

# Low Carbon Growth Plans

Advancing Good Practice, August 2009



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# About Project Catalyst

Project Catalyst is an initiative of the ClimateWorks Foundation. ClimateWorks is a global, non-profit philanthropic foundation headquartered in San Francisco, California with a network of affiliated foundations in China, India, the US and the European Union. The ClimateWorks family of organizations focus on enacting policies that reduce greenhouse gas emissions through three general policy areas: energy efficiency standards, low-carbon energy supply, and forest conservation/agriculture (see [www.climateworks.org](http://www.climateworks.org)).

Project Catalyst was launched in May 2008 to provide analytical and policy support for the United Nations Framework Convention on Climate Change (UNFCCC) negotiations on a post-Kyoto international climate agreement, and related stakeholders. Project Catalyst members have been organized in working groups: abatement, adaptation, technology, forestry, climate-compatible growth plans, and finance. Each working group has received analytical support from the international consulting firm, McKinsey & Company. Working group members include a total of about 150 climate negotiators, senior government officials, representatives of multilateral institutions, business executives, and leading experts from over 30 countries.

Project Catalyst and its working groups provide a forum where key participants in the global discussions can informally interact, conduct analyses, jointly problem solve, and contribute ideas and proposals to the formal UNFCCC process. This paper summarizes output from Project Catalyst, but the views expressed in this paper have not necessarily been endorsed by all of the members of Project Catalyst nor their governments or organizations. The ClimateWorks Foundation takes sole responsibility for the content of this paper.

# Summary

Stabilising emissions at 450 ppm to maintain global temperature increases under two degrees centigrade depends on our will and ability to drive exceptionally fast and comprehensive transition to a low-carbon growth pathway. Achieving development goals depends on enabling poorer countries to accelerate or maintain robust economic growth despite the disproportionate impacts of climate change which they face.

The central challenge is to enable all countries to strengthen delivery of their own development visions and goals through low-carbon, climate-resilient, or 'climate compatible' growth strategies. How to address this challenge has been laid out by a growing number of countries in their national plans.

The first generation of these Low Carbon Growth Plans (LCGPs) have shown that many developing, as well as developed countries, are willing and able to commit to ambitious actions on climate compatible growth, based on their own national development priorities and as a contribution to meeting our collective global climate change challenge.

Key success factors in developing plans to date have been:

- Senior leadership from within the government.
- A strong basis of data and scientific and economic analysis based on a robust, credible assessment of abatement potential and costs.
- Stakeholder engagement to enable data collection and cross sector support.
- Ongoing iteration building consensus around priority sectors in the country.

LCGPs should be seen primarily as policy instruments which support state governments and institutions in sovereign decision-making. However they can also support global goals by providing national strategic context to the abatement and adaptation efforts for which countries receive international recognition.

This first review of current LCGPs (and their forerunners) finds that, although they contain common elements, they are not entirely consistent in their content and development approach. Furthermore, support provided from developed to developing countries in developing these plans have been piecemeal, uncoordinated and insufficient. The same applies for financial flows associated with the opportunities and needs highlighted in the plans.

Three key critical differences stand out in the quality and coverage of current plans:

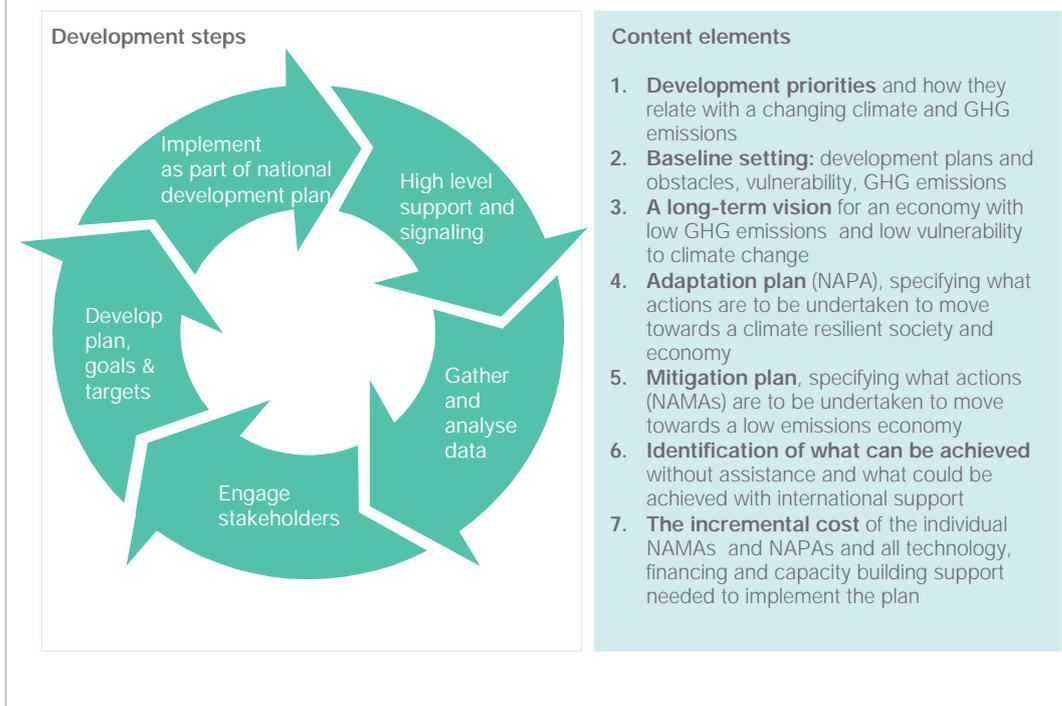
- The extent to which they are data-driven, based on an assessment of abatement and adaptation opportunities and costs.
- The extent to which they specify concrete goals, targets and timelines.
- The extent to which they address the need for institutional capacity and funding to implement the proposed policy packages.

These three factors are critical because they determine whether the strategies proposed will be (i) directed at the most material abatement and adaptation needs, at the speed and level needed and (ii) possible to implement.

Experience of these first national plans highlights two crucial aspects in their development - firstly, the involvement of stakeholders and government agencies from many sectors, and secondly the importance of ongoing review and iteration to take into account advances in scientific knowledge, international agreements, technological developments and learning about what works.

Accelerated learning to adopt best practice could be achieved by building on experience to date (including from other processes such as National Sustainable Development Strategies, PRSPs etc.), peer-to-peer learning between countries developing plans, access to technical support and development of common guidance. In this way common guidelines could be developed to ensure the effectiveness of national plans, while accommodating differences in development stage and relative priorities of different countries, and the need for local ownership and iteration.

Figure 1: Towards common guidelines



# Towards Climate Smart Development

## Defining Low Carbon Growth Plans

A LCGP is a strategic plan to assist the country in shifting its development path to a low carbon and climate resilient economy and achieve sustainable development. It is based on the socio-economic and development priorities of the country. It has a long-term component that includes a strategic vision and a short and medium term component that shows which specific actions will be undertaken to get on a low carbon, climate resilient pathway.

Achieving the mitigation levels to prevent catastrophic climate change requires early ambitious action, rapidly accelerating performance, and sustained efforts over the medium to long-term by all major emitting economies. To get on the 450 ppm pathway which gives us some chance of avoiding warming above 2°C, global GHG emissions need to peak before 2020. This means developed economies have to pursue declining emissions immediately, and middle income countries deflect significantly from BAU paths, in many cases peaking emissions by the mid-2020s.<sup>1</sup>

The good news is that early adoption of less carbon intensive technologies and development strategies offers significant co-benefits, such as better health from lower particulate emissions, greater agricultural and land-use productivity, greater water and energy security and less vulnerability to energy price shocks. Instead of locking in high-carbon infrastructure, countries and opportunities have the opportunity to leap-frog to new technologies such as wind and solar energy, low energy buildings, efficient use of energy in industry, transport and appliances and sustainable biofuels.

At the same time, all countries, and particularly the least developed are also facing the challenge of adaptation to a changing climate, which will be necessary even if drastic reductions in global GHG emissions are achieved. Climate change has the potential to reverse the hard-earned development gains of the past decades and the progress toward achieving the Millennium Development Goals (MDGs) and the poorest countries and communities will suffer the earliest and the most. Small island states, LDCs, and African countries together contribute less than 3% of global emissions, but bear a much larger share of adaptation challenges.

The development challenge is therefore to accelerate or maintain robust economic growth in poorer countries despite the disproportionate impacts of climate change and to grasp the opportunities to achieve additional benefits from investments in a low-carbon and climate resilient economy.

It is clear that the sustained efforts required over prolonged periods to transform economies to a resilient, low-carbon pathway will only be successful if they are able to drive self-sustaining economic growth and development. A number of countries, both developed and developing, have therefore already established, or are on the road to establishing, national Low Carbon Growth Plans (LCGPs).

While they go by many names, these plans share a common focus on integrating national strategies on mitigation and adaptation with economic growth and development.

South Africa, for example, under the auspices of the University of Cape Town, has developed low-carbon pathway scenarios and ran an extensive multi-stakeholder process to develop a programme of ambitious domestic action. In South Korea, the government led a national process on its green future that involved similar analysis, which resulted in President Lee Myung-bak setting green development and innovation as a national priority as well as establishing a process for creating specific policies. China has had a National Climate Change Program since 2007, and is in the process of integrating climate change policies into its five-year cycles of development planning.

**Figure 2: Some national strategies and plans developed to date**

Country	Date	
Bangladesh	Sep 2008	Bangladesh climate change strategy and action plan (draft)
Brazil	Dec 2008	National Plan on Climate Change (PNMC)
China	Jun 2007	National Climate Change Program
Costa Rica	Jul 2007	Peace with Nature
EU	Jan 2008	EU Energy and Climate Package
Guyana	May 2009	Transforming Guyana's Economy While Combating Climate Change
India	Jul 2008	National Action Plan on Climate Change (NAPCC)
Indonesia	Nov 2007	National action plan addressing climate change
Japan	Jul 2008	Action plan for achieving a low carbon society
Mexico	2007, Mar 2009	National Strategy on Climate Change ! Special Program on Climate Change (PECC)
South Africa	Jul 2008	Long Term Mitigation Scenarios (LTMS) ! Climate Change Policy Framework
South Korea	Aug 2008	'Low Carbon, Green Growth' Vision and 1st National Basic Energy Plan (2008-2030) and Comprehensive Plan on Combating Climate Change
U.K.	Jul 2009	The UK Low Carbon Transition Plan
U.S.	May 2009	U.S. Climate Bill

## ALIGNING CLIMATE ACTION TO NATIONAL NEEDS

Climate change mitigation and adaptation requires domestic measures such as energy efficiency standards, building codes, vehicle mileage standards, tax and subsidy policies, cap and trade systems and land-use policies. A wide body of economic and policy research shows that a low-carbon pathway offers the best prospects for economic prosperity as well as significant benefits for energy security, climate security and public health. However, developing nationally appropriate policies requires country-specific analysis of the most effective measures to take and the likely consequences growth and development, trade, jobs, household budgets and politically sensitive industry sectors.

Countries that have drawn up National LCGPs (or their forerunners) have found them valuable to develop a vision of low-carbon development that is in the national self-interest, in particular enabling them to:

- Ground long-term national strategy in a clear assessment of the scientific and economic basis for action.
- Develop coherent response to climate challenges within a broader sustainable development context and crossing over industry and government sectors.
- Prioritise actions to focus resources for technical and systemic innovation on the most pressing areas and those with the most potential for cost-effective results.
- Involve the wide range of stakeholders needed to understand and negotiate tradeoffs and to achieve broad support for a locally owned vision and package of policies for sustainable development.
- Identify the technical, human and financial capacity needed to achieve long term Low Carbon growth and therefore enter international negotiations with a clear understanding of the potential for emission abatement, and the financing needs of the country.
- Establish well-founded positions for international negotiations on the future of the climate regime and on funding needs and opportunities.

## Why Develop National Low Carbon Growth Plans?

“Even though per capita, countries like Guyana already emit far less than the average required to stabilize global temperatures, as we become more prosperous, it is in everyone’s interests that we avoid the high pollution path that today’s richer countries followed... To achieve this, the international community and developing countries must create a platform for partnership where developing countries are not seen merely as passive recipients of aid, but as equal partners in the search for climate solutions.”

**Bharrat Jagdeo** | President of the Republic of Guyana

“The objective in formulating a National Action Plan to address climate change is for it to be used as guidance to various institutions in carrying out a coordinated and integrated effort to tackle climate change. Addressing the impact of climate change should not be conducted by a few sectors only. Good coordination between sectors is essential to ensure the success of climate change mitigation and adaptation efforts in Indonesia. Climate change and its impacts are complex and dynamic problems. The National Action Plan must therefore be continuously evaluated and improved periodically by various stakeholders.”

**Republic of Indonesia** | National Action Plan addressing Climate Change

“We realize that the Government of Bangladesh needs to carry its people along with it to face this enormous challenge. However, we can be confident that we can draw upon the traditional resilience, adaptability and innovativeness of our people, who have battled natural disasters over the centuries. The Bangladesh Climate Change Strategy and Action Plan will provide a framework for this national effort.”

**Raja Devasish Roy** | Special Assistant to the Chief Adviser, Ministry of Environment and Forests, Government of the People’s Republic of Bangladesh

“Climate Change and its consequences constitute the most serious challenge to the future of our planet. It is a cross cutting, social economic and environmental issue that must be placed high up on the political agenda so that its implications can be addressed in all elements of a government programme and in the way that society and economy are organized. The thrust of this document has been to argue that Climate Change is a key cross cutting issue in the organisation of the work of government now and for the foreseeable future.”

**South Africa** | National Climate Change Response Policy (Initial Framework)

“We wish to find viable, fair and equitable responses. Our main concern is that the poor, who have done nothing to generate the problem, suffer even more the consequences of unsustainable patterns of production and consumption of richer countries... The Brazilian National Plan on Climate Change is an important milestone for the integration and harmonization of public policies.”

**Luiz Inácio Luca Da Silva** | President of the Federative Republic of Brazil

## SUPPORTING GLOBAL GOALS

The Bali Action Plan requires a cooperative arrangement to help developing countries undertake “nationally appropriate mitigation actions in the context of sustainable development” without compromising growth, by transferring finance and technology from developed countries in a “measurable, reportable and verifiable” manner. The success of any global agreement reached in Copenhagen will depend in part on a developing a workable mechanism for countries to gain recognition for their abatement and adaptation efforts and for channelling the flow of international support to them. South Korea has joined South Africa in putting forward specific proposals in the UN negotiations that encourage other countries to develop national action plans and pursue low-carbon policies.

Many climate policy experts therefore anticipate that a global climate agreement framed by the United Nations Framework Convention on Climate Change negotiations in Copenhagen, December 2009, will incorporate support for developing countries to craft LCGPs, as ‘wrappers’ for the NAMAs and NAPAs covered by international finance mechanisms. If the Copenhagen negotiations fail, voluntary action by developing countries to implement LCGPs will become even more crucial.

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### Growing International Support for National Low Carbon Growth Plans

- The leaders of Australia, Brazil, Canada, China, the European Union, France, Germany, India, Indonesia, Italy, Japan, the Republic of Korea, Mexico, Russia, South Africa, the United Kingdom, and the United States met as the Major Economies Forum on Energy and Climate in L’Aquila, Italy, on July 9, 2009, and declared to each undertake transparent nationally appropriate mitigation actions, subject to applicable measurement, reporting, and verification, and to prepare low-carbon growth plans.
- The EC proposes that all developing countries (apart from LDCs) should commit to adopting low-carbon development strategies by the end of 2011. These strategies should set out a credible pathway to limit the country’s emissions through nationally appropriate mitigation actions that cover all key emitting sectors, especially the power sector, transport, major energy-intensive industries and, where significant, forests and agriculture. The strategies should identify the support required to implement the proposed actions resulting in incremental costs that cannot be sustained by the country itself. Robust and verifiable low-carbon development strategies should be a prerequisite for access to international support for mitigation action.
- Korea has proposed that a register of Nationally Appropriate Mitigation Actions (NAMAs) be set up under the UNFCCC. Actual actions to be taken could be different according to the level of development and capabilities of each Party with each Party deciding which actions to register, and at what level (national, sectoral or individual mitigation related policies).
- South Africa has proposed the use of Sustainable Development Policies and Measures as a possible type of action or commitment for some developing countries in the post-2012 framework. This approach was first put forward in this form by Winkler et al. (2002) and describes policies and measures that are firmly within the national sustainable development priorities of the host country, but through inclusion in an international climate framework seeks to recognize, promote and support means of meeting these policy priorities on a lower-carbon trajectory.
- Mexico proposes that advanced developing countries should, within the bounds of their existing capacities, undertake mitigation activities by voluntarily adopting policies and measures which, while aimed at achieving sustainable development, result in predictable co-benefits in terms of GHG emissions reductions. These could be subject to review and monitoring by international entities and include voluntary emissions targets on a no-lose basis.

# Learning from Experience

Many national plans are works in progress, and even for those that have been nationally agreed it is certainly too early to assess their impacts, nevertheless the experience to date offer pointers towards the development of an initial body of practice and guidance which could be used by other countries to inform the development of their own national responses to the climate change challenge.

## **WHAT IS IN THE PLANS?**

In general, many plans take a similar form. They start by framing the strategy within national priorities, global agreements and scientific projections, and identifying priorities for emission abatement and adaptation – in some case (but not all) through a clear prioritisation process based on science, economics and stakeholder impacts.

This is followed by an outline of the steps that are proposed to be taken in these key sectors and policy areas. Some countries have gone as far as to specify clear targets, yearly milestones and processes for monitoring and national accountability, while others have only outlined priorities and principles. Figure 3 (and the more detailed matrix in Annex) provide a review of the content of national plans and strategies.

Figure 3: Key elements of LCGPs

		Commonly included	In very few plans at this stage	Universal (or very nearly)
Rationale	Element	Review of current practice		Examples
Framing the strategy within national priorities, global agreements and scientific projections	Vision	<p>...The emphasis is on developing a climate change response that is suited to the individual country's priorities, therefore most plans focus on a combination of climate resilience and low-carbon development, dependent on stage of development of the countries . . .</p>		<p>..Bangladesh's plan focuses mainly on adaptation while South Africa's is on mitigation. Guyana's is an integrated plan which links mitigation and adaptation through financing mechanisms and a vision for sustainable economic development. South Korea incorporated climate change action within its national vision for 'Green Growth'</p>
	Time horizons for long-term predictions and shorter term actions	<p>..Most plans combine a long term vision with short term planning within a 5-10 year window. Where plans have been informed by a strong data analysis process they are able to put immediate actions within a scenario up to 2030 or 2050. Where this data is not used plans are more of a compendium of existing policies with pragmatic targets</p>		<p>..Mexico has built its position by working back from 2050. The Special Programme on Climate Change covers actions from 2007-2012.            ..India and China are integrating long-term climate change strategies into their 5-year development planning cycles</p>
	Reference to global target	<p>...Some plans, refer to global necessary cuts indicated by science. Others only frame their strategies in terms of fair shares</p>		<p>..Mexico, Guyana and South Africa refer to global 'required by science' targets</p>
	National baselines on GDP and emissions	<p>..Almost all plans use this data. Some countries are able to draw on sectoral data</p>		
Analysis to identify best opportunities for emission abatement and adaptation based on science, economics and stakeholder impacts	Analysis of abatement opportunities and costs	<p>...There is wide range in the quality of data and analysis, from those strategies based on a collation of descriptive assessments, from different ministries, with a few illustrative statistics, to those that have developed a quantitative overall analysis of abatement opportunities and costs</p>		<p>..South Africa and Mexico have developed economy-wide cost curves</p>

		<span style="color: #ADD8E6;">■</span> Commonly included <span style="color: #008080;">■</span> In very few plans at this stage <span style="color: #9ACD32;">■</span> Universal (or very nearly)	
Rationale	Element	Review of current practice	Examples
(CONT'D) <b>Analysis</b> to identify best opportunities for emission abatement and adaptation based on science, economics and stakeholder impacts	<b>Analysis of adaptation vulnerabilities and needs</b>	...Almost all plans identify adaptation priorities, based on scientific data and predictions and cross-ministerial and stakeholder engagement processes	
	<b>Identification of Priority areas</b>	...Some countries have developed single sector plans, others have plans that cover energy generation, energy use, forestry, agriculture and land-use and other sectors such as transport and infrastructure	...Guyana's plan focuses on a single sector (forestry) for abatement opportunities. ...China, India and South Africa are focus on power sector transformation and energy efficiency in industry
<b>Planning</b> to translate from vision to implementation	<b>Policies and measures</b>	...Plans generally include a combination of existing new policies. Some countries have only got as far as mapping out policy areas and principles in their plans	
	<b>Institutional capacity</b>	...There is wide variety in the extent to which current plans address institutional development needs. Some such as Guyana give strong emphasise to institutional needs, others offer only a passing reference	...India's National Strategy builds on a compilation of existing policies and plans, but does not yet address the institutional constraints, on implementation <sup>2</sup>
	<b>Costs</b>	...Some plans estimate costs, and balance between national, commercial and international funding sources	
<b>Linking</b> between national plans and the global agreement to collaborate	<b>Abatement potential, targets</b>	...Some plans give overall or sectoral targets	
	<b>Monitoring and review</b>	...Some plans include commitments to national monitoring. Some plans include mechanisms for ongoing review by a local committee or experts and/or sector representatives. Almost all plans are provisional, to be reviewed after Copenhagen in order to implement necessary MRV mechanisms to access funding	...The UK is the only country to have adopted legally binding targets

This initial analysis of very different countries and plans shows that a common approach can accommodate different stage of development and relative priorities of different countries. For example Bangladesh's plan focuses on adaptation and institutional development, Guyana's on adaptation, capturing land-use related mitigation opportunities and developing the supporting institutions needed to deliver the changes required. Rapidly developing economies with high power use such as China, India and South Africa are focused on power sector transformation and energy efficiency in industry, while more advanced economies are pursuing mitigation opportunities across their economies. The geographic and economic diversity of Indonesia's huge archipelago illustrates the need for LCGPs to be flexible to local situations. For example, emissions from Kalimantan stem mostly from land use change, while emissions from Java come primarily from the power, industry, and transport sectors.

The differences in coverage of the strategies reviewed are in part due to the different national contexts, but also in part to the stage in development that the planning process has reached in each country. For example Mexico, which started this process earlier than most, released a high level strategy in 2007 setting out the country's overall vision and its principles and priorities for action in key areas. At this stage the strategy did not contain specific policies commitments or costs and there was no indication of which of the policies would require international cooperation. Two years down the line, the full plan agreed in 2009 now provides more detail policy plans and includes specific commitments, costs and initial financing mechanisms.

Three key overarching differences, however which stand out in the quality and coverage of current plans are:

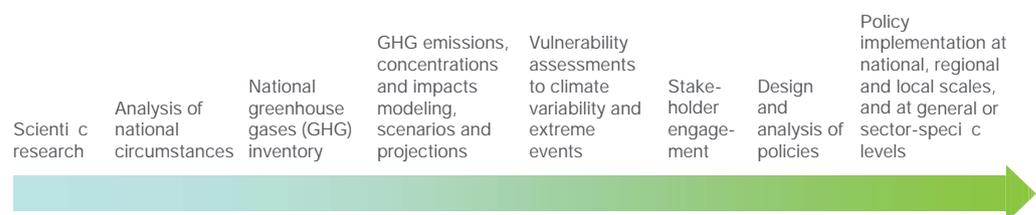
- The extent to which they are data-driven, based on an assessment of abatement and adaptation opportunities and costs.
- The extent to which they specify concrete goals, targets and timelines.
- The extent to which they address the need for institutional capacity to implement the proposed policy packages.

These three factors are critical because they determine whether the strategies proposed will be (i) directed at the most material abatement and adaptation needs, at the speed and level needed and (ii) possible to implement.

## HOW ARE THE PLANS DEVELOPED?

There are commonalities in the way that plans have been developed. Mexico's process outlined below is fairly typical of the steps countries are undertaking.

Figure 4: Roadmap for Climate Change Policy in Mexico



Almost all national strategy documents emphasize two key aspects in their development - firstly, the involvement of stakeholders and government agencies from many sectors in developing and implementing the plans, and secondly that they are dynamic documents designed to be reviewed and iterated to take into account advances in scientific knowledge, international agreements, technological developments and learning about what works.

Figure 5 outlines the key steps taken in developing national strategies in the developing countries reviewed. Annex II provides a more detailed matrix.

Figure 5: Review of national strategy development processes

Process steps		Areas of common practice or difference	Examples
Enablers	Precursors	...Many strategies build on existing policies and fact-bases from within a country (e.g., Mexico's GHG inventory) and outside (e.g., International benchmarks)	
	Time to develop	...Initial strategies have been developed in as little as 6 months to more than three years	...Bangladesh's strategy was developed in 6 months. South Africa spent 3 years building consensus around the fact-base
	Support for preparing (financial and technical)	...Most strategies produced by developing countries have been supported by financial and technical assistance, both for the data gathering and assistance phase and in stakeholder engagement	
	Leadership	...Some strategy development processes have been led at Presidential level, others by environment ministries	
Key steps	Data acquisition and analysis	...Wide variation in the quality of the fact-base and data-analysis	...Mexico, South Africa and China commissioned and published independent research. Guyana have integrated commissioned and development of the strategy into a single process. India and Brazil collated data from different ministries
	Stakeholder dialogue-engagement	‡ Almost all countries have involved stakeholder consultation in the development of their strategies – or have committed to a round of consultation following the first draft	
	Ratification and implementation	‡ Some countries have already ratified their plans. Others are waiting for outcomes from Copenhagen or have developed their plans as executive instruments not integrated into national legislation	‡ UK and Mexico have ratified their plans
	Iteration	‡ Almost every country emphasizes the importance of iterating their strategy through ongoing learning, technological development and stakeholder engagement	‡ In China, the National Development Research Center is developing pilots to test low-carbon growth policies on a regional basis

■ Areas of difference

■ Areas of common practice

Again a fairly common process and a set of lessons are emerging from this first generation of plans, which is likely to be valuable for other countries developing national climate strategies, and for integrating these as mechanisms for gaining recognition and support within the global framework of collaboration. Critical process steps in developing a robust, nationally supported and implementable national plan are:

- Establishing a mandate and ownership at the highest levels of government. Achieving buy-in and integration with national development plans has generally been most successful when the plan has involved senior (often presidential) leadership from within the government and active involvement of finance and other key ministries.
- Developing a sound basis of data and analysis. A strong basis of data and scientific and economic analysis appears critical to developing sound and well supported policies. This may mean an economy-wide assessment, or for some countries (for example least developed forest nations) a single sector assessment.
- Involving multiple stakeholders, including public and private sector and civil society in prioritising policy choices. Stakeholder engagement is crucial, but there are differences in approach taken, in terms of the extent and sequencing of dialogue within the planning process. There are clearly trade-offs between time needed to develop the strategy and the need to involve and mobilize a broad range of stakeholders.
- Developing and agreeing a national vision, plan and policy package and implementing through integration with other national policies and overall policy objectives. Fully developing and ratifying strategies and policy packages takes years, but priority sectors and policy principles, identified early on, can already be used to inform immediate actions and development of international collaborations.

The strategy development process can take around 12-18 months (or in some cases longer). However in every country it has been emphasised that it is best seen as an ongoing iterative cycle which progresses through learning, action and engagement. In each iteration of a nation's plan the quality, clarity and level of support is built upon (including by addressing the critical issues of data, implementation capacity, targets and timelines).

## THE ANALYTICAL BASIS

Many countries are using a bottom-up assessment of abatement potential and costs and of climate change impacts in order to develop a robust national strategy.

Marginal Abatement Cost Curves (MACCs) provide an overall assessment of the level of emissions reduction which a range of measures could deliver. They show how much GHG each measure could save by a particular date and the associated cost per tonne in terms of net present value. Each measure is represented by a single bar on the MACC with the width of the bar representing the amount of abatement potential available from the measure and the height representing unit cost. Measures are ranked according to their unit cost. More cost effective measures are on the left hand side. Those below the x axis have negative costs, saving money for example through energy efficiency.

Figure 6: LCGP development process

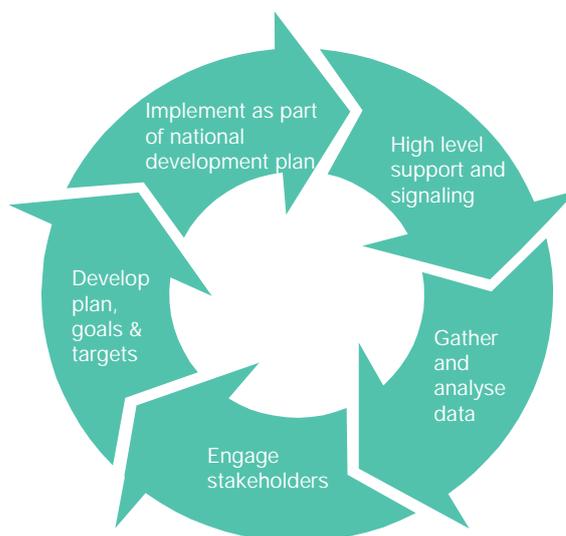
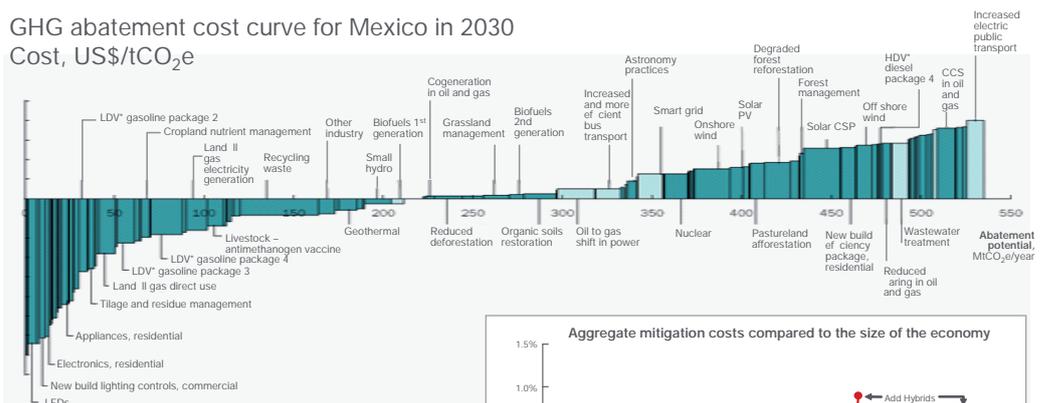


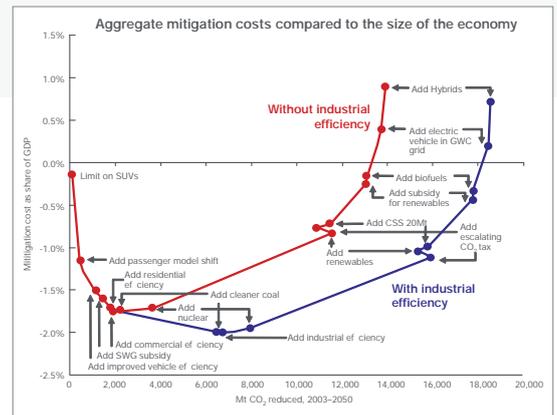
Figure 7: Presentation of GHG abatement costs, Mexico & South Africa

GHG abatement cost curve for Mexico in 2030  
Cost, US\$/tCO<sub>2</sub>e



\* LDVs = light duty vehicles; HDVs = heavy duty vehicles  
Note: The cost estimate for the light-colored bars is approximate

Both graphs are based on the same type of data: Mexico's presentation highlights marginal abatement costs for each technology, while South Africa's highlights overall cost to the economy as progressively more expensive options are added to the plan



This micro economic analysis enables a country to assess its emissions abatement potential on the basis of existing and near-commercial technologies. For example, analysis by Centro Mario Molina and McKinsey in Mexico found that by 2030 the country could achieve a cut of 54% from 2005, against a business as usual scenario.<sup>3</sup> South Africa's analysis concluded that there are many negative cost options and that much can be done at no cost to the economy, and even more at a modest cost, below 1% of GDP.<sup>4</sup>

The cost curve estimates are inherently conservative because they only include technologies that are commercial or near-commercial today. Such analysis also rarely includes harder to quantify potential from changes in behaviour. On the other hand, while the potential of each individual opportunity is been assessed conservatively, the aggregate potential of the curve assumes that all this potential will be captured through well designed government policies and business strategies. However, technical potential rarely translates fully to real-world action, as the unexploited cost saving opportunities at the left of the curve indicate.

Nevertheless cost curve analysis is a powerful tool for assessing, prioritizing and communicating measures of emissions abatement. As the paper by Centro Mario Molina argues " *How this inherent conservatism and inherent optimism balances out is difficult to answer and is likely more a matter of judgment than analysis. But regardless, the key message of the cost curve remains. Like most other countries that have been assessed in the same manner, Mexico has massive opportunities to reduce its carbon emissions using existing technologies or near-commercial technologies. Many of these opportunities have positive economic returns, and those that do not can be captured at manageable levels of incremental cost.*"<sup>5</sup> In particular, cost curve analysis enables countries to identify measures that can be taken with negative or modest cost and those that can be captured relatively quickly. The sooner abatement actions begin the more gradual the transformation of the economy can be, with less need for costly retrofitting or replacement of high-carbon infrastructure.

In Mexico, the micro-economic analysis was also backed up by a macro-economic analysis to assess the overall impacts on the economy, jobs and trade. The model predicts that a low-carbon growth strategy for Mexico would result in slightly lower household spending than the business as usual case, but 500,000 new jobs created by 2030 as a result of investment in new low-carbon infrastructure. Such analysis can be also used to assess the other impacts and co-benefits of mitigation adaptation investments – such as on poverty, health and education.

In many cases the analysis involved was supported by international financial and technical support, as well as the involvement of local academic institutions or think tanks.

## STAKEHOLDER ENGAGEMENT

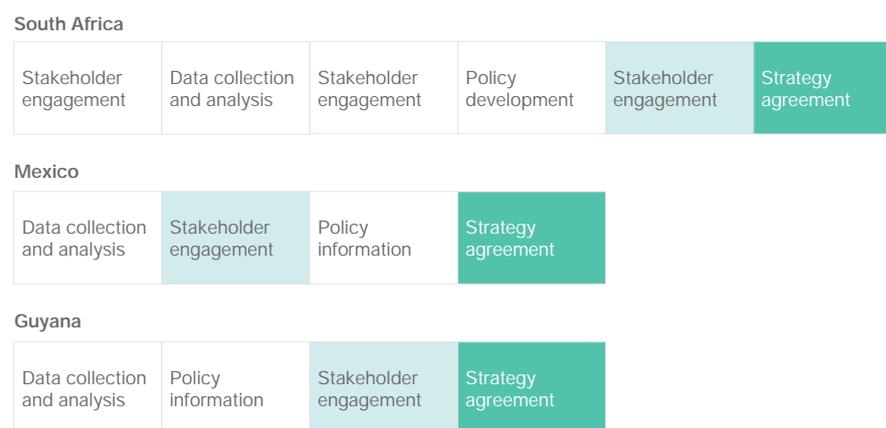
In most countries development of the plan is taking place within a structured process of stakeholder engagement, to enable:

- Data-collection, analysis and deliberation by different industry sectors and expert institutions and stakeholder groups within the country;
- Cross-departmental buy-in and coordination within government;
- Mediation of national stakeholder positions, including identifying and addressing losers; and
- Broader awareness and public support for change.

However, each country has pursued this engagement with different emphasis, enthusiasm and sequencing between the data analysis, stakeholder engagement and policy formation phases. In some countries, such as India and Bangladesh, criticism of the initial level of stakeholder engagement from local and national stakeholders has precipitated further rounds of consultation.

The South African process stands out for its stakeholder engagement, integrated throughout the strategy development process. In particular the research base fed into a facilitated stakeholder process. Central to the process was the Scenario Building Team (SBT) which brought together strategic thinkers from key sectors across government, business and civil society. The SBT gave detailed comments on

Figure 8: Sequencing stakeholder engagement



the assumptions and data used by the research teams and its thinking and dialogue was advanced by the research commissioned. In particular the coordinator reports that the team was shocked that the gap between the Growth without Constraints and Required by Science scenario was so large, and this caused them to change their approach to thinking about possible futures. The scenarios document agreed by the SBT was opened to consultation with a broader set of stakeholders, including CEOs and representatives from NGOs and labour as well as ministers in government.

In South Africa the facilitated stakeholder process was critical to building consensus around the results and rigour of the research methodology, and building up a broad base of support for action. As Harald Winkler, LTMS project leader, relates " *The creation of the Scenario Building Team in itself is an important outcome. Results shaped and endorsed by a set of strategic thinkers from a diversity of stakeholders carry much greater weight than a simple research report. This team of people has the potential to continue playing an important role in future.*" However, South Africa's process has taken a long time, and may not be a model suited to the political culture of other countries.

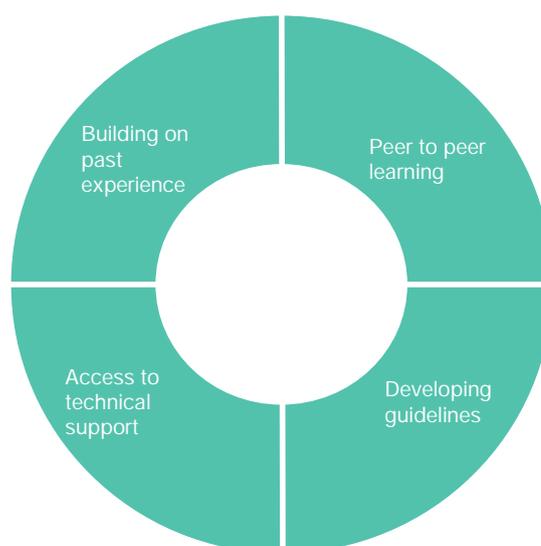
## TIMELINES, TARGETS AND IMPLEMENTATION

Mexico's plan includes an economy-wide voluntary GHG target, and a number of plans include sub-targets in key areas such as renewables. But few plans have so far developed to the stage of having a clear set of national goals and compatible commitments for individual actions, and none have reached the stage of driving these goals, targets, and policy commitments into national development plans.

Committing to plans and strategies depends not only on national political and public support but also on securing funding. Most plans are therefore being used in bilateral negotiations to secure funding and as the basis for national positions being taken to the Copenhagen talks. Guyana, for example, is working closely with Norway to develop a basis for MRV and to secure funding for its proposed approach to avoiding deforestation emissions.

# Accelerating Learning

Figure 9: Accelerating learning



The first generation of national Low Carbon development plans have shown that many developing, as well as developed countries, are willing to commit to early actions on Low Carbon growth, based on an assessment of their own national development priorities and on the willingness to make a contribution to a collective global challenge. However the strategy papers are neither consistent in content nor in time horizon and the funding flow to date from North to South has been piecemeal, uncoordinated, and insufficient.

It is crucial that LCGPs are robust and effective, both if they are going to meet national needs for long-term planning, policy coordination, and political and public support for climate change action, and to provide context for international support and financial flows. This paper highlights four key levers for accelerating the development of effective LCGPs.

## **BUILDING ON PAST EXPERIENCES**

Over recent decades there has been significant experience of national strategy development processes linked to international guidelines, frameworks and agreements; these have included Comprehensive Development Frameworks, National Biodiversity Strategies, National Forest Programmes, National Conservation Strategies and National Environmental Action Plans. Most recently there have been the National Sustainable Development Strategies mandated by the Agenda 21 agreement and Poverty Reduction Strategies linked to debt cancellation by the World Bank.

At their worst they have proved to be little more than rapid, top-down ‘translations’ of externally imposed policies or conditionalities for receiving aid. At best they can be learning systems that address challenges to institutional change – by generating awareness, building consensus and commitments around clear goals, and creating an environment with the right incentives for action through transparency, monitoring, accountability and review.

Development of LCGPs should build on the learning from these processes, both their pitfalls and of best practices.

### Pitfalls and Best Practice in Developing National Plans and Strategies<sup>6</sup>

Research by IIED, OECD UNEP and others highlights five key pitfalls to be avoided:

1. External imposition. A large number of strategies have been induced or even imposed by external agencies rather than country-led. (‘A long form to fill in if we are to get aid’)
2. Poor integration. Lack of integration into a country’s mainstream decision making systems (notably government economic planning, and private sector investment decisions) leads to a lack of momentum for implementation.
3. Lack of prioritisation. Early examples such as national conservation strategies, and national environmental action plans in particular, lacked integration between environmental, social and economic dimensions and tended to result in ‘policy wishlists’ rather than plans for effective implementation with clear priorities and achievable targets.
4. Lack of local ownership. Many strategies were held back by their narrow base of participation due to lack of time, resources and commitment. Any participation was often late in the process resulting in forced, fragile or partial consensus and little sense of ownership. With few links between strategy and on-the-ground realities, learning and experimentation was not built up.
5. Weak fact base. Information employed was often out-of-date, repeating old analyses and not challenging existing assumptions. Credibility of research was low because the knowledge was not measured in terms of its relevance, utility and accountability to local stakeholders. In the worst cases, pieces of ‘analysis’ have even been cut-and-pasted from one country strategy to another

Avoiding these common failings, a new vision for nationally developed strategies has emerged based on integration of economic, social and environmental objectives, country ownership and integration into budget and investment processes and ongoing learning.

While the emerging development of National LCGPs has clearly built on the learning of previous strategy processes, the more recent experience of National Adaptation Programs of Action (NAPAs) is also critical. NAPAs developed by the least developed countries have focused on urgent actions and have been nationally owned, but not integrated into planning and budgeting processes. However, they have resulted in disappointment as they have not received significant levels of financing. Donors say that this is because they exemplify the kind of ‘projectization’ that is rarely effective. However, those involved in developing them see the process differently; as another example of poor countries being asked to (and funded to) carry out studies without reliable commitment of funding for implementation.<sup>7</sup>

The NAPA experience to date highlights the crucial role of reliable funding promises for countries developing national plans, and also the need to scale up from initial urgent first-steps to broader, integrated action. Clearly it will be critical work out mechanisms for linking LCGPs with NAPAs and NAMAs to ensure that they provide a strategic national context to these funded actions, but do not slow down the necessary support and incentives to enable implementation.

### PEER-TO-PEER LEARNING

Peer review was adopted as a key step by some countries in developing National Sustainable Development Strategies in order to share experience and lessons and drive improvement. Such peer review would also be a useful approach in the development of LCGPs, enabling them to build on emerging best practices, evidence base and technologies, approaches, and regulatory ideas being developed around the world. Sharing and learning amongst peers will help to accelerate the adoption of effective measures by demonstrating the links between low-carbon development and economic growth, energy security, climate security and public health.

Initial support to these pilot LCGP processes has come from The World Bank's Energy Sector Management Assistance Program (ESMAP) in China, India, Indonesia, Mexico, Brazil, South Africa, and Poland; Project Catalyst in China, India, Indonesia, Mexico and Guyana has provided both technical support and a space for peer-to-peer learning.

### ENABLING TECHNICAL SUPPORT

Developing robust and well supported plans is a significant undertaking. Creating robust LCGPs requires access to massive amounts of local and global data, and expertise in energy and macroeconomic modelling, international policy best practices, and carbon finance flows. Many developing countries lack the technical capacity to evaluate a comprehensive set of mitigation opportunities and their costs.

Given the data resource needs and analytical economies of scale required to build tools, such as cost curves, international carbon finance estimates, and policy best practices databases, it makes sense for countries to partner with technically proficient organizations. Such financial and technical support has been a key enabler for many developing countries strategy development processes to date. International technical support can enhance national policy development processes by:

- Supporting peer-to-peer learning through information sharing and convening.
- Developing country-specific mitigation cost curves, outlining the magnitude, cost and benefits of a full set of carbon abatement opportunities.
- Sharing practice data, tools and expertise to on policy options, technologies, business models and regulatory approaches.
- Providing macroeconomic assessment of the impact of such policies on jobs, GDP growth, and other economic indicators.

- Identifying international carbon finance sources to cover incremental costs.
- Supporting development of local analytical and policy development capacity and local ownership of the analysis, data, and methodology with the government and other stakeholders.

The initial technical support offered by institutions such as the World Bank and Project Catalyst is likely to be joined by service providers. However the danger of a laissez faire approach to this work is that without a methodologically consistent approach there would be no assurance that the support on offer would result in high quality, comparable and useful and nationally owned plans.

## DEVELOPING GLOBAL GUIDELINES

Peer-to-peer learning could be used as a platform for developing common guidelines on best practice. The initial review of early LCGP experience shows that a common approach would be possible, and would help in improving the effectiveness of plans, while accommodating for differences in development stage and relative priorities of different countries. Based on experiences to date, these guidelines are likely to cover key areas such as:

- Baseline: National circumstances of the country and current development plans, assessment of vulnerability to climate change and how future climate change will affect it and the most recent GHG inventory
- A long-term vision for an economy with low GHG emissions and low vulnerability to climate change
- A plan for specific investments in making the economy and the infrastructure less vulnerable and measures to adapt existing infrastructure to the changing climate (NAPA); a scenario the country can achieve without assistance and a scenario for which it would require international support
- A plan for specific investments to move towards a low emissions economy and specific policies and measures to achieve those steps (NAMAs); a scenario the country can achieve without assistance and a scenario for which it would require international support
- The incremental cost of the individual NAMAs and NAPAs and all technology, financing and capacity building support needed to implement the plan.

More detailed specifications could be agreed at an international level, for example, the long-term and short-term timeframe of plans and the level of detail in the policy roadmaps they should include, and the necessary, expected and desirable levels of quality for each element.

Guidelines would need to be flexible enough to accommodate plans relevant to different levels of economic development and current emissions, sector biases in abatement opportunities and the extent of adaptation to climate change required. For example, given that many rainforest nations are amongst the least developed countries, it may make more sense for them to generate land-use (forestry and agriculture) LCGPs rather than full national LCGPs. The key is to keep barriers to entry low, maximise participation of countries in an effective system, and accelerate learning through on-the-ground action.

# Annex I: Selected National plans: Content

	<b>GUYANA DRAFT LOW CARBON DEVELOPMENT STRATEGY</b>	<b>BANGLADESH CLIMATE CHANGE STRATEGY AND ACTION PLAN</b>	<b>MEXICO SPECIAL PROGRAMME ON CLIMATE CHANGE</b>	<b>SOUTH AFRICA LONG TERM MITIGATION SCENARIOS AND POLICY FRAMEWORK</b>
<b>VISION</b>	Focus on avoiding deforestation and using funding to enable low carbon economic development of new sectors.	Pro-poor, climate resilient and low-carbon development. Adaptation is the priority for Bangladesh in the short to medium term.	A national (aspirational) goal by 2050 aligned to the required global mitigation actions	“Business as Unusual” - Make a transition to a low carbon economy, presenting this as the best option for job creation and development in a carbon constrained future.
<b>TIME HORIZON</b>	Plans to 2020+ Adaptation costs to 2030	The Climate Change Action Plan is a 10-year programme (2009-2018)	Building position by working back from 2050 - Special Programme on Climate Change covers 2007-2012.	To 2050 Policies to be enacted in 2012
<b>REFERENCE TO GLOBAL TARGET</b>	GHG peak by 2020 fall by 80 percent by 2050		450 ppm - “flexible convergence” of per capita levels of GHG emissions,	Aim of limiting temperature increase to 2°C above preindustrial levels and doing a fair share in the international context.
<b>NATIONAL BASELINE</b>	GDP growth Obstacles to economic development	Physical and climatic Contexts, core socio-economic realities and policies	GDP Growth Sectoral emissions Energy sources	GDP Sectoral emissions Energy sources

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Equal entitlement to the world's resources. Plan closely links with economic development

Brazil's efforts are based on the commitment to reduce social inequality and to increase income by seeking an economic dynamic with a low emissions trajectory, not repeating the pattern and the standards of the countries that have already industrialized

China's social and economic development is now at the stage of important strategic opportunity. Goals: develop a circular economy, protect environment and accelerate the construction of an environmentally-friendly society.

Triple track strategy, pro-poor, pro-job, and pro-growth, with pro environment principle.

Green Growth brings a new paradigm to economic development. It seeks to break away from the conflicting nature of "green" and "growth" and achieve economic growth while maintaining environmental integrity.

11th and 12th 5 year plan – up to 2017

The plan does not state one single time horizon. For example, they use 2030 for the National Energy Plan.

'Expected' targets up to 2010 – i.e. the term of the 11th 5 year plan

Maps out actions in the immediate term (to 2009), short term (2009-12) medium term (2012-2025) and long term (2025-50)

Green Growth: 60 Years from 2008 Energy and Climate Change Plan 2008-2030

Commitment that Indian per capita emissions will never be more than developed country average.

Starts from the basis that Brazil has no quantitative obligation to reduce emissions, but does have obligations to create a GHG inventory, programs for mitigation and adaptation, technological, and educational cooperation and promoting the sustainable use and capture of emissions.

References IPCC and Stern on the need for early action. Emphasizes China's right to develop and the need to consider developing country emissions on a per capita basis.

"Although, Indonesia is not yet obligated to reduce its GHG emission, but because it is vulnerable to the climate change, then it is feel that it is necessary to conduct mitigation in energy sector and LULUCF."

GDP  
Per capita emissions  
Emission intensity

Emissions data back to 1994

National emissions data back to 1994 Impacts and challenges of climate change for China.

GHG Emissions  
Deforestation

	GUYANA	BANGLADESH	MEXICO	SOUTH AFRICA
<b>ANALYSIS OF ABATEMENT OPPORTUNITIES AND COSTS</b>	Comparison of EVN and EVW of Guyana's forests	No – "Bangladesh's contribution to emission of green house gas (GHG) is miniscule."	Estimates abatement potential of individual actions in key sectors	Yes analysis of abatement opportunities and costs (including consideration of behavior change)
<b>ANALYSIS OF ADAPTATION VULNERABILITIES AND NEEDS</b>	Flood risks. Total adaptation projected to exceed US\$1 billion. Urgent action requires US\$260 million.	Outline of climate hazards and impacts and adaptation action to date.	Identifies adaptation priorities, e.g.: watersheds, aquifers, early warning systems, water treatment technology, natural resource management instruments	No. Mitigation focused only. South Africa is developing a National Climate Change Response Project
<b>PRIORITY AREAS</b>	Avoiding deforestation. Investments in high-potential low-carbon sectors; expanding access to services and new economic opportunities for indigenous and forest communities	Food security, social protection and health, Comprehensive disaster management, Infrastructure, Research and knowledge management, Mitigation and low carbon development, Capacity building and institutional development.	Emission reductions to 2012, mainly in: LULUCF, energy generation, energy use, solid waste and wastewater. Framework to create a carbon market	Energy Transport Carbon markets
<b>POLICIES AND MEASURES</b>	REDD mechanism developed in detail. Policies and investments for adaptation and low-carbon development roughly mapped out.	37 Programs of action indicated for first five years of a ten year programme.	Contains 41 mitigation objectives and 95 related targets.	Identifies wide range of possible measures – start now, scale up, use the market and long-term transformation and assesses how these wedges add up to the overall target.

## INDIA

Some data on abatement but little on costs and no overall abatement potential or cost curve.

Outline of climate hazards and impacts and adaptation action to date.

8 national missions energy efficiency, solar, sustainable habitat, water, Himalayan ecosystem, green India, agriculture and strategic knowledge.

Outlines key policies in each area, but many are already existing policies.

## BRAZIL

No cost curve in the current national plan. They only present a table, (p120) that show some of the projects already being financed and emissions being cut by each activity. Plan states that "Brazil's potential to reduce emissions is one of the greatest – if not the greatest – of all nations."

Although there is no result yet for regional climate analysis, public and private institutions are currently doing research on vulnerability by sector.

1. Low carbon development
2. Renewable electricity
3. Biofuels
4. Deforestation
5. Forest cover
6. Vulnerability and adaption
7. Research and development

Lists 32 activities in the active phase and 13 in the conception phase. Some policies go back to the 1990s, others are newer or just ideas.

## CHINA

No cost curve analysis in current national plan.

Discussion of broad areas of vulnerability in China – e.g. coasts, health, energy security. Adaptation priorities: Agriculture Forests Water Coasts

Energy production and use; Agriculture Forestry, Waste

Most of the measures are based on existing policies.

## INDONESIA

No cost curve analysis in current national plan.

Discussion of broad areas of vulnerability. Adaptation priorities: Water, Food, Infrastructure, Health Forestry

The priority economic sectors:  
a. Agriculture;  
b. Forestry;  
c. Water resource;  
d. Marine and Fisheries;  
e. Energy;  
f. Mining;  
g. Processing & Manufacture;  
h. Public works;  
i. Tourism.  
j. Population (quantity, quality, and mobility of distribution)

Most of the measures are based on existing policies

## KOREA

Renewables R&D, export growth of green tech Buildings and urban planning Education and behaviour change

Fuel efficiency standard for car makers. R&D support to increase portion of green technology products among all Korean products to 8.0 percent by 2012.

The carbon emission trading system to be introduced. Mass transport improvement.

	GUYANA	BANGLADESH	MEXICO	SOUTH AFRICA
<b>INSTITUTIONAL CAPACITY</b>	3 new bodies proposed: Office of Climate Change, Presidential Delivery Unit, Low-Carbon Finance Authority	Capacity Building and Institutional Strengthening one pillar of programmatic development -	Proposes a suite of research objectives as a tool for laying out more precise mitigation targets and outlines national requirements for capacity building for adaptation to climate change.	Not mentioned
<b>COSTS</b>	Broad estimates of investments needed to shift country to low carbon infrastructure and adaptation measures	The Ministry of Environment and Forests is currently working out the cost of implementing the ten-year Action Plan, is estimated that a \$500 million programme will need to be initiated in Years 1 and 2 and that the total cost of in the first 5 years could be to the order of \$5 billion.	Not all proposed goals are funded; \$7B have been assigned to goals targeting reductions of 93.5 MtCO <sub>2</sub> e, leaving a \$6.6B gap.	Cost curve used to assess negative and positive costs of actions.
<b>ABATEMENT POTENTIAL, TARGETS</b>	Forestry only	Not estimated	Yes abatement potential of individual actions estimated. In December 2008, set the goal of reducing greenhouse gas emissions to 50% below 2002 levels by 2050. PECC will establish quantitative mitigation and adaptation goals for the period 2009-2012	Cabinet agreed that emissions need to peak (at the latest by 2020-25), then plateau for a decade or so, and then decline.
<b>MRV</b>	Monitoring, reporting, and verification (MRV) system planned for forestry.	Not mentioned	Targets include both quantitative and qualitative metrics. MRV acceptable in principle.	Not mentioned

INDIA	BRAZIL	CHINA	INDONESIA	KOREA
Some discussion of institutional capacity requirements.	Plans under development	Strong emphasis on institutional reform and coordination across ministries.	Sets out responsible institutions for each measure. Strong emphasis on need for institutional development and coordination.	
Costs not assessed.	Notes that international support needed to help realize efforts.	Notes that international collaboration and technology transfer necessary, but not costed.	Outlines funding sources, but activities not costed (except for Borneo Forestry component related to REDD)	
No overall assessment. Some targets. E.g. increase the renewables share in power generation installed capacity by 10% and in the total electricity mix to 4-5% by 2012	Initial version released for public comment in September 2008; criticized for lack of clear goals. Revised version released December 2008. Goals include: reducing deforestation, power from renewable energy, production of ethanol, and reducing energy consumption	Reduce energy intensity of the economy by 20%, but few specific targets and goals related to specific sectors and actions.	Energy policy estimates CO2 emission reduction of from BAU by 2025 (17% from energy mix, 20% Geothermal, 40% CCS) Rehabilitate 53MHa degraded forest by 2050. Other targets given in 'Implementing the Plan' annex.	Increase share of renewable energy to 11% by 2030.
	Not mentioned	Mentions capacity building needs for national communications include the establishment of statistical system for emission inventory.	To anticipate the mitigation and adaptation management regime after the end of the first commitment of Kyoto Protocol, the implementation of National Action Plan in the next three years (2008-2011) should build capacity to maintain the compatibility of model and information and data system to the COP.	

## Annex II: Selected National plans: Process

	<b>GUYANA DRAFT LOW CARBON DEVELOPMENT STRATEGY</b>	<b>BANGLADESH CLIMATE CHANGE STRATEGY AND ACTION PLAN</b>	<b>MEXICO SPECIAL PROGRAMME ON CLIMATE CHANGE</b>	<b>SOUTH AFRICA LONG TERM MITIGATION SCENARIOS AND POLICY FRAMEWORK</b>
<b>PRECURSORS</b>	National Development Strategy – intensive consultation	National Adaptation Programme of Action (NAPA)	National GHG Inventory	2004 – National Strategy on Climate Change
<b>TIME TO DEVELOP</b>	18 months	First draft – 6 months	4 years total (2 years for high level strategy, 2 years for policy)	LTMS – nearly 3 years
<b>SUPPORT FOR PREPARING (FINANCIAL AND TECHNICAL)</b>	Prince Charles' Rainforest Project and former US President Clinton's Climate Foundation. Support from Norway for consultation and to develop MRV.	DFID technical assistance	Project catalyst involved	Energy Research Center (ERC) to project managed the process, with Tokiso providing independent facilitation
<b>LEADERSHIP</b>	President Jagdeo championing. Being led by the office of the president.	Ministry of Environment and Forests	President's office - high-level political guidance	Department of Environmental Affairs & Tourism (DEAT) was mandated by Cabinet to carry out the LTMS, in turn asked the.

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PROALCOOL –  
renewables program  
National GHG Inventory

China's Agenda 21 -  
White Paper on China's  
Population, Environment  
and Development in the  
21st Century

Have produced three  
national plans on  
reducing GHGs (1999,  
2002, 2005)

2 years

18 months

1 year

Prime Minister's Council  
on Climate Change,

President initiated  
and appointed  
interministerial  
committee on climate  
change.

China was the first major  
developing economy  
to issue an action plan.  
Process was led by the  
National Development  
and Reform  
Commission, with input  
from universities.

Presidential decree.  
Inter-ministerial  
Committee led by Prime  
Minister

	GUYANA	BANGLADESH	MEXICO	SOUTH AFRICA
<b>DATA ACQUISITION AND ANALYSIS</b>	McKinsey study	The Ministry of Environment and with consultant support and input from other departments, and limited civil society input.	McKinsey study with Centro Mario Molina, World Bank study, data from businesses (e.g. Pemex)	A facilitated stakeholder process and commissioned research. The research fed into a the stakeholder process.
<b>DIALOGUE-ENGAGEMENT</b>	Little consultation before draft plan released. But intensive consultation now planned. Facilitated by IIED (Funded by Norway)	“BCCSAP has been prepared through a fully consultative process involving government, civil society and development partners” – but this is disputed by NGOs. <sup>8</sup>	Intersectoral commission on Climate Change with participation of key ministries and involvement of Research institutes (e.g., Mario Molina Centre) and businesses.	Led by a Central Scenario Building Team (SBT), which brought together strategic thinkers from key sectors across government, business and civil society, plus broader engagement.
<b>RATIFICATION</b>	Depends on success of International partnerships (e.g. with Norway) delivering results in first phase. Then National stakeholders will need to agree long term plan After this will depend on ratification of international treaty.	Not clear. Programmatic actions will depend on funding	High level strategy released in 2007. Programme agreed by government June 2009 Will become an integral part of the National Development Plan, 2007-2012.	July 2008, the South African cabinet endorsed the outcomes of the Long Term Mitigation Scenarios (LTMS) process

## INDIA

A detailed cost curve assessment was completed in India, but has not yet been published.

Council includes ministers, government officials, scientists, civil society and business, but has met infrequently.

The need for further stakeholder engagement has been recognized.

## BRAZIL

No cost curve in current plan, but McKinsey has done a Brazil-specific cost curve, and the related report was published in March of 2009. Much of the focus is on forestry as it offers the largest opportunity for mitigation in Brazil, by far, but all sectors are covered in detail.

Consultations key ministries Sectoral Dialogues' with industry, NGOs, civil society organizations, banks, forests, land use, etc. Proposals from each sector were taken to the Secretariat and then to the Interministerial Executive Committee for analysis.

Some measures are mandatory e.g.: measures to combat deforestation and the usage of fossil fuel. Some are voluntary like Brazil's will to form the National Fund for Climate Change and some strategy forming regarding energy efficiency, residue management, clean production, agriculture protection, etc.

## CHINA

In partnership with Project Catalyst, McKinsey completed a detailed assessment of more than 200 unique abatement opportunities in China. The results of the comprehensive cost curve analysis were released publicly in February of 2009. The detailed models of the China Cost Curve have been made available to Tsinghua, the Development Research Center (DRC) and ERI

Chinese Vice Premier Zeng Peiyan and State Councilor Tang Jiaxuan now head a National Coordination Committee on Climate Change, which includes 17 ministries and agencies, to orchestrate climate change policy.

## INDONESIA

Indonesia has conducted several national strategy studies on the energy and forestry sectors and studies to identify potential programs to reduce emissions from the oil and gas, forestry, transportation, and solid waste sectors and from the application of new and renewable energy. Project Catalyst is currently working in partnership with McKinsey to develop a specific cost curve for Indonesia.

## KOREA

Korea is undergoing a study on its mitigation capabilities and will announce its target after a national consultation based on the study.

Presidential Committee on Green Growth was established including 47 members including relevant ministers and experts and stakeholders from the private sector. The Committee is formulating the National Strategy on Green Growth and a five-year 'Action Plan' for its implementation in the first half of 2009.

The government has proposed a new Framework Law on Green Growth. If enacted, it will be a comprehensive law that will encompass all related issues on energy, climate change and sustainable development.

	GUYANA	BANGLADESH	MEXICO	SOUTH AFRICA
<b>USE</b>	<p>Basis for national consultation and engagement with international partners.</p> <p>Taking to Copenhagen to support call for REDD</p>	<p>Basis for national engagement and international fundraising. (NB: Launched in London)</p>	<p>Policy implementation</p>	<p>To build consensus and inform development of policy framework.</p>
<b>NEXT STEPS</b>	<p>Four phases of iteration are planned.</p>	<p>The BCCSAP will be reviewed periodically and revised, as necessary, in line with emerging scientific and technical knowledge and the outcomes of global negotiations under UNFCCC and other UN-led climate change negotiation processes. One action is to develop a National Climate Change Policy to guide the integration of climate change issues into development planning and to provide a framework for sectoral policies.</p>		<p>2009 – Climate Change Policy Framework developed – to be developed up to 2010. Legislative, regulatory and public fiscal measures to take place in 2012.</p>

## INDIA

Strategies to advance the eight missions identified in the plan are being developed by ministries, agencies and consultants.

## BRAZIL

Phase II is being prepared. To support the plan, the Brazilian government will create economic, technical, political and institutional mechanisms, such as laws and funding, over the next few years.

## CHINA

## INDONESIA

Lays out case for international cooperation. Use for guiding and monitoring policy integration.

The NAP is a dynamic policy instrument that will be evaluated, renewed and improved periodically in stages, and will require policy integration from mitigation and adaptation priority sectors for its implementation until the medium period (2025).

## KOREA

Basis for green stimulus package and five year plan.

Being supported by Green Stimulus Package of 50 trillion KRW (38.5 billion USD) for the next 4 years (2.6% of the annual GDP).

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