslides and floods. These areas also contribute to biodiversity conservation and create natural buffers between urban development and the surrounding environment.

- ***Viewpoints and overlooks:***

Open spaces strategically located at higher elevations serve as viewpoints and overlooks, allowing residents and visitors to enjoy panoramic views of the city, valleys, or surrounding mountain ranges.

Figure 36. Water Square" in Benthemplein. Example of public space design that integrates stormwater retention.
Source: www.publicspace.org

- ***Urban parks and plazas:***

These can include gardens and public parks embedded in the urban fabric of the city, providing residents and visitors with accessible opportunities for leisure, picnics and outdoor activities.

These spaces can support urban resilience by incorporating green infrastructure, such as bio-swales for stormwater management, enhancing biodiversity, and reducing urban heat. Open spaces should offer a balance between leisure, education, and community engagement, providing areas for relaxation, recreation, and public events.

It is therefore crucial that the urban projects are designed around these natural systems, offering recreational opportunities, mitigating environmental challenges, and cultivating a sustainable and aesthetically pleasing urban fabric that coexists harmoniously with the unique mountainous setting of Naryn.

## Use green spaces as mitigation buffer zones in high-risk areas

Green spaces such as parks, forests, and wetlands can absorb and slow down the flow of water, reducing the risk of flooding, it can stabilize the soil, reducing landslides. Using green spaces as buffer zones between built-up areas and hazard zones can help reduce the impact of hazards on the population when they occur.

Nature-based solutions such as afforestation can be integrated to stabilize steep slopes using deep-rooted plants and trees together with engineered deflective and/or protective structures (for avalanches, landslides, and debris overflow).

Reforestation along riverbanks and flood-plains can reduce flooding and siltation. As reforestation and other sorts of vegetations help increasing carbon sink capacity, it also helps mitigation pollution and impact on climate change.

## Plan for long-term maintenance costs of green spaces

The costs of design, implementation and maintenance of public and green spaces should be made explicit in order to mobilize sufficient funding resources to keep them viable. As green spaces are usually public assets without financial profits, their return on investment can come from climate mitigation and public health benefits.

Their maintenance should be planned for, funded, and systematically performed. Local stewardship and volunteer support can help with the upkeep, but maintenance can be systematically ensured by city taxes financing and creating job opportunities for local low skill employment.

Establish a maintenance program for public spaces prioritising prompt identification, removal, and repair of any signs of damage and misuse.

## Use landscaping and open spaces to compliment Natural features

Preserving the cultural landscape of a city can help promote a sense of place and identity, while protecting historic sites and tradition. It can also have an economic benefit by attracting visitors and tourists drawn to the unique character of its region.

The use of local flora can provide a range of benefits, including reducing water consumption, improving soil health, and supporting local ecosystems. Vegetation should not become a visual impairment; this could reduce the feeling of safety in the space.

## Choose native plant species that engage the senses

Plant species should be carefully selected depending on their characteristics such as colour, fruit, resilience to extreme weather conditions or tolerance to salt and pollutants resulting from snow-removal operations.

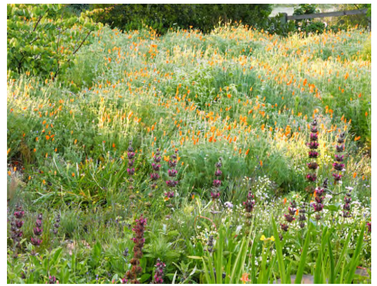


Figure 38. Example of meadows and native aromatic plants used for landscaping
Credit: Marion Brenner, Sunset.com

Choose native and non-invasive species that create interesting landscapes year-round, taking into consideration winter and summer needs. Give priority to native deciduous trees that provide shadows in summer and allow for sunlight penetration during winter.

## Integrate the River front in the open space network

Integrate the river front in the green and pedestrian network of the city, making it an attractive space that serves different users while connecting neighbourhoods and development sites to the water.

Open up paths and create view corridors to the river to maximise access to the waterfront and to re-engage the river as a key component of the public realm.

Use river buffer zones to develop promenades and create attractive and active public spaces.

## Embrace a four-season design and activities in open spaces

Some mountain cities might experience snowy cold winters and warm summers. The variation in seasonal weather conditions should be considered in the design of public spaces in order to ensure year-long use and provide opportunities to enjoy the city no matter the weather condition.

Therefore, the design of open spaces should include alternate uses of community gardens, outdoor pools, playgrounds, and sport fields during the wintertime at early stages of planning. Strategies to adapt existing park features for winter activities should also be developed.

Figure 39. Design proposal of all-seasons playground in Jusaev park (Top: Winter / bottom:Summer)

Use natural features and topography such as slopes and hills to create hubs for winter leisure activity (tobogganing, sliding). Temporary, unique, and playful events such as snow sculpture exhibitions can also be part of the seasonal use of open spaces.

Provide shelters, warming huts and wind blocks to offer protection from weather conditions. They can be placed in outdoor gathering spaces, and particularly where transit stops are located. The shelters should preferably include passive solar and aesthetic design to provide comfortable and pleasing seating opportunities to the community (Fig.40).

Figure 40. Warming hut design
Source: Source: WINNIPEG WARMING HUTS V.2017

## Maximise the Permeability of surfaces in public spaces

Limiting hard surfaces reduces the volume of storm water run-off, which reduces pressure on urban drainage systems and waterways. It is recommended to limit paved surfaces of a new development.

**At least 20% of public space surfaces should be covered by surfaces that can absorb water such as garden beds, lawn and other unsealed surfaces.**

**Permeability (%) = Total pervious area x 100 / Total site area**

Figure 41. Natural storm-water drainage system
Source: Donnelly Avenue Rain Garden, Flowstobay.org

Nature-based solutions designed around the concept of "sponge city" such as vegetated swales can be integrated in sidewalks and along streets to increase surface permeability. Their features can act as natural conveyance systems, promoting water absorption and reducing the risk of surface flooding. By prioritizing permeability in urban surfaces, sponge cities can effectively mitigate the impact of heavy rainfall, enhance groundwater recharge, and contribute to sustainable stormwater management practices.

## Design public green spaces to be Safe and accessible

Green public spaces can become a source of insecurity and nuisance if not maintained or poorly managed. The creation of parks and green spaces should include design and governance strategies to prevent the degradation of these spaces. For instance, planting, pathway and spatial arrangement of built elements, lighting, and way-finding graphics should promote visibility and passive surveillance. In crime-prone areas, landscape elements can be positioned to allow maximum cross-view, and time restrictions may be imposed on park use.

Special attention needs to be paid to the design of public space edges as people tend to gravitate to and occupy because they provide good vantage points to view activities within the space as well as to the surrounding area. Doors and windows of buildings should preferably overlook adjacent public spaces to provide opportunities for informal surveillance of the space.

Provide lighting in communal open spaces to support safe movement and evening use.

Figure 42. Design proposal of Jusaev park

## Promote spatial continuity between new development and existing urban fabric

As a city constrained by natural boundaries, Naryn requires rigorous management of its land to avoid urban sprawl and maximise infrastructure efficiency. Therefore, new development areas and urban regeneration projects should be compact and in continuity with the existing urban fabric and street networks. As a rule, the percentage of linkage between existing and new urban land can be calculated as follows:

**Percentage linkage of urban land= Urbanized perimeter (m)/Total design area perimeter (m) x100. The result should be equal to or higher than 50%.**


Figure 43. Level of urban linkage
Source: UN-Habitat 2018

The greater the percentage, the more robust the connection between the new and existing development, reflecting spatially as a broader area of contact between the urbanised zone and the new project.

This approach encourages infill development and densification of existing urban areas, which, beside the sustainability advantages, contributes to lowering the costs of infrastructure investments.

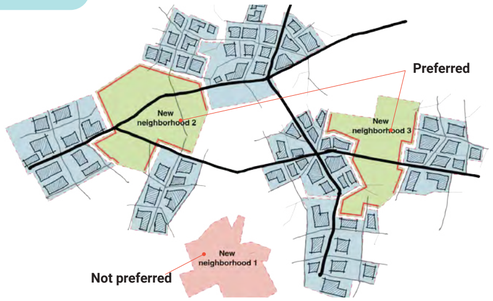



Figure 44. Locating new development sites
Source: UN-Habitat 2018

| Item | City center | City periphery |
|---|---|---|
| Infrastructure | 178 | 740 |
| Water pipes | 45 | 236 |
| Sewate | 12 | 98 |
| Rainwater drainage | 0 | 12 |
| Electric power network | 112 | 161 |
| Acces & circular roads | 9 | 234 |
| urban equipments | 185 | 5747 |
| Health | 0 | 237 |
| Education | 0 | 4100 |
| Police surveillance | 133 | 1361 |
| Sports and recreation | 72 | 49 |
| **Total** | **363** | **6487** |

Table.03: Cost of urban explansion in Santiago
Source: Verdugo 2003

## Define appropriate and contextualised urban densities

Urban design that promotes value generation considers density as a key indicator. However, density is not just a technical metric; it is a multi-dimensional concept that encompasses cultural, environmental, and economic considerations. Urban density can be measured in various ways, including population density (people per hectare), building density (number of units per hectare), site coverage, or plot ratio (the ratio of built space to land area). However, relying on a single measure often fails to provide a full understanding of the specific urban form. For instance, plot ratios may indicate how much of a site is built up or the number of storeys, but they don't reveal how many people reside there. Similarly, population density provides no insight into the physical structure, number of housing units, or available open space. A more comprehensive understanding of urban density requires combining various metrics to offer a fuller picture of the urban form, the population it houses, the number of units, and the open spaces available.

The following diagram illustrates the attainment of three markedly distinct urban forms while maintaining the same population density, land area (1ha), and number of households/units (75 units/ha). The sole variables in these scenarios are the building height and land coverage (High-rise/low-coverage, low-rise/high coverage, medium-height/medium coverage). The resulting urban forms exhibit diverse characteristics, directly influencing the level of compactness, mixity, scale, and the socio-spatial linkages, thereby impacting the overall liveability of the area.

Thus, leveraging density with a good jobs/housing ratio, an adequate balance of open and built-up space that respects the human scale can promote the creation of liveable and cohesive communities.

**To achieve efficient service provision, UN-Habitat recommends an average density of 150 p/ha is recommended.**

However, this prescribed density needs to be adjusted to the specific characteristics of the areas, particularly regarding topographic features, nature of the soil, protected areas, exposure to natural hazards, as well local culture and the traditional urban form.

The issue of density is intricately complex and warrants thorough contextualization within the unique conditions of the city or area. It necessitates a comprehensive consideration of all previously mentioned aspects to ascertain the optimal density and the ensuing urban form.

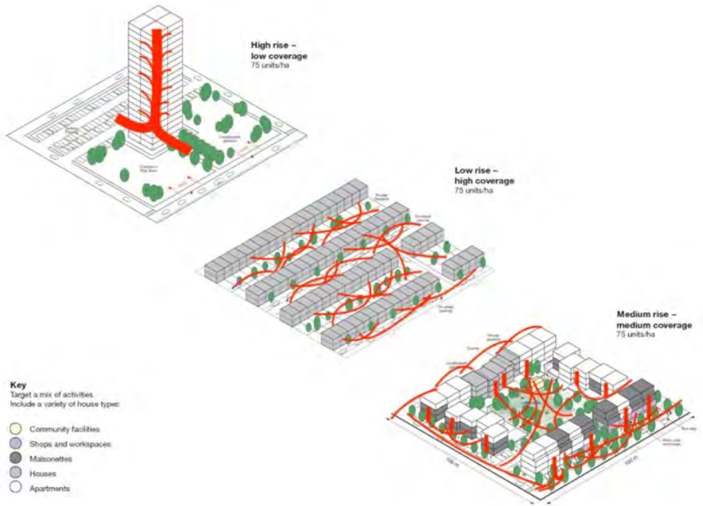



Figure 45. Density and urban form
Source: UK Urban Task Force

One vacant land site example is located within Gorodok. Using global benchmarks and existing building typologies within the city, this site could accommodate 831 people and 469 jobs.

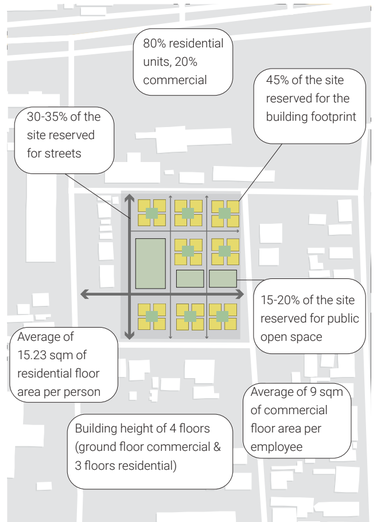



Figure 46. Study of potential density, uses, job opportunities and public space in Gorodok





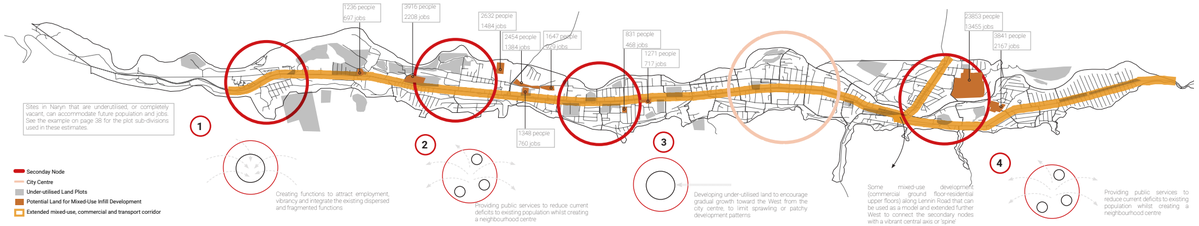



Figure 47. Study of potential density, uses, job opportunities and public space in urban nodes

## Adapt level of density and land use to the degree of slope

Urban densification in Naryn should be strategically prioritized in safe and geologically stable areas, ensuring that new developments contribute to the city's resilience and long-term sustainability. Given Naryn's mountainous terrain, particular care must be taken when planning and implementing projects in slope areas, where the risk of soil instability, landslides, and erosion can pose significant challenges. To mitigate these risks, specific zoning, land-use, and density regulations should be adopted based on the degree of slope and other factors that impact soil stability, such as drainage patterns, vegetation cover, and geological conditions. Development on steeper slopes requires tailored approaches that balance urban growth with the need to protect the environment and ensure the safety of residents. The accompanying table (Table. 3) outlines potential land uses and suggested measures for different slope categories, providing guidelines on where urban densification may be appropriate, and where more restrictive controls are needed. For instance, gentler slopes may be suitable for higher-density residential or mixed-use developments, while steeper areas may necessitate lower-density, low-impact land uses, such as parks, conservation areas, or eco-tourism facilities, with additional engineering solutions to address soil and water management. These recommendations, however, are indicative and must be refined by local experts who possess an in-depth understanding of Naryn's unique topography and environmental conditions. Comprehensive geotechnical studies are crucial to inform decision-making and ensure that any proposed development respects the city's natural landscape, avoids hazards, and contributes to the overall safety and sustainability of the urban environment.

| Slope | Development potential |
|---|---|
| 0% to 3% | Generally suitable for all development and uses |
| 3% to 9% | Suitable for medium density residential development, industrial and institutional uses |
| 9% to 15% | Suitable for moderate to low-density development, but great care should be exercised in the location of any commercial, industrial or institutional uses. Mitigation measures to be considered |
| 15% to 30% | Only suitable for low-density residential, limited agricultural and recreational uses. Mitigation measures to be considered |
| Over 30% | Only used for open space and certain recreational uses |

Table 04: Development potential on sloped terrains

## Ensure large regeneration sites create a transition with existing neighbourhoods

Create a transition from large development sites to adjacent residential neighbourhoods using scale, built form and uses.

Such transition can be achieved through the arrangement and size of new blocks and lots at the development site edge and the future built form, location of activities and street design.

## Ensure that the costs and benefits of densification are transparent

Densification and infill projects may be more complex and costly than expected. Therefore, densification strategies must be well informed to better assess their impact on existing land, property, and rental markets.

They also require that the distribution of costs, benefits, and risks is made transparent and explicit over the short- and long-term financing of the project, considering that densification depends on and requires improved public space, infrastructure, available funds for the implementation and maintenance of projects, and overall management of the interface between private and public spaces and stakeholders.

Measures to prevent speculation and gentrification should be adopted, including the taxation of empty buildings and empty serviced plots.

This should be founded on functioning land management tools to readjust land parcels, manage the process of infill development, and the appropriate mechanisms to fairly distribute the burdens and benefits of the intervention between the public sector, investors, and the community.

Socioeconomicimpact assessments must also be conducted before implementing any densification initiative to identify and analyse the social and economicimpacts of a proposed intervention on communities, and to make them aware of the benefits, costs, and externalities of densification projects.

## Promote mixed-use development to generate employment and improve quality of life

For a regeneration project to succeed, it must align with the diverse interests of all stakeholders involved. This entails integrating public investments—such as enhancements to roads, infrastructure, sanitation, public parks, cultural sites, and community buildings—with commercial ventures appealing to the private sector, including office spaces, retail outlets, hotels, and housing. Mixed-use developments can serve as an effective design framework, fostering harmony and complementarity between these varied uses, ultimately benefiting the entire community.

Mixed-use areas are characterized by the presence of primary (residential, workplace, retail, etc.) and secondary use buildings and/or spaces (services, cafés, restaurants, etc.). When the primary uses of a neighbourhood are effectively combined with secondary uses, further entrepreneurial activity is supported, setting the stage for continued economic growth.

Furthermore, the proximity of residents to retail, services, public spaces, and transport nodes makes mixed-use areas convenient places to live. Traffic congestion, energy use and greenhouse gas emissions in these areas are usually reduced.

Yet, for mixed-use development to thrive, various factors must converge to establish the conductive conditions for its success:

- ***Balanced variety of uses:***

This should be accompanied by an evaluation of the number of local jobs that can be created, and the financial business generated at the community level.

**UN-Habitat recommends that the distribution of the total floor area of mixed-use development should be around:**

- **40-60% for retail/service use**
- **30-50% for residential use**
- **10% for public facilities**

- ***Favourable population density:***

A critical mass of people is needed to support the multiple components of a mixed-use development. Determining the location and scale of such projects should be grounded in a comprehensive examination of the demographic dynamics within the city. This consideration becomes especially crucial in certain mountainous cities facing challenges such as a declining population growth rate, often attributed to migration.

- ***Steady and long-term financing:***

Acquiring the necessary financing is one of the biggest challenges to mixed-use development. The complexity of this type of projects may divert investors towards simpler and less risky single-use developments.

Therefore, Incentives from the public sector, coupled with policies to enable mixed-use development in appropriate locations can be necessary.

- ***Understanding market demand:***

Strategically aligning development with market conditions and demand is paramount. Consequently, mixed-use projects should be grounded in a meticulous market analysis and feasibility assessment to comprehend the development potential within a specific community. Crucial indicators, including age groups, income levels, and backgrounds, must be carefully considered.

- ***Project flexibility:***

Urban regeneration projects are often costly and span lengthy timeframes, particularly when set in neglected areas with inadequate infrastructure and services. This extended duration makes them susceptible to shifts in political and economic climates. Therefore, it's crucial to design these projects with flexibility, allowing for adjustments in response to changing conditions and unforeseen external factors throughout their lifecycle. Effective phasing is essential to ensure that various project components align with current market demands, and the overall design should emphasize adaptability to navigate evolving market dynamics over time.

## Introduce mechanisms to incentivise mixed-use development.

Encouraging mixed-use development requires a balance between offering incentives, determining obligations and responsibilities, and negotiating agreements between the city, the landowners, the community, and the developers. Furthermore, zoning codes need to be updated to integrate mixed-use development, especially in single-use and under-utilized areas. Investments in infrastructure, public facilities, green spaces, and multi-modal mobility are important mechanisms to broaden the appeal of these areas.

Fiscal tools such as Tax Increment Financing (TIF) can be used to capture the increase in land value and divert property tax revenue to further finance that development. Other incentives can be:

- Allowing for higher Floor Area Ratio (FAR) in specific investment in mixed-use projects;

- Tax incentives for promoting development near transit nodes;

- Reduced parking requirements;

- Subsidies for densification.

(See table on financial tools for urban regeneration, Page.11)

## Allow for flexible and innovative zoning

Zoning plays a crucial role in urban regeneration projects by allowing local authorities to regulate land and property markets, ensuring that land uses complement one another. In Naryn, flexible zoning is especially important as it enables the city to respond to changing demands and evolving urban challenges.

While zoning plans are designed to guide development, they must remain adaptable to accommodate shifts in land use and urban priorities. In regeneration projects, particularly in areas transitioning from industrial to mixed-use, flexible zoning allows for adjustments in land-use regulations, such as changes to building height, density, or land use designations. These amendments are key to unlocking the potential of underutilised areas, facilitating the transformation of vacant industrial sites into vibrant, multi-functional spaces.

By strategically modifying zoning regulations, Naryn can stimulate private investment in key areas. For example, allowing increased density in exchange for developers providing public goods such as public spaces or inclusionary housing can drive urban growth while addressing the city's broader social and environmental goals. In this way, zoning becomes a tool not only for encouraging development but also for enhancing the overall quality of life in Naryn.

Amendments to zoning regulations must strike a balance between incentivising private investment and ensuring that benefits such as affordable housing, public spaces, and access to services are available to the wider population.

## Promote Place making approaches in neighbourhood regeneration projects

Placemaking is essential in urban regeneration projects, as it transforms spaces into vibrant, inclusive areas that reflect the identity and creativity of the local community. Engaging residents in the process fosters a sense of ownership and pride, which can strengthen social bonds and enhance the neighborhood's unique character. By involving the community in shaping public spaces—through art, events, and collaborative design—placemaking not only improves the physical environment but also promotes social inclusion, boosts creativity, and reinforces local identity, ensuring the regeneration project benefits all residents.

## Box 02 : Design tools to limit speculation and encourage development

***1. Progressive Taxation of Vacant Land***

Taxation on vacant land parcels can serve as an effective strategy to deter speculation and promote development. To implement this successfully, a robust property tax system is essential, as it enables the introduction of a vacant land tax. However, this approach is not without its challenges. Establishing a split-rate property tax to differentiate between land value and any improvements can be costly and complex, often requiring skilled assessors—resources that may be limited. Additionally, clearly defining what constitutes "vacant land" is crucial to create a fair taxation system that discourages speculation and prevents urban blight.

***2. Managing Land and land ownership:***

One of the major challenges in Naryn urban regeneration strategy is that most of the vacant, underutilised lands and old industrial sites are privately owned. Managing land ownership and finding ways to engage the private sector around a common vision around solid regeneration projects are key to stimulate development.

Despite the prevalence of privately owned land in Naryn, the development and use of property are subject to government reguations, including master plans, zoning codes, and building codes. These regulations dictate permissible land uses, development parameters like floor-area ratios (FAR), building heights, coverage limits, and setbacks, while also addressing construction standards to ensure public safety and aesthetic considerations.

Additionally, private developers involved in urban regeneration projects may be required to contribute to public services and infrastructure, particularly in large-scale projects.

Sometimes, the presence of informal settlements on public land earmarked for development can present a significant challenge. While this land serves as a public asset intended for community benefit—especially in valuable areas like waterfronts or wetlands— the occupants are often low-income individuals lacking (public) housing alternatives and needing proximity to urban job opportunities. Addressing this situation requires a fair and thoughtful approach that balances public interests with the needs of vulnerable populations.

***a. Land Readjustment***

Land readjustment is a widely used strategy in East Asian nations like Japan and South Korea. In this approach, the government consolidates multiple privately owned land parcels within a designated area and develops a comprehensive land use plan that includes provisions for public infrastructure and amenities such as roads and parks. After implementing the plan and installing essential infrastructure, the government redistributes smaller, yet more valuable, parcels of land to original owners—typically about 50-60% of their initial land size—enhanced by urban services. The government retains key strategic parcels, which it sells or auctions to recoup infrastructure investments. This method is particularly effective in urban regeneration projects where private land is fragmented, enabling local authorities to elevate land values while actively involving original residents and landowners as stakeholders. Land readjustment minimizes the need for significant upfront investments in land acquisition and fosters stakeholder engagement. However, its success hinges on strong local institutions and a robust legislative framework. Additionally, securing unanimous consent from all landowners can be challenging, and negotiating fair land valuations often leads to disputes between the government and landowners.

***b. Land Sharing***

Land sharing is a strategy that redevelops public or private land occupied by squatters, facilitating the regularization of informal development while new market-rate land uses are co-located and can benefit from these well-located land parcels. This method often involves densifying existing low-rise or low-density structures, allowing for vertical expansion and freeing up land for additional development. The land-sharing approach not only protects the rights of current occupants by providing them with better housing options but also allows existing landowners to reclaim and profit from portions of the land. This dual benefit fosters a more equitable redevelopment process that enhances the overall value of the area (World Bank 2016).

## Encourage diversity of tenures, housing typologies and tenure-blind design

In order to accommodate the diverse needs of citizens, different types of housing typologies are needed, mixing middle and high-income housing with low-income housing. This helps in creating neighbourhoods conducive to inclusive growth whereby low-income residents are incorporated into the economic fabric of a city, thus providing economic mobility and income revenue.

Furthermore, multi-generational housing, housing with services for people with disabilities, and housing for young people can be included, among others. This would encourage social inclusion and diversity in the neighbourhoods.

The quality of the construction and the design should be independent of the tenure type to avoid social stigmas associated with low-cost/affordable housing.


Figure 49. Existing condition of the area

Figure 48. Proposal of street design (shared space)

Figure 50. Design proposal of neighbourhood regeneration in Naryn

**Box 03: Neighbourhood regeneration**

Located at the strategic intersection of Lenin Road and Sheraliev street, the regeneration of this site presents a significant opportunity to transform the area into a vibrant urban hub. The site includes an old cemetery, the former brick factory, and residential blocks, but its current condition is poor, both in terms of the built environment and infrastructure.

Further interventions that connect the site's various components could greatly enhance the surrounding neighborhood and contribute to the city's broader infrastructure improvements.

These interventions can be implemented gradually and at multiple scales. For example, one option is to redesign the northern section of Sheraliev Street, which runs in front of the existing apartment buildings, transforming it into a shared space on certain days of the month. By restricting or reducing traffic, this space could become a lively public area for community gatherings, hosting events, food markets, art exhibits, or providing a play area for children.

Within the neighborhood itself, place-making initiatives could revitalize the underutilized spaces between apartment buildings, turning them into inviting inner parks for residents. These spaces could incorporate green infrastructure to manage stormwater, as well as playgrounds, seating areas, and appropriate lighting to improve comfort and safety.

On a larger scale, the regeneration of the old cemetery and the former brick factory offers significant opportunities. The cemetery could

Figure 51. Design proposal of adaptive reuse of old industrial structures. Naryn (Top: before / Bottom: After)



be repurposed as an urban agro-forest, blending afforestation with community farming through dedicated planting beds.

This park could also serve as a natural barrier to mitigate the risk of mudflows in the area. Similarly, the adaptive reuse of the former brick factory could integrate seamlessly with both the park and the broader neighborhood regeneration. The factory could be converted into a multifunctional social and economic hub, hosting cultural and recreational spaces such as a cinema, indoor sports facilities, cafés, and markets, while also providing economic opportunities through offices, co-working spaces, innovation clusters, or a technopark, fostering community growth and innovation.

## Ensure social mix and diversity of tenants in neighbourhoods

The availability of houses in different price ranges and tenure types in any neighbourhood allows the accommodation of residents from diverse backgrounds and with different income levels, leading to more inclusive neighbourhoods.

**20% to 30% of the residential floor area is recommended to be for low-cost /affordable housing and should offer different tenure types (rental, ownership, etc.). However, each tenure type should be no more than 50% of the total.**

Adequate policies and regulations are necessary to maintain the provision of affordable housing units. These can include:

- Adoption of inclusionary zoning incentives to reserve a portion of new residential projects for low- and middle-income households.
- Use of development agreements and capital subsidies to support mixed-use development that includes an affordable residential component.
- Re-zoning for higher residential density in order to align supply with housing market conditions.
- Provision of counselling, legal and financial assistance as part of eviction prevention programs.

## Promote context-sensitive designs that create a sense of place and identity in the neighbourhood

Urban regeneration is based on the principle of changing the identity of the project's location. For this reason, design becomes a fundamental element in creating a unique and memorable sense of place based primarily on the human dimension of urban space. In addition, urban design is essential to ensure pedestrian access and connections, contributing to a low-carbon development impact.

Neighbourhood design should not be limited to the provision of physical functions such as housing, amenities, and services. The aim of the planner should be focused on developing a sense of place and a feeling of belonging from the community and with the neighbourhood.

These crucial aspects can greatly impact the economy and social life in the neighbourhood and enable communities to play a much stronger role in shaping the areas in which they live.

Neighbourhoods with strong identity and sense of place tend to have close-knit communities and support mechanisms that foster their social and economic resilience.

From a design point of view, neighbourhood development should consider the existing context, scale, and interface with adjacent sites. It should include attractive spaces for encounter, leisure, urban art, and expression, and provide design solutions that strengthen the history and identity of the neighbourhood.

From a governance perspective, participatory approaches for planning and management that include the community and other stakeholders from very early stages are to be encouraged.

# CITY-WIDE

## Promote urban compactness

Urban compactness plays a vital role in shaping sustainable urban regeneration projects, particularly in Naryn, where the city's mountainous terrain limits available land for development. The city's land assets, such as vacant and underutilized land and non-functional industrial sites, present significant opportunities to efficient use of urban land, enhance compactness and improve functionality through targeted densification and intensification strategies. Compact development is often paired with mixed-use zoning and urban growth boundaries to maximize land use efficiency.

This approach can lead to increased productivity, better access to jobs, and greater energy efficiency. By concentrating development, compact urban growth also promotes more efficient provision of services and infrastructure, reducing costs by serving a larger population within a defined area. In Naryn, compactness can be applied not only in new urban developments but also through the intensification of underutilised spaces such as brownfields, vacant lots, and in urban regeneration projects, including Transit-Oriented Development (TOD). However, poorly managed compact development can lead to issues like congestion, gentrification, overcrowding, and a lack of green spaces. To avoid these challenges, it is essential that compact development is supported by strategic investments that ensure equitable access to housing, jobs, and services. Efficient public transport networks and a focus on maintaining diversity and enhancing the quality of life in urban areas are key.

Furthermore, urban regulations and fiscal policies should be designed to support compact development, incorporating measures like taxation on under-density, congestion fees, subsidies for densification, and split-rate property taxes. By managing compactness effectively, Naryn can achieve a balanced, sustainable urban future.

## Promote connectivity

Many urban regeneration projects are located in deteriorated urban areas, which do not have access to public transportation systems. One of the strategies commonly used for these types of developments is transit-oriented development. It is based on the principle of integrating land use in the planning of transport systems to ensure that mobility connections are grounded in public transport. This approach has the advantage of generating synergies for investment whereby public investment in infrastructure creates the confidence and momentum for private investment to follow.

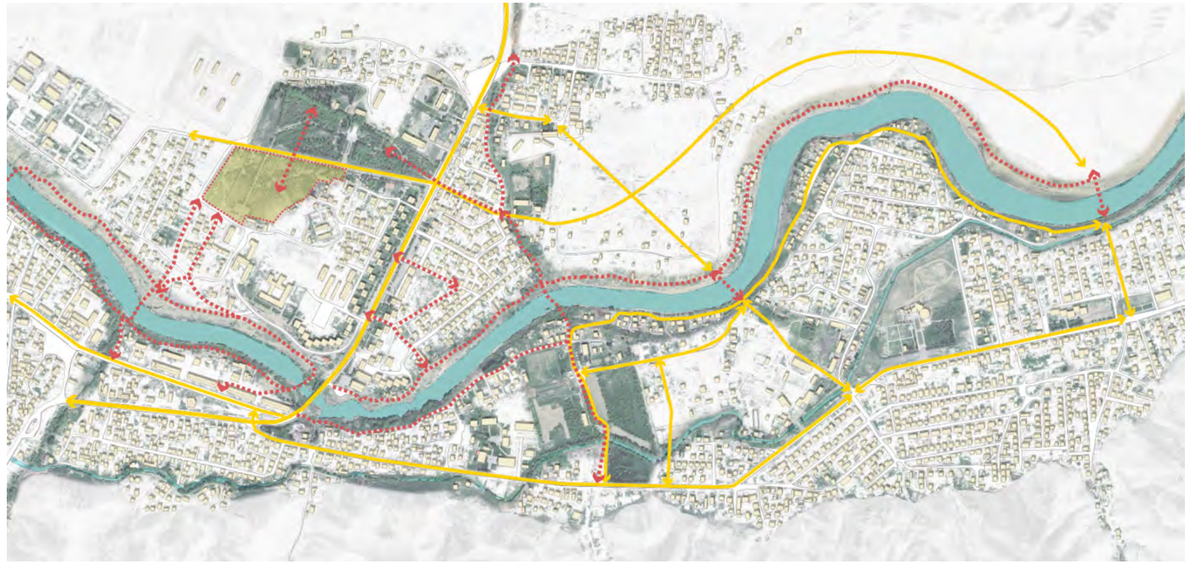


Figure 52. Connectivity scheme for Jusaev park, Naryn

## Ensure short distances and good accessibility to safe havens

Urban regeneration projects should actively enhance the overall resilience of a city. As population and building densities rise in regeneration areas, emergency evacuation strategies must be integrated into the design. This includes incorporating evacuation routes, shelters, safe havens, zoning codes, and public transport systems to ensure effective response mechanisms to mitigate the impact of hazards on people and assets. Where necessary, specific buildings should be designed to serve as emergency shelters. Their location, capacity, and quality must be carefully evaluated to ensure adequate coverage, spatial accessibility, and distribution, considering various disaster scenarios affecting both the project and surrounding neighborhoods.

Any urban regeneration area should be served by at least two access points. This will guarantee that evacuation measures and disaster responses are ensured even if one of the access points is blocked.

Figure 53. Design of Multifunctional park pavilion that can be used as a safe haven





**Box 04: Jusaev Park Pavilion as safe haven**

The design of Jusaev park's pavilion is based on a modular wooden structure with dimensions of 4m by 4m. This lightweight and flexible structure allows for easy expansion or remodeling of the building's spaces according to the needs and available resources.

One of the standout features of the pavilion's design is its ability to be easily converted from a recreational space into a shelter in case of emergencies. Each module can become an independent room using light separation walls that can be quickly mounted to the structure. This adaptability is complemented by an underground emergency storage area, which can be utilized to support the surrounding community during disasters. This capability underscores the important role Jusaev Park can play in enhancing the resilience of Naryn.

Furthermore, the pavilion incorporates sustainable practices, utilizing local materials and energy-efficient systems. Its adaptable nature ensures that it can serve various functions, from hosting community events and educational workshops to providing a safe haven during emergencies. The pavilion's design includes large windows and open spaces to facilitate natural light and ventilation, reducing the need for artificial lighting and air conditioning.

The pavilion's design incorporates sustainable practices, utilizing local materials and energy-efficient systems such as rooftop solar panels and rainwater harvesting systems. It is designed to maximize daylight, reducing the need for artificial lighting and further conserving energy. This approach embodies the park's commitment to sustainability and social resilience, making the pavilion a key feature in transforming Naryn into a more resilient and connected community.

## Design public transport system as a driver for economic development

Use Transit-Oriented Development (TOD) as a strategy to ensure compact, mixed-use, suitably dense, pedestrian and bike- friendly urban development, organized around public transportation stations. The strategy embraces the idea that locating amenities, employment, retail shops and housing around public transportation hubs promotes public transportation usage and non-motorized travel. Well-planned TOD is inclusive in nature and integrates considerations of resilience to natural hazards (Fig.54)

## Make public transport systems support other non-motorized mobility options

Public transport system should be designed to complement and strengthen non-motorised mobility options such as walking and cycling. This requires the integration of non-motorized transport in the city's mobility strategy, considering the needs and behaviour of the local community.

This integration can be achieved through solutions such as:

- Public transport stations that are placed strategically at walkable distances from residential areas and activity nodes. Their design ensures easy access to all users, including the elderly and people with reduced mobility.
- Transit stations that include safe parking for bicycles, as well as access to micro-mobility options such as shared e-bikes.

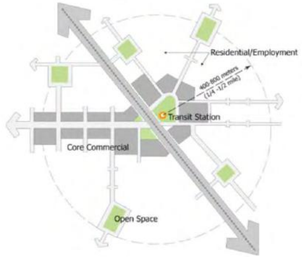



Figure 54. TOD Diagram / Architecture 2030, adapted from The Next American Metropolis

Figure 55. Stuttgart cycling-friendly Public transport system
Source: https://www.stuttgart.de/leben/mobilitaet/

- Buses and other public transport vehicles that are barrier-free and support other non-motorised transport (Fig.55).

## Use urban design as a driver for economic development

Make use of urban design to guide and support local economic development. Adequate spatial distribution of industries and services, coupled with adequate density and well-connected infrastructure, can support employment generation, and create a healthy environment for businesses to thrive. This should be accompanied by adequate policies that facilitate and encourage economic development.

By promoting mixed-use development in the identified areas of transformative impact, the new points of attraction/activities are created to cover the deficit areas. Mixed-use nodes consolidate the urban structure and facilitate a more balanced development.

## Engage communities and stakeholders early on in the regeneration process

In all regeneration projects, there are conflicting priorities and demands with regard to land use. Public and private owners, developers, residents, and government agencies may have very different ideas about the vision for the regenerated city. Yet, all actors are central to the success of the initiative. They must come together and agree on issues such as the social, environmental, cultural, and economic impacts of the renovation. The project structure should therefore include a thorough understanding of all voices and seek to align incentives for each of these stakeholders to contribute positively to the development of the project.

Planning and designing *with* communities, rather than *for* them, has proven effective in creating more inclusive neighborhoods, as demonstrated by numerous best-practice examples. This approach fosters collaboration and knowledge-sharing between stakeholders and communities, promotes a sense of ownership over the outcomes, and helps minimize conflicts. Establishing clear and active communication channels to engage local residents is crucial to the success of regeneration projects. This can be enhanced through the formation of citizens' committees, tasked with guiding the project's direction, auditing progress, and offering advisory input. These committees can also hold hearings and briefings to gather public opinion, build consensus, and encourage broader community participation, ensuring that the project reflects the needs and aspirations of the people it serves.

## Leverage the social equity aspects of regeneration

One of the key objectives of urban regeneration projects is local economic development. Urban regeneration projects can have a number of direct positive social impacts on the population living in the vicinity. In fact, many urban regeneration projects are conceived as integrated approaches that go beyond the physical aspects of improving the environment. A set of social interventions should be designed to respond to the community's needs and priorities that the team has identified throughout the project scoping phase. The social initiatives related to the regeneration project might be instigated by the public sector, by the civil society through nongovernmental organizations (NGOs), or even by the private sector through corporate social responsibility initiatives. The key is to generate synergies and complementarities between the physical regeneration part of the project and the social initiatives. Social equity components usually refer to activities related to training, access to social services, early childhood education, health, crime and violence prevention, and access to quality public spaces, to name a few.

## Manage the potential undesirable impacts of urban regeneration

When designing an urban regeneration project, the social aspects of the initiative should be as important as environmental and economic considerations and should be fully taken into account at the outset of project preparation. Comprehinsive community engagement and impact assessment are essential to identifying, understanding, and addressing the social dimensions of the regeneration process.. As such, people with the right skill set are needed for the job.





Figure 56. Selection of participatory activities organised by UN-Habitat/NURP

- ***Gentrification:***

Gentrification is a process resulting from urban regeneration that transforms a neighborhood through increased investment and development, often stimulating economic activity while also driving up property values and rents. If not managed effectively, gentrification can lead to the displacement of lower-income residents and can alter the demographic and cultural identity of the area.

Many cities have adopted inclusionary zoning (IZ) as a strategy to curb gentrification and safeguard vulnerable populations near regeneration sites. IZ leverages the planning system to promote affordable housing and social inclusion by harnessing market-driven development. This approach involves regulations or incentives that require private developers to include affordable or social housing in their projects. Developers can either integrate affordable units within the same development, build them elsewhere, or contribute land or funds to support housing development off-site. IZ is increasingly attractive to developers because local governments often provide incentives such as low-interest financing, grants, tax abatements, density bonuses, and expedited permits. The most common incentive is the density bonus, which allows developers to exceed standard zoning limits. Other incentives may include reduced fees, relaxed parking requirements, or alternative compliance options like paying fees in lieu of building affordable units. However, building affordable housing off-site can undermine the goal of fostering mixed-income neighborhoods.

- ***Loss of social capital:***

A significant unintended consequence of regeneration projects is the erosion of social capital, closely tied to gentrification and the displacement of original residents. Social capital encompasses the norms, trust, and networks that foster cooperation and mutual support within a community. It reflects the collective benefits arising from these social ties, which can include access to information and resources. As neighborhoods change and residents are forced to relocate, the disruption of these networks can diminish economic opportunities, limiting access to vital information about jobs and resources for those affected. Therefore, urban regeneration initiatives must consider the impact of out-migration on the social fabric of the community.

- ***Resettlement in urban areas***

Resettlement in urban areas can be costly, as it often necessitates the construction or upgrading of public infrastructure in areas where people already reside. This means that even projects requiring minimal land acquisition can lead to significant displacement. Additionally, even temporary losses of land or assets can have serious repercussions. Therefore, it is crucial to minimize both the number of people displaced and the severity of resettlement effects, particularly concerning residential moves and job changes. Best practices suggest keeping relocations within a short distance—ideally under a kilometer—so that families can maintain their community ties and livelihoods, reducing disruption to their daily lives.

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UN-HABITAT | URBAN LAB

# Naryn

## Kyrgyz Republic

## 2023-2024

### Enhancing Resilience through Integrated Spatial and Investment Planning

# Spatially-informed Capital Investment Plan

UN-HABITAT

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
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Swiss Confederation

AKDN
Aga Khan Development Network

**Enhancing Resilience through Integrated Spatial and Investment Planning**

## Capital Investment Plan



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НАРЫН

# Contents

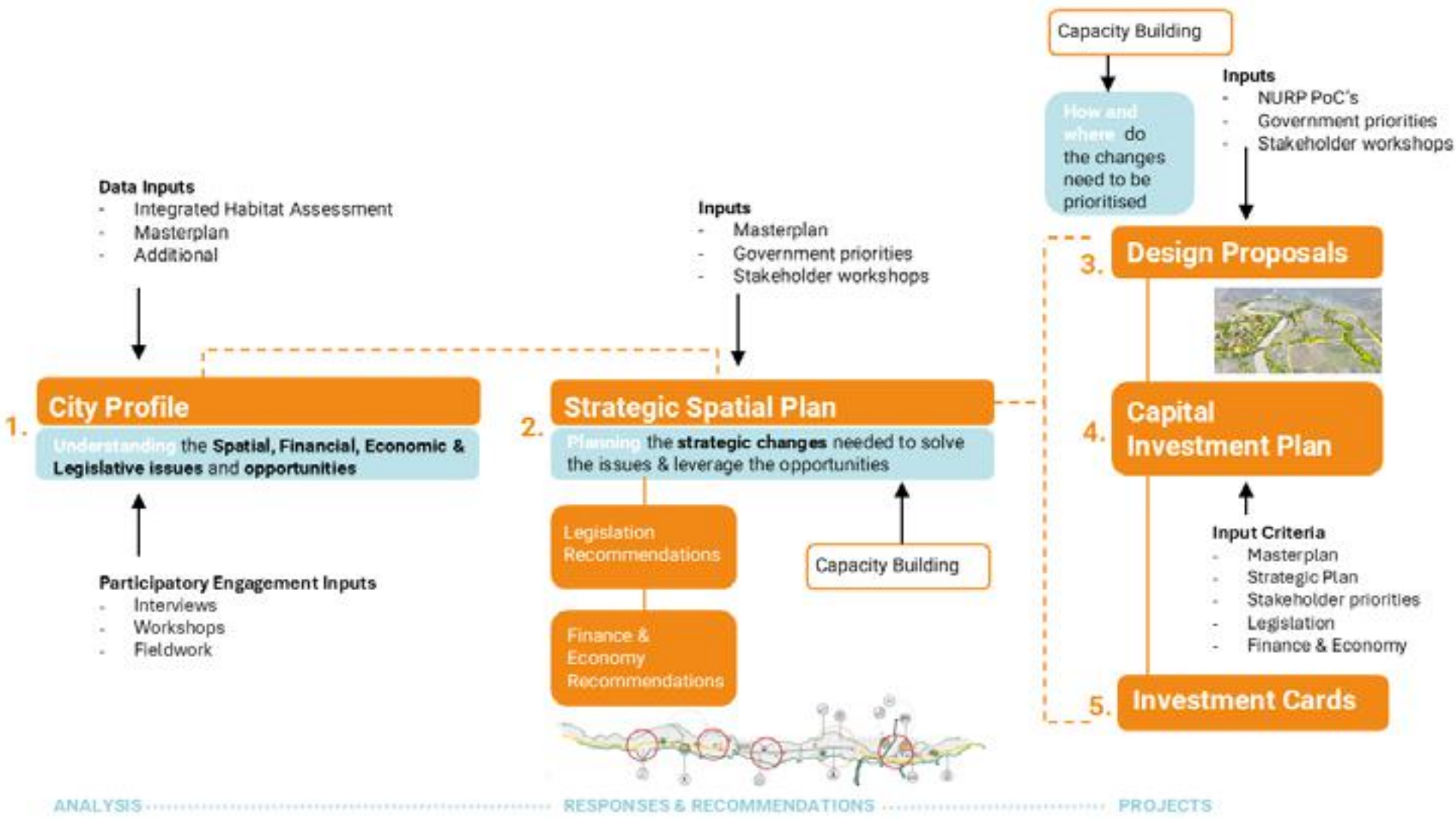



Figure 1. Project framework showing interrelation between phases, inputs, outputs, and outcomes

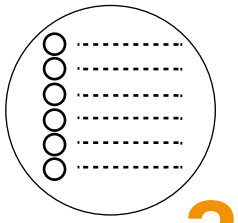
# Introduction

This document builds on the City Profile and Strategic Plan Report by highlighting the most catalytic investment that will guide Naryn Town toward a more sustainable and resilient future. The City Profile, Strategic Plan Report and this Capital Investment Planning (CIP) report highlights Naryn's main obstacles and opportunities, and strategic recommendations to address them, taking into account the city's economic drivers, existing on-going projects and plans. This report details the specific projects that make up the seven strategic recommendations (see the Strategic Spatial Plan). It then outlines the Multi-Criteria Assessment (MCA), that helps to assess each project against each other, effectively creating a list of projects that are in order of priority, highlighting those that are most critical to the town's development, and that would have a catalytic impact to achieve its integrated development goals.

## What is included in the Capital Investment Plan?

**1** Create a list of projects...

From various stakeholders and through various methods

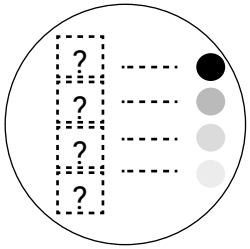


**2** Locate the projects on a map and validate a final project list ....

Provide suggested 'ideal' locations based on spatial analysis and filling the current deficit gaps, then identify 'realistic' sites for each project through validation with stakeholders

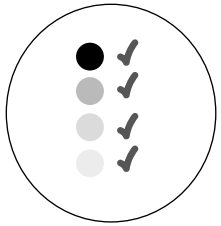
**3** Run a tailored Multi-Criteria Analysis to create a prioritised project list

Provide suggested 'ideal' locations based on spatial analysis and filling the current deficit gaps, then identify 'realistic' sites for each project through validation with stakeholders




**4** Fit the project list to the city's budget

Identify project packages to show how and when to implement each project to use the city's budget in the most efficient way



# Introducing Capital Investment Planning (CIP)

Each year, subnational governments spend more than $1 trillion on capital investments, with subnational governments in developing countries spending an estimated $314 billion per year.[5] However, between one-third and one-half of public investment is wasted due to misguided and inefficient allocation.[6]

Furthermore, with many competing infrastructure and development needs across the city, and a finite capital budget, trade-offs through prioritisation inevitably have to be made. In many cases, existing city and regional spatial plans have a hierarchy system and are prioritised accordingly. However, investment priorities developed in this way are rarely informed by an evidence-based spatial process to link development projects and targeted priority areas with spatial indicators and goals.

Capital investment, in the context of cities and governments, refers to financial allocation for new public assets (such as infrastructure, vehicles or buildings) or for major repair and maintenance of existing ones (World Bank, 2011). Capital expenses are different from operating expenses, which refer to the expenditures necessary for the everyday operation of the municipality and its assets. The capital budget together with the operating budget, becomes a part of the approved city budget for that year.

Decisions on what, where, how, and when projects get financed and implemented have a critical long-lasting impact on the liveability of cities and should therefore be targeted to achieve the SDGs.

A Capital Investment Plan (CIP) is a multi-year plan that follows a formal approval process to identify, prioritise, and estimate a city's investment needs over a medium-term horizon, given existing infrastructure and services gaps and projected growth.

It integrates the strategies of different departments and helps guide an integrated municipal strategy; prioritising projects based on the established criteria. Considering the limited resources that cities usually have for capital investment, the CIP helps to improve the efficiency of municipal governments' spending and ensure the achievement of the city's priorities and the SDGs.

It is essential that infrastructure investments are prioritised and delivered in an inclusive way, with all residents benefiting.

CIP aims to:

- Propose how to invest in development projects in a way that prioritises by need and means to achieve the city's objectives, taking into consideration the city's limited financial resources.

- Have a clear and transparent, unbiased, participatory and objective project prioritization procedure.

- Most departments work on project proposals in silos - capital investment planning aims at a centralised decision-making system that helps to prioritise the investments and allow for greater synergy of development and operations between departments, thereby reducing the siloed patterns which are often found across municipal departments.

- Plans and strategies are often not tied to specific projects. The portfolio of projects selected by this process contribute to the realisation of projects by creating a portfolio of projects that integrate plans and strategies with specific projects and capital expenditures with the city's budgeting process. This helps to improve the linkage between plans and strategies, and their intended goals to specific, implementable projects.

5 As of 2016 according to estimates based on the OECD-UCLG World Observatory on Subnational Government Finance and Investment

6 Schwartz et al. (2020). Well Spent: How strong infrastructure governance can end waste in public investment. Washington, DC: IMF.

| Challenges of existing investment planning | Contribution of capital investment planning |
|---|---|
| **There is a lack of alignment between strategic plans, spatial plans and the budgeting process.** | Improved capital investment planning aligns strategic and spatial plans with actionable projects, costs, and fits within the current budget. |
| **A city's comprehensive investment requirements are not considered in total.** | An assessment of the comprehensive needs of the city, including requirements for current and future growth, through spatial analysis and a participatory process, feeds the strategic spatial plan, and the inputs to the MCA, as well as the scoring process. |
| **Projects are prioritised on the basis of limited political interests rather than broader strategic benefits.** | Systematic ratings on predefined criteria, particularly those objectively measured in a spatial system can reduce the potential for bias. |
| **Investments fail to realise their transformational outcomes because they are planned and implemented in isolation.** | Spatialised project selection allows for a more holistic picture of project synergies and complementarities. |
| **There is a lack of transparency about capital budget prioritisation, reducing public accountability.** | Spatial criteria are often easy for the public to understand, and criteria-based project selection lends transparency to the prioritization process. |
| **Financial system shortcomings are prevalent.** | Evidence-based project prioritisation can enable more strategic fundraising from higher levels of government, investors and donors. Investment cards can provide easy-to-read priority project details, supported by an evidence-based, participatory process. |

Figure 2. Challenges with existing investment planning and how the CIP improves on them

# Summary of Process

1

## Creating a Project List

After the Strategic Spatial Plan was created, a set of location-specific, detailed projects were identified. In some cases, these projects were a direct outcome of the spatial analysis undertaken. For example, a deficit in school services highlighted the ideal location for a new school (taking into account where the existing population live, and the road network for them to access a new school facility). Implementing this new school project would 'shift' the deficits toward a city where the current service gaps are filled. Since the Strategic Spatial Plan reflects the desired development patterns to meet current and future needs and achieve sustainable development, the projects identified indicates how and where to achieve that.

The projects identified in this Capital Investment Plan are aligned with Naryn's economic drivers as an Education Town, Tourism Hub, Logistics Hub, and Agro-Industrial Center. Each project is designed not only to meet current development gaps but also to catalyse the city's transformation according to these economic drivers.

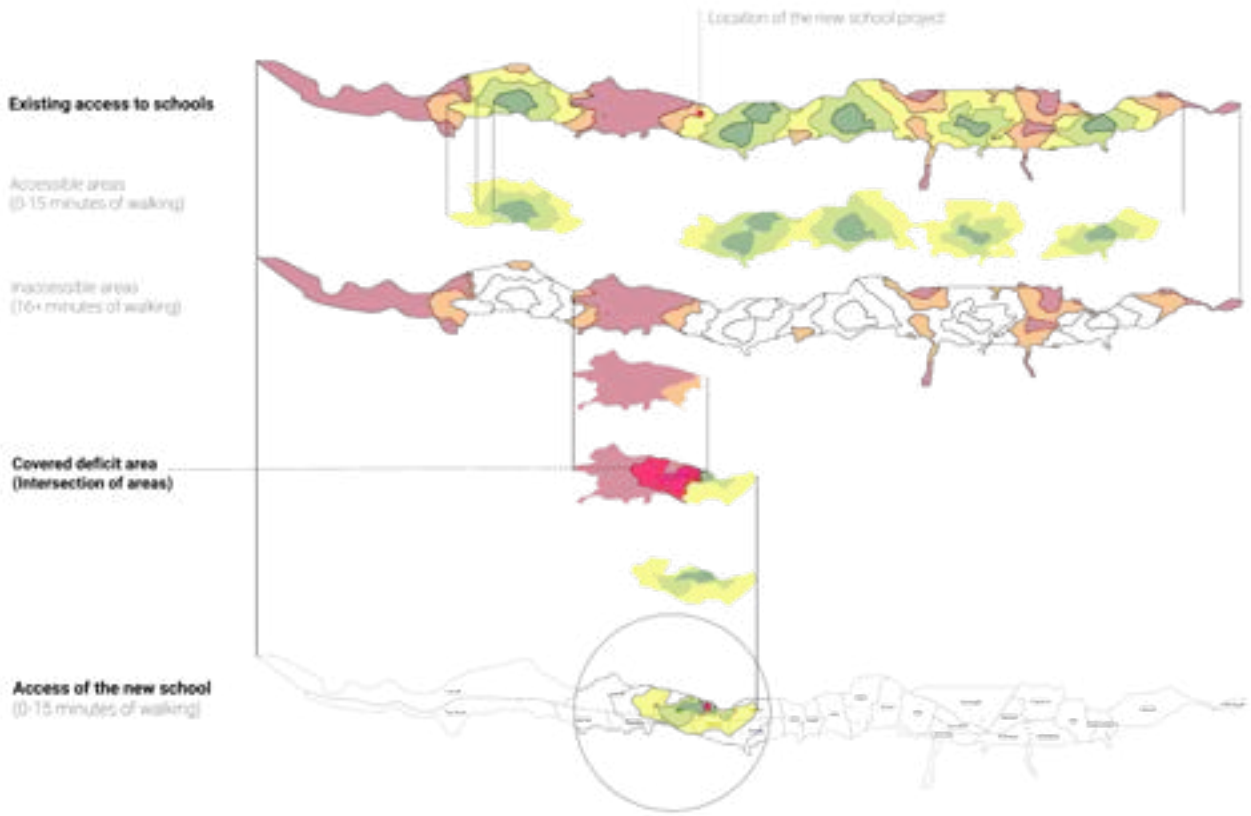



Figure 3. City indicators are used through spatial analysis, highlighting the city's challenges upon which projects are developed and respond to.

Similarly, community members came together to pin point locations of key interventions by thematic area (mobility, green space etc.) The project ideas that were an outcome of these workshops were also added to this project list.

In other instances, projects were identified through workshops and group sessions with a variety of stakeholders. Workshops with the mayor's office, for example, highlighted the interventions that this group felt would be the most catalytic intervention to promote the economic drivers (Tourism, Agro-Industrial, Education or Logistics).

Finally, ongoing or planned projects were also added to the list. These included projects funded by local government, the mayor or governor's office, national government, private development or NGOs. 412 projects were identified with this process.

Figure 4. Community workshops held in Naryn to identify projects (UN-Habitat)

# 2

## Mapping and Validating Projects

Once the list was created, a validation stage helped to identify any conflicting ideas and also provide more specific locations for the projects. For example, through the spatial analysis, the ideal location for the new school was proposed. Then, through the validation stage, stakeholders could suggest a nearby plot of land, which proved to be a more appropriate location, due to factors such as land ownership, or more informal or local knowledge. By validation the project list were finalized with 401 projects.

Construction of Secondary School validated site location (Project code: CDG26)

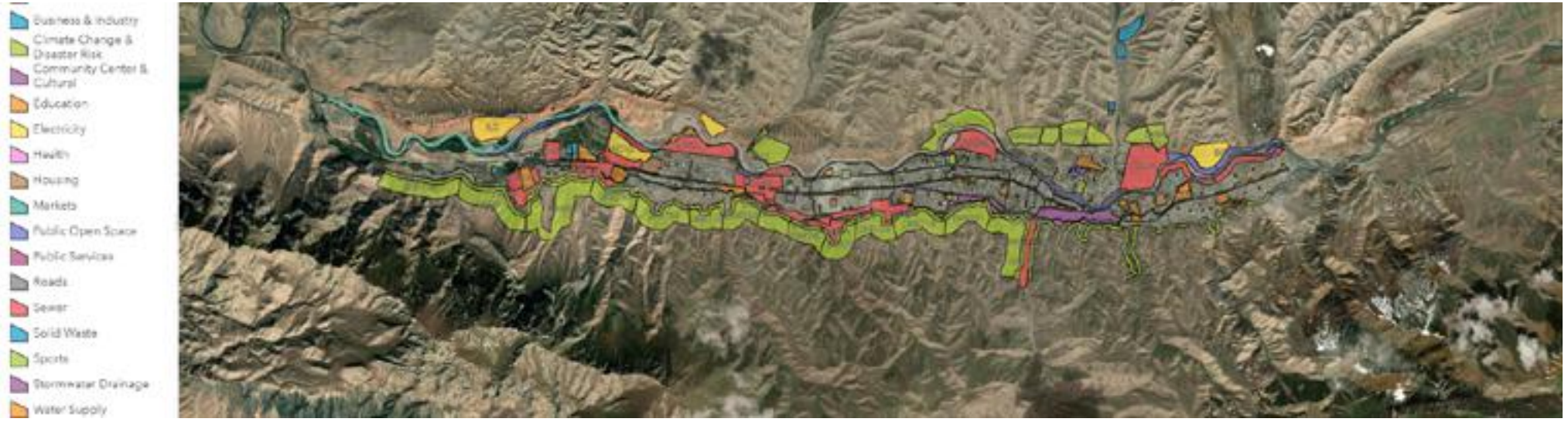
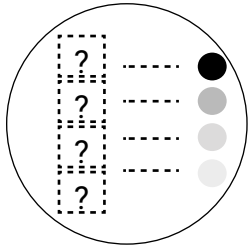



Figure 5. Click here for a link which will take you to an interactive map of the projects identified in this process (access link using online interactive PDF version of this document).



# 3

## Multi-Criteria Assessment (MCA)

However, in order to achieve a prioritised list, an MCA was created to fairly score each project against each other. The MCA contains 5 main components:

- Infrastructure Deficit Areas
- Spatial Development Priorities
- Economic Drivers
- Community Voices
- Enablers for Implementation.

As the final list of 401 projects were submitted to the first 4 components, a preliminary score was obtained. By the statistical distribution of the scores, the upper quartile of projects (101 projects) were identified as "Priority Projects". These projects additionally were evaluated by the final component "Enablers for Implementation" and the final scores were obtained.

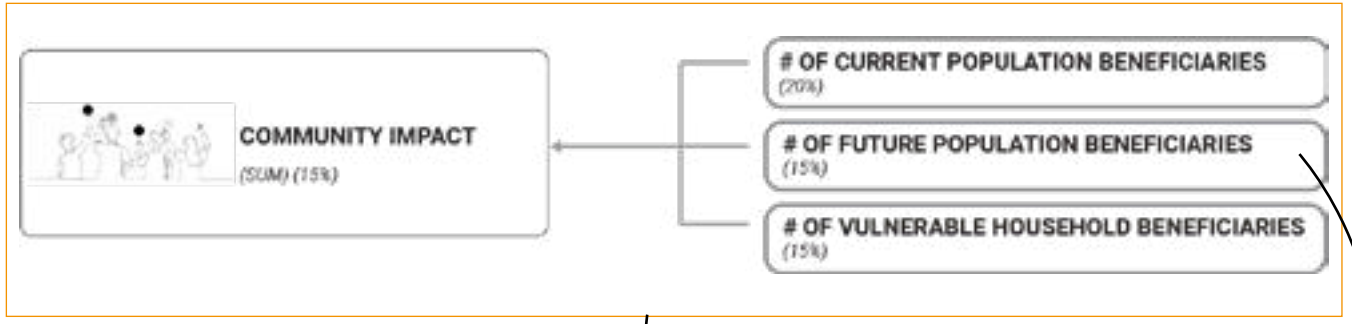
The MCA assessment includes various indicators to evaluate the projects. For example, the new school project that fulfilled the deficit gap only resolves the issue for the current population, but not for the future population. Therefore, the MCA takes into account a variety of benefits and issues associated with each project, to get a better understanding of how transformative the project really will be for the city. Each criteria in the assessment was adjusted according to the knowledge about the city.

For example an analysis at the start of the project highlighted that there are many households in the city that are considered 'vulnerable'.[5]

*This criteria asks:*

*How much of an impact does the project have on the local community?*

*How many people are within the service area of the new project, as a % of the total population?*




Example section from the Multi-Criteria Assessment, showing some of the criteria for community impact

The future population is estimated using the scenario that all proposed infill sites are developed to accommodate maximum population

Part of the MCA ensures that current population, future population (considering proposed and on-going infill development sites), and population that are vulnerable that benefits from the project are all taken into account in how well it scores. The weighting shows that current population beneficiaries are as equally weighted as vulnerable population beneficiaries, highlighting the importance of projects that improve the well-being of vulnerable households in Naryn.

5 This indicator was created through assessing how many types of insurance each household had, whether the household was within a hazard zone, whether residents of the household depended on facilities (kindergartens, clinics) that are within hazard zones, or whether they are poorly connected to the rest of the city.

# 4

## Budget Fitting

Faced with limited financial resources and capacity constraints, cities often struggle to know which projects they should spend their resources on. This increases funding inefficiencies and widens the gap between planning and implementation. Hence, a comprehensive CIP prioritisation system is critical to ensure that the most important projects are funded.

Further, the budget fitting process aims to ensure the efficient allocation of resources from each source by matching each project to a potential source of funding. For example, projects in sectors that have historically been financed by the national government or by donors will be matched with that source of funds. This leaves only the projects that are least likely to receive funding from external sources to be included within the local municipal budget. The municipality will save its funds to use only on the most important projects that are unlikely to be funded from other sources. Then, depending on the municipality's annual budget figures, these remaining high-priority projects can be funded over one or more annual budget cycles.

## Approach to Financing

The CIP process forms part of the necessary steps required to finance capital investment projects. Primarily, the CIP evaluates city needs and prioritises projects based on a multi-criteria assessment. The CIP also includes initial reviews of project costs and funding opportunities.

**Project design and costing:** The CIP develops project concepts and high-level estimates of project costs based on comparable projects. Detailed designs are required to refine cost estimates, facilitate project phasing, and conduct feasibility studies.

**Financing opportunities:** The CIP identifies potential funding mechanisms and sources, recommending projects for external or public funding. More detailed plans require finalised project designs, engagement with funders, and a comprehensive review of current funding opportunities.

**Investment:** The CIP focuses on local project prioritisation rather than an extensive analysis of the investment landscape in Kyrgyzstan. National factors- such as interest rates, access to finance, and regulations- are outisde its scope, but significantly influence project feasibility and private investment appeal. .

## Capital Investment Planning

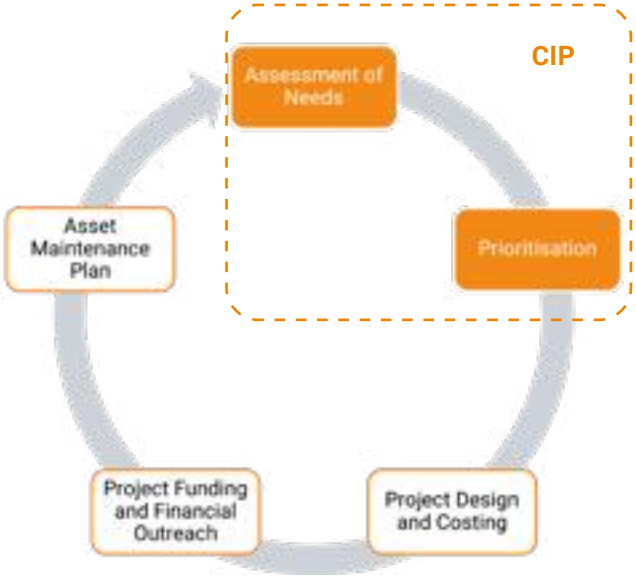



Figure 6. Diagram showing the role of Capital Investment Planning within a larger project funding cycle

# Linking CIP to the Strategic Spatial Plan

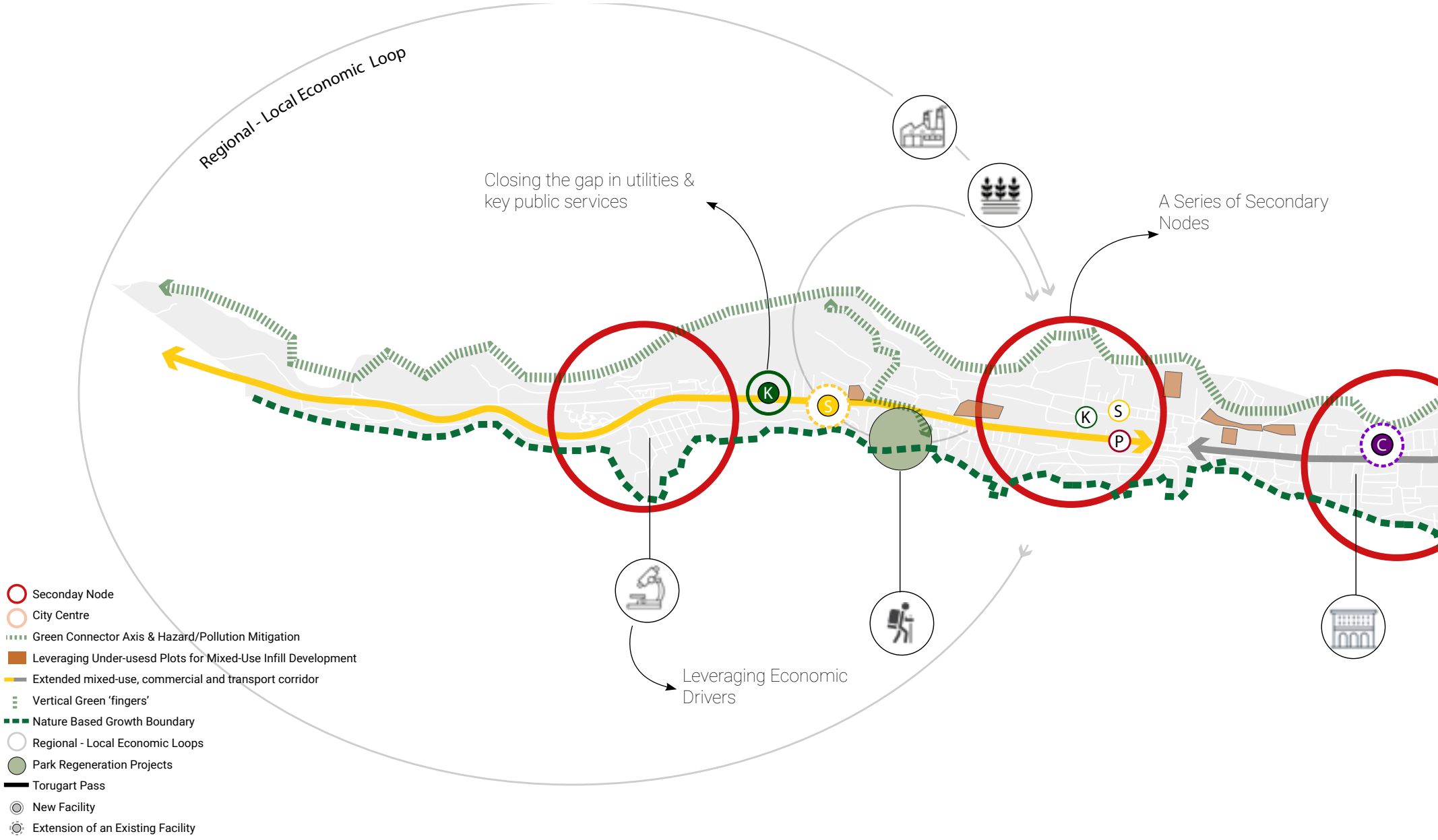
The Capital Investment Plan (CIP) for Naryn is grounded in a comprehensive framework that integrates the town's economic drivers with its spatial planning objectives, ensuring that every investment contributes to Naryn's sustainable and resilient future. Naryn's development is underpinned by four economic drivers, each reflecting the town's unique opportunities and aspirations:

- **Education Town:** Building on Naryn's educational institutions, this economic driver positions the town as a hub for learning, research, and innovation, attracting students, scholars, and industries aligned with education and knowledge-sharing.
- **Tourism Hub:** Leveraging Naryn's natural and cultural assets, the Tourism Hub focuses on enhancing infrastructure, accessibility, and sustainability to boost tourism as a key economic driver.
- **Logistics Hub:** This economic driver emphasizes Naryn's strategic location as a conduit for trade and transportation, linking national and transnational routes to stimulate economic growth and connectivity.
- **Agro-Industrial Center:** Rooted in the region's agricultural strengths, this economic driver promotes the development of sustainable industries and agro-based enterprises, fostering local employment and enhancing regional food security.

The spatial strategic plan for Naryn ensures that the town's growth is spatially balanced, promoting the development of secondary nodes to reduce pressure on the town centre and distribute resources and services equitably. The plan recognises the characteristics of the town and its natural assets, and encourages integrated networks (of mobility, spatial, open spaces, services) alongside nature-based solutions for increased urban resilience. Key features of the spatial strategy include:

- Strengthening connectivity between central and peripheral areas with improved infrastructure.
- Enhancing green spaces and water management to mitigate hazard risks, preserve and protect natural assets, and enhance quality of life.
- Developing secondary nodes that serve as neighbourhood hubs for economic, social, and cultural activities, improving equitable access to services and opportunities, and fostering more resilient and polycentric urban development.
- The Capital Investment Plan (CIP) is intricately tied to the economic drivers and spatial development priorities of Naryn. Each project is assessed based on its ability to address identified deficits—whether in infrastructure, utilities, social facilities, business, or housing—and its alignment with the town's broader spatial strategy.
- **Addressing Deficit Areas:** The CIP prioritises projects that address key gaps in infrastructure, utilities, and housing, with investments targeting areas of highest need to promote inclusive development.
- **Spatial Development Priorities:** By focusing on priority nodes, regeneration, and infill areas, the CIP drives balanced, polycentric growth, reducing reliance on the central core and maximising the impact of social projects.
- **Alignment with Economic Drivers:** Projects are assessed against Naryn's economic drivers- Education Town, Tourism Hub, Agro-Industry and Logistics- ensuring investments support long-term socio-economic goals.
- **Community Voices:** The CIP integrates community input, emphasising the needs of beneficiaries and vulnerable groups. Projects are evaluated for employment potential and social resilience with stakeholder participation central to the selection process.
- **Implementation Enablers:** CIP projects are chosen for immediate impact and long-term sustainability, emphasising compliance, financial stability, and effective governance.

This integarted approach ensures that the CIP support Naryn's spatial startegy, fostering sustainable and inclusive growth.


Regional - Local Economic Loop
Closing the gap in utilities & key public services
A Series of Secondary Nodes
Leveraging Economic Drivers
K
S
K
S
P
C
Seconday Node
City Centre
Green Connector Axis & Hazard/Pollution Mitigation
Leveraging Under-usesd Plots for Mixed-Use Infill Development
Extended mixed-use, commercial and transport corridor
Vertical Green 'fingers'
Nature Based Growth Boundary
Regional - Local Economic Loops
Park Regeneration Projects
Torugart Pass
New Facility
Extension of an Existing Facility

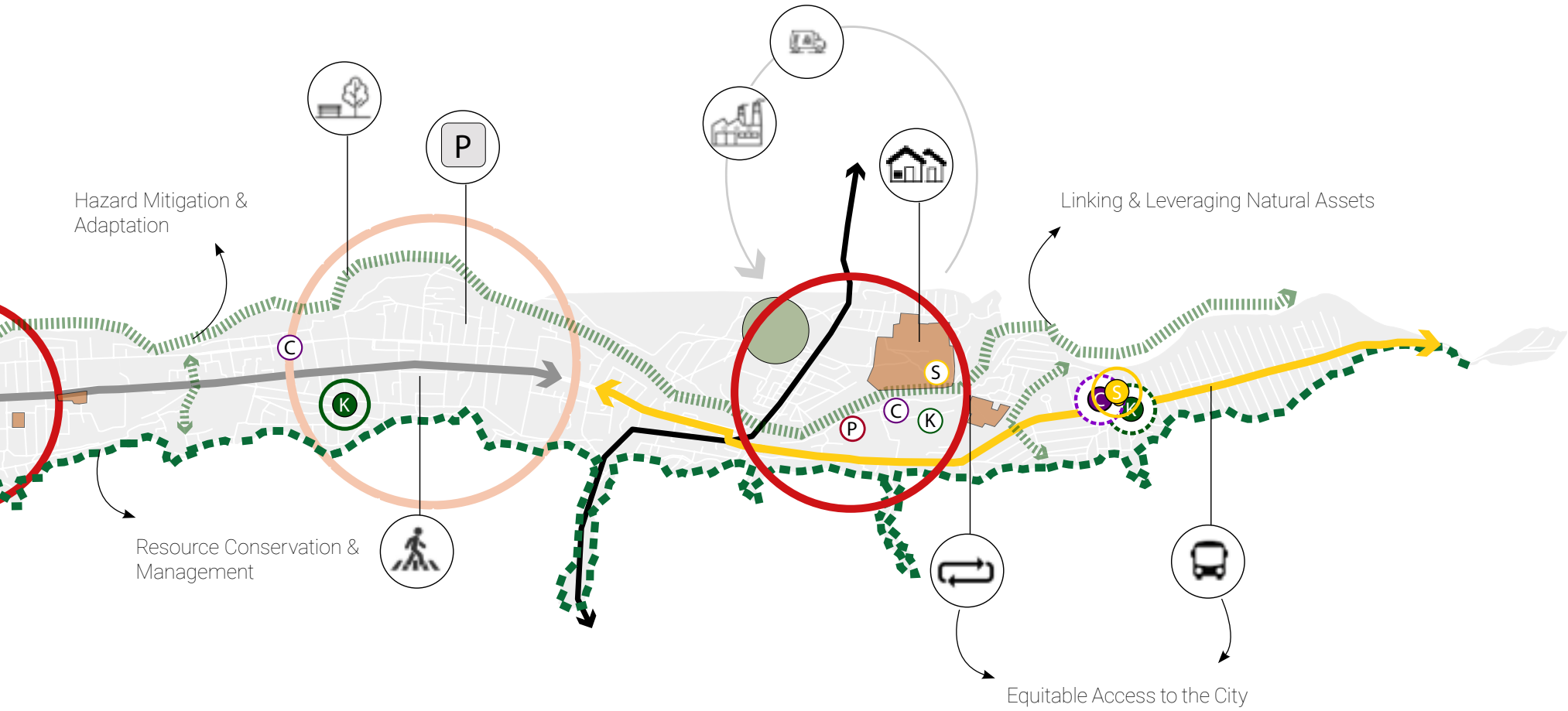



Figure 7. Naryn Strategic Spatial Plan (UN-Habitat)

# Validated Project List and Locations

The following is a comprehensive list of projects developed through workshops, stakeholders meetings, interviews and field visits. Project locations were carefully identified and validated in collaboration with sector representatives from the local government and project partners, AKDN.

## Disaster Risk Resilience & Climate Change

Installation of **rockfall protection walls** using nature-based materials that have minimal disruption to natural water and soil movement while controlling rock movement from hillsides

**Reconstruction of & Plantation along the Big Naryn Canal**, to include deflectors, sloped banks, and increase vegetation to slow river flow, enhance water retention, reduce erosion and flooding, and create natural barriers against waste deposits

**Equipping of existing building as indoor safe haven** with first aid, emergency food and sanitation supplies, and back-up water and/or solar energy supply

**Plantation and terracing** to mitigate against mudflow and rockfall as well as improve soil and air quality

**Reforestation** to improve the city's resilience to natural hazards and improve air quality

Construction of **drainage system** including stormwater run off or irrigation ditches to reduce impacts of flooding and collect water for irrigation

**Adaptation of existing public space as safe haven** including medical equipment, shelter and back up water and/or solar energy supply

Adaptation of the new building of **SS #10 and its open space as a safe haven**

**Plantation, terracing and gabion installation**

## Green and Open Public Space Network

**Plantation for green riverfront axes**, with vegetation to create flood- and erosion-resistant riverbanks, filter water, reduce waste deposits, and improve riverbank safety, while introducing a continuous green public space across the city, enhancing non-motorised transport along a new northern cross-city greenway.

**Adaptation of existing "special use green space" to public space**, through low intensity interventions such as pathways, benches and waste bins and watering

Construction of **new public green space**

**Adaptation of Botanical Garden to public space,** through toilets, pathways and wayfinding

**Landscaping of Jusaiev Park,** including planting, watering (interventions in Jusaiev Park in more detail can be found in the Urban Design Guidelines Report for Naryn)

**Construction of Playground and Sports area**

These green areas refer to project 'terracing and planting'. The location of this project was chosen by identifying the hazard zones. This project was proposed by UN-Habitat as a mitigation measure and nature-based solution, and was validated by project partners, AKDN, as well as local government representatives. The project would involve levelling soil to create multiple terraces, planting local shrubs and trees to reinforce the soil and can be used for growing local produce. It would also involve regular maintenance to ensure trees are not cut down for the wood to be used as heating material, and to maintain the structure during mud and rockfalls.

N

Hazard Mitigation & Disaster Risk Resilience

Green & Open Public Space


## Water Network

**Installation of water and irrigation system** including construction of ditches and installation of new pumps as well a sprinklers

**Renovation of irrigation system** including fixing of broken ditches or pumps

**Conservation of Ak Becmel water reservoir** including nature-based barriers and planting to physically protect the area and naturally clean the water

**Extension of water network** to reduce the current deficit through new or larger water pipelines and pumps to increase water pressure especially to reach high elevation areas

**Replacement of water pipes** mainly focused on the connection to residential buildings

**Construction of a dam** to increase water storage for Naryn (and potentially join with hydroelectric dam project)

## Electricity Network

**Solar energy farm,** including feasibility study for site identification, installation of panels and maintenance plan

**Installation of electricity infrastructure** such as electricity cables and transformers in Kyzyl Saray, Internat area

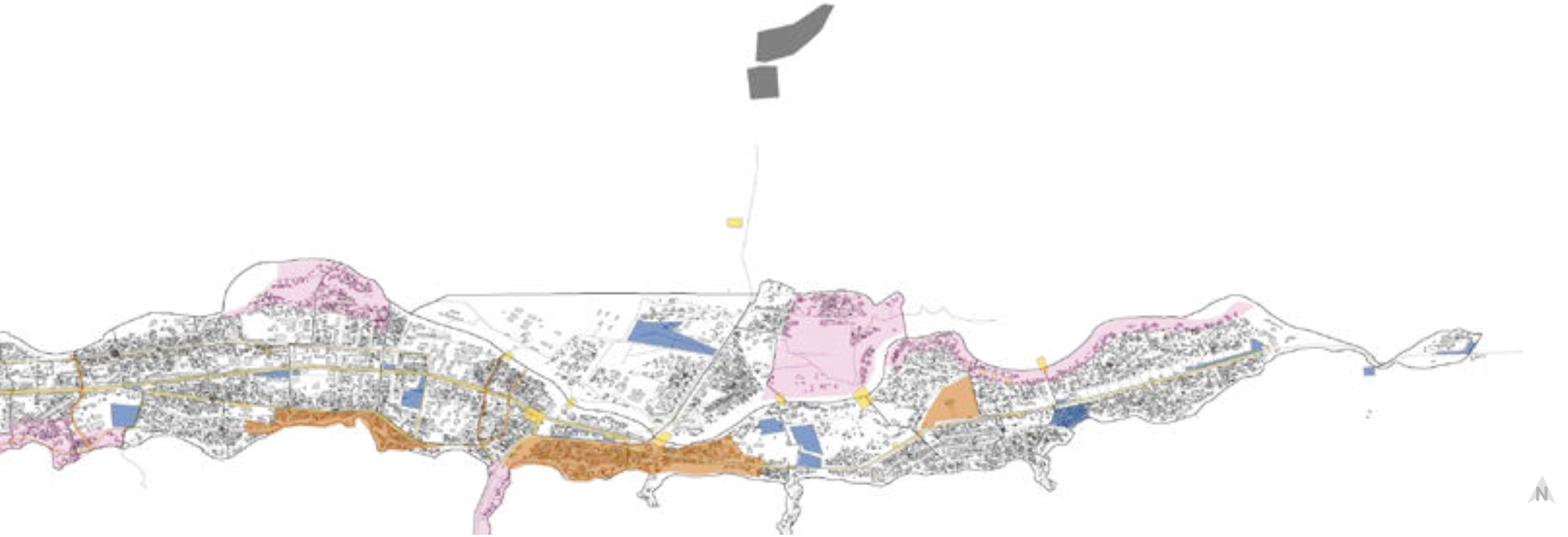
Feasibility study and construction of **small hydroelectric power plant** to create an electricity supply for the city and region

## Sewage Network

**Extension of sewage network** including pipeline extensions and pumps to fill current deficits

**Installation of pumping station** for sewage network

**Reconstruction of sewage & waste water facility**



Sewage Network
Stormwater Drainage Network
Mobility Network
Solid Waste Network
Water Network & Supply

**Installation of central septic tank** - Bio septic or biodigester to reduce current deficits whilst reducing the inefficiency of extending sewage pipes into areas far from the existing network, with low population

## Solid Waste Network

**Feasibility study for optimization of solid waste collection system and installation of new bins** including introducing new routes to cover all houses, design of new bin units to meet demands of residents

**Capacity increase and construction of necessary infrastructure for the recycling facility** to improve waste separation and processing for the current and future population

Implementation of **awareness project** (Canal clean-up)

**Procurement of maintenance equipment and development of maintenance plan for the Big Naryn Canal**

## Stormwater Drainage Network

**Construction of new irrigation/drainage infrastructure,** and increase capacity (width/depth) in areas prone to flooding to reduce flooding and 'close' the gaps in the network

**Installation of storm water collection system**

## Business & Industry

**Construction of Agro-tourism workshop building** for women's employment and the production of local handicrafts, including equipment for felt, sewing and other workshops

**Construction of Veterinary Laboratory** to support meeting China's export requirements

**Construction of Winterized Storage** facility/warehouse for food products

**Packaging plant** for potatoes, other produce such as berries, honey, etc.

**Centre of Research & Innovation** with programmes that feed into agricultural production within the town, and assist in bridging the gap between education facilities and employment

Construction of **Agro-tourism café,** located adjacent to agricultural land, women's handicrafts workshops and tourism routes to promote agro-tourism

Construction of **Logistics Park** to expand on existing site, including units such as an organisation and distribution centre, warehouse, loading zones

Construction of **Service station** with services associated with the Logistics Park, such as gas station, 'motel' and restaurant catered to long-distance cargo transport

Construction of **parking space** for long-distance traffic (associated with service station and logistics park)

Construction of **local products & training centre**

Construction of **slaughterhouse**

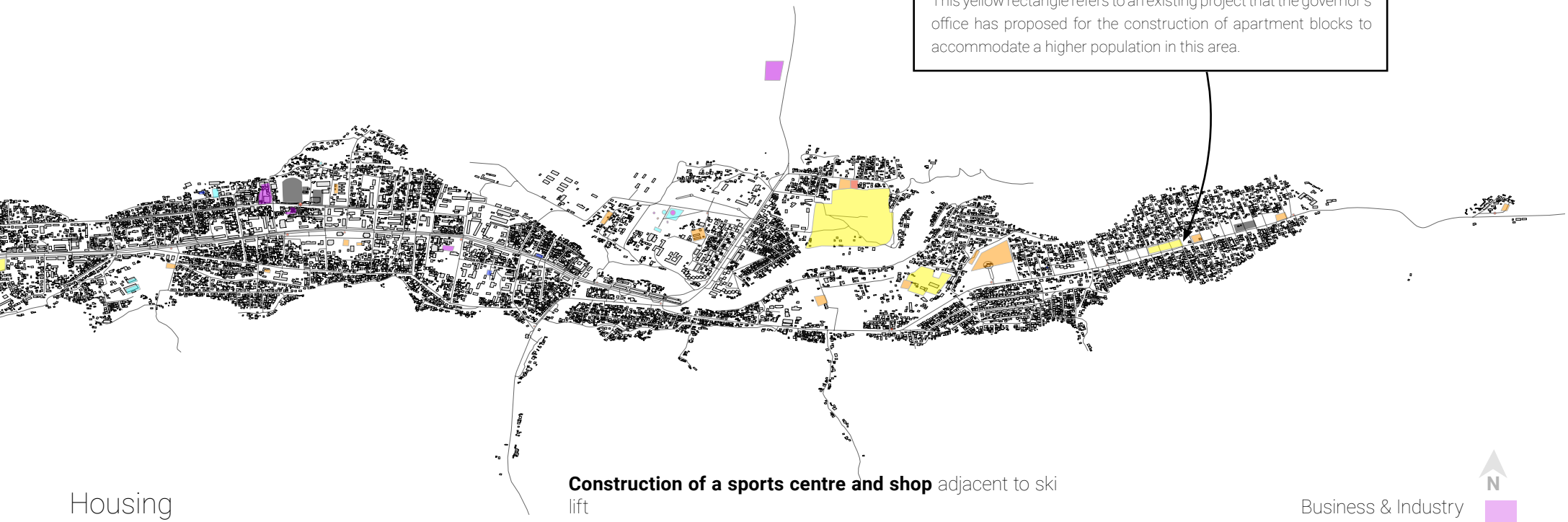
Regeneration of old industrial building as an **industrial heritage site**, with cultural facilities, wayfinding, toilets and multi-functional area

**Relocation and expansion of the existing cheese & milk factory**

Construction of **Cafe & Restaurant**

**Launch of Media campaign on Naryn Tourism** including, for example, the creation of booklets, online site to showcase points of interest as well as an accompanying media campaign

**Creation of a Naryn Brand** for all produce from Naryn (including meat, milk and cheese, handicrafts etc.)




## Housing

Construction of **multi-storey housing**

Construction of **mixed-use infill development** on existing underutilised plots of land that fall within the existing town utility and mobility networks

## Sports

**Reconstruction of central "Ala-Too" stadium**

**Renovation of the sports center** including dressing rooms, toilets, water fountains, waste points

Construction of **new sports facility**

**Renovation of the ski lift** for year-round operation, supporting hiking in summer and skiing in winter.

**Construction of a sports centre and shop** adjacent to ski lift

## Cultural Facilities

Reconstruction of the **municipal public bathhouse**

Construction of **Amphitheatre** (in Jusaiev Park)

Construction of **Pavilion** (in Jusaiev Park) for events

Regeneration of old industrial building as an **industrial heritage site**, with cultural facilities, wayfinding, toilets and multi-functional area

**Construction of Naryn town culture department building**

## Education

Construction of **new Kindergarten with playground**

Construction of **new education complex** which includes a Kindergarten with playground and secondary school, with a space and programme inclusive for children with disabilities (wheelchair friendly access, signage for children visually impaired etc.)

Construction of **new Kindergarten with playground within a mixed-use infill development area**

**Relocation and capacity increase of school #9**

Construction of **new secondary school**

**Relocation of school #10**

Renovation and capacity increase of Kindergarten #14, #1, #16 and #4

**Construction of non-formal education facility for staff**

**Exchange student program with universities**

## Health

**Reconstruction and capacity increase of Clinic #5 (FGP), Clinic #2 (FGP), Clinic #4 (FGP) and Clinic #3 (FGP)**

**Relocation of Clinic #1 (FGP)**

Construction of **Naryn town ambulance service building**

## Public & Social Facilities

**Regeneration and reorganisation of market place**, including mobility network (prioritising pedestrian access), formalised trading spaces, parking and planting

Crisis center & NGO hub

**Installation of emergency hub** including safety and medical equipment, using solar energy or with back-up energy supply, using renewable materials and resistant to natural hazards

**Shelter for victims of violence**, both as a call-in centre, and as a temporary residence, located partly within an easily accessible location, and partly in a secluded location

**Installation of toilet facilities** in key locations for public use free of charge

Construction of **retirement house**

Naryn, Kyrgyzstan Photo © UN-Habitat

# Multi-Criteria Assessment (MCA)

The criteria used in this MCA has been tailored specifically to the context, meaning that more or less weighting has been given to projects that achieve a certain priority for the city.

Infrastructure Deficits, for example, represent those projects that 'fill the gap' in the city's lacking infrastructure and services.

**INFRASTRUCTURE DEFICIT AREAS**
*(MAX) (25%)*

Assessing whether a project will fullfill the utility deficit for solid waste includes i. landfill poor condition, ii. collection coverage deficit iii. collection point poor condition iv. collection point insufficient capacity

**SOCIAL FACILITIES DEFICIT AREAS**
*(MAX) (100%)*

- Community Center & Cultural Facilities
- Health
- Education
- Public Open Space
- Sports
- Markets

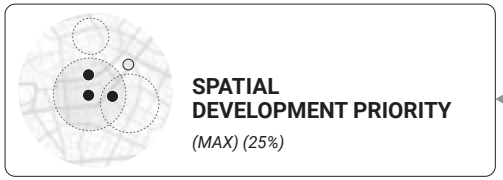
**UTILITY DEFICIT AREAS**
*(MAX) (100%)*

- Electricity
- Sewer
- Water Supply
- Solid Waste
- Roads
- Stormwater Drainage
- Climate Change & Disaster Risk

**BUSINESS & INDUSTRY AND HOUSING**
*(MAX) (100%)*

- Existing Job Opportunity General Deficit
- City-wide Housing Deficit

Review the Strategic Plan report, Secondary Nodes Recommendation to understand the rationale behind selecting these nodes for densification and creating a more equitable city. Projects within these nodes are recommended for prioritisation due to their alignment with these strategic goals project falls within these nodes, it should be prioritised



**SPATIAL DEVELOPMENT PRIORITY**
*(MAX) (25%)*

**PRIORITY NODES (CENTRALITIES)**
*(MAX) (25%)*

- City Centre / City Wide
- City Center / Core
- Secondary Node
- Mixed-Use Corridor

**REGENERATION & INFILL**
*(MAX) (25%)*

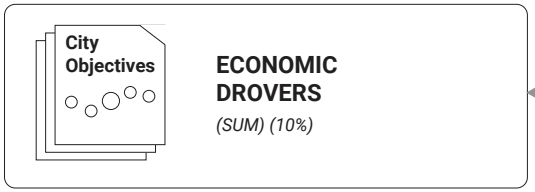
- Land-Use Diversity
- Underutilised Lands
- Non-Functional Industrial Sites

**SOCIAL PROJECTS SYNERGY**
*(MAX) (25%)*

- Within 100m from One other social facility
- Within 100m from Two other social facility
- Within 100m from Three (or more)other social facility

**CLIMATE CHANGE & DISASTER RISKS**
*(MAX) (25%)*

- Contributes to Mitigation & Disaster Mangament
- Have an Environmental Impact
- Located within a Hazard Area or Buffer Zone
- Uses or Produces Renewable Energy
- Resilient to Natural Hazards




**ECONOMIC DROVERS**
*(SUM) (10%)*

- **EDUCATION TOWN** *(MAX) (100%)*
- **TOURISM HUB** *(MAX) (100%)*
- **LOGISTICS HUB** *(MAX) (100%)*
- **AGRO-INDUSTRIAL CENTRE** *(MAX) (100%)*

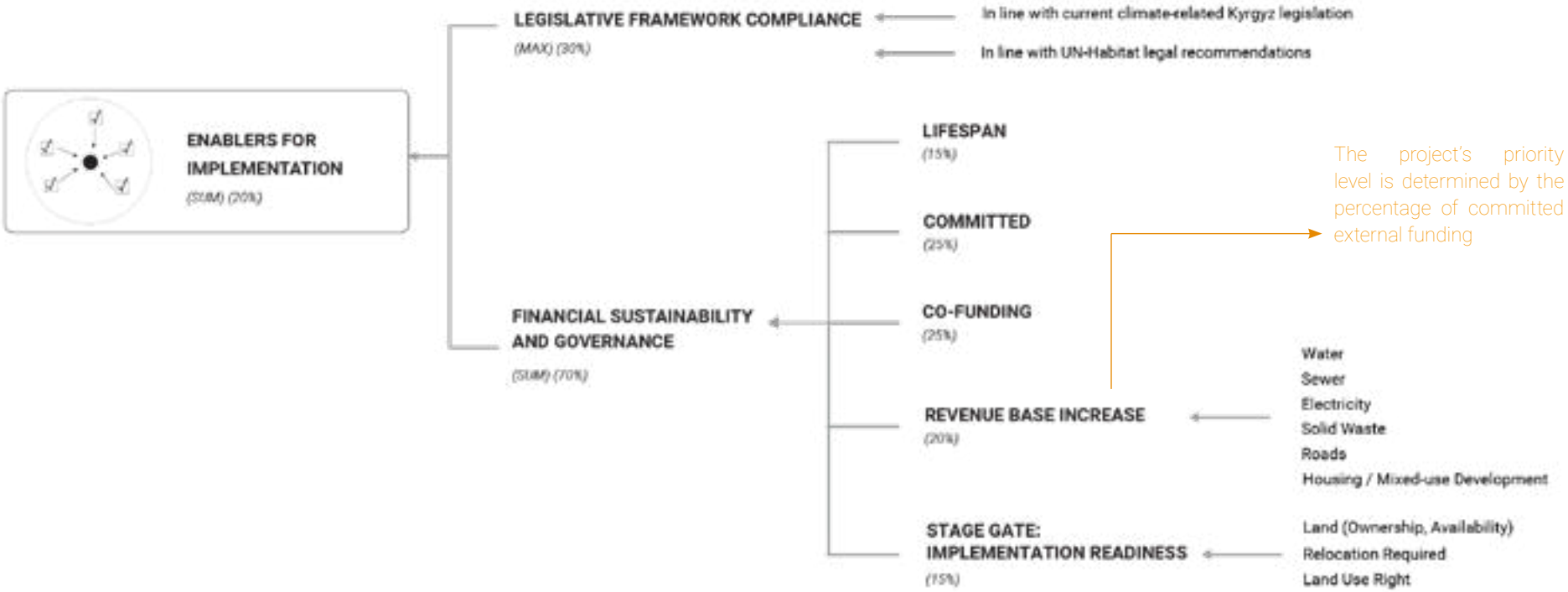
Does the project directly contribute or negatively impact for the economic drivers?

**COMMUNITY IMPACT**
*(SUM) (20%)*

- **# OF BENEFICIARIES CURRENT POPULATION** *(20%)*
- **# OF BENEFICIARIES FUTURE POPULATION** *(15%)*
- **# OF VULNERABLE HOUSEHOLD BENEFICIERIES** *(15%)*
- **DOES THE PROJECT CREATE EMPLOYMENT** *(10%)*
- **DOES THE PROJECT INCREASE COMMUNITY SOCIAL RESILIENCE** *(10%)*
- **SPECIFICALLY DESIGNED TO TARGET VULNERABLE GROUPS** *(SUM) (10%)*
- **STAKEHOLDERS PARTICIPATION** *(SUM) (20%)*
  - Municipal Departments
  - Stakeholders

Projects that contribute to social resilience are considered to include:
Urban agriculture
Open public space
Community centre
Community/vocational learning centre
Religious
Entertainment & Cultural Centre
Safe Haven/Resilience Hub
Central Market
Religious facilities

Were these actors informed, consulted, or directly involved in decision making?


ENABLERS FOR IMPLEMENTATION
(SUM) (20%)
LEGISLATIVE FRAMEWORK COMPLIANCE
(MAX) (30%)
In line with current climate-related Kyrgyz legislation
In line with UN-Habitat legal recommendations
FINANCIAL SUSTAINABILITY AND GOVERNANCE
(SUM) (70%)
LIFESPAN
(15%)
COMMITTED
(25%)
CO-FUNDING
(25%)
REVENUE BASE INCREASE
(20%)
STAGE GATE: IMPLEMENTATION READINESS
(15%)
The project's priority level is determined by the percentage of committed external funding
Water
Sewer
Electricity
Solid Waste
Roads
Housing / Mixed-use Development
Land (Ownership, Availability)
Relocation Required
Land Use Right

# Next Steps

The outcome of the application of the MCA on the project list will be the investment cards. These cards will highlight those projects that are considered to be the highest priority, based on the criteria listed above and are those that have scored above the median of all projects. These projects are those that most successfully fulfils the needs of the city and may be the most efficient and transformative way to invest in the city's development.

This report is not intended to be a final record, but instead a tool to be able to adapt, and grow the project list and MCA methodology for the city. New projects can be added, and assessed using the criteria set up, and, this step-by-step outline can more easily facilitate knowledge sharing between stakeholders and between cities in Kyrgyzstan, as Naryn becomes a more sustainable and resilient model city.

# Naryn

## Kyrgyz Republic

## 2023-2024

### Enhancing Resilience through Integrated Spatial and Investment Planning

# Investment Cards

UN-HABITAT

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AKDN
AGA KHAN DEVELOPMENT NETWORK

**Enhancing Resilience through Integrated Spatial and Investment Planning**

## Investment Cards



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НАРЫН

# Contents

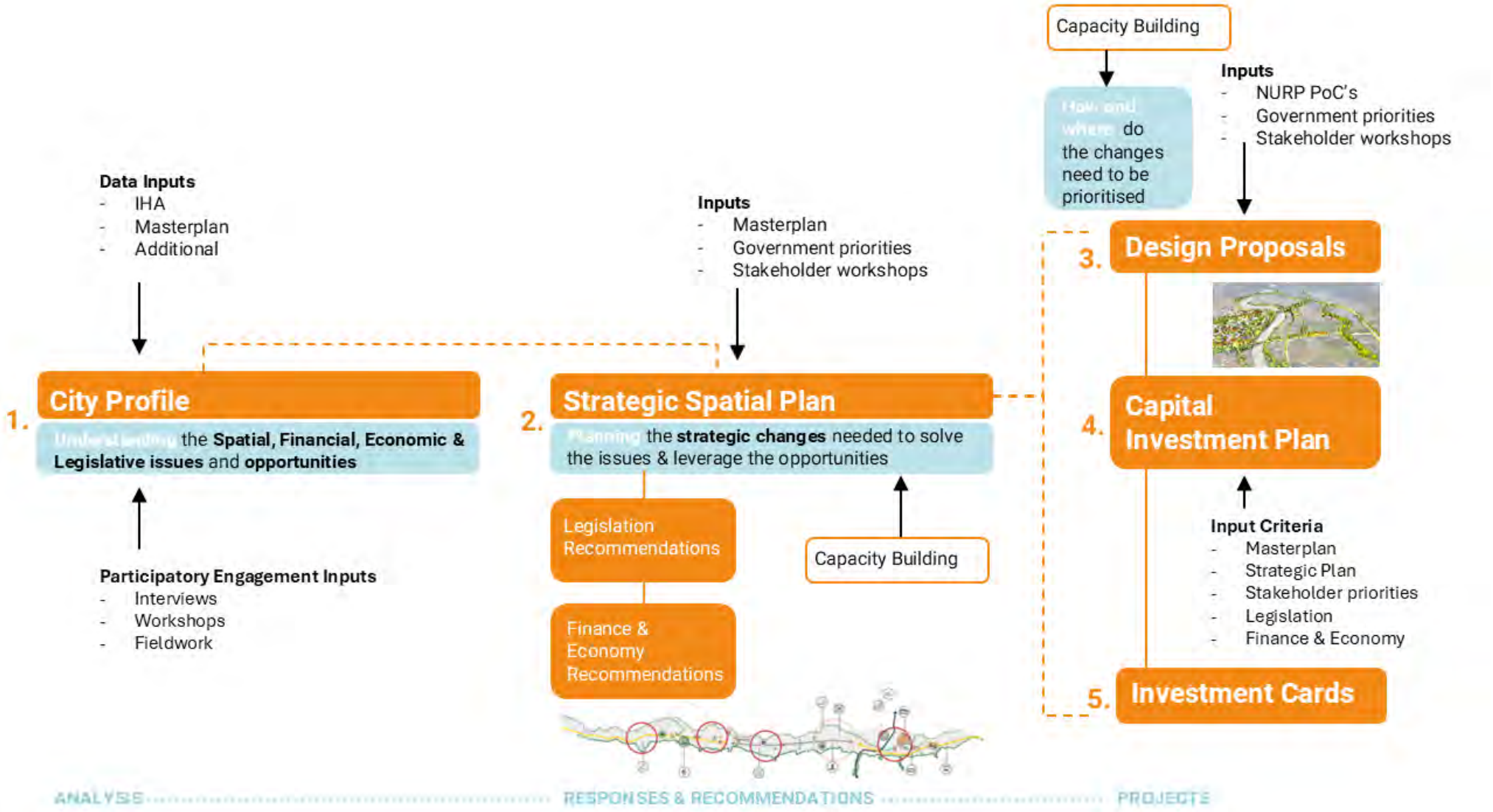


Figure 1. Project framework showing interrelation between phases, inputs, outputs, and outcomes


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# Introducing Investment Cards

**The Purpose of Investment Cards**

he Spatial Capital Investment Planning process is designed to identify, prioritise, and estimate a city's medium-term investment needs, based on existing infrastructure gaps, service deficiencies, and projected population growth. This process results in a collection of investment cards, which highlight the most transformative projects according to several key criteria:

**Population Impact: How many people will benefit, both now and in the future?**

**Funding Status: Is there existing financial commitment to the project?**

**Community Involvement: Does the project actively involve the community in its implementation?**

**Environmental Impact: Will the project help to mitigate or, conversely, worsen natural hazards?**

**Service Gap Fulfilment: How effectively does the project address current public service deficiencies?**

The investment cards act as a bridge between the Strategic Spatial Plan and practical implementation. Alongside a list of priority projects for the city (see Annexure 1 for the complete list), the cards also include estimated costs, offering a clearer view of feasible investments for Naryn Town, and supporting informed decision-making on resource allocation.

Additionally, Annexure 2 contains a map that situates these priority projects within the Naryn Masterplan. The investment cards highlight the relation of the identified projects to the masterplan, and indicate where regulatory changes would be required for implementation.

**Defining the Investment Card Areas**

The cards define specific investment areas within the city, based on criteria such as proximity to the recommended secondary nodes. These secondary nodes, as outlined in the Strategic Plan, are central to promoting sustainable, equitable growth. Projects within these nodes receive slightly higher priority scores, as they support focal points of economic activity and enhance multifunctional spaces that can catalyse further development.

To organise the projects, seven distinct areas with transformative potential have been selected, each centred around one node. These areas generally align with the project densities shown in Figures 2, 3, and 4.

Additionally, the investment plan includes two city-wide project cards for initiatives outside of the identified nodes. These larger projects, such as establishing a green network or enhancing city connectivity, are critical to shaping an urban environment that supports and complements the neighbourhood-focused projects.

Incorporated into the Strategic Spatial Plan, the investment cards also visually represent the city's key economic drivers, emphasising the unique

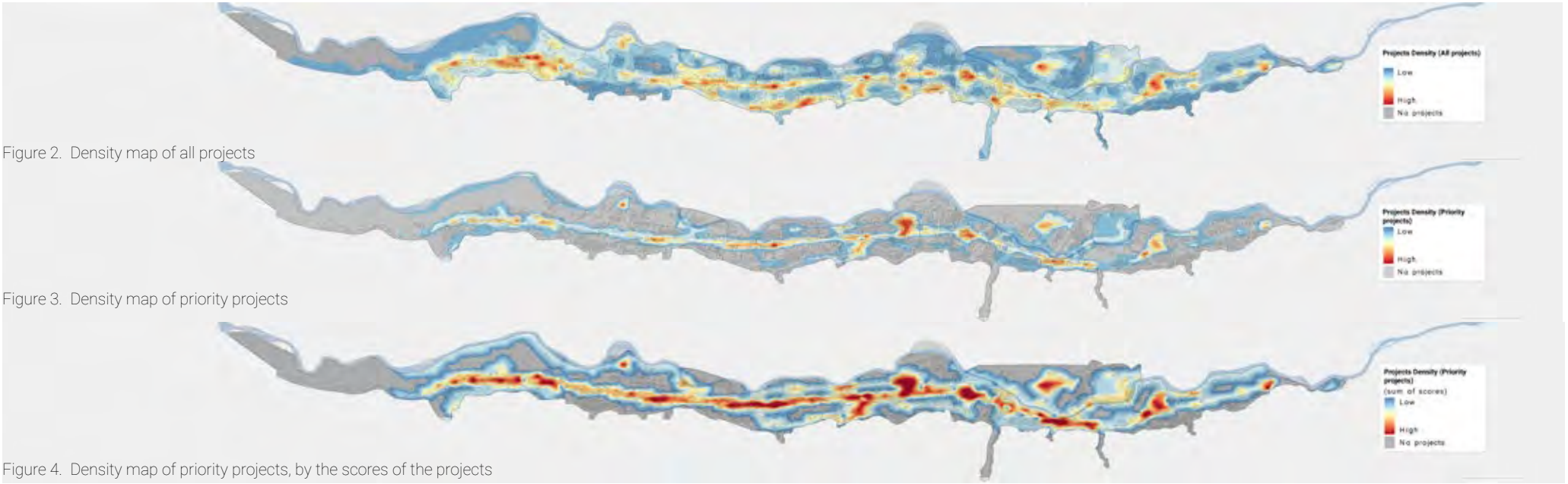



Figure 2. Density map of all projects




Figure 3. Density map of priority projects




Figure 4. Density map of priority projects, by the scores of the projects

characteristics of each area and guiding Naryn Town's development in a coordinated, impactful manner. The city's economic drivers are visually represented in the Strategic Spatial Plan, and add to the character differentiation of areas that are represented in these investment cards.

**How to read the cards**

Each card contains a list of projects within an identified area (neighbourhood or city-wide). These projects are categorised in three ways to further help decision-making for the prioritisation and implementation of the projects.

**Catalyst projects with revenue** are projects which scored amongst the highest in the multi-criteria assessment, and which could have added benefits for Naryn due to their potential as revenue generating projects.

**Catalyst projects** are projects which scored amongst the highest in the multi-criteria assessment, and which could have added benefits for Naryn due to their ability to create positive externalities within close proximity.

**Priority projects** are projects which scored amongst the highest in the multi-criteria assessment.

**Priority projects with dependence** are projects which scored amongst the highest in the multi-criteria assessment, and which depend on the implementation of another project as a pre-condition to their implementation and impact.

**Additional projects** fall within the identified area, but have scored lower in the multi-criteria assessment (outside of the top 1st quartile)

# Transformation 1 - City-Wide Connectivity


**PROJECT AREA LOCATION**

City-wide

**PROJECT AREA PARTNERS**

Naryn Municipality
Donors/Financiers/Private Sector
Utility Service Providers
International Development Agencies
Potential External Partners

**PROJECT AREA TIMELINE**

Short-term: 2025-2027
Medium-term: 2028-2032

* suggested timeline per project outlined below

**ESTIMATED BUDGET**

USD $1, 120 000
* breakdown of costs per project outlined below

**TARGET BENEFICIARY GROUP**

Direct Beneficiaries: Residents of Naryn Municipality
Indirect Beneficiaries: Visitors and tourists of Naryn from neighbouring and broader regions

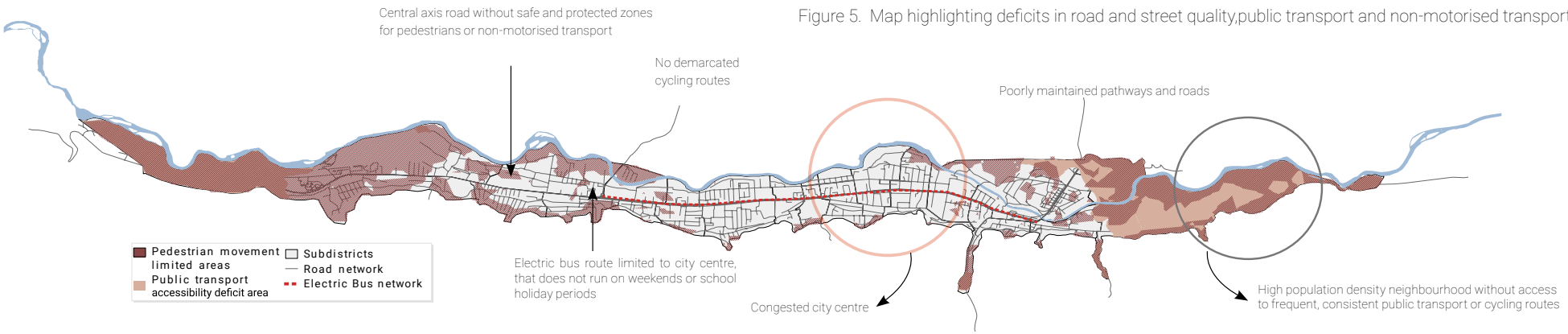



Figure 5. Map highlighting deficits in road and street quality,public transport and non-motorised transportation

## Problem Statement

The characteristic layout of Naryn creates a linear environment that requires a functional and efficient system of movement and connectivity for residents from all neighbourhoods to be able to equitably access amenities, opportunities and services. Currently, residents depend on a public trolley-bus line and less formal minibuses and affordable taxis. Roads and pedestrian pathways are of a poor quality and not maintained. Roads with protected pedestrian walking areas and crossings are limited to some parts of the central Lenin Road in the town centre, but with poor road demarcation and signage, the urban environment is unsafe and chaotic with traffic flows and informal parking on the roads. Roads also don't accommodate for people with special mobility needs. This lack of quality and coverage of mobility infrastructure results in a disproportionate burden on populations who are located further from the centre, or groups with special needs such as women, mothers, children, or persons with disabilities.

## Transformative Impact

Building upon Naryn's existing transportation and mobility, targeted investment in non-motorised transport networks, main road upgrades and improvements in existing bus stops with climate-resilient principles would improve the equitable access of the city. The intervention could be a catalyst to address the current deficits and make strides in improving the town's social inclusion.

City-Wide Connectivity is critical to Naryn's polycentric development strategy through well-connected urban network. This transformation will ensure that secondary nodes are fully integrated with the town center and peripheral areas through efficient, climate-sensitive transport solutions.

By developing a comprehensive non-motorized transport network, including cycling paths and pedestrian corridors, this transformation will significantly reduce air pollution, improve accessibility, and encourage sustainable mobility. The connectivity improvements will link residential areas, employment hubs, and public amenities, supporting Naryn's long-term goal of becoming a resilient city.

## Project Objectives

- Improve existing public transport infrastructure so that service provision, resilience and equitable access can be increased.
- Improve the functionality, efficiency and safety of the main road of the town so that its service as a central axis of movement is enhanced.
- Develop a non-motorised transport network that covers the extents of the city and improves connections with the peripheries of Naryn, taking into account climate-sensitive and inclusive design principles.

Lenin Street (captured from Google Streetview)

## Key Partners

**Naryn Municipality** is a primary partner, owner and implementor who should lead the coordination with potential donors, local sector and external partners.

**Local communities** are important stakeholders and should be given an opportunity to contribute to the planning and design.

**Utilities service providers** are important stakeholders to ensure that the expansion of infrastructure aligns with service provision.

**Donors/Financiers/Private Sector** could provide external funding to support with project implementation


Current state of connectivity and mobility infrastructure in Naryn Photo (C) UN-Habitat

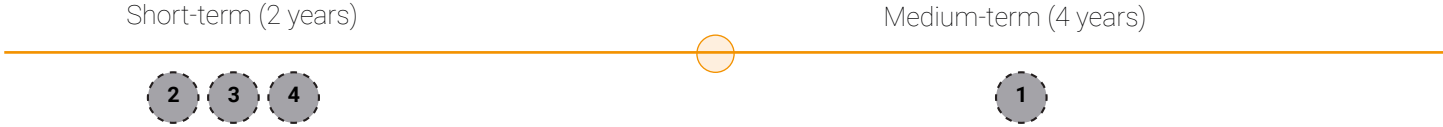
Figure 6. Map highlighting the projects for Transformation 1 - City-wide Connectivity


## Funding Sources

Cycling paths could be funded through public donations, donor organisations, or the local budget. The renovation of bus stops seems best suited for the local budget.

Per conversations with local officials in Naryn, the national government has earmarked funding for the reconstruction of Lenin Street.

## Implementation timeline



| | PROJECT NAME | SCORE % | ESTIMATED COST | BENEFICIARIES % POPULATION | TIMEFRAME | DESCRIPTION |
|---|---|---|---|---|---|---|
| 1 | Construction of cycling path (Lenin Street) | 80.55 | $ 259 507 | 100% | Medium-term | Construction of a city-wide linera cycling route along the main road (Lenin Street) covering 16.46km. |
| 2 | Construction of cycling path (centre loop) | 80.55 | $ 133 430 | 100% | Short-term | Construction of a cycling path in the city centre covering 8.46km. This cycling path is a loop-route intersecting Orozdak and Sovetskaya Street and some parts of the BNC |
| 3 | Renovation of existing bus stops | 65.98 | $ 80 710 | 100% | Short-term | Renovation of the existing public transportation stops with a climate-resistant and user-friendly design. |
| 4 | Reconstruction of Lenin Street | 69.79 | $ 646 224 | 100% | Short-term | This project is one of the projects announced by the Governor of Naryn Oblast during a public meeting of the Collegium. As briefly described, Lenin Street will be widened and reconstructed and adjacent building facades will be upgraded. |

Long-term (4+ years)

# Transformation 2 - City-Wide Nature-Based Solutions


**PROJECT AREA LOCATION**

City-wide

**PROJECT AREA PARTNERS**

Naryn Municipality
Donors/Financiers/Private Sector
Environmental Organisations
International Development Agencies
Potential External Partners

**PROJECT AREA TIMELINE**

Short-term: 2025-2027
Medium-term: 2028-2032

* suggested timeline per project outlined below

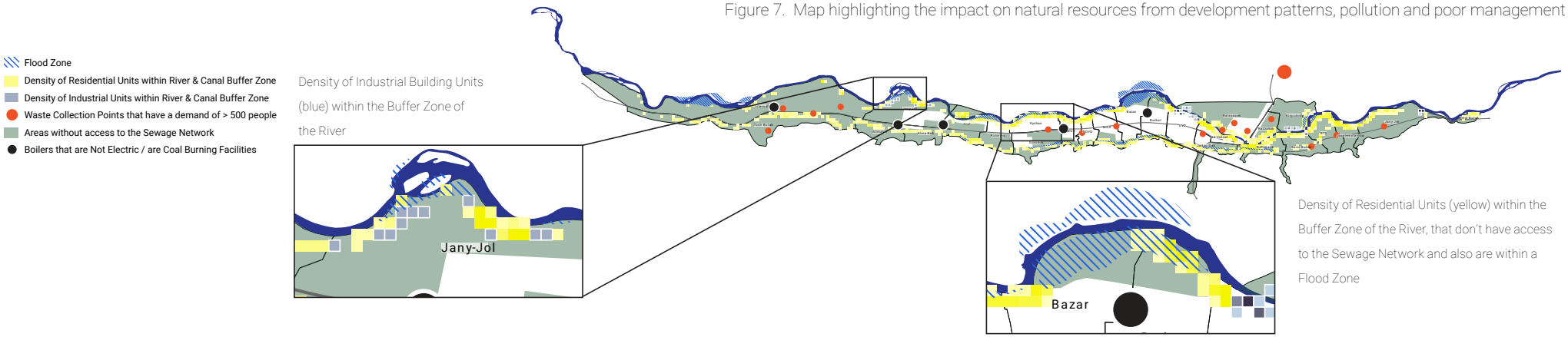
**ESTIMATED BUDGET**

USD $ 20,902,517
* breakdown of costs per project outlined below

**TARGET BENEFICIARY GROUP**

Direct Beneficiaries: Residents of Naryn Municipality
Indirect Beneficiaries: Visitors and tourists of Naryn from neighbouring and broader regions

Figure 7. Map highlighting the impact on natural resources from development patterns, pollution and poor management




## Problem Statement

Arguably, Naryn's most defining feature and natural asset is its river and water bodies. However, the impact of pollution, deficient basic services and development patterns in the town have degraded the quality of these valuable natural resources. Contamination of soil and water from household run-off where sewage networks and waste collection is lacking creates a health hazard, and exacerbates the risks of hazards when they create a blockage in the water systems. Infrastructure such as residential and industrial buildings are built within the protected river and canal buffer zone in some cases which causes further damage and harmful impact to the natural resources along which they are built. With the growth of the city, this is an issue that needs to be tackled by establishing improved, sustainable practices for the conservation and management of the river, water and natural resources.

## Transformative Impact

Adopting nature-based solutions that employ nature's ability to regulate, restore and regenerate resources could have multiple benefits. Protecting, preserving and sustainably managing the natural assets will enhance health and wellbeing outcomes for the people residing in Naryn. It would also expand and integrate green, blue and grey networks which will enhance its attraction as a feature in the town for visitors and tourists, spurring local economic development. Nature-based solutions alongside the riverbank and water bodies will effectively reduce pollution, by creating a natural filtration. This will further limit the ability for building along these protected zones, improving the preservation of the resources. Using nature-based solutions along the canals will secure the water protection zones and improve hazard mitigation by reducing mudflow and erosion risks. Nature-based solutions also encourage biodiversity which has far reaching benefits of health, wellbeing, quality of life, and preservation of environment.

Combining the implementations in this area with the actions given in the Urban Design Profile[1] will also enhance the transformative impact. Design actions such as transforming a linear green space into green connectors will increase the funcitonality and connectivity of the area.

1 See the Urban Design Profile and Demonstration Projects Report for further details.

## Project Objectives

- Build upon and complement existing planting along river- and water banks as a nature-based solution to the intersecting issues of pollution, hazards and unmanaged development..
- Create a blue-green-grey network to enhance Naryn's natural assets and resources, thereby improving the environment, health and wellbeing and quality of life in the town.

## Key Partners

**Naryn Municipality** is a primary partner, owner and implementor who should lead the coordination with potential donors, local sector and external partners.

**Local communities** are important stakeholders and should be given an opportunity to contribute to the planning and design.

**Environmental organisations** could provide important support with research and expert advice

**Donors/Financiers/Private Sector** could provide external funding to support with project implementation


Since the BNC is not under the jurisidiction of the Naryn Municipality, planning for a joint project development and implementation will be crucial to the success of the project. A risk assessment will be useful as part of the initial project planning to outline risks, mitigation. Similarly roles and responsibilities should be agreed upon at inception. Due to the complexity of projects, specialist studies and expert input is needed. Sufficient investment must be made into detailed planning stage.

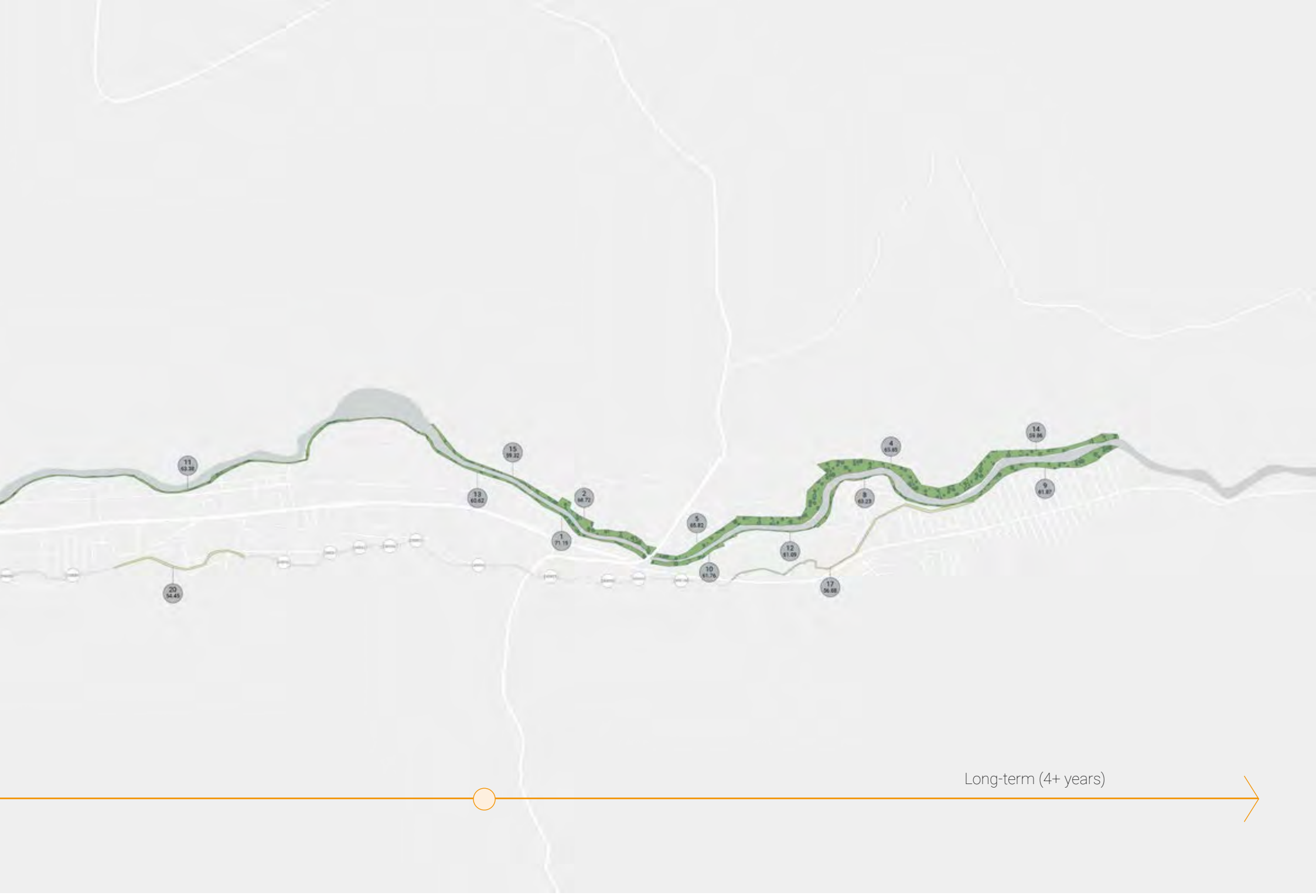
Naryn, Kyrgyzstan Photo © UN-Habitat

Figure 8. Map highlighting the projects for Transformation 2 - City-Wide Nature-Based Solutions


## Funding Sources

These projects are well positioned for funding by a green finance organization, such as the Adaptation Fund or Green Climate Fund, or by an MDB. These funding opportunities require liaising through the national government. Therefore, it would be good for Naryn to promote good project contenders to their contacts in the national administration.

## Implementation timeline


Long-term (4+ years)

| | PROJECT NAME | SCORE % | ESTIMATED COST | BENEFICIARIES % POPULATION | TIMEFRAME | DESCRIPTION |
|---|---|---|---|---|---|---|
| 1 | Plantation for green riverfront axes | 74.19 | $ 484 052 | 6.0% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. |
| 2 | Plantation for green riverfront axes | 71.72 | $ 883 814 | 6.2% | Short-term | Plantation of green riverfront axes that would serve to limit built-up development in the Water Protection Zone in a densely populated and built-up area. |
| 3 | Plantation for green riverfront axes | 69.18 | $ 484 332 | 2.2% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. |
| 4 | Plantation for green riverfront axes | 68.85 | $ 3 393 020 | 24% | Medium-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. |
| 5 | Plantation for green riverfront axes | 68.82 | $ 662 253 | 7.6% | Short-term | Plantation of green riverfront axes that would serve to limit the development of existing built-up area in the Water Protection Zone. |
| 6 | Plantation for green riverfront axes | 70.92 | $ 766,980 | 28.1% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. |
| 7 | Plantation for green riverfront axes | 66.62 | $ 2 820 000 | 4.3% | Medium-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation. |
| 8 | Plantation for green riverfront axes | 66.23 | $ 470 541 | 8.4% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. |
| 9 | Plantation for green riverfront axes | 64.87 | $ 1 305 900 | 5.3% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zones of the Naryn River and BNC. |
| 10 | Plantation for green riverfront axes | 64.76 | $ 389 986 | 3.8% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. |
| 11 | Plantation for green riverfront axes | 66.37 | $ 715,932 | 25.7% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. |
| 12 | Plantation for green riverfront axes | 64.09 | $ 117 787 | 1.9% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. |
| 13 | Plantation for green riverfront axes | 65.14 | $ 387,756 | 15.9% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. |
| 14 | Plantation for green riverfront axes | 62.86 | $ 1,542,223 | 4.9% | Medium-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. |
| 15 | Plantation for green riverfront axes | 62.32 | $ 465,284 | 3.9% | Medium-term | Plantation of green riverfront axes that would serve to limit the development of existing built-up area in the Water Protection Zone. |
| 16 | Reconstruction of BNC | 58.35 | $ 475,473 | 2.6% | Medium-term | Reconstruction of a part of BNC with gabions, in-stream deflectors, planting as a NbS implementation. |
| 17 | Reconstruction of BNC | 56.88 | $ 2,784,916 | 9.6% | Medium-term | Reconstruction of a part of BNC with gabions, in-stream deflectors, planting as a NbS implementation. |
| 18 | Reconstruction of BNC | 56.00 | $ 883,022 | 1.9% | Medium-term | Reconstruction of a part of BNC with gabions, in-stream deflectors, planting as a NbS implementation. |
| 19 | Reconstruction of BNC | 55.17 | $ 340,787 | 2.9% | Short-term | Plantation along the canal to reduce mudflow and erosion risks and securing the water protection zone. |
| 20 | Reconstruction of BNC | 54.45 | $ 1,412,835 | 3.8% | Medium-term | Reconstruction of a part of BNC with gabions, in-stream deflectors, planting as a NbS implementation. |
| 21 | Reconstruction of BNC | 54.34 | $ 115,767 | 2.2 | Short-term | Plantation along the canal to reduce mudflow and erosion risks and securing the water protection zone. |

## ADDITIONAL PROJECTS

**DRR14** Plantation and terracing

**DRR19** Plantation alongside BNC

**DRR20** Plantation alongside BNC

**DRR21** Plantation alongside BNC

**DRR22** Plantation alongside BNC

**DRR24** Plantation alongside BNC

**DRR26** Plantation alongside BNC

**DRR27** Plantation alongside BNC

**DRR63** Plantation, terracing and gabion implementation

**DRR84** Reconstruction of BNC

**DRR85** Reconstruction of BNC

**DRR86** Reconstruction of BNC

**DRR87** Reconstruction of BNC

**DRR88** Reconstruction of BNC

**DRR89** Reconstruction of BNC

**DRR90** Reconstruction of BNC

**DRR91** Reconstruction of BNC

**DRR92** Reconstruction of BNC

**DRR93** Reconstruction of BNC

**DRR94** Reconstruction of BNC

**DRR95** Reconstruction of BNC

**DRR96** Plantation and terracing

**DRR98** Reconstruction of BNC

**DRR99** Reconstruction of BNC

**DRR100** Reconstruction of BNC

# Transformation 3 - Town Centre


**PROJECT AREA LOCATION**

Borbor District

**PROJECT AREA PARTNERS**

Naryn Municipality
Donors/Financiers/Private Sector
Business Sector
Utility Service Providers
International Development Agencies
Potential External Partners

**PROJECT AREA TIMELINE**

Short-term: 2025-2027
Medium-term: 2028-2032
Long-term: beyond 2032

* suggested timeline per project outlined below

**ESTIMATED BUDGET**

USD $ 1,286,325
* breakdown of costs per project outlined below

**TARGET BENEFICIARY GROUP**

Direct Beneficiaries: Residents and users of Borbor District
Indirect Beneficiaries: Residents of Naryn Municipality
Visitors of Naryn Municipality from neighbouring and broader regions

## Problem Statement

The Naryn town centre currently serves as a central hub of activity, with the market being a key feature in the area. It attracts many users and enables a level of vibrancy in the town. Within the vicinity is also located some of Naryn's main facilities and amenities, such as the nearby university, administrative buildings, recreational and educational facilities, commercial spaces and some public spaces. It is also an area with a high provision of basic services. However, due to lack of planning and the overlay of conflicting activities, the area experiences overcrowding around the market area and congestion in the surrounds. This is exacerbated by the over-reliance of the major road for access and connectivity. Without adequate pedestrian areas for walking and crossing, the area does not safely accommodate the range of users who access it. Furthermore, the car-dominant main road is not efficiently designed which reduces its potential as a central connector. Being the economic hub of the town, many residents regularly need to access this area. However the limitations in public transport and poor quality of road networks makes it difficult for residents located in the far east and west ends of the town to easily connect to the area. The presence of large recreational and public facilities in the area is an opportunity to improve the resilience of the town, that is not currently being fully harnessed. With strategic interventions in this area, it can be transformed to an even more productive and vibrant centre, while also enhancing the equitable access to public services and spaces, which could be a benefit not only to local residents, but for visitors to the town too.

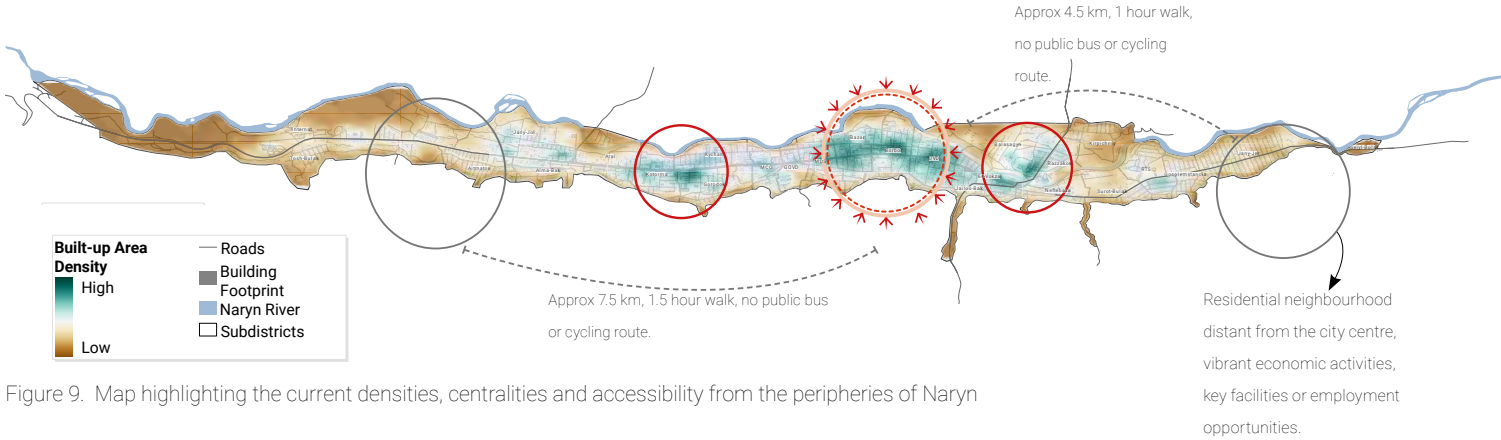



Figure 9. Map highlighting the current densities, centralities and accessibility from the peripheries of Naryn

## Transformative Impact

The upgrade of this area will enhance the vibrancy and attractiveness of the centre, while improving public access and movement to and within the area. This will improve the productivity and stimulation of economic activities, increase the use of public spaces, and boost social cohesion and quality fo life through social exchange. With these improvements and climate mitigation initiatives, the area has potential to leverage its attractiveness further, and draw in local residents and visitors, which may have positive economic, social, leisurely and environmental impacts.

Figure 10. Concept of spatial organisation of the central project area

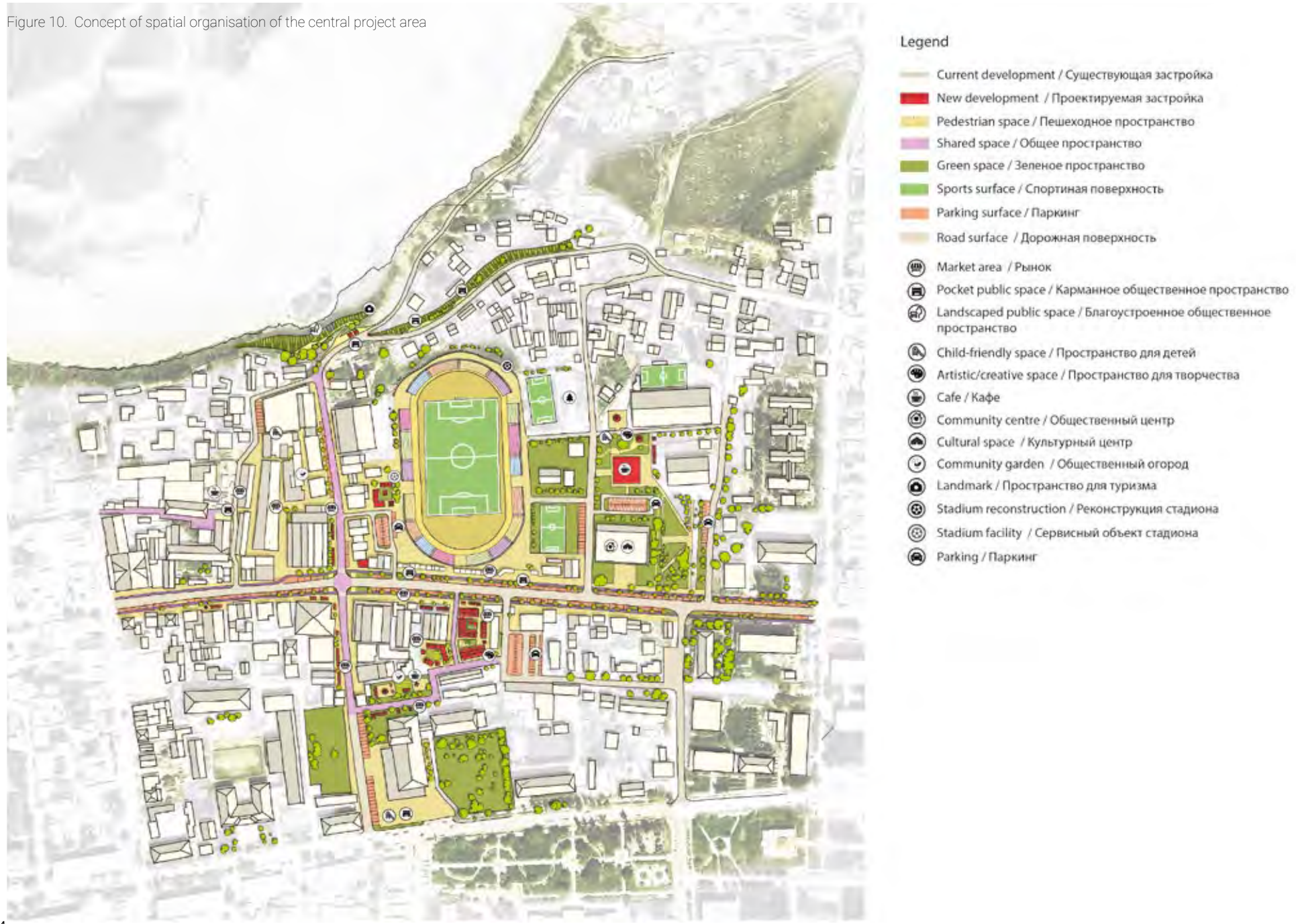


Figure 11. View on the main market area

## Project Objectives

- Enhance the coherency and vibrancy of the area to establish a functional and resilient "heart of the town".
- Enhance the town's preparedness for and response to disasters by incorporating climate mitigation strategies into existing facilities.
- Optimise the use of land and existing facilities as a means of increasing the town's resilience.
- Improve connectivity and equitable access to the town centre, and accommodate for safe pedestrian and non-motorised movement by improving road and sidewalk designs.

## Key Partners

**Naryn Municipality** is a primary partner, owner and implementor who should lead the coordination with potential donors, local sector and external partners.

**Local business sector** could contribute to the planning and design, and potentially to support project implementation through a PPP arrrangement

**Donors/Financiers/Private Sector** could provide external funding to support with project implementation


Coordination between sectors and partners will be key to the success of the transformation of the area. Detailed assessments and feasibility studies should be undertaken in the early stages of project planning and inform the detailed designs and implementation models.

Figure 12. Illustration of street design

## Funding Sources

Private individuals, investors, or businesses can contribute funds to the regeneration and reconstruction of the market and parking projects. The government could incentivise this through outreach to market owners and shopkeepers. Monetary incentives, such as relief on property tax or fees, in exchange for investment in the rehabilitation of market space could also be negotiated.

The renovation of 'Ala-Too' stadium could be completed by a private investor or through a public-private partnership where the government retains ownership of the land but issues an RFP for the renovation and operation of the stadium.

The remaining projects, including construction of streets, new public green space, cycling paths, and safe havens will most likely be publicly funded projects. These publicly funded projects could be financed through land value capture (LVC). One potential LVC modality involves the payment of a small fee by all private developers of new businesses or housing in the district. This fee would go towards investment in infrastructure and other improvements in the district.

Funding for the reconstruction of Lenin Street has been earmarked by the national government. They may also be interested in funding additional cycling paths.

Given the low cost of the safe haven projects, Naryn city government could pay for these projects utilizing their own funds remaining at the end of the year.

## Implementation timeline

Figure 13. Map highlighting the projects for Transformation 3 - Town Centre

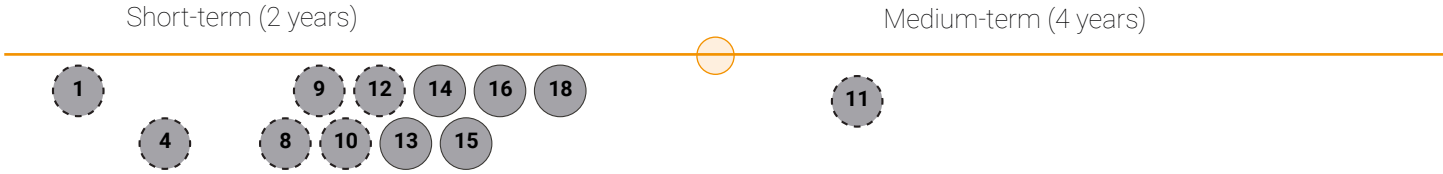
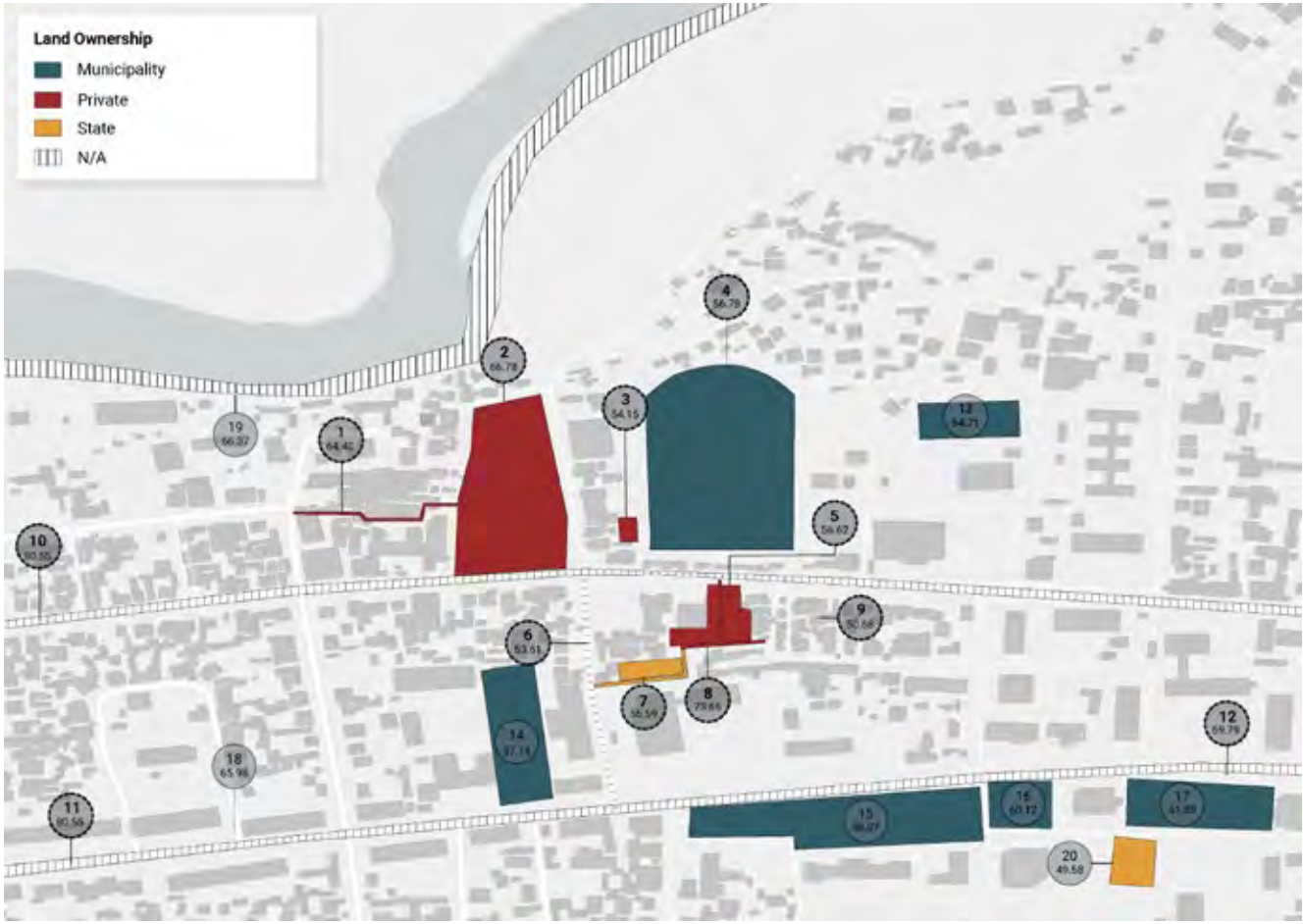



Figure 14. Map highlighting land ownership for Transformation 3 - Town Centre




Long-term (4+ years)

2 3 5 6 7 17 20

## Revenue generation

If the government does utilise a public-private partnership to execute the renovation of the Ala-Too stadium, a new revenue stream could be annual lease payments for the use of the land and operation of the space. The government needs to ensure an accurate calculation of the monetary benefit to the private partner prior to agreeing to a lease payment. Additionally, the lease payment should include an annual escalator. Other revenue increases would result from increased income tax transfers from the national government due to increased profit from implementation of the new parking and regeneration of the market.

Naryn has also been successful at attracting donations from private parties for beautification of the city.

## Implementation

Regarding the approved Naryn Masterplan the highlighted project areas require land-use changes for the implementation.


Figure 15. Section of Master Plan for the area

| | PROJECT NAME | SCORE % | ESTIMATED COST | BENEFICIARIES % POPULATION | TIMEFRAME | DESCRIPTION |
|---|---|---|---|---|---|---|
| 1 | Construction of pedestrian-oriented street | 64.40 | $ 8,758 | 100% | Short-term | Construction of a pedestrian-oriented street defining a link between the service road of the central market and Andabekova Street. This connection will expand the central market area, improve connectivity and link the central market with the adjacent trading zone, which is currently inaccessible due to fencing. By creating this link, the proposal aims to enhance the flow of people and goods, fostering a more integrated and efficient market environment. This project is also a component of Proof of Concept 1.* |
| 2 | Regeneration of market | 66.78 | $ 11,210 | 100% | Long-term | The transformation of the central market into a thriving hub of activity and interaction will not only boost the local economy, but also enhance the quality of life for all residents through urban design interventions to improve green public space and street networks. This project is also a component of the Proof of Concept #1.* ** |
| 3 | Construction of parking space | 54.15 | $ 1,836 | 100% | Long-term | This parking area is hidden from the major street Sagynbai Orozbak Street and provides direct access to the stadium. It can be used by both visitors to the stadium during events, and by market users when there are no activities at the stadium. This parking can accommodate approximately 20 cars. This project is also a component of the Proof of Concept #1.* ** |
| 4 | Reconstruction of central Ala-Too stadium | 56.78 | $ 468,928 | 9.5% | Short-term | This project is one of the projects of the 2022-2026 Naryn Town Development Plan. It aims to create new opportunities for residents to engage in sports. |
| 5 | Reorganisation of market | 56.62 | $ - | 100% | Long-term | The reorganisation of the market includes areas for rest and socialisation, attracting visitors from the sports facilities after their session, students from nearby universities and schools, and tourists to spend more time exploring the market. This project is also a component of the Proof of Concept #1.* ** |
| 6 | Renovation of street | 53.61 | $ 13,582 | 3.6% | Long-term | The renovation of a part of Shuller Street that already functions as a shared space with areas for trading. The project aims improvements of its safety and adaptation for pedestrian movement, service parking, and vending. Pilot interventions include the use of special tiles and surfaces for the street. This project is also a component of the Proof of Concept #1.* ** |
| 7 | Construction of new public green space | 55.59 | $ 10,218 | 13.3% | Long-term | Construction of a new public green space that will also function as a community garden. This project also contributes to the green network of Naryn as it connects the main axis of green network (Lenin Street) to a vibrant market area. This project is also a component of the Proof of Concept #1.* ** |
| 8 | Construction of pedestrian-oriented street | 73.66 | $ 13,664 | 100% | Short-term | Construction of a pedestrian-oriented street in the city centre connecting Schuller Street and Saginbay Orozbak St.. This route will redirect pedestrian flows, attracting citizens to pass through the theatre area to the market place. This project is also a component of the Proof of Concept #1.* |
| 9 | Construction of parking space | 50.68 | $ 7,959 | 100% | Short-term | This parking area is located between Sagynbal Orozbak Street and Kommunalnaya Street, replacing the area currently occupied by containers. This location has significant land capacity and can accommodate approximately 51 cars. Covering an approximate area of 1000m$^2$, it is recommended to consider practices that prevent the creation of vast parking surfaces to avoid the heat island effect and reduce the flow of water runoff. It is suggested to explore that use of permeable strategies to parking such as introducing potential gravel parking, the use of porous asphalt, grass pavers etc. This project is also a component of the Proof of Concept #1.* |
| 10 | Construction of cycling path (centre loop) | 80.55 | $ 16,087 | 100% | Short-term | Construction of a cycling path in the city centre consisting of 8.46 km. This cycling path is a loop-route intersecting Orozdak and Sovetskaya Streets and some parts of BNC. The part of this project given in this transformative area is 1.02 km. |
| 11 | Construction of cycling path (Lenin Street) | 80.55 | $32,950 | 100% | Medium-term | Construction of a city wide linear cycling axis along the main road (Lenin St.) consisting of 16.46 km. The part of this project given in this transformative area is 2.09 km. |
| 12 | Reconstruction of Lenin Street | 69.79 | $131,895 | 100% | Short-term | This project is one of the projects announced by Governor of Naryn Oblast during a public meeting of the Collegium. As briefly described, Lenin Street will be widened and reconstructed and adjacent building facades will be upgraded. Total length of the reconstruction is 10.24 km. The part of this project given in this transformative area is 2.09 km. |
| 13 | Equipping existing building as indoor safe haven | 54.71 | $ - | 11.1% | Short-term | Adaptation of the existing sports facility as an indoor safe haven for enhancing disaster response. |
| 14 | Adaptation of existing school as safe haven | 57.14 | $ - | 13.8% | Short-term | Adaptation of the existing school as an indoor safe haven for enhancing disaster response. |
| 15 | Adaptation of existing public space as safe haven | 58.07 | $ 1,988 | 14.7% | Short-term | Adaptation of the existing public open spaces an indoor safe haven for enhancing disaster response. This project includes instalment of a pre-fabricated toilet. |
| 16 | Adaptation of existing public space as safe haven | 60.12 | $1,988 | 14.5% | Short-term | Adaptation of the existing public open spaces an indoor safe haven for enhancing disaster response. This project includes instalment of a pre-fabricated toilet. |
| 17 | Adaptation of existing public space as safe haven | 61.88 | $ 1,988 | 14.8% | Long-term | Adaptation of the existing public open spaces an indoor safe haven for enhancing disaster response. This project includes instalment of a pre-fabricated toilet.** |
| 18 | Renovation existing bus stops | 65.98 | $ 2,241 | 100% | Short-term | Renovation of the existing public stransportation stops with a climate resistant and user friendly design. The project consists of renovation of 36 bus stops. The part of this project given in this transformative area is renovation of 1 bus stop. |
| 19 | Plantation for green riverfront axes | 63.38 | $ 264,438 | 25.7% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. Total project area is 39,774 sqm and the part given in this transformative area is 14,691 sqm. |
| 20 | Construction of non-formal education facility | 49.58 | $ 290,286 | 13.3% | Long-term | Construction of a facility for non-formal education of public workers and NGOs.** |

## ADDITIONAL PROJECTS

| | | |
|---|---|---|
| **CC1** | Construction of a mosque | As part of Proof of Concept #1, this project provides a new mosque, enhancing community gathering spaces and supporting the cultural and spiritual needs of residents. This addition fosters inclusivity and strengthens the social fabric of Naryn while contributing to the area's transformation. |
| **CDG14** | Construction of new Kindergarten with playground | |
| **CDG37** | Reconstruction and capacity increase of Clinic #5 (FGP) | |
| **CDG48** | Extension of sewage network and installation of additional pumping station | |
| **CDG67** | Renovation and capacity increase of Kindergarten #1 | |
| **G7** | Renovation of former NSU building (for HQ of Civil Defense) | |
| **M3V47** | Installation of emergency hub | |
| **M3V49** | Installation of emergency hub | |
| **POS1** | Construction of new public green space | Within Proof of Concept #1, this project introduces much-needed green space in a densely built-up area of Naryn, providing residents with improved outdoor leisure options and contributing to the area's overall revitalization. |
| **R1** | Renovation of street | Integrated into Proof of Concept #1, this project enhances street functionality and accessibility in a lively district, aligning with efforts to rejuvenate the area and support local activity and connectivity. |
| **SP1** | Renovation of the sports center | Included in Proof of Concept #1, this renovation aims to expand the sports center's usability, fostering increased community engagement and supporting Naryn's broader goals for an active, revitalized space. |
| **SPS21** | Refurbishment of Sports facility (dressing rooms, toilets etc.) | Under Proof of Concept #1, this refurbishment upgrades key amenities such as dressing rooms and restrooms, improving user experience and making the facility more welcoming and accessible for the community. |
| **SPT5** | Implementation of Pedestrian crossings (painted with lights, or raised) | |
| **TDP2** | Construction of Naryn town culture department building | |

# Transformation 4 - Jusaev Park


**PROJECT AREA LOCATION**

M. Sydykov district

**PROJECT AREA PARTNERS**

Naryn Municipality
Local community
Donors/Financiers/Private Sector
Utility Service Providers
International Development Agencies
Potential External Partners

**PROJECT AREA TIMELINE**

Short-term: 2025-2027

* suggested timeline per project outlined below

**ESTIMATED BUDGET**

USD $ 2,108,204
* breakdown of costs per project outlined below

**TARGET BENEFICIARY GROUP**

Direct Beneficiaries: Residents and users of M. Sydykov district
Indirect Beneficiaries: Residents of Naryn
Visitors and tourists of Naryn Municipality from neighbouring and broader regions

## Problem Statement

Naryn's natural landscapes and resources are one of its greatest assets. However, sparse distribution of accessible public green spaces, and the lack of integration between these spaces through a network reduces the benefits and impacts that the city can draw from these resources. The site for the park is located in a rapidly growing district, but as it stands now, it is not thoughtfully incorporated into the surrounding neighbourhood and the broader city, which could lead to it becoming neglected, underused and ineffective. The park site spans 4.5 hectares, and currently is not fully functioning as a green public space. It requires a design that will allow people to move through the extents of the park, with a variety of surfaces, facilities or amenities so that the full site can function well, and pockets of spaces are not neglected or left to create unsafe or unpleasant corners. The site has potential to create a vibrancy of activities and interaction through its programming, and also by linking to the surrounding facilities such as the nearby maternity hospital, residential buildings and other green spaces. This will improve the integration of the park into the urban fabric and neighbourhood. The location of the site is well positioned to also provide an outlook to unobstructed views of the mountains to the south. In its current state, the park is not leveraging this opportunity, and with considered, innovative and context-sensitive design and planning interventions, this could be improved so that benefits are not only transferred to residents, but the space also attracts tourists and visitors.

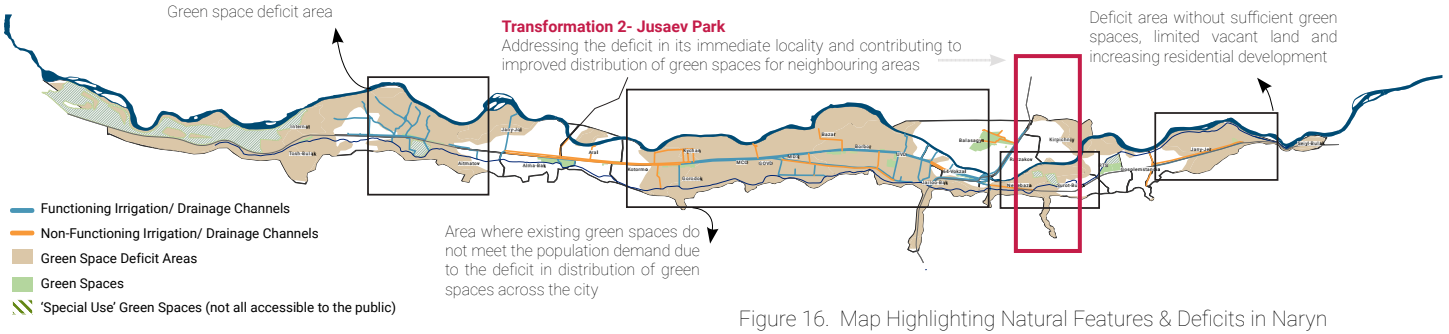



Figure 16. Map Highlighting Natural Features & Deficits in Naryn

## Transformative Impact

Investing in this park will firstly allow for a better distribution of accessible green public spaces. This is important not only for the overall resilience of the city, but also for enhancing aspects of health and wellbeing, social cohesion and quality of life for those residents located away from the centre of Naryn, in areas such as the M. Sydykov district which is rapidly developing. With supporting activities and park programming, as well as improved connectivity to and around the park, this area could establish a new model for resilient and inclusive green infrastructure that is context-aware and integrated into a network. This improves the overall resilience of Naryn, improves the connectivity of the town, enhances the attractiveness of the area and town which could draw in more visitors helping to contribute to economic development, and strengthens the town's nature-based approaches to its development challenges. A considered blue-green network also helps to mitigate some climate change impacts, such as improving the air quality.

To ensure long-term functionality and appeal, each project will integrate aesthetic and environmental standards from the outset. This includes designing with climate-resilient landscaping, energy-efficient public lighting, and environmentally sustainable materials. These improvements will not only enhance the visual and ecological quality of the area but will also promote social interaction and community engagement, reinforcing Naryn's identity as a resilient, sustainable town.


Figure 17. Main scheme of spatial organisation

Figure 18. Illustration of main scheme of spatial organisation

## Project Objectives

- Establish a model for resilient, multifunctional and inclusive green infrastructure in Naryn, showcasing smart design solutions that promote sustainability.
- Enhance the park's integration with the surrounding environment with design that acts as a catalyst for the activation of the site and the areas and facilities around it, thereby also enhancing the vibrancy of the area.
- Optimise the blue-green network of Naryn by creating a cohesive network of green spaces that integrates with the urban fabric and links to each other, streets and water streams.
- Develop a green, sustainable attraction point that forms part of a tourism route and links to the riverfront, thereby enhancing the attractiveness of the area and Naryn's landscape.

## Key Partners

Naryn Municipality is a primary partner, owner and implementer who should lead the coordination with potential donors, local sector and external partners.

Local communities are important stakeholders and should be given an opportunity to contribute to the planning and design.

Donors/Financiers/Private Sector could provide external funding for implementation of the project.


Community engagement will be important for the success of the transformation of the area. Detailed assessments and feasibility studies must be carried out in the early stages of project planning and should inform the detailed designs and implementation models.

Figure 19. Illustration of park design

## Funding Sources

Construction of cafes and restaurants can be done through a public-private partnership where upfront costs are funded through debt issued by an MDB or a local Kyrgyz Bank, along with other costs to develop the park, and debt service is funded through the rental of these spaces to private businesses.

Renovation of irrigation system may be well suited for financing through an MDB. This project could be structured similarly to the EBRD project with below-market blended finance debt. The government would need to pay back this debt service out of its budget. If the government can effectively capitalize on cost savings through minimizing water wastage, these savings could be factored into the ongoing operating costs of the project and reduce the upfront cost required.

Plantation for green riverfront areas could be a good set of projects to submit for funding from green financing funds, such as the Adaptation fund, or to an MDB. These funding opportunities require liaising through the national government. Therefore, it would be good for Naryn to promote good project contenders to their contacts in the national administration.

Naryn has also been successful at attracting donations from private parties for beautification of the city. These types of grants could be channelled into projects that provide flood mitigation, such as plantation for green riverfront axes.

The remaining safe haven projects could be financed through the city's budget.

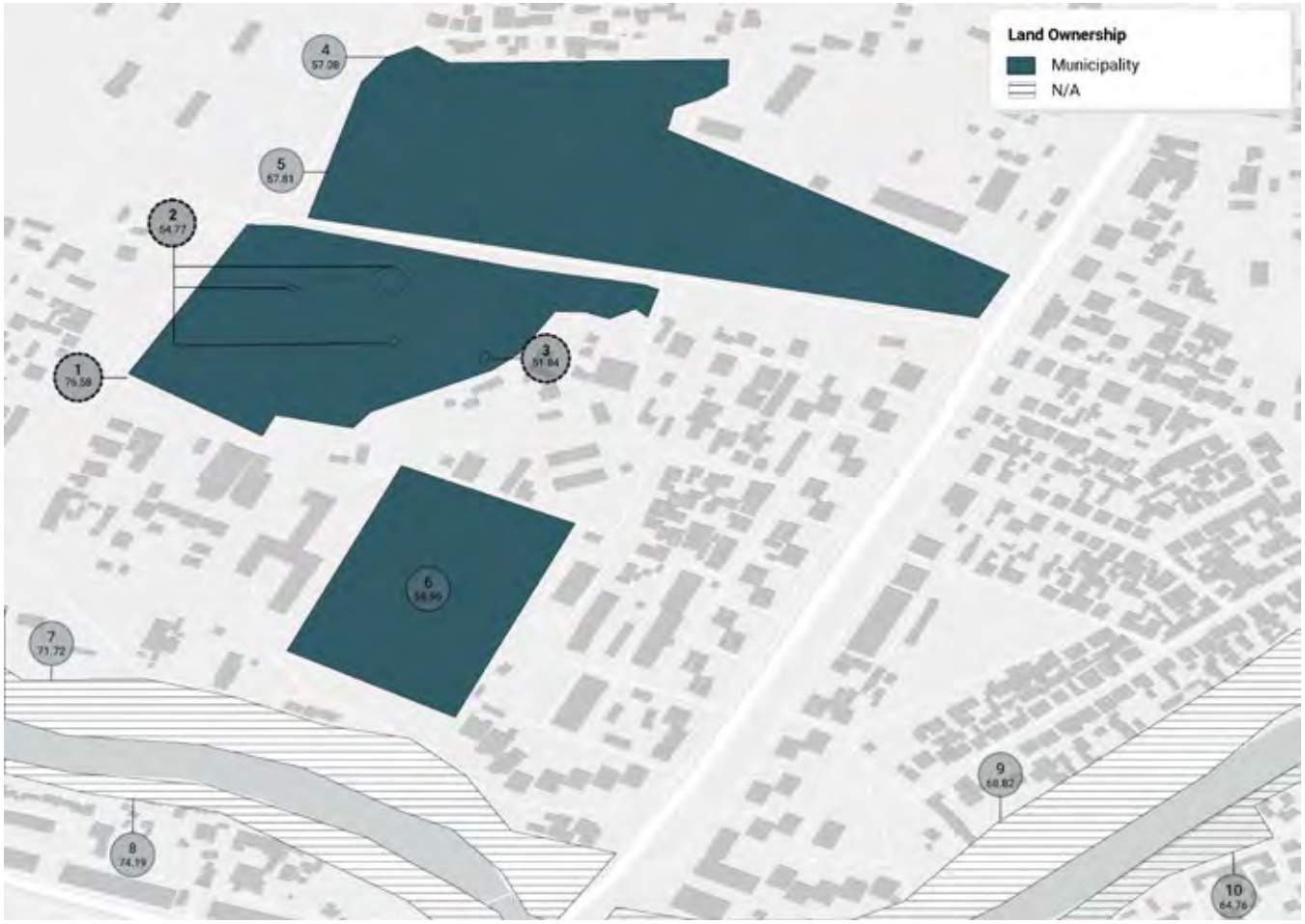
## Implementation timeline

Figure 20. Map highlighting the projects for Transformation 4 - Jusaev Park


Short-term (2 years) Medium-term (4 years)

1 2 3 4 5 6 7 8 9 10

Figure 21. Map highlighting land ownership for Transformation 4 - Jusaev Park




## Revenue generation

Construction of cafes & restaurants within the park area can generate revenue for the city to invest in Jusaiev Park maintenance, recooperate upfront costs spent on the construction of the park or invest in other city initiatives.

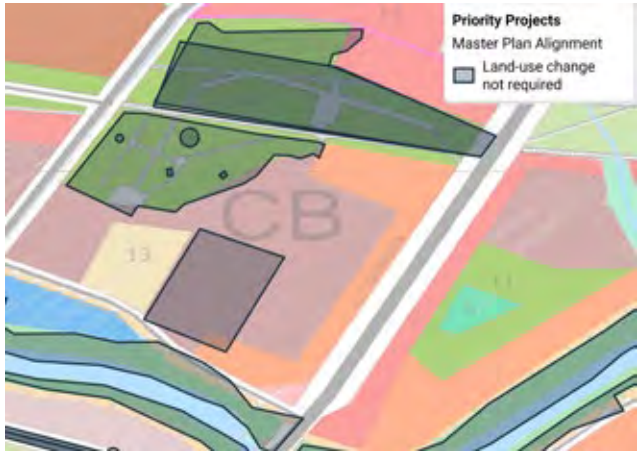



Figure 22. Section of Master Plan for the area

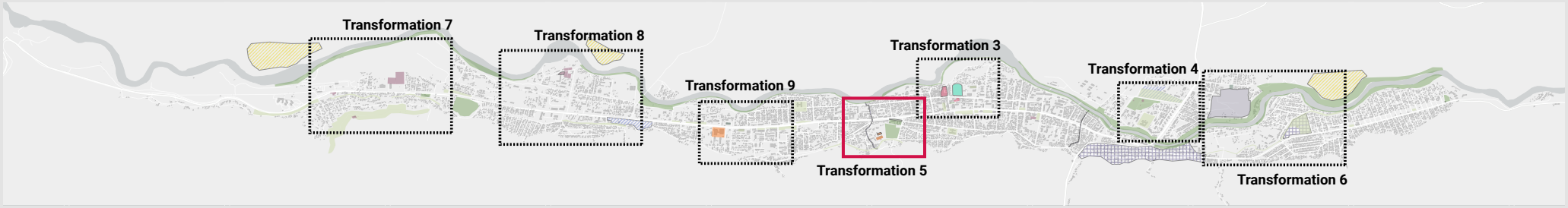
Long-term (4+ years)

| | PROJECT NAME | SCORE % | ESTIMATED COST | BENEFICIARIES % POPULATION | TIMEFRAME | DESCRIPTION |
|---|---|---|---|---|---|---|
| 1 | Landscaping of Jusaev Park | 76.58 | $ 537,225 | 17.9% | Short-term | Landscaping of the Jusaev Park which includes diagonal and vertical landscaping ensuring connectivity with the perimeter functions, water elements, aligned trees, lighting and seating benches. The landscaping of the park primarily utilises native trees and vegetation focusing on species that require minimal maintenance and irrigation. This project is also a component of Proof of Concept #2.* |
| 2 | Construction of cafes and restaurant | 54.77 | $ 277,000 | 17.9% | Short-term | Construction of cafés and restaurant to ensure vibrancy of the public open space are located at key points within the design to serve visitors. The park features a yurt restaurant, a nod to the local identity and gastronomy, which serves as a dining venue, and event space, making it a versatile space that generates additional revenue for the park. This project is also a component of Proof of Concept #2.* |
| 3 | Installation of Wc | 51.84 | $ 9,673 | 17.9% | Short-term | Included in Proof of Concept #2, the addition of public restrooms enhances convenience for visitors, supporting extended use of the green space and ensuring it is a comfortable, accessible location for community activities. |
| 4 | Renovation of irrigation system | 57.08 | $ 52,422 | 21.2% | Short-term | Renovation of the irrigation system to ensure efficiency in the water consumption. This project includes construction of additional ditches and renovation of pumps. |
| 5 | Adaptation of existing public spaces as safe haven | 57.81 | $ 1,988 | 21.4% | Short-term | Adaptation of the existing public open space as a safe haven for enhancing disaster response. This project includes the instalment of a prefabricated toilet. |
| 6 | Adaptation of existing school as safe haven | 58.96 | $ - | 18.3% | Short-term | Adaptation of the existing school as an indoor safe haven for enhancing disaster response. |
| 7 | Plantation for green riverfront axes | 71.72 | $ 474,030 | 6.2% | Short-term | Plantation of green riverfront axes that would serve to limit built-up development in the Water Protection Zone in a densely populated and built-up area. Total project area is 49,100 sqm and the part given in this transformative area is 26,335 sqm. |
| 8 | Plantation for green riverfront axes | 74.19 | $ 206,874 | 6.3% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. Total project area is 26,891 sqm and the part given in this transformative area is 11,493 sqm. |
| 9 | Plantation for green riverfront axes | 68.82 | $ 445,158 | 7.6% | Short-term | Plantation of green riverfront axes that would serve to limit the development of existing built-up area in the Water Protection Zone. Total project area is 36,791 sqm and the part given in this transformative area is 24,731 sqm. |
| 10 | Plantation for green riverfront axes | 64.76 | $ 103,842 | 3.8% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. Total project area is 21,665 sqm and the part given in this transformative area is 5,769 sqm. |

## ADDITIONAL PROJECTS

| | | |
|---|---|---|
| **POC2_11** | Construction of Amphitheatre | Part of Proof of Concept #2, this amphitheatre will transform the green space into a vibrant community hub, creating opportunities for performances, gatherings, and public events that foster social engagement and cultural enrichment. |
| **POC2_9** | Construction of Pavillion | This pavilion, under Proof of Concept #2, adds a versatile shelter for community members, providing shade and seating in the green space, which encourages year-round use and enhances the site's appeal for gatherings and relaxation. |
| **POC2_4** | Construction of Playground and Sports area | As a key element of Proof of Concept #2, this playground and sports area will offer recreational facilities for all ages, turning the green space into an active, family-friendly destination that promotes health and wellbeing. |
| **G8** | Construction of the glass suspension bridge | |
| **CDG40** | Fasibility study for optimization of solid waste collection system and installation of new bins | |
| **SPT34** | Implementation of Pedestrian crossings (painted with lights, or raised) | |
| **SPT5** | Implementation of Pedestrian crossings (painted with lights, or raised) | |
| **M3V44** | Installation of emergency hub | |
| **M3V45** | Installation of emergency hub | |
| **BGN16** | Installation of irrigation system (ditches, pumps) | |
| **BGN17** | Installation of irrigation system (ditches, pumps) | |
| **G5** | Installation of the ferris wheel | |
| **CDG66** | Renovation and capacity increase of Kindergarten #14 (Inclusive) | |
| **M3V9** | Renovation and reinforcement of pedestrian bridge | |

# Transformation 5 - Lenin/Sovetskaya Intersection




**PROJECT AREA LOCATION**

Borbor district

**PROJECT AREA PARTNERS**

Naryn Municipality
Local community
Donors/Financiers/Private Sector
Utility Service Providers
International Development Agencies
Potential External Partners

**PROJECT AREA TIMELINE**

Short-term: 2025-2027
Medium-term: 2028-2032
Long-term: beyond 2032

* suggested timeline per project outlined below

**ESTIMATED BUDGET**

USD $3,038,035
* breakdown of costs per project outlined below

**TARGET BENEFICIARY GROUP**

Direct Beneficiaries: Residents and users of Borbor district
Indirect Beneficiaries: Residents of Naryn Municipality
Visitors and tourists of Naryn Municipality from neighbouring and broader regions

## Problem Statement

This area is well located within close proximity to the town centre, and one of the secondary nodes proposed in the UN-Habitat Strategic Spatial Plan toward the western side of the town. It therefore holds potential to extend the vibrancy found in the central area and to encourage growth toward the West of the city, helping to link fragmented parts of the city and address the issue of its monocentric development. However, in its current state it does not leverage this opportunity. An unfinished "victory park" project that was initiated to commemorate the 70th anniversary of Kyrgyzstan's independence, and disused industrial sites reduce the value of the land and the diversity of activities that happen around them.

The surrounding urban fabric contains residential buildings, a school, clinic and administrative buildings which are not integrated with each other to generate the vibrant potential of the area. The area also lies within a high risk zone for mudflow. Given the expanse of open space in the old cemetery and the smaller park to the north of the cemetery, the area could be better designed and used for mitigation and adaptation purposes.

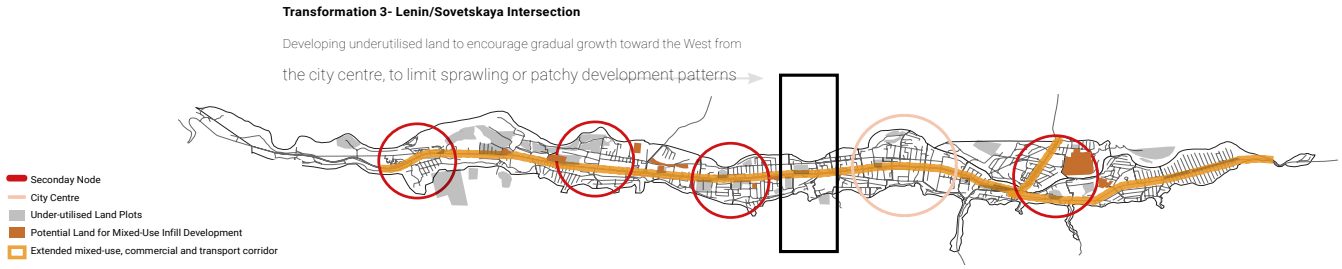



Figure 23. Map highlighting the Transformation area as means of addressing the town's monocentric development and improving vibrancy

## Transformative Impact

By investing in this area, the city's vibrancy can be extended outside of the centre, not only encouraging compact growth, but also providing better opportunities for residents located further away from the centre. In this way. the area has potential to contribute to a polycentric model of development. Improving vibrancy in more than one area of the town will generate more opportunities for livelihoods, activities and social exchange, which reduces the need for people to travel outside their neighbourhood to access facilities and amenties, improving equity distribution of the city and enhancing the quality of life for residents. Incorporating climate mitigation and adaptation strategies in the area will enhance the resilience to hazards and provide a nature-based solution to reduce the impact of hazards on key infarstructure such as the main Lenin Street.

Transformation 3 is designed to activate the area of non-functioning industrial buildings, transforming them into vibrant spaces while also reinforcing nearby secondary nodes. The adaptive reuse of industrial land will catalyze growth in these nodes, creating new spaces for economic and social activity. This transformation complements the broader strategy of policentric urban development to reduce pressure on the central core and enhance resilience across Naryn.

## Project Objectives

- Develop underutilised land and disused buildings to enhance vibrancy, resilience, compactness, social interaction and economic potential of the area.
- Improve integration of sites and activities with each other and the surrounding urban fabric.
- Improve mitigation against hazards with nature-based solutions to protect infrastructure and people.

## Key Partners

**Naryn Municipality** is a primary partner, owner and implementor who should lead the coordination with potential donors, local sector and external partners.

**Local communities** are important stakeholders and should be given an opportunity to contribute to the planning and design.

**Donors/Financiers/Private Sector** could provide external funding to support with project implementation


Community engagement will be important for the success of the transformation of the area. Detailed assessments and feasibility studies must be carried out in the early stages of project planning and should inform the detailed designs and implementation models.

Figure 24. Illustration of repurposing of old industrial site

## Funding Sources

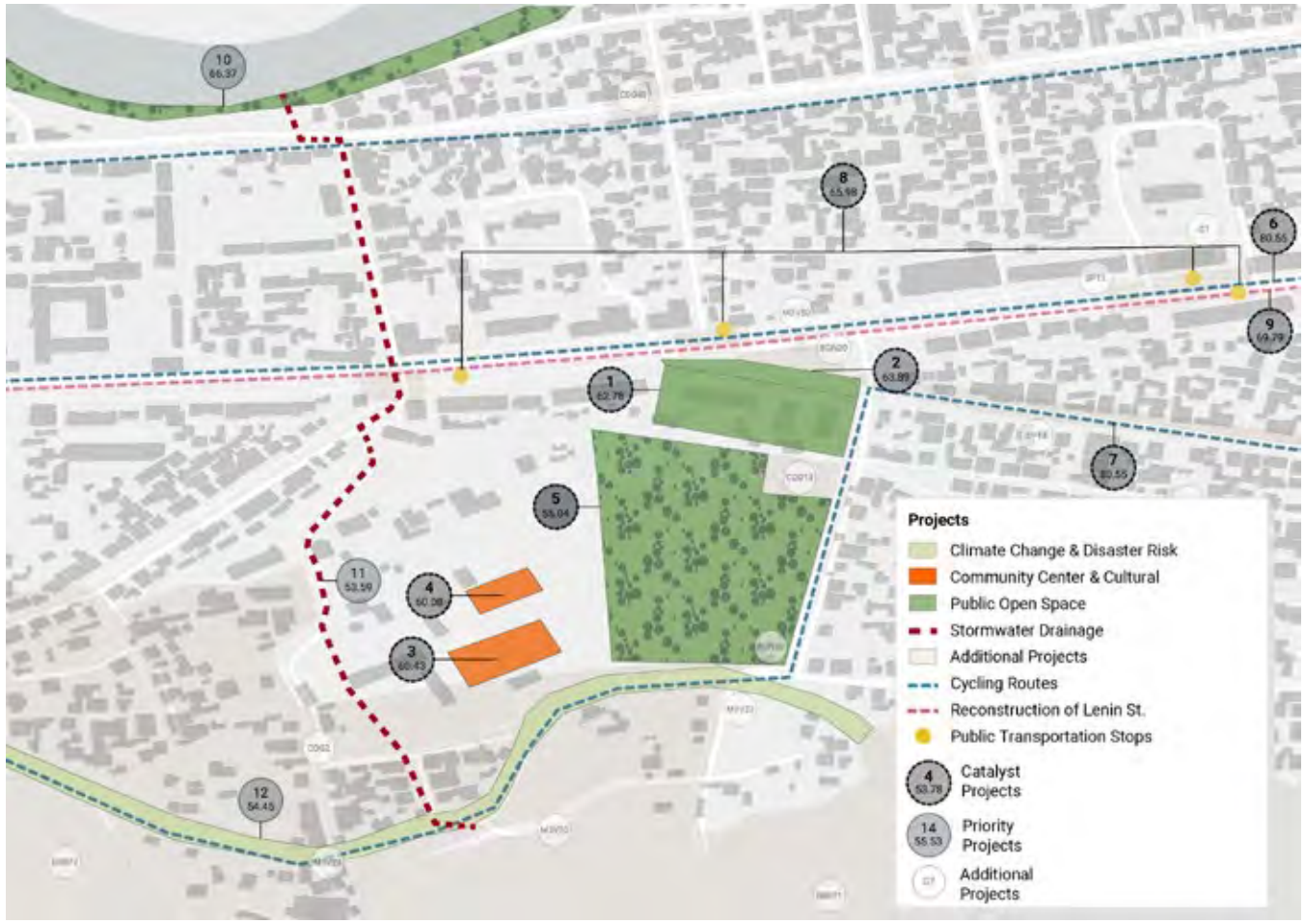
Costs can be distributed between private and government partners. Investment in public space surrounding housing blocks will accrue to the private property owners, opportune project to utilize LVC for. The government could charge a small fee for development of new buildings in the area and use this to invest in public space. Alternatively, since LVC is not currently an option in The Kyrgyz Republic, the government could incentivise private investment in public space by relieving government charges in exchange. Another option is to utilize public donations for this project.

The low cost of the temporary public space can be funded via the local budget or public donations. The new public green space, installation of stormwater drainage, and cycling paths could be funded through public donations, donor organisations, or the local budget. The renovation of bus stops seems best suited for the local budget. Reconstruction of the BNC could be submitted for funding from green financing organisations, an MDB, or national grant funding.

Repurposing of old industrial sites can be implemented by the private sector or through a PPP where the government unlocks the site by providing necessary infrastructure, such as roads, public space, or sewerage to incentivise private development in the area. One example of a LVC method to do this is Land Pooling/ Readjustment. This entails landowners contributing part of their land for infrastructure development and for sale by the government to cover part of infrastructure project cost.

## Implementation timeline

Figure 25. Map highlighting the projects for Transformation 5 - Lenin/Sovetskaya Intersection



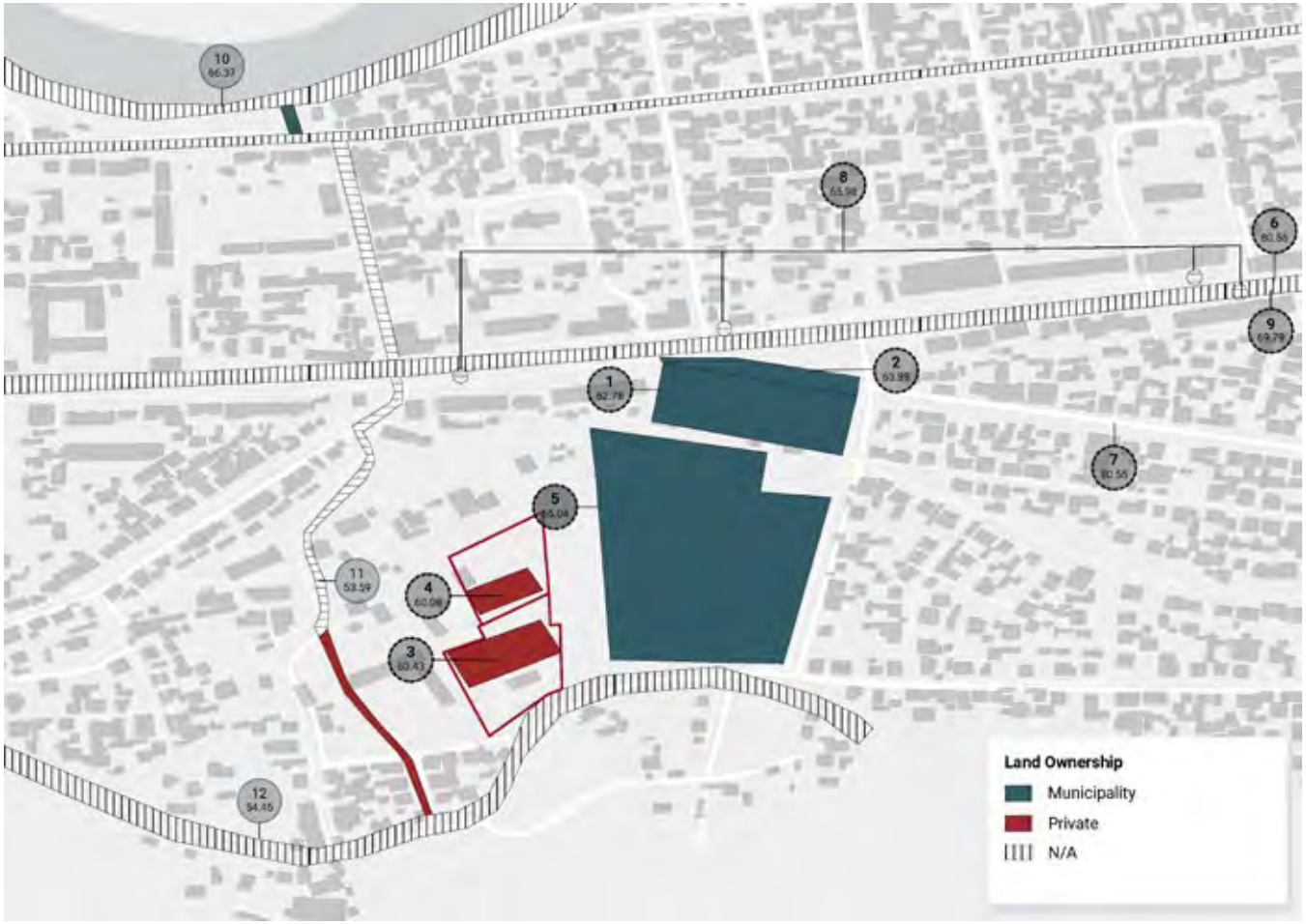

Short-term (2 years)

Medium-term (4 years)

1 2 5 7 8 9 10

6 11 12

Figure 26. Map highlighting land ownership for Transformation 5 - Lenin/Sovetskaya Intersection




## Revenue generation

Repurposing of old industrial sites will ideally rejuvenate the area, leading to increased income and therefore increased income tax for the municipality.

## Implementation

Regarding the approved Naryn Masterplan the highlighted project areas require land-use changes for the implementation.


Figure 27. Section of Master Plan for the area

Long-term (4+ years)

3 4

| | PROJECT NAME | SCORE % | ESTIMATED COST | BENEFICIARIES % POPULATION | TIMEFRAME | DESCRIPTION |
|---|---|---|---|---|---|---|
| 1 | Redesign of space around building block | 62.78 | $ 102,897 | 13.2% | Short-term | Design of the open spaces surrounding the apartment buildings including landscaping, paving pathways, public lighting and surface stormwater drainage. |
| 2 | Temporary open public space | 63.89 | $ - | 13.2% | Short-term | Design of a section of the street to be periodically closed for car traffic and be used as an open space for the local community. This is a placemaking approach that makes the street a multi-functional and safe space for children and the community, which can host a variety of educational or sport activities |
| 3 | Repurposing of old industrial site | 60.43 | $ 746,479 | 6.1% | Long-term | The adaptive reuse of the old industrial building aligns with the broader urban renewal strategy for the area. Following renovation, the building will serve as a multifunctional space, hosting cultural, educational and artistic amenities, as well as providing facilities for creative industries.** |
| 4 | Repurposing of old industrial site | 60.08 | $ 322,353 | 6.1% | Long-term | The adaptive reuse of the old industrial building aligns with the broader urban renewal strategy for the area. Following renovation, the building will serve as a multifunctional space, hosting cultural, educational and artistic amenities, as well as providing facilities for creative industries.** |
| 5 | Construction of new public green space | 55.04 | $ 381,274 | 14.1% | Short-term | The project involves the development of a new public open space to enhance both accessibility and the provision of green spaces in the area. The space will be created through the conversion of an existing, non-functional cemetery. In accordance with regulations governing the transformation of old cemeteries, all necessary legal and environmental guidelines will be strictly followed. The new public space will feature an urban forest to promote biodiversity and sustainability, along with designated planting beds for community farming |
| 6 | Construction of cycling path (Lenin Street) | 80.55 | $ 39,888 | 100% | Medium-term | Construction of a city wide linear cycling axis along the main road (Lenin St.) consisting of 16.46 km. The part of this project given in this transformative area is 2.53 km. |
| 7 | Construction of cycling path (centre loop) | 80.55 | $ 44,161 | 100% | Short-term | Construction of a cycling path in the city centre consisting of 8.46 km. This cycling path is a loop-route intersecting Orozdak and Sovetskaya Streets and some parts of BNC. The part of this project given in this transformative area is 2.8 km. |
| 8 | Renovation of existing bus stops | 65.98 | $ 8,968 | 100% | Short-term | Renovation of the existing public transportation stops with a climate resistant and user friendly design. The project consists of renovation of 36 bus stops. The part of this project given in this transformative area is renovation of 4 bus stops. |
| 9 | Reconstruction of Lenin Street | 69.79 | $ 159,663 | 100% | Short-term | This project is one of the projects announced by Governor of Naryn Oblast during a public meeting of the Collegium. As briefly described, Lenin Street will be widened and reconstructed and adjacent building facades will be upgraded. Total lenght of the reconstruction is 10.24 km. The part of this project given in this transformative area is 2.53 km. |
| 10 | Plantation for green riverfront axes | 66.37 | $ 117,540 | 25.7% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. Total project area is 39,774 sqm and the part given in this transformative area is 6,530 sqm. |
| 11 | Installation of stormwater drainage channel | 53.59 | $ 846 | 4.4% | Medium-term | Construction of a stormwater collection line to create a bypass line between the BNC and Naryn river to mitigate the flood risk. |
| 12 | Reconstruction of BNC | 54.45 | $ 1,113,966 | 3.8% | Medium-term | Reconstruction of a part of BNC with gabions, in-stream deflectors, planting as a NbS implementation. Total length of the reconstruction is 1.04 km. The part of this project given in this transformative area is 0.82 km. |

## ADDITIONAL PROJECTS

**BGN20** Installation of irrigation system (ditches, pumps)

**BGN30** Installation of irrigation system (ditches, pumps)

**CDG2** Extension of sewage network

**CDG13** Construction of new Kindergarten with playground (Inclusive)

**CDG40** Feasibility study for optimization of solid waste collection system and installation of new bins

**DRR71** Plantation and terracing

**DRR72** Plantation and terracing

**G7** Renovation of former NSU building (for HQ of Civil Defense)

**M3V23** Renovation and reinforcement of vehicular bridge

**M3V24** Renovation and reinforcement of vehicular bridge

**M3V50** Installation of emergency hub

**M3V70** Construction of mudflow eliminator

**SPT4** Extension of public transportation route (electric minibuses)

As part of Proof of Concept #3, this project extends the public transportation route with electric minibuses, enhancing connectivity and accessibility throughout the area. By integrating eco-friendly transit options, it aims to increase vibrancy, reduce traffic congestion, and support sustainable mobility, making the area more dynamic and accessible for residents and visitors alike.

**SPT5** Implementation of Pedestrian crossings (painted with lights, or raised)

# Transformation 6 - Eco Village Node


**PROJECT AREA LOCATION**

M. Sydykov and Chygysh Distrcits

**PROJECT AREA PARTNERS**

Naryn Municipality
Local community
Donors/Financiers/Private Sector
Utility Service Providers
International Development Agencies
Potential External Partners

**PROJECT AREA TIMELINE**

Short-term: 2025-2027
Medium-term: 2028-2032
Long-term: beyond 2032

* suggested timeline per project outlined below

**ESTIMATED BUDGET**

USD $ 86,882,874
* breakdown of costs per project outlined below

**TARGET BENEFICIARY GROUP**

Direct Beneficiaries: Residents and users of M. Sydykov and Chygysh Distrcits
Indirect Beneficiaries: Residents of Naryn
Visitors and tourists of Naryn Municipality from neighbouring and broader regions

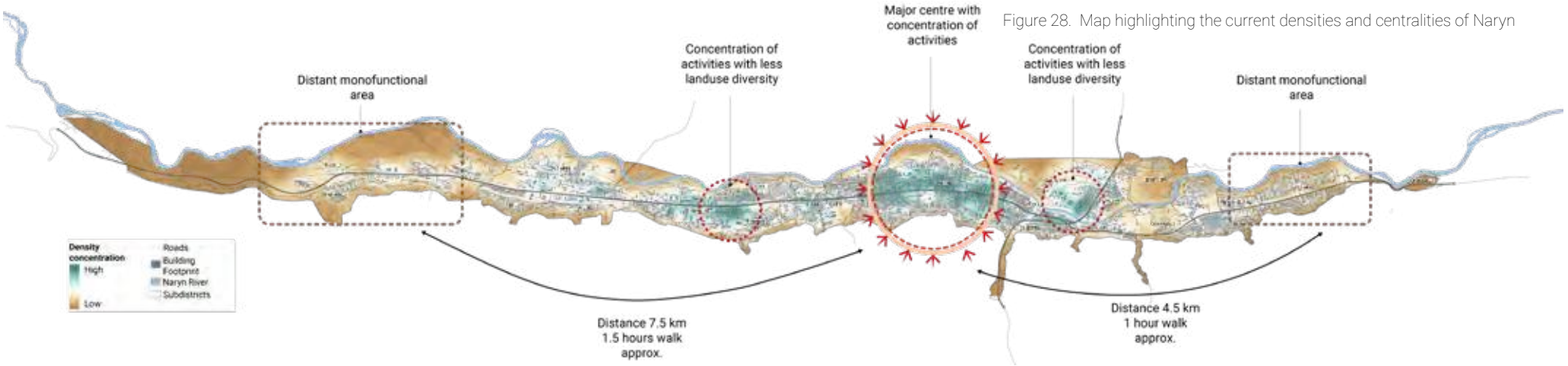



Figure 28. Map highlighting the current densities and centralities of Naryn

## Problem Statement

Naryn is at a critical juncture in its growth, facing interlinked challenges of environmental vulnerability, outdated infrastructure, and the need for sustainable urban expansion. As the town contends with issues such as flood risks, soil erosion, and air pollution from coal-based energy, its public infrastructure and green spaces remain insufficiently equipped to serve its growing population. The limited accessibility to public transport, fragmented neighborhood connectivity, and underutilised natural assets, including the Naryn River, underscore the urgency for integrated, climate-resilient interventions.

As the town grows, and with the limitation on land availability, ensuring that development in the outer eastern and western areas of the town develops sustainably with sufficient compactness, density, connectivity and accessibility is crucial. Currently this area lacks a mix of uses, requiring residents to travel to the town's centre to access particular services, amenities or opportunities (such as jobs).

To improve equitable access and support a polycentric model of development, a mixed-use infill area will be essential to accommodate these demands in a sustainable and spatially-efficient manner.

## Transformative Impact

The new mixed-use infill development will create a vibrant, multi-functional core that accommodates future population growth while fostering a thriving community ecosystem. By supporting diverse housing options, commercial spaces, and public facilities, the area will enhance urban density, reduce development pressures on natural zones, and attract a range of socio-economic groups. Infrastructure improvements such as climate-resilient public spaces and enhanced mobility options will promote sustainable tourism and provide year-round attractions, reinforcing Naryn's position as a tourist destination.

Moreover, with the anticipated population growth, the development of a new mixed-use infill area is essential to accommodate this demand in a sustainable and spatially efficient manner. This infill area will not only provide diverse housing options but will also support economic activities, foster social interaction, and reduce the pressure to expand into environmentally sensitive zones. Together with projects focused on green riverfronts, stormwater management, and enhanced mobility infrastructure, these interventions aim to build a resilient, inclusive, and vibrant Naryn. These initiatives are foundational to leveraging the town's strategic position, enhancing its appeal as a regional hub, and securing a sustainable future for all residents.

## Project Objectives

- Develop a mixed-use infill area with housing, commercial, and public spaces to meet the needs of an expanding population sustainably.
- Integrate climate-resilient infrastructure, renewable energy, and nature-based solutions to mitigate environmental risks and enhance the quality of life.
- Develop efficient mobility networks, including cycling paths and public transport links, to connect residents, businesses, and visitors within the town and beyond.

## Key Partners

Naryn Municipality is a primary partner, owner and implementor who should lead the coordination with potential donors, local sector and external partners.

Local communities are important stakeholders and should be given an opportunity to contribute to the planning and design.

Donors/Financiers/Private Sector could provide external funding for implementation of the project.


Community engagement will be important for the success of the transformation of the area. Detailed assessments and feasibility studies should inform the detailed design and implementation models, and ensure environmental protection and preservation where relevant.

Figure 29. Illustration of Eco village node

## Funding Sources

Mixed use infill development, construction of solar energy package, and construction of a retirement house could all be implemented by the private sector or through a public-private partnership.

The remaining projects, including construction of cycling paths, renovation of bus stops, riverfront plantation, and safe havens will most likely be publicly funded projects. These publicly funded projects could be funded, in part, through land value capture (LVC). One potential LVC modality involves the payment of a small fee by all private developers of new businesses or housing in the district. This fee would go towards investment in infrastructure and other improvements in the district. Funding for the reconstruction of Lenin Street has been earmarked by the national government. Because of the national government's involvement in this project, they may also be interested in including cycling paths in addition. Given the low cost of the safe haven projects, Naryn city government could pay for these projects utilizing their own funds remaining at the end of the year or utilize private donations.

Additional funding for the climate-related projects, including riverfront plantation, safe havens, BNC reconstruction, and bus stop renovation, could come from climate-related funds, such as the Adaptation Fund or Green Climate Fund.

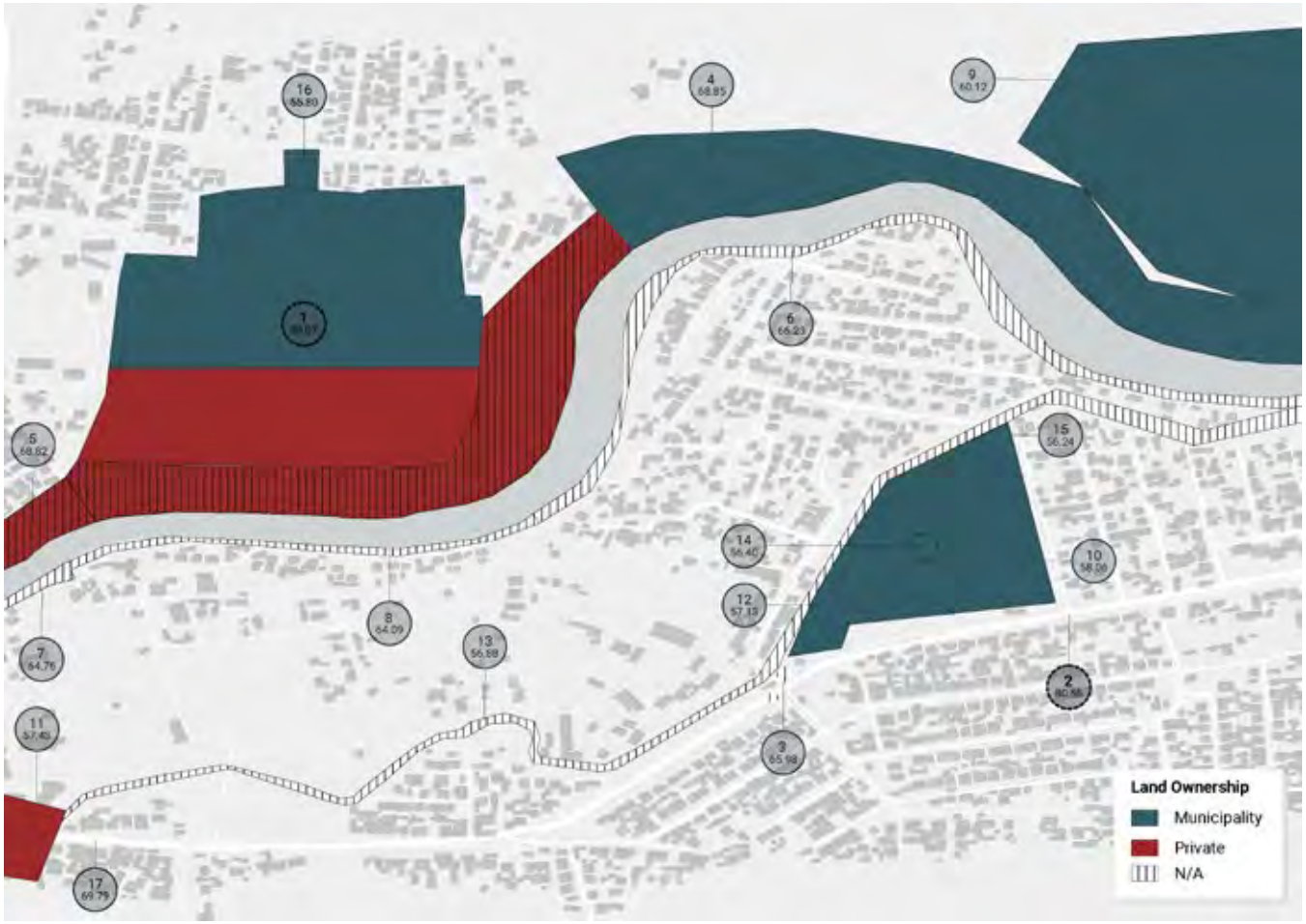
Figure 30. Map highlighting the projects for Transformation 6 - Eco Village Node


## Implementation timeline

Short-term (2 years)

3 5 6 7 8 10 12 17

Figure 31. Map highlighting land ownership for Transformation 6 - Eco Village Node




## Revenue generation

Since the sites chosen for mixed-use infill development, construction of solar energy package, and construction of a retirement house are municipality-owned, these projects could produce income for the city through lease payments for the use of municipal land. Additionally, increases in economic development from the infill development project would increase tax revenue.

## Implementation

Regarding the approved Naryn Masterplan the highlighted project areas require land-use changes for the implementation.

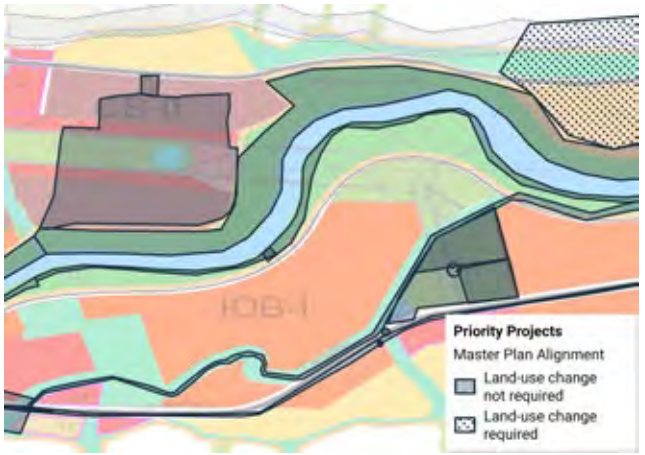



Figure 32. Section of Master Plan for the area

Medium-term (4 years)

2 4 11 13 15 16

Long-term (4+ years)

1 9 14

| | PROJECT NAME | SCORE % | ESTIMATED COST | BENEFICIARIES % POPULATION | TIMEFRAME | DESCRIPTION |
|---|---|---|---|---|---|---|
| 1 | Mixed-use infill development | 59.07 | $ 48,385,396 | 50.05% | Long-term | Construction of mixed-use housing to support the demand of the future population. |
| 2 | Construction of cycling path (Lenin St.) | 80.55 | $ 31,689 | 100% | Medium-term | Construction of a city wide linear cycling axis along the main road (Lenin St.) consisting of 16.46 km. The part of this project given in this transformative area is 2.01 km. |
| 3 | Renovation existing bus stops | 65.98 | $ 4,484 | 100% | Short-term | Renovation of the existing public stransportation stops with a climate resistant and user friendly design. The project consists of renovation of 36 bus stops. The part of this project given in this transformative area is renovation of 2 bus stops. |
| 4 | Plantation for green riverfront axes | 68.85 | $ 3,393,020 | 23.98% | Medium-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. |
| 5 | Plantation for green riverfront axes | 68.82 | $ 26,317 | 7.59% | Short-term | Plantation of green riverfront axes that would serve to limit the development of existing built-up area in the Water Protection Zone. Total project area is 36,791 sqm and the part given in this transformative area is 1,462 sqm. |
| 6 | Plantation for green riverfront axes | 66.23 | $ 470,541 | 8.37% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. |
| 7 | Plantation for green riverfront axes | 64.76 | $ 2,610 | 3.81% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. Total project area is 21,665 sqm and the part given in this transformative area is 145 sqm. |
| 8 | Plantation for green riverfront axes | 64.09 | $ 117,787 | 1.93% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. |
| 9 | Construction of solar energy package | 60.12 | $ 30,846,319 | 100% | Long-term | A 3 phased project including (a) Conducting a feasibility study to investigate Naryn's solar energy potential, (b) Installation of solar energy infrastructure, (c) Maintanence of the infrastructure. This projects has 3 areas within Naryn that corresponds to 544,345 sqm. The 203,528 sqm section of this project is within this transformative area.** |
| 10 | Adaptation of existing public space as safe haven | 58.06 | $ 1,988 | 11.15% | Short-term | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes instalment of the pre-fabricated toilet. |
| 11 | Construction of drainage system | 57.43 | $ 54,429 | 6.93% | Medium-term | Construction of drainage system that will mitigate the existing flood and mudflow risks. |
| 12 | Installation of storm water collection system | 57.13 | $ 183 | 0.86% | Short-term | Installation of a stormwater collection system for irrigation of the public space. |
| 13 | Reconstruction of BNC | 56.88 | $ 2,784,916 | 9.59% | Medium-term | Reconstruction of a part of BNC with gabions, in-stream deflectors, planting as a NbS implementaion. |
| 14 | Equipping of existing building as indoor safe haven | 56.40 | $ - | 10.42% | Long-term | Adaptation of the existing restaurant and its perimetre as an indoor & outdoor safe haven for enhancing use as a disaster response. ** |
| 15 | Adaptation of the new building of SS #10 and its open space as a safe haven | 56.24 | $ - | 10.21% | Medium-term | Adaptation of the new school as safe haven for enhancing use as a disaster response. |
| 16 | Construction of retirement house | 55.80 | $ 754,991 | 100% | Medium-term | Construction of a retirement house to support aging population of Naryn. |
| 17 | Reconstruction of Lenin St. | 69.79 | $ 8,204 | 100% | Short-term | This project is one of the projects announced by Governor of Naryn Oblast during a public meeting of the Collegium. As briefly described, Lenin Street will be widened and reconstructed and adjacent building facades will be upgraded. Total lenght of the reconstruction is 10.24 km. The part of this project given in this transformative area is 0.13 km. |

## ADDITIONAL PROJECTS

| | | |
|---|---|---|
| **CDG29** | Adaptation of existing "special use green space" to public space | This project reimagines the existing "special use" green space as a vibrant public area, fostering inclusivity and social connection. By transforming it into an accessible public space, the project enhances recreational options for residents. |
| **M3V71** | Construction of mudflow drainage channel | |
| **M3V74** | Construction of mudflow eliminator | |
| **CDG17** | Construction of new Kindergarten with playground | |
| **CDG23** | Construction of new Kindergarten with playground | |
| **CDG16** | Construction of new Kindergarten with playground (Inclusive) | |
| **CDG18** | Construction of new Kindergarten with playground (Inclusive) | |
| **SPT37** | Construction of new pedestrian bridge | This pedestrian bridge provides a crucial connection across the river, facilitating safe, convenient access between both sides of the city. Designed to encourage foot traffic, it aims to unify the area, support mixed-use development, and promote community cohesion. |
| **TM5** | Construction of new pedestrian bridge | Adding a second pedestrian bridge further increases accessibility, enhancing walkability and reducing the isolation of segregated areas. This project offers residents greater mobility and helps integrate the city's divided sections, supporting social and economic activity across the river. |
| **SPT69** | Construction of new pedestrian bridge | |
| **SPT35** | Implementation of Pedestrian crossings (painted with lights, or raised) | |
| **M3V42** | Installation of emergency hub | |
| **M3V41** | Installation of emergency hub | |
| **IU20** | Installation of irrigation system (ditches, pumps) | |
| **BGN12** | Installation of irrigation system (ditches, pumps) | |
| **BGN11** | Installation of irrigation system (ditches, pumps) | |
| **BGN10** | Installation of irrigation system (ditches, pumps) | |
| **SPT46** | Installation of new bus stop | |
| **SPT47** | Installation of new bus stop | |
| **CDG42** | Installation of pumping station for sewage network | |
| **CDG43** | Installation of pumping station for sewage network | |
| **SSN9** | Mixed-use infill development | This mixed-use infill project creates residential, commercial, and community spaces that bridge the divided sections of the city. This project will contribute to the transformation area by promoting vibrant urban life and addressing housing needs within secondary node 5. |
| **DRR8** | Plantation and terracing | |
| **DRR7** | Plantation and terracing | |
| **DRR6** | Plantation and terracing | |
| **DRR5** | Plantation and terracing | |
| **DRR64** | Plantation, terracing and gabion implementation | |
| **DRR63** | Plantation, terracing and gabion implementation | |
| **DRR100** | Reconstruction of BNC | |
| **CDG39** | Renovation and capacity increase of Clinic #4 (FGP) | |
| **M3V14** | Renovation and reinforcement of vehicular bridge | |
| **M3V15** | Renovation and reinforcement of vehicular bridge | |
| **SPT67** | Renovation and reinforcement of vehicular bridge | |
| **SPT66** | Renovation and reinforcement of vehicular bridge | |
| **SPT65** | Renovation and reinforcement of vehicular bridge | |
| **SPT68** | Renovation and reinforcement of vehicular bridge | |

# Transformation 7 - Eco-Hub Node


**PROJECT AREA LOCATION**

Batysh District

**PROJECT AREA PARTNERS**

Naryn Municipality
Local community
Donors/Financiers/Private Sector
International Development Agencies
Potential External Partners

**PROJECT AREA TIMELINE**

Short-term: 2025-2027
Medium-term: 2028-2032
Long-term: beyond 2032

* suggested timeline per project outlined below

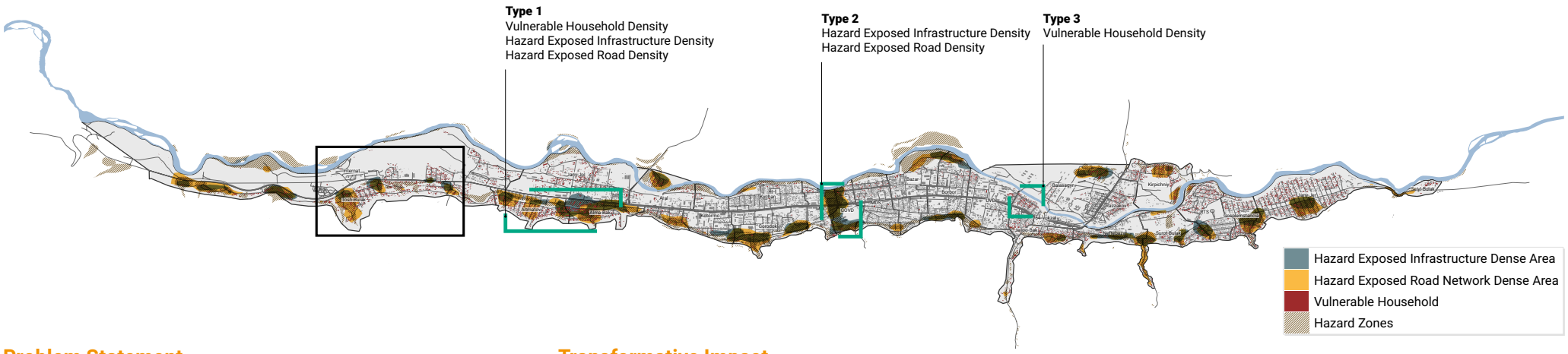
**ESTIMATED BUDGET**

USD $ 56,162,588
* breakdown of costs per project outlined below

**TARGET BENEFICIARY GROUP**

Direct Beneficiaries: Residents and users of Batysh district
Indirect Beneficiaries: Residents of Naryn
Visitors and tourists of Naryn Municipality from neighbouring and broader regions

Figure 33. Section of the map highlighting areas at risk from hazards and vulnerable households




## Problem Statement

The area in Naryn faces critical challenges tied to environmental risks, economic limitations, and infrastructure inadequacies that hinder sustainable growth. With threats like erosion and mudflow, the area's natural environment is vulnerable, impacting the safety of residents and limiting development. Additionally, there are few avenues for economic diversification, which stifles Naryn's potential as a hub for tourism, agro-industry, and local entrepreneurship. Current infrastructure does not support resilient, inclusive growth, resulting in underutilised public spaces and limited accessibility. Addressing these challenges is essential to secure a sustainable and prosperous future for the area.

## Transformative Impact

The planned projects within this transformation area have the potential to fundamentally reshape Naryn by creating a resilient, economically vibrant, and socially inclusive urban space. Initiatives like the revitalized ski lift, Agro-tourism café, and Research & Innovation Center will draw tourism and foster local industry, offering new employment and learning opportunities. Green infrastructure projects, including riverfront plantations, terracing, and solar energy installation, will build climate resilience and improve environmental sustainability. With enhanced mobility options, upgraded public spaces, and safe havens, the area will evolve into a well-connected, accessible space that supports Naryn's future for a diverse, resilient, and forward-looking urban center.

## Project Objectives

- Implement green infrastructure projects such as terracing and riverfront plantations to address erosion, mudflow, and secure water protection zones.
- Develop tourism and local industry through initiatives like the ski lift renovation, Agro-tourism café, and Research & Innovation Center.
- Adapt public spaces as safe havens and ensure climate-resilient infrastructure that supports disaster response.
- Improve accessibility with climate-resistant bus stops and the construction of cycling paths along key routes.
- Introduce solar energy infrastructure to support sustainable, long-term energy solutions.

## Key Partners

Naryn Municipality is a primary partner, owner and implementor who should lead the coordination with potential donors, local sector and external partners.

Local communities are important stakeholders and should be given an opportunity to contribute to the planning and design.

Donors/Financiers/Private Sector could provide external funding for implementation of the project.

University of Central Asia is a key stakeholder in this district and a partnership should be developed with them to inform innovative, research-led sustainable design and development practices for the projects. To ensure long-term viability of the area as an innovation hub, UCA could support the government in developing a framework for how the city can optimise exchanges between the research and industry sectors.


To ensure effective partnering between sectors and success of the transformative node, a strong stakeholder engagement plan should be developed.

Naryn, Kyrgyzstan Photo © UN-Habitat

## Funding Sources

Within this area, the following projects would be well-suited to be implemented via a public-private partnership or through private implementation: renovation and operation of the ski lift, centre of research & innovation, construction of an agro-tourism café and workshop, construction of local products & training centre, and construction of a solar energy package. These projects all have the potential to earn income from user payments, which could provide profit to the private sector partner. Alternatively, if the government wants to provide the training services within the agro-tourism workshop and/or local products training centre at a reduced cost to users, these two projects could subsidized by the government or via a grant or loan from a multilateral development bank/foreign government donor.

The plantation and terracing projects and reconstruction of BNC projects are well positioned for funding by a green finance organization, such as the Adaptation Fund or Green Climate Fund, or by an MDB. These funding opportunities require liaising through the national government. Therefore, it would be good for Naryn to promote good project contenders to their contacts in the national administration. Alternatively, these could be funded by the government. Naryn has also been successful at attracting donations from private parties for beautification of the city. These donations could go towards projects that provide flood mitigation, such as plantation for green riverfront axes.

As noted in previous investment cards, per conversations with local officials in Naryn, the national government has earmarked funding for the reconstruction of Lenin Street.

## Implementation timeline

Figure 34. Map highlighting the projects for Transformation 7 - Eco-Hub Node

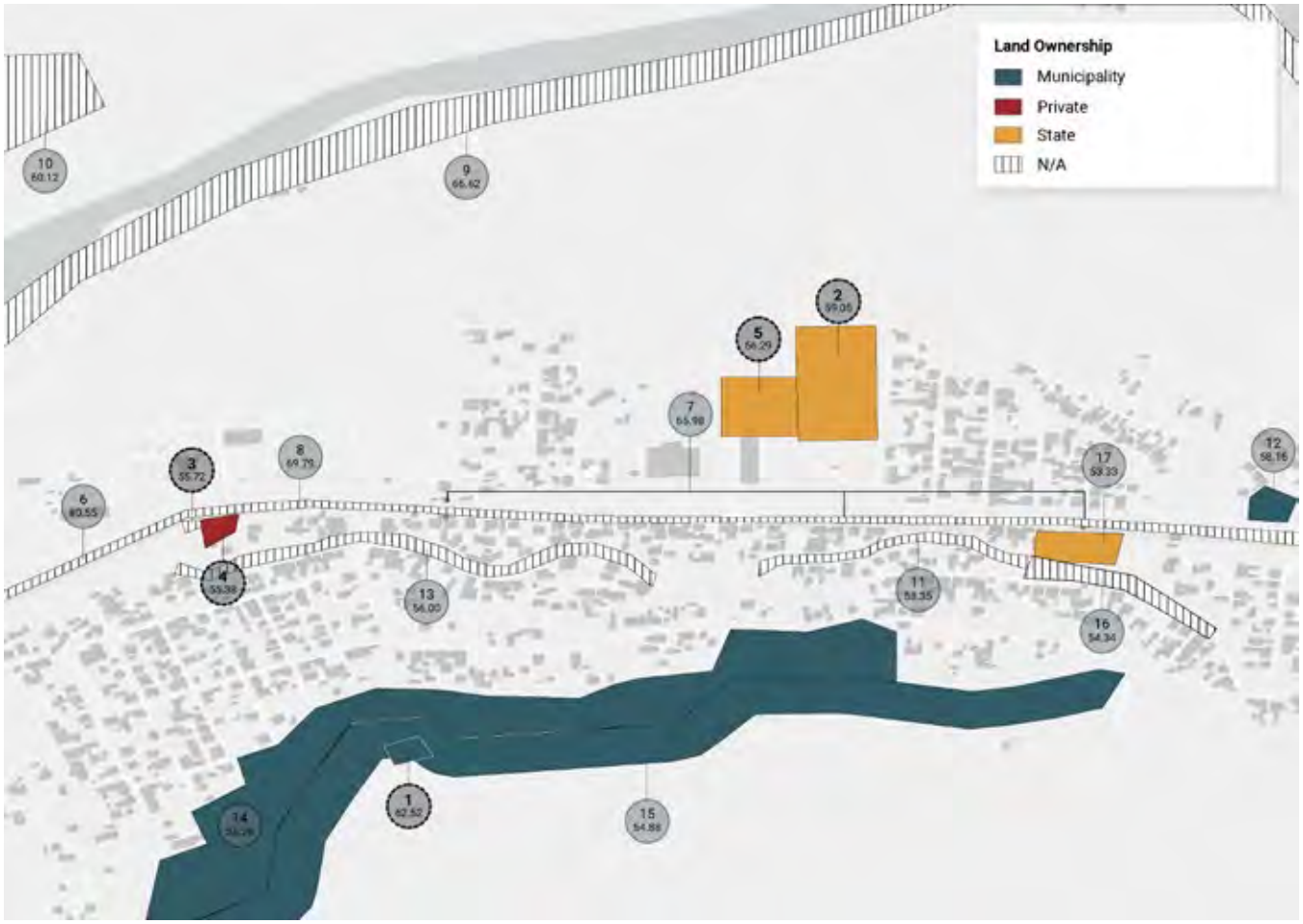

Short-term (2 years)

7 8 12 14 16 18

Medium-term (4 years)

1 11 2 13 6 15 9

Figure 35. Map highlighting land ownership for Transformation 7 - Eco-Hub Node




Long-term (4+ years)

3 4 5 10 17

## Revenue generation

The sites for the ski lift renovation, agro-tourism café, centre of research and innovation, local products & training centre, and solar energy project are all government-owned and could produce income for the city through lease payments from private operators. All of these projects, as well as the agro-tourism workshop project (which is on a non-government-owned site), will increase economic development and attract tourism to Naryn, which will increase government revenue.

## Implementation

Regarding the approved Naryn Masterplan the highlighted project areas require land-use changes for the implementation.

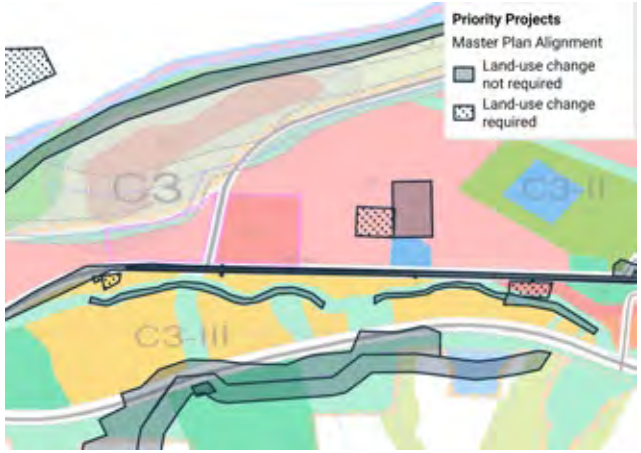



Figure 36. Section of Master Plan for the area

| | PROJECT NAME | SCORE % | ESTIMATED COST | BENEFICIARIES % POPULATION | TIMEFRAME | DESCRIPTION |
|---|---|---|---|---|---|---|
| 1 | Renovation and operating the ski lift | 62.52 | $ 1,288,841 | 100% | Medium-term | Rennovation and reoperation of the existing ski lift to promote winter sports and tourism. |
| 2 | Centre of Research & Innovation | 59.05 | $ 6,174,556 | 0% | Medium-term | Construction of a large reserach and innovation center unit with laboratories and testing equipment, as well as education facilities and parking and convenience facilities (toilets, external lighting and landscaping, additional road laying, food services) , to support agro-industry through training and experimentation of effective farming approaches, also to bridge the gap to connect students with employment opportunities. |
| 3 | Construction of Agro-tourism café | 55.72 | $ 81,101 | 0% | Long-term | Construction of an Agro-tourism cafe to promote use of local products, that would also serve as an tourist attraction.** |
| 4 | Construction of Agro-tourism workshop | 55.38 | $ 136,581 | 0% | Long-term | Construction of an Agro-tourism workshop to promote use of local products such as felts and other handicrafts that would serve as an tourist attraction and would create small scale employment for women.** |
| 5 | Construction of local products & training centre | 56.29 | $ 3,090,779 | 0% | Long-term | Construction of a centre that citizens can receive non-formal education on local products. This project would enable the transfer of tacid knowledge.** |
| 6 | Construction of cycling path (Lenin St.) | 80.55 | $ 39,099 | 100% | Medium-term | Construction of a city wide linear cycling axis along the main road (Lenin St.) consisting of 16.46 km. The part of this project given in this transformative area is 2.48 km. |
| 7 | Renovation existing bus stops | 65.98 | $ 8,968 | 100% | Short-term | Renovation of the existing public stransportation stops with a climate resistant and user friendly design. The project consists of renovation of 36 bus stops. The part of this project given in this transformative area is renovation of 4 bus stops. |
| 8 | Reconstruction of Lenin St. | 69.79 | $ 112,332 | 100% | Short-term | This project is one of the projects announced by Governor of Naryn Oblast during a public meeting of the Collegium. As briefly described, Lenin Street will be widened and reconstructed and adjacent building facades will be upgraded. Total lenght of the reconstruction is 10.24 km. The part of this project given in this transformative area is 1.78 km. |
| 9 | Plantation for green riverfront axes | 66.62 | $ 1,725,336 | 4.3% | Medium-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation. The total projects area is 156,659 sqm. The part of this project given in this transformative area is 255,405 sqm. |
| 10 | Construction of solar energy package | 60.12 | $ 38,708,746 | 100% | Long-term | A 3 phased project including (a) Conducting a feasibility study to investigate Naryn's solar energy potential, (b) Installation of solar energy infrastructure, (c) Maintanence of the infrastructure. This projects has 3 areas within Naryn that corresponds to 544,345 sqm. 55,405 sqm section of this project is within this transformative area.** |
| 11 | Reconstruction of BNC | 58.35 | $ 475,473 | 2.6% | Medium-term | Reconstruction of a part of BNC with gabions, in-stream deflectors, planting as a NbS implementaion. |
| 12 | Adaptation of existing public space as safe haven | 58.16 | $ 1,988 | 9.3% | Short-term | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes instalment of the pre-fabricated toilet. |
| 13 | Reconstruction of BNC | 56.00 | $ 883,022 | 1.9% | Medium-term | Reconstruction of a part of BNC with gabions, in-stream deflectors, planting as a NbS implementaion.pre-fabricated toilet. |
| 14 | Plantation and terracing | 55.26 | $ 1,419,462 | 2.1% | Short-term | Plantation and terracing of the area to protect water collection area and mitigation of mudflow risk. |
| 15 | Plantation and terracing | 54.88 | $ 1,734,768 | 2.6% | Medium-term | Plantation and terracing of the area to protect water collection area and mitigation of mudflow risk. |
| 16 | Plantation alongside BNC | 54.34 | $ 115,767 | 2.2% | Short-term | Plantation along the canal to reduce mudflow and erosion risks and securing the water protection zone. |
| 17 | Construction of new public green space | 53.33 | $ 61,225 | 9.8% | Long-term | Construction of a new public space, following the relocation of existing school. This project aims to mitigate disaster risks as the area contains Erosion risk.** |

## ADDITIONAL PROJECTS

| | | |
|---|---|---|
| **HND6** | Construction of bathhouse | This project introduces a bathhouse that draws on local traditions, providing a social and wellness facility for residents and visitors. Designed to support tourism and economic activity, the bathhouse adds to the area's appeal, encouraging relaxation, social interaction, and cultural exchange. |
| **SPS8** | Construction of new Kindergarten with playground (Inclusive) | |
| **SPS7** | Construction of new sports facility | This new sports facility aims to expand recreational opportunities and foster community wellbeing, offering versatile spaces for sports and fitness activities. |
| **SPS5** | Construction of ski sports centre | The ski sports center will serve as a hub for winter sports enthusiasts, supporting year-round tourism and positioning the area as a prime destination for ski activities. The center enhances the region's appeal, contributing to economic growth and establishing the area as a focal point for skiing. |
| **DRR102** | Equipping of existing building as indoor safe haven | |
| **CDG6** | Extension of sewage network | |
| **CDG53** | Extension of sewage network | |
| **CDG64** | Extension of sewage network | |
| **CDG63** | Extension of sewage network | |
| **CDG7** | Extension of sewage network | |
| **CDG54** | Extension of sewage network | |
| **IU6** | Extension of water network | |
| **CDG40** | Fasibility study for optimization of solid waste collection system and installation of new bins | |
| **SPT5** | Implementation of Pedestrian crossings (painted with lights, or raised) | |
| **M3V55** | Installation of emergency hub | |
| **M3V54** | Installation of emergency hub | |
| **BGN29** | Installation of irrigation system (ditches, pumps) | |
| **BGN25** | Installation of irrigation system (ditches, pumps) | |
| **SSN12** | Mixed-use infill development | This mixed-use development will introduce a blend of residential, retail, and community spaces, including housing options for students.The project aims to support the transformation area and contribute to the area's economic growth. |
| **DRR22** | Plantation alongside BNC | |
| **DRR79** | Plantation and terracing | |
| **DRR84** | Reconstruction of BNC | |
| **HND13** | Relocation and capacity increase of Kindergarten #16 | |
| **CDG24** | Relocation and capacity increase of school #9 | |
| **M3V8** | Renovation and reinforcement of pedestrian bridge | |
| **M3V36** | Renovation and reinforcement of vehicular bridge | |
| **M3V35** | Renovation and reinforcement of vehicular bridge | |
| **IU8** | Replacement of water pipes (connection to residential buildings) | |
| **DRR19** | Plantation alongside BNC | |
| **DRR800** | Reforestation | |

# Transformation 8 - Agro-Industrial Regeneration Node


**PROJECT AREA LOCATION**

Batysh District

**PROJECT AREA PARTNERS**

Naryn Municipality
Local community
Donors/Financiers/Private Sector
International Development Agencies
Potential External Partners

**PROJECT AREA TIMELINE**

Short-term: 2025-2027
Medium-term: 2028-2032
Long-term: beyond 2032

* suggested timeline per project outlined below

**ESTIMATED BUDGET**

USD $ 18,063,127
* breakdown of costs per project outlined below

**TARGET BENEFICIARY GROUP**

Direct Beneficiaries: Residents and users of Batysh district
Indirect Beneficiaries: Residents of Naryn
Visitors and tourists of Naryn Municipality from neighbouring and broader regions

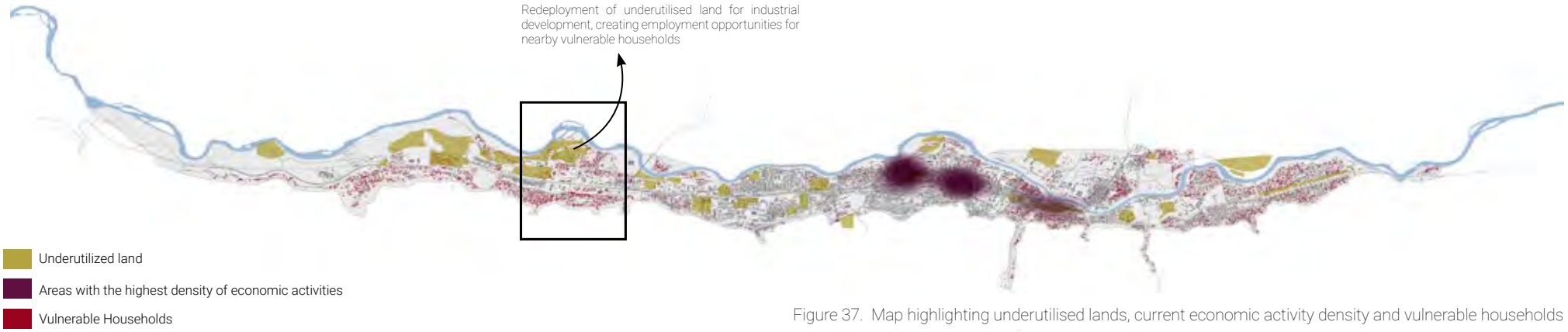



Figure 37. Map highlighting underutilised lands, current economic activity density and vulnerable households

## Problem Statement

This area faces significant challenges in supporting the agro-industrial sector, addressing climate risks, and meeting infrastructure demands to facilitate sustainable economic growth. Limited facilities for food storage, distribution, and processing hinder the region's ability to capitalise on its agricultural potential and meet export requirements. Additionally, environmental vulnerabilities, including flood and erosion risks, pose ongoing threats to both ecological health and economic stability. The existing infrastructure lacks resilience, particularly in irrigation, public transport, and energy, restricting Naryn's capacity to adapt to growth and climate pressures. Addressing these challenges is essential to support a thriving agro-industrial cluster, enhance climate resilience, and ensure sustainable urban expansion.

## Transformative Impact

This transformation area is poised to become a cornerstone of Naryn's agro-industry, fostering economic vitality through targeted infrastructure investments. The development of a Logistics Park, packaging plant, and expanded cheese and milk factory will stimulate local production, meet export standards, and create jobs, boosting the region's economic resilience.

Green infrastructure, including riverfront plantations and improved irrigation systems, will mitigate environmental risks and support sustainable land use. The addition of a solar energy package will further Naryn's shift towards renewable energy, reducing reliance on non-sustainable sources.

## Project Objectives

- Develop infrastructure for logistics, food storage, packaging, and export to enhance the region's agricultural production and meet international standards.
- Implement green infrastructure such as riverfront plantations and canal-side plantation to address flood and erosion risks.
- Introduce solar energy systems to support sustainable energy consumption within the agro-industrial cluster.
- Renovate the irrigation system, including ditches and pumps, to optimize water use.
- Construct resilient transport infrastructure and green spaces to enhance accessibility and prevent development in sensitive areas.

## Key Partners

Naryn Municipality is a primary partner, owner and implementor who should lead the coordination with potential donors, local sector and external partners.

Local communities are important stakeholders and should be given an opportunity to contribute to the planning and design.

Donors/Financiers/Private Sector could provide external funding for implementation of the project.

The agro-industrial sector is a key stakeholder and should be included in project planning and implementation.


Solar energy systems can be a costly undertaking. However, it has short, medium and long-term benefits for the city and its people. A cost-benefit analysis can provide additional information on this, and can also inform a phasing plan which will help guide the municipality to implementing the project in a phased approach

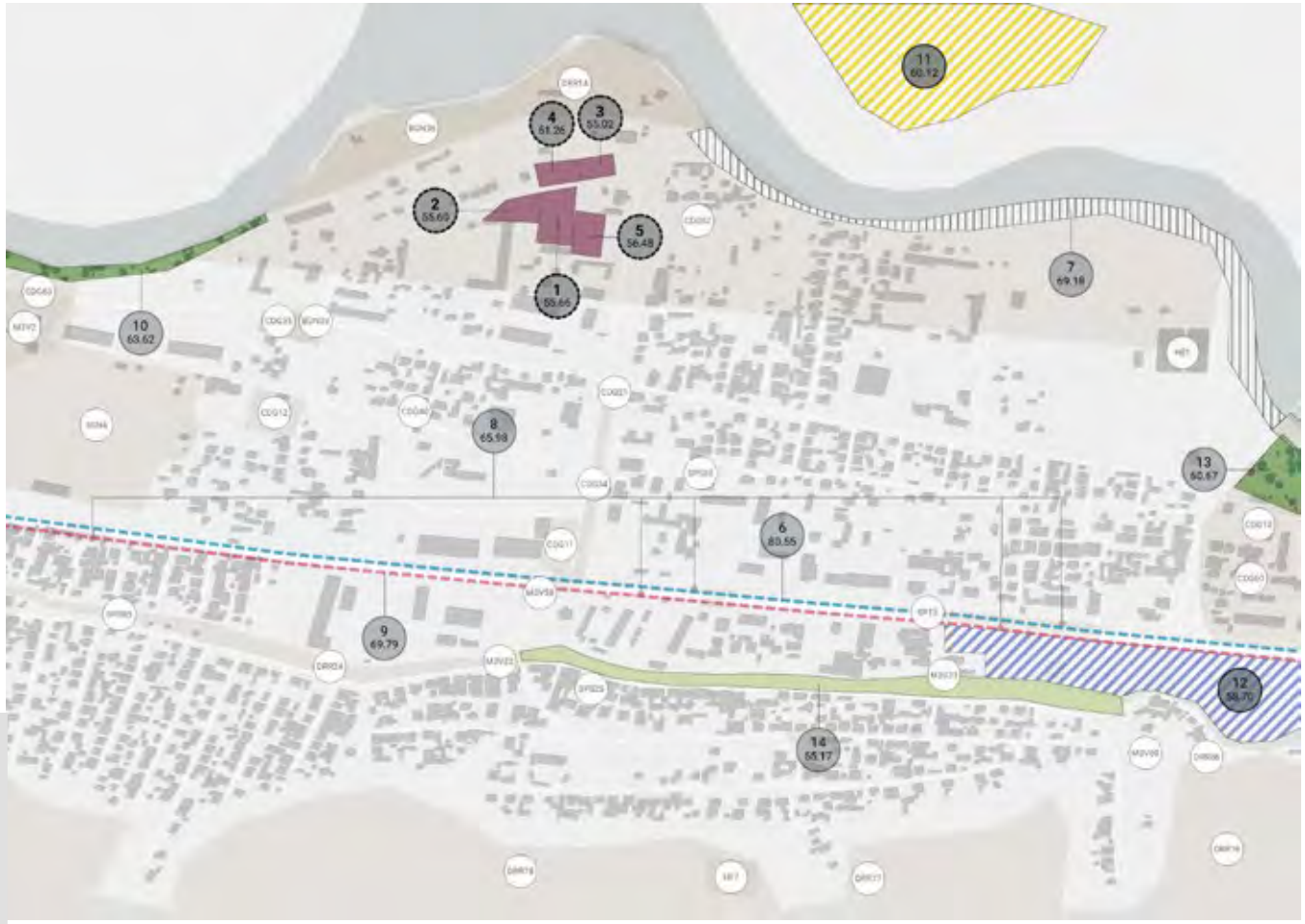
Naryn, Kyrgyzstan Photo © UN-Habitat

## Funding Sources

Construction of the logistics park, packaging plant, winterized storage, and relocation/expansion or cheese & milk factory are all profitable businesses that are best suited to implementation by the private sector. Construction of a veterinary laboratory could also be implemented by the private sector, depending on the current demand for this service. If current demand is low, the government may need to partner with the private partner to subsidize costs. Over time, as trade with China increases, the veterinary laboratory could become a more profitable service.

The cycling path, green riverfront axes, plantation for the riverfront, renovation of irrigation system, construction of a new public green space, and plantation alongside the BNC are good projects to pitch to a green finance organization, such as the Adaptation Fund or Green Climate Fund. Alternatively, these could be funded by the government or private donations could be utilized. LVC mechanisms could contribute funds to these government projects, if a small fee for development in the vicinity is instituted.

Figure 38. Map highlighting the projects for Transformation 8 - Agro-Industrial Regeneration Node




## Implementation timeline

Short-term (2 years)

7 8 9 12 13 14

Medium-term (4 years)

1 2 3 4 5 6 10

Figure 39. Map highlighting land ownership for Transformation 8 - Agro-Industrial Regeneration Node


## Revenue generation

The sites for the logistics park, packaging plant, and cheese/milk factory are government-owned and could produce an income for the city through lease payments from private operators. The winterized storage project site is privately owned and therefore would not produce a lease payment income. All of these projects would increase economic development in the city and region and therefore increase tax revenue for Naryn.

## Implementation

Regarding the approved Naryn Masterplan the highlighted project areas require land-use changes for the implementation.

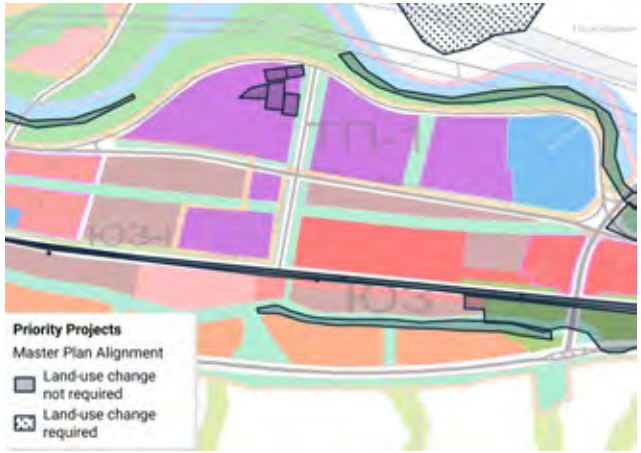



Figure 40. Section of Master Plan for the area

Long-term (4+ years)

11

| | PROJECT NAME | SCORE % | ESTIMATED COST | BENEFICIARIES % POPULATION | TIMEFRAME | DESCRIPTION |
|---|---|---|---|---|---|---|
| 1 | Construction of Logistics Park | 55.66 | $ 742,856 | 0% | Medium-term | Construction of a Logistics Park to support the Agro-Industry by meeting the needs of the industry by including units such as distribution centre, warehouse, loading zones. |
| 2 | Packaging plant for potatos, other produce (berries, honey, etc.) | 55.60 | $ 1,086,886 | 0% | Medium-term | Construction of a packaging plant that can be used for products from Naryn Oblast. |
| 3 | Construction of Veterinary Laboratory to support meeting China's export requirements | 55.02 | $ 163,943 | 0% | Medium-term | Construction of a laboratory to ensure products can meet Chinese standards for export. |
| 4 | Construction of Winterized storage for food products/warehouse | 51.26 | $ 108,270 | 0% | Medium-term | Construction of an insulated building that can be used to store crops in all seasons. |
| 5 | Relocation and expansion of the production capacity of existing cheese & milk factory | 56.48 | $ 2,060,124 | 0% | Medium-term | Relocation of the existing factory to support the Agro-Industry cluster, and expanding its capacity to increase the production for local consumption. |
| 6 | Construction of cycling path (Lenin St.) | 80.55 | $ 29,955 | 100% | Medium-term | Construction of a city wide linear cycling axis along the main road (Lenin St.) consisting of 16.46 km. The part of the project within this transformative area is 1.9 km. |
| 7 | Plantation for green riverfront axes | 69.18 | $ 168,937 | 2.2% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. The project area is 22,732 sqm. The part of the project within this transformative area is 7,929 sqm. |
| 8 | Renovation existing bus stops | 65.98 | $ 11,210 | 100% | Short-term | Renovation of the existing public stransportation stops with a climate resistant and user friendly design. The project consists of renovation of 36 bus stops. This transformative area contains renovation of 5 bus stops. |
| 9 | Reconstruction of Lenin St. | 69.79 | $ 119,905 | 100% | Short-term | This project is one of the projects announced by Governor of Naryn Oblast during a public meeting of the Collegium. As briefly described, Lenin Street will be widened and reconstructed and adjacent building facades will be upgraded. Total lenght of the reconstruction is 10.24 km. The part of the project within this transformative area is 1.9 km. |
| 10 | Plantation for green riverfront axes | 63.62 | $ 173,557 | 4.3% | Medium-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation. The project area is 156,658 sqm. The part of the project within this transformative area is 9,642 sqm. |
| 11 | Construction of solar energy package | 60.12 | $ 12,737,717 | 10% | Long-term | A 3 phased project including (a) Conducting a feasibility study to investigate Naryn's solar energy potential, (b) Installation of solar energy infrastructure, (c) Maintanence of the infrastructure. This projects has 3 areas within Naryn that corresponds to 544,345 sqm. The part of the project within this transformative area is 84,045 sqm.** |
| 12 | Renovation of irrigation system (ditches, pumps) | 58.70 | $ 36,696 | 9.1% | Short-term | Rennovation of the irrigation system to ensure efficiency in the water concumption. This project includes construction of additional ditches and renovation of pumps. |
| 13 | Construction of new public green space | 60.67 | $ 282,286 | 11.6% | Short-term | Consturction of a new public green space to prevent built-up development in the Water Protection Zone. |
| 14 | Plantation alongside BNC | 55.17 | $340,787 | 2.9% | Short-term | Plantation along the canal to reduce mudflow and erosion risks and securing the water protection zone. |

## ADDITIONAL PROJECTS

| | |
|---|---|
| **M3V69** | Construction of mudflow eliminator |
| **CDG11** | Construction of new education complex (Kindergarten with playground and school, inclusive for children with disabilities) |
| **CDG10** | Construction of new Kindergarten with playground |
| **CDG12** | Construction of new Kindergarten with playground |
| **CDG21** | Construction of new Kindergarten with playground |
| **CDG35** | Construction of new public green space |
| **CDG34** | Construction of new public green space |
| **SPS30** | Construction of slaughterhouse |
| **CDG63** | Extension of sewage network |
| **CDG62** | Extension of sewage network (with additional pumps) |
| **CDG60** | Extension of sewage network with additional pumping station |
| **CDG40** | Fasibility study for optimization of solid waste collection system and installation of new bins |
| **SPT5** | Implementation of Pedestrian crossings (painted with lights, or raised) |
| **M3V2** | Installation of electricity infrastructure |
| **M3V58** | Installation of emergency hub |
| **BGN33** | Installation of irrigation system (ditches, pumps) |
| **BGN36** | Installation of irrigation system (ditches, pumps) |
| **SSN4** | Mixed-use infill development |
| **DRR24** | Plantation alongside BNC |
| **DRR14** | Plantation and terracing |
| **DRR78** | Plantation and terracing |
| **DRR77** | Plantation and terracing |
| **DRR76** | Plantation and terracing |
| **HE7** | Prevention of rockfall (controlled demolition against rockfall risk) |
| **DRR86** | Reconstruction of BNC |
| **DRR85** | Reconstruction of BNC |
| **HE1** | Reconstruction of sewage & waste water facility |
| **SPS25** | Renovation and capacity increase of Clinic #3 (FGP) |
| **M3V32** | Renovation and reinforcement of vehicular bridge |
| **M3V31** | Renovation and reinforcement of vehicular bridge |

This project extends the sewage network, incorporating additional pumps to enhance capacity and reliability. By improving wastewater management, it supports the area's growth and ensures a cleaner, more sustainable environment for residents and businesses.

The mixed-use infill development introduces a blend of residential and commercial spaces, fostering a more vibrant and accessible urban environment. This project aims to provide convenient amenities and diverse housing options while enhancing the area's appeal and supporting local economic growth.

This project introduces plantation and terracing along slopes to prevent erosion, enhance the landscape, and increase green cover. By stabilizing the terrain, it contributes to environmental resilience and improves the aesthetic appeal of the area, creating a healthier and more inviting urban setting.

The reconstruction of the sewage and wastewater facility modernizes the area's waste management infrastructure, improving efficiency and environmental safety. This upgrade supports the area's sustainability efforts by enhancing wastewater treatment capabilities and reducing environmental impact.

# Transformation 9 - Culture Node


**PROJECT AREA LOCATION**

Kotormo District

**PROJECT AREA PARTNERS**

Naryn Municipality
Local community
Donors/Financiers/Private Sector
Utility Service Providers
International Development Agencies
Potential External Partners

**PROJECT AREA TIMELINE**

Short-term: 2025-2027
Medium-term: 2028-2032
Long-term: beyond 2032

* suggested timeline per project outlined below

**ESTIMATED BUDGET**

USD $ 5,954,544
* breakdown of costs per project outlined below

**TARGET BENEFICIARY GROUP**

Direct Beneficiaries: Residents and users of Kotormo district
Indirect Beneficiaries: Residents of Naryn
Visitors and tourists of Naryn Municipality from neighbouring and broader regions

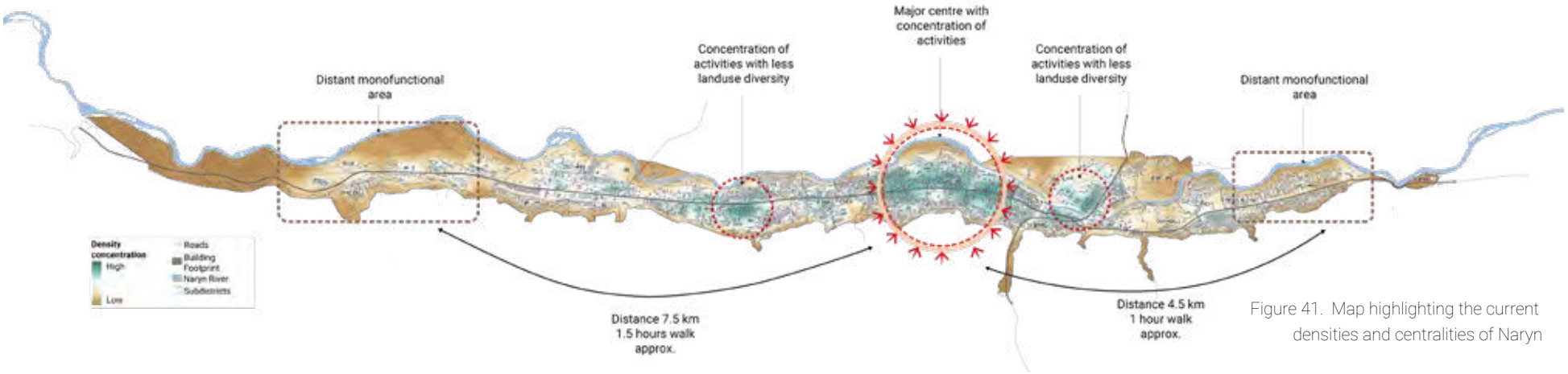



Figure 41. Map highlighting the current densities and centralities of Naryn

## Problem Statement

This transformation area in Naryn includes crucial projects aimed at preserving industrial heritage, enhancing community resilience, and improving public infrastructure. The area currently faces challenges in maintaining its historical identity, meeting the needs of vulnerable populations, and addressing infrastructure deficits. The lack of dedicated spaces for community support and non-profit activities limits access to essential services and resources, particularly for crisis response. Additionally, the area requires safer, climate-resilient infrastructure, including renovated public spaces and transportation facilities. Addressing these issues is essential to create a more inclusive, resilient, and accessible environment for Naryn's residents.

## Transformative Impact

The projects in this transformation area are designed to foster a multi-functional, resilient, and culturally vibrant space in Naryn. The renovation of the old industrial building as a cultural facility will preserve Naryn's industrial heritage while providing a venue for community activities and cultural events, enhancing local identity and pride. The crisis center and NGO hub will create a supportive environment for vulnerable citizens, facilitating crisis intervention and community empowerment. Infrastructure upgrades, including climate-resilient bus stops, cycling paths, and adapted safe havens, will improve accessibility, promote sustainable transport, and increase preparedness for disaster response. Together, these projects will transform the area into a secure, inclusive, and vibrant space that serves the needs of both residents and visitors.

## Project Objectives

- Renovate the old industrial building to maintain Naryn's industrial heritage while providing a multi-functional cultural space.
- Establish a crisis center and NGO hub to provide essential services, consulting, and support to vulnerable citizens and organisations.
- Upgrade bus stops, cycling paths, and public spaces to improve accessibility, safety, and climate resilience.
- Adapt existing public spaces as safe havens to enhance community resilience and readiness for emergencies.
- Develop cycling routes to promote eco-friendly mobility options and enhance connectivity across the area.

## Key Partners

Naryn Municipality is a primary partner, owner and implementor who should lead the coordination with potential donors, local sector and external partners.

Local communities are important stakeholders and should be given an opportunity to contribute to the planning and design.

Donors/Financiers/Private Sector could provide external funding for implementation of the project.


Heritage specialists and architects should be consulted and included in the planning and development process.

Figure 42. Illustration of Renovation of old industrial building

## Funding Sources

Renovation of the old industrial building and crisis centre & NGO hub can both be implemented by the private sector or through a public-private partnership. These projects have the potential to earn income from tenants, such through museum operation or restaurants within the industrial building and from NGOs that rent space within the NGO hub. The crisis centre could also utilize operating funding from the local or national government.

The remaining projects, including construction of cycling paths, renovation of bus stops, and safe havens will most likely be publicly funded projects. These publicly funded projects could be financed through land value capture (LVC). One potential LVC modality involves the payment of a small fee by all private developers of new businesses or housing in the district. This fee would go towards investment in infrastructure and other improvements in the district. Funding for the reconstruction of Lenin Street has been earmarked by the national government. Because of the national government's involvement in this project, they may also be interested in including cycling paths in addition. Given the low cost of the safe haven projects, Naryn city government could pay for these projects utilizing their own funds remaining at the end of the year or use private donations.

Given the climate adaptation nature of the bus renovation project and the safe haven projects, these may also present good opportunities to apply to the adaptation fund or other climate-related funding opportunities.

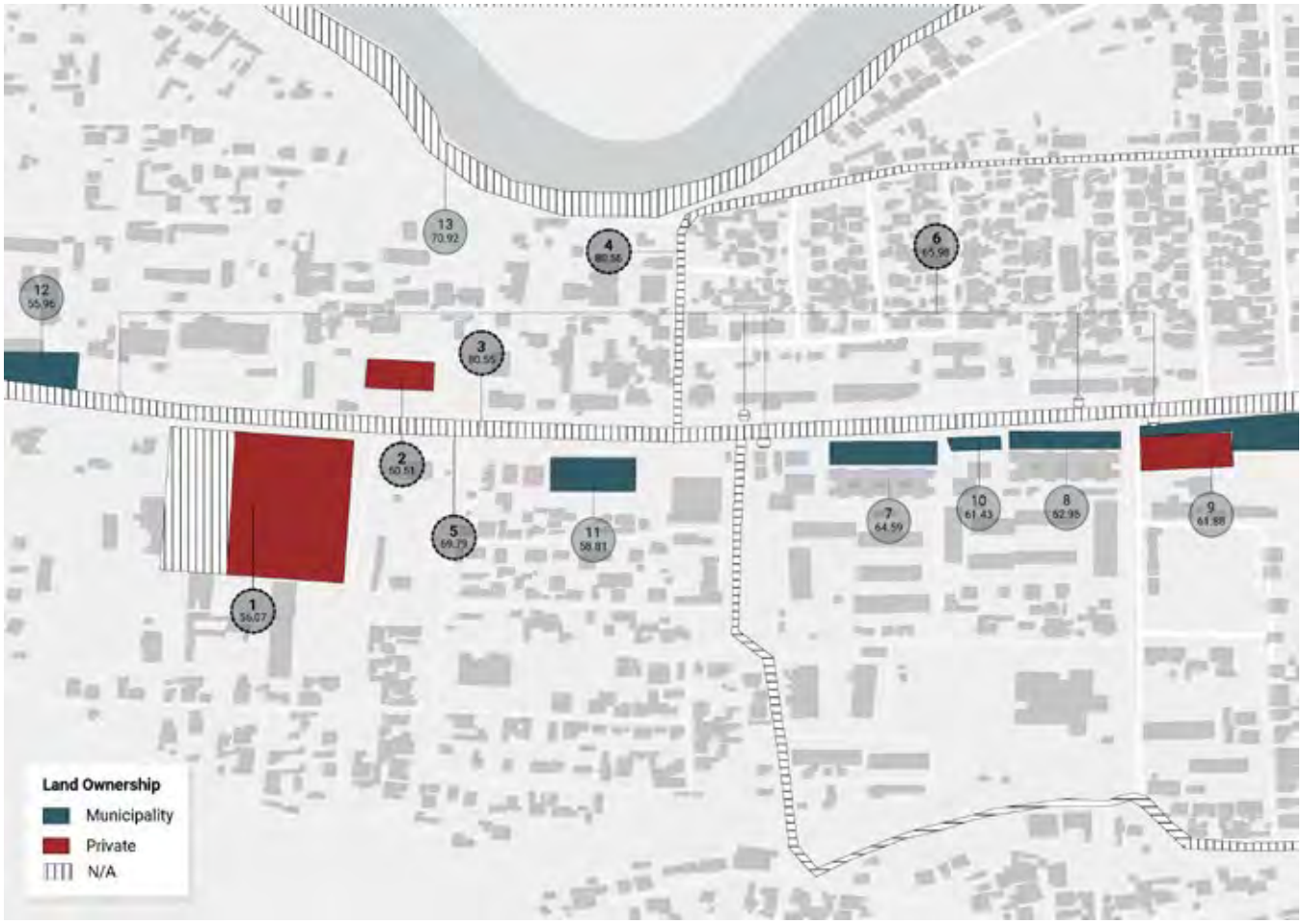
Figure 43. Map highlighting the projects for Transformation 9 - Culture Node


## Implementation timeline

Short-term (2 years)

4 5 6 7 8 9 10 11 12 13

Figure 44. Map highlighting land ownership for Transformation 9 - Culture Node




## Revenue generation

The industrial building renovation project and the Crisis Centre & NGO Hub project have the potential to attract new businesses to Naryn, increasing economic development and tax revenue. These sites are not government-owned and would not produce a lease payment income to the city.

## Implementation

Regarding the approved Naryn Masterplan the highlighted project areas require land-use changes for the implementation.

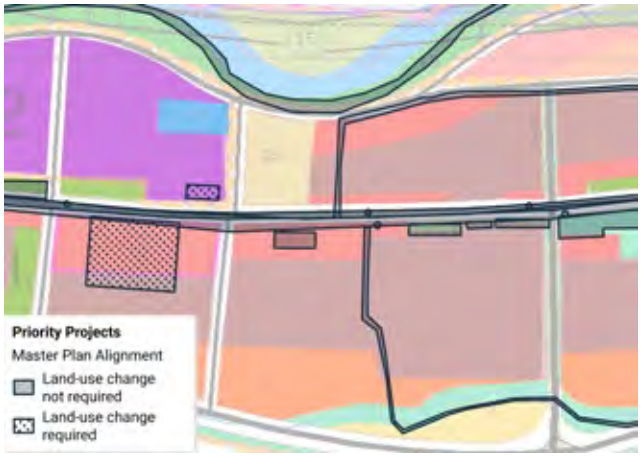



Figure 45. Section of Master Plan for the area

Medium-term (4 years)

Long-term (4+ years)

3

1 2

| | PROJECT NAME | SCORE % | ESTIMATED COST | BENEFICIARIES % POPULATION | TIMEFRAME | DESCRIPTION |
|---|---|---|---|---|---|---|
| 1 | Renovation of old industrial building | 56.07 | $ 5,137,738 | 13.1% | Long-term | Renovation of old industrial building (the meat factory) and its perimetre for refunctioning as a cultural facility and and preservation of industrial heritage of Naryn.** |
| 2 | Crisis center & NGO hub | 50.51 | $ 377,622 | 100% | Long-term | A crisis center where victims and citizens can receive consulting and non-formal education. It's also planned to be a co-working space & hub for the NGOs working in this field. Thus, supporting the NGOs by providing space and infrastructure. This project is dependent on HND14-Relocation and expansion of the production capacity of existing cheese & milk factory.** |
| 3 | Construction of cycling path (Lenin St.) | 80.55 | $ 26,802 | 100% | Medium-term | Construction of a city wide linear cycling axis along the main road (Lenin St.) consisting of 16.46 km. The part within this transformative area is 1.7 km. |
| 4 | Construction of cycling path (center loop) | 80.55 | $ 25,235 | 100% | Short-term | Construction of a cycling path in the city centre consisting of 8.46 km. This cycling path is a loop-route intersecting Orozdak and Sovetskaya Streets and some parts of BNC. The part within this transformative area is 1.6 km. |
| 5 | Reconstruction of Lenin St. | 69.79 | $ 107,283 | 100% | Short-term | This project is one of the projects announced by Governor of Naryn Oblast during a public meeting of the Collegium. As briefly described, Lenin Street will be widened and reconstructed and adjacent building facades will be upgraded. Total lenght of the reconstruction is 10.24 km. The part within this transformative area is 1.7 km. |
| 6 | Renovation existing bus stops | 65.98 | $ 11,210 | 100% | Short-term | Renovation of the existing public stransportation stops with a climate resistant and user friendly design. The project consists of renovation of 36 bus stops. This transformative area contains 5 bus stops. |
| 7 | Adaptation of existing public space as safe haven | 64.59 | $ 1,988 | 17.6% | Short-term | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes instalment of the pre-fabricated toilet. |
| 8 | Adaptation of existing public space as safe haven | 62.95 | $ 1,988 | 16.1% | Short-term | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes instalment of the pre-fabricated toilet. |
| 9 | Adaptation of existing public space as safe haven | 61.88 | $ 1,988 | 15.9% | Short-term | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes instalment of the pre-fabricated toilet. |
| 10 | Adaptation of existing public space as safe haven | 61.43 | $ 1,988 | 17.2% | Short-term | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes instalment of the pre-fabricated toilet. |
| 11 | Equipping of existing building as indoor safe haven | 58.81 | $ - | 17.0% | Short-term | Adaptation of the existing sports facility as an indoor safe haven for enhancing use as a disaster response. |
| 12 | Adaptation of existing public space as safe haven | 55.96 | $ 1,988 | 12.0% | Short-term | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes instalment of the pre-fabricated toilet. |
| 13 | Plantation for green riverfront axes | 70.92 | $ 258,714 | 28.1% | Short-term | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. Total project area is 42,610 sqm and the part given in this transformative area is 14,373 sqm. |

## ADDITIONAL PROJECTS

**SSN3** Mixed-use infill development

This mixed-use infill project introduces a combination of residential, commercial, and community spaces, revitalizing an underutilised area. Designed to enhance urban density, the development aims to support the secondary node and offer new housing options.

**CDG22** Construction of new Kindergarten with playground (within mixed-use infill area)

**M3V62** Construction of new public green space

**M3V63** Construction of new public green space

**CDG26** Construction of new secondary school

**CDG2** Extension of sewage network

**CDG52** Extension of sewage network

**CDG9** Extension of sewage network

**CDG59** Extension of sewage network and installation of additional pumping station

**CDG60** Extension of sewage network with additional pumping station

**CDG40** Fasibility study for optimization of solid waste collection system and installation of new bins

**SPT5** Implementation of Pedestrian crossings (painted with lights, or raised)

**M3V59** Installation of emergency hub

**BGN41** Installation of irrigation system (ditches, pumps)

**BGN40** Installation of irrigation system (ditches, pumps)

**BGN21** Installation of irrigation system (pumps)

**SSN1** Mixed-use infill development

**BGN63** Plantation alongside BNC

**DRR27** Plantation alongside BNC

**DRR75** Plantation and terracing

**DRR88** Reconstruction of BNC

**DRR89** Reconstruction of BNC

**LEV9** Reconstruction of the municipal public bathhouse

This project focuses on the modernization and revitalization of the municipal public bathhouse, preserving its role as a community gathering space while enhancing comfort and accessibility. By upgrading facilities and incorporating climate-resilient features, the bathhouse will continue to serve as a cultural and social hub, promoting wellness and providing a welcoming environment for both residents and tourists.

**CDG38** Renovation and capacity increase of Clinic #2 (FGP)

**M3V64** Shelter for victims of violence

# Financial approaches for Project Implementation

A variety of financing approaches can be used for the implementation of priority projects. These include both different implementing partners (private investor, public-private partnerships, and the public sector) and different sources of financing (private funds, public funds, land-value capture, and blended finance). Below, each approach is described and priority projects that are well-suited to each modality are listed. Some projects are listed under multiple modalities, which means they can be implemented in multiple ways depending on the desired outcomes and characteristics of the project.

For example, 'Repurposing of old industrial site' could be implemented entirely by the private sector, which could involve a private owner renovating the space and opening it as a private business. But this project could also be implemented through a public-private partnership where the city purchases the land and uses the space for their priorities, such as including public space, a privately-operated restaurant or café, and/or a training centre for new agri-businesses. These two versions of the project would be funded in different ways – the former, entirely by the private owner and the latter, shared between the private partner and the government.

Land ownership will impact project implementation. If a project will be implemented by a private partner, but the land is city-owned, the city can lease the land. Municipal land is a valuable and limited asset that the city has at its disposal, and if used appropriately, it can be an incentive to spur economic development and leveraged for public benefits. Municipal land rental rates should be based on the market value for the 'highest and best use' of the land, meaning whatever the most profitable use of the land is. If the land will be rented for a publicly beneficial purpose, such as a school, or if the lessee will redevelop a portion of the land for a public use, such as a park, this should be valued and factored into the rent. Yet, if the land will be used for a profit-generating business, such as a restaurant or industrial use, the city should not subsidize the land rate. Where appropriate, contracts should include rental escalations meant to approximate increases in land value over time. Additionally, Naryn should review contract terms for municipal land agreements and ensure other provisions are in the city's favour. For example, if renter changes the use of the property, does the city have the right to reclaim the land? Uses that are less publicly beneficial, can have shorter terms than publicly beneficial projects so that the city can re-evaluate whether the use is still appropriate for the site and increase rental rates based on new valuations of the land.

Likewise, if a site is privately-owned, but the city would like to implement a project on it, the city can either engage with the private partner to implement a public-private partnership on the land or purchase the site from the private partner.

## Implementing Partners

### Private Implementation

This category of projects could be implemented entirely by the private sector without government involvement. Private investment may be a likely source of project financing for projects that will generate an ongoing income and when the project is not producing a public good, such as water or sanitation. Typically, the projected project income must be large enough that the private investor makes up their initial investment. If projected project income is not large enough, government incentives, such as tax breaks can be offered to increase profitability. Priority projects that may be well-suited for private implementation include:

- Construction of ski sports centre
- Relocation and expansion of the production capacity of existing cheese & milk factory
- Regeneration of market
- Reorganization of market
- Construction of Cafes & Restaurant
- Construction of Agro-tourism café (with local produce)
- Construction of Agro-tourism workshop (felt, handicraft and sewing workshop for women)
- Construction of Logistics Park (includes units such as distribution centre, warehouse, loading zones)
- Construction of Veterinary Laboratory to support meeting China's export requirements
- Construction of Winterized storage for food products/ warehouse
- Packaging plant for potatoes, other produce (berries, honey, etc.)
- Repurposing and Renovation of old industrial sites
- Repurposing of old industrial site
- Mixed-use infill development

For example, the 'Regeneration of Market' could be implemented by the private owner of the market or, collectively, by all who rent or own a market stall. The private sector has a clear incentive to regenerate the market as it will increase foot traffic and therefore sales. Funds invested in this project will make the stalls and the market itself more valuable.

### Public-private partnerships (PPPs)

PPPs refer to a long-term contract between a private actor and the government to provide a public asset or service.[1] PPPs are typically utilized when private partners offer different capacities or expertise than the public sector, which can lead to efficient delivery of public services. Examples of this include easier access to private finance and a greater focus on profitability, which results in greater user fee collection and better maintenance of assets.

PPPs are most feasible for projects that will produce an ongoing source of income for the private partner, though it is still possible to utilize a PPP methodology with government payment substituting or augmenting project income. There are a variety of ways to implement a public-private partnership (See Figure 46 below). The preferred method of implementation will vary based on the specific project details, including land ownership, project income, public needs, and private partner preference. The government should keep in mind the pros and cons of implementing projects as public-private partnerships. Things to consider include the private partner's requirement for a return on their investment or payment for any service provided. This may lead to increased user costs for the provided good or service. The implications of this should not be underestimated, especially if a public good is being offered, such as health care or water supply. The government may need to subsidize user

1 World Bank Group, PPIAF, ADB, & IDB. (2014). Public-Private Partnerships: Reference Guide. Washington, DC: World Bank Group.

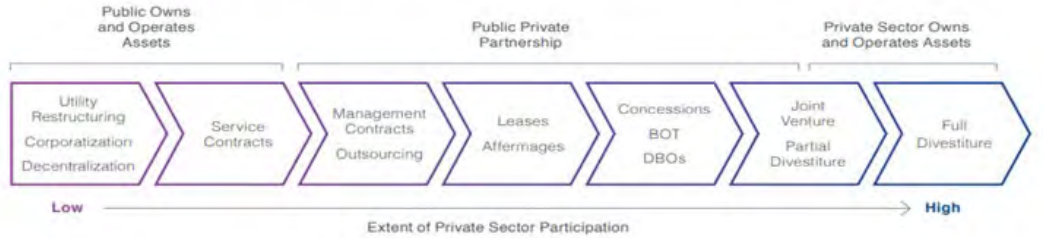



Figure 46. Common structures for Public-Private service arrangements[1]

payments to ensure both affordability for the public and profitability for the private partner. This means that PPPs commonly require a significant amount of public capital. Given this, Naryn government should carefully assess the value offered by PPPs versus alternative procurement methods and justify the involvement of the private sector. If the private partner is not offering an identifiable benefit, such as providing private funds that would otherwise not be available or evidencing a history of superior efficiency, the public sector should evaluate the reasoning behind implementing a PPP and consider if there are alternate options. The Public-Private Partnership Centre of the Kyrgyz Republic can help Naryn develop projects for PPPs and find investors for implementation.

Priority Projects that may be well-suited to implementation as a PPP include:

- Construction of Solar Energy Package
- Construction of retirement house
- Renovation and construction of health care facilities
- New construction of education facilities
- Construction of parking space
- Regeneration of market
- Reorganization of the landfill
- Mixed-use infill development
- Centre of Research & Innovation
- Construction of Agro-tourism café (with local produce)
- Construction of Agro-tourism workshop (felt, handicraft and sewing workshop for women)
- Construction of local products & training centre
- Construction of Veterinary Laboratory to support meeting China's export requirements
- Renovation of Intercity bus station
- Reconstruction of central "Ala-Too" stadium
- Repurposing of old industrial site

For example, 'construction of solar energy package' could be carried out by a private sector company utilizing private debt with the understanding that user tariffs for electricity would be enough to reimburse the private actor for their initial capital, cover loan repayment costs, and provide an acceptable amount of profit. Often, PPPs such as this require a guarantee by the local government to purchase a certain amount of energy per year, if minimum revenues are not received by users.

Another example could be the co-siting and cross-subsidization of public and private enterprises, such as a public kindergarten that offers additional classes for payment. An example of a PPP proposal for a similar project was put forth by the PPP Centre for implementation in the Tash-Döbö, Alamedinsky district of the Chui region. In this case, both the local and national governments are proposed to pay a portion of operating costs for the kindergarten in addition to a portion paid by parents. These payments will also cover the necessary private partner profit. Additionally, the private partner is allowed to offer English classes or other classes for payment on the side.

Municipally owned land can be used to promote PPPs where the land is rented to a private owner who develops both a publicly beneficial project, such as a school or municipal office building, and a private project. This scheme can also work on currently existing municipally owned buildings, such as the municipal land department. The private owner can redevelop these buildings so that the ground-floor is a private business, such as a store or restaurant and the upper floors are for government office space. Projects like this would not only provide discounted new office space for municipal workers but will also serve to densify the city and increase commercial and pedestrian activity. Municipal land can be well utilized in public-private partnership projects and can substitute for government capital. Even if the city is not contributing capital to the project, the value of land is significant and should be leveraged to achieve maximum public benefit through negotiation with private partners. Public land must be accurately valued before it is committed to a project to ensure public benefit exceeds the land value contribution.

**Public Implementation**

Projects that do not have an opportunity to generate income for a private partner or that do not have a specific private beneficiary are more likely to be implemented by the government, either locally or nationally. This can be done through a public procurement process or through self-implementation. Priority Projects that may be well-suited to implementation by the government include:

- Adaptation of buildings and public space as safe havens
- Plantation
- Stormwater drainage and irrigation
- Public space
- Non-income generating road, street, and cycling lane construction

# Financing Options

### Blended Finance & Below-market rate loans

Blended finance combines below-market rate loans with market-rate debt. The combination results in a lower average rate than purely market-rate debt. This financing method can be used in public-private partnerships or public implementation. Often, MDBs or national development banks offer this type of finance. Additionally, within the Kyrgyz Republic, the State Development Bank offers below-market rate finance to private enterprises and state-owned enterprises for projects within their priority areas.[2] While these loans are below market rate, they still require some amount of debt service, which will need to be paid for either through project income or through a guarantee by the government. When taking on debt, it is important that Naryn carefully consider whether they can fund debt service via increased user fees or if the budget is the only reliable source.

### National

The national government provides the largest portion of funding for Naryn's capital development – approximately 53% in 2022-2023. In these years, the national government provided most of its funding for schools, including construction of a new school and the renovation of a school heating system. Additionally, the national government funded the construction of housing for Customs Service employees. Three projects were implemented through the Incentive Grant program.[3]

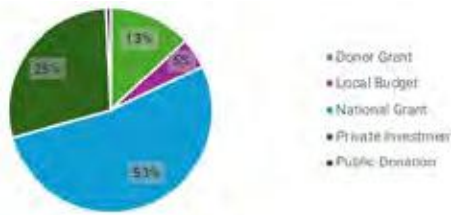



Figure 47. Funding sources for Capital Projects 2022-2023[ii]

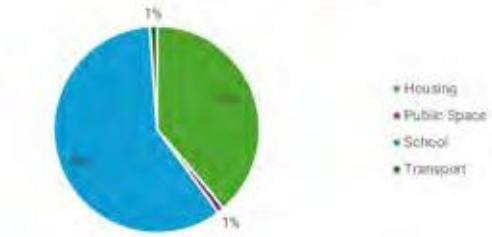



Figure 48. National funding sources for Capital Projects[ii]

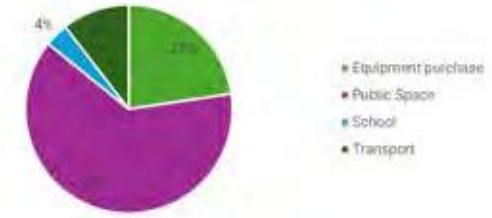



Figure 49. Local government expenditure for Capital Projects 2022-2023[ii]

### Local Government Budget

The City of Naryn should conserve its funding for those projects that are most unlikely to receive funding from other sources as well as the projects that are most urgent and relevant to the city's priorities. Based on 2022-2023 budget documents, local funds primarily went to public space and equipment purchases.

Based on budget documents, a total of 16,786,319 som ($199,552 USD) were spent on capital investments from the local budget in 2022. This is approximately 8% of total 2022 expenditures. During the first nine months of 2023, a total of 23,620,780 som ($268,846 USD) were spent on capital investments from the local budget. This is approximately 13% of total expenditures as-of the end of the ninth month of 2023. Ideally, the government

2 Per conversations with the Kyrgyz State Development Bank, priority sectors for finance are: Industrial sector, green finance, E-commerce, Transport and logistics, Tourism, Recycling, Mining, Food processing

3 Through the incentive grant program, the national government provides project financing on a competitive basis to local governments. These grants are provided for the capital costs of infrastructure projects in local governments' socio-economic development plans. These projects must be completed within the year. Local governments are allowed to submit a maximum of three projects annually for financing consideration. The maximum grant amount is 5 million Soms. Local governments must contribute a specified amount ranging from 7%-30% to each project's financing based on profitability of the project. If a project costs more than 3 million Soms, the local government must contribute 50% of projects costs from its own budget.

would spend approximately 30% of the budget on capital expenditures, which would equate to over 60,000,000 som ($700,000 USD) in each of 2022 and 2023.

## Land Value Capture

Land value capture (LVC) is one way the local or national government could raise revenue to invest in capital projects. LVC is a form of financing where a public entity captures increases in land and property value. These revenues can then be reinvested in public projects, such as infrastructure. This method can recapture some of the government's investment in infrastructure and public space, since private property will increase in value as a result of government investment. While not currently legally permitted in the Kyrgyz Republic, if regulations are changed, land value capture can offer innovative and creative ways to finance and incentivize development. This category encompasses a wide variety of methods (See Figure 50).

Projects that may be well suited to land value capture:

- Adaptation of existing "special use green space" to public space
- Construction of Playground and Sports area
- Plantation and terracing
- Adapting public space as safe havens
- Mixed-use infill development
- Redesign of space around building blocks

For example, mixed-use infill development could be implemented by collecting a set fee from each developer who wishes to develop a commercial or residential property in the district. The proceeds from this fee can go towards ensuring there is adequate infrastructure, such as sewerage, roads, etc., within the district.

Another example is requiring private developers to construct and maintain public green space surrounding their buildings in exchange for the government allowing the developer to build at a higher height or greater density. The additional height or density would allow the developer to achieve more profit, which should cover or exceed the cost to construct and maintain the public space.


Figure 50. Instruments of Land Value capture [iii]

## Donations & Grants

Based on budget documents for 2022-2023, public donations and grants from donor organisations constituted 13% of capital expenditure funding. These funds primarily paid for schools, public space, and sanitation.

## Other Sources of Funding

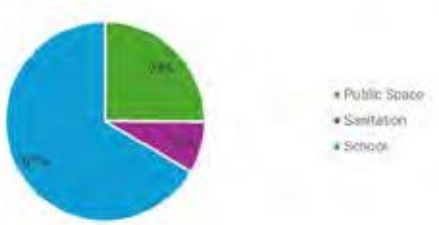



Figure 51. Donations and grants for Capital Projects 2022-2023[ii]

While other sources were not accessed during fiscal years 2022-2023, there are a variety of opportunities for Naryn can capitalize on, including Multilateral Development Banks (MDB), such as the World Bank, EBRD, and the Asian Development Bank. Typically, these organisations liaise with local governments through the national government, so it would be strategic for Naryn to choose specific priority projects for the national government to promote on Naryn's behalf. Additionally, there are a myriad of opportunities for financing green and climate-related projects, including The Adaptation Fund, Green Climate Fund, and Climate Investment Fund, which have all funded projects within the Kyrgyz Republic.

## Financial Summary

Based on past project funding, the national government and donors are interested in funding school projects and housing. Looking further back in time, donors and MDBs have also funded sewerage and water projects in Naryn (EBRD project). There may be opportunities for Naryn to promote different priority sectors through the Incentive Program, but the city will also be required to partially fund these projects, according to Incentive Grant regulations.

Based on this, it makes sense for the city to put its local budget towards other sectors that are less likely to receive external funding, such as public space and transport.

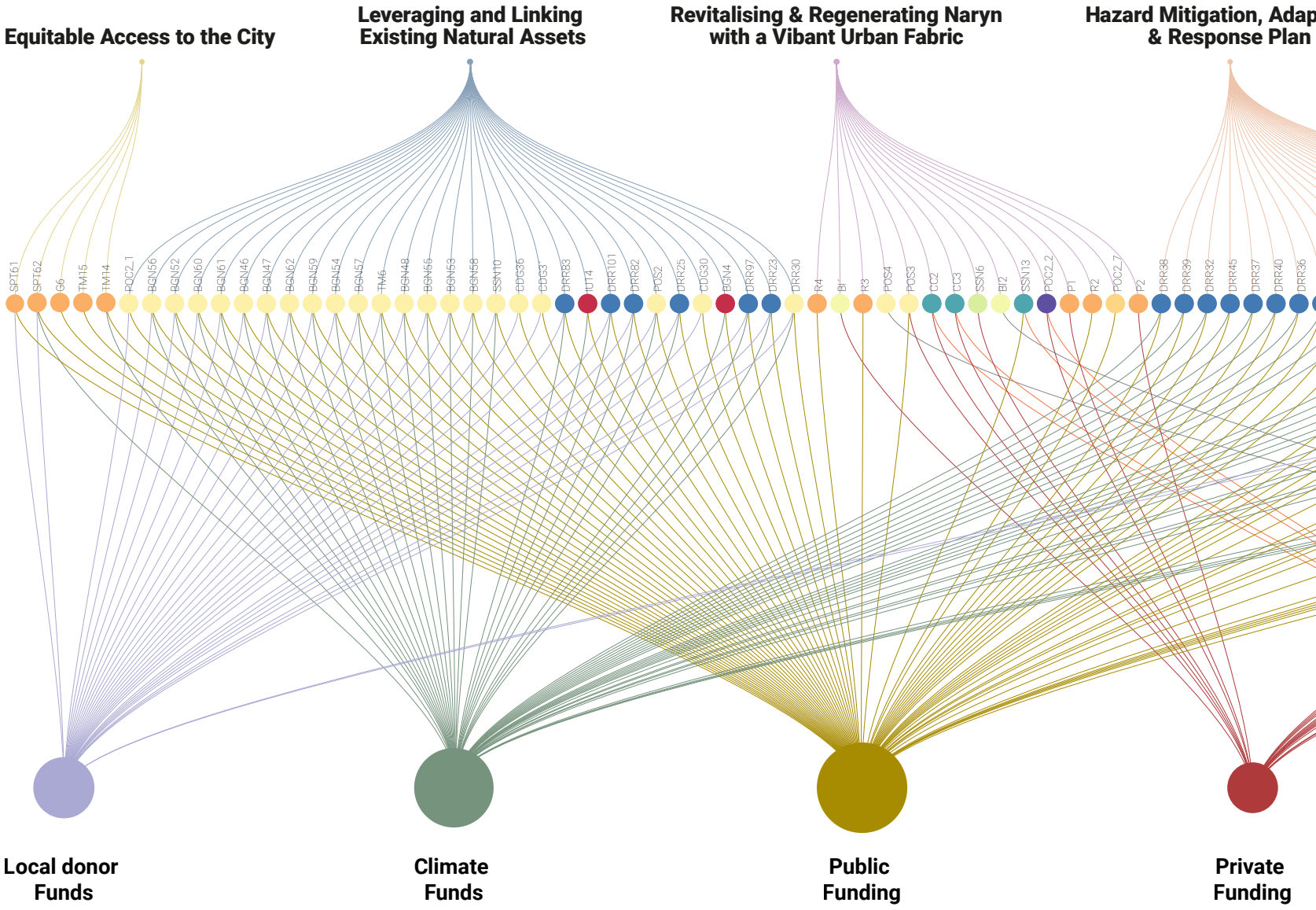
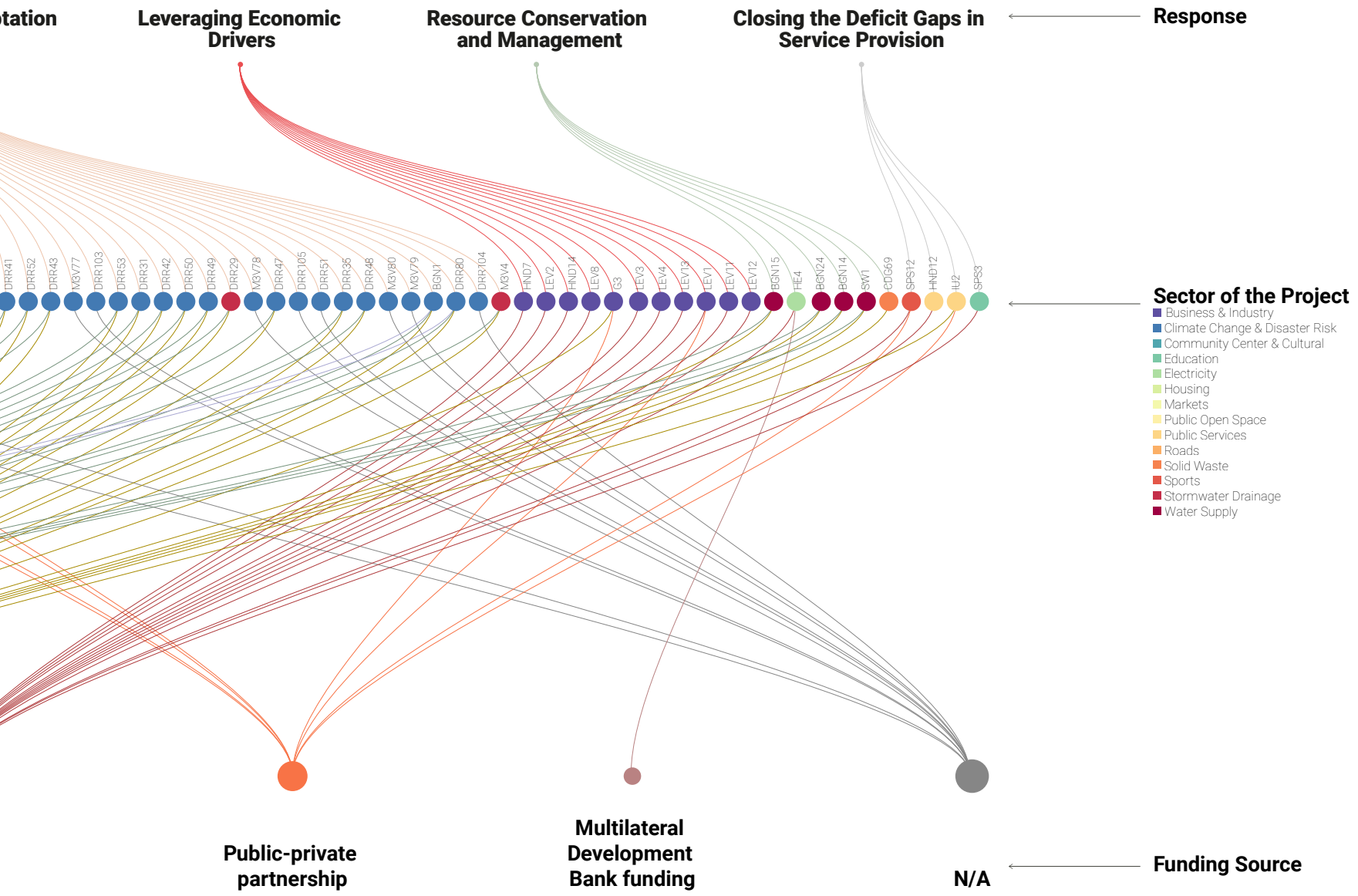



Figure 52. Overview of the Priority Projects (organised by sector) corresponding to potential funding sources


tation
Leveraging Economic Drivers
Resource Conservation and Management
Closing the Deficit Gaps in Service Provision
Response
DRR41
DRR52
DRR43
M3V77
DRR103
DRR53
DRR31
DRR42
DRR50
DRR49
DRR29
M3V78
DRR47
DRR105
DRR51
DRR36
DRR48
M3V80
M3V79
BGN1
DRR80
DRR104
M3V4
HND7
LEV2
HND14
LEV8
G3
LEV3
LEV4
LEV13
LEV1
LEV11
LEV12
BGN15
HE4
BGN24
BGN14
SW1
CDG69
SPS12
HND12
HU2
SPS3
Sector of the Project
Business & Industry
Climate Change & Disaster Risk
Community Center & Cultural
Education
Electricity
Housing
Markets
Public Open Space
Public Services
Roads
Solid Waste
Sports
Stormwater Drainage
Water Supply
Public-private partnership
Multilateral Development Bank funding
N/A
Funding Source

# List of Figures

# Annexures

## Annexture 1 - List of Priority Projects

| Location ID | Project Name | Description | Type of infrastructure | Sector for Deficit Scoring | Primary Score | Final Score | Transform. area | Cost ($) | Timeframe | Response | Master Plan Alignment | Financial Recommendations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPT62 | Construction of cycling path (center loop) | Construction of a cycling path in the city centre consisting of 8.46 km. This cycling path is a loop-route intersecting Orozdak and Sovetskaya Streets and some parts of BNC. | Utilities | Roads | 71.95 | 80.55 | 1, 3, 5, 9 | $133,430 | Short-term | 5 | Aligned | •Public Funding<br>•Local donor funding<br>•Climate funds |
| SPT61 | Construction of cycling path (Lenin St.) | Construction of a city wide linear cycling axis along the main road (Lenin St.) consisting of 16.46 km. | Utilities | Roads | 71.95 | 80.55 | 1, 3, 5, 6, 7, 8, 9 | $259,507 | Medium-term | 5 | Aligned | •Public Funding<br>•Local donor Funds |
| POC2_1 | Landscaping of Jusaiev Park | Landscaping of the Jusaiev Park as in its current situation not fully functioning as a public open space. The landcaping includes diagonal and vertical ensuring the connectivity with the perimetre functions, and water element, aligned trees, lighting and seating benches. The landscaping of the park primarily utilizes native trees and vegetation, focusing on species that require minimal maintenance and irrigation. This project is also a component of the Proof of Concept #2. | Social Facilities | Public Open Space | 61.97 | 76.58 | 4 | $537,225 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor funds |
| BGN56 | Plantation for green riverfront axes | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. | Mitigation | Public Open Space | 63.12 | 74.19 | 2, 4 | $484,052 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| R4 | Construction of pedestrian oriented street | Construction of a pedestrian oriented street in the city centre, connecting Schuller St. and Saginbay Orozbak St. This route will redirect pedestrian flows, attracting citizens to pass through the theatre area to the marketplace. This project is also a component of the Proof of Concept #1. | Utilities | Roads | 62.06 | 73.66 | 3 | $13,664 | Short-term | 4 | Aligned | •Public Funding |
| BGN52 | Plantation for green riverfront axes | Plantation of green riverfront axes that would serve to limit built-up development in the Water Protection Zone in a densely populated and built-up area. | Mitigation | Public Open Space | 60.65 | 71.72 | 2, 4 | $883,814 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| BGN60 | Plantation for green riverfront axes | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. | Mitigation | Public Open Space | 59.85 | 70.92 | 2, 9 | $766,980 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| G6 | Reconstruction of Lenin St. | This project is one of the projects announced by Governor of Naryn Oblast during a public meeting of the Collegium. As briefly described, Lenin Street will be widened and reconstructed and adjacent building facades will be upgraded. Total lenght of the reconstruction is 10.24 km. | Utilities | Roads | 60.66 | 69.79 | 1, 3, 5, 6, 7, 8, 9 | $646,224 | Short-term | 5 | Aligned | •Public Funding |
| BGN61 | Plantation for green riverfront axes | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. | Mitigation | Public Open Space | 58.11 | 69.19 | 2, 8 | $484,332 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| BGN46 | Plantation for green riverfront axes | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. | Mitigation | Public Open Space | 57.78 | 68.85 | 2, 6 | $3,393,020 | Medium-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| BGN47 | Plantation for green riverfront axes | Plantation of green riverfront axes that would serve to limit the development of existing built-up area in the Water Protection Zone. | Mitigation | Public Open Space | 57.75 | 68.82 | 2, 4, 6 | $662,253 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| BI1 | Regeneration of market | The transformation of the central market into a thriving hub of activity and interaction will not only boost the •Local economy but also enhance the quality of life for all residents through urban design interventions to improve public space, street network, promote vegetation. This project is also a component of the Proof of Concept #1. | Social Facilities | Markets | 55.85 | 66.78 | 3 | $17,515 | Long-term | 4 | Not Aligned | •Private funding |
| BGN62 | Plantation for green riverfront axes | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation. | Mitigation | Public Open Space | 55.55 | 66.62 | 2, 7, 8 | $2,819,856 | Medium-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| BGN59 | Plantation for green riverfront axes | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. | Mitigation | Public Open Space | 55.30 | 66.38 | 2, 3, 5 | $715,932 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| BGN54 | Plantation for green riverfront axes | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. | Mitigation | Public Open Space | 55.16 | 66.24 | 2, 6 | $470,541 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |

| Location ID | Project Name | Description | Type of infrastructure | Sector for Deficit Scoring | Primary Score | Final Score | Transform. area | Cost ($) | Timeframe | Response | Master Plan Alignment | Financial Recommendations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TM15 | Renovation of Intercity bus station | Renovation of existing bus station for intercity passanger transportation for future population and tourism demand. | Utilities | Roads | 59.17 | 66.20 | | $165,318 | Medium-term | 5 | Aligned | •Public Funding |
| TM14 | Renovation existing bus stops | Renovation of the existing public transportation stops with a Climate resistant and user friendly design. The project consists of renovation of 36 bus stops. | Utilities | Roads | 61.44 | 65.99 | 1, 3, 5, 6, 7, 8, 9 | $80,710 | Short-term | 5 | Aligned | •Public Funding<br>•Climate Funds |
| BGN57 | Plantation for green riverfront axes | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. | Mitigation | Public Open Space | 54.07 | 65.14 | 2 | $387,756 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| TM6 | Plantation for green riverfront axes | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zones of the Naryn River and BNC. | Mitigation | Public Open Space | 53.80 | 64.88 | 2 | $1,305,900 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| BGN48 | Plantation for green riverfront axes | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. | Mitigation | Public Open Space | 53.69 | 64.77 | 2, 4, 6 | $389,986 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| DRR38 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 56.52 | 64.59 | 9 | $1,988 | Short-term | 1 | Aligned | •Public Funding<br>•Climate Funds |
| R3 | Construction of pedestrian oriented street | Construction of a pedestrian oriented street, defining a link between the service road of the central market and Andabekova Street. This connection will expand the central market area, improve connectivity, and link the central market with the adjacent trading zone, which is currently inaccessible due to fencing. By creating this link, the proposal aims to enhance the flow of people and goods, fostering a more integrated and efficient marketplace environment. This project is also a component of the Proof of Concept #1. | Utilities | Roads | 52.80 | 64.40 | 3 | $8,758 | Short-term | 4 | Aligned | •Public Funding |
| BGN55 | Plantation for green riverfront axes | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. | Mitigation | Public Open Space | 53.02 | 64.09 | 2, 6 | $117,787 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| POS4 | Temporary open public space | Design a section of the street to be periodically closed for car traffic and be used as an open space for •Local community. This a place making approach that makes the street a multi-funcitional and safe space for children and the community, which can host a variety of educational or sport activities. | Social Facilities | Public Open Space | 54.18 | 63.89 | 5 | No capital investment needed | Short-term | 4 | Aligned | N/A |
| DRR39 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 54.88 | 62.95 | 9 | $1,988 | Short-term | 1 | Aligned | •Public Funding<br>•Climate Funds |
| BGN53 | Plantation for green riverfront axes | Plantation of green riverfront axes that would serve to mitigate existing disaster risk in the area as an NbS implementation and help limiting built-up development in the Water Protection Zone. | Mitigation | Public Open Space | 51.79 | 62.87 | 2 | $1,542,223 | Medium-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| POS3 | Redesign of space around building blocks | Design of the open spaces surrounding the apartment buildings, including landscaping, paving pathways, public lighting, and surface stormwater drainage. | Social Facilities | Public Open Space | 52.23 | 62.78 | 5 | $102,897 | Short-term | 4 | Aligned | •Public Funding<br>•Private funding |
| HND7 | Renovation and operating the ski lift | Rennovation and reoperation of the existing ski lift to promote winter sports and tourism. | Industry & Housing | Business & Industry | 55.49 | 62.52 | 7 | $1,288,841 | Medium-term | 7 | Aligned | •Private funding |
| BGN58 | Plantation for green riverfront axes | Plantation of green riverfront axes that would serve to limit the development of existing built-up area in the Water Protection Zone. | Mitigation | Public Open Space | 51.25 | 62.32 | 2 | $465,284 | Medium-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| DRR32 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 54.05 | 62.13 | | $1,988 | Short-term | 1 | Aligned | •Public Funding<br>•Climate Funds |
| BGN15 | Renovation of irrigation system (pipes) | Rennovation of the irrigation system to ensure efficiency in the water concumption. This project includes renovation of pumps. | Utilities | Water Supply | 53.36 | 61.96 | | $1,584 | Short-term | 2 | Aligned | •Public Funding<br>•Climate Funds |
| DRR37 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 53.81 | 61.89 | 9 | $1,988 | Short-term | 1 | Aligned | •Public Funding<br>•Climate Funds |
| DRR45 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 53.81 | 61.89 | 3 | $1,988 | Long-term | 1 | Not Aligned | •Public Funding<br>•Climate Funds |

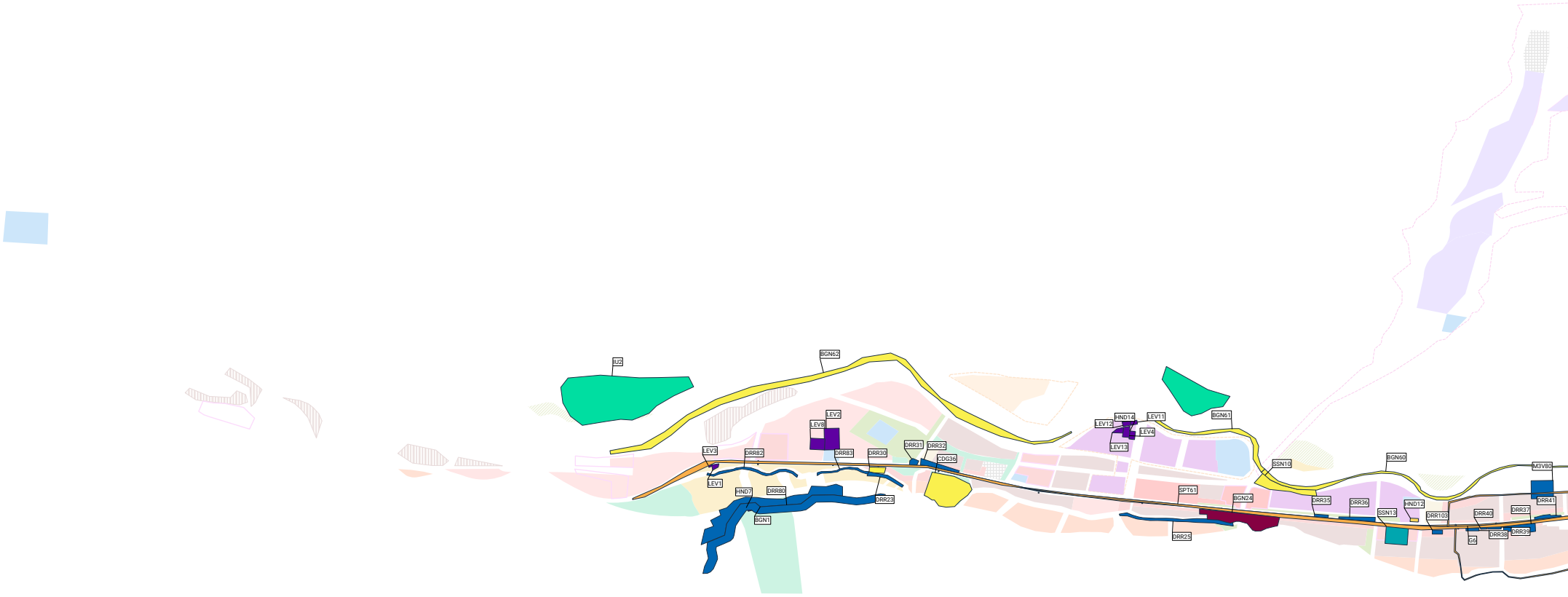
| Location ID | Project Name | Description | Type of infrastructure | Sector for Deficit Scoring | Primary Score | Final Score | Transform. area | Cost ($) | Timeframe | Response | Master Plan Alignment | Financial Recommendations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DRR40 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 53.36 | 61.44 | 9 | $1,988 | Short-term | 1 | Aligned | •Public Funding<br>•Climate Funds |
| DRR36 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 53.06 | 61.14 | | $1,988 | Short-term | 1 | Aligned | •Public Funding<br>•Climate Funds |
| DRR41 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 52.78 | 60.86 | | $1,988 | Short-term | 1 | Aligned | •Public Funding<br>•Climate Funds |
| SSN10 | Construction of new public green space | Consturction of a new public green space to prevent built-up development in the Water Protection Zone. | Social Facilities | Public Open Space | 49.60 | 60.68 | 8 | $282,286 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor funding<br>•Climate funds |
| DRR52 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 52.49 | 60.56 | | $1,988 | Short-term | 1 | Aligned | •Public Funding<br>•Climate Funds |
| CC2 | Repurposing of old industrial site | AThe adaptive reuse of the old industrial building aligns with the broader urban renewal strategy for the area. Following renovation, the building will serve as a multifunctional space, hosting cultural, educational, and artistic amenities, as well as providing facilities for creative industries. | Social Facilities | Community Center & Cultural | 49.50 | 60.43 | 5 | $746,479 | Long-term | 4 | Not Aligned | •Private funding<br>•Public-Private partnership |
| IU2 | Construction of solar energy package | A 3 phased project including (a) Conducting a feasibility study to investigate Naryn's solar energy potential, (b) Installation of solar energy infrastructure, (c) Maintanence of the infrastructure. This projects has 3 areas within Naryn that corresponds to 544,345 sqm. | Utilities | Electricity | 50.09 | 60.13 | 6, 7, 8 | $82,500,000 | Long-term | 2 | Not Aligned | •Private funding<br>•Multilateral Development Bank funding |
| DRR43 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 52.05 | 60.12 | 3 | $1,988 | Short-term | 1 | Aligned | •Public Funding<br>•Climate Funds |
| HE4 | Conservation of Ak Becmel water reservoir | Conservation of the Ak-Becmel water reservoir for protection against pollution with fencing implementation. | Utilities | Water Supply | 51.50 | 60.10 | | $77,574 | Medium-term | 2 | Aligned | •Public Funding<br>•Climate Funds |
| CC3 | Repurposing of old industrial site | The adaptive reuse of the old industrial building aligns with the broader urban renewal strategy for the area. Following renovation, the building will serve as a multifunctional space, hosting cultural, educational, and artistic amenities, as well as providing facilities for creative industries. | Social Facilities | Community Center & Cultural | 49.15 | 60.09 | 5 | $322,353 | Long-term | 4 | Not Aligned | •Private funding<br>•Public-Private partnership |
| CDG36 | Adaptation of Botanical Garden to public space | Opening of existing public open space to public use to increase accessibility and provision of green space. | Social Facilities | Public Open Space | 51.66 | 59.74 | | $22,049 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor funds |
| CDG31 | Adaptation of existing special use green space to public space | Opening of existing public open space to public use to increase accessibility and provision of green space. | Social Facilities | Public Open Space | 51.58 | 59.13 | | $67,513 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor funds |
| SSN6 | Mixed-use infill development | Construction of mixed-use housing to support the demand of the future population. | Industry & Housing | Housing | 46.04 | 59.08 | 6 | $48,385,396 | Long-term | 4 | Aligned | •Private funding |
| LEV2 | Centre of Research & Innovation | Construction of a large reserach and innovation center unit with laboratories and testing equipment, as well as education facilities and parking and convenience facilities (toilets, external lighting and landscaping, additional road laying, food services) , to support agro-industry through training and experimentation of effective farming approaches, also to bridge the gap to connect students with employment opportunities. | Industry & Housing | Business & Industry | 52.02 | 59.05 | 7 | $6,174,556 | Medium-term | 7 | Aligned | •Private funding |
| M3V77 | Adaptation of existing school as safe haven (#2) | Adaptation of the existing school as an indoor safe haven for enhancing use as a disaster response. | Mitigation | Climate Change & Disaster Risk | 50.37 | 58.97 | 4 | No capital investment needed | Short-term | 1 | Aligned | N/A |
| DRR103 | Equipping of existing building as indoor safe haven | Adaptation of the existing sports facility as an indoor safe haven for enhancing use as a disaster response. | Mitigation | Climate Change & Disaster Risk | 50.22 | 58.82 | 9 | No capital investment needed | Short-term | 1 | Aligned | N/A |
| BGN24 | Renovation of irrigation system (ditches, pumps) | Rennovation of the irrigation system to ensure efficiency in the water concumption. This project includes construction of additional ditches and renovation of pumps. | Utilities | Water Supply | 50.10 | 58.70 | 8 | $36,696 | Short-term | 2 | Aligned | •Public Funding<br>•Climate Funds |
| DRR53 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 50.32 | 58.40 | | $1,988 | Short-term | 1 | Aligned | •Public Funding<br>•Climate Funds |

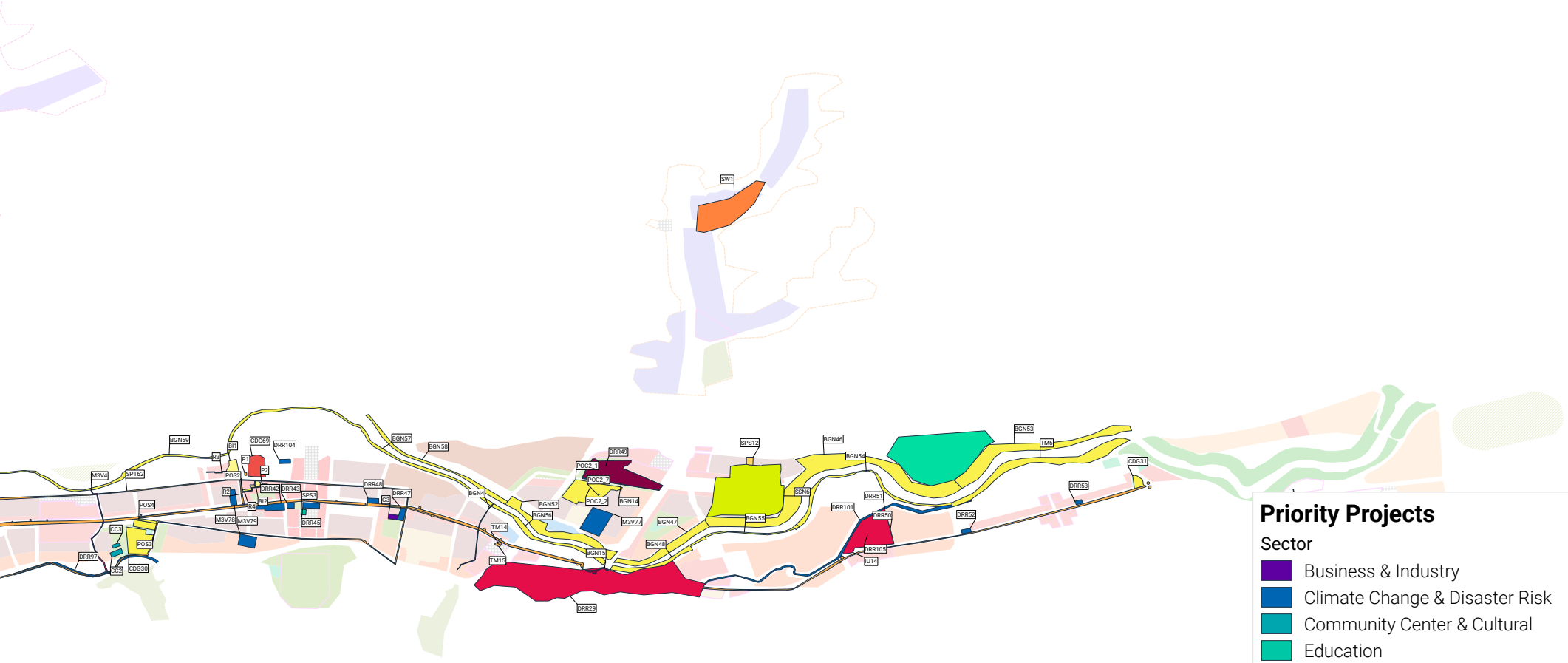
| Location ID | Project Name | Description | Type of infrastructure | Sector for Deficit Scoring | Primary Score | Final Score | Transform. area | Cost ($) | Timeframe | Response | Master Plan Alignment | Financial Recommendations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DRR83 | Reconstruction of BNC | Reconstruction of a part of BNC with gabions, in-stream deflectors, planting as a NbS implementaion. | Mitigation | Climate Change & Disaster Risk | 49.75 | 58.35 | 2, 7 | $475,473 | Medium-term | 3 | Aligned | •Public Funding •Local donor Funds •Climate Funds |
| DRR31 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 50.09 | 58.16 | 7 | $1,988 | Short-term | 1 | Aligned | •Public Funding •Climate Funds |
| DRR42 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 50.00 | 58.07 | 3 | $1,988 | Short-term | 1 | Aligned | •Public Funding •Climate Funds |
| DRR50 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 49.99 | 58.07 | 6 | $1,988 | Short-term | 1 | Aligned | •Public Funding •Climate Funds |
| DRR49 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 49.74 | 57.81 | 4 | $1,988 | Short-term | 1 | Aligned | •Public Funding •Climate Funds |
| DRR29 | Construction of drainage system (Stormwater run off/ flooding/irrigation ditches) | Construction of drainage system that will mitigate the existing flood and mudflow risks. | Utilities | Stormwater Drainage | 48.84 | 57.44 | 6 | $54,429 | Medium-term | 1 | Aligned | •Public Funding •Climate Funds |
| M3V78 | Adaptation of existing school as safe haven (#1) | Adaptation of the existing school as an indoor safe haven for enhancing use as a disaster response. | Mitigation | Climate Change & Disaster Risk | 48.55 | 57.15 | 3 | No capital investment needed | Short-term | 1 | Aligned | N/A |
| IU14 | Installation of storm water collection system | Installation of a stormwater collection system for irrigation of the public space. | Utilities | Stormwater Drainage | 48.50 | 57.13 | 6 | $183 | Short-term | 3 | Aligned | •Public Funding •Climate Funds |
| BGN14 | Renovation of irrigation system (ditches, pumps) | Renovation of the irrigation system to ensure efficiency in the water concumption. This project includes construction of additional ditches and renovation of pumps. | Utilities | Water Supply | 48.49 | 57.09 | 4 | $52,422 | Short-term | 2 | Aligned | •Public Funding •Climate Funds |
| DRR101 | Reconstruction of BNC | Reconstruction of a part of BNC with gabions, in-stream deflectors, planting as a NbS implementaion. | Mitigation | Climate Change & Disaster Risk | 48.29 | 56.89 | 2, 6 | $2,784,916 | Medium-term | 3 | Aligned | •Public Funding •Local donor Funds •Climate Funds |
| CDG69 | Reconstruction of central Ala-Too stadium | This project is one of the projects of the 2022-2026 Naryn Town Development Plan. It aims to create new opportunities for residents to engage in sports. | Social Facilities | Sports | 49.75 | 56.79 | 3 | $468,929 | Short-term | 6 | Aligned | •Private funding •Public-Private partnership |
| DRR47 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 48.63 | 56.70 |  | $1,988 | Short-term | 1 | Aligned | •Public Funding •Climate Funds |
| BI2 | Reorganization of market | The reorganization of the market includes areas for rest and socialization, attracting visitors from the sports facilities after their session, students from nearby universities and schools and tourists to spend more time exploring the market. This project is also a component of the Proof of Concept #1. | Social Facilities | Markets | 51.69 | 56.62 | 3 | No capital investment needed | Long-term | 4 | Not Aligned | N/A |
| HND14 | Relocation and expansion of the production capacity of existing cheese & milk factory | Relocation of the existing factory to support the Agro-Industry cluster, and expanding its capacity to increase the production for •Local consumption. | Industry & Housing | Business & Industry | 49.45 | 56.49 | 8 | $2,060,124 | Medium-term | 7 | Aligned | •Private funding |
| DRR105 | Equipping of existing building as indoor safe haven | Adaptation of the existing restaurant and its perimetre as an indoor & outdoor safe haven for enhancing use as a disaster response. | Mitigation | Climate Change & Disaster Risk | 47.81 | 56.41 | 6 | No capital investment needed | Long-term | 1 | Not Aligned | N/A |
| LEV8 | Construction of •Local products & training centre | Construction of a centre that citizens can receive non-formal education on •Local products. This project would enable the transfer of tacid knowledge | Industry & Housing | Business & Industry | 49.26 | 56.29 | 7 | $3,090,779 | Long-term | 7 | Not Aligned | •Private funding |
| DRR51 | Adaptation of the new building of SS #10 and its open space as a safe haven | Adaptation of the new school as safe haven for enhancing use as a disaster response. | Mitigation | Climate Change & Disaster Risk | 48.17 | 56.25 | 6 | No capital investment needed | Medium-term | 1 | Aligned | N/A |

| Location ID | Project Name | Description | Type of infrastructure | Sector for Deficit Scoring | Primary Score | Final Score | Transform. area | Cost ($) | Timeframe | Response | Master Plan Alignment | Financial Recommendations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SSN13 | Renovation of old industrial building (industrial heritage and multi-functional area) | Renovation of old industrial building and its perimetre for refunctioning as a cultural facility and and preservation of industrial heritage of Naryn. | Social Facilities | Community Center & Cultural | 45.14 | 56.07 | 9 | $5,137,738 | Long-term | 4 | Not Aligned | •Public Funding<br>•Public-Private partnership |
| DRR82 | Reconstruction of BNC | Reconstruction of a part of BNC with gabions, in-stream deflectors, planting as a NbS implementaion. | Mitigation | Climate Change & Disaster Risk | 47.41 | 56.01 | 2, 7 | $883,022 | Medium-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| DRR35 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 47.89 | 55.97 | 9 | $1,988 | Short-term | 1 | Aligned | •Public Funding<br>•Climate Funds |
| DRR48 | Adaptation of existing public space as safe haven | Adaptation of the existing public open space as a safe haven for enhancing use as a disaster response. This project includes installment of the pre-fabricated toilet. | Mitigation | Climate Change & Disaster Risk | 47.81 | 55.88 |  | $1,988 | Short-term | 1 | Aligned | •Public Funding<br>•Climate Funds |
| G3 | Construction of the innovative creative initiatives center | This project is one of the projects announced by Governor of Naryn Oblast during a public meeting of the Collegium. As described, a center for innovative creative initiatives is being proposed at Roza Park with a library and a museum located there, major reforms and public services are proposed to be provided in a modern building at the location. | Industry & Housing | Business & Industry | 48.84 | 55.88 |  | $570,735 | Long-term | 7 | Not Aligned | •Public Funding<br>•Public-Private partnership |
| SPS12 | Construction of retirement house | Construction of a retirement house to support aging population of Naryn. | Social Facilities | Public Services | 48.77 | 55.81 | 6 | $754,991 | Medium-term | 6 | Aligned | •Private funding |
| LEV3 | Construction of Agro-tourism café | Construction of an Agro-tourism cafe to promote use of •Local products, that would also serve as a tourist attraction. | Industry & Housing | Business & Industry | 48.69 | 55.72 | 7 | $81,101 | Long-term | 7 | Not Aligned | •Private funding |
| LEV4 | Construction of Logistics Park | Construction of a Logistics Park to support the Agro-Industry vision by meeting the needs of the industry by including units such as distribution centre, warehouse, loading zones. | Industry & Housing | Business & Industry | 48.63 | 55.67 | 8 | $742,856 | Medium-term | 7 | Aligned | •Private funding |
| M3V80 | Adaptation of existing school as safe haven (#5) | Adaptation of the existing school as an indoor safe haven for enhancing use as a disaster response. | Mitigation | Climate Change & Disaster Risk | 47.03 | 55.63 |  | No capital investment needed | Short-term | 1 | Aligned | N/A |
| LEV13 | Packaging plant for potatos, other produce (berries, honey, etc.) | Construction of a packaging plant that can be used for products from Naryn Oblast. | Industry & Housing | Business & Industry | 48.57 | 55.61 | 8 | $1,086,886 | Medium-term | 7 | Aligned | •Private funding |
| POS2 | Construction of new public green space | Construction of a new public green space that will also function as a community garden. This project also contributes to the green network of Naryn as it connects the main axis of green network (Lenin St.) to a highly vibrant market area. This project is also a component of the Proof of Concept #1. | Social Facilities | Public Open Space | 47.52 | 55.59 | 3 | $10,218 | Long-term | 3 | Not Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| M3V79 | Adaptation of existing school as safe haven (#4) | Adaptation of the existing school as an indoor safe haven for enhancing use as a disaster response. | Mitigation | Climate Change & Disaster Risk | 46.93 | 55.53 |  | No capital investment needed | Short-term | 1 | Aligned | N/A |
| LEV1 | Construction of Agro-tourism workshop | Construction of an Agro-tourism workshop to promote use of •Local products such as felts and other handicrafts that would serve as an tourist attraction and would create small scale employment for women. | Industry & Housing | Business & Industry | 50.45 | 55.38 | 7 | $136,581 | Long-term | 7 | Not Aligned | •Private funding<br>•Public-Private partnership |
| BGN1 | Plantation and terracing | Plantation and terracing of the area to protect water collection area and mitigation of mudflow risk. | Mitigation | Climate Change & Disaster Risk | 47.71 | 55.26 | 7 | $1,419,462 | Short-term | 1 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| DRR25 | Plantation alongside BNC | Plantation along the canal to reduce mudflow and erosion risks and securing the water protection zone. | Mitigation | Climate Change & Disaster Risk | 47.10 | 55.18 | 2, 8 | $340,787 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| CDG30 | Construction of new public green space | The project involves the development of a new public open space to enhance both accessibility and the provision of green spaces within the area. This space will be created through the conversion of an existing, non-functional cemetery. In accordance with regulations governing the transformation of old cemeteries, all necessary legal and environmental guidelines will be strictly followed. The new public space will feature an urban forest to promote biodiversity and sustainability, along with designated planting beds for community farming. | Social Facilities | Public Open Space | 46.97 | 55.04 | 5 | $381,274 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor funds |
| LEV11 | Construction of Veterinary Laboratory to support meeting China's export requirements | Construction of a laboratory to ensure products can meet Chinese standards for export. | Industry & Housing | Business & Industry | 47.99 | 55.03 | 8 | $163,943 | Medium-term | 7 | Aligned | •Private funding |

| Location ID | Project Name | Description | Type of infrastructure | Sector for Deficit Scoring | Primary Score | Final Score | Transform. area | Cost ($) | Timeframe | Response | Master Plan Alignment | Financial Recommendations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DRR80 | Plantation and terracing | Plantation and terracing of the area to protect water collection area and mitigation of mudflow risk. | Mitigation | Climate Change & Disaster Risk | 46.81 | 54.89 | 7 | $1,734,768 | Medium-term | 1 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| POC2_2 | Construction of Cafes & Restaurant | Construction of cafes and a restaurant to ensure the vibrancy of the public open space. These amenities are located on key points within the design, that will serve visitors. The park features a yurt restaurant, a nod to •Local identity and gastronomy. Beyond serving as a dining venue, the yurt can host celebrations and events, making it a versatile space that generates additional revenue for the park. This project is also a component of the Proof of Concept #2. | Industry & Housing | Business & Industry | 47.74 | 54.78 | 4 | $276,992 | Short-term | 4 | Aligned | •Private funding<br>•Public-Private partnership |
| DRR104 | Equipping of existing building as indoor safe haven | Adaptation of the existing sports facility as an indoor safe haven for enhancing use as a disaster response. | Mitigation | Climate Change & Disaster Risk | 46.12 | 54.72 | 3 | No capital investment needed | Short-term | 1 | Aligned | N/A |
| BGN4 | Increasement of capacity of irrigation/ drainage infrastructure | Increasement of the capacity of existing irrigation line to create a by-pass line between BNC and Naryn river to mitigate the flood risk. | Utilities | Stormwater Drainage | 45.88 | 54.48 | | $451 | Medium-term | 3 | Aligned | •Public Funding<br>•Climate Funds |
| DRR97 | Reconstruction of BNC | Reconstruction of a part of BNC with gabions, in-stream deflectors, planting as a NbS implementaion. | Mitigation | Climate Change & Disaster Risk | 45.86 | 54.46 | 2, 5 | $1,412,835 | Medium-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| DRR23 | Plantation alongside BNC | Plantation along the canal to reduce mudflow and erosion risks and securing the water protection zone. | Mitigation | Climate Change & Disaster Risk | 46.27 | 54.34 | 2, 7 | $115,767 | Short-term | 3 | Aligned | •Public Funding<br>•Local donor Funds<br>•Climate Funds |
| P1 | Construction of parking space | This parking area is hidden from the major Sagynbai Orozbak Street and provides direct access to the stadium. It can be used by both visitors to the stadium during events and by market users when there are no activities at the stadium. This parking can accommodate approximately 20 cars. This project is also a component of the Proof of Concept #1. | Utilities | Roads | 46.22 | 54.15 | 3 | $1,836 | Long-term | 4 | Not Aligned | •Private funding |
| R2 | Renovation of street | The renovation of a part of Shuller St. that already functions as a shared space with areas for trading. The project aims improvements of its safety and adaptation for pedestrian movement, service parking, and vending. Pilot interventions include the use of special tiles and surfaces for the street. This project is also a component of the Proof of Concept #1. | Utilities | Roads | 48.01 | 53.61 | 3 | $13,582 | Short-term | 4 | Aligned | •Public Funding |
| SW1 | Reorganization of the landfill | Reorganization of the existing landfill area to prevent pollution and support recycling activities. | Utilities | Solid Waste | 44.97 | 53.61 | | $425,000 | Medium-term | 2 | Aligned | •Public Funding |
| M3V4 | Installation of stormwater drainage channel | Construction of a stormwater collection line to create a by-pass line between BNC and Naryn river to mitigate the flood risk. | Utilities | Stormwater Drainage | 45.00 | 53.60 | 5 | $846 | Medium-term | 1 | Aligned | •Public Funding<br>•Climate Funds |
| DRR30 | Construction of new public green space | Construction of a new public space, following the relocation of existing school. This project aims to mitigate disaster risks as the area contains Erosion risk. | Social Facilities | Public Open Space | 45.26 | 53.33 | 7 | $61,225 | Long-term | 3 | Not Aligned | •Public Funding<br>•Local donor funds<br>•Climate Funds |
| POC2_7 | Installation of Wc | Included in Proof of Concept #2, the addition of public restrooms enhances convenience for visitors, supporting extended use of the green space and ensuring it is a comfortable, accessible location for community activities. | Social Facilities | Public Services | 44.81 | 51.84 | 4 | | Short-term | 4 | Aligned | •Public Funding |
| LEV12 | Construction of Winterized storage for food products/ warehouse | Construction of an insulated building that can be used to store crops in all seasons. | Industry & Housing | Business & Industry | 48.43 | 51.27 | 8 | $108,270 | Medium-term | 7 | Aligned | •Private funding |
| P2 | Construction of parking space | This parking area is located between Sagynbai Orozbak Street and Kommunalnaya Street, replacing the area currently occupied by containers. This location has significant land capacity and can accommodate approximately 51 cars. Covering an approximate area of 1000 m², it is recommended to consider practices that prevent the creation of vast parking surfaces to avoid the heat island effect and reduce the flow of water runoff. It is suggested to explore the use of permeable strategies to parking such as introducing potential gravel parking, the use of Porous Asphalt, Grass Pavers etc. This project is also a component of the Proof of Concept #1. | Utilities | Roads | 44.85 | 50.69 | 3 | $7,959 | Long-term | 4 | Not Aligned | •Private funding |
| HND12 | Crisis center & NGO hub | A crisis center where victims and citizens can receive consulting and non-formal education. It's also planned to be a co-working space & hub for the NGOs working in this field. Thus, supporting the NGOs by providing space&infrastructure. | Social Facilities | Public Services | 47.68 | 50.52 | 9 | $377,622 | Long-term | 6 | Not Aligned | •Public Funding<br>•Public-Private partnership |
| SPS3 | Construction of non-formal education facility for staff | Construction of a facility for non-formal education of public workers and NGOs. | Social Facilities | Education | 45.39 | 49.59 | 3 | $290,287 | Long-term | 6 | Not Aligned | •Private funding |

# Annexure 2: Map showing relation of Priority Projects to Naryn Masterplan






## Priority Projects

Sector

- Business & Industry
- Climate Change & Disaster Risk
- Community Center & Cultural
- Education
- Electricity
- Housing
- Markets
- Public Open Space
- Public Services
- Roads
- Solid Waste
- Sports
- Stormwater Drainage
- Water Supply

# Annexure 3: List of Additional Projects

| Location ID | Project Name | Type of infrastructure | Sector for Deficit Scoring | Primary Score | Tranform. Area |
|---|---|---|---|---|---|
| DRR19 | Plantation alongside BNC | Mitigation | Climate Change & Disaster Risk | 44.76 | 2, 7 |
| M3V39 | Installation of emergency hub | Social Facilities | Public Services | 44.60 | |
| M3V62 | Construction of new public green space | Social Facilities | Public Open Space | 44.20 | 9 |
| DRR24 | Plantation alongside BNC | Mitigation | Climate Change & Disaster Risk | 44.13 | 2, 8 |
| DRR22 | Plantation alongside BNC | Mitigation | Climate Change & Disaster Risk | 43.97 | 2, 7 |
| DRR100 | Reconstruction of BNC | Mitigation | Climate Change & Disaster Risk | 43.83 | 2, 6 |
| SPT36 | Renovation and reinforcement of pedestrian bridge | Utilities | Roads | 43.81 | |
| DRR88 | Reconstruction of BNC | Mitigation | Climate Change & Disaster Risk | 43.74 | 2, 9 |
| DRR89 | Reconstruction of BNC | Mitigation | Climate Change & Disaster Risk | 43.66 | 2, 9 |
| CDG34 | Construction of new public green space | Social Facilities | Public Open Space | 43.62 | 8 |
| SPT4 | Extension of public transportation route (electric minibusses) | Utilities | Roads | 43.47 | 5 |
| POS1 | Construction of new public green space | Social Facilities | Public Open Space | 43.41 | 3 |
| CDG35 | Construction of new public green space | Social Facilities | Public Open Space | 43.27 | 8 |
| DRR102 | Equipping of existing building as indoor safe haven | Mitigation | Climate Change & Disaster Risk | 43.26 | 7 |
| M3V6 | Renovation of street | Utilities | Roads | 43.17 | |
| DRR21 | Plantation alongside BNC | Mitigation | Climate Change & Disaster Risk | 43.15 | 2 |
| DRR73 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 43.13 | |
| M3V9 | Renovation and reinforcement of pedestrian bridge | Utilities | Roads | 42.89 | 4 |
| DRR79 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 42.89 | 7 |
| DRR95 | Reconstruction of BNC | Mitigation | Climate Change & Disaster Risk | 42.86 | 2 |
| BGN42 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 42.82 | |
| M3V59 | Installation of emergency hub | Social Facilities | Public Services | 42.81 | 9 |
| BGN5 | Increasement of capacity of irrigation/drainage infrastructure | Utilities | Stormwater Drainage | 42.77 | |
| M3V8 | Renovation and reinforcement of pedestrian bridge | Utilities | Roads | 42.76 | 7 |
| DRR72 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 42.67 | 5 |
| M3V40 | Installation of emergency hub | Social Facilities | Public Services | 42.52 | |
| DRR84 | Reconstruction of BNC | Mitigation | Climate Change & Disaster Risk | 42.52 | 2, 7 |

| Location ID | Project Name | Type of infrastructure | Sector for Deficit Scoring | Primary Score | Tranform. Area |
|---|---|---|---|---|---|
| DRR20 | Plantation alongside BNC | Mitigation | Climate Change & Disaster Risk | 42.33 | 2 |
| DRR86 | Reconstruction of BNC | Mitigation | Climate Change & Disaster Risk | 42.28 | 2, 8 |
| M3V58 | Installation of emergency hub | Social Facilities | Public Services | 42.20 | 8 |
| M3V43 | Installation of emergency hub | Social Facilities | Public Services | 42.08 | |
| BGN16 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 41.99 | 4 |
| SSN11 | Mixed-use infill development | Industry & Housing | Housing | 41.96 | |
| M3V49 | Installation of emergency hub | Social Facilities | Public Services | 41.94 | 3 |
| SPT5 | Implementation of Pedestrian crossings (painted with lights, or raised) | Utilities | Roads | 41.80 | 3, 4, 5, 7, 8, 9 |
| SSN4 | Mixed-use infill development | Industry & Housing | Housing | 41.67 | 8 |
| DRR2 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 41.61 | |
| DRR46 | Adaptation of existing public space as safe haven | Mitigation | Climate Change & Disaster Risk | 41.59 | |
| M3V74 | Construction of mudflow eliminator | Mitigation | Climate Change & Disaster Risk | 41.32 | 6 |
| CDG33 | Construction of new public green space | Social Facilities | Public Open Space | 41.21 | |
| BGN63 | Plantation alongside BNC | Mitigation | Climate Change & Disaster Risk | 41.11 | 9 |
| M3V47 | Installation of emergency hub | Social Facilities | Public Services | 41.06 | 3 |
| DRR90 | Reconstruction of BNC | Mitigation | Climate Change & Disaster Risk | 41.01 | 2 |
| SPT37 | Construction of new pedestrian bridge | Utilities | Roads | 40.68 | 6 |
| DRR5 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 40.67 | 6 |
| DRR28 | Construction of drainage system (Stormwater run off/ flooding/irrigation ditches) | Utilities | Stormwater Drainage | 40.66 | |
| DRR85 | Reconstruction of BNC | Mitigation | Climate Change & Disaster Risk | 40.55 | 2, 8 |
| HE7 | Prevention of rockfall (controlled demolition against rockfall risk) | Mitigation | Climate Change & Disaster Risk | 40.54 | 8 |
| M3V50 | Installation of emergency hub | Social Facilities | Public Services | 40.53 | 5 |
| SSN3 | Mixed-use infill development | Industry & Housing | Housing | 40.52 | 9 |
| DRR78 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 40.45 | 8 |
| DRR6 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 40.35 | 6 |
| DRR69 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 40.27 | |
| CDG29 | Adaptation of existing "special use green space" to public space | Social Facilities | Public Open Space | 40.23 | 6 |

| Location ID | Project Name | Type of infrastructure | Sector for Deficit Scoring | Primary Score | Tranform. Area |
|---|---|---|---|---|---|
| DRR99 | Reconstruction of BNC | Mitigation | Climate Change & Disaster Risk | 40.22 | 2 |
| BGN41 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 40.11 | 9 |
| SSN2 | Mixed-use infill development | Industry & Housing | Housing | 40.07 | |
| DRR74 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 40.07 | |
| DRR27 | Plantation alongside BNC | Mitigation | Climate Change & Disaster Risk | 40.00 | 2, 9 |
| DRR77 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 39.98 | 8 |
| DRR93 | Reconstruction of BNC | Mitigation | Climate Change & Disaster Risk | 39.96 | 2 |
| M3V63 | Construction of new public green space | Social Facilities | Public Open Space | 39.93 | 9 |
| DRR66 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 39.90 | |
| M3V48 | Installation of emergency hub | Social Facilities | Public Services | 39.86 | |
| DRR98 | Reconstruction of BNC | Mitigation | Climate Change & Disaster Risk | 39.86 | 2 |
| HE2 | Construction of Flood&Mudflow Canals and Trap | Mitigation | Climate Change & Disaster Risk | 39.82 | |
| SP1 | Renovation of the sports center | Social Facilities | Sports | 39.78 | 3 |
| DRR14 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 39.74 | 2, 8 |
| BGN38 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 39.71 | |
| BGN25 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 39.70 | 7 |
| BGN43 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 39.66 | |
| DRR75 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 39.66 | 9 |
| DRR65 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 39.58 | |
| DRR7 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 39.57 | 6 |
| BGN20 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 39.51 | 5 |
| BGN40 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 39.36 | 9 |
| DRR67 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 39.31 | |
| DRR87 | Reconstruction of BNC | Mitigation | Climate Change & Disaster Risk | 39.31 | 2 |
| DRR59 | Plantation, terracing and gabion implementation | Mitigation | Climate Change & Disaster Risk | 39.28 | |
| DRR740 | Reforestation | Mitigation | Climate Change & Disaster Risk | 39.21 | |
| POC2_4 | Construction of Playground and Sports area | Social Facilities | Sports | 39.20 | 4 |
| DRR770 | Reforestation | Mitigation | Climate Change & Disaster Risk | 39.17 | |
| DRR780 | Reforestation | Mitigation | Climate Change & Disaster Risk | 39.17 | |

| Location ID | Project Name | Type of infrastructure | Sector for Deficit Scoring | Primary Score | Tranform. Area |
|---|---|---|---|---|---|
| DRR730 | Reforestation | Mitigation | Climate Change & Disaster Risk | 39.15 | |
| DRR60 | Plantation, terracing and gabion implementation | Mitigation | Climate Change & Disaster Risk | 39.09 | |
| DRR720 | Reforestation | Mitigation | Climate Change & Disaster Risk | 39.07 | |
| DRR8 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 39.04 | 6 |
| M3V53 | Installation of emergency hub | Social Facilities | Public Services | 39.00 | |
| HE1 | Reconstruction of sewage & waste water facility | Utilities | Sewer | 39.00 | 8 |
| M3V75 | Slope terracing | Mitigation | Climate Change & Disaster Risk | 39.00 | |
| DRR750 | Reforestation | Mitigation | Climate Change & Disaster Risk | 39.00 | |
| DRR800 | Reforestation | Mitigation | Climate Change & Disaster Risk | 38.97 | |
| DRR76 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 38.97 | 8 |
| SPT63 | Renovation and reinforcement of pedestrian bridge | Utilities | Roads | 38.96 | |
| DRR4 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 38.95 | |
| BGN17 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 38.81 | 4 |
| DRR70 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 38.77 | |
| G2 | Construction of multi-storey housing | Industry & Housing | Housing | 38.76 | |
| DRR26 | Plantation alongside BNC | Mitigation | Climate Change & Disaster Risk | 38.73 | 2 |
| DRR11 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 38.72 | |
| DRR790 | Reforestation | Mitigation | Climate Change & Disaster Risk | 38.72 | |
| DRR61 | Plantation, terracing and gabion implementation | Mitigation | Climate Change & Disaster Risk | 38.68 | |
| DRR63 | Plantation, terracing and gabion implementation | Mitigation | Climate Change & Disaster Risk | 38.67 | 2, 6 |
| SPT35 | Implementation of Pedestrian crossings (painted with lights, or raised) | Utilities | Roads | 38.62 | 6 |
| DRR64 | Plantation, terracing and gabion implementation | Mitigation | Climate Change & Disaster Risk | 38.61 | 6 |
| DRR81 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 38.59 | |
| DRR92 | Reconstruction of BNC | Mitigation | Climate Change & Disaster Risk | 38.59 | 2 |
| M3V73 | Construction of mudflow eliminator | Mitigation | Climate Change & Disaster Risk | 38.58 | |
| BGN3 | Construction of new irrigation/drainage infrastructure | Utilities | Stormwater Drainage | 38.56 | |

| Location ID | Project Name | Type of infrastructure | Sector for Deficit Scoring | Primary Score | Tranform. Area |
|---|---|---|---|---|---|
| M3V82 | Construction of mudflow eliminator | Mitigation | Climate Change & Disaster Risk | 38.53 | |
| M3V3 | Construction of Mudflow Canal and Trap | Mitigation | Climate Change & Disaster Risk | 38.52 | |
| DRR96 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 38.52 | 2 |
| M3V46 | Installation of emergency hub | Social Facilities | Public Services | 38.42 | |
| M3V65 | Expansion of the existing mudflow drainage channel | Mitigation | Climate Change & Disaster Risk | 38.34 | |
| DRR91 | Reconstruction of BNC | Mitigation | Climate Change & Disaster Risk | 38.31 | 2 |
| M3V67 | Construction of mudflow eliminator | Mitigation | Climate Change & Disaster Risk | 38.30 | |
| DRR94 | Reconstruction of BNC | Mitigation | Climate Change & Disaster Risk | 38.28 | 2 |
| SPT34 | Implementation of Pedestrian crossings (painted with lights, or raised) | Utilities | Roads | 38.26 | 4 |
| WS1 | Construction of dam for water storage | Utilities | Water Supply | 38.20 | |
| M3V7 | Renovation and reinforcement of pedestrian bridge | Utilities | Roads | 38.20 | |
| M3V66 | Construction of mudflow eliminator | Mitigation | Climate Change & Disaster Risk | 38.19 | |
| DRR760 | Reforestation | Mitigation | Climate Change & Disaster Risk | 38.19 | |
| DRR10 | Installation of rockfall protection walls | Mitigation | Climate Change & Disaster Risk | 38.17 | |
| DRR691 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 38.17 | |
| M3V68 | Construction of mudflow eliminator | Mitigation | Climate Change & Disaster Risk | 38.11 | |
| M3V69 | Construction of mudflow eliminator | Mitigation | Climate Change & Disaster Risk | 38.08 | 8 |
| M3V5 | Reconstruction of the irrigation network with additional irrigation ditches | Utilities | Water Supply | 38.01 | |
| DRR68 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 37.99 | |
| BGN9 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 37.99 | |
| DRR9 | Installation of rockfall protection nets and terracing | Mitigation | Climate Change & Disaster Risk | 37.97 | |
| M3V71 | Construction of mudflow drainage channel | Mitigation | Climate Change & Disaster Risk | 37.95 | 6 |
| DRR810 | Reforestation | Mitigation | Climate Change & Disaster Risk | 37.94 | |
| DRR62 | Plantation, terracing and gabion implementation | Mitigation | Climate Change & Disaster Risk | 37.93 | |
| DRR71 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 37.89 | 5 |
| SPS30 | Construction of slaughterhouse | Industry & Housing | Business & Industry | 37.80 | 8 |
| BGN10 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 37.80 | 6 |

| Location ID | Project Name | Type of infrastructure | Sector for Deficit Scoring | Primary Score | Tranform. Area |
|---|---|---|---|---|---|
| M3V41 | Installation of emergency hub | Social Facilities | Public Services | 37.69 | 6 |
| SSN5 | Mixed-use infill development | Industry & Housing | Housing | 37.60 | |
| M3V44 | Installation of emergency hub | Social Facilities | Public Services | 37.56 | 4 |
| BGN45 | Renewal of irrigation system (ditches, pumps) | Utilities | Water Supply | 37.55 | |
| M3V76 | Slope terracing | Mitigation | Climate Change & Disaster Risk | 37.52 | |
| SPS21 | Refurbishment of Sports facility (dressing rooms, toilets etc.) | Social Facilities | Sports | 37.48 | 3 |
| DRR701 | Reforestation | Mitigation | Climate Change & Disaster Risk | 37.47 | |
| LEV9 | Reconstruction of the municipal public bathhouse | Social Facilities | Community Center & Cultural | 37.45 | 9 |
| DRR692 | Reforestation | Mitigation | Climate Change & Disaster Risk | 37.40 | |
| M3V72 | Construction of mudflow eliminator | Mitigation | Climate Change & Disaster Risk | 37.30 | |
| M3V51 | Installation of emergency hub | Social Facilities | Public Services | 37.28 | |
| DRR710 | Reforestation | Mitigation | Climate Change & Disaster Risk | 37.19 | |
| DRR15 | Plantation and terracing | Mitigation | Climate Change & Disaster Risk | 37.04 | |
| M3V70 | Construction of mudflow eliminator | Mitigation | Climate Change & Disaster Risk | 37.03 | 5 |
| SSN12 | Mixed-use infill development | Industry & Housing | Housing | 36.91 | 7 |
| M3V55 | Installation of emergency hub | Social Facilities | Public Services | 36.73 | 7 |
| M3V35 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 36.72 | 7 |
| BGN8 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 36.62 | |
| G7 | Renovation of former NSU building (for HQ of Civil Defense) | Social Facilities | Administrative | 36.57 | 3, 5 |
| CDG66 | Renovation and capacity increase of Kindergarten #14 (Inclusive) | Social Facilities | Education | 36.43 | 4 |
| BGN29 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 36.35 | 7 |
| DRR150 | Reforestation | Mitigation | Climate Change & Disaster Risk | 36.35 | |
| BGN44 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 36.30 | |
| M3V60 | Installation of emergency hub | Social Facilities | Public Services | 36.25 | |
| M3V54 | Installation of emergency hub | Social Facilities | Public Services | 36.03 | 7 |
| SPT25 | Implementation of Pedestrian crossings (painted with lights, or raised) | Utilities | Roads | 35.60 | |
| M3V42 | Installation of emergency hub | Social Facilities | Public Services | 35.50 | 6 |
| IU6 | Extension of water network | Utilities | Water Supply | 35.49 | 7 |
| CDG67 | Renovation and capacity increase of Kindergarten #1 | Social Facilities | Education | 35.46 | 3 |
| CDG32 | Construction of new public green space | Social Facilities | Public Open Space | 35.30 | |
| LEV7 | Construction of parking space for long-distance traffic | Utilities | Roads | 35.26 | |
| BGN7 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 35.20 | |

| Location ID | Project Name | Type of infrastructure | Sector for Deficit Scoring | Primary Score | Tranform. Area |
|---|---|---|---|---|---|
| LEV6 | Construction of Service station (services associated with Logistics Park: gas, 'motel', restaurant catered to long-distance cargo transport) | Industry & Housing | Business & Industry | 35.13 | |
| CDG68 | Reconstruction and capacity increase of Kindergarten #4 | Social Facilities | Education | 35.09 | |
| BGN35 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 34.89 | |
| BGN21 | Installation of irrigation system (pumps) | Utilities | Water Supply | 34.75 | 9 |
| M3V52 | Installation of emergency hub | Social Facilities | Public Services | 34.54 | |
| BGN12 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 34.15 | 6 |
| SSN9 | Mixed-use infill development | Industry & Housing | Housing | 34.11 | 6 |
| BGN26 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 34.11 | |
| BGN33 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 34.10 | 8 |
| R1 | Renovation of street | Utilities | Roads | 34.08 | 3 |
| IU7 | Improvement of the use of water spring | Utilities | Water Supply | 34.03 | |
| HE5 | Capacity increase and construction of necessary infrastructure for the recycling facility | Utilities | Solid Waste | 33.91 | |
| M3V45 | Installation of emergency hub | Social Facilities | Public Services | 33.68 | 4 |
| M3V15 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 33.42 | 6 |
| BGN39 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 33.39 | |
| IU20 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 33.37 | 6 |
| M3V14 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 33.05 | 6 |
| BGN19 | Installation of irrigation system (pumps) | Utilities | Water Supply | 32.99 | |
| SPT69 | Construction of new pedestrian bridge | Utilities | Roads | 32.97 | 6 |
| BGN11 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 32.97 | 6 |
| BGN30 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 32.92 | 5 |
| IU8 | Replacement of water pipes (connection to residential buildings) | Utilities | Water Supply | 32.64 | 7 |
| M3V64 | Shelter for victims of violence | Social Facilities | Public Services | 32.53 | 9 |
| SPT38 | Construction of new pedestrian bridge | Utilities | Roads | 32.50 | |
| IU9 | Installation of additional pumps and pipelines for increasing water pressure | Utilities | Water Supply | 32.50 | |
| TM5 | Construction of new pedestrian bridge | Utilities | Roads | 32.42 | 6 |
| M3V11 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 32.36 | |
| M3V12 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 32.19 | |
| M3V32 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 32.08 | 8 |
| BGN32 | Installation of water and irrigation system (ditches, pumps) | Utilities | Water Supply | 31.96 | |
| SPT65 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 31.46 | 6 |
| M3V34 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 31.12 | |
| SPT68 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 30.79 | 6 |
| M3V36 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 30.52 | 7 |
| M3V13 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 30.37 | |

| Location ID | Project Name | Type of infrastructure | Sector for Deficit Scoring | Primary Score | Tranform. Area |
|---|---|---|---|---|---|
| M3V2 | Installation of electricity infrastructure | Utilities | Electricity | 30.20 | 8 |
| M3V61 | Installation of emergency hub | Social Facilities | Public Services | 30.05 | |
| M3V31 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 29.58 | 8 |
| BGN31 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 29.38 | |
| SPS25 | Renovation and capacity increase of Clinic #3 (FGP) | Social Facilities | Health | 29.23 | 8 |
| M3V56 | Installation of emergency hub | Social Facilities | Public Services | 29.21 | |
| BGN18 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 29.16 | |
| M3V33 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 28.92 | |
| SSN1 | Mixed-use infill development | Industry & Housing | Housing | 28.79 | 9 |
| BGN36 | Installation of irrigation system (ditches, pumps) | Utilities | Water Supply | 28.76 | 8 |
| M3V17 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 28.59 | |
| M3V57 | Installation of emergency hub | Social Facilities | Public Services | 28.54 | |
| M3V30 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 28.18 | |
| SPT40 | Installation of new bus stop | Utilities | Roads | 28.14 | |
| SPT66 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 27.62 | 6 |
| SPT67 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 27.49 | 6 |
| M3V81 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 27.19 | |
| M3V23 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 26.95 | 5 |
| M3V27 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 26.91 | |
| M3V26 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 26.74 | |
| SPT52 | Installation of new bus stop | Utilities | Roads | 26.25 | |
| M3V10 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 26.24 | |
| CDG11 | Construction of new education complex (Kindergarten with playground and school, inclusive for children with disabilities) | Social Facilities | Education | 26.22 | 8 |
| M3V28 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 25.80 | |
| M3V25 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 25.71 | |
| M3V29 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 25.66 | |
| SPT53 | Installation of new bus stop | Utilities | Roads | 25.52 | |
| M3V18 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 25.30 | |
| POC2_9 | Construction of Pavillion | Social Facilities | Community Center & Cultural | 25.19 | 4 |
| M3V20 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 25.18 | |
| M3V24 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 24.90 | 5 |
| M3V21 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 24.75 | |
| M3V19 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 24.52 | |
| M3V22 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 24.48 | |
| HND6 | Construction of bathhouse | Social Facilities | Community Center & Cultural | 24.18 | 7 |
| POC2_11 | Construction of Amphitheatre | Social Facilities | Community Center & Cultural | 24.18 | 4 |

| Location ID | Project Name | Type of infrastructure | Sector for Deficit Scoring | Primary Score | Tranform. Area |
|---|---|---|---|---|---|
| SPT55 | Installation of new bus stop | Utilities | Roads | 23.88 | |
| SPT54 | Installation of new bus stop | Utilities | Roads | 23.68 | |
| M3V37 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 23.33 | |
| M3V16 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 22.28 | |
| M3V38 | Renovation and reinforcement of vehiclar bridge | Utilities | Roads | 22.21 | |
| SPT46 | Installation of new bus stop | Utilities | Roads | 21.79 | 6 |
| SPT47 | Installation of new bus stop | Utilities | Roads | 21.77 | 6 |
| CDG10 | Construction of new Kindergarten with playground | Social Facilities | Education | 21.42 | 8 |
| CDG40 | Fasibility study for optimization of solid waste collection system and installation of new bins | Utilities | Solid Waste | 21.19 | 4, 5, 7, 8, 9 |
| CDG27 | Construction of new secondary school | Social Facilities | Education | 21.05 | |
| CDG12 | Construction of new Kindergarten with playground | Social Facilities | Education | 20.58 | 8 |
| SPS5 | Construction of ski sports centre | Social Facilities | Sports | 19.29 | 7 |
| CDG21 | Construction of new Kindergarten with playground | Social Facilities | Education | 18.44 | 8 |
| CDG23 | Construction of new Kindergarten with playground | Social Facilities | Education | 16.03 | 6 |
| CDG22 | Construction of new Kindergarten with playground (within mixed-use infill area) | Social Facilities | Education | 15.43 | 9 |
| G5 | Installation of the ferris wheel | Social Facilities | Community Center & Cultural | 15.18 | 4 |
| SPS14 | Construction of new sports facility | Social Facilities | Sports | 14.99 | |
| TDP2 | Construction of Naryn town culture department building | Social Facilities | Community Center & Cultural | 14.88 | 3 |
| CDG26 | Construction of new secondary school | Social Facilities | Education | 14.07 | 9 |
| CDG19 | Construction of new Kindergarten with playground | Social Facilities | Education | 13.66 | |
| SPS26 | Relocation of Clinic #1 (FGP) | Social Facilities | Health | 13.51 | |
| SPS7 | Construction of new sports facility | Social Facilities | Sports | 12.28 | 7 |
| SPS8 | Construction of new Kindergarten with playground (Inclusive) | Social Facilities | Education | 12.19 | 7 |
| CDG25 | Construction of new secondary school | Social Facilities | Education | 11.71 | |
| CDG59 | Extension of sewage network and installation of additional pumping station | Utilities | Sewer | 11.67 | 9 |
| CDG7 | Extension of sewage network | Utilities | Sewer | 11.40 | 7 |
| CDG28 | Relocation of school #10 | Social Facilities | Education | 11.29 | |
| CDG60 | Extension of sewage network with additional pumping station | Utilities | Sewer | 11.23 | 8, 9 |
| CDG63 | Extension of sewage network | Utilities | Sewer | 10.94 | 7, 8 |
| CDG18 | Construction of new Kindergarten with playground (Inclusive) | Social Facilities | Education | 10.88 | 6 |
| CDG64 | Extension of sewage network | Utilities | Sewer | 10.76 | 7 |
| TDP1 | Construction of Naryn town ambulance service building | Social Facilities | Health | 10.63 | |
| CDG13 | Construction of new Kindergarten with playground (Inclusive) | Social Facilities | Education | 10.46 | 5 |
| G8 | Construction of the glass suspension bridge | Utilities | Roads | 10.45 | 4 |

| Location ID | Project Name | Type of infrastructure | Sector for Deficit Scoring | Primary Score | Tranform. Area |
|---|---|---|---|---|---|
| CDG16 | Construction of new Kindergarten with playground (Inclusive) | Social Facilities | Education | 10.36 | 6 |
| CDG2 | Extension of sewage network | Utilities | Sewer | 10.00 | 5, 9 |
| HND13 | Relocation and capacity increase of Kindergarten #16 | Social Facilities | Education | 9.96 | 7 |
| CDG38 | Renovation and capacity increase of Clinic #2 (FGP) | Social Facilities | Health | 9.94 | 9 |
| CDG46 | Extension of sewage network | Utilities | Sewer | 9.56 | |
| CDG24 | Relocation and capacity increase of school #9 | Social Facilities | Education | 9.15 | 7 |
| CDG54 | Extension of sewage network | Utilities | Sewer | 9.13 | 7 |
| CDG48 | Extension of sewage network and installation of additional pumping station | Utilities | Sewer | 8.79 | 3 |
| CDG37 | Reconstruction and capacity increase of Clinic #5 (FGP) | Social Facilities | Health | 8.54 | 3 |
| CDG17 | Construction of new Kindergarten with playground | Social Facilities | Education | 8.52 | 6 |
| CDG14 | Construction of new Kindergarten with playground | Social Facilities | Education | 7.53 | 3 |
| CDG15 | Construction of new education complex (Kindergarten with playground and school, inclusive for children with disabilities) | Social Facilities | Education | 7.49 | |
| CDG9 | Extension of sewage network | Utilities | Sewer | 7.47 | 9 |
| CDG62 | Extension of sewage network (with additional pumps) | Utilities | Sewer | 7.05 | 8 |
| CDG6 | Extension of sewage network | Utilities | Sewer | 6.99 | 7 |
| CDG52 | Extension of sewage network | Utilities | Sewer | 6.35 | 9 |
| CC1 | Construction of a mosque | Social Facilities | Community Center & Cultural | 5.98 | 3 |
| CDG43 | Installation of pumping station for sewage network | Utilities | Sewer | 5.89 | 6 |
| CDG42 | Installation of pumping station for sewage network | Utilities | Sewer | 5.81 | 6 |
| CDG65 | Extension of sewage network | Utilities | Sewer | 4.83 | |
| CDG1 | Extension of sewage network (with stormwater run off/ flooding/irrigation ditches) | Utilities | Sewer | 4.79 | |
| CDG20 | Construction of new Kindergarten with playground | Social Facilities | Education | 4.47 | |
| CDG39 | Renovation and capacity increase of Clinic #4 (FGP) | Social Facilities | Health | 4.34 | 6 |
| M3V1 | Construction of the road bridge (between Salkyn-Tor and Naryn | Utilities | Roads | 3.20 | |
| CDG53 | Extension of sewage network | Utilities | Sewer | 3.17 | 7 |
| CDG41 | Installation of pumping station for sewage network | Utilities | Sewer | 2.72 | |
| IU12 | Installation of central septic tank - Bio septic or biodigester | Utilities | Sewer | 1.73 | |

# Endnotes

i PPP Legal Resources Centre, World Bank)

ii Naryn City 2022 Annual Report; 2023 Socio-Economic Report

iii OECD/Lincoln Institute of Land Policy, PKU-Lincoln Institute Center (2022), Global Compendium of Land Value Capture Policies, OECD Regional Development Studies, OECD Publishing, Paris, https://doi.org/10.1787/4f9559ee-en

* Please see the Urban Design Guidelinesfor more details.

** This project is designated as Long-term due to its incompatibility with the current Naryn Master Plan.

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# Naryn

## Kyrgyz Republic

## 2023-2024

### Enhancing Resilience through Integrated Spatial and Investment Planning

# Participatory Planning Report

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**Enhancing Resilience through Integrated Spatial and Investment Planning**

# Participatory Planning Report



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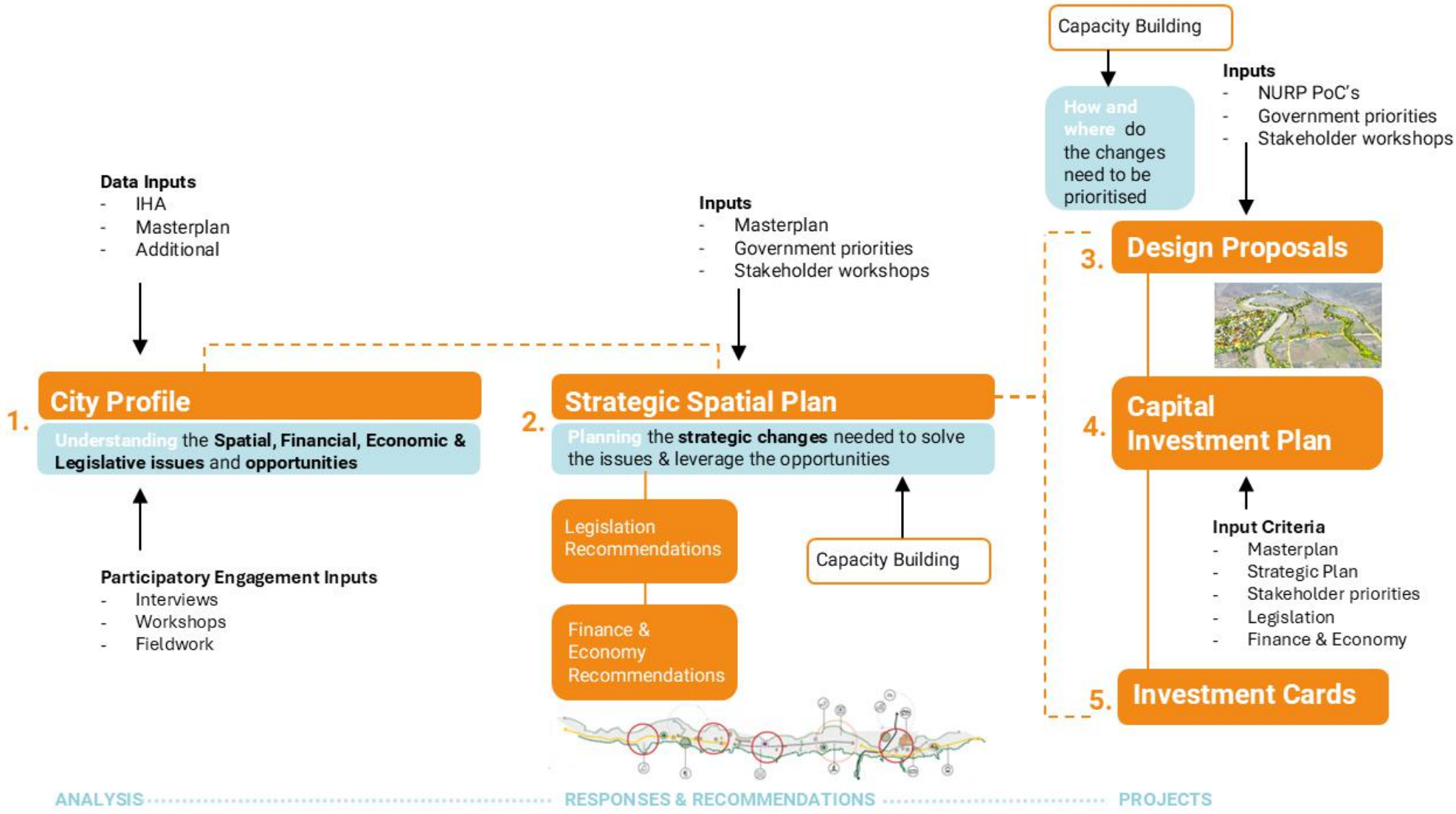


Figure 1. Project framework showing interrelation between phases, inputs, outputs, and outcomes

# Introduction

The *Enhancing Resilience through Integrated Spatial and Investment Planning* project aimed to strengthen urban resilience by integrating spatial and investment planning, focusing on sustainable development and community-driven urban transformation. Through a series of missions and participatory activities, the project engaged local stakeholders to address Naryn's unique challenges and aspirations, laying the groundwork for inclusive and resilient urban growth.

## Participatory Planning Approach

The participatory planning approach ensured transparency throughout the project process, while fostering ownership and commitment from key stakeholders. By actively engaging stakeholders and communities, this approach encouraged collaborative participation, embedding long-term sustainability and social cohesion into both the planning process and project outcomes.

To enhance the impact of the participatory planning process, a variety of engagement strategies were employed. These methods allowed for a diverse range of participation from stakeholders, which strengthened the quality of insights and reinforced the project's resilience from a social perspective.

Furthermore, the participatory process promoted collaboration among stakeholders, with a particular focus on community engagement. This approach not only centred on urban development but also emphasized community empowerment, fostering a balance between technical precision and proactive social transformation.

This balance enhanced the community's capacity to sustain itself and move toward a more resilient and inclusive future. Thus, participatory planning was an essential element in UN-Habitat's strategy for achieving resilient and sustainable outcomes.

## Stakeholder Engagement Goals

The stakeholder engagement process was structured around four primary goals, each representing a different level of involvement:

- Inform: Providing stakeholders with clear and objective information to support their understanding of the decision-making process.
- Consult: Gathering feedback from stakeholders on decisions that affected them, ensuring their voices were heard.
- Involve: Engaging stakeholders throughout the development process to directly address their concerns and expectations.
- Empower: Enabling stakeholders to benefit from the project through skills development programs and shared benefits.

To achieve these goals, the project team:

1. Kept stakeholders informed by sharing balanced and objective information.
2. Consulted with stakeholders, actively listening to and addressing their concerns, while providing feedback on public input.
3. Involved stakeholders in the decision-making process, ensuring their insights shaped project outcomes.
4. Empowered stakeholders by implementing programs that built their capacity and encouraged meaningful participation.

## Stakeholder Mapping

The levels of engagement for different stakeholders were as follows:

- Inform: National and regional leaders
- Consult: City leaders
- Involve: City departments, NURP Partners, civil society groups/organizations, community-based organizations, and city officials
- Empower: Communities, service providers, sector specialists, and other community-based groups

By tailoring engagement strategies according to stakeholder roles, the participatory planning process successfully strengthened community impact and drove inclusive and resilient project outcomes.

Mission 1 took place from 23 October to 4 November 2023 in Naryn and Bishkek, Kyrgyz Republic. This

# Mission 1

mission focused on field investigations, stakeholder consultations, data collection, and collaborative workshops to kick-start the project. The mission aimed to establish relationships, understand the regional and city contexts, identify challenges and opportunities, and align with development partners and local government.

## Key Objectives

1. Engage with donors, development partners, and stakeholders to introduce the NURP and align on the project's objectives.

2. Meet with government authorities, communities, and other local stakeholders to gain insights into the socio-economic and spatial contexts.

3. Conduct initial data collection through workshops, interviews, and cross-sectoral meetings to inform the project's planning and strategic direction.

## Activities and Meetings

**Meetings in Naryn:**

- Engagement with SECO and AKDN: Meetings with project donors (SECO) and development partners (AKDN) involved presentations on the NURP, discussions on project alignment, expected outcomes, and the role of UN-Habitat in the broader program.

- Consultations with the Governor's Office and Mayoral Office: Discussions with the Deputy Governor and the Mayor of Naryn focused on project components, SDG alignment, city priorities, and the potential for extended collaboration. UN-Habitat's Capital Investment Planning (CIP) methodology was introduced as a tool for supporting decision-making.

- Stakeholder Workshops: Workshops held with various city departments and sector specialists helped the team understand local conditions, challenges, and institutional capacities. This engagement provided critical insights into the needs of the city and additional stakeholders.

**Site Visits:** The UN-Habitat team conducted walkabouts and site visits across different parts of the city. These visits aimed to understand spatial conditions, assess potential development sites, and interact with community members to gauge social resilience, awareness of risks and local needs.

## Outcomes

1. Established Partnerships: The mission successfully established working relationships with key stakeholders, including government officials, donor agencies, and development partners.

2. Contextual Understanding: Through consultations and site visits, the team gained a deeper understanding of the city's socio-economic conditions, community needs, and spatial challenges.

3. Data Collection: Initial data collection efforts, including validation and technical discussions, provided a foundation for the city's profile and strategic plan.

4. Project Alignment: Discussions confirmed the alignment of UN-Habitat's role with the NURP's goals, focusing on building resilience through evidence-based planning and international guidelines.

The mission concluded with the identification of key projects and next steps for further data analysis and stakeholder engagement, setting a clear direction for subsequent phases of the NURP.


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# Mission 2

Mission 2, held from March 10 to March 20, 2024, was designed to advance the capacity-building efforts initiated during Mission 1, with a specific focus on integrated planning, design principles, and stakeholder collaboration. This mission encompassed a series of workshops, visioning exercises, field visits, and participatory planning sessions aimed at developing a unified vision for Naryn and deepening the local understanding of resilient and sustainable urban development.

## Key Objectives

1. Strengthen local capacity in integrated urban planning and design through hands-on workshops and presentations.

2. Build consensus on the vision for Naryn, identify challenges, and align goals across various stakeholders.

3. Collect detailed data on urban finance and economic opportunities to support sustainable development.

4. Engage diverse groups—government officials, community members, and youth—in envisioning practical solutions for Naryn's urban challenges.

## Activities and Meetings

**Integrated Planning and Design Workshop:** Hosted at the University of Central Asia, this workshop introduced UN-Habitat's integrated urban planning approach, covering methodologies and tools relevant to Naryn's context. Participants engaged in exercises identifying legislative and technical challenges and generated potential solutions for resilient planning.

**Visioning Workshops:** Visioning sessions involved officials, youth, and private sector representatives in developing shared goals for Naryn's future. These workshops examined four central visions for the city: a university town, a tourism hub, an agro-industrial centre, and a logistics hub. Through group activities and interactive discussions, participants explored economic opportunities, environmental resilience, and cultural preservation as part of the city's evolving identity.

**Project Brainstorming and Flags Exercise:** This participatory session at AKDN offices allowed sector specialists to map potential projects across themes such as transport, infrastructure, and public services. By categorizing projects and prioritizing themes, participants identified critical infrastructure needs and emphasized environmental sustainability.

**Finance and Economy Workshop:** Focused on a SWOT analysis of Naryn's financial resilience, this workshop addressed challenges in municipal finance, including revenue generation and expenditure. Best practices for Own Source Revenue (OSR) strategies were shared, providing stakeholders with practical tools to enhance local financial management and support long-term stability.

## Outcomes

1. Enhanced Planning Capacities: Participants developed a clearer understanding of integrated planning approaches and were empowered to consider practical applications within Naryn, such as spatial design and inclusive economic strategies.

2. Unified Visions and Project Ideas: Through collaborative workshops, stakeholders outlined shared visions for Naryn and identified projects to support these goals. These projects to be further refined and integrated into the Capital Investment Planning (CIP) framework for future funding and implementation.

3. Deeper Stakeholder Engagement: Engagement with government, community, and youth groups fostered stronger relationships and encouraged community-led initiatives, ensuring long-term ownership and sustainability of project outcomes.

4. Foundational Data for Financial Strategy: The finance workshop provided insights into Naryn's economic strengths and vulnerabilities, with specific emphasis on enhancing fiscal resilience through improved municipal revenue systems.

Mission 2 successfully built on the groundwork laid during Mission 1 by deepening engagement with local stakeholders and aligning on sustainable urban development strategies. The insights and data gathered served as critical inputs for the subsequent planning and project prioritization phases within NURP.

# Mission 3

Mission 3, conducted from June 10 to June 14, 2024, marked a critical phase in the NURP, focusing on the validation of design proposals, site visits, and workshops aimed at refining the CIP and addressing legislative barriers. This mission solidified partnerships, gathered feedback on proposed designs, and advanced the program's legislative framework in alignment with local needs.

## Key Objectives

1. Conduct site visits and validate design proposals for demonstration projects, including public spaces and market areas.

2. Finalize the list of projects within the CIP in collaboration with local stakeholders.

3. Present findings and recommendations from the legislative analysis for local feedback and integration.

4. Deepen partnerships with local government and community stakeholders to ensure alignment on project implementation and legal compliance.

## Activities and Meetings

**Meeting with AKDN:** At UCA offices, UN-Habitat and AKDN teams reviewed the phasing of design proposals, focusing on funding limitations and the CIP framework. The upcoming workshop on Kyrgyz legislation was also discussed to prepare for engaging with city officials.

**Project Validation Workshop:** UN-Habitat presented the CIP mechanism and validated the detailed project list with AKDN and technical staff from Naryn. Key projects were reviewed for feasibility, and potential challenges were identified to refine implementation strategies.

**Design Proposal Presentation to Mayor's Office:** Design proposals for key public spaces—including intersections, market areas, and a park—were presented to the Mayor of Naryn and his team, receiving positive feedback. UN-Habitat also presented tailored legal recommendations, addressing issues surrounding private land use and regulatory compliance.

**Riverfront Project Opening Ceremony:** UN-Habitat participated in the opening ceremony of the riverfront project, a community event that highlighted the importance of the riverfront as a public space and symbolized the city's commitment to urban resilience.

**Consultation with Naryn's Main Architect:** UN-Habitat met with the city's main architect and engineer to discuss technical aspects of the design proposals, including drainage, green space integration, and traffic flow reorganization, to ensure practical applicability and alignment with Naryn's infrastructure.

**Workshop on Kyrgyz Legislation:** This workshop gathered representatives from the State Design Institute, UCA, AKDN, and local stakeholders to review findings from the UN-Habitat's legislative analysis. Key recommendations from the UN-Habitat Urban Law Module were discussed, and feedback was collected to finalize the legal framework for Naryn's development.

## Outcomes

1. Project List and Design Validation: The validated project list and design proposals to be incorporated into the CIP, laying the groundwork for targeted investment and clear project phasing.

2. Strengthened Legal Framework: The feedback gathered from the legislation workshop to be integrated into the final documentation, providing a robust legal foundation for future urban planning efforts in Naryn.

3. Community and Government Engagement: The mission strengthened partnerships with local stakeholders, ensuring a shared understanding of NURP's goals and the specific roles each entity will play in the upcoming phases of the project.

Mission 3 successfully advanced NURP's objectives, aligning design proposals, legislative frameworks, and community engagement strategies to create a resilient urban future for Naryn. These outcomes guide the CIP's finalization and provide a foundation for sustainable implementation.


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# Use of Participatory Activities in Urban Planning and Design

## Urban Design Demonstration Projects

### *Market Area*

The conceptual proposal for regenerating the central market area was significantly shaped by feedback from comprehensive community engagement. UN-Habitat's Urban Lab conducted a participatory session to capture residents' insights and desires for this central attraction, which serves as a vibrant hub widely frequented by people of all ages.

During the participatory session, residents engaged in a collective mapping exercise, where they placed amenities from a prepared set of ideas or suggested their own. This exercise highlighted diverse perspectives among community members, emphasizing the need for a well-designed, accessible, and comfortable space that caters to various demographic groups.

- Elderly Residents: They prioritized a more walkable environment with ramps, areas for sitting, and improved accessibility.
- Younger Generations: They expressed interest in Wi-Fi spots and recreational areas for social activities.
- Women and Families: They emphasized the need for child-friendly spaces, playgrounds, and more green areas.

In response to these inputs, the Urban Lab incorporated community suggestions into the design proposal. The collaborative mapping exercise led to a comprehensive list of desired features, such as benches, small pocket parks, green public spaces along the riverbank, cycling lanes, community centres, cafes, and a mosque.

Common feedback points also highlighted the need for accessible parking, community gardens, and enhanced connectivity through cycling infrastructure and Wi-Fi spots. This feedback ensured the proposal was well-aligned with the needs and aspirations of the community, fostering a sense of ownership and inclusivity in the development of the market area.

### *Jusaev Park*

As part of capacity-building efforts, UN-Habitat facilitated a collaborative mapping activity with community members to gather input on redesigning Jusaev Park. Recognized as a valued green space in Naryn, Jusaev Park holds significant importance for the city, and residents emphasized the need for its renovation to enhance accessibility and functionality for all.

The mapping activity allowed community members to propose various interventions, focusing on making the park a vibrant, multi-functional space. Key suggestions included:

- Vegetation and Green Spaces: Community members highlighted the need for more vegetation and open green spaces, particularly along Razzakov Street and within the Moskovskiy neighbourhood.
- Child-Friendly Areas: Residents suggested adding playgrounds and other child-friendly facilities to make the park a safe and enjoyable space for families.
- Community Amenities: There was a strong interest in creating a community garden, providing spaces for local business opportunities, and installing a library for educational and leisure activities.
- Engaging Activities and Religious Facilities: The community proposed introducing engaging activities within the park and constructing a mosque in the neighbourhood to cater to local needs.

The proposed interventions aim to transform Jusaev Park into a well-equipped public space that enhances community interaction, offers recreational opportunities, and supports local businesses. By incorporating these elements, the park design reflects the diverse needs of the community and contribute to the social and cultural vibrancy of Naryn.

## Evidence-Based and Participatory Project Identification

The project identification process in Naryn was guided by an evidence-based approach, incorporating spatial analysis, city profile insights, strategic recommendations, and participatory workshops. This methodology ensured that project locations and initiatives were optimally selected to address the city's specific needs and challenges effectively.

The foundational data for project identification stemmed from spatial analysis and the issues outlined in the City Profile. Additionally, the Strategic Spatial Plan provided a comprehensive framework through visions, strategic responses, and actionable recommendations. The participatory process further enriched this approach, involving stakeholders at various stages to capture community needs and aspirations.


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Key participatory activities included:

- **Project Identification Workshops:** These workshops engaged a range of stakeholders in identifying and prioritizing urban projects. Participants discussed key issues and potential solutions, aligning project ideas with the city's strategic objectives.

- **Visioning Workshops:** These sessions allowed stakeholders to explore potential future scenarios for Naryn. Through collaborative discussions, participants contributed to a shared vision, focusing on Naryn's role as a university town, tourism hub, agro-industrial centre, and logistics hub.

- **Meetings with the Mayor's Office and Finance & Economy Agencies:** Engaging with local government officials and finance agencies ensured alignment of the project's objectives with municipal priorities and financial feasibility. This collaboration helped clarify the strategic and investment needs of the city.

- **Community Mapping Exercises:** This participatory mapping activity included various community groups, particularly women and youth. Participants mapped local resources, challenges, and areas needing intervention, providing valuable insights that informed the spatial strategies in the Capital Investment Planning.

Through these participatory activities, a comprehensive understanding of Naryn's urban challenges and opportunities was developed. The data collected and feedback from stakeholders contributed to refining project priorities and ensuring that the planning process was inclusive and aligned with community needs.

This evidence-based and participatory approach not only fostered community buy-in but also strengthened the resilience and sustainability of project outcomes by embedding local insights and fostering stakeholder ownership throughout the planning and design process.

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# Conclusion

The participatory planning and training activities conducted as part of the Enhancing Resilience through Integrated Spatial and Investment Planning project represent a significant step toward building a resilient, inclusive, and sustainable future for Naryn. By actively engaging a diverse range of stakeholders—from government officials to local community members, youth, and women's groups—the project has fostered a sense of ownership and commitment among the people of Naryn. This participatory approach has not only ensured transparency and accountability in the planning process but has also embedded local insights and needs into the project's design and implementation.

The three mission phases demonstrated a progressive approach to building capacity and refining project goals, from initial data collection and relationship-building in Mission 1 to capacity-building workshops and strategic alignment in Mission 2, and finally to validating design proposals and strengthening legal frameworks in Mission 3. Each mission contributed to a comprehensive understanding of Naryn's urban landscape, socio-economic conditions, and development challenges, enabling the creation of targeted and contextually relevant projects.

The Urban Design Demonstration Projects, including the Market Area and Jusaev Park, exemplify the power of community-driven design. Through collaborative mapping exercises, workshops, and inclusive consultations, the residents of Naryn directly influenced the vision and functional layout of these spaces.

This evidence-based, participatory project identification process has resulted in a well-rounded strategic plan that addresses the needs of the community while fostering long-term resilience.

Looking forward, the insights gained, and partnerships established through the Enhancing Resilience through Integrated Spatial and Investment Planning project provide a strong foundation for future phases. As these plans are implemented, the continued engagement of Naryn's residents and stakeholders will be crucial to sustaining momentum and ensuring the project's success. By prioritizing participatory planning and building local capacities, this project has set a model for resilient urban development that can be replicated in other regions, ultimately contributing to the global goals of sustainable, inclusive urbanisation.

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# Naryn

## Kyrgyz Republic

## 2023-2024

### Enhancing Resilience through Integrated Spatial and Investment Planning

# Capacity Building Report

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# Contents

# Introduction

As part of its support to the Naryn Urban Resilience Programme, UN-Habitat developed a capacity building component of work to embed knowledge and learning activities in the project methodology and contribute to a long-term sustainable and resilient future for Naryn. Building capacities with local stakeholders forms an important part of strengthening the likelihood of implementation, management, scaling up and replication beyond the project. To achieve the objectives and visions Naryn has set out for itself, this capacity contributes to strengthening skills, knowledge and know-how so that sustainable, resilient and inclusive urban development can be accelerated in Naryn.

The strategy for the capacity building activities in the project is informed by three overarching considerations, aligning with the overall UN-Habitat approach:

1. Adopting an inclusive, integrated approach as is underlined in UN-Habitat's processes and methodologies

2. Emphasising resilience-framed topics and aspects of urban development

3. Responding to local needs that are identified collaboratively through observation and discussion.

Naryn, Kyrgyzstan Photo © UN-Habitat

# The Role of Capacity Building in Resilient, Sustainable Development

To sustainably address the challenges of urbanisation and reduce the risks posed by natural disasters and hazards, it is essential for institutions responsible for leading sustainable development to possess the relevant skills, knowledge, competencies, and tools. Capacity building and training are critical enablers in this process, empowering municipalities, government authorities, and officials to drive developmental progress while adopting a long-term perspective that ensures sustainable outcomes for future generations.

Naryn stands at a pivotal point, with significant opportunities to advance urban development in a sustainable and inclusive manner. Enhancing the technical expertise and skills of institutions and key stakeholders is a foundational step to optimise the replication, scaling, and implementation of resilient and inclusive approaches. Strengthening this capacity enables local institutions to better integrate strategic frameworks and principles into both planning and processes, aligning Naryn's development trajectory with its goals while embedding its priorities within global agendas such as the Sustainable Development Goals (SDGs) and the New Urban Agenda.

Through a focus on capacity building, Naryn can ensure that its institutions and communities are well-equipped to address challenges holistically and implement solutions effectively. This, in turn, maximises benefits on the ground, laying the foundation for resilient urban development practices that not only meet today's needs but also anticipate and adapt to future challenges.

Conversely, the absence of sufficient capacity carries significant risks. Without adequate planning, preparation, and integration, interventions may fail to meet sustainable development objectives, resulting in poorly maintained or short-lived initiatives. Such outcomes can inadvertently burden the city, its people, resources, and institutions, undermining long-term progress and resilience.

Resilience, as defined by global best practices, encompasses the capacity of people, organisations, and systems to prepare for, respond to, recover from, and thrive in the face of immediate and chronic stresses. It also involves adapting to changing dynamics while addressing existing social and economic inequalities to improve community well-being. By focusing on capacity building, Naryn ensures that its institutions are prepared not only to manage current challenges but also to thrive amid evolving conditions, securing sustainable growth and resilience for years to come.

Capacity building, therefore, is not just an enabler but a cornerstone of Naryn's development strategy. It strengthens local competencies to align with global sustainable development priorities while ensuring impactful and long-lasting benefits on the ground. Through this investment in knowledge and skills, Naryn is well-positioned to achieve its vision of becoming a resilient, inclusive, and sustainable urban centre.

Figure 1. Building local competencies through targeted capacity building Photo © UN-Habitat

# UN-Habitat's Integrated, Evidence-Informed Approach

Aligned with the technical components of the project, UN-Habitat's approach to capacity building in Naryn follows an integrated, evidence-based methodology. This ensures that capacity-building efforts are both responsive to local needs and supportive of sustainable outcomes.

In collaboration with planning processes within UN-Habitat's framework, the capacity building component is structured around three key steps:

1) **Identifying and Understanding Local Needs:** This forms the foundation for targeted interventions.

2) **Defining Tailored Approaches and Activities:** Activities are designed to address the identified needs.

3) **Selecting Appropriate Modalities:** The most suitable mechanisms and tools of learning are chosen to implement these activities.

The team took an integrated perspective, embedding capacity building throughout the project process and across its various phases to ensure consistency and strengthen the linkages between capacity building and technical work, enhancing the impact of both components. As highlighted in the previous section, these coplmentary workstreams are designed to reinforce each other, creating a cohesive approach that optimises the project's overall outcomes.

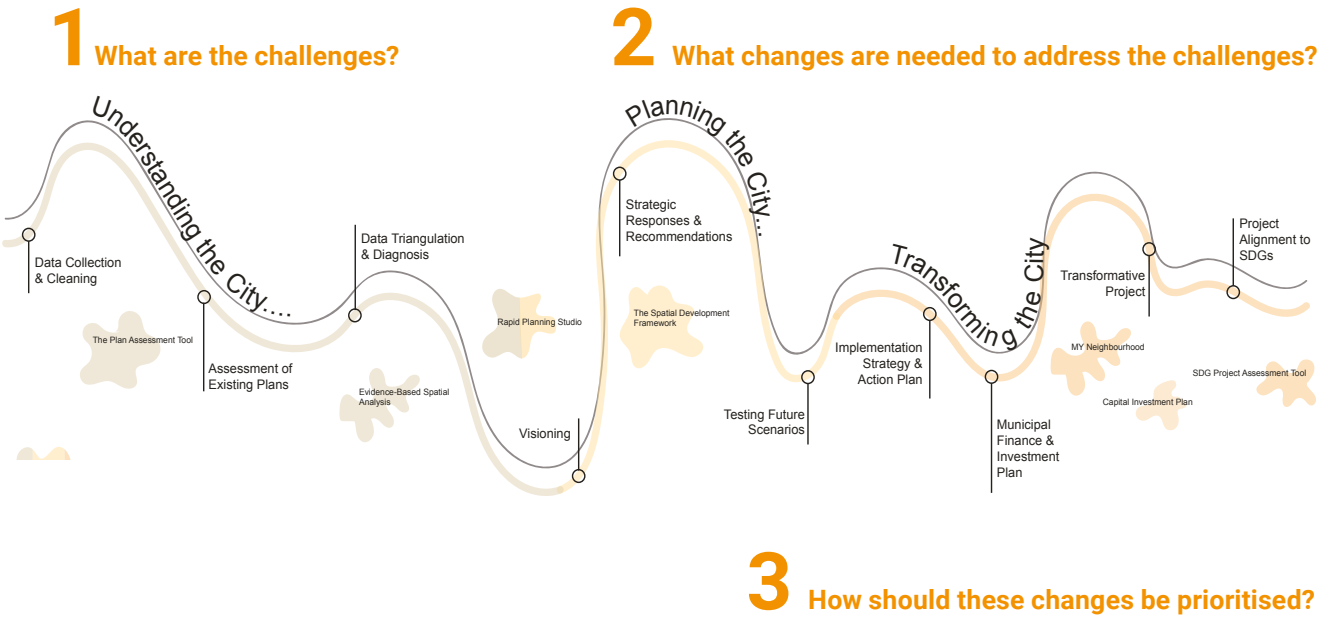


Figure 2. Aligning capacity buiding with UN-Habitat's integrated approach

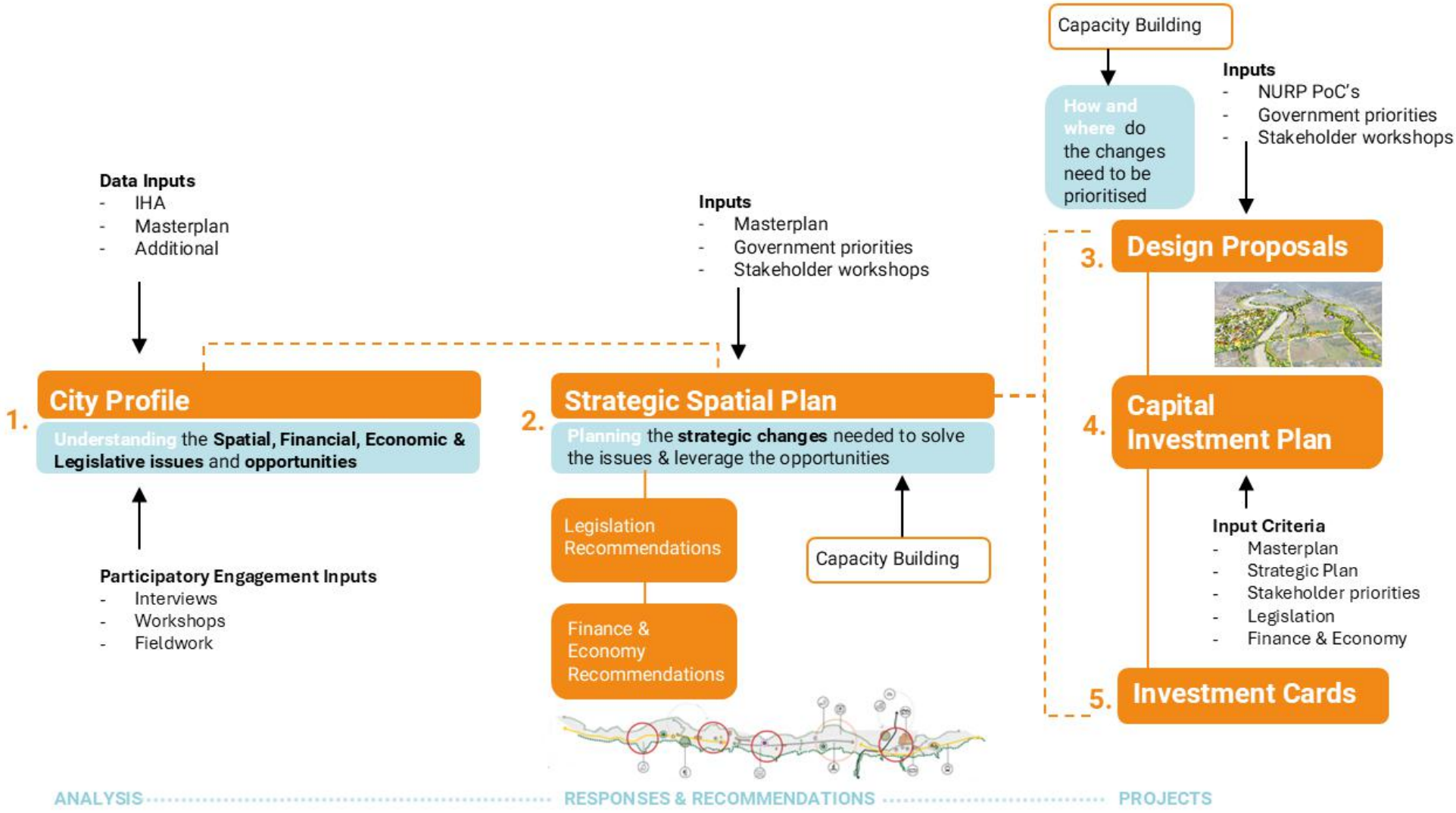


Figure 3. Project framework showing interrelation between phases, inputs, outputs, and outcomes

# Developing an Adaptive and Targeted Capacity Building Plan

## Identifying Needs Through Consultation and Observation

UN-Habitat's work commenced with an inception phase, during which existing data was assessed for an initial understanding of Naryn's context and the challenges it faces. In October 2023, the team undertook their first field mission to Naryn, building upon the existing data and context, while also collecting additional information to comprehensively diagnose the issues and opportunities in the town. This included an assessment of the capacity building needs.

The engagements prioritised dialogue and discussion, providing stakeholders from sectors and institutions an opportunity to share their experiences and insights on various matters. These included the types of projects and interventions planned or ongoing, barriers to developing or implementing projects, mechanisms for coordinating and collaborating across departments, sectors, and levels of government, methods for engaging communities, and mechanisms for project implementation and maintenance, among other relevant topics. This pinteractions helped develop a more holistic understanding of the challenges facing Naryn, forming the basis for the design of sustainable, resilient, and inclusive initiatives.

## Establishing a Framework for Adaptive Capacity Building

Through these engagements, the team identified three key areas for capacity strengthening in Naryn:

1. **Enhanced Knowledge and Information:** Increasing understanding of relevant topics and their areas of impact.
2. **Technical Skills Development:** Building the ability to apply knowledge effectively, replicate successful approaches, and scale up sustainable best practices.
3. **Strengthened Coordination and Collaboration:** Improving mechanisms for effective engagement and collabortion among key stakeholders.

These identified needs formed the foundation for defining three key outcomes, which provided a framework for designing and delivering capacity building activities in Naryn.

**Outcome 1**

Enhanced technical knowledge on key identified topics and areas of impact

**Outcome 2**

Enhanced skills to replicate, scale-up and implement sustainable, resilient and inclusive approaches for urban development

**Outcome 3**

Increased capacity across key stakeholders to collaborate effectively to achieve sustainable and resilient outcomes in the city, region and country

# Defining the approach

To ensure that capacity building effectively addresses Naryn's context while being practical and adaptable, the design and delivery of activities align with four criteria:

**1. Alignment with Project Stages and Outputs**

Capacity building activities are aligned with the overall project stages and deliverables. This ensures that knowledge transfer is practical and directly tied to the project's objectives, enabling a "learning-by-doing" approach.Stakeholders are actively engaged while also embedding sustainable principles into their work. This approach enhances technical expertise through hands-on, relevant learning experiences.

**2. Participatory and Mixed Learning Modalities**
A blended learning approach combines participatory methods with theoretical concepts applied to practical exercises. This keeps stakeholders motivated and engaged while tailoring the content to meet local needs. The combination of theory and practice strengthens understanding and ensures that capacity building efforts are both impactful and actionable.

**3. Integrated Approaches**

Reflecting UN-Habitat's integrated approach, the capacity building incorporates learning across urban planning, finance and economy, and legislation. This fosters holistic thinking among stakeholders and builds a contextual understanding of how these sectors interconnect. The integrated approach promotes sustainable, resilient, and inclusive outcomes by encouraging stakeholders to address challenges collaboratively and comprehensively.

**4. Contextual Relevance and Local Applicability**

Above all, the approach is designed to respond to Naryn's specific needs, focusing on learning that is both contextual and actionable. By addressing the town's particular challenges, the capacity building equips stakeholders with the technical and strategic capabilities necessary to implement localised solutions and sustain long-term progress.

**The capacity building approach was shaped by four key considerations:**

- Aligning activities with project stages and outputs for practical learning
- Ensuring a mixed modality of learning, and encouraging participation and engagement throughout
- Strengthening capacity across urban planning, finance and economy, and legislation
- Responding to local needs and tailoring to context

# Crafting an Adaptive Capacity Building Plan

By integrating local needs, anticipated outcomes, and the defined approach, a capacity building plan was developed to guide the delivery of activities effectively.

The activities were structured to align with the project processes and delivered through three modalities:

Training format workshops to increase capacities of participants around specifc topics

Participatory format workshops to encourage participation and discussion from various stakeholders

Knowledge sharing to encourage peer-to-peer learning

**Capacity Building 1**

| | |
|---|---|
| **Project Stage** | **Inception** |
| | Project kick-off, validating the data and identifying additional data to initaite city assessment and diagnosis and stakeholder engagement |
| **Thematic Focus** | Data validation and mapping |
| **Activities** | Introduction to integrated and evidence-based spatial planning |
| | Community engagement |
| | Validation workshops |
| | Technical workshops |

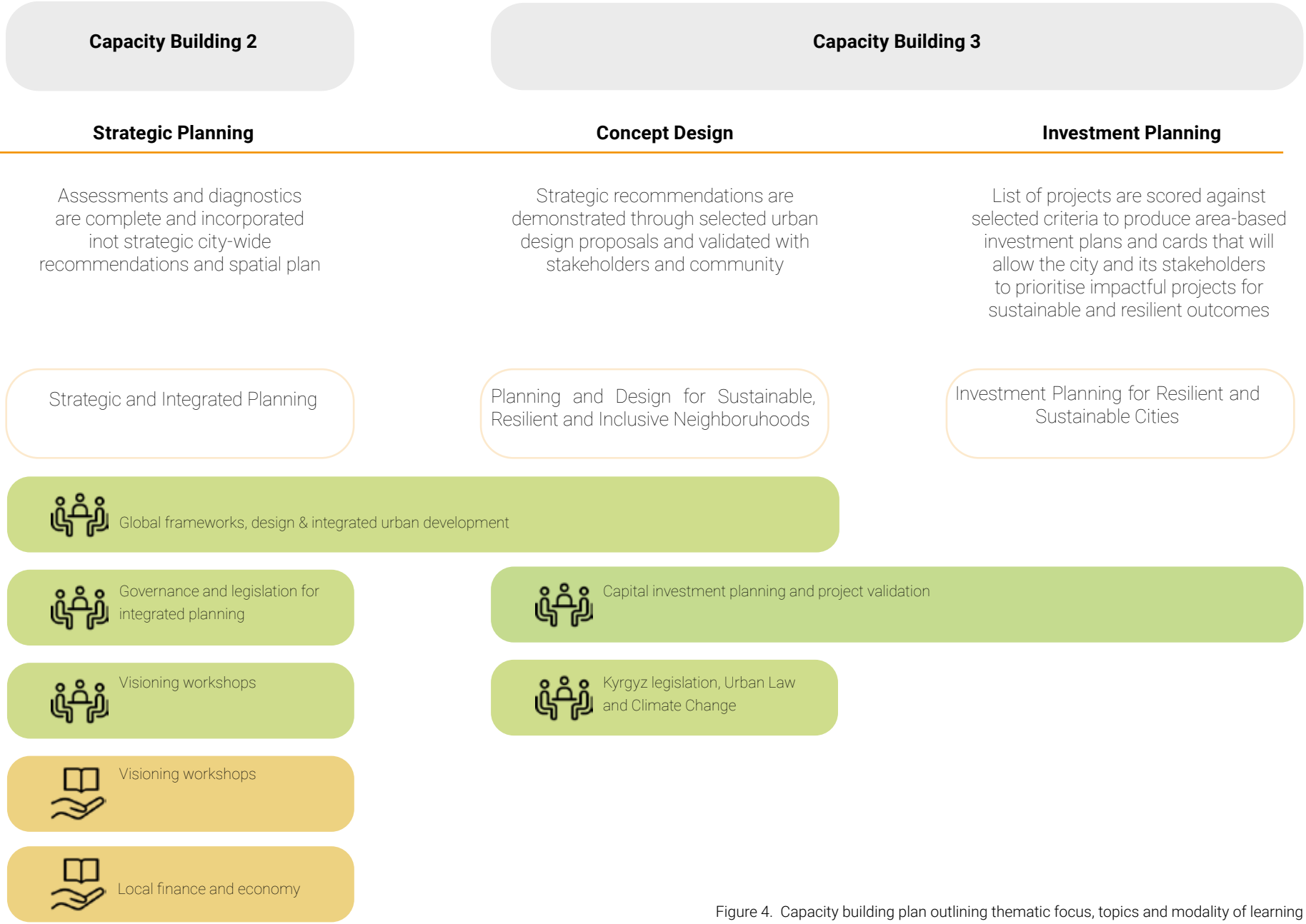


Figure 4. Capacity building plan outlining thematic focus, topics and modality of learning

# Implementation of Activities

## Global frameworks, design and integrated urban development

**Overview**

An introduction to sustainable global goals and design and development principles and their applicability for local, regional and national planning contexts. The session drew upon an understanding of the opportunities of localising these goals and principles to embed knowledge of the importance of integrated approaches to transform existing planning practices. The session also included a rapid diagnosis of the challenges faced in the national planning system as a means to generate discussions and ideas to overcome these challenges and help participants identify the opportunities that are possible when planning is addressed in an integrated way. Using Naryn as an example, participants immeresed in a participatory exercise to workshop the interconnected issues and an appropriate, localised response in relation to the existing legislative environment.

**Participants**

Kyrgyz Union of Architects, Planners, Architects, University of Central Asia, UN-Habitat

**Insights**

The insights were observed at two levels. For local planners, architects, and professionals, the session provided a deeper understanding of the interconnected challenges within the planning sector, while introducing how global principles of design and sustainable development can be applied to enhance the benefits and impact of planning efforts. For the UN-Habitat team and the project, the session offered valuable insights into the specific challenges faced in Kyrgyzstan in pursuing sustainable, resilient, and integrated planning and design. These were instrumental in shaping the strategies, vision, and project list for Naryn, aligning with the project's participatory planning goals. Additionally, the session revealed a gap in awareness of UN-Habitat, its role, and principles, which not only helped refine future engagement approaches but also highlighted the need to strengthen understanding of how global goals and priorities can support local ambitions. This gap presents a potential area for further capacity building and training.

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# Governance and legislation for integrated planning in Kyrgyzstan

**Overview of content**

The training focused on introducing participants to global urban planning principles and their translation into national, regional, and local planning policy and practices. The session aimed to build understanding of integrated planning methodologies and the importance of shifting existing practices in the national planning system to align with modern development needs. Findings from the assessment of Kyrgyz legislation were shared, identifying bottlenecks in the national planning system. The training also provided a platform for practical exercises, using Naryn as a case study to facilitate dialogue on overcoming these planning challenges.

**Participants**

Kyrgyz Union of Architects, Planners, Architects, University of Central Asia, UN-Habitat

**Insights**

The training on governance and legislation focused on enhancing participants' understanding of how global urban planning principles are translated into national, regional, and local planning decisions in Kyrgyzstan. It identified key legislative bottlenecks in the national planning system, particularly the challenges faced by new practitioners with limited capacity and engagement, which can affect all phases of the planning process. Through discussions, participants proposed solutions to overcome these obstacles, including improving capacity at various levels of government and fostering better coordination among stakeholders. The session also highlighted the importance of integrating planning methodologies across governance levels, advocating for a shift in current planning practices to ensure more inclusive, strategic, and efficient urban development in Naryn and beyond.

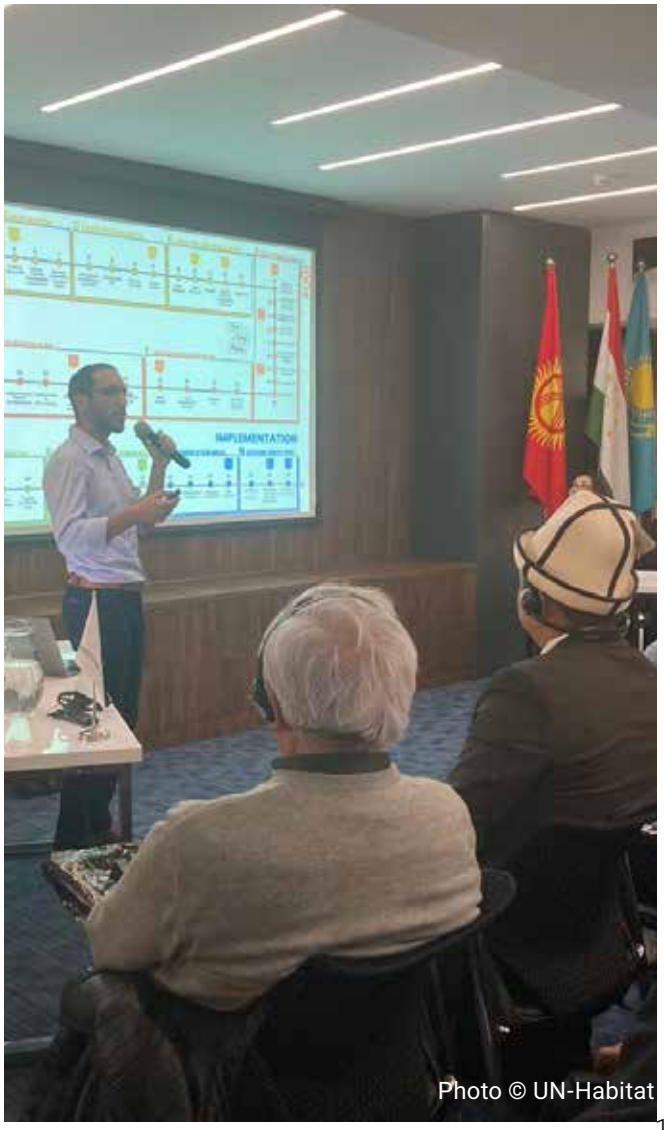


Photo © UN-Habitat

## Visioning workshops

**Overview**

These participatory workshops brought together participants including government officials, sector specialists, local civic society organisations, students and youth, and project partners to discuss visions for Naryn. It provided an opportunity to exchange ideas for Naryn's future, focusing on addressing the city's challenges and identifying opportunities for growth. The cross-sectoral grouping encouraged participants to think about Naryn's unique characteristics in an integrated way with shared knowledge and expertise, and created a platform for exchange and brainstorming of potential projects and initiatives.

**Participants**

Naryn Municipality officials; Local civil society organisations, NURP partners, UCA, Students

**Insights**

The workshops generated insights with common themes and priorities across groups:

Branding Naryn**:** There was strong consensus on developing a unique brand for Naryn, encompassing its agricultural products, culture, and heritage, to position the city as a regional hub for local goods and tourism.

Expanding the Logistics Hub**:** Participants shared a vision to expand Naryn's logistics infrastructure, improving connectivity to regional and international markets, crucial for economic growth and trade.

Building a Skilled Labour Force**:** A focus emerged on enhancing local workforce capacity through skills and training programmes, supporting both the local economy and the city's development.

Environmental Protection and Tourism**:** A key theme was the integration of environmental protection with tourism development. Sustainable practices like planting and land preservation were seen as essential to sustainably enhancing Naryn's tourism potential.

## Visioning workshops

**Overview**

The participatory vision workshops included a segment on knowledge sharing, where participants were introduced to international best practice examples of economic visions that have successfully driven sustainable city growth. This session aimed to inspire participants by showcasing proven strategies from other cities and how these could be adapted to Naryn's context.

**Insights**

The session increased awareness of international cities and towns that have integrated economic visioning with sustainable development. Participants gained insights into innovative approaches to urban growth, including sustainable infrastructure development, green industrial solutions, and inclusive economic planning. These examples provided inspiration for adapting global best practices to Naryn's development strategy.

Photo © UN-Habitat

# Local finance and economy

**Overview**

The session on local finance and economy focused on a SWOT analysis and knowledge sharing. Participants examined Naryn's financial systems, identified obstacles, and reviewed relevant best practices. The session deepened understanding of Naryn's financial challenges while fostering collaboration between experts and UN-Habitat to address them effectively.

**Participants**

Naryn Municipality officials with finance and economy expertise; AKDN representatives, UN-Habitat

**Insights**

Key insights included a clearer understanding of financial barriers, such as limited resources and inefficiencies, along with potential improvement strategies drawn from best practices. Participants shared expertise while allowing UN-Habitat to gather critical data for further analysis, supporting ongoing efforts to enhance Naryn's financial resilience and sustainability.

Photo © UN-Habitat

## Capital investment planning and project validation

**Overview of content**

The workshop focused on identifying and detailing projects across various thematic areas. Guided by the UN-Habitat team, participants were encouraged to think critically about how proposed projects might impact neighbouring activities and respond to identified needs. Discussions centred on prioritising projects with catalytic potential that could generate broader benefits for Naryn's development. This interactive process fostered cross-sectoral dialogue and a comprehensive understanding of challenges and solutions.

**Participants**

Government officials and representatives from the Mayoral Office, Community Members, AKDN, UN-Habitat

**Insights**

The workshop offered insights into thematic collaboration and project prioritisation. Participants worked together to refine project ideas, considering their potential to address multiple challenges and benefit neighbouring activities. Discussions also revealed gaps in awareness of interconnected issues among sector specialists, highlighting the value of clear data visualisation to support decision-making. The exercise underscored the importance of prioritising catalytic projects that align with Naryn's development goals. The findings from the workshop were considered for the next stages of the project to compile project lists, identify demonstration sites, and plan strategies for integrated capital investment.

Photo © UN-Habitat


Photo © UN-Habitat

## Kyrgyz legislation, urban law and climate change

**Overview**

The workshop presented key findings and recommendations from UN-Habitat's analysis of national urban laws and building codes,  Using the Urban Law Module of the Law and Climate Change Toolkit, the session provided a detailed overview of the legislative landscape and highlighted areas for improvement to align with sustainable and resilient urban development goals. Participants were encouraged to provide feedback to inform the finalisation of the analysis and recommendations.

**Participants**

State Department Institute of Urban Planning and Architecture, UCA, AKDN, UN-Habitat

**Insights**

The workshop emphasised the need to align Kyrgyz legislation with international urban planning and sustainability standards. Participant feedback offered valuable insights into the practical application of laws and building codes, ensuring the recommendations are relevant. The session also highlighted the importance of stakeholder collaboration to address legislative gaps and support resilient urban development.for collaboration among stakeholders to address legislative gaps and promote resilient urban development.

# Conclusion

The capacity building initiatives undertaken as part of the Naryn Urban Resilience Programme (NURP) have laid a foundation for enhancing the city's resilience and sustainability. Through a series of workshops, training sessions, and collaborative exercises, key stakeholders from various sectors—including local government, community representatives, and international experts—have worked together to identify challenges, explore solutions, and define actionable steps to drive Naryn's urban development towards a more sustainable future.

The capacity building activities have achieved several important milestones. First, they have fostered a deeper understanding of the interconnected challenges facing Naryn, particularly in areas such as governance, finance, urban planning, and environmental management. The sessions encouraged participants to think critically about how projects can address multiple challenges, benefit neighbouring activities, and integrate the needs of various sectors. They also highlighted the importance of aligning local planning and development practices with global frameworks for sustainability, resilience, and inclusive growth.

Key insights from the workshops revealed several areas for further development. These include the need for stronger cross-sectoral collaboration, clearer data visualisation tools for better decision-making, and a more comprehensive understanding of the financial barriers limiting Naryn's growth.

**Recommendations**

Moving forward, several key recommendations have emerged to ensure long-lasting resilience and sustainability in Naryn:

**Conduct a Training Needs Assessment (TNA)**: A more detailed assessment of capacity building needs is necessary to further define specific skills gaps and target areas for improvement. This will ensure that future training is closely aligned with Naryn's evolving challenges and opportunities.

**Align with the NURP Capacity Building Program:** Future capacity building efforts should build on the foundation laid, ensuring a unified approach to resilience and sustainability across all stakeholders.

**Incorporate Recommendations from the Strategic Plan:** The recommendations from the capacity building activities should be incorporated into the implementation of the Naryn Strategic Spatial Plan, which has been developed by UN-Habitat. This will ensure that the insights gained through the workshops are reflected in the town's long-term development strategy, guiding local government actions and future planning processes.

**Use Investment Cards as a Guide for Prioritisation:** The investment cards developed through the workshops should serve as a valuable tool for prioritising projects, identifying demonstration sites, and guiding capital investments. These cards can also guide authorities on where capacity needs to be built, and collaboration strenbgthened to ensure that resources are directed towards the most impactful projects with a long-term vision of sustainability for Naryn.

The capacity building activities have not only contributed to enhancing the knowledge and skills of key stakeholders but have also helped shape a shared vision for Naryn's future. By building on these foundations and following the recommendations outlined above, together with those included in the project's planning and investment planning documents, Naryn can continue to move towards a more resilient, sustainable, and inclusive future, effectively addressing both current and future challenges.

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