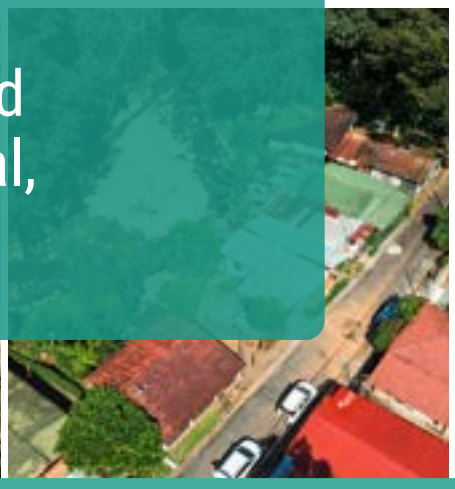
2025

Climate-Related Human Mobility Across Different Levels of Adaptation Governance

Lessons from adaptation planning and implementation in Costa Rica, Senegal, Sri Lanka, and around the world



RESEARCH REPORT

SLYCAN Trust

NAP Global Network

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Research Report

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Lessons from adaptation planning and implementation in Costa Rica, Senegal, Sri Lanka, and around the world

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Glossary of Terms

Climate-related migration: The permanent or temporary movement of persons away from their place of usual residence within a country or across an international border in the context of climate change (adapted from International Organization for Migration, United Nations Development Programme & United Nations Environment Programme [IOM, UNDP & UNEP], 2021).

Disaster displacement: The movement of persons who have been forced or obliged to flee or leave their home or place of habitual residence due to a disaster (adapted from IOM, UNDP & UNEP, 2021).

Horizontal integration: Creating intentional and strategic linkages among policy sectors and actors at the same governance level (Luna Rodríguez, in press).

Implementation (as one of the three overlapping phases of the NAP process): Strategies are fleshed out in greater detail, financing is secured, and the necessary technical and human resources are procured and **deployed**. Adaptation priorities are usually (but not exclusively) implemented through **projects and programs** (International Institute for Sustainable Development [IISD] / National Adaptation Plan Global Network [NAP-GN], 2023).

Local governance: Lowest level of governance that is usually closest to community-based decision making for a very specific geographical area, as opposed to national or subnational levels of governance (Luna Rodríguez, in press).

Localization: Often used in the context of the UN Sustainable Development Goals, the process of customizing international frameworks and translating them into local development plans and strategies that fit the needs, context, and priorities of a particular sub-national region or locality, in coherence with national development agendas (United Nations [UN], 2024). "It means placing local communities at the centre of sustainable development — including the NAP process— and anchoring development action on the principles of subsidiarity, inclusion, partnership, and multilevel governance, with adequate data and financing availability at the local level" (p. 1) (UN-Department of Economic and Social Affairs, 2024).

Multilevel governance: Describes the vertical distribution of power across various governance levels as well as the horizontal distribution of power across several actors. It acknowledges several levels of governance (local, sub-national, national, international, and global) and the roles that governments, businesses, and civil society play in tackling climate change adaptation (Luna Rodríguez et al., 2023).

National governance: The highest level of governance of a sovereign state regardless of internal subdivisions at lower administrative levels (Luna Rodríguez, in press).

Planned relocation: The permanent relocation of persons, infrastructure, or assets away from places exposed to climate hazards or prone to climate-related disasters (adapted from IOM et al., 2021). Planned relocation is sometimes also referred to as "resettlement"; however, this term is more often used in the context of humanitarian refugee resettlement (UN High Commissioner for Refugees, 2014).

Planning (as one of the three overlapping phases of the NAP process): "Climate risks and vulnerabilities are assessed, options for managing these risks are identified and prioritized, strategies for their implementation are developed, and adaptation is integrated into budgeting processes" (IISD/NAP-GN, 2023).

Sectoral integration: Integrating climate change adaptation into sectors' development planning (Price-Kelly & Hammill, 2015).

Sub-national: Institutions, systems, and processes that exist at all levels below the national, including the local level (Dazé et al., 2016). For example, the term can refer to a second level of governance (e.g., states or provinces) or to a third level (e.g., municipalities or districts) depending on countries' specific multilevel governance system (Luna Rodríguez, in press).

Vertical integration (both bottom-up and top-down): Process of creating intentional and strategic linkages between national and sub-national adaptation planning and implementation, and monitoring, evaluation, and learning (Dazé et al., 2016; Luna Rodríguez et al., 2023). Enabling factors for effective NAP processes oriented to actors at all levels include leadership (of political actors at different levels); institutional arrangements (coordination between governance levels); engagement (involvement of diverse actors at different levels); data, knowledge, and communications (information sharing between actors at different levels); skills and capacities (developed at sub-national levels); and financing (government budgeting at different levels) (Luna Rodríguez et al., 2023).

Key Messages

I. As countries are working to strengthen the linkages between national and sub-national adaptation planning through a two-way process of vertical integration, it is important to consider the integral role of sub-national and local actors in the implementation of NAP priorities. Taking into account the experiences in the case study countries considered for this research (Costa Rica, Senegal, and Sri Lanka), policies at the sub-national level tend to drive the national-level agenda on human mobility adaptation in them.

II. While many national adaptation plans (NAPs) include references or provisions (planning) related to human mobility, most NAPs do not account for how these provisions are integrated into planning and implementation across different levels of governance.

III. Due to the highly context-specific and cross-cutting nature of both human mobility and adaptation, relevant actions must be designed at both national and sub-national levels of governance with the participation of a wide range of actors.

IV. There are several types of approaches for integrating human mobility into sub-national levels of governance that are currently included in national adaptation planning processes:

- Localizing a NAP's priority actions to the sub-national level
- Developing sub-national adaptation plans
- Including local actors in national adaptation planning
- Building local capacities for adaptation
- Strengthening local leadership for NAP implementation
- Enhancing integration between different levels of governance
- Improving sub-national information and finance flows
- Strengthening cross-sectoral linkages

V. In addition to this typology of approaches, the research has identified the following additional recommendations for policy-makers: "Translating" NAP provisions related to human mobility into local context and language; establishing common frameworks for human mobility (definitions, databases, indicators etc.) across governance levels; building on existing mobility-related local plans to inform NAP development; establishing focal points with clear mandates and reporting channels across different levels of governance; and strengthening overall coordination between national and sub-national actors.

VI. To effectively integrate human mobility into sub-national adaptation planning and implementation, relevant actors (policy-makers, local authorities, communities etc.) should seek to address and overcome the following challenges: administrative structures and gaps in coordination; lack of clear definition of different types of human mobility (especially planned relocation and human immobility) and strategies to support different migrant profiles; data and research needs; insufficient means of implementation; low engagement with local actors in the adaptation planning; considerations of climate justice and equity; and disconnects between evidence-based priorities and political priority-setting of national and sub-national authorities.

VII. Toward this end, entry points and opportunities for national adaptation policy-makers could include the following: using adaptation planning to build capacities and knowledge on human mobility at the sub-national level; utilizing synergies between interconnected policy areas of adaptation and mobility (e.g., enhancement of water resources and job opportunities in climate-affected areas to limit rural exodus from Senegal. Mobility-related action indicated in Senegal's NDC (Mombauer et al., 2023)); collaborating with existing groups and creating multi-actor partnerships between mobility, adaptation, and sectoral actors; utilizing the long-term nature of adaptation planning to address mobility in the context of slow-onset events; designing local mobility-related interventions to function as adaptation strategies; and enhancing (direct) access to finance and support at sub-national and local level.

VII. Local government authorities could identify existing sub-national setups and structures (e.g., for disaster management), local actors (organizations and people working in communities), as well as capacity-building requirements, and create mechanisms for local-level participation (with affected groups) and feedback, in order to articulate sub-national priorities on human mobility. This should be supported with local-level needs assessments and a catalogue of potential local interventions with prioritization, costing, and resource requirements, as well as trends in human (im)mobility and considering aspects of social cohesion, cultural heritage, sense of place, livelihoods, health, education, and traditional ways of life.

IX. Policy-makers and other national actors could foster communication and peer learning between countries and regions, sharing experiences on localization and sectoral implementation. They can also identify the role of sub-national-level actors, associations, cooperatives, and the private sector, as well as connection points across all levels of governance in the sub-national or sectoral policy and adaptation planning processes. Where gaps appear between the national and sub-national government authorities, they could propose the creation of dedicated focal points to lead communications. They should also consider empowering local governments and diverse actors (e.g., non-governmental organizations, civil society organizations, affected communities, etc.) by allocating resources and involving them in meaningful ways. This would require guidelines for the integration of human mobility into local planning and the establishment of markers, indicators, or metrics for human mobility (including monitoring, evaluation, and learning [MEL] systems to track institutions working locally on this topic) and incorporate them into local adaptation planning and enhancement of the data collection processes.

X. Civil society, communities, and other actors could strengthen their engagement in the NAP process and their capacities on adaptation and human mobility, and share findings between themselves, as well as with policy-makers and citizens, via stories, case studies or exchanges of best practices and lessons learned between local actors that address priorities related to people's needs in situations of mobility and immobility.

CHAPTER 1

Linking Human Mobility and Climate Change Adaptation

Climate change adaptation is relevant for all sectors, levels, and aspects of human lives. Since the establishment of the national adaptation plan (NAP) process under the Cancun Adaptation Framework in 2010, a growing number of countries have formulated NAPs, many with readiness support from the Green Climate Fund (GCF). As of September 2024, a total of 58 developing countries have submitted their NAPs to the United Nations Framework Convention on Climate Change (UNFCCC), with the first submissions made in 2015 and 2016; 143 of the 154 developing countries Parties to the UNFCCC have reported that they have a NAP process underway (UNFCCC, 2024). Many countries are now moving from the development of their NAPs toward implementation, which primarily happens at the sub-national and local levels due to the highly context-specific nature of climate change adaptation.

As outlined in the NAP Technical Guidelines developed by the Least Developed Countries Expert Group (LEG), the NAP process includes a step on "integrating climate change adaptation into national and sub-national development and sectoral planning" (LEG, 2012). Therefore, countries are tasked to find effective ways to ensure that their NAP remains not just a national document but is implemented with ownership, transparency, and impact at all levels of governance and across all relevant sectors. This process of adaptation planning and implementation takes place in a multitude of ways, with different approaches having implications for the required mechanisms and systems for, *inter alia,* capacity building; financing; monitoring, evaluation, and learning (MEL); reporting; and iterative updating of the NAP document.

Human mobility is an important part of adapting to climate change because moving is one of the ways people and communities respond to climate change impacts. In many developing countries, people need to move — temporarily or permanently — due to rising seas, droughts, or other climate challenges. Governments need to put in place coordinated measures across different sectors and levels of government to ensure that mobility is safe and supports both those who move and the communities they leave or join. Accordingly, human mobility has been included in an increasing number of NAPs across the stages of the iterative adaptation cycle: risk and vulnerability assessments; planning; implementation; and MEL.

Out of 53 NAPs submitted to the UNFCCC (as of February 2024), 85% referenced one or more forms of human mobility (not only climate induced). However, only 66% of NAPs contained concrete provisions (planning) or commitments to address mobility in some way. This inclusion of human mobility into submitted NAPs can broadly be clustered into six categories of actions: enhancing data availability and closing knowledge gaps; anticipatory planning and scenario development; strengthening the enabling and policy environment; protecting and supporting people on the move; avoiding involuntary human mobility through in-situ adaptation; and supporting human mobility as an adaptation strategy (SLYCAN Trust, 2024).

However, while many NAPs include references to human mobility, there are still knowledge gaps[1] when it comes to effective and inclusive ways of implementing these considerations across different levels of governance; connecting them with existing policy frameworks; understanding their impact; and addressing the needs of vulnerable groups and communities in situations of (im)mobility. As countries move toward NAP implementation and strengthening adaptation planning across different levels of governance, it is crucial to understand how human mobility is integrated into this process. In this context, localization is used to empower local actors through decision-making and resource allocation (Baguios et al., 2021); local implementation, therefore, entails a detailed execution of strategies, securing financing, and deploying necessary resources to support locally led practice. From a multilevel governance perspective, this refers to how power is distributed both vertically — across different levels of governance — and horizontally between multiple actors, recognizing the contributing roles of governments, civil society, the private sector, and academia.

This research aims to inform the inclusion of human mobility considerations into adaptation planning and implementation across different levels of governance and provide actionable insights for policy-makers and practitioners working on climate change adaptation and/or human mobility. It is structured around the following main objectives:

- Analyze and summarize the current integration of human mobility considerations into NAP implementation and localization processes and documents, including localized planning processes, vertical and horizontal integration, governance arrangements across different administrative levels, monitoring and evaluation (M&E)/MEL systems, and reporting.
- Develop a typology of approaches and elements featured in documents submitted to the UNFCCC as well as selected country case studies exploring the full range of the national adaptation planning process.
- Conduct three in-depth country case studies on the aspects mentioned above that explore the integration of human mobility into NAP implementation and localization in countries representing different (supranational) regions and contexts.
- Raise awareness of relevant stakeholders involved in national adaptation planning on the thematic areas outlined above.

Notes:

[1] The

1. "Gaps in understanding (im)mobility's potential role in adaptation have contributed negatively to how (im)mobility is integrated into NAPs" (p. 5);

2. (...) "lack of knowledge about human immobility, both voluntary and involuntary, in the context of climate change. (...), immobility is as much of a challenge as displacement" (p. 5);

3. Lack of acknowledgment of voluntary immobility or the inclusion of measures to support the right to stay, critical for mobility justice (Link et al., 2024).

CHAPTER 2

Methodology

2.1. Defining the data set and inclusion criteria

2.2. Carrying out key informant interviews

2.3. Conducting the country case studies

Qualitative and quantitative methods were applied during the research, with a focus on the quantitative analysis of NAP-related documents and a qualitative analysis of key stakeholder inputs collected during workshops and key informant interviews (KIIs).

2.1 Defining the data set and inclusion criteria

The following inclusion criteria were used to identify the source data set for the quantitative data collection based on relevance, accessibility, and representation:

Table 1. Data sets related to NAPs and inclusion criteria for each. Source: Authors

Data set	Inclusion criteria
NAPs	All NAPs submitted to UNFCCC NAP Central by developing country Parties up to the end of September 2024
Sectoral NAPs and other outputs	All sectoral NAPs and other outputs submitted to UNFCCC NAP Central by developing country Parties up to the end of June 2024
NAP readiness proposals	All approved NAP Readiness Proposals submitted to the GCF by developing countries who have not yet submitted a NAP to UNFCCC NAP Central up to the end of June 2024

Using a codebook (see Appendix B), the research team evaluated the data set by searching for keywords, manually capturing the frequency of relevant content, and performing a manual discourse analysis to identify and cluster relevant elements and aspects related to climate change, human mobility, and NAP localization.

Data set analysis

The quantitative research consisted of a dataset analysis using the codebook. Key outputs of this process included a frequency analysis and a discourse analysis that can be broken down based on thematic areas (see codebook), (supranational) region (using the five United Nations Regional Groups), year, and other potentially relevant indicators (such as least developed country (LDC)/non-LDC). Furthermore, relevant approaches and elements were clustered into a typology based on findings from the data set analysis as well as the KIIs.



2.2 Carrying out key informant interviews

The KIIs were conducted as semi-structured interviews either virtually via Zoom or in person in case study countries, focusing on experts and organizations working on human mobility and/or national adaptation planning as well as related thematic areas. The research covered different stakeholder groups and actors, including national governments, (supra-national) regional organizations, UN agencies, research institutions and think tanks, development agencies, civil society organizations (CSOs), local authorities, and organizations working directly with migrants and displaced persons.

The KIIs were structured around the following guiding questions modified based on the stakeholder group and context (international/national, involvement in the NAP process):

- How is human mobility currently incorporated into the NAP document and national adaptation planning more broadly?
- What are your experiences with NAP localization and implementation? What are the key considerations and challenges when it comes to national adaptation planning, implementation, and M&E/MEL on the sub-national or sectoral level?
- What do you see as key considerations for incorporating human mobility into national, sub-national, and sectoral adaptation planning instruments? How can interlinkages between relevant policy frameworks and processes be operationalized?
- What are the key challenges or gaps when it comes to incorporating human mobility into NAP localization and implementation?
- Do you have any recommendations for addressing these challenges and gaps? What is needed to ensure that climate-related human mobility is considered and effectively addressed in NAP localization and implementation?

2.3 Conducting the country case studies

The in-country work in the selected partner countries (Costa Rica, Senegal, and Sri Lanka) for case studies was prepared through a mapping of key actors for climate change adaptation and human mobility (covering, at a minimum, the public sector [national and sub-national level], UN and development agencies, civil society, and research/academia); a preliminary mapping of relevant policies, plans, or frameworks based on desk research (including local development plans and other relevant documents and frameworks to operationalize NAP provisions/planning); and an in-depth analysis of the NAP process (see criteria for selecting case study countries in the appendices).

The following guiding questions were discussed during the workshops:

- How and to what degree is human mobility included and addressed in the NAP process?
- How is the NAP being/going to be localized and implemented? Are there sub-national or sectoral plans and structures?
- How will the thematic focus areas and actions of the NAP be considered in the implementation as well as M&E, MEL, and/or reporting?
- Are there any special considerations related to human mobility in this regard?
- Is the NAP or its implementation process connected to mobility planning and policies in the country? If yes, how and to what degree?
- What are potential synergies between the mobility and adaptation frameworks at the national and sub-national levels?
- What are the key challenges or gaps when it comes to incorporating human mobility into national adaptation planning and NAP localization/implementation?

CHAPTER 3

Answering Global-Level Research Questions

3.1. How Is human mobility integrated into NAPs?

3.2. How are levels of governance addressed in NAPs?

3.3. What are the main types of relevant considerations in NAP documents?

Based on the desk research as well as KIIs, the study has found a range of approaches to integrating human mobility in NAP implementation and localization. This includes an array of localized planning processes; vertical and horizontal integration; governance arrangements across different administrative levels; and MEL systems and reporting.

3.1. How is human mobility integrated into NAPs?

As of July 31, 2024, a total of 58 developing countries have submitted their NAP documents to the UNFCCC. Out of these 58 NAPs, 48 (83%) reference human mobility and 37 (64%) include concrete provisions (planning) or actions (implementation) related to migration, disaster displacement, or planned relocation. In terms of supranational regional distribution, almost all African countries with a submitted NAP include human mobility (95%), most of the countries from Latin America and the Caribbean (86%), and three quarters of Asia-Pacific countries (75%). Within the range of human mobility, African countries have the highest focus on displacement (19 countries), followed by migration (17 countries) and planned relocation (11 countries), while countries from Latin America and the Caribbean (LAC), and the Asia-Pacific (AP) region have similar focus on all three categories (LAC 11/10/10 countries, AP 9/11/10 countries).

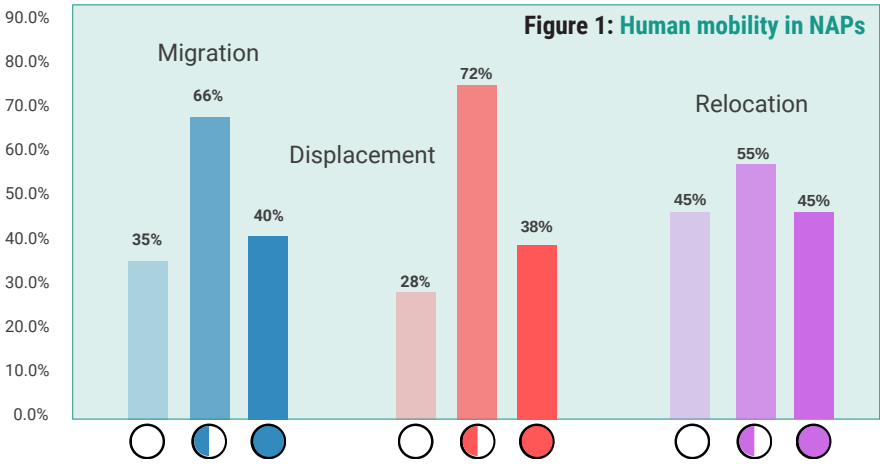
58 **NAPS submitted** so far (July 2024)

83% of submitted NAPs **reference forms of human mobility**.

64% contain **provisions to address human mobility**.

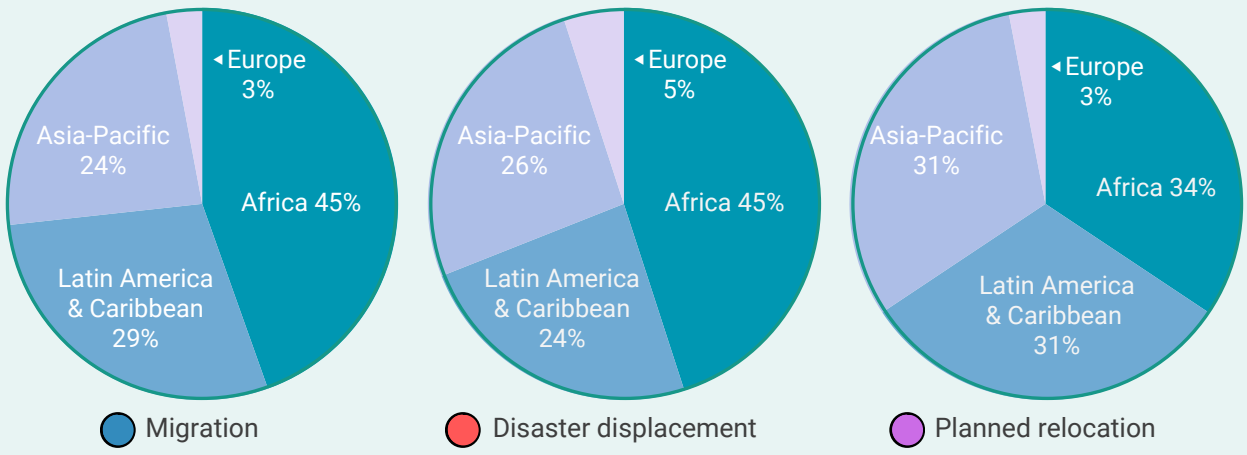
42% of NAPs mentioning mobility **are from Africa**, 29% LAC, 25% Asia-Pacific, 4% from Europe

Figure 1: Human mobility in NAPs



First column: **No reference** / Second Column: **Mentioned** / Third Column: **Concrete Provision(s)**

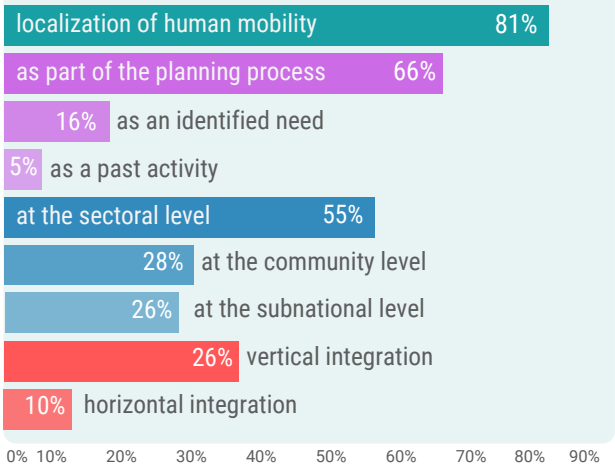
Figure 2: Regional distribution of NAPs with references to forms of human mobility



3.2. How are levels of governance addressed in NAPs?

Similarly, 47 (81%) of these 58 NAPs refer to localization and sub-national implementation of adaptation actions related to human mobility, often as part of the planning process (65.5%), an identified need (15.6%), or in relation to past activities already implemented (5.2%). Breaking this down further, the majority of these NAPs focus at the sectoral level (55.2%) or community/local level in this regard (27.6%), followed by sub-national regional approaches (15.5%) and actions at the municipal level or in specific areas. More than a third of the 58 NAPs reviewed (34.5%) also specifically mention vertical integration, with a lesser number (10.3%) referencing horizontal integration.

Figure 3: Localization of human mobility in NAPs



Eight countries have submitted sectoral adaptation plans to the UNFCCC's NAP Central, with Ghana as the ninth country submitting a sectoral adaptation plan but not yet a full NAP document. Out of these, six sectoral adaptation plans refer to human mobility localization as part of the NAP planning and one as an identified need. In these cases, the urban or city level was indicated by two countries, with two countries also indicating vertical integration and one country referring to horizontal integration.

Furthermore, 56 approved NAP readiness proposals (as of June 2024) of countries who have not yet submitted a NAP to the UNFCCC were also reviewed. Out of these readiness proposals, human mobility is referenced in 24 (42.9%), in eight as past activities (14.3%) and in three as an identified need (5.4%). Only 13 (23.2%) specify localization in some sectors (mainly agriculture, water, energy, and infrastructure), five mostly at the community/ local level (8.9%) and three with some form of horizontal integration (5.4%).

3.3. What are the main types of relevant considerations in NAP documents?

There are 47 countries that, in their submitted NAPs, include provisions (planning) or actions (implementation) related to human mobility and its localization at sub-national levels. The analysis of these provisions finds the following (not mutually exclusive) categories and types of considerations:

Table 2. Planning and implementation considerations in NAPs for the localization of human mobility at sub-national levels. Source: Authors

A. Local-level planning	
Category	**Type of consideration**
A. Localizing NAP actions to the sub-national level	Adjusting existing adaptive strategies to address state- or province-specific needs, such as planned relocation from high-risk areas (Pakistan, Sierra Leone, Burkina Faso, Nepal)
	Utilizing land management at the local level to secure rural livelihoods and reduce stress on migrant-receiving urban areas (Madagascar, Nepal, Paraguay, Sierra Leone)
	Addressing urban growth to accommodate climate-related rural–urban migration (Fiji, South Africa)
	Enabling livelihood diversification at the local level to reduce rapid urban expansion (Kenya), rural exodus (Benin) or as a socio-economic protection measure for vulnerable people (Ethiopia)
	Mainstreaming adaptation activities and targets, including those related to human mobility, with socio-economic development plans of districts and localities (Moldova, Mozambique)
	Integrating human mobility into sub-national plans (Fiji)
	Validating land-use analysis in regional and local development plans in accordance with climate change projections and including relocation solutions in land-use planning (Colombia)
	Developing municipal adaptation plans, not indicated in the NAP but already executed (Costa Rica)

B. Local and sub-national actors	
Category	**Type of consideration**
B1. Including local actors in national adaptation planning	Engaging migrant populations as key stakeholders and decision-makers (Costa Rica, Papua New Guinea, Marshall Islands)
B2. Building local-level capacities	Strengthening institutional capacity at state/regional level for disaster preparedness, where migration is a significant factor (Sudan, Cameroon)
	Building local and institutional capacities and define priorities, needs, and research opportunities, taking into account migrant populations (Costa Rica)
	Training communities on risk management and adaptation and integrating migrant populations (Costa Rica)
	Strengthening knowledge management on the effects of climate change (Central African Republic and South Sudan), climate services, and the development of local capacities (Costa Rica)
B3. Strengthening sub-national and local leadership for NAP imple-mentation	Facilitating provincial departments and municipalities to take the lead in implementing sector-specific adaptation measures for displaced populations (South Africa)
	Including rural and Indigenous communities in planning processes related to tackling climate-related migration and assisting communities in remaining rooted to their land (Argentina, Ecuador, Morocco, Niger)
	Engaging migrant populations as key adaptation stakeholders and decision-makers (Costa Rica, Papua New Guinea)

C. Coordination between different levels of governance	
Category	**Type of consideration**
C1. Multilevel governance	Strengthening local multisectoral and inter-institutional commissions to integrate adaptation into territorial planning and management and to guarantee the inclusion of migrant populations in climate-related decision making (Costa Rica)
C2. Sub-national information flows	Development of an inventory of existing and potential climate migrants for the strengthening of response and recovery mechanisms (Bangladesh)
	Performing localized studies within high-risk localities, including related to migration, to supplement provincial-level analysis and enable a well-informed selection of adaptation strategies (Philippines, Papua New Guinea)
C3. Sub-national finance	Development of index-based insurance mechanisms (such as weather-based crop insurance) for potential climate migrants and their livelihoods (Bangladesh) or strengthening risk transfer mechanisms/insurance for communities displaced by disasters and communities at risk at federal, provincial and local level (Nepal)
D. Sectoral implementation	
D1. Cross-sectoral implemen-tation	Taking a cross-cutting approach to adapt employment policies and social security policies in response to climate-induced migration (Argentina, Benin, Sierra Leone, Zambia)
	Implementing a cross-sectoral development strategy that is migrant-inclusive (Central African Republic, Costa Rica, Niger, Papua New Guinea, Zambia) and, additionally, including land use and management (Colombia, Costa Rica, Madagascar, Moldova, Mozambique, Pakistan, Togo)
	Engaging migrant populations as key adaptation stakeholders and decision-makers (Costa Rica, Papua New Guinea)

As seen in the table above, countries utilize different approaches to include human mobility in their sub-national or sectoral adaptation planning and NAP implementation. Some NAPs have specific implementation plans with strategies (e.g., Papua New Guinea) while others include human mobility into sectors such as disaster risk management (DRM), as in the case of Bangladesh, Burundi, Cameroon, and Kiribati. The approaches for sub-national adaptation action used by different countries include top-down approaches that translate national priorities to specific contexts, as well as mainstreaming approaches that integrate adaptation into existing local planning processes. This also can lead to the development of separate adaptation plans at the sub-national or sectoral level.

Many countries have sectoral implementation measures in relation to climate-related human mobility, but they rarely mention horizontal integration; when mentioned, it is not explicitly in reference to climate-related mobility. In some countries, local adaptation plans have been an initial step in the NAP process and led to the development of a national plan (e.g., Mozambique). In other countries, the NAP foresees the subsequent development of localized plans as part of its implementation structure (e.g., Bangladesh, Sri Lanka). Furthermore, implementing NAPs across different levels of governance can build on processes or facilities—such as the Local Climate Adaptive Living (LoCAL) Facility—to unlock access to new types of climate finance and adaptation investments.

This analysis centred on NAPs also outlines a wide range of actors who are involved in the localization and implementation process, either working through existing governance structures or embedding new focal points or bodies into them. In Sri Lanka, for example, the NAP envisions the establishment of provincial adaptation cells and climate action cells to implement adaptation at the provincial and sectoral level (see "Sri Lanka" case study section), as well as a forum of CSOs to support measures at the grassroots level and involve local community-based organizations in implementation and monitoring processes.

CHAPTER 4

Human Mobility in Adaptation: Analyzing Three Country Case Studies

4.1. Costa Rica

4.2. Senegal

4.3. Sri Lanka

The country case studies briefly highlight country context, existing governance structure, and the integration of human mobility into sub-national adaptation planning, as well as some additional key findings. For Senegal, a particular focus is given on linkages between the national and sub-national level; for Sri Lanka the focus is on the provincial and national level; and for Costa Rica, the context of local government and communities is explored.

Key messages from the case studies:

Costa Rica, Senegal, and Sri Lanka utilize relocation and resettlement strategies as adaptive measures, specifically in climate change-related disaster responses. Planned relocation serves as a critical tool for DRM at the sub-national, and local levels, particularly in regions facing high climate vulnerability.

Costa Rica's NAP highlights the need for further research into the risk exposure faced by migrant populations, recognizing the importance of addressing climate-related human mobility in its disaster risk strategies. Additionally, adaptation plans generally emphasize securing financing for local-level implementation and capacity-building efforts, ensuring that communities are better equipped to manage and adapt to climate-related challenges.

Similarly, Senegal utilizes both temporary and permanent resettlement plans in their adaptation planning and DRM, particularly in the case of flood areas. The Kaolack migration stakeholders' consultation framework works at the sub-national level by managing local migration, securing financing, training, and capacity building. At the local level, urban and coastal communities are identified as the most vulnerable to climate-induced migration; therefore, adaptation measures to increase the resilience of these communities through infrastructure and resource management are implemented. However, a lack of financing and the increased costs of adaptation planning limit increased implementation at both the national and local levels; this is further exacerbated by the lack of scientific and technical capacity at the local level. There is a need to conduct further assessments on internal migration patterns particularly because Senegal's protection systems do not meet the needs of displaced people.

At the sub-national level, Sri Lanka's Provincial Adaptation Plans (PAPs) consider local experience and data provided by provincial councils to implement and localize adaptation strategies, which are undergoing further refinement and validation. However, currently, there is no certainty about their integration of human mobility into NAP implementation at the sub-national and local levels. In this regard, enhancing quantitative and qualitative evidence on mobility patterns (identifying high-risk areas, projected origin, and destination areas) within each province could support local authorities in long-term anticipatory adaptation planning.

4.1. Costa Rica

Country context

Costa Rica's geographic position in Central America—a region that has recorded 261 disasters caused by natural and anthropogenic phenomena between 2000 and 2018 alone—as well as its climate and seismic conditions, expose the country to a high risk of disasters. This country is also part of a migratory corridor with intra-regional migration, migration to North America, return migration, and extra-regional migration (e.g., South America, Africa), and increased mobility due to tourism (IOM, 2023a).

The migration policy in Costa Rica is implemented at a **national level** (IOM, 2021) following the next documents: National Policy on Adaptation to Climate Change Adaptation 2018–2030 (2018), the National Plan for Adaptation to Climate Change 2022–2026 (axis 1) and the National Policy on Mitigation and Adaptation to Climate Change (2019). This reflects a multilevel/**vertical integration** (Dirección General de Migración y Extranjería, 2023; IOM, 2024) but not focusing on climate-related human mobility.

Multilevel governance structure

Costa Rica has a **decentralized governance system** that is organized according to the following multilevel governance structure: six regions function as sub-national administrative entities that are not autonomous by law and support the administration done by the national government. Below these, there are 84 cantons (municipalities) and 489 districts with representatives (Luna Rodríguez, personal communication, October 18, 2024).

Nonetheless, cantons have the capacity to generate their own income via taxes and other economic instruments but also receive financial transfers from the national government to cover many of their activities.

Human mobility in sub-national adaptation planning

The Directorate of Climate Change of the Ministry of Environment and Energy prepared action plans for adaptation to climate change 2022–2026 for the six **regions** in Costa Rica: Brunca, Huetar Caribbean, Huetar North, Chorotega, Central Pacific, and Central. This was framed under the project Plan-A: Resilient Territories to Climate Change, which was established in 2018 with GCF funds and implemented by UNEP. However, none of these plans have incorporated climate-related human mobility. At the **canton (municipal) level**, some initiatives are being implemented by a few cantons, such as the **relocation** of vulnerable populations living in informal settlements or with high exposure to hazards, as part of the National Risk Management Plan (PNGRD) and DRM at a cantonal level (Instituto Nacional de Vivienda y Urbanismo, 2024).

At a **local level**, many institutions, agencies and organizations[2] have implemented projects related to DRM and climate change adaptation, aiming to raise awareness through activities (IOM, 2023a) and information material (e.g., the Tsunami Risk Community Management Training Manual, published in 2020, which includes a section on **migrants** in emergency situations) (IOM, 2021); carry out **planned relocation** from a DRM approach (e.g., vulnerable population in affected areas from the Caldera district) after more frequent and intense waves due to sea level rise (La Ruta del Clima, n.d.); or **relocation** processes for reconstruction purposes after a disaster (e.g., the case of the Cinchona population after the earthquake of April 8, 2009 (IOM, 2021)). In terms of **monitoring** (at a **local level**) in the Caldera district, the Community Emergency Committee is generating an internal census to know in detail the people who live in the main risk zones and who participates in the evacuation procedures[3] in emergency situations (La Ruta del Clima, n.d.).

As for **studies** in this topic, Costa Rica's NAP (2022) indicated the importance of more data collection and analysis of migrant populations, annual studies on risks faced by "irregular migrants" and assessment on the differentiated impacts and vulnerabilities of migrant populations (UNDP, 2023).

DRM is the only **sector** that has adopted actions linked to climate-related human mobility: The country has normative provisions (planning), including public policies and regulations that outline specific actions to address **human mobility** and the integration of **migrants** into disaster response plans and preparations (IOM, 2021). For example, Upala's Municipal Emergency Committee updated the Cantonal Risk Prevention and Emergency Attention Plan in 2023 and included the migrant population (IOM, 2023b). Moreover, the national Integrated **Migration** Policy (2024–2034) in its "Axis 4: Integration and development" includes Costa Rican **diaspora** reintegration and integrating the DRM and climate change perspective (Dirección General de Migración y Extranjería, 2024).

For **horizontal** (cross-sectoral) **integration**, the National Integration Plan (2018–2022) noted the institutional strengthening as a cross-cutting area to implement the **migrant** integration policy more effectively in its Axis 6 (UNDP, 2022). **Costa Rica's NAP (2022)** had also indicated the importance of strengthening **40 local multisector commissions** to improve planning and response to climate change and **inclusion of migrant populations** (UNDP, 2023).

Other key findings

Research participants highlighted the importance of continuous awareness-raising and education for effective adaptation and toward the general public about the different hazards that can affect them (supported with scientific research) and trigger evacuations.

This is the case of populations living in coastal zones, such as Caldera and Tivives beaches in the Esparza municipality (located in the Pacific coast). These localities suffer from periodic displacement from their homes due to storm surges that have affected them in recent years (being most intense in 2012 and 2023). These surges also affect the national route 23, which passes through Caldera beach and has national and international importance for the transfer of goods, transportation, commerce, and tourism from San José to Puntarenas, Guanacaste, and the rest of Central America.

This problem arises from families that have rooted in areas prone to flooding by high tides (informal settlements) that are not aware of current legislation of land use (which is also under revision by the Esparza municipality to develop an urban regulatory plan with proper land-use zoning) or require that relocation be done in areas similar to those where families lived, with a similar cultural context and sources of employment to ensure that they remain in the new location. The municipality has provided affected families with social care, economic support (including entrepreneurship training), and shelter for up to 3 months in some cases, but most of them are rooted to their homes and return after every episode of strong surges, as they perceive the sound of the waves as an integral part of their daily lives. This makes it difficult to relocate them to safer places.

As a consequence, local emergency committees (LECs) in Caldera and Tivives beaches were formed in recent years to give a more appropriate response during emergencies, as the evacuation process had been done mainly by families themselves and required a follow-up; the Tivives beach LEC has contributed to the awareness-raising and education process by involving principals to generate school emergency plans and including youth in workshops, as well as tsunami drills with an early warning system (as part of the Tsunami Ready program).[4]

Notes:

[2] IOM, public institutions, local commissions, La Ruta del Clima, the Capacity for Disaster Reduction Initiative (a global partnership of 18 international organizations and agencies from the United Nations that contributes to the advancement of Sustainable Development Goals), inter alia.

[3] "Rapid physical movement of people away from [an] immediate threat or impact of a hazard to a safer place. In a situation imminent risk, the purpose is to move people as quickly as possible to a place of safety and shelter. Evacuations are commonly characterized by a short timeframe (from hours to weeks) within which emergency procedures need to be enacted in order to save lives and minimize exposure to harm. They may be mandatory, advised, or spontaneous" (p. 383) (Burson et al., 2018).

[4] More information about the Tsunami Ready program available here.

4.2. Senegal

Country context

In Senegal, **migration** has a role in adaptation strategies rooted in traditions with a real sociological and historical depth in the **Groundnut Basin and the Delta and the Senegal River Valley (northern and central regions)**, where environmental constraints, such as droughts and soil impoverishment, have directly affected the ability of production activities, particularly those dependent on natural resources, to ensure the resilience of populations (Dimé, 2023). The increase of irregular **migration** from the mid-2000s onwards is associated with the crisis in the fishing sector, which has contributed to economic and social stability in coastal areas for a long time. This was due to governance structural issues and, mainly, the increasing scarcity of fish resources among traditional fishermen (related to climate change impacts of global warming on marine biodiversity and industrial discharges that reduced the availability of fish resources, as well as disappeared species).

As a consequence, young people from the **Upper Casamance** have **migrated** to the **Niayes area** to find work opportunities in market gardening or fishing-related activities; young farmers from the groundnut basin move to urban centres as well, to work in the popular economy or in building and public works; **forced displacement** following flooding or erosion in coastal localities have occurred (IOM, 2023c).

A **national study** analyzing public policies related to **migration**, the environment, and climate change in Senegal (2022) indicated that: (a) state bodies in charge of environmental and climate change issues lack the capacity (especially qualified human resources for **migration** management) to better mainstream this issue in reference documents; b) the nexus between **migration**, environmental degradation, and climate change is not institutionally identified through its integration in the political, institutional, and legal documents that currently serve as reference frameworks for public policy in Senegal (IOM, 2022).

This is the case for Senegal's National Development Plan (Plan Sénégal Emergent, or PSE, adopted in 2014 and aiming to achieve middle-income status by 2035) that intended to provide a platform to prepare and plan for and respond to climate **migration** in Senegal, despite the absence of comprehensive and coherent legal architecture to address climate-induced **mobility** (Rigaud et al., 2021). The National Migration Policy and the National Strategy to "combat" irregular **migration** (adopted by 2023) have been adopted to strengthen the governance around **migration** and make it a lever for Senegal's emergence, addressing challenges associated with country of departure, transit, destination, return, and internal **mobility** (ONU Senegal, 2024), but not directly linked to climate-related human mobility. In contrast, the Senegal Emergent Green Plan 2022 already proposed that migrants' investments and transfers (especially monetary transfers) should be channelled into priority sectors (agriculture, energy, water and sanitation, forestry, and construction) for territorial climate change resilient development (Dimé, 2022).

Multilevel Governance Structure

Since independence in 1960, the state has been committed to effective decentralization, which has resulted in a constant redrawing of the **national** territory. Currently, Senegal is administratively subdivided into:

- 14 **regions** ("gouvernances")
- 46 departments ("prefectures") and
- 127 **districts** ("arrondissements" or **sub-prefectures**).

It also has 602 local authorities, each with distinct roles in governance:

- 46 **departments**
- 551 **towns** ("communes": 167 **urban** / 384 **rural**) and 5 **city-towns.**

In principle, this decentralization system was designed to enhance local governance by redistributing authority and resources from the central government to regional and local levels, making decision making more responsive to local needs. However, this process could be described as "institutional decentralization", i.e., one that focuses more on texts than on reality, and whether or not local authorities are able to manage and invest in themselves. In other words, Senegalese decentralization grants local authorities powers and responsibilities that they are unable to exercise due to a lack of resources (Sané, 2016).

Funding for these responsibilities is provided through central transfers and local taxes, but local governments still face implementation hurdles, including limited financial autonomy, disparities in local resources, capacity deficits, and overlapping responsibilities. The support program for municipalities and conurbations in Senegal (PACASEN, 2019–2023)[5] seeks to address these challenges. This program played a pivotal role in implementing Senegal's decentralization reforms under the 2013 Decentralisation Act III (DGID, 2022). PACASEN aimed to strengthen Senegalese local authorities by improving urban services, governance, and local resource mobilization. Its three main objectives were to increase resources through equitable state transfers, enhance municipal capacities in management and transparency, and promote citizen participation in local governance (Agence française de développement [AFD], 2018). Strengthened by Act III, Senegal's decentralization framework already transfers significant responsibilities to local governments, particularly in areas like local economic development, land management, and public service delivery. It also promotes the alignment of local and national priorities, particularly in climate adaptation efforts under the NAPs. The decentralized framework in Senegal supports tailored local responses to regional climate vulnerabilities while adhering to national policy guidelines (Bureau d'Analyses Macro-Économiques, 2022).

Human mobility in sub-national adaptation planning

Senegal has been engaged in the NAP process since 2015, taking first a **sectoral and territorial approach**. GCF's NAP support project Linking National and Sub-national Adaptation Planning in Senegal implemented by UNDP, considers five sectoral NAPs under its Output 3.1.3 (1. Fisheries and aquaculture, 2. Health, 3. Agriculture, 4. Infrastructure and 5. DRM focused on flooding). These sectoral NAPs and others (e.g., the Adaptation Plan for coastal zones, conducted with the Global Climate Change Alliance Plus (GCCA+) project) that are elaborated with support from development partners the United States Agency for International Development, Deutsche Gesellschaft für Internationale Zusammenarbeit, Quebec, and the Least Developed Countries Fund (LDCF) initiatives (includes AFD and EU), are being organized into an aggregated NAP (UNDP, 2024). The NAP process also aims to integrate cross-cutting considerations, such as those related to gender (with support from the NAP Global Network), which could also provide a basis to better address climate-related human mobility.

On the one hand, the adaptation measures proposed in the **DRM NAP** (2023–2035) **focused on flooding** are more oriented toward disaster prevention than management, specifically on knowledge building, inclusive governance (action 4: **Relocation** of people in flooded areas and implement a system of urban ecosystem planning that integrates watersheds and wetlands), infrastructure sustainability and information, education, and communication. A priority program in this NAP is the Program to Strengthen the Resilience of Populations to Flooding in Senegal. One of its projects is named Project for Strengthening People's Resilience to the Impact of Flooding, with an activity aimed at elaborating a relocation action plan (PAR in French) (Ministère de l'Eau et de l'Assainissement & Ministère de l'Environnement, du Développement Durable et de la Transition Écologique, n.d.).

On the other hand, the **NAP for the fishing and aquaculture sector** (by 2035) includes the implementation of a program to "combat" illegal emigration under the adaptation measure 11 (to set up a program of prevention and management of the risks and disasters), considering a pessimistic scenario for the development of fishing in the southern zone where the local context would be defined by sea encroachment, water/marine erosion, an upsurge in conflicts and the impoverishment of stakeholders, **migration (displacement of populations)**, the disappearance of foraging fisheries, the mortality of aquatic animals, flooding and the disappearance of islands, poor governance, etc. This situation would drive populations to abandon fishing and seek alternative sources of income (Ministère des Pêches, des Infrastructures Maritimes et Portuaires & Ministère de l'Environnement et du Développement Durable, 2016).

As for the **NAP for the coastal zones in Senegal**, it indicates protection projects already underway or under study, including the **relocation** of certain areas of Langue de Barbarie that are at particular risk and major development projects structuring coastal management. One of these projects linked to adaptation is the Saint-Louis Emergency Recovery and Resilience Project (SERRP in French), framed under the Rainwater Management and Climate Change Adaptation Project (PROGEP in French). In its emergency phase, the SERRP project plans to **mobilize** and **temporarily shelter** disaster victims occupying tents in Khar Yallah and Camp Gazeille in mobile housing units on a site in Djougop, in the Gandon Commune. On the same site, after full servicing, housing will be built for the **permanent relocation** of the above-mentioned populations (**72,000 people displaced**) and for those who will be **displaced** (12,0000 people affected) for the development of a 20 m strip at the "Langue de Barbarie" sandy peninsula.

This is part of strategic focus 2 in the NAP: "Ensure better adaptation of coastal communities" with an expected result of "mobilisation and **relocation of people** and activities," with many institutions responsible for this.[6] Some other **relocation** measures indicated are as follows:

- **Population relocation** (rural dwellers) to Diakhanor, given the coastal village's exposure to erosion;
- Potential tourism development (representing an opportunity to counter-balance the **exodus** of the local population) with a proposed company for the development and promotion of Senegal's coasts and tourist zones' (SAPCO in French) project in the Saloum Delta (Palmarin, Djéser, and Sud-Toubakouta, Bétenti);
- In the Dakar region, (...) localized **relocation** solutions should be envisaged, based on anticipation and dialogue with the local populations affected (as in Bargny) (Ministère de l'Environnement et du Développement Durable - Direction de l'Environnement et des Établissements Classés, 2022).

The Kaolack migration stakeholders' consultation framework has been one of the most functional **territorial-level** frameworks between stakeholders working on **migration** in Senegal. It is a space for consultation, debate, dialogue, and exchange, bringing together different actors working on the theme of migration and development in the Kaolack region. The framework emerged following a regional forum on synergies and structured dialogue on migration and local economic development in May 2018. The framework operates on the basis of local migration management; access to financing; training, capacity building, and sustainable development. It is chaired by the governor and comprises regional administrative and deconcentrated services, technical and financial partners present in the region, CSOs, NGOs, etc.

One of its major results is the support provided in setting up the integrated project for the sustainable development of the **Keur DIATTA watershed (7 communes in the department of Nioro du Rip)**, which was submitted to the GCF and approved (Dimé, 2022).

At a local level, recent World Bank projects that addressed **mobility** in a context of a changing climate were the SERRP (supported the planning for **relocation of populations** and for strengthened urban and coastal resilience in greater **Saint-Louis**) and the Stormwater Management and Climate Change Adaptation Project (PROGEP, built drainage infrastructure in **peri-urban areas of Dakar** and other **coastal zones prone to flooding**) mentioned earlier. The Sahel Irrigation Initiative Support project and the Senegal River Basin Climate Change Resilience Development project also addressed climate-induced **migration** (indirectly) with site-based and locally driven climate-smart approaches to natural resource management (forest, wildlife, water, and land) aiming to avert conflicts and crises, amplified by population increase (Rigaud et al., 2021).

Other Key Findings

In general, there is a lack of financing and an increasing cost of adaptation to climate change, representing an obstacle to adaptation action at the **national** and **local** levels. Additionally, a lack of access to available finance and technical capacity limits the contributions and efficiency of local actors and the country's overall climate action (Sy, 2023). Recently, the LoCAL Performance-based Climate Resilience Grant mechanism has provided funds to design or implement local adaptation activities in Senegal, which had also participated in the third LoCAL ministerial meeting, where a declaration was signed on simplified and consistent access to climate finance and the establishment of a consolidated funding modality for LoCAL to scale up locally led adaptation in support of nationally determined contribution (NDC) and NAP implementation (UNFCCC, 2024).

Additionally, Senegal's social protection systems do not accommodate the needs of **internal migrants** or **displaced populations** during transit or at their new locations. Assessments need to be conducted to review **internal migration** and to help design systems to reach **migrants** at their source, during transit, and at their destinations. Adaptive social protection system tools and programs should reflect **migration patterns** in Senegal in the face of climate change, to target efforts to reach **migrant groups** with cash transfers, and to expand use of e-payments (World Bank, 2024).

Notes:
[5] Financed by the Government of Senegal, the World Bank, and AFD.
[6] Ministry of the Environment and Sustainable Development (MEDD), Ministry of Territorial Collectivities, Planning and Development, Ministry of Urban Planning, Housing and Hygiene, Ministry of Infrastructure, Land and Air Transport, technical and financial partners, and community-based organizations.

4.3. Sri Lanka

Country context

Climate-related **human mobility** takes many forms in Sri Lanka. Drought-stricken agricultural communities engage in cyclical **rural–urban migration** while fisherfolk **migrate** along the coastline in response to shifting aquatic ecosystems or erosion of **landing sites**. Decision making around **labour migration** is increasingly influenced by erratic weather patterns and extreme weather events, which severely impact houses, property, and livelihoods. Floods, storms, landslides, and sea level rise **displace households** and entire communities, while **relocation programs** aim to permanently move people out of high-risk areas. Overall, climate change significantly shapes **mobility** patterns within the country and in relation to cross-border **migration**, a fact that has been recognized in key documents, such as the NDCs and the National Climate Change Policy. Similarly, its NAP from 2016 highlighted displacement as a climate risk and committed to developing contingency plans for coastal relocation (Mombauer, 2024).

Sri Lanka has robust policy frameworks addressing labour migration, disaster management, and climate change but could benefit from enhanced cross-sectoral integration of climate mobility (SLYCAN Trust, 2020). Initially, the National Involuntary Relocation Policy (2001) emphasized the issues associated with **involuntary relocation** induced by development initiatives and emergencies, as the policy framework that addressed **relocation** in Sri Lanka (although it had no specific focus on disaster- or climate-induced involuntary **relocation**). A Resettlement Authority (2007) was established, vested with the power to formulate a national policy and to plan, implement, monitor, and coordinate the **relocation** of **internally displaced persons**. On the other hand, the Disaster Management Act of 2005 and the National Policy on Disaster Management (2010) have been available as legal policy frameworks to address disaster-related issues; nonetheless, an explicitly focused legal framework addressing climate and disaster-related **relocation** is not available.

More recently, the Sri Lanka National Disaster Management Plan 2013–2017 and the Sri Lanka Comprehensive Disaster Management Programme (2014–2018) have linked disasters, climate change, and **displacement**, and highlighted the **need for relocation of people** out of disaster-prone areas (Abeywardhana, 2024). Additionally, Sri Lanka has built up the infrastructure for a strong labour **migration network** through its National Labour Migration Policy (2008) and a National Action Plan on Return and Reintegration of Migrant Workers (2015), as well as worked on **resettlement initiatives** (e.g., through the National Building Research Organization) to assist with **relocating** those in at-risk landslide communities to safer areas (UC Berkeley, Othering and Belonging Institute, 2024; SLYCAN Trust, 2023). It is also important to highlight that the National Climate Change Policy and National Disaster Management Plan were both revised in 2023 and now reference climate-related human mobility, while the NAP is currently undergoing an updating process (IOM, 2024).

Multilevel governance structure

Sri Lanka has three main levels of governance: **national, provincial, and local**. The central government retains a dominant role in planning, finances, staffing, and service delivery functions. Constitutional reforms in 1987 established provincial councils for the country's nine provinces as the highest level of territorial-administrative governance below the central government. Below the **provincial level**, the central government's field administration is organized into district secretariats (25), divisional secretariats (332), and Grama Niladhari divisions (14,022). At the same territorial level as divisional secretariats, the constitutional reforms of 1987 also introduced elected **urban and rural** local government authorities (341), including municipal councils, urban councils, and Pradeshiya Sabhas (divisional or village councils).

To highlight, district secretariats have their own budget votes in the central government budget (currently under the Ministry of Public Administration, Home Affairs, Provincial Councils, and Local Government). Similarly, local authorities are administered under the auspices of their respective provincial councils rather than under the district or divisional secretariat (Local Public Sector Alliance, 2024)

Human mobility in sub-national adaptation planning

In Sri Lanka's NAP itself, the only specific action related to human mobility is the following within the sector action plan for industry, energy, and transportation: "Develop contingency plans to **gradual relocation** and development of alternatives" in the context of sea level rise, with "number of contingency plans developed to **gradual relocation** and development of alternatives" as the key performance indicator (Ministry of Mahaweli Development and Environment, 2016).

However, Sri Lanka is in the process of developing PAPs to facilitate sub-national implementation and localization of its NAP based on local experience and data, prepared by the provincial councils and its chief secretary, with the support of provincial adaptation boards and climate action cells.[7] This process started in 2019 with the development of the PAP for the Northern Province (SLYCAN Trust, 2019). According to the Climate Change Secretariat, all **nine provinces** of Sri Lanka have developed draft PAPs that are currently undergoing further refinement and validation. As this is an ongoing process, it is not yet clear to what extent human mobility considerations will be included in each of these nine PAPs.

Other key findings

The ongoing process of PAP development provides an opportunity to enhance the integration of human mobility into Sri Lanka's adaptation planning and implementation. Research participants identified the need for coordination and exchange of experiences and knowledge between central government, provincial councils, and local government authorities, as well as strengthening technical capacities of provincial institutions and local stakeholders and actively involving communities.

Stakeholders highlighted the need to identify high-risk areas and projected origin as well as destination areas for **human mobility** within each province (and across provinces) to enable long-term anticipatory adaptation planning, in addition to mapping available resources (e.g., sanitation, water, land, health care, education) in these projected destination areas. Furthermore, there is a need for more quantitative as well as qualitative evidence on **mobility patterns** to close existing data gaps and document actionable insights in a form that is easily accessible for policy-makers (e.g., through case study compendiums).

Existing good practices mentioned by stakeholders include the following:

- The participatory planning process around the Southern Highway Development project[8] (including compensation for **relocation** of communities, who were engaged in the decision-making process) was highlighted as a way to involve communities in the planning and implementation of a relocation measure;
- The ground-level committees and vertical integration for disaster management provide a way to operationalize national plans and priorities across different levels of governance, including the local level;
- The existing **relocation** scheme operated by the National Building Research Organization,[9] which offers transparent compensation packages and diverse **relocation** options in an attempt to mitigate the negative impacts of relocation and preserve the standard of living and livelihoods of affected communities; and
- The consultations held by the Urban Development Authority on engaging communities in housing design, which were highlighted as an effective way to structure public participation in policy and planning processes.

Notes:
[7] These are represented by relevant sectoral agencies and established for implementation of sectoral adaptation plans and actions. "Adaptation actions within a cell may involve interventions confined to individual sectors as well actions that need joint implementation with other cells (e.g., drinking water (water) and housing (human settlements))" (pp. 112–113) (MMDE, 2016).
[8] More information available on the Asian Development Bank website.
[9] More information available on the National Building Research Organization's website.

CHAPTER 5

Identifying Key Insights

5.1. Challenges and gaps

5.2. Entry points and opportunities

One of the main issues related to integrating human mobility into adaptation planning and implementation is a lack of existing documentation of experiences, evaluations, and impact assessments. Since many countries have only recently developed their first NAP document, it is difficult to review to what extent they have been implemented[10] and what lessons can be learned from their adjustment to specific local circumstances and topics (such as human mobility) at the sub-national level. Nonetheless, it is worth noting that many countries have published NAP progress reports or evaluations, and others have committed to progress reporting.[11]

On the other hand, the Human Mobility in the Context of Disasters, Climate Change and Environmental Degradation Database (CLIMB Database) project,[12] part of the UN Network on Migration Workplan 2022–2024, aims to facilitate the search of relevant policies, (e.g., action plans, frameworks, NDCs, NAPs, strategies, inter alia), legislation (e.g., acts, agreements, decrees, laws, regulations, resolutions, inter alia), and other related instruments addressing human mobility in the context of disasters, climate change and environmental degradation around the world. Nonetheless, this database currently covers only national-level and supranational regional-level policies and laws.

Another crucial aspect for the NAP process is having the sufficient means of implementation, especially sources of finance and capacity building (Grey & Qi, 2024), as their absence could severely constrain developing countries in addressing climate change adaptation in all its complexity, including cross-cutting considerations, such as human mobility.

To understand the local stakeholders' perspectives on these challenges, feedback was gathered during KIIs, in-person workshops in the three case studies countries (CR: Costa Rica, S: Senegal, SL: Sri Lanka), and a webinar (W) presenting preliminary results of this research. The resulting insights were grouped according to enabling factors for effective NAP processes oriented to actors at all levels, proposed by IISD/NAP-GN (n.d.).

Notes:
[10] NAP progress reports and evaluations are valuable sources information in this regard. Most countries that have developed these have not submitted them to the UNFCCC. More information on NAP progress reports are available on the IISD website.
[11] More information available on the NAP Trend platform.
[12] More information available on the UN Network on Migration website.

5.1. Challenges and gaps

The following challenges and gaps for effective integration of human mobility into adaptation planning and implementation across different levels of governance were identified:

Table 3. Challenges and gaps identified by interview and workshop participants, associated with enabling factors for effective NAP processes.

Enabling factors	Challenges and gaps
Leadership (of political actors at different levels)	(KII) Imbalanced views of human mobility in many NAPs tend to convey migration as a problem to be controlled and ignore potential positive outcomes of mobility.
	(KII) Addressing human mobility entails addressing all the complexities of the inequities and structural and systemic factors that are keeping people poor in local areas and make them decide to move to other places, as they don't see any future where they live.
	(KII) There is limited consideration of justice aspects (e.g., related to the ability of displaced people to access support mechanisms or participate in local decision-making processes).
	(KII) Disconnects between policies and research can lead to political disparity and priority-setting, instead of evidence-based or data-driven priorities (apparent between national and local governments).
	(CR) Lack of commitment from the central government, which should allocate economic and material resources currently absent at the local level.
	(CR) Political leadership of local authorities must be improved.
Institutional arrangements (coordination between governance levels)	(KII) Ministries often work in silos and use different "languages" and processes, which renders comprehensive NAP localization more difficult.
	(S) Fragmentation of environmental and migration policies, leading to their separate formulation.

Enabling factors	Challenges and gaps
Institutional arrangements (coordination between governance levels) *(cont.)*	(S) Lack of synergy, coordination among stakeholders, and intersectoral collaboration, resulting in fragmented efforts and weak ownership of policies by local communities.
	(SL) Enhancement required to coordinate among different government levels and sectors to align efforts and resources toward building climate resilience locally.
	(CR) More involvement of relevant key institutions in diagnostic and coordination activities with technical teams is required (for greater support and political leadership) and spaces for dialogue and joint decision making (taking into account the needs issued by local actors).
	(KII) Many NAPs lack a M&E or MEL system, which is usually presented as a checklist or indicators. The application of this section to the local level and clear responsibilities and mandates are often not defined.
Engagement (involvement of diverse actors at different levels)	(KII) Engagement with local stakeholders is often not done thoroughly to assure that local plans and strategies are successful, which results in a gap between local resilience planning and national adaptation planning.
Data, knowledge, and communications (information sharing between actors at different levels)	(KII) Most NAPs lack focus on human mobility. When mentioned, there is an absence of detailed analysis, as well as definitions or elaboration of different types of human mobility (especially regarding planned relocation and human immobility) in the NAP, leading to a lack of detailed strategies to support different migrant profiles based on their specific local context and challenges. This extends to capturing both internal displacement and transboundary displacement.
	(S) Lack of harmonized strategies and adapted tools to address human mobility in adaptation plans.
	(S) (SL) Data gaps and lack of documentation on migration patterns/dynamics and the impacts of climate change in territories and sectors that are concerned.

Enabling factors	Challenges and gaps
Data, knowledge, and communications (information sharing between actors at different levels) *(cont.)*	(CR) Need for greater technical-scientific analysis and research on the impacts of climate change on migration to support better informed decision making for the mapping of risk areas and spaces for shelter and relocation of communities.
	(W) Seasonal migration of agricultural or fishing communities is not captured (voluntary migration flows related to climate change, between rural and urban areas, without social protection) because most of the time there is no formal registration into new locations. There is also a lack of data about international labour migration in some jobs.
	(KII) Lack of an updated database or monitoring institutions for sub-national NAP strategies and implementation (a "NAP implementation tracker"), as well as insufficient mapping of these institutions and their areas of work on NAP localization, implementation, M&E, and MEL.
	(KII) There is inadequate documentation of effective strategies that could be replicated and a lack of regional or cross-regional exchange on best practices and success stories for NAP localization.
	(S) Lack of knowledge of legislation and existing policies concerning human mobility or (CR) irregular settlements in hazard-prone areas.
Skills and capacities (developed at sub-national levels)	(CR) Awareness-raising and education (training) by government authorities required to be developed for the (vulnerable) local population about the different hazards that can affect them and (S) to accept policies and interventions.
	(SL) Although numerous (agricultural) technologies were prioritized in previous assessments, few have been adopted and implemented effectively over the past decade. There is a need for practical technologies, and accessible, ready-to-implement solutions that align with local contexts and needs (to prevent involuntary migration).
	(SL) There is a need for capacity building and understanding of local authorities (S: improving data management skills) and other local actors (i.e., community groups, disaster management committees, water societies, farmer associations, etc.) on the NAP and human mobility.

Enabling factors	Challenges and gaps
Financing (government budgeting at different levels)	(KII) At the national level, there is a lack of dedicated domestic funding, additional human resources, time, or mandates and responsibility to work on human mobility in the context of NAP localization.
	(KII) Local-level actors are often unable to access sufficient funding for NAP implementation due to small funding amounts, stringent requirements (e.g., disaggregated data, human mobility situation must be clearly defined, plan must align with donor priorities) and complicated, time-consuming procedures and reporting needs requested by donors. Therefore, donors rarely establish partnerships with local actors (relevant national NGOs and CSOs) in order to support the implementation phase of NAPs based on their sectoral or local expertise.
	(KII) International climate finance and other means of implementation are scarce for NAP implementation, NAP localization, and M&E or MEL processes. There is a need for sustained funding and M&E for adaptation projects related to human mobility (e.g., in Sierra Leone, there were strategies to move people from risky areas to better places and people returned back to the risky areas; this would be an opportunity to study and share learnings with other actors).
	(CR) Support with local resources easily available (funds, transportation and human capacity) to facilitate safe human mobility during emergencies.

5.2. Entry points and opportunities

The following entry points and opportunities for effective integration of human mobility into adaptation planning and implementation across different levels of governance were identified:

Table 4. Entry points and opportunities identified by interview and workshop participants, associated with enabling factors for effective NAP processes. Source: Authors

Enabling factors	Entry points and opportunities
Leadership	(CR) The municipality of Esparza plans to redo the methodology of the Plan-A: Resilient Territories to Confront Climate Change project to incorporate climate change issues at the local level.
Institutional arrangements	(KII) Interconnected policy areas, such as incorporating human mobility in national adaptation planning, can enhance greater horizontal integration of government bodies by facilitating linkages between relevant key institutions.
	(W) Multi-actor partnerships and cross-sectoral integration could be encouraged by sharing the impacts of human mobility for relevant sectors (such as health, infrastructure, ecosystems and biodiversity), the benefits of taking action, promoting coordination with data sharing (to have contrasted updated information) and assigning clear responsibilities.
	(W) Developing coherent guidelines for internal displacement of people and related human rights issues which consider vulnerabilities for people with disabilities, gender-responsive implementation, and conflicts with host communities.
Engagement	(KII) Collaboration with existing groups that have community buy-in, such as refugee-led organizations and community-based organizations, can prevent the establishment of parallel systems.
	(KII) Local-level researchers and practitioners can engage in the generation of robust information sets required by ministries to back up the incorporation of human mobility into NAPs and complementary planning documents.
	(W) Implementing community-based and participatory approaches for addressing human mobility across sub-national levels of governance.

Enabling factors	Entry points and opportunities
Data, knowledge, and communications	(KII) Addressing questions of human mobility indirectly means asking local authorities to better understand climate impacts on mobility and develop capacities to address adaptation through cross-cutting, data-driven approaches.
	(KII) A growing awareness of climate-related human mobility can lead to a stronger integration of relevant considerations into the NAP; as an iterative process, every NAP document can include human mobility considerations and implement human mobility-related priorities if resources, tools, and knowledge are allocated.
	(KII) NAPs can better understand human mobility in the context of slow-onset events considering the long-term process of adaptation planning.
	(KII) Existing networks related to climate change and human mobility can facilitate exchanges between local-level actors (such as municipal authorities and CSOs) to learn about best practices, maladaptation, and lessons learned.
	(KII) NAP localization can support both people in situations of mobility (with different migrant profiles, e.g., internal migration or displacement) and immobility, recognizing their specific contexts and challenges and addressing them through tailored adaptation and resilience building.
	(W) Human mobility can be registered at the national and local level, taking notes of people's needs in communities affected by migration and formalizing registration of seasonal work migrants (e.g., from agricultural or fishing communities).
	(W) Support the monitoring of mental, psychosocial, and dietary health of migrants and considering human mobility (internal and international) for data collection linked to mental health, as well as psychosocial and disability care in M&E/MEL systems (as well as social protection of people on the move, as this is not covered during voluntary rural–urban migration flows related to climate change).

Enabling factors	Entry points and opportunities
Skills and capacities	(KII) Human mobility can be used as an adaptation strategy, particularly in securing sustainable livelihoods and skill matching to national economic priorities.
	(W) Empowering communities and local authorities to mobilize resources, implement nature-based solutions, and create green jobs to prevent internal rural–urban migration of youth (e.g., in Senegal).
Financing	(KII) Local communities are often the first receivers and responders to climate-related migration; therefore, international financiers should build better relationships with local governments because this will usually be the most direct, effective, and efficient way of enhancing localization.

CHAPTER 6

Conclusions

6.1. Recommendations

6.2. Potential areas for follow-up

Understanding the implications of NAP localization and local implementation on key cross-cutting thematic areas such as human mobility is crucial to ensuring that adaptation actions are targeted, equitable, and effective. Climate-related human mobility affects millions of people across the globe in highly context-specific ways, from seasonal agricultural migration to disaster displacement, planned relocation, and voluntary immobility. As the needs of individuals and communities on the ground differ across geographies, cultures, and socio-economic factors, adaptation planning and action should be responsive to these differences and acknowledge the diversity of circumstances, situations, and required solutions.

This research demonstrates that countries utilize a wide range of approaches when it comes to adaptation planning and implementation across different levels of governance. This includes the nature of the planning process as well as approaches to capacity building of local actors, the inclusion of local voices, local leadership, multilevel governance, and the flows of information and finance between the national and sub-national/sectoral levels. How human mobility can be included in this process and its different elements, therefore, depends on a country's approach to localization.

6.1. Recommendations

Based on the identified approaches, challenges, and opportunities, the research has identified several key recommendations classified according to the enabling factors for effective NAP processes proposed by IISD/NAP-GN (n.d.):

Table 5: Recommendations for different stakeholder groups. Source: Authors

For policy-makers and other national actors	
Institutional arrangements	Create a framework for human mobility in adaptation planning and elevate the thematic nexus as a priority area across all levels of governance based on evidence- and research-driven prioritization.
	Identify connection points between local adaptation planning processes and addressing human mobility (e.g., infrastructure, land use, health care, employment) as entry points for more effective, inclusive NAP implementation.
	Utilize sub-national or sectoral policy and planning processes to inform and guide NAP formulation or updating.
	Identify the role of sub-national-level actors, associations, cooperatives, and the private sector.
	Create dedicated focal points at all levels to lead communications and bridge gaps between national and sub-national government authorities.
Data, knowledge, and communications	Establish markers, indicators, or metrics for human mobility and incorporate them into local adaptation planning and data collection processes.
	Identify existing provisions (planning) related to human mobility in sub-national and local plans and incorporate them into the NAP.
	Develop guidelines for the integration of human mobility into local planning and a checklist of local-level needs.
	Increase and enhance data on human mobility (e.g., formalizing registration of seasonal work migrants from agricultural or fishing communities).
	Foster communication and peer learning between countries and regions and share experiences on localization and sectoral implementation of adaptation.
	Integrate institutions working in human mobility into national adaptation MEL systems or in a NAP implementation “tracker” database.

Engagement	Empower local governments and other local actors by allocating resources to them.
	Involve a wide and diverse set of stakeholders (e.g., NGOs, CSOs, affected communities, etc.) in meaningful ways.
Finance	Integrate the topic of human mobility into local-level planning to mobilize local resources to address this issue at a sub-national level.
For local government authorities	
Engagement	Engage in the NAP process to articulate sub-national priorities on human mobility considerations.
Leadership	Support organizations and people working in communities and understand their specific needs related to human mobility and climate change adaptation.
Institutional arrangements	Create mechanisms for local-level participation and feedback, including affected groups in local-level consultation and planning processes.
	Identify existing sub-national setups and structures (e.g., for disaster management) and build on these for sub-national adaptation.
Data, knowledge, and communications	Conduct local-level needs assessments related to human mobility and build a catalogue of potential local interventions with prioritization, costing, and resource requirements.
	Map current and projected destination and origin areas for climate-related human mobility and identify data and knowledge gaps, including on long-term trends and indirect or cascading impacts.
	Translate sub-national priorities in the NAP and guidelines for operationalizing them into local languages and contexts.
	Understand community perspectives and priorities, including considerations related to social cohesion, cultural heritage, sense of place, livelihoods, health, education, and traditional ways of life.
	Inter-municipal exchange of experiences and good practices on the localization of NAP priorities with support from communities or local organizations.
Skills and capacities	Enhance human capacities and take into consideration existing mandates and structures (e.g., disaster management authorities often work on human mobility aspects related to climate change at different levels, but capacity building is required to connect them to the NAP process).

For civil society, communities, and other actors	
Engagement	Promote engagement in the NAP process as an important opportunity to address local issues on climate-related human mobility.
Data, knowledge, and communications	Communicate findings, stories, and priorities related to human mobility to policy-makers as well as communities and citizens.
	Generate more comprehensive data and country case studies that are accessible to non-experts as well.
	Facilitate exchange between local actors (such as municipal authorities and CSOs) to learn about best practices, maladaptation, and lessons learned, taking notes of people's needs in situations of mobility and immobility.
Skills and capacities	Build capacities and understanding of local authorities and other local actors (i.e., community groups, disaster management committees, water societies, farmer associations, etc.) on adaptation and human mobility.

6.2. Potential areas for follow-up

Potential areas identified for follow-up include the following:

Table 6: Potential actions for follow up. Source: Authors

Area	Potential follow up actions
Research	Assessing and verifying the impact of existing sub-national adaptation planning and implementation processes toward human mobility in different countries and their linkages to the NAP process.
	Identifying synergies and opportunities for cooperation and coordination on human mobility among sub-national authorities and other local actors within and between sectors such as infrastructure, land use, health care, employment, etc.
	Identifying best practices for M&E/MEL and data management for adaptation projects related to human mobility (e.g., successful planned relocation strategies).
	Creating checklists and a catalogue of potential local-level interventions with prioritization, costing, responsibilities, and resource requirements (transportation, human capacity and funding access to national and local opportunities included) for human mobility interventions in the context of adaptation planning.
Capacity building	Raising awareness and education for local populations about the different hazards that can affect them and relevant legislation/policies, and for local authorities to better understand the integration process of human mobility at the local level.
Methods	Strengthening research methodologies on the nexus of climate change and voluntary and involuntary human immobility across different timescales, temperature scenarios, and development pathways, and developing guidelines for local data collection and management.

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8 Appendices

Appendix A. List of key informant interviewees

1. Alex de Sherbinin
2. Alice Baillat
3. Ann-Christine Link
4. Evalyn Tennant
5. Helen Yu
6. Juel Mahmud
7. Lawrence Huang
8. Madeleine Forster
9. Shakirul Islam
10. Una Murray

Appendix B. Codebook with thematic areas and key words

Table B1. Codebook with thematic areas considered for the research and key words associated for each (Spanish and French translations used for NAPs in those languages).

Thematic area	Key words/word families
Migration	Migration, migrant, move, exodus, rural flight, pastoralist, transhumance, foreign employment
Displacement	Displacement, displaced, evacuation, shelter
Planned relocation	Relocation, relocate, resettlement, resettle, shift, managed retreat
Other relevant terms	Mobility, immobility, refugee, homeless, right to remain, right to stay
Localization	Local, subnational/sub-national, province, provincial, state, district, division, city, municipal, sector, vertical integration, horizontal integration, governance, devolve/devolution, multi-level/multilevel, decentralisation, delegation, deconcentration, deregulation

Appendix C. Country selection criteria for case studies

The following is a list of criteria used for the selection of case study countries:

- Climate-vulnerable developing countries that are Parties to the UNFCCC and the Paris Agreement
- Countries that have significant occurrences of climate-related human mobility, representing different forms of human mobility
- Countries that have either submitted a finished NAP or have an advanced NAP process
- Countries with sub-national or sectoral components and/or human mobility considerations
- Countries that have a GCF Readiness project on adaptation planning underway
- Countries that are in the process of developing sub-national adaptation plans
- Countries that are representing at least two different regional groups
- At least one LDC and one non-LDC
- At least one non-English speaking country
- Countries that have existing partnerships or relationships of trust with SLYCAN Trust and/or the NAP Global Network

Based on the criteria identified above, the following countries are being proposed as candidates for the country case studies:

Table C1. Characteristics of case study countries selected for the research.

Country	Region	LDC/ SIDS	Sub-mitted NAPs	Human Mobility in NAP	GCF Readiness	Subnational NAP
Costa Rica	Latin America and Caribbean	No	Yes (2022)	Yes (migration, displacement)	2019 with UNEP	Regional and municipal adaptation plans
Senegal	Africa	LDC	No	N/A	2024 with UNDP	Developing local adaptation plans
Sri Lanka	Asia and the Pacific	No	Yes (2016)	Yes (planned relocation, displacement)	2020 with the Global Green Growth Institute (GGGI)	Developing provincial adaptation plans

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SLYCAN Trust

SLYCAN Trust is a non-profit think tank working on climate change, sustainable development, climate finance, risk management, entrepreneurship, biodiversity and ecosystem conservation, animal welfare, and social justice including gender and youth empowerment. The organization's work spans the national, regional, and global level from policy analysis and evidence-based research to capacity-building, technical support provision, and on-the-ground implementation.

Website:
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Knowledge hub:
https://www.slycantrust.org/knowledge-portal/home

NAP Global Network

The NAP Global Network was created in 2014 to support developing countries in advancing their NAP processes and help accelerate adaptation efforts around the world. To achieve this, the Network facilitates South–South peer learning and exchange, supports national-level action on NAP formulation and implementation, and generates, synthesizes, and shares knowledge. The Network's members include individual participants from more than 170 countries involved in developing and implementing national adaptation plans. Financial support for the Network has been provided by Austria, Canada, Germany, Ireland, the United Kingdom, the United States, and the Green Climate Fund. The Secretariat is hosted by the International Institute for Sustainable Development.

Website:
http://www.napglobalnetwork.org

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