



Low-carbon development plan

Key points

- **A low-carbon development plan guides countries down a path towards low carbon green growth.**
- **National short- to long-term targets, goals and policies on low carbon green growth send signals of credibility and reliability, which in turn attracts investment and promotes technology innovations, improves energy efficiency, encourages cleaner energy sources and creates jobs and business opportunities.**

Low-carbon development planning explained

Low-carbon development plans also can be called green growth plans, climate change plans and strategies or low-emission development strategies (LEDS). For some countries, low-carbon growth plans can take the form of national economic and social development plans. Although the terminology may differ, the objective and purpose of these plans and strategies are the same – they are intended to provide countries with a national strategy steeped in vision and replete with goals, targets and specific short- and long-term actions for overcoming the resource constraints and reducing greenhouse gas emissions in a way that also grows the economy. It requires an integrated and comprehensive planning process for combining development and climate priorities that enable countries to shift to a low-carbon development trajectory. Such strategies improve energy, resource, carbon and economic efficiencies.

Various organizations have their own characterization of what constitutes a low-carbon development plan. The OECD describes it as “forward-looking, climate-friendly growth strategies that can highlight a country's priority actions for climate mitigation and adaptation, and a country's role in the global effort against climate change.”¹ The Project Catalyst states that “the plan is based on the unique socio-economic and development priorities of the country and includes both a vision for tomorrow and a plan of action for today.”²

How it works

Although the components of a low-carbon development plan will differ due to the country context and its development priorities, these plans may consider inclusion of the following elements:³

- vision – a long-term and shared vision is required to guide policies over the long run and to gather actors around a common purpose
- assessments – this may include greenhouse gas inventories and projections to understand which are the major emitting sectors, vulnerability assessments to understand what would be the impacts of climate change and mitigation potential and costs

¹ Christa Clapp, Gregory Briner and Katia Karousakis, *Low-Emission Development Strategies (LED): Technical, Institutional and Policy Lessons* (Paris, International Energy Agency and OECD, 2010), p.11. Available from www.oecd.org/dataoecd/32/58/46553489.pdf (accessed 22 August 2011).

² Project Catalyst, *Low Carbon Growth Plans - Advancing Good Practices, Working Draft* (San Francisco, ClimateWorks Foundation, 2009), p. 6. Available from www.projectcatalyst.info/images/3.%20Low%20carbon%20growth%20planning/Publications/Advancing%20good%20practice/090805%20project%20Catalyst%20-%20LCGP%20paper%20-%20normal%20view%20-%20Ver%202.0.pdf

³ Extracted from Christa Clapp, Gregory Briner and Katia Karousakis, *Low-Emission Development Strategies (LED): Technical, Institutional and Policy Lessons* (Paris, IEA and OECD, 2010), p.12. Available from www.oecd.org/dataoecd/32/58/46553489.pdf (accessed 22 August 2011).

- short- to long-term targets and goals (economy-wide or sector specific)
- policy measures
- specific programmes and projects
- implementing plans
- funding mechanisms
- investment plans
- institutional capacity and coordinating mechanisms
- monitoring and evaluation plans.

Box 1: Low-emission development strategies and UNFCCC negotiations

The term “low-emissions development strategies” was first introduced in the United Nations Framework Convention on Climate Change negotiations in April 2008 in the context of a shared vision to ensure ambitious collective action on climate change.⁴ Since then, governments, through the Copenhagen Accord, have recognized that “low-emission development strategies are indispensable to sustainable development”.⁵ The Cancun outcomes of the UNFCCC Conference of Parties 16 in 2010 encouraged “developing countries to develop low carbon development strategies or plans in the context of sustainable development”⁶ as part of their national mitigation action. Now even developing countries are preparing low-emissions development strategies as part of their national climate change strategies, national development plans or national vision.

Some developing countries have raised concern that low-emissions development strategies, in particular nationally appropriate mitigation actions (NAMAs), may be a precondition for receiving financial support from donors. Low-emissions development strategies should be considered as a long-term planning exercise that integrates low-carbon issues, including climate change, sustainable development and economic priorities in a comprehensive manner, without undermining existing development efforts. As the Republic of Korea’s Five-Year Green Growth Strategy and Action Plan shows, low-carbon efforts are considered to be a basis for an opportunity for achieving further growth.

Strengths in low-carbon planning

- **Achieves efficiency:** The value added of low-carbon development plan is that it can combine national economic development and climate change planning into a more integrated, comprehensive, consistent and coordinated approach that harnesses synergies, minimizes duplication and avoids trade-offs between strategies and plans.
- **Encourages investors:** Low-carbon development strategies can provide important signals to the private sector on the direction for future investments, research and development. A long-term strategy is particularly important for promoting technological innovations and deployment of low-carbon technologies that require considerable lead time for R&D and commercializing. It is also important for guiding infrastructure development, which also requires long-term planning but, once built, creates path dependency.
- **Connects with NAMAs:** Low-carbon development strategies can be beneficial for prioritizing nationally appropriate mitigation actions, which are voluntary mitigation action proposals from developing countries to the UNFCCC for reducing CO₂ emissions.

⁴ *ibid.*

⁵ United Nations Framework Convention on Climate Change, *Report of the Conference of the Parties on Its Fifteenth Session, held in Copenhagen from 7-19 December 2009, Addendum... Part Two: Action taken by the Conference of the Parties at its fifteenth session. Decision 2/CP.15 Copenhagen Accord, (FCCC/CP/2009/11/Add.1, Decision 2/CP.15)*, p. 6. Available from <http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf> (accessed 23 August 2011).

⁶ *ibid.*, p.11.

Challenges to low-carbon planning

- **Political commitment:** Leadership and political commitment from the highest level is the most important factor for countries to jump-start the process towards a low-carbon development path. The role of high-level political commitment is crucial in light of other urgent development challenges that are high priorities on the political agenda.
- **Institutional capacity:** Low-carbon development requires focused efforts with multiple issues. Unless there is coordination, cooperation and consensus across ministries that go beyond the conventional compartmentalized and fragmented approach, the effectiveness and efficiency of development efforts will be undermined. Establishing a new mechanism or strengthening existing mechanisms to carry out integrated and comprehensive planning and to support low-carbon development can expedite the process.
- **Financing:** For many countries, the financing issues are one of the most difficult challenges, both in terms of generating and allocating domestic sources as well as finding funding opportunities internationally. Within the current financial crisis, developing countries require strategic planning on financing and technical cooperation. Low-carbon development plans can be a tool for assessing and identifying financing priorities and the required sources of funding.

These plans can help developing countries focus on how to market the best-bet low-carbon programmes and projects to international donors. Projects and programmes reflecting predictable and credible short- to long-term targets, goals and strategies may be more attractive to donors in terms of providing funding. At the same time, to support the actions of the plans, governments can also consider how to generate funds domestically and how to invite private investment, depending on their country perspective.

In their planning, governments will need to consider how to allocate investment in a variety of areas, including science and technology, R&D, energy, eco-efficient infrastructure, green business, education and human resource development. Public funds need to be allocated today in areas where benefits can be derived in the longer term, such as low-carbon technologies that require long-term investment from the R&D stage to commercialization.

- **Human resource capacity:** Skill and knowledge level to implement policy measures is a common hurdle for developing countries. Required skills training and education must be integrated into national low-carbon development strategies and action plans as well as into education policies. Without a sufficient and capable human resource base, it will be difficult for countries to make a transition to a low carbon development path.
- **Information and advocacy:** Governments need to lead on expanding public knowledge and providing appropriate information on the benefits as well as the associated burdens of low-carbon development. Unless information dissemination and advocacy is fully carried out, it will be difficult to gain understanding and long-term support from the public. Awareness raising must also be extended to government ministries and political leaders.

Implementing strategy⁷

The process for developing and implementing a low-carbon development plan requires many steps and the involvement of many actors. There is no set format, thus governments should decide what are the most appropriate steps and issues to cover based on the country context and priorities. The following outlines some of the general steps.

The first step involves agreeing on a vision, common understanding of the objectives of a low-carbon development plan and who needs to be part of the transition. The scope (economy-wide or sector specific) and the level of ambition should be discussed. Based on this common understanding, planning efforts can be directed

⁷ Based on Christa Clapp, Gregory Briner and Katia Karousakis, *Low-Emission Development Strategies (LED): Technical, Institutional and Policy Lessons* (Paris, IEA and OECD, 2010), pp.6-10. Available from www.oecd.org/dataoecd/32/58/46553489.pdf (accessed 22 August 2011).

towards developing a national vision and then setting and aligning sustainable development and climate change goals. The time horizon should also be considered for achieving targets and goals. The planning process should start by building on past reports and strategies, assessing current trends through analyses of appropriate and reliable data and ensuring coherence among various existing plans.

The second step requires establishing the institutional framework that allows inter-ministerial participation across sectors, such as finance, energy, industry, environment, technology, transport, forestry and water as well as civil society and the private sector. As in China, Indonesia and the Republic of Korea, an inter-ministerial mechanism can be situated within the office of the prime minister or the president or chaired by the head of State, which will encourage effectiveness and efficiency in the planning and implementing processes. In some cases, such an inter-ministerial mechanism is set up during the initial stages of this exercise to handle the coordination of the planning process.

The third step is to develop the policies. This includes macroeconomic modelling and scenario (emissions) exercises (developing baselines and scenarios) to locate barriers, set targets, prioritize policy measures and fix the time period. The key work in this exercise is data collection and the production of credible data, which are vital for assessing the trends. For instance, policymakers can use existing data collection systems, such as greenhouse gas inventories and scenarios, to identify the level of greenhouse gas emissions, heavy emissions sectors, future emissions projections, mitigation potential and costs and vulnerabilities to inform their policymaking.

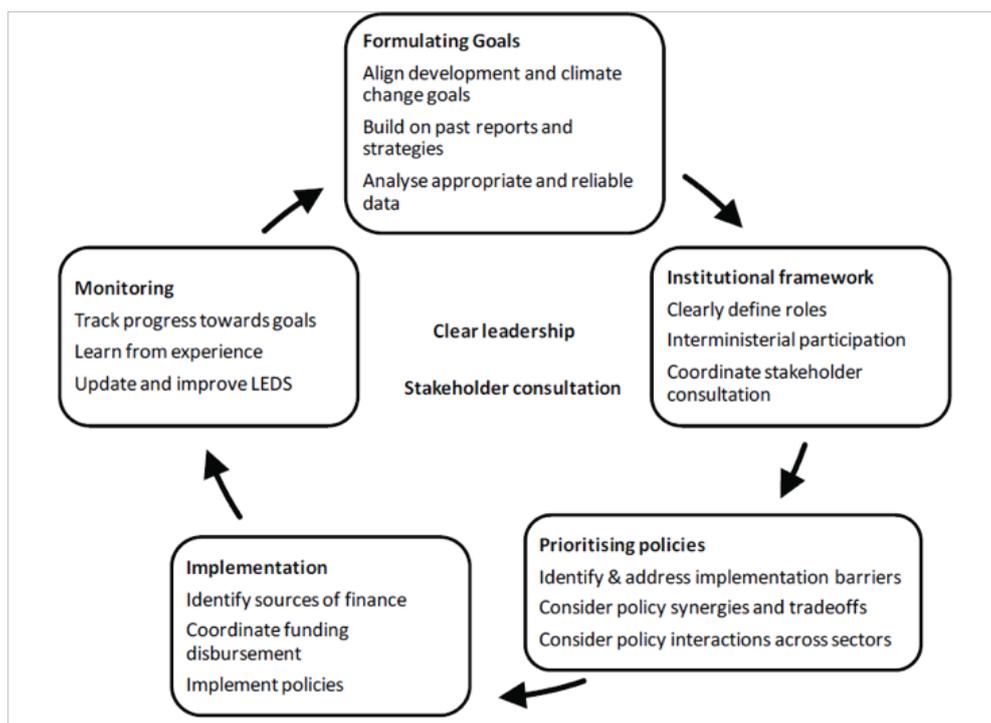
The fourth step entails the constructing of an implementing plan that enunciates clear roles and responsibilities of ministries and sectors and the level of funding that will be required for all expected activities.

Next, a finance or investment plan to support the policies and actions should incorporate information on how to generate funds domestically and through external sources as well as how to distribute the funds.

Finally, although it's not really a step but a recurring process, the low-carbon development plan needs to periodically incorporate lessons learned and adjustments due to changing circumstances. A dedicated mechanism that tracks the progress and the level of carbon emissions will be needed.

The following diagram outlines the general process for formulating a low-carbon development plan.

Diagram 1: Planning cycle of a low-carbon development plan (low-emissions development strategies, or LEDS)



Trends in development

Some countries have already developed low-carbon or low-emissions development plans. The following table provides a list of such plans and strategies from around the world, with many more expected. Some countries have even developed sector-based plans to support national low-carbon development or national climate change plans. For instance, in 2010 the Indonesian Government introduced the Indonesia Climate Change Sectoral Roadmap to guide the central and local governments in the planning and implementing of low-carbon development plans for the next 20 years.

Table 1: Selected national low-carbon development and climate change plans

Country	Date	Low-carbon Development Plans
Bangladesh	September 2008	Bangladesh Climate Change Strategy and Action Plan
Brazil	December 2008	National Plan on Climate Change
Cambodia	December 2009	Green Growth Roadmap
China	June 2007 March 2011	National Climate Change Programme Twelfth Five-Year Economic and Social Development Plan
European Commission	August 2011	A Roadmap for Moving to a Competitive Low carbon Economy in 2050
Guyana	May 2009	Transforming Guyana's Economy While Combating Climate Change
India	July 2008	National Action Plan on Climate Change
Indonesia	November 2007	National Action Plan Addressing Climate Change
Japan	July 2008	Action Plan for Achieving a Low carbon Society New Growth Strategy (Basic Policies)
Kazakhstan	September 2010	Zhasyl Damu-Green Development Strategy
Mexico	May 2007 August 2009	National Strategy on Climate Change Special Programme on Climate Change
South Africa	July 2009	Long-Term Mitigation Scenarios Climate Change Policy Framework
Republic of Korea	July 2009	Five-Year Low Carbon, Green Growth Strategy and Action Plan
United Kingdom	July 2009	The UK Low carbon Transition Plan

Source: Table developed based on Project Catalyst, *Low Carbon Growth Plans - Advancing Good Practices*, Working Draft (San Francisco, ClimateWorks Foundation, 2009).

Further reading

Low-Emission Development Strategies (LED) Technical, Institutional and Policy Lessons, by Christina Clapp, Gregory Briner and Katia Karousakis (Paris, International Energy Agency and OECD, 2010). Available from www.oecd.org/dataoecd/32/58/46553489.pdf

Low carbon Growth Plans - Advancing Good Practice, Working Draft (San Francisco, Project Catalyst, 2009). Available from www.project-catalyst.info/images/3.%20Low%20carbon%20growth%20planning/Publications/Advancing%20good%20practice/090805%20Project%20Catalyst%20-%20LCGP%20paper%20-%20normal%20view%20-%20Ver%202.0.pdf