WORLD RESOURCES INSTITUTE

CLIMATE PROMISE UNDP
A SAFE AND SUSTAINABLE FUTURE THROUGH BOLD CLIMATE ACTION

QUALITY ASSURANCE CHECKLIST

# For Long-Term Low Greenhouse Gas Emission Development Strategies

This quality assurance checklist aims to support governments, civil society and other stakeholders during the design, review and revision of Long-Term Low Greenhouse Gas (GHG) Emission Development Strategies (LTSs). The checklist provides a set of guiding questions to be considered when assessing the quality of an LTS, including underlying processes and supporting transformative LTS planning. The guiding questions are organized into three categories: Country Ownership and Inclusiveness; Robustness and Ambition; and Feasibility.

For quick reference of the user, the **Top 3 Questions** that explore priority considerations for each section have been highlighted. Since LTS are country specific, it is understood that there is no one-size-fits-all template, so subsequent questions beyond the Top 3 may be equally important for some users. This checklist is to be used for reference and as a guide; however, it **does not** imply LTS or underlying processes are expected to respond to each component covered in the questions.

The Paris Agreement indicates that all parties should strive to formulate and communicate to the UNFCCC Secretariat mid-century LTS. These strategies have great potential to guide countries on a path to limit global temperature warming to 1.5 - 2°C by the end of the century while ensuring that climate plans align with efforts to pursue strong, sustainable, balanced and equitable growth. Many countries have experience in planning over the short and medium terms, e.g., with processes that established original and updated NDCs and Low Emissions Development Strategies (LEDS), and an LTS development process offers the opportunity of highlighting, promoting and re-visiting previous strategies.

Many countries are also pledging Net Zero or Climate Neutral commitments, as part of, or in addition to responding to the Paris Agreement call for submission of LTS, and subnational governments and companies are pledging similar commitments as well. Both Net Zero and Climate Neutral commitments focus upon reducing GHG emissions as well as removal of GHGs from the atmosphere. Together, LTS and Net Zero / Climate Neutrality commitments play a key role in shaping the global climate change trajectory, guiding short- and medium-term development and climate action.

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# 1. COUNTRY OWNERSHIP AND INCLUSIVENESS

This section focuses on efforts to strengthen country ownership through an inclusive engagement process, taking a whole-of-government approach, and engaging across society in the design and implementation of the enhanced NDC. Key considerations include:

## 1.1 MANDATE AND PLANNING

| | | Yes | No | Partially | N/A |
|---|---|---|---|---|---|
| 1. | Is there a national mandate to establish an LTS? | ◯ | ◯ | ◯ | ◯ |
| 2. | Are LTS and Nationally Determined Contribution (NDC) processes and key aspects mutually reinforcing, and do these climate planning documents guide the formulation of one another? | ◯ | ◯ | ◯ | ◯ |
| 3. | Are linkages drawn between the LTS and relevant development goals such as SDGs including poverty reduction and the creation of decent work and quality jobs, and COVID-19 recovery? | ◯ | ◯ | ◯ | ◯ |
| 4. | Does the vision and content of the LTS consider all appropriate national, sectoral and/or sub-national data and models such as current GHG emission levels? | ◯ | ◯ | ◯ | ◯ |
| 5. | Does the LTS consider all appropriate plans, policies and strategies? | ◯ | ◯ | ◯ | ◯ |
| 6. | Are the goals within the LTS embedded into a legal or regulatory framework or are future legal frameworks being considered? | ◯ | ◯ | ◯ | ◯ |
| 7. | Are there clearly defined responsibilities such as an empowered central entity responsible for leading LTS development and its implementation? | ◯ | ◯ | ◯ | ◯ |
| 8. | Does the LTS consider the synergies between mitigation and adaptation efforts? | ◯ | ◯ | ◯ | ◯ |

**COMMENTS (Mandate and Planning Section):**

## 1.2 ENGAGEMENT AND INCLUSIVENESS

| | | Yes | No | Partially | N/A |
|---|---|---|---|---|---|
| 1. | Is government support for the LTS secured at the highest level with cross-government support to deliver? | ◯ | ◯ | ◯ | ◯ |
| 2. | Is broad engagement conducted with key ministries, departments and agencies of government, including planning and budget ministries and institutions involved with LTS implementation? | ◯ | ◯ | ◯ | ◯ |
| 3. | Have a diverse group of stakeholders (including sub-national governments, the private sector, financial sector including central banks and finance institutions, civil society organizations, sectoral experts, academia and vulnerable and marginalized groups such as indigenous peoples) played an active role in developing and reviewing the LTS? | ◯ | ◯ | ◯ | ◯ |
| 4. | Is the stakeholder engagement process transparent to help stakeholders understand the goals and impacts of the LTS and how their input was incorporated? | ◯ | ◯ | ◯ | ◯ |
| 5. | Is a communications strategy (including a press release) incorporated to target awareness raising, advocacy efforts and/or education related to the LTS? | ◯ | ◯ | ◯ | ◯ |
| 6. | Are stakeholder engagement processes strategically designed to ensure those most impacted by the implementation of the LTS vision are meaningfully contributing to the LTS? | ◯ | ◯ | ◯ | ◯ |
| 7. | Does the LTS include measures to enhance gender equality and women's economic empowerment and leadership? | ◯ | ◯ | ◯ | ◯ |
| 8. | Does the LTS address the needs and roles of youths and vulnerable populations including indigenous and ageing populations? | ◯ | ◯ | ◯ | ◯ |
| 9. | Has international cooperation been secured to share lessons and collaborate? | ◯ | ◯ | ◯ | ◯ |

**COMMENTS (Engagement and Inclusiveness Section):**

## 1.3 MONITORING AND REVIEW

| | | Yes | No | Partially | N/A |
|---|---|---|---|---|---|
| 1. | Are data (including GHG emissions), indicators and methodologies specified to track progress over time in a transparent manner and encouraging accountability? | ○ | ○ | ○ | ○ |
| 2. | Does the LTS include a continual review and revision process with a clear objective, designated frequency and method to ensure this remains evidence based and guided by the best available science? | ○ | ○ | ○ | ○ |
| 3. | Does the country have a monitoring framework, including frequency and method, and a designated authority to assess progress of LTS implementation? | ○ | ○ | ○ | ○ |
| 4. | Is there a set duration and frequency for monitoring the LTS, and is the LTS monitoring cycle aligned with the 5-year NDC cycle? | ○ | ○ | ○ | ○ |
| 5. | Are there ministries, agencies or independent bodies identified that are responsible for the monitoring and review process, including collecting, compiling and analyzing data? | ○ | ○ | ○ | ○ |
| 6. | Are required resources (e.g., technical, financial) for the review and revision process specified and sources identified? | ○ | ○ | ○ | ○ |
| 7. | Is the review process aligned with other domestic or international processes, including the NDC revision cycle? | ○ | ○ | ○ | ○ |
| 8. | Does the review process include validation by independent experts (e.g., scientific committee)? | ○ | ○ | ○ | ○ |
| 9. | Are interim milestones that are SMART (specific, measurable, attainable, relevant and timebound) incorporated in the LTS? | ○ | ○ | ○ | ○ |

**COMMENTS (Monitoring and Review Section):**

# 2. ROBUSTNESS AND AMBITION

This section examines whether the LTS is robust in design with a high likelihood of achieving targeted climate and development objectives in the face of varied national scenarios. Further, this section considers the articulation of specific LTS targets and indicates how they compare to the status quo – addressing increased mitigation ambition, enhanced and more effectively integrated / mainstreamed adaptation elements and sectoral strategies linked to long-term action plans that will drive the process of achieving LTS targets. Key considerations include:

## 2.1 VISION AND PRIORITIES

| | | Yes | No | Partially | N/A |
|---|---|---|---|---|---|
| 1. | Does the LTS include a statement of targeted outcomes such as long-term quantitative targets (mitigation, adaptation, others) and qualitative expectation or visions (e.g., embedding targets in domestic legislation)? | ○ | ○ | ○ | ○ |
| 2. | Does the LTS include sustainable, inclusive development goals or Sustainable Development Goals (SDGs), such as ensuring a just transition for workers, creating decent work and quality jobs and reducing poverty and inequality? | ○ | ○ | ○ | ○ |
| 3. | Does the LTS specify how the vision is aligned with the best available science needed to achieve the goals of the Paris Agreement to limit temperature rise, enhance adaptive capacity and strengthen climate resilience, and increase climate finance flows? | ○ | ○ | ○ | ○ |
| 4. | Does the LTS consider goals for human health and well-being? | ○ | ○ | ○ | ○ |
| 5. | Does the LTS consider goals for environmental quality, such as protection and restoration of carbon-rich and biodiverse ecosystems and reducing air pollution? | ○ | ○ | ○ | ○ |
| 6. | Are there interim milestones specified for desired outcomes? | ○ | ○ | ○ | ○ |
| 7. | Is information provided on necessary context to the LTS vision and priorities such as relevant national circumstances, objectives and priorities, including GHG emission levels? | ○ | ○ | ○ | ○ |
| 8. | Does the LTS explain the base year or starting point as well as GHG and non-GHG target years between now and mid-century, taking into account common but differentiated responsibilities and respective capabilities, in the light of different national circumstances? | ○ | ○ | ○ | ○ |

| | | Yes | No | Partially | N/A |
|---|---|---|---|---|---|
| 9. | Does the LTS consider the synergies between mitigation and adaptation efforts and needs? | ○ | ○ | ○ | ○ |
| 10. | Does the LTS consider economic, social and environmental opportunities and trade-offs associated with the long-term transition to a low GHG emission development strategy? | ○ | ○ | ○ | ○ |

**COMMENTS (Vision and Priorities Section):**

## 2.2 MITIGATION

| | | Yes | No | Partially | N/A |
|---|---|---|---|---|---|
| 1. | Does the LTS include a clear and quantified long-term emissions reduction target? | ○ | ○ | ○ | ○ |
| 2. | Is there a description of how the vision will limit cumulative emissions over time, such as interim milestones with desired emissions levels? | ○ | ○ | ○ | ○ |
| 3. | Does the LTS include descriptions of methodological approaches, including models (name and type) used for analyses and underlying assumptions (IPCC inventory methodologies, tiers, Global Warming Potentials, estimated changes in population, energy prices, key emissions drivers, technology costs, gross domestic product, etc.)? | ○ | ○ | ○ | ○ |
| 4. | Does the LTS indicate when emissions will reach Net Zero? | ○ | ○ | ○ | ○ |
| 5. | Are the base year, baseline projection and target year(s) clearly indicated? | ○ | ○ | ○ | ○ |
| 6. | Are the sectors and GHG (emissions and sinks) that are covered by the LTS clearly indicated? | ○ | ○ | ○ | ○ |
| 7. | Were Net Zero GHG commitments from the national government, businesses, regions, cities, investors, etc., used to support the formulation of the LTS targets? | ○ | ○ | ○ | ○ |
| 8. | Does the LTS include short-term policies and actions which would have strong impacts on mid-and long-term trajectories of emissions? | ○ | ○ | ○ | ○ |

| | | Yes | No | Partially | N/A |
|---|---|---|---|---|---|
| 9. | Does the LTS indicate an estimate for when emission levels will peak? | ○ | ○ | ○ | ○ |
| 10. | Does the LTS indicate the role of international cooperation (such as via international emissions trading) on mitigation and removals in achieving the target? | ○ | ○ | ○ | ○ |
| 11. | Are cut-off years for policies (including fossil fuel phasing out) specified for any baseline scenario? | ○ | ○ | ○ | ○ |
| 12. | Are descriptions of relevant existing policies incorporated into emissions baselines? | ○ | ○ | ○ | ○ |
| 13. | Are assumptions clear about the role of carbon removal (e.g., sinks via afforestation, restoration, direct air capture and storage, bioenergy combined with carbon capture and storage)? | ○ | ○ | ○ | ○ |
| 14. | Do models and scenarios consider climate risks and uncertainties in the context of long-term planning (e.g., are risks identified that might result in non-compliance with LTS targets)? | ○ | ○ | ○ | ○ |
| 15. | Are relevant terms clearly defined, such as “carbon neutrality,” or “net-zero” if applicable? | ○ | ○ | ○ | ○ |

**COMMENTS (Mitigation Section):**

## 2.3 ADAPTATION AND RESILIENCE

| | | Yes | No | Partially | N/A |
|---|---|---|---|---|---|
| 1. | Does the LTS include targets to enhance adaptive capacity, strengthen resilience and reduce vulnerability? | ○ | ○ | ○ | ○ |
| 2. | Does the LTS consider impacts of future climate changes in systems, including long-lived infrastructure, biodiversity, land use and ecosystem services, as well as the risks of inaction with consequences for environmental, social, human and economic outcomes? | ○ | ○ | ○ | ○ |
| 3. | Is there a focus on the needs and priorities of vulnerable groups, regions and sectors? | ○ | ○ | ○ | ○ |
| 4. | Is there consideration of the uncertainty associated with future climate risks? | ○ | ○ | ○ | ○ |
| 5. | Is there a National Adaptation Plan or NAP, and does the NAP have established linkages with the LTS? | ○ | ○ | ○ | ○ |

| | | Yes | No | Partially | N/A |
|---|---|---|---|---|---|
| 6. | Has the uncertainty of future climate risks been incorporated into the LTS? | ◯ | ◯ | ◯ | ◯ |
| 7. | Does the LTS consider if mitigation actions proposed in the LTS are subject to climate impacts, and if a higher level of resilience is required (e.g., for infrastructure)? | ◯ | ◯ | ◯ | ◯ |

**COMMENTS (Adaptation and Resilience Section):**

## 2.4 SECTOR-SPECIFIC STRATEGIES

| | | Yes | No | Partially | N/A |
|---|---|---|---|---|---|
| 1. | Does the LTS specify key sectors of mitigation potential and adaptation needs? | ◯ | ◯ | ◯ | ◯ |
| 2. | Does the LTS include strategies and goals (e.g., GHG and non-GHG targets) at the sectoral level for a list of sectors: energy, transport, industry, agriculture, forestry, land use, etc.? | ◯ | ◯ | ◯ | ◯ |
| 3. | Has a strategy been developed on how the LTS vision will be mainstreamed into sectoral plans and policies? | ◯ | ◯ | ◯ | ◯ |
| 4. | Are sectors highlighted that are vulnerable to climate change impacts? | ◯ | ◯ | ◯ | ◯ |
| 5. | Does the LTS consider economic, social and environmental opportunities and trade-offs associated with the long-term transition to a low GHG emission development strategy? | ◯ | ◯ | ◯ | ◯ |
| 6. | Are opportunities highlighted for areas of innovation, research, development and demonstration? | ◯ | ◯ | ◯ | ◯ |
| 7. | Are sectorial responsibilities clearly defined and are potential overlaps identified and addressed (e.g., transport vs. energy)? | ◯ | ◯ | ◯ | ◯ |
| 8. | Does the LTS support relevant sectors receiving sufficient capacities and funding to incorporate the LTS into their sectorial work? | ◯ | ◯ | ◯ | ◯ |

**COMMENTS (Sector-Specific Strategies – Mitigation and Adaptation Section):**

# 3. FEASIBILITY

This section addresses the extent the LTS clearly articulates the processes and plans required for successful implementation, establishing necessary foundations that leverage governments' institutional, human and technological capabilities.

## 3.1 IMPLEMENTATION APPROACHES AND CAPACITY

| | | Yes | No | Partially | N/A |
|---|---|---|---|---|---|
| 1. | Has a clear approach been determined to implement the LTS, e.g., via an implementation strategy (e.g., a set of policies or actions to deliver on the commitments or targets)? | ○ | ○ | ○ | ○ |
| 2. | Is the LTS designed to inform and ensure coherence with short- and medium-term sectoral and cross-sectoral decision-making? | ○ | ○ | ○ | ○ |
| 3. | Does the LTS capture the capabilities and resources required for implementation? | ○ | ○ | ○ | ○ |
| 4. | Does the LTS prioritize and adequately describe sectoral actions and measures? | ○ | ○ | ○ | ○ |
| 5. | Does the LTS examine the feasibility of pathways to reduce GHG emissions to the target level? | ○ | ○ | ○ | ○ |
| 6. | Does the LTS consider the future workforce needs, including (differentiated by gender) building the right skill sets to realize the transformation inherent in the LTS? | ○ | ○ | ○ | ○ |
| 7. | Does the LTS specify areas where further in-country capacity is needed or gaps exist for LTS implementation? | ○ | ○ | ○ | ○ |

**COMMENTS (Implementation Approaches and Capacity Section):**

## 3.2 FINANCIAL CONSIDERATIONS

| | | Yes | No | Partially | N/A |
|---|---|---|---|---|---|
| 1. | Are estimated financial needs or resource gaps of the LTS identified, if applicable? | ◯ | ◯ | ◯ | ◯ |
| 2. | Does the LTS indicate public funding to be directed toward LTS implementation or measures to align public budgeting (e.g., are the objectives of the LTS part of national budget discussions, currently or in the future)? | ◯ | ◯ | ◯ | ◯ |
| 3. | Does the LTS identify strategies to scale up private sector investment? | ◯ | ◯ | ◯ | ◯ |
| 4. | Are measures taken to ease transitions to a low-carbon economy, and are early, predictable signals in high-emitting sectors being delivered to facilitate transition? | ◯ | ◯ | ◯ | ◯ |
| 5. | Does the LTS include or refer to development of a financial or resource mobilization strategy for achieving targets (e.g., putting in place the right investments, incentives, signals and systems to finance the LTS, mechanisms to contribute to mitigation per Paris Agreement Article 6)? | ◯ | ◯ | ◯ | ◯ |
| 6. | Are areas identified where international cooperation was secured or may be needed? | ◯ | ◯ | ◯ | ◯ |
| 7. | Do the LTS and selected sectoral approaches consider how to avoid lock-in (of technologies or infrastructure associated with high-emitting sectors) and estimate the financial implications of stranded assets? | ◯ | ◯ | ◯ | ◯ |

**COMMENTS (Financial Considerations Section):**

## SOURCES

The questions included in this checklist are drawn from the following resources:

Elliott, C., J. Worker, K. Levin, and K. Ross. 2019. Good Governance for Long-Term Low-Emissions Development Strategies. Working Paper. Washington, DC: World Resources Institute. Available online at **http://www.wri.org/publication/good-governance-low-emissions.**

UNDP and WRI, 2019, Scaling up Ambition: Leveraging Nationally Determined Contributions and Long-Term Strategies to Achieve the Paris Agreement Goals: Input Document for the G20 Climate and Sustainability Working Group, **https://www.ndcs.undp.org/content/ndc-support-programme/en/home/impact-and-learning/library/scaling-up-amibition-lts.html**

UNDP and WRI, 2018, Long-Term Low Greenhouse Gas Emission Development Strategies: Input Document for the G20 Climate Sustainability Working Group, **https://www.ndcs.undp.org/content/ndc-support-programme/en/home/impact-and-learning/library/greenhouse-gas-emission-development-strategies.html**

World Resources Institute. 2020. A Brief Guide for Reviewing Countries' Long-Term Strategies **https://files.wri.org/s3fs-public/reviewing-countries-long-term-strategies-guide.pdf**

## FURTHER RESOURCES

For further information and resources:

- Long-term Climate Strategies, **www.longtermstrategies.org**
- Designing and Communicating Net Zero Targets, 2020. **https://www.wri.org/publication/designing-and-communicating-net-zero-targets**
- Hans, F., Day, T., Röser, F., Emmrich, J., Hagemann, M. 2020. Making long-term low GHG emissions development strategies a reality. Berlin: New Climate Institute. **https://newclimate.org/2020/05/28/making-long-term-low-ghg-emissions-development-strategies-a-reality/**.
- Levin, K. and Fransen, T. 2019. Climate Action for Today and Tomorrow: The Relationship between NDCs and LTSs. Commentary. Washington, DC: World Resources Institute. **https://www.wri.org/news/climate-action-today-and-tomorrow-relationship-between-ndcs-and-ltss.**
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- Pathak, S., 2017. Why Develop 2050 Pathways? Paris: 2050 Pathways Platform. **https://www.2050pathways.org/wp-content/uploads/2017/09/Whydevelop2050Pathways.pdf.**
- Rocha, M. and Falduto, C. 2019. Key questions guiding the process of setting up long-term low-emission development strategies. Paris: Organisation for Economic Co-operation and Development. **https://www.oecd.org/environment/cc/Key-questions-guiding-the-process-of-setting-up-longterm-low-emissions-development-strategies.pdf.**
- Schaeffer, M., Fuentes, U., Hutfilter, R., Fyson, C., and Hare, B. 2019. Insights from the IPCC Special Report on 1.5°C for preparation of long-term strategies. Berlin: Climate Analytics. **https://climateanalytics.org/publications/2019/insights-from-the-ipcc-special-report-on-15c-for-the-preparation-of-long-term-strategies/**.
- Waisman, H. et al. (2019). A pathway design framework for national low greenhouse gas emission development strategies. Nature Climate Change 9, 261–268 (2019). DOI: **https://doi.org/10.1038/s41558-019-0442-8**
- Williams, J., and Waisman, H. 2017. 2050 Pathways: A Handbook. Paris: 2050 Pathways Platform. **https://www.2050pathways.org/wp-content/uploads/2017/09/2050Pathways-Handbook-1.pdf.**



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