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Good Practice for LT-LEDS Development

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CHALLENGE

The Paris Agreement calls on Parties to prepare Long-Term Low-Emission Development Strategies¹ (LT-LEDS, also referred to as LTS) as part of their climate action, facilitating the transition necessary to limit global warming. Many countries have already submitted their LT-LEDS – some committing to net-zero targets by 2050 or around mid-century. Others adopted net zero targets but have not yet defined their individual decarbonisation pathways in a strategy.²

LT-LEDS should be based on a **clear vision and show the direction of travel to achieve a low-carbon economy**. They need to outline the necessary political, economic, financial, and technological measures to make this vision a reality. The LT-LEDS should be an umbrella for short- to mid-term policy planning, which means that the **revision of the countries' Nationally Determined Contributions (NDCs) should be based on and directly linked to the information from the LT-LEDS**. As countries are currently revising the implementation of their current NDCs and in parallel working on the development and submission of their next ones in 2025, it is essential to align those with LT-LEDS and other national policy and development objectives.

At the same time, the development of LT-LEDS is a **highly complicated process**, which poses numerous challenges for the countries such as the necessity to engage and coordinate the efforts of institutions from various sectors and levels, the need to ensure a robust financial and implementation basis or the requirement to build a solid knowledge, data and monitoring framework.

1 UNFCCC 2015.

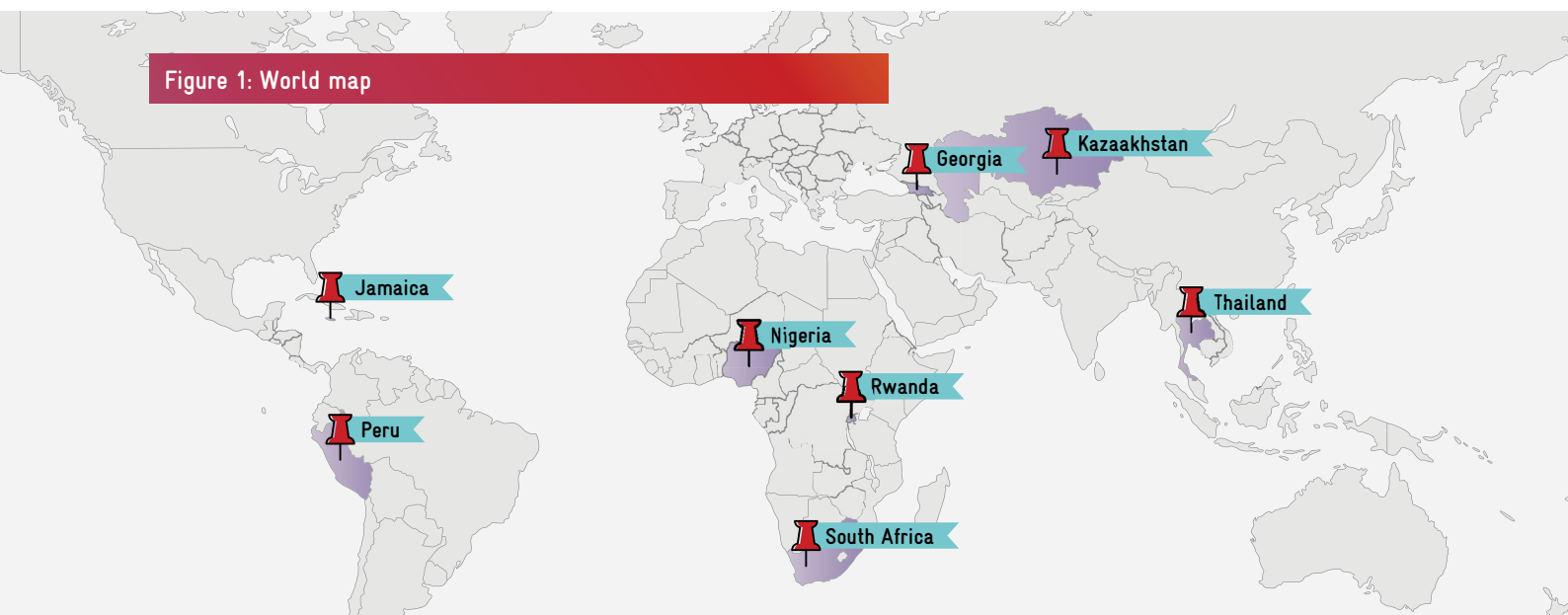
2 73 submissions (72 single country submissions plus the EU) as accessible in the UNFCCC Long-term strategies portal, <https://unfccc.int/process/the-paris-agreement/long-term-strategies>.

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OBJECTIVE

Recognising the complexities involved in developing sound LT-LEDS that guide countries over the long term, this knowledge product aims to showcase the **optimal components of developing a sound LT-LEDS, illustrated through country case studies**. By providing insights into country processes and best practice, this publication seeks to support the **preparation of new LT-LEDS**, and the **review and implementation of already submitted strategies and outline how they should inform the NDC update process**.

It needs to be emphasised that the country examples presented in this knowledge product are not intended to represent an exhaustive set of good practice experiences. Rather, the selection of case studies was based on the author's insider knowledge and familiarity with the implementation approaches in these particular countries. It is important to note that there may be other countries with commendable LT-LEDS efforts that could also provide valuable insights. Moreover, it is worth noting that the absence of a certain country example in a certain category does not necessarily imply that it does not fit the category. It may be the case that there is more extensive knowledge available about the processes of other countries that are worth highlighting.



3

KEY FACTS ABOUT LT-LEDS

3.1 BACKGROUND AND RECENT DEVELOPMENTS

Article 4, paragraph 19, of the Paris Agreement urges all Parties to formulate and communicate LT-LEDS, taking into account their common but differentiated responsibilities and respective capabilities in light of different national circumstances.³ Currently, many countries in various regions of the world are in the process of formulating and updating them. So far, **72 countries plus the EU** have communicated their LT-LEDS officially (as of September 2024), with 10 of those submissions already updated⁴. LT-LEDS development gained additional momentum in 2021 at COP26 with the **Glasgow Climate Pact**, which strengthened the call for Parties to communicate LT-LEDS and update them regularly in line with the best available science. **The Pact emphasised the importance of aligning LT-LEDS with NDCs** and requested the UNFCCC Secretariat to prepare a **synthesis report** summarising the content of submitted LT-LEDS – its results are discussed in the following section.⁵

Another important milestone for the development of LT-LEDS was **COP28 in 2023, which concluded the first global stocktake**, a periodic review of the collective progress towards the achievement of

the long-term goals of the Paris Agreement.⁶ The global stocktake is a continuous process, which will happen **every five years**.⁷ The 2023 stocktake found that with submitted LT-LEDS, economies that account for 87% of the global gross domestic product (GDP) now have targets for climate neutrality, carbon neutrality, greenhouse gas (GHG) neutrality or net zero emissions⁸. **These strategies would allow to keep the global temperature increase below 2°C**, which, however, leaves room for increased ambition of LT-LEDS and highlights the importance to **ensure their full implementation**.

The stocktake also emphasized that future **NDCs need to be aligned with LT-LEDS** as well as the major role of enhanced financial and capacity-building support for planned technology measures in developing countries.⁹ Finally, the stocktake urged Parties to communicate or revise their LT-LEDS by CMA6 (November 2024).¹⁰ In order to integrate the outcomes of the global stocktake into **the next round of NDCs to be put forward by 2025, countries need to ensure that the objectives in their updated NDCs are fully coherent with their LT-LEDS and development goals**. In countries where LT-LEDS are yet to be formulated, it is highly encouraged to develop a long-term vision, which can be mainstreamed economy wide to serve as guidance for short-term target setting.

3 UNFCCC 2015.

4 UNFCCC Long-term strategies portal, <https://unfccc.int/process/the-paris-agreement/long-term-strategies>.

5 UNFCCC 2022.

6 UNFCCC 2015.

7 UNFCCC 2015. Article 14, paragraphs 2 and 3.

8 As of December 2023.

9 UNFCCC 2023b.

10 UNFCCC 2023b.

3.2 KEY MESSAGES FROM THE UNFCCC LT-LEDS SYNTHESIS REPORT 2023

In September 2023, the UNFCCC LT-LEDS Synthesis Report was published. It assessed 68 longterm strategies, representing 75 Parties to the Paris Agreement, including 7 updated strategies available by the time of the assessment. Some important findings are:



76%

of global emissions in 2019 are accounted for by LT-LEDS that were submitted to the UNFCCC by Parties at the time of this assessment, capturing 87% of global GDP, 68% of population, and around 77% of total energy consumption.



93%

of LT-LEDS included quantifiable **long-term mitigation goals** and 7% described **mitigation policies and actions**.



82%

of LT-LEDS provided an overview of **national adaptation and resilience policies**, strategies and plans.



85%

referred to **finance and / or investment needs** for implementing LT-LEDS.



43%

of LT-LEDS indicated that they will **guide the development and ambition of subsequent NDCs**, including the adoption of new policies and actions beyond the current NDCs.



10%

mentioned the **alignment of the latest NDCs with the LT-LEDS**, and 47% did not provide any information on the relation with the NDCs.



18%

of LT-LEDS described a need for deeper emission reduction than reported in the current NDCs.



49%

of LT-LEDS indicated the close **linkage with Parties' national development plans** and 63% referred to **linkages with the Sustainable Development Goals (SDGs)**.

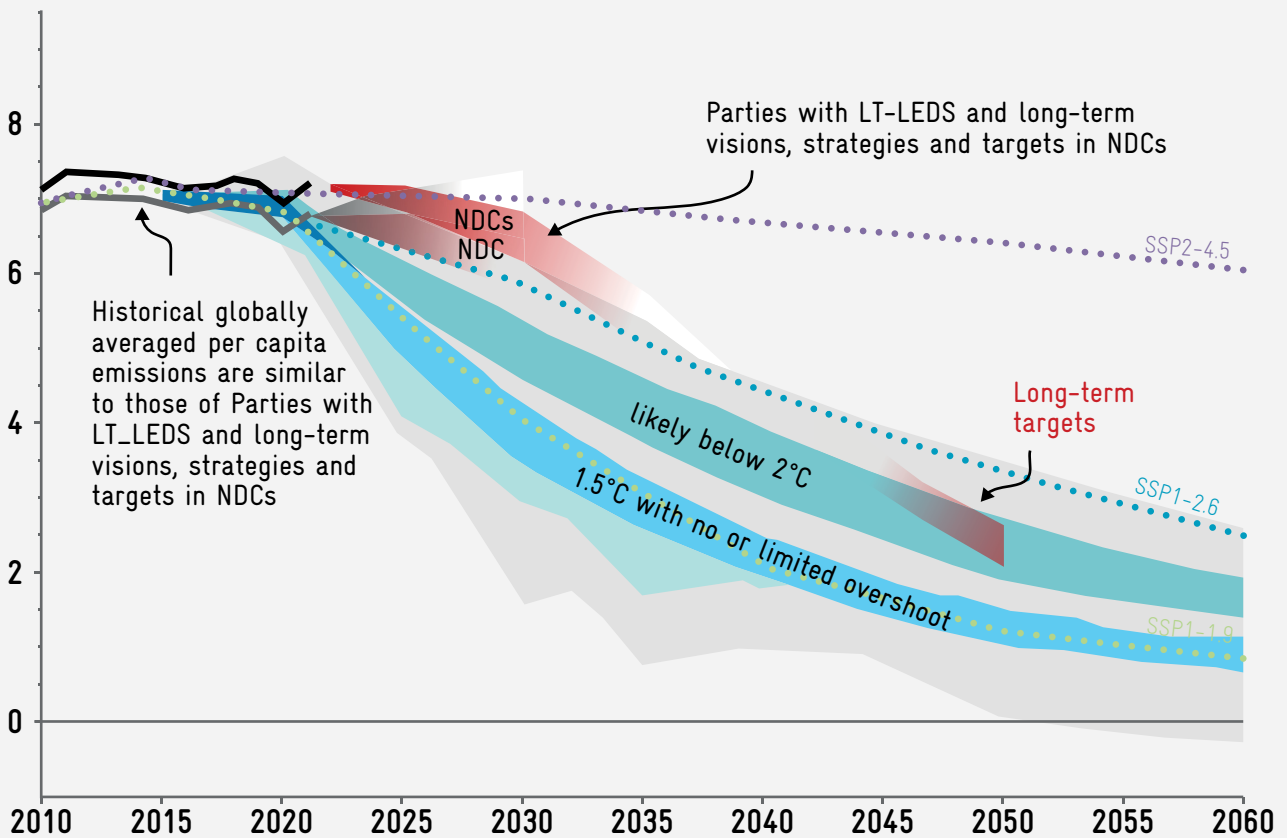
Many Parties highlighted **synergies** between LT-LEDS and economic growth, job creation, climate resilience and disaster risk reduction, better human health, innovation and technology development and many other co-benefits.

The projected per capita emissions of Parties with LT-LEDS **are more consistent with the scenarios that likely keep warming to below 2 °C in 2050**, as assessed by the IPCC. However, the scenarios of

limiting warming to 1.5 °C and achieving net zero emissions in the second half of the century would require **more ambitious emissions reductions**.

As a result, the **report findings point towards the need of raising ambition of both LT-LEDS and NDCs, and more alignment between them** to achieve short-term emissions reductions to be on track to meet the long-term climate and development objectives.

Figure 2. Estimated emissions reduction in 2020-2030 and 2030-2050



Source: UNFCCC LT-LEDS Synthesis Report, 2023

3.3 SIGNIFICANCE OF LT-LEDS

LT-LEDS CONTRIBUTION TO THE NDC PROCESS

In climate policy, bridging short-term policy measures and long-term perspectives is crucial, along with the alignment of climate objectives with other national policies such as development plans. The LT-LEDS should provide a **long-term roadmap for short-term target setting and increasing ambition of NDCs over time**.¹¹ The information on how NDC targets are aligned with and contribute to the achievement of the long-term objectives should be an essential part of any LT-LEDS document. **However, as mentioned above, this is still not the case for a large share of submitted LT-LEDS.** On a positive note, a large share of LT-LEDS indicated that the timeline for reviewing and updating them would be **aligned with the timeline for updating NDCs**, which would make streamlining processes more straightforward.¹²

MEANS TO SET A CLEAR PATH AND AMBITION TO MEET PARIS AGREEMENT GOALS

Recognizing that climate change is a major threat to economic systems and livelihoods, countries agreed that their GHG emissions need to peak as soon as possible and decline to achieve net zero emissions in the second half of the 21st century.¹³ Equally, countries strive to develop long-term viable adaptation responses. Therefore, **LT-LEDS should illustrate how Parties plan to decarbonize their economies, enhance their climate change resilience, and contribute to the achievement of the long-term goals of the Paris Agreement**.¹⁴

11 ASEAN Secretariat 2021.

12 UNFCCC 2023a.

13 UNFCCC 2015. Article 4, paragraph 1.

14 UNFCCC 2023a

LONG-TERM VISION TOWARDS AMBITIOUS CLIMATE ACTION

Rather than merely fulfilling international climate policy commitments, LT-LEDS are **in the interest of countries** as they help them embark and remain on a path of sustainable economic development and mitigate climate-related risks in a timely manner. **LT-LEDS need to determine the direction of travel** for policy-makers, business actors and the society as a whole, which the countries will pursue for years ahead, **thus constantly informing and influencing short-term policy decisions**.¹⁵

LT-LEDS can help ensure that the required transformative changes (e.g. in energy systems, infrastructure, mobility, food production) **encourage inclusive economic development** while reducing emissions. Therefore, the aim of LT-LEDS is to identify risks (e.g. carbon lock-in), **opportunities** (such as improved energy access or better air quality, the use of emerging technologies) and **uncertainties** (e.g. availability of low-carbon technologies, fossil fuel prices) of low-carbon transformation. These strategies should **activate political, institutional, legal, economic and social processes** that bring the countries on a long-term trajectory consistent with already existent national policies, development priorities and global climate goals. They are critical **planning tools** that enable the transition in all economic sectors.¹⁶

LONG-TERM CLIMATE COMPATIBLE FINANCIAL PLANNING AND AVOIDANCE OF STRANDED ASSETS

The move towards climate neutrality is likely to reduce the demand for certain resources and international funding opportunities, and to affect companies' exports, e.g. through new production standards. At the same time, the demand for commodities and products needed in low-emission

15 ASEAN Secretariat 2021.

16 ASEAN Secretariat 2021.

economies can substantially increase.¹⁷ In response to these challenges, **LT-LEDS need to outline new ways towards economic growth and prosperity and help avoid lock-in to emissions-intensive energy sources and inefficient technologies.**¹⁸

LT-LEDS should explain how countries will mitigate the risks of stranded assets – investments that lose economic value before the anticipated end of their life – by identifying **which types of investments should be avoided in the near-term**¹⁹ and **directing investments to “future-proof” areas** and technologies that will remain relevant.²⁰

Moreover, LT-LEDS should **include long-term budgeting planning mechanisms** for de-carbonized development pathways.²¹ **However, as of now, only 46% of submitted LT-LEDS state the importance of making financial flows consistent with a pathway towards low-emission and climate-resilient development.**²²

OPPORTUNITY TO ATTRACT FURTHER INVESTMENT

LT-LEDS should **provide early and predictable market signals to domestic as well as international investors** regarding technological trends and long-term development plans²³ and help to **attract additional climate finance**²⁴ from donor funds, multilateral development banks (MDBs) or national funds.

85% of submitted LT-LEDS explicitly referred to finance and / or investment needs for implementing LT-LEDS, with 37% providing a quantification of costs to fulfil the needs and 19% describing

finance needs qualitatively or providing general statements.²⁵ 60% of submitted LT-LEDS identified funding sources for implementing LT-LEDS, such as domestic finance, international support and private finance. The submissions also outlined government efforts to increase finance flows through economic policy, financing mechanisms or financial instruments, such as taxes, levies, fiscal incentives and carbon pricing mechanisms.²⁶

OPPORTUNITY TO FIND SYNERGIES WITH SUSTAINABLE DEVELOPMENT

Linking climate and sustainability objectives can help align efforts and optimise resources to deliver on both agendas, leveraging on synergies and mitigating potential trade-offs.²⁷ LT-LEDS can help simultaneously meet two development goals: reaching net-zero emissions in alignment with Paris Agreement targets and providing net social, economic, and environmental benefits to the people. LT-LEDS should help governments and other stakeholders assess and prioritise climate actions that also can advance development goals by finding synergies between decarbonisation and development goals such as health benefits of avoided automobile crashes and air pollution, conserving biodiversity, saving time due to less congestion²⁸, granting easier access to clean energy or solving food security issues.

17 Ivleva and Månberger 2021.

18 ASEAN Secretariat 2021.

19 Climate Analytics 2022.

20 ASEAN Secretariat 2021.

21 UNDP 2023.

22 UNFCCC 2023a.

23 UNDP 2023.

24 ASEAN Secretariat 2021.

25 UNFCCC 2023a.

26 UNFCCC 2023a.

27 [Moreno](#) et al 2024.

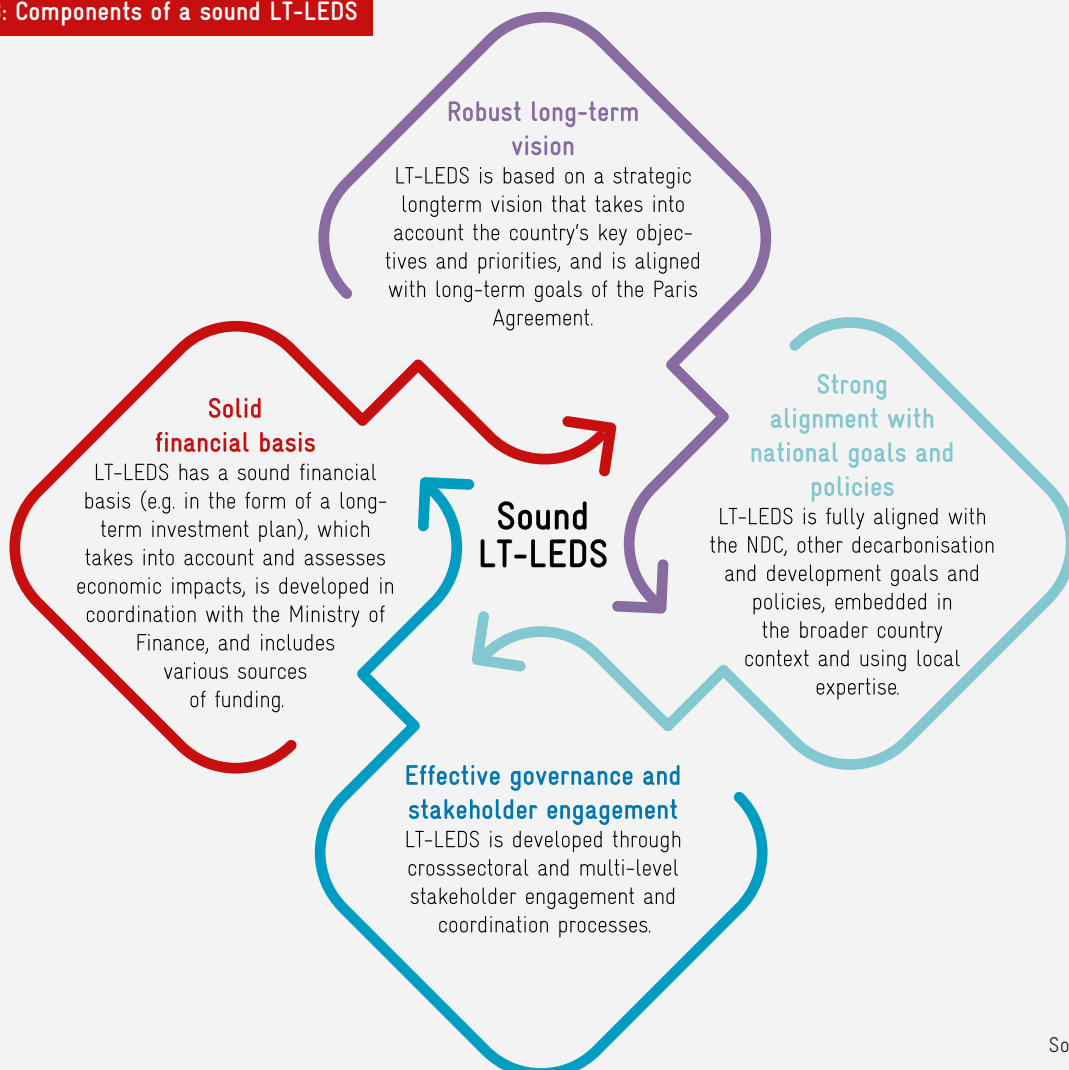
28 IDB 2023.

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COMPONENTS OF A COMPREHENSIVE LT-LEDS

What are crucial components of a sound LT-LEDS? Based on the experience of countries that have already developed their strategies, a comprehensive LT-LEDS needs to 1) be based on a robust long-term vision, 2) be strongly aligned with national objectives and policies, particularly short-term climate policies such as NDCs, 3) have an effective governance structure, stakeholder engagement and coordination processes in place, as well as 4) be based on a solid financial foundation.

Figure 3: Components of a sound LT-LEDS



Source: authors

4.1 ROBUST LONG-TERM VISION

A robust long-term vision includes the social and economic vision of where the country wants and needs to be by the middle of the 21st century **prioritized path of social and economic development**, taking into account the opportunities and threats posed by climate change.²⁹ However, the vision needs to **not only be ambitious but also achievable and shared by all sectors and actors** of the society. The vision should include **an economy-wide quantitative emissions reduction target; transformation pathways** and key milestones (“big picture”) of what should happen in different sectors to reach this target, as well as adaptation targets, and more concrete **measures and action areas** for the medium term.³⁰



In **Georgia**, the carbon neutrality component was not meant to be part of the vision at the beginning but the LT-LEDS eventually included the objective **to achieve carbon neutrality by 2050**. This proved to be a **major success factor to attract attention from international development partners, financial organisations and broader stakeholders** within the country. The LT-LEDS is the first strategic policy document in Georgia with such a long-time horizon.



Nigeria’s Long-term Vision (LTV) 2050 is the visioning approach which represented the preparatory phase for the development of the full Strategy (LT-LEDS). After the adoption of the Climate Change Act (2021), the NDC update (2021) and the Energy Transition Plan (2022), the LTV was replaced with the LT-LEDS 2060 in 2023. This change marked an **upgrade from a rather aspirational vision to a comprehensive framework**, which is **better aligned with other policies and includes a specific target**, setting the new net zero goal for 2060. The Climate Change Act **legalised the net zero commitment** of the country. The vision statement for the LT-LEDS **reflects the raised ambition**: “By 2060, Nigeria will be a country of net-zero emissions across all sectors of its development and climate-resilient with high-growth circular economy in a gender-responsive manner”.



South Africa’s vision statement (“South Africa follows a low-carbon growth trajectory while making a fair contribution to the global effort to limit the average temperature increase, while ensuring a just transition and building of the country’s resilience to climate change”) reflects the country’s mitigation and adaptation priorities, the importance of viability and affordability of climate action and just transition as key part of the vision. By **explicitly linking climate action with social equity and economic development**, South Africa could ensure that its long-term climate vision is inclusive and embedded as **part of a broader development vision and framework** in line with the **National Development Plan (Vision 2030)** that aims to address social inequality, unemployment and eradicate poverty and is an **overarching national policy**.

29 ASEAN Secretariat 2021.

30 ASEAN Secretariat 2021.

On the whole, good practice experience from the countries demonstrates that the LT-LEDS should encompass not just emission reduction targets but a **broader socio-economic development vision** that acknowledges and integrates the challenges and opportunities posed by climate change, is **grounded in climate science** and **aligned with Paris Agreement goals**.

4.2 STRONG ALIGNMENT WITH NATIONAL GOALS AND POLICIES

Without explicitly linking the country's long-term vision with specific targets and actions in the short and medium term, LT-LEDS run the risk of becoming a **visioning exercise that is not mainstreamed into policy and implementation** planning.³¹

ALIGNMENT OF NDCS AND LT-LEDS

LT-LEDS need to set the **long-term trajectory for the NDCs to be placed on it**.³² Updated NDCs need to provide concrete answers to the question of **how exactly the long-term objectives will be achieved in the short to medium term**.³³ Working back from long-term targets may be the way to amend near-term policies and investments over time to reach the needed emissions reductions to meet Paris Agreement goals. In practical terms, countries can ensure the **coherence of thematic areas, data sets, coverage and targets identified by the country's NDCs and its LT-LEDS; align institutional and governance arrangements** to formulate and implement NDCs and LT-LEDS; and **co-ordinate the periodic revision** of the strategy with the NDC cycles.³⁴ For example, LT-LEDS could also be updated in five-year intervals to inform subsequent NDC submissions.³⁵ What is more, **aligning modelling scenarios and approaches** effectively reduces financial and technical efforts, which is particularly relevant for countries with limited personnel and financial resources.³⁶ NDC revision processes and the development of sectoral strategies and action plans become more streamlined, resource-effective and efficient if they are guided by an LT-LEDS.³⁷



In **Nigeria**, the LT-LEDS and NDC were developed in a similar process with the **same pool of stakeholders**. Although different consultants carried out the technical work, **modelling and data sets were partially aligned** as the same modelling platform and partly the same raw data were used. The LT-LEDS and NDC teams collaborated closely. Nigeria uses the NDC Implementation Framework as a platform to coordinate, mobilise and track progress towards the NDC goals, and is planning a **similar framework to track LT-LEDS progress** to

31 GIZ and NewClimate Institute 2020.

32 [Rocha and Falduto 2019](#).

33 ASEAN Secretariat 2021.

34 [Rocha and Falduto 2019](#).

35 [GIZ and NewClimate Institute 2020](#).

36 GIZ and NewClimate Institute 2020.

37 GIZ and NewClimate Institute 2020.

have an effective overview of the country's progress towards both short- and long-term climate and development objectives. The country is also working to establish a robust **common climate data base** ("Climate Data Centre"). **Such an integrated approach is very useful for saving resources and promoting consistency between short- and long-term policies.** What is more, **local research institutions** carried out the modelling work for the LT-LEDS almost entirely. International development organisations played a critical role in **training local researchers** in macroeconomic modelling, including the impact of different long-term climate policy scenarios on economic growth, job creation, etc. **This approach was one of the key success factors of Nigeria's LT-LEDS as it helped to preserve the technical knowledge within local research institutions and guarantee strong national ownership of the strategy.**



Thailand has made targeted efforts to formulate its LT-LEDS, NDC, National Adaptation Plan (NAP) and other policy documents in a consistent manner. The country's long-term targets – achieving carbon neutrality by 2050 and net-zero GHG emissions by 2065 – serve as an **overarching framework that guides all economic sectors.** In particular, **when the long-term target was adopted, the NDC ambition was raised accordingly** with a new target to reduce GHG emissions by 30 to 40% from the BAU level by 2030. This iterative alignment process also involved updating the Climate Change Act to include the binding long-term target. The National Strategy (2018-2037), which directs Thailand's socio-economic development, also includes climate policy priorities, guiding the mainstreaming of climate considerations into all sectoral development policies. This case exemplifies a best practice in developing a **cohesive LT-LEDS that is not only aligned with other national climate policies but also embedded within the broader socio-economic development framework,** thereby enhancing the synergy between climate action and national development goals.



In 2023, **Rwanda** revised its Green Growth and Climate Resilience Strategy (GGCRS) to serve as its LT-LEDS. The first version was the **basis for the first update of the NDC, while the updated NDC in turn informed the revision** of the GGCRS. The NDC update process will include an **alignment assessment to identify and address gaps in the alignment of content, processes and monitoring procedures** of different climate policies. This assessment will provide recommendations on how to revise the NDC. Following the assessment, sectoral stakeholder consultations are planned to identify specific sectoral interventions that need to be included in the NDC update. Such a thorough continuous alignment process facilitates streamlined and resource-efficient improvements in both the NDC and the LT-LEDS.

ALIGNMENT OF LT-LEDS WITH DEVELOPMENT AND DECARBONISATION GOALS

LT-LEDS are an effective strategic planning tool for governments that needs to be aligned with, build on and enhance existing strategies. LT-LEDS should look at climate policy with a more holistic lens, highlighting **linkages with economic development and other well-being goals.**³⁸ Climate action and progress towards sustainable development are interdependent and mutually reinforcing,³⁹ and

38 [Rocha and Falduto 2019.](#)

39 World Resources Institute 2019.

there is a number of concrete entry points for aligning LT-LEDS with countries' development goals. In particular, long-term strategies could be conceived as sustainable development strategies that put countries on track to **achieve both the SDGs and climate goals in a synergistic way** over time. In addition, mid-century targets should guide short-term planning to **avoid lock-in to unsustainable development pathways**. LT-LEDS need to be based on scenarios that take into account the interactions between **climate and sustainable development challenges**, such as food security, water scarcity, employment opportunities, and economic and gender equity.⁴⁰ What is more, aligning LT-LEDS with other development and decarbonisation goals is crucial for efficiency and consistency reasons and can avoid locking-in investment to carbon-intensive technologies.



In **South Africa**, the National Development Plan and the National Climate Change Response Policy adopted by Government in 2011, has already embedded climate action, built an ideal basis for the LT-LEDS. The Climate Change Response Implementation Plans stipulated in the Climate Change Act 22 of 2024 will support the integration of climate change also being drafted at the sub-national level (provincial and municipal level). The promulgation of the Climate Change Act in July 2024 created a legislative mandate and clearly determined the roles and responsibilities of all national, provincial and local actors in climate policy, also encompassing aspects of just transition including alignment of action across tiers of government. South Africa is also strengthening alignment at the level of monitoring and evaluation through updating the National Climate Change Information System (NCCIS), a web-based platform for tracking progress towards national climate goals. The platform is managed by the Department of Forestry, Fisheries and the Environment (DFFE) and will track mitigation and adaptation action, finance, Article 6 cooperation and just transition work. Efforts like the adoption of the Climate Change Act and the development of a common monitoring system have taken the alignment and harmonisation of all climate and development policies to a new level and facilitated cohesion among them. South Africa has also instituted multilayer governance structure to forge coherence of action at national level.



In **Georgia**, mitigation scenarios and datasets of the LT-LEDS were largely aligned with the 2030 Climate Change Strategy and the National Energy and Climate Plan. The LT-LEDS is meant as an overarching document to inform and be aligned with all future climate, energy and development policies and sectoral strategies. To strengthen the legislative framework, Georgia is developing a Climate Change Law, which confirms LT-LEDS objectives. The law will foresee monitoring progress on the achievement of target indicators set by the NDC and the establishment of an effective Monitoring, Reporting, and Verification (MRV) system. Monitoring would be conducted at the parliament level through new entities – the Parliamentary Council on Climate Change and the Climate Change Consulting Group. Aligning the knowledge and data basis helped to ensure that the LT-LEDS established a comprehensive framework for all climate, energy, and development policies, based on the solid legal foundation provided by the Climate Change Law.



In **Rwanda**, the Ministry of Environment has **sector-specific environment and climate indicators** that are integrated into all sectoral strategies. The Rwanda Environment Management Authority (REMA) is responsible for reporting and compiling progress data on the implementation of climate policies. The results of the **progress reports inform both the NDC and the GGCRS**, indicating where adjustments are needed. In addition, the Ministry of Finance and Economic Planning (MINECOFIN) is responsible for monitoring and evaluation to ensure that there are **no contradictions between different climate-related strategies**. Such **an efficient system allows to track the alignment of and progress on various climate policies**. The country also made efforts to align the GGCRS with the latest national policy documents (Vision 2050, National Strategy for Transformation (NST 1), and the 2nd generation strategy NST 2). By aligning it with the SDGs and regional visions (African Union's Agenda 2063 and East African Community's Vision 2050), it was also embedded in **broader development context**.



In **Peru**, the Framework Law on Climate Change and the related Regulation built a solid foundation for the effective governance structure for all climate policies including LT-LEDS⁴¹. It clearly defined the **responsibilities of all sectoral bodies in determining their respective mitigation and adaptation contributions**, which was a very helpful foundation for LT-LEDS development. The Law also provides for **mandatory technical assistance from the Ministry of Environment to other ministries**, which was used in the LT-LEDS process. Peru's case is successful because its LT-LEDS is built on the **solid governance foundation provided by the Framework Law on Climate Change, aligning mitigation and adaptation contributions across all sectors, and the key role of the Ministry of Environment in providing technical assistance to sectoral stakeholders**.



In **Kazakhstan**, the NDC, LT-LEDS and other climate-related policies such as the updated Concept of Green Economy are developed in close collaboration between the Ministry of National Economy and the Ministry of Ecology and Natural Resources (MENR). **Alignment among them is achieved through the participation of the same experts, the use of the same approaches and scenarios**. In the national planning system of the country, strategies (the LT-LEDS being one of them) are placed at the highest level of policy documents' hierarchy, which implies that **their objectives need to be translated into all lower-level documents**. Kazakhstan is developing an **implementation roadmap** for its LT-LEDS outlining detailed measures until 2030-2035 (aligned with the NDC) and leaving more flexibility for the period between 2035 and 2060, highlighting the main priorities for each sector. Also the NAP, currently being developed by MENR, will be aligned with the LT-LEDS. Kazakhstan's efforts serve as a good practice example of successful LT-LEDS development due to **enhanced alignment of climate policies achieved through the involvement of the same experts, consistent approaches, and the integration of LT-LEDS objectives into all lower-level strategies**.

The alignment between LT-LEDS, NDCs and other related national policies is essential to ensure that long-term climate goals are **integrated into immediate policy frameworks and actions**. Practical steps for synchronising these plans include utilising **consistent data and models, aligning institutional frame-**

41 The National Strategy on Climate Change is being updated to become the LT-LEDS of Peru with a time horizon of 2050.

works, and revising strategies periodically to stay on track with evolving climate objectives. Examples from various countries illustrate successful integrations, where LT-LEDS guide NDC formulations and adjustments, ensuring **coherent and strategic climate action that aligns with broader economic and social development plans**.

4.3 EFFECTIVE GOVERNANCE AND STAKEHOLDER ENGAGEMENT

EFFECTIVE CROSS-SECTORAL AND MULTI-LEVEL COORDINATION

The formulation of LT-LEDS is a complex process involving **cross-sectoral and multi-level cooperation between many stakeholders**. It also requires **good coordination between science and policy** to enable the flow of sound scientific data into policy-making processes.⁴² Such a process requires extensive stakeholder engagement and building upon existing institutional capacities.⁴³ 85% of LT-LEDS submitted highlighted that **effective stakeholder engagement** plays an important role in the planning and implementation processes, as successful economic transformation requires a collective commitment with stakeholders to achieve long-term climate and development goals.⁴⁴



In **Thailand**, the Department of Climate Change and the Environment (DCCE) is the central LT-LEDS coordinating body. It ensures that **all ministries align their sectoral plans with the national climate targets**. **Each ministry has dedicated teams for climate issues**, who meet regularly with the DCCE for efficient coordination and communication. The DCCE provides **essential annual capacity-building activities for staff from other ministries**, which helps maintain expertise and facilitate the onboarding of new staff due to regular rotations. Regular stakeholder consultations, involving inter-ministerial working groups, the Subcommittee on Climate Change Policy and Planning, the National Committee on Climate Change Policy (NCCC) and broader public, are integral to the policy development process. The DCCE plays a crucial role in **compiling and synchronising various sectoral plans** to develop the new NDC Action Plan in line with the LT-LEDS. It is also responsible for targets, implementation plans and tracking progress for the LT-LEDS, NDC and the NAP. The methodologies and models for NDC and LT-LEDS are developed by the same academic staff and well-aligned. **Thailand's case demonstrates a robust institutional structure and fixed coordination procedures for the development and approval of all climate strategies, which were key for the success of its LT-LEDS.**



In **Rwanda**, the **Climate, Environment and Natural Resources Sector (CENR) Working Group**, chaired by the Ministry of Environment, ensures concerted implementation of both the NDC and the GGCRS. The group includes representatives from all relevant line ministries,

42 ASEAN Secretariat 2021.

43 Climate Analytics 2022.

44 UNFCCC 2023a.

affiliated agencies and other key domestic institutions; MDBs, development agencies and other donor institutions; as well as local and international NGOs. The annual **High-Level Policy Dialogue on Green Growth and Climate Resilience**, with all relevant ministries and local governments, has proved effective to monitor the implementation of the GGCRS. The high-level buy-in of the President's Office is extremely important. Rwanda's case is a good practice example because of the **coordinated implementation of the NDC and the GGCRS, strong buy-in and commitment at the highest level and effective cross-sectoral collaboration.**



In **Nigeria**, the Department of Climate Change, part of the Federal Ministry of the Environment, oversaw the LTV and NDC processes and kicked off the LT-LEDS process. In 2021, the Climate Change Act established the National Council on Climate Change (NCCC) as the new lead institution for LT-LEDS and NDCs. The Council is chaired by the President of Nigeria and comprises the heads of relevant ministries, the Central Bank, representatives of local governments, the private sector, Nigerian Youth Congress, National Council for Women Societies, people with disabilities, and environment-related civil society organisations. The technical work is carried out by the Office of the Director-General, which serves as the NCCC Secretariat. **A good practice experience during LT-LEDS development was the establishment of a Steering Committee**, comprising 15 top directors from state administration, and the Technical Working Group (TWG) with technical-level ministry staff and academia. All scenario pathways and key assumptions for the LT-LEDS were discussed in the TWG and approved by the Steering Committee. The assumptions and key documents were discussed with a larger group of stakeholders (around 250 participants with a broad representation of different societal groups and academia) during four online consultation events. At the end, the results were shared with this group during two physical meetings. **Thus, the Department of Climate Change succeeded in organising a broad process to raise awareness, gather valuable feedback and build support.**



In **Jamaica**, the LT-LEDS process is led by the Climate Change Division (CCD) of the Ministry of Economic Growth and Job Creation. Through a **multi-stakeholder committee on LT-LEDS**, the CCD collaborated with other ministries, National Environment and Planning Agency, Jamaica Public Service Company (main utility provider), different universities, organisations providing technical and vocational education and training, independent power producers, renewable energy producers, and financial institutions. **A good practice experience was the involvement of the Climate Change Advisory Board**, which is a **multi-stakeholder coordination mechanism** providing guidance and support to the government on climate issues. The Board meets on a quarterly basis and consists of academia, private sector, civil society (e.g. Jamaica Conservation and Development Trust), Caribbean Community (CARICOM) youth ambassador and government representatives. It discusses activities identified in the NDC, LT-LEDS and other climate policies. At the start of the LT-LEDS process, **feedback sessions were held with academia, the private sector, and international development partners**. Later, **four validation sessions**, both in-person and virtual, were conducted in different cities with stakeholders, including youth, private sector, local governments, and NGOs. Following these, **external consultants trained ministry experts** on LT-LEDS tools. **Jamaica's case is a**

good example of an inclusive and multi-stakeholder approach for LT-LEDS development, **with regular feedback sessions and validation workshops that ensured broad engagement, while training ministry experts on LT-LEDS tools helped preserve national ownership and expertise.**



In **Georgia**, the LT-LEDS was one of the first policies developed in close coordination between the Ministry of Environmental Protection and Agriculture, which is formally leading the LT-LEDS process, and the Ministry of Economy and Sustainable Development responsible for energy policy. **Groups of experts for each particular sector** were formed to develop sectoral strategies for the LT-LEDS including not only government but also non-governmental sectoral specialists. The **outcomes of the sectoral work were streamlined** by the leading team. Another good practice are the efforts **to build local knowledge and ownership** of climate policy processes by granting more responsibilities to the Environmental Information and Education Center, which is the main executive agency in the area of climate change, although its personnel capacities remain limited. The inter-governmental agency – Climate Change Council, the high-level body chaired by the Minister of Environmental Protection and Agriculture – plans to oversee LT-LEDS implementation. All in all, Georgia's LT-LEDS development is a good practice example due to its **collaborative cross-ministerial approach ensuring integration across key sectors, efforts to build local knowledge and ownership through locally driven capacity building, as well as strong high-level oversight** for LT-LEDS implementation.



In Kazakhstan, the initial idea that the LT-LEDS should be led by MENR was changed as the strategy deals with key questions of economic development. Consequently, the Institute of Economic Research under the Ministry of National Economy was chosen to lead the process. To develop the LT-LEDS, Kazakhstan established a Working Group consisting of around 90 organisations, in particular, national and local governmental institutions, large private sector companies, international technical and financial partners, sectoral organisations, local and international experts. The Working Group held 170 offline and online meetings, organised by topic areas. **An approach that worked really well was gathering the information on decarbonisation targets and capacities from particular stakeholder groups (e.g. large companies)** and holding separate negotiations with each group to discuss LT-LEDS objectives and planned activities. **This was essential for securing broad-based support for the strategy from key stakeholder groups.**



At the beginning of the LT-LEDS process in **Peru**, a **society-wide approach** was used to identify the main LT-LEDS objectives, challenges and potential solutions discussed in a series of workshops organised through the National Commission on Climate Change. This Commission comprises governmental and non-governmental stakeholders (academia, worker unions, youth, civil society). These workshops resulted in setting the net zero goal for 2050. At the second stage, it was determined how public institutions could help achieve this objective and **what the different sectors could realistically contribute** to deliver on mitigation and adaptation goals. **A good practice example was the existence of climate focal points within all ministries involved in the LT-LEDS process**, with the Ministry of En-

vironment providing technical support to them. Dedicating **certain people within the lead ministry to work exclusively on LT-LEDS** was important for keeping the complex LT-LEDS process under control. On the whole, **Peru's case demonstrates how the LT-LEDS process can successfully be organised in a bottom-up way.**



South Africa has fixed inter-governmental and multi-level mechanisms (e.g. working groups) and public consultation processes in place that were used in LT-LEDS development. **Provinces and municipalities** will play an important role in LT-LEDS implementation, which is why DFFE is investing efforts in providing them with information, supporting them in conducting climate needs assessments, calculating funding needs and developing response implementation plans to enhance their readiness to comply with the Climate Change Act and implement the LT-LEDS. The lead institution on LT-LEDS and NDC work is the DFFE but close collaboration with the Presidential Climate Commission (PCC), an advisory group of 25 climate experts with various backgrounds, which will become a full-fledged public agency under the Climate Change Act, plays a crucial role in providing policy advice to the government. DFFE provides input and support to PCC work on a regular basis. PCC also leads the implementation of the Just Energy Transition Investment Plan (JET-IP). South Africa's LT-LEDS development is a good practice example due to its **well-established inter-governmental and multi-level mechanisms**, such as working groups and public consultation processes, **ensuring broad collaboration across national, provincial, and municipal levels. The efforts to support local governments will ensure LT-LEDS implementation readiness, and close interlinkages with the Just Transition process that underscore the country's integrated and inclusive approach.**

INVOLVEMENT OF THE PRIVATE SECTOR

Involving the private sector in the LT-LEDS process is crucial for several reasons. First, the private sector **plays a significant role in driving the economic transition to a low-carbon future**, particularly in sectors such as energy, industry, and transportation, which are responsible for a large share of emissions. By including private companies early in the LT-LEDS process, governments can gather valuable insights on the **feasibility of decarbonisation measures**, leverage **private investment**, and ensure that the strategies align with market realities. Moreover, engaging the private sector can accelerate investments in green technologies and infrastructure, reducing the financial burden on the public sector. The involvement of private actors is also vital in redirecting capital from high-carbon to low-carbon industries, which is essential for **avoiding stranded assets and ensuring the financial sustainability** of the transition.



Kazakhstan engaged major private companies early in the process through a series of stakeholder dialogues. These dialogues, focused on decarbonisation targets and sector-specific issues, helped align the country's strategy with the capacities and expectations of the private sector. This collaboration was key to building support for the LT-LEDS, ensuring that large companies, responsible for substantial emissions, were committed to the strategy's objectives. Moreover, the discussions covered pressing macroeconomic issues, risks, and potential solutions, which made the LT-LEDS not only a climate policy but also

a plan with economic benefits for the private sector. **Kazakhstan's LT-LEDS process is thus an excellent example of how private sector involvement can strengthen the LT-LEDS.**

Overall, LT-LEDS formulation is a complex and multifaceted process requiring effective cross-sectoral cooperation, extensive stakeholder engagement, and seamless integration between scientific data and policymaking. Country examples underscore the importance of having **robust institutional structures** for coordinating national climate strategies. Moreover, the process benefits significantly from having a **continuous engagement of all relevant stakeholders**, including government sectors, NGOs, and the private sector, to ensure the collective commitment necessary for achieving long-term climate and developmental goals.

4.4 SOLID FINANCIAL FOUNDATION

INVOLVEMENT OF MINISTRY OF FINANCE

In order to make the LT-LEDS **more attractive for private and public investment and more financially viable**, it is necessary to involve financial actors (national and international, private and public financial institutions, bilateral donors, MDBs) at an early stage – already in the visioning phase. In addition to providing general information on what their current funding priorities are and what they are likely to fund in the future, concrete suggestions on how the strategy should be designed to attract investment (e.g. breaking down the LT-LEDS into specific policies) can be beneficial. Financial institutions must not dictate the terms, but their recommendations seem to be very useful in practice. The involvement of government financial institutions, such as ministries of finance or treasuries, in discussions is particularly useful in LT-LEDS development.⁴⁵ It is essential to undertake multi-stakeholder consultations and include different sectoral ministries, including the ministry of finance, to ensure **the whole-of-government buy-in**. Government entities need to be involved throughout the process, from the strategic visioning and modelling up to implementation, as well as in the LT-LEDS review process.⁴⁶ In order to build a solid financial foundation for their LT-LEDS, countries take various measures such as costing their LT-LEDS, developing **sustainable finance taxonomies, climate budget tagging and incorporating climate risk and transitional risk assessment** into national budgeting. Considering macroeconomic implications in LT-LEDS development can also support in creating realistic, implementable and investable policies.



In **Rwanda**, MINECOFIN uses mandatory **checklists** for all sector and district budgets to include climate indicators in sectoral strategies and annual action plans. In addition, there are environment and climate **monitoring statements** for ministries, central and district public agencies to explain how its budget integrates climate indicators ("**climate budget tagging**"). MINECOFIN tracks climate finance flows using a centralized tracking system for public spending. A complementary tool for tracking non-public finance is under development as

45 ASEAN Secretariat 2021.

46 I4CE 2022.

part of the climate budget tagging effort. Rwanda's case illustrates the establishment of **an effective financial foundation for the LT-LEDS through building a robust framework to integrate climate change into planning and budgeting** developed by the National Development Planning and Research Department of MINECOFIN.



In **Georgia**, the Ministry of Finance has been involved in the development of LT-LEDS and other climate policies. It started **climate budget tagging** in 2023, supported by the World Bank. The National Bank of Georgia developed a **sustainable finance taxonomy**, which is planned to become obligatory for local banks in the future. **Financial planning with climate policy is thus integrated from the outset. Climate budget tagging enables effective tracking of climate-related spending**, while the **sustainable finance taxonomy reinforces the commitment to redirect financial flows towards low-carbon investments**, enhancing the overall financial viability and long-term success of the LT-LEDS.



In **Jamaica**, the Ministry of Finance had to issue a letter of no objection for the LT-LEDS. From the very beginning, it was involved in the process and well-aware of the long-term commitments. The Ministry of Finance is also involved in the development of the LT-LEDS investment plan. **Costing of the investment needs up to 2050** was conducted but the initial estimations are being refined to be included in the investment plan. **Jamaica's case demonstrates strong government coordination, particularly through the early and active involvement of the Ministry of Finance, and a well-planned, financially sustainable approach to long-term climate action, securing the long-term financial foundation for the LT-LEDS.**



In **South Africa**, the Ministry of Finance (National Treasury) together with the DFFE are responsible for implementing the Climate Change Act, and the LT-LEDS as its integral part. Moreover, the National Treasury is leading the work on the **development of the climate finance tagging for tracking public climate expenditures**, which will be key for tracking progress on LT-LEDS. South Africa is also institutionalizing the climate finance taxonomy to define sustainable finance in South Africa. The taxonomy contains technical indicators for climate change mitigation and adaptation, as well as contain placeholders for biodiversity. South Africa's case shows how **climate policy can be integrated with financial governance, securing strong institutional backing and ensuring that financial resources are aligned with the LT-LEDS goals and supporting long-term implementation.**



In **Peru**, one of the success factors for more active engagement of the Ministry of Economy and Finance on climate change topics including the LT-LEDS was the **participation of the country in international climate alliances** such as the San Jose Principles Coalition, planned OECD membership and bilateral cooperation on climate change. **The involvement of the Ministry of Economy and Finance in international cooperation on climate topics was therefore a good practice experience to ensure the alignment of the LT-LEDS with both global climate objectives and Peru's long-term economic goals.**

DEVELOPMENT OF LONG-TERM INVESTMENT PLAN

Long-term planning enables climate impacts to be **built into all major investment decisions**. Valuable information that the LT-LEDS should contain includes **estimates of the total cost or level of investment** required to implement key activities, **resource mobilisation plans, envisaged financing mechanisms and potential sources of funding**.⁴⁷ By setting long-term priorities, LT-LEDS enhance policy and regulatory **certainty for investors**, encouraging financial flows **from the private sector**. Setting a vision for the investments needed to implement the LT-LEDS and clearly defining priority areas for investment increases financial stability. In addition, LT-LEDS help governments develop **robust project pipelines**.⁴⁸ Providing the private sector with a **clear long-term signal** can improve conditions for private sector climate investment. A credible long-term vision provides clarity on the future framework for private actors to make their investment decisions, thereby accelerating climate action while relying less on government budgets.⁴⁹ Investors need **long-term country-specific data** to reduce uncertainties concerning the alignment of their investments with the Paris Agreement. A lack of such data may act as a barrier for investors to assess the alignment of their projects with Paris Agreement objectives.⁵⁰ The LT-LEDS development process should either include or initiate the development of an investment plan within a shorter timeframe, for which investment projections are possible (e.g. 5–10 years).⁵¹



In **Jamaica**, LT-LEDS investment plan will include the information on the amounts of funding needed from the government, the private sector and international development partners, and necessary types of financial instruments. The plan is developed by the Climate Change Division and will need approval from the Ministry of Finance and the Private Institute of Jamaica, which is responsible for planning. Based on its experience, Jamaica's experts recommend **developing the investment plan simultaneously with LT-LEDS** to provide more specific input such as estimations of investment needs to the Ministry of Finance from the outset to ensure **more accurate cost estimations and better integration of financial needs** into the LT-LEDS. Jamaica's case demonstrates **the development of a comprehensive investment plan that clearly outlines the funding required from the government, private sector, and international development partners, along with the necessary financial instruments**.



The **Rwanda Green Fund (FONERWA)** and the Development Bank of Rwanda (BRD) launched the **Rwanda Green Investment Facility** (also known as IREME Invest) to support and attract private sector investment. FONERWA provides grants to green public projects through the NDC Facility. Since the 2023 revision of the National Investment Policy, all investments must demonstrate how they address Rwanda's climate resilience needs. **FONERWA has proved to be an effective mechanism to manage domestic and international climate finance flows for both the NDC and the GGCRS**.

47 Climate Analytics 2022.

48 Rocha and Falduto 2019.

49 GIZ and NewClimate Institute 2020.

50 I4CE 2022.

51 I4CE 2022.



South Africa has started the process of developing the net zero roadmap and investment plan, which will be part of the updated LT-LEDS. While the first version of the LT-LEDS was focusing on the building blocks of the long-term transition, the revised version will pay much more attention to the aspects of **on-the-ground implementation and the roles of actors** that need to be involved. South Africa's case illustrates **a strategic evolution from high-level planning to detailed, actionable steps through the development of a net-zero roadmap and investment plan**. This shift toward on-the-ground implementation ensures that the strategy is not only visionary but also **realistic and operational**, enhancing its potential for achieving net-zero emissions and broader climate goals.

LEVERAGING INTERNATIONAL FINANCE

LT-LEDS should enable **access to international climate finance** by demonstrating country **ownership and commitment to achieving the goals of the Paris Agreement and sustainable development**. There is growing interest from international bilateral and multilateral agencies to support the development of LT-LEDS.⁵² **MDBs and other international financial institutions** have an interest in well-developed and robust LT-LEDS that transparently outline countries' climate ambition and investment project pipelines in line with the Paris Agreement's goals.⁵³ A new **Joint MDB LTS Program**, hosted by the World Bank, is being launched to coordinate support to countries and sub-national entities for the formulation of LT-LEDS.⁵⁴ Development finance institutions have recognised that an LT-LEDS can be the basis for an investment plan as long as it covers sectoral priorities, near-term projects to be implemented, and different funding sources that could be mobilised.⁵⁵ When feasible, including preliminary estimates of financial support needed in LT-LEDS is very useful to send out **signals to donor countries and financial institutions** to attract investment and support. The transparent and stable rule of law, clear and defined targets and stability of climate-related support policies as well as increased level of ambition would positively influence the ability to mobilise domestic and international public and private climate finance.⁵⁶



In **Jamaica**, **separate information sessions for international development partners** (e.g. Inter-American Development Bank, European Union) were organised to get their comments and feedback at the beginning of the LT-LEDS process. They expressed keen interest in the activity pipeline included in the draft strategy. Technical and financial support for LT-LEDS development was of paramount importance for Jamaica. Partners such as World Bank, 2050 Pathways, NDC Partnership, Vivid Economics and Climate Analytics substantially contributed to the development of the first technical draft and later on the full-fledged LT-LEDS. A key to success was the fact that development partners paid particular attention to the actual needs of the country. They helped to develop policy documents that now inform many other policies and strategies. Jamaica's case shows how international development

52 Climate Analytics 2022.

53 GIZ and NewClimate Institute 2020.

54 [COP28 Multilateral Development Banks \(MDB\) Joint Statement](#).

55 I4CE 2022.

56 [Rocha and Falduto 2019](#).

partners can actively be engaged from the outset, and **how international support can be aligned with the country's specific needs, resulting in an LT-LEDS document, which influences broader national strategies and policies**, ensuring relevance and practical implementation.



In Peru, 2050 Pathways Platform and the Inter-American Development Bank provided important **support for LT-LEDS development by financing a study analysing possible technical and economic preconditions for reaching net zero**, which served as a basis for the LT-LEDS mitigation component. The study was conducted jointly by the Universidad del Pacífico in Lima and the University of Costa Rica, the latter already having experience in LT-LEDS modelling. This exercise helped **building the local expertise and LT-LEDS knowledge and strengthened regional cooperation on climate issues**. Peru is currently working on its **Climate Finance Strategy, which identifies key barriers for accessing more national and international public and private finance and strategic actions to overcome those barriers**. While the institutional framework in the area of climate policy is well-developed, implementation of climate action in Peru remains challenging, **which is why the Climate Finance Strategy will be key for LT-LEDS implementation on the ground**.

Financial planning and engagement play a critical role in the development and, most importantly, implementation of LT-LEDS. Case studies highlight the importance of involving key financial stakeholders, including **ministries of finance, national and international financial institutions, and private and public investors, early in the planning process** to ensure the financial viability and attractiveness of these strategies for investment. Such involvement not only helps in **aligning the financial planning with actual funding priorities, future investment potentials and broader economic policies** but also ensures **whole-of-government buy-in** through multi-stakeholder consultations. Specific examples from countries illustrate practical approaches to integrating climate considerations into budgeting and planning processes, such as **climate budget tagging and the development of investment plans** that outline financial needs and mechanisms. This comprehensive financial integration aids in setting realistic, implementable policies and **leverages both domestic and international funds** to support long-term climate and development goals effectively.

5

COUNTRY HIGHLIGHTS AND REPLICATION POTENTIAL



GEORGIA'S LONG-TERM LOW EMISSION DEVELOPMENT STRATEGY

Georgia's experience with its LT-LEDS 2050 demonstrates the **importance of a strong team of experts to lead the process**, which is very challenging to manage due to a wealth of incoming information and feedback from various stakeholders that needs to be consolidated. Another highlight was dividing the LT-LEDS work into **sectoral expert working groups** and combining the results of this work at a later stage. The LT-LEDS is seen as an overarching document to inform and be aligned with all future policies and sectoral strategies adopted by the government. Including the carbon neutrality component as an ultimate objective proved to be a major success factor to attract the attention of financial institutions as well as domestic stakeholders. Additional drivers for LT-LEDS development were Georgia's commitments under the EU-Georgia Association Agreement signed in 2014 and the Regulation on the Governance of the Energy Union and Climate Action of the Energy Community.⁵⁷



JAMAICA'S STAKEHOLDER ENGAGEMENT PROCESS ENSURES BROAD BUY-IN FOR LT-LEDS

Jamaica's experience with its Long-Term Emissions Reduction and Climate-Resilience Strategy for 2050 illustrates the success of a **well-organised stakeholder engagement process with a strong leadership** of the Climate Change Division, involvement of all key stakeholders through a multi-stakeholder committee on LT-LEDS and valuable guidance from non-governmental actors provided by the Climate Change Advisory Board. Initial information sessions for specific stakeholder groups, four validation sessions for all stakeholders and trainings on

LT-LEDS tools for government officials provided by international experts helped to gather substantial feedback, preserve ownership of the technical knowledge and make the strategy a working document. One of the lessons learnt from Jamaica is the recommendation to **develop the investment plan simultaneously with LT-LEDS** in order to provide specific calculations of investment needs to the Ministry of Finance early on. Last but not least, buy-in and clear commitment at the highest level, in Jamaica's case, a mandate from the Cabinet, was key to pro-actively move forward in the LT-LEDS process.



KAZAKHSTAN'S MULTI-STAKEHOLDER COLLABORATION DRIVES CARBON NEUTRALITY STRATEGY

Kazakhstan's experience with its Strategy on Achieving Carbon Neutrality by 2060 demonstrates **successful collaboration** between the Ministry of National Economy, leading the LT-LEDS process, and the MENR on aligning the approaches to develop climate policy documents. Placing the LT-LEDS at the highest (strategic) level of the documents' hierarchy was key to ensure that its **objectives are translated into all policies** and action plans. **Separate dialogues** on macroeconomic questions of LT-LEDS with each group of stakeholders (particularly large companies), which also covered current pressing issues, risks and potential solutions were extremely practical and helpful to build solid support for the strategy. Finally, the **information campaign** targeting all stakeholders focusing on LT-LEDS objectives and the rationale behind it was key to gain acceptance and get prepared for the dialogue on step-by-step implementation of the strategy, not only at the national but also at the regional and local level.



NIGERIA'S LOCALLY-LED EXPERTISE AND CONSULTATION PROCESS TAILORS LT-LEDS TO NATIONAL NEEDS

Nigeria's LT-LEDS 2060 development process highlights the **critical role of a succinct long-term vision**, based on extensive consultations across different ministries and agencies. The stakeholder engagement process brought together representatives from the government and different societal groups to increase transparency and gather comprehensive feedback. **Leveraging local expertise** was crucial, with Nigerian researchers leading the modelling work and receiving training in macroeconomic modelling from international organisations. This approach not only built local capacity, but also ensured that the strategies

were **tailored to Nigeria's specific context**, providing a replicable model for other countries.



PERU'S BOTTOM-UP APPROACH AND SOLID GOVERNANCE STRUCTURES ENSURE BROAD PARTICIPATION

The experience of Peru's National Strategy on Climate Change to 2050 illustrates the success of a **bottom-up LT-LEDS process starting with a whole-of-society approach** to determine the key long-term objectives, and later on engaging with public institutions and sectoral actors to identify what they can realistically commit to in order to achieve the desired objectives. Another **key success factor was a solid governmental structure established by the Framework Law on Climate Change** and other national climate policies, owing to which sectoral ministries and other national and subnational public entities already had climate commitments and did not question their involvement in the LT-LEDS.



RWANDA INTEGRATES CLIMATE CONSIDERATIONS INTO BUDGETING FOR GREEN GROWTH

Rwanda's Green Growth and Climate Resilience Strategy 2050 development process highlights the **importance of integrating climate considerations into budgetary processes**, which enables more substantial flows of finance to green projects. Countries can replicate Rwanda's experience by integrating climate considerations into planning and budgeting processes, using checklists and mandatory climate budget tagging for different sectors and subnational entities. Sector Working groups were established as multi-stakeholder coordination mechanisms providing a platform for coordination of planning, implementation and monitoring. **Regular assessments** and stakeholder consultations identify gaps, strengths, and necessary adjustments in climate strategies. Finally, **creating centralised systems to manage and track climate finance**, encouraging private sector investment, and ensuring all investments address climate resilience needs, are a good practice on aligning funding structures.



SOUTH AFRICA'S LT-LEDS EMBEDDED IN BROADER DEVELOPMENT CONTEXT DRIVES POLICY ALIGNMENT

Key factors determining the success of South Africa's Low Emission Development Strategy 2050 adoption were the strategy being **deeply embedded in the country's development context** (e.g. through the National Development Plan) and explaining climate policy objectives in the broader context of SDGs (highlighting that climate change has a direct effect on development) in the communication with stakeholders and general public. The **Climate Change Act** built a brilliant foundation for aligning and harmonising all existing and future climate and development policies and regulations, showing a clear direction of travel and orchestrating many different players that will be involved in LT-LEDS implementation. Finally, a good practice was a very **transparent consultative process** to get feedback on specific issues from line departments, academia, industry and NGOs and the broader public, which was crucial to integrate all the different perspectives.



THAILAND'S COORDINATED INSTITUTIONAL STRUCTURE FACILITATES LT-LEDS ALIGNMENT ACROSS SECTORS

Thailand's Long-term Low Greenhouse Gas Emission Development Strategy 2065 approach illustrates how effectively a **central coordinating body**, like the DCCE, can ensure alignment and coherence across various climate-related policy documents and sectoral plans. **Clear institutional processes** and stakeholder involvement at multiple levels facilitate political consensus. The benefits of continuous capacity building and the inclusion of financial planning in the early stages of LT-LEDS development are also evident from Thailand's case.

6

CHECKLIST OF THE COMPONENTS OF A SUCCESSFUL LT-LEDS

Summarising the good practice country experience, this knowledge product presents a checklist of LT-LEDS components that can be used by government officials and experts. The checklist outlines the core components necessary to develop and implement a successful and effective LT-LEDS.

ROBUST LONG-TERM VISION

Set an economy-wide emissions reduction target by mid-century.

Develop clear transformation pathways and key milestones for different sectors.

Determine mid-century adaptation targets.

Include concrete measures for the medium term (e.g. 2030) and broader sectoral pathways for the long-term period (e.g. 2050) in the LT-LEDS document.

Ensure that the vision is grounded in climate science and aligned with the Paris Agreement goals.

Ensure that the vision is aligned with the country's key development objectives and priorities.

STRONG ALIGNMENT WITH NATIONAL GOALS AND POLICIES

Check the formulations of NDCs and LT-LEDS to ensure that they are coherent in terms of thematic areas, coverage and targets.

As far as possible, ensure the alignment of institutional and governance arrangements for the NDC, LT-LEDS and other national climate policy documents (e.g. through participation of the same team of experts or close collaboration between expert teams).

Align the knowledge basis, scientific approaches, scenarios and use the same data as far as possible for the NDC, LT-LEDS and other climate policy documents.

Ensure that the LT-LEDS is aligned with national economic and social development and other well-being goals, including SDGs, and communicate these benefits to the stakeholders throughout the LT-LEDS process.

Ensure that the LT-LEDS is based on scenarios that consider the interactions between climate and sustainable development challenges (e.g. food security, water scarcity, employment opportunities, and economic and gender equity).

Ensure that the LT-LEDS is streamlined with sectoral strategies and action plans.

Update the LT-LEDS periodically in alignment with NDC cycles.

Establish a robust MRV / monitoring and evaluation (M&E) system to track progress on LT-LEDS objectives, which is aligned with monitoring systems for the NDC and other national climate policies.

EFFECTIVE GOVERNANCE AND STAKEHOLDER ENGAGEMENT

Establish a robust institutional structure for LT-LEDS development with a dedicated team within the lead institution in charge of coordinating the whole process.

Determine clear procedures (e.g. through a work plan and timeline) for cross-sectoral and multi-level collaboration between stakeholders (which stakeholders contribute to the LT-LEDS process at which stage and which format is best suited for their contributions).

Ensure continuous stakeholder engagement throughout the development and validation phases.

Ensure a whole-of-nation approach in LT-LEDS development by engaging various groups of society: national, regional and local governments, sectoral experts, academia, the private sector, financial institutions and donors, civil society organisations, local communities and vulnerable groups.

Enhance institutional capacities of ministry staff to preserve country ownership and knowledge of LT-LEDS topics by e.g. organising trainings from external consultants or the lead ministry for government officials from other sectoral ministries.

Ensure that every relevant ministry has a climate or environment focal point aware of the LT-LEDS process.

Ensure that if external consultants are involved for technical support, the technical knowledge is preserved within local institutions (e.g. through thorough project documentation, capacity building and knowledge sharing activities).

Develop an operationalisation plan focusing on governance aspects, defining which institutions and in which way will be involved to ensure smooth LT-LEDS implementation on the ground.

SOLID FINANCIAL FOUNDATION AND SUBSEQUENT LT-LEDS IMPLEMENTATION

Involve financial actors such as ministries of finance or treasuries and international, private and public financial institutions, bilateral donors, MDBs at an early stage (already in the visioning phase).

Develop a credible long-term investment plan outlining key funding strategies from international and national, public and private sector actors.

Integrate climate considerations into national budgeting and planning processes (e.g. through climate budget tagging) for better tracking of financial flows and investment needs.

Communicate the long-term vision and funding priorities transparently to the investors.

As far as possible, make concrete cost estimations for every sub-sector, policy or each planned activity area within the LT-LEDS.

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