CAIP Newsletter
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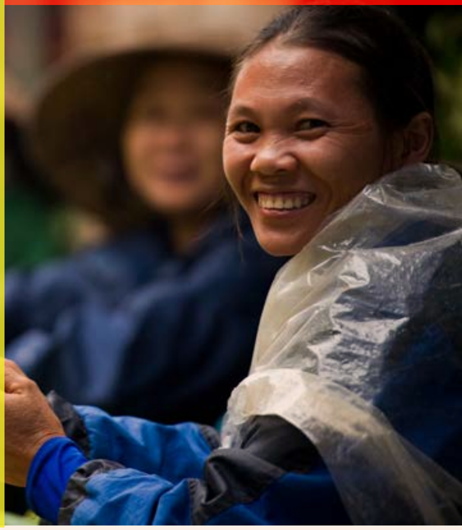
The Climate Adaptation Investment Planning (CAIP) Newsletter



A quarterly newsletter spotlighting global efforts in climate adaptation investment planning. This fifth issue draws on six pilot countries supported by the Asian Development Bank (ADB) to examine what helps governments translate national adaptation priorities into finance-ready investment pipelines and move from planning to implementation. Key factors include strong national ownership, effective institutions and governance, and clear climate, economic, and financial rationales for investing in adaptation. The newsletter summarizes the report *Climate Adaptation Investment Planning: Lessons Learned* and features an interview with Bhutanese officials about the country's water-sector CAIP, including recommendations for other countries interested in adaptation investment planning.

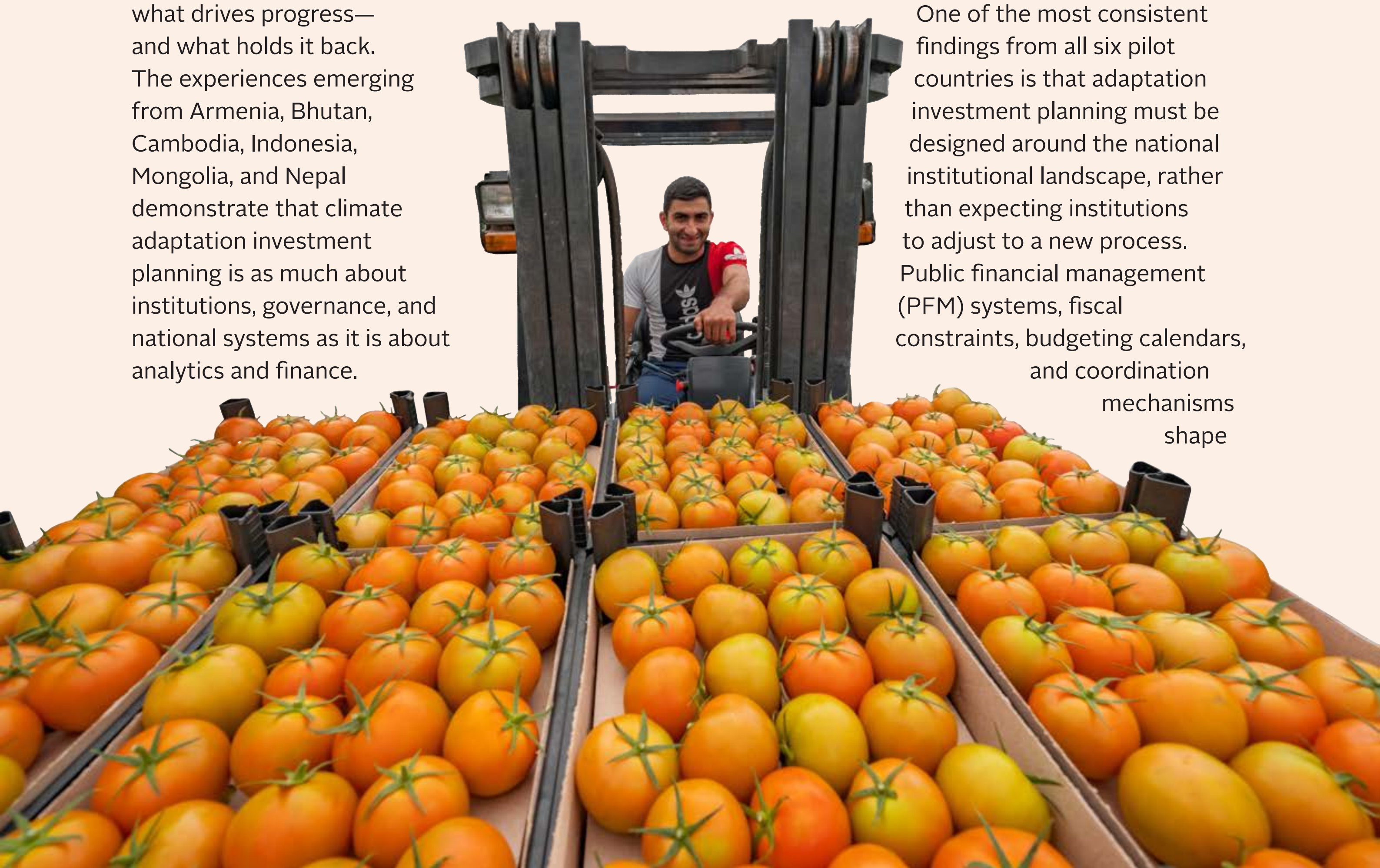
In Focus
Lessons Learned from CAIP Implementation

What we are learning from implementing Climate Adaptation Investment Planning

As countries across Asia and the Pacific continue to translate their national adaptation priorities into finance-ready investment pipelines, ADB's Climate Adaptation Investment Planning (CAIP) program is generating valuable lessons about what drives progress—and what holds it back. The experiences emerging from Armenia, Bhutan, Cambodia, Indonesia, Mongolia, and Nepal demonstrate that climate adaptation investment planning is as much about institutions, governance, and national systems as it is about analytics and finance.

Learning 1: Adaptation investment planning must operate within the development planning and fiscal context of the country, requiring a careful balance between ambition and pragmatism

One of the most consistent findings from all six pilot countries is that adaptation investment planning must be designed around the national institutional landscape, rather than expecting institutions to adjust to a new process. Public financial management (PFM) systems, fiscal constraints, budgeting calendars, and coordination mechanisms shape



what is possible. The more the CAIP is anchored in governance and fiscal realities, the more likely it is that investment-ready priorities will be adopted, funded, and implemented—and that the CAIP process is sustained.

In several countries, stronger coordination and better alignment of planning and budgeting cycles helped progress on CAIP implementation.

Mongolia's experience showed that synchronizing CAIP milestones with the political and budgeting timetable was essential to ensure uptake.

In **Nepal**, the federal structure added complexity: provincial and federal ministries each have different mandates, limiting some financing options. CAIP had to adapt by creating province-level investment packages for Madhesh Province.

Bhutan benefited from an existing cross-government working group under the Department of Water, enabling stronger coordination and alignment with its 13th Five Year Plan.

Linking CAIP to the NAP Process

The national adaptation plan (NAP) process is a strategic, country-driven approach to identify and address medium- and long-term adaptation priorities while integrating adaptation into development planning and budgeting. It creates an enabling environment for action by providing data, institutional structures, and coordination mechanisms. Adaptation investment planning should build on this foundation, moving countries from articulating priorities to timely and coordinated implementation.

Where a NAP document exists, it serves as the starting point for developing an adaptation investment plan, complemented by other frameworks such as national development strategies or NDCs. Even without a NAP document, the broader NAP process should be leveraged to ensure efficiency and alignment with national goals.

CAIP is not a standalone technical exercise, but a mechanism to operationalize the NAP document and deepen the NAP process:

Bhutan's water-sector CAIP built on its NAP and was aligned with national development planning processes and the priorities of the 13th Five Year Plan.

Armenia used CAIP to prioritize and transform its NAP-listed agricultural priorities into a detailed, costed pipeline for the horticulture value chain.

NAPs are not investment plans; they enable priority-based planning and access to finance but they cannot provide detailed assessments of all priority adaptation measures.

To facilitate investment in adaptation, sector ministries and ministries of finance and planning must take on strong ownership of national adaptation priorities and understand how the investment in adaptation priorities can contribute to meeting the government's broader development goals. Clear climate, economic, and financial rationales for investing in the adaptation priorities are needed, and bundling adaptation priorities into coherent packages can support such rationales. This is where CAIPs add value: they further prioritize actions and conduct deeper analyses to make them investment-ready. CAIPs are not a replacement for NAPs but a complement, introducing financial discipline, economic rationale, and programmatic structure to translate adaptation priorities into concrete investment pipelines. Linking CAIPs with NAPs ensures strategic consistency and accelerates implementation.

Learning 2: A focused and iterative approach is essential for adaptation investment planning

The CAIP process revealed that prioritization cannot be done in a single step. Iteration (revisiting priorities, refining investment packages, testing assumptions, and narrowing the focus) proved fundamental to producing robust results. Countries that initially tried to cover broad multisector adaptation agendas found the process overwhelming. Those that instead narrowed their efforts to key sectors or regions were able to pursue deeper analysis and build more credible, finance-ready investment pipelines. The iterative nature of CAIP is not a flaw; it is a defining strength that helps countries navigate uncertainty, build consensus, and ensure alignment with national priorities.

The early uptake of CAIP demonstrated that trying to cover too much leads to shallow outputs. Countries that iteratively refine their scope achieve deeper, more actionable results.

In **Cambodia**, the geographic focus was on the northwest region where climate exposure and agricultural economic potential are highest.

Nepal focused its CAIP exclusively on agriculture in one province (Madhesh), which allowed for more granular climate risk and economic modelling.

Learning 3: Tailoring climate risk diagnostics to specific adaptation priorities helps prioritize and justify investments

A strong climate rationale is one of the pillars of investment readiness. NAPs and sector strategies provided useful starting points but they typically lacked the detailed, sector-specific climate information needed to justify investments. CAIP responded by generating clear diagnostics using observed climate data, projections, and indicators tailored to sector needs. This strengthened evidence base not only improved prioritization but also helped build investor confidence by clearly articulating the risks that investments aim to tackle.

Countries recognized that climate assessments available often lacked the specificity needed for investment decisions or for climate fund eligibility.

Bhutan climate projections were used to develop impact indicators for Bhutan for 2040–2059, including extreme rainfall as a proxy for flood and landslide risk. These complemented the 2023 NAP water assessment and were used to stress-test priority adaptation investments.

Cambodia added new heat-stress indicators to estimate crop productivity losses, supporting investments in climate-resilient crop varieties.

Learning 4: Comprehensive adaptation investment packages address multiple climate risks at a system level and include different types of investments

Grouping related adaptation priorities into comprehensive, programmatic investment packages, aligned with national development strategies, was essential. These packages addressed entire systems, such as agricultural value chains or integrated water resource management, rather than isolated vulnerabilities. Countries recognized that adaptation investments must move from small, fragmented projects to large-scale, integrated programs that can deliver system-wide resilience.
This systemic approach improves the scale and coherence of investment proposals and enhances their attractiveness to financiers seeking transformative, cross-cutting impact.

Investment planning requires grouping individual actions into comprehensive investment packages that strengthen entire systems or value chains.

In **Armenia**, measures were bundled from production inputs to processing, storage, and market access, enabling private-sector engagement.

In **Mongolia**, the investment packages focused on hydromet monitoring and land use planning services, establishing a project preparation facility, and implementing a climate-smart water pond program aimed at building, managing, and maintaining 250 climate-smart ponds.

Learning 5: Appraising the benefits and viability of adaptation investment packages can facilitate their integration into public management processes and identify opportunities for the private sector

Conducting full economic and financial analyses for multiple adaptation investments can be technically demanding and time-consuming. CAIP revealed that countries can make substantial progress using qualitative assessments, partial cost–benefit analyses, and literature-based proxies—particularly when local data are missing. These methods helped identify the economic justification for public investment, highlight fiscal benefits such as avoided disaster costs, and uncover opportunities for revenue generation.
The analyses revealed that economic returns are often high, but financial returns less so. Many adaptation packages deliver strong economic benefits like reduced flood damage and improved yields, but generate limited direct financial returns. This means that public finance remains central, especially for public-good components. Private investment seems to be more feasible in adaptation packages with revenue potential—for instance for agricultural value chains, water, and climate services. For governments, this means that de-risking investment through for instance guarantees and blended finance is key.

While data constraints can hinder detailed cost–benefit analyses, countries used a mix of qualitative assessments, proxies, and literature-based values to estimate adaptation benefits.

Armenia leveraged a horticulture program for baseline data to assess the costs and benefits of climate-smart technologies like drip irrigation.

Indonesia produced a cost–benefit analysis for selected packages, calculating economic internal rates of return.

Bhutan assessed adaptation subpackages and found water-efficient technologies offer strong financial returns through cost savings for users and potential private sector investment opportunities.

Learning 6: Decision trees serve as a practical starting point for matching adaptation priorities with financing sources and instruments, guiding countries toward actionable steps

As countries moved from identifying investment packages to exploring financing options, they confronted a complex landscape of public, private, domestic, and international finance. Decision trees helped simplify this complexity. By identifying whether an investment generated revenue, produced public goods, or required concessional support, countries could map each package to specific financial instruments and funding sources. The decision tree also helps to identify where reforms are needed to unlock finance. Such changes to the enabling environment could include policy or regulatory reforms to water or insurance markets, policy measures to enable blended finance, strengthening local financial institution capacity, or updating technical standards and climate-informed budgeting guidelines.

This structured approach made it easier to define which packages could attract private investment, which required blended finance, and which depended on public budgets or climate funds.

Finance Matchmaking Decision Tree

Greater private sector delivery* ↕ Greater public/civil society sector delivery

Economic and financial characteristics of asset/activity		Government role	Illustrative actions	Potential financial instruments and key considerations
A. Is the private sector* already implementing and financing it? No ↓ / Yes →	*Implies FIRR > private sector hurdle rate*	Support and scale	• Improve enabling environment • Convene additional players • Champion and platform • Support monitoring, evaluation, and learning	**Cash flow risk** (Low → High) Scale of investment (Low → High): Microfinance loans Local Financial Institution loans International lending Bonds** Equity Venture funding
B. Based on assessment of likely cash flows and international experience, could the private sector implement and finance the activity with changes in policies and regulations (only) and is this desired? No ↓ / Yes →	*Implies FIRR with policy/regulatory changes > private sector hurdle rate*	Improve enabling environment	• Address policy/regulatory gaps • Address moral hazard—clarify assumptions around availability and role of public and private sector • Support the development of new business models	**Development–adaptation continuum** Significant proportion of activity's prospective cash flows not linked to adaptation/public intervention justified by conventional development priorities ↔ Almost all activity's prospective cash flows associated with building climate resilience/adaptation All countries: National and local government commitment to enabling environment reform and Technical assistance and policy-based support — Conventional development partner — Dedicated climate finance
C. Can public finance crowd in private investment through changing risk-return profile and is this desired? No ↓ / Yes →	*Implies EIRR > threshold but FIRR > private sector hurdle rate only after the application of blended finance*	Use blended finance and de-risking	• Develop blended finance approaches • Improve governance and coordination amongst and across public and private sectors • Support knowledge sharing and information • Revise public funding terms and conditions over time to encourage leveraging/de-risking	**Development–adaptation continuum** Significant proportion of activity's prospective cash flows not linked to adaptation/public intervention justified by conventional development priorities ↔ Almost all activity's prospective cash flows associated with building climate resilience/adaptation Key barrier to private investment: Project economies: *Grants, subsidies (including performance-based grants)* — Government — Development partners — Dedicated climate finance Limited investment finance: *Concessional debt, patient equity (according to risk profile activities)* — Development partners — Dedicated climate finance High risk profile: *Guarantees, insurance, subordinated debt and equity* — Development partners — Dedicated climate finance Skills/capacity: *Project development support* — Development partners — Dedicated climate finance
D. Do cash flows characteristics—or choices about how the activity is organized and whether assets should be owned by the public sector—mean that the activity/asset will be publicly financed into the medium term?	*Implies EIRR > threshold but FIRR < private sector hurdle rate, or that other factors lead to preference for public sector provision*	Boost spectrum of public financing	• Identify timing and suitability of existing public funding sources • Mainstream adaptation requirements into line ministries, government agencies and sector programs • Use green budgeting and climate fiscal planning to understand the value of adaptation and assess progress	**Actions lead to ongoing costs — Development–adaptation continuum**: More aligned with existing development priorities ↔ Primary objective is adaptation **Actions lead to ongoing costs — Development–adaptation continuum**: More aligned with existing development priorities ↔ Primary objective is adaptation Country status: Middle-income with more fiscal space and capital market development, lower climate vulnerability: *Taxes/budget reallocation*; *Budget support/grant*; *Commercial loans/(green) bonds*; *Conventional IFI loans*; *Concessional climate finance* Low-income and/or limited fiscal space and/or acutely climate vulnerable: *Taxes/budget reallocation*; *Budget support/grant*; *Conventional IFI loans*; *Concessional climate finance or debt resolution activities*

Source: Asian Development Bank.

Learning 7: Comprehensive adaptation investment packages and targeted finance matchmaking require broadening and deepening engagement with key actors

The CAIP process highlighted that adaptation investment planning cannot be a technical exercise managed by a single ministry. Broader engagement across finance ministries, planning bodies, including those responsible for the NAP process, sector agencies, subnational governments, and domestic financial institutions is essential.

The CAIP process in **Armenia** brings together key institutions to ensure strategic alignment and effective implementation:

- The Ministry of Economy coordinates the process, leveraging its role in promoting sustainable agriculture and climate-smart technologies.
- The Ministry of Finance provides quality assurance for investment packages, particularly those financed through public sources, ensuring fiscal alignment with adaptation goals.
- The Ministry of Environment plays a critical role in aligning the CAIP with the NAP and broader climate policies, while the Ministry of Territorial Administration and Infrastructure contributes to packages related to irrigation and resilient infrastructure.
- The Interagency Council on Climate Change, chaired by the Deputy Prime Minister and composed of sectoral ministers, serves as the highest-level platform for discussing and endorsing CAIP activities, ensuring interagency collaboration and integration into national planning and budgeting processes.

Learning 8: Country-led approaches yield coherence in adaptation investment planning across different actors, sectors, geographies, and levels of governance

Country ownership emerged as one of the strongest predictors of success. National coordination structures played a pivotal role in aligning adaptation priorities across ministries and government levels. These mechanisms helped ensure that CAIP results were not only technically sound but also politically relevant, aligned with national development goals, and embedded within long-term planning processes. Country leadership helped unify sector efforts and prevented duplication among development partners.

In **Bhutan**, an interministerial working group brought together ministries and agencies responsible for various aspects of water management—including agriculture, water and sanitation, energy, and flood management—fostering strong government ownership of the overall process, resulting in a unified, nationally owned plan.

Cambodia established a Technical Advisory Group composed of diverse line ministries to co-develop the climate adaptation investment plan. Improved coordination among government agencies and strong integration with existing plans helped align government and investor interests.

In **Nepal**, strong institutional collaboration across governance levels—including federal and provincial ministries and technical agencies such as the Nepal Agricultural Research Council—created opportunities to integrate these investments into the national and provincial medium-term expenditure framework.

Learning 9: Adaptation investment planning requires specialized skills and adequate human and financial resources

Finally, CAIP demonstrated that adaptation investment planning requires substantial technical expertise and sufficient resources. Skills in climate risk assessment, climate economics, financial analysis, and public finance are all needed—and rarely found within a single institution. Countries highlighted the importance of partnering with technical experts and regional institutions while also investing in long-term capacity development. Preparing a robust CAIP typically requires a dedicated budget and about 12 months of work, depending on data availability and complexity. The investment is significant, but so too are the returns in terms of readiness, coherence, and ability to mobilize finance.

In **Nepal**, engagement across all levels of government—along with the participation of the private sector, financial institutions, research organizations, civil society, and local actors—was needed for cross-learning and coordination, leading to the effective design and strong ownership of the CAIP. Consultations in Kathmandu and Madhesh Province, key informant interviews, and a series of validation workshops were conducted. Robust data collection also played a central role, including the review of existing policies and plans, field surveys for key value chains, and the compilation of relevant secondary data.

From Planning to Financing: Bhutan's Experience Developing a Climate Adaptation Investment Plan for the Water Sector

Bhutan recently developed a Climate Adaptation Investment Plan (CAIP) for its water sector with support from the Asian Development Bank. Building on the country's National Adaptation Plan and Water Sector Roadmap, the CAIP identifies about $847 million in adaptation investments organized into 11 investment packages over 15–20 years. More than a financing strategy, the process brought together ministries responsible for environment, hydromet services, finance, agriculture, infrastructure, energy, and disaster risk management to create a shared investment vision for climate resilience. In this interview, Tenzin Khorlo, Chief Environment Officer, Department of Water, Ministry of Energy and Natural Resources (MOENR) and Chair of the Inter-Agency Technical Working Group, and Yeshi Lhendrup, Senior Program Officer, Department of Macro-Fiscal and Development Finance, Ministry of Finance (MOF), reflect on the lessons learned from this process, and highlight the importance of ownership and coordination across government.

NAP Global Network: Bhutan already had a National Adaptation Plan and a Water Sector Roadmap. What gap was the CAIP process trying to fill, and what was the most valuable aspect of the approach?

Tenzin Khorlo

The National Adaptation Plan identified a very large set of adaptation priorities across sectors. The challenge was not identifying priorities, but determining how to finance and implement them. Noting that the estimated cost of all adaptation priorities amounted to $14 billion for the next 5 to 15 years, we recognized that waiting for all adaptation needs identified in the NAP to be funded would take a very long time.

The CAIP helped us move one step further. It allowed us to prioritize adaptation actions, package them into investment-ready programs, and think strategically about sequencing and financing of actions. Importantly, it encouraged us to look beyond public finance and consider private finance, blended finance, and other sources of investment.

Yeshi Lhendrup

For us, the CAIP's main value was helping bridge the gap between adaptation planning and adaptation finance. It translates adaptation priorities into structured investment programs that can attract financing and move toward implementation.

NAP Global Network: The CAIP organizes adaptation priorities into investment packages. How did this help move from a list of activities to more investable programs?

Tenzin Khorlo

One important lesson was that adaptation planning can generate an endless list of activities. The CAIP process forced us to prioritize.

To do that, we brought together all relevant sectors involved in water and discussed what should be implemented in the short, medium, and long term. We also looked ahead over a 15–20-year time frame, recognizing that adaptation is a long-term process.

The final result was not simply a list of activities. It was a collectively developed set of priorities that government institutions agreed upon and took ownership of. That ownership is critical because implementation in the water sector depends on multiple ministries working together.

NAP Global Network: The CAIP relied on a broad interministerial working group. How did this coordination mechanism work in practice?

Tenzin Khorlo

The first step was identifying all sectors that depend on water. We then nominated experienced representatives who could contribute strategically and make decisions. It is quite important that we have someone at the senior level of management who understand the whole sector and has some experience of how the sectors have looked into adaptation.

What worked particularly well was ensuring participants came prepared. We shared information in advance and encouraged institutions to review and discuss priorities internally before meetings.

We also learned that coordination cannot happen only through formal meetings. Informal discussions, bilateral exchanges, and smaller focus group discussions were equally important. I think, ultimately, that this has really helped everyone in terms of taking ownership, being inclusive, taking part in the process and building consensus through discourse.

Yeshi Lhendrup

The process was also connected to Bhutan's broader planning and public financial management systems. We aligned the work with national development planning, public financial management reforms, and resource mobilization processes. This helped ensure that adaptation priorities could be linked to future financing opportunities.

NAP Global Network: Will the working group remain active now that the CAIP has been completed?

Tenzin Khorlo

Yes. During the CAIP development phase, the working group was highly active. Now that the plan has been completed, activity has naturally slowed. However, we expect the same coordination mechanism to support implementation.

Some members may change, but the principle remains the same: senior technical representatives from key ministries need to stay involved to guide implementation and maintain coordination across sectors.

NAP Global Network: What roles did the Ministry of Energy and Natural Resources and the Ministry of Finance play during the process?

Tenzin Khorlo

The Ministry of Energy and Natural Resources, through the Department of Water, led the technical planning process with support from the Inter-Agency Working Group formed, representing the water-related sectors. We coordinated stakeholder meetings and follow-ups, ensured that adaptation priorities and packages reflected sector needs, avoided duplication and overlap, and developed the investment plan collectively by aligning with a systematic approach to ensure coherence.

At the same time, the Ministry of Finance was involved throughout the process and played a critical role in mobilizing resources. Now that the plan is complete, their role in securing financing becomes even more important.

A key lesson is that this should not be viewed as a Department of Water document. It is a national document. All relevant agencies have ownership, and it should guide future investments in the water sector over the coming decades.

Yeshi Lhendrup
We were engaged from the very beginning of the CAIP process, from screening all sectors to the prioritization and selection of the water sector. This has helped us to work very closely with the Ministry of Energy and Natural Resources. Our role is to focus on resource mobilization, and to connect the adaptation investment priorities with financing opportunities.

The Ministry of Finance serves as the focal point for development partners. The CAIP provides a clear picture of investment needs and priorities. It helps us engage partners and identify the appropriate financing instruments, whether through public budgets, concessional finance, grants, blended finance, or other mechanisms.

In many ways, the CAIP becomes a menu of investment opportunities that we can present to partners.

> **NAP Global Network: One of the CAIP's objectives is to mobilize finance in a more coordinated manner. What does coordinated adaptation finance mean in practice?**

Yeshi Lhendrup
For us, it means moving away from fragmented approaches where ministries work independently.

A coordinated approach allows institutions to plan together, identify financing needs collectively, and then choose the most appropriate financing instruments. Strong planning improves the quality of financing decisions and helps ensure investments support shared government priorities.

Tenzin Khorlo
Water is a good example because it affects so many sectors and is cross-cutting, encompassing agriculture, energy, drinking water, disaster risk management, and ecosystems.

You cannot manage adaptation in the water sector through isolated interventions. It requires coordination from source conservation and protection to end use, and back to the natural system. That is why adaptation investments in the water sector must also be coordinated.

With this kind of understanding and communications, we were able to sensitize and inform the relevant agencies, to bring them together in our working group. They realized the importance of this, which was key for our coordination.

> *"The CAIP should not be viewed as a Department of Water document. It is a national document that should guide investments in the water sector for the next 15 to 20 years."*
>
> Tenzin Khorlo, Department of Water, Ministry of Energy and Natural Resources

> **NAP Global Network: Do you see potential to replicate this approach in other sectors?**

Tenzin Khorlo
Yes, I see the potential, although the exact approach may differ depending on the sector. Water is uniquely cross-cutting, which makes it well suited to a whole-of-government process. Other sectors may require different arrangements. However, the core principles, including prioritization, coordination, and investment planning, can certainly be applied elsewhere.

Yeshi Lhendrup
Water was selected after exploring several sectors. We wanted to pilot the approach first and learn from the implementation. The lessons from this experience can help inform future adaptation investment planning processes in other sectors.

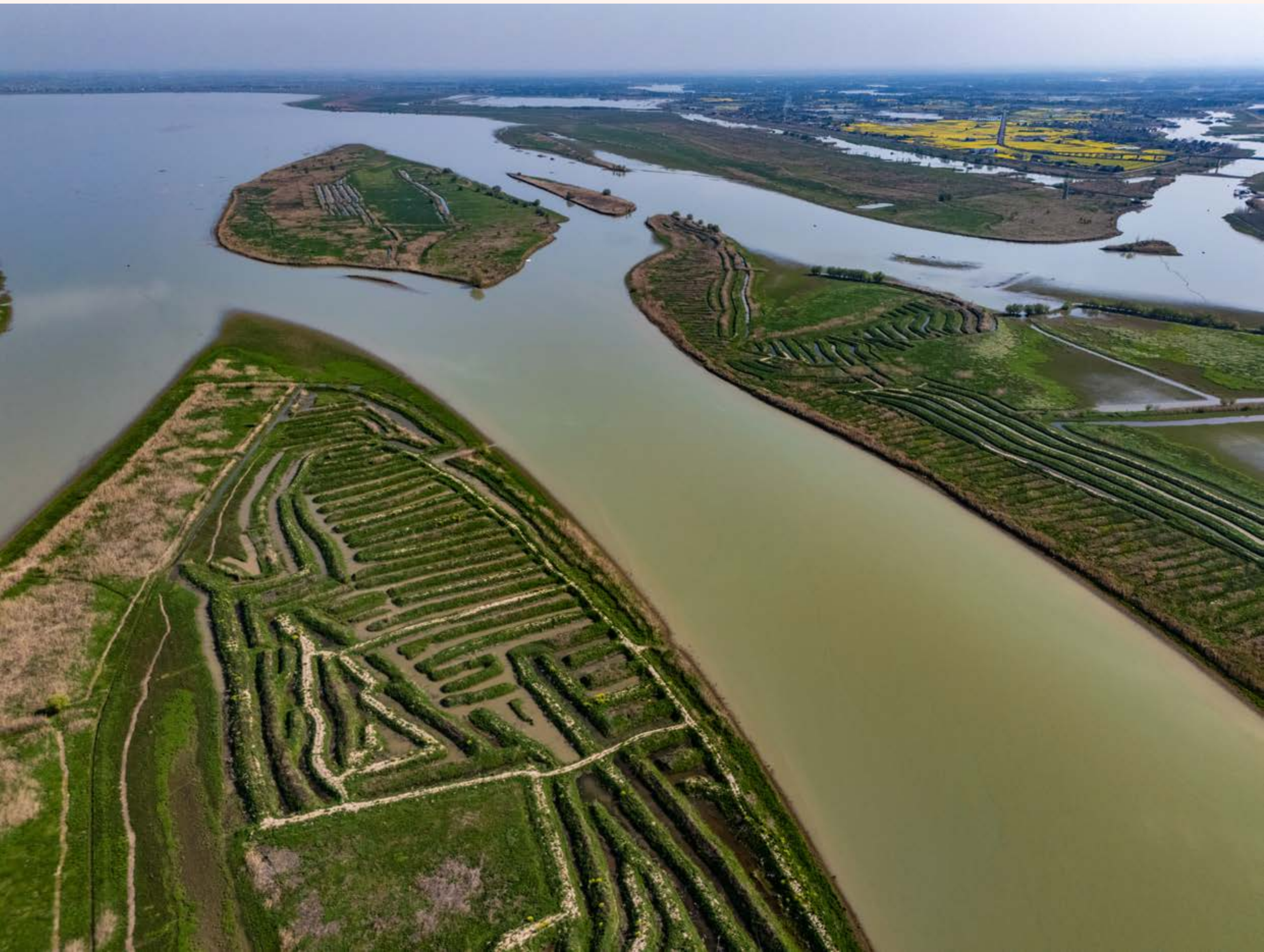
NAP Global Network: What advice would you give other countries seeking to bridge the gap between adaptation planning and adaptation finance?

Yeshi Lhendrup
My first recommendation would be strong coordination across government institutions. Ministries cannot work in isolation.

Clear roles and responsibilities are also essential. Technical agencies should lead planning and priority setting, while finance ministries should help connect those priorities to resource mobilization and financing opportunities.

Tenzin Khorlo
National ownership is critical. All involved sectors must take ownership of what they do. This is why national prioritization is very critical. That the whole of government prioritizes, and that prioritization aligns with the immediate future needs of a country.

When adaptation priorities are nationally endorsed and supported across government, it becomes much easier to mobilize financing and sustain implementation over the long term. We also need to keep in mind that adaptation is not a short-term project. It is a long-term transformative process.



Looking Ahead

What's Next for CAIP?

As CAIP moves into its next phase, work is continuing or expanding in Bangladesh, Lao PDR, Palau, the Philippines, Sri Lanka, and Timor-Leste. The coming years will be defined by a deepening of both ambition and capability. Countries increasingly recognize that the success of adaptation investment planning depends not only on strong analysis but also on the institutional and financial ecosystems that enable adaptation priorities to become funded programs. These learnings will be further discussed and shared during the upcoming edition of the CAIP Forum, which takes place in Manila on 15–16 September 2026.

SAVE THE DATE

15-16 September 2026

Manila, The Philippines

#CAIP2026

3rd CLIMATE ADAPTATION INVESTMENT PLANNING **FORUM 2026**

ADB will convene the 2026 *Climate Adaptation Investment Planning (CAIP) Forum* on 15–16 September 2026. Building on CAIP forums over recent years, the Forum provides a dedicated platform for governments, development partners, financiers, and practitioners to exchange experiences and lessons on translating adaptation priorities into bankable investment pipelines.

This edition of the newsletter has been developed with the support of the Climate Adaptation Investment Planning (CAIP) program being implemented by the Asian Development Bank (ADB) with financing from ADB and the Government of Ireland.

If you have any questions or would like to contribute to future editions of the CAIP newsletter, please feel free to contact us at kschmidt@iisd.org or caipteam@adb.org.

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