



WORKING PAPER

Drivers and Challenges for Climate Compatible Development

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About this Working Paper

This Working Paper sets out CDKN's initial thinking on the drivers and challenges affecting climate compatible development (CCD) policy processes. It presents a range of relevant examples drawn from the literature and CDKN's experience to date. It is not intended to be comprehensive, but a contribution to the debate; it is expected that more in-depth research and practice papers from CDKN and others will follow on specific aspects of CCD. There is a need to look at the issues raised here in much more depth, through the lens of individual countries' development contexts. For now, readers are invited to share their views; further details about how to do so are at the end of the paper.

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What is CCD?

Climate compatible development is a "development first" approach that "minimises the harm caused by climate impacts, while maximising the many human development opportunities presented by a low emissions, more resilient, future".¹

Introduction

What does it take to design and deliver CCD? Policies and institutions for CCD are always part of a larger policy landscape; they are subject to numerous external drivers and influences. As the CDKN Guide to Green Growth² suggests, it is important for planners and decision-makers to consider “drivers of competitiveness, local political context, private sector reactions, the complexities of the international political process, the ability to secure funding for implementation and the impacts on trade and financial flows”.

This Working Paper considers some of the various drivers behind countries’ CCD strategies and their incentives for engaging on this agenda. It also looks some of the challenges and disincentives to promoting CCD reforms and considers some of the options for overcoming these. These are summarised in Table 1.

Table 1. Some drivers and challenges to CCD

Driver	Challenge
<ul style="list-style-type: none">• A recognised need at the national level to adapt to climate change in order to bolster resilience, achieve growth and reduce poverty• A need for energy security and natural resource efficiency• A desire to capitalise on new economic opportunities• A desire to improve access to climate finance and aid• Strong government leadership	<ul style="list-style-type: none">• Costs associated with change• Interest groups opposed to change• A lack of awareness or trusted information about uncertainties, risks, opportunities and trade-offs• Short-termism• A lack of state capacity to respond to and implement strategies• Institutional constraints• Technological constraints and uncertainties

Far from being a comprehensive guide to this complex topic, this paper provides an introductory overview, based on CDKN’s programmatic experience over three years in more than 40 countries. We hope it opens a discussion on how to best promote successful CCD processes, and that our readers will contribute actively in the years ahead.

Key drivers of CCD policies and processes

We suggest five interconnected socio-political drivers of progress on CCD, based on the literature and on CDKN’s experience to date. The drivers will vary substantially between countries, so there is no ‘one size fits all’ approach.

Driver 1. A recognised need at the national level to adapt to climate change in order to bolster resilience, achieve growth and reduce poverty

There is an economic imperative to adapt to climate change. Evidence shows that developing countries will be hit hardest by climate change and the economic costs are likely to be significant. In 2007, the Stern Review on the economics of climate change estimated that extreme weather will cost 1% of global gross domestic product (GDP) per annum by 2050.³ In Kenya, the severe 1998–2000 drought reduced GDP by 16% each year, and future impacts of extreme weather are expected to reduce GDP by around 3% a year by 2030.⁴ In Ethiopia, research suggests that without the development of a climate-resilient and green economy, potential economic growth by 2025 will be halved.⁵

Poor people, who often live in areas vulnerable to climate change, are likely to suffer the most. The 2007/2008 United Nations Human Development Report showed how climate change will make it harder to achieve the 2015 Millennium Development Goals. This is reflected in national policy documents and strategies underpinning CCD. For example, Bangladesh has placed great emphasis on the need for adaptation, given the country’s vulnerability to weather and natural disasters. This is set out in the Bangladesh Climate Change Strategy and Action Plan, adopted in 2008. In Guyana, the majority of the population live on a coastal strip of land 1.4 metres below sea level. Any sea level rise will thus cause large-scale economic losses, such as those it experienced through flooding in 2006. The country cites this as a key motivation behind adopting a CCD approach to development.⁶

Although this adaptation and resilience-led driver is most frequently observed among the least developed countries, CDKN has also found that resilience to current and future climate change is a core priority for continued social and economic growth in some emerging economies. In Colombia, the 2010/2011 heavy floods

affected 3.3 million people and had unexpected impacts on key sectors of the economy.⁷ As a result, resilience to current and future climate change is a key issue in the Colombian Policy Guidelines for Climate Change (CONPES No. 3700) and the National Development Plan (DNP 2010–2014).

Many countries also recognise that there is a need to contribute to global efforts to reduce carbon emissions in order to mitigate the effects of climate change, not just within their own countries but also to benefit other nations. This is often a secondary priority, however, and the burden that developing countries should bear remains a controversial point.

Quantifying the increasing economic threat of climate change to economies and societies, and the required economic and fiscal response, are difficult tasks that reveal barriers regarding a lack of data and capacity. However, building knowledge and awareness of the economic impacts of climate change is an important step to mainstreaming climate change into development. Identified economic co-benefits are often an important driver for action, for example improvements in health, and reduced congestion and pollution.

Box 1: Resilience to extreme weather as a driver in CDKN partner countries

Extreme weather events and disasters can focus political attention and catalyse action on CCD. Most of the developing countries CDKN works with cite the need to better respond and adapt to current and future climate and extreme weather conditions. In El Salvador, for example, Tropical Storm Agatha in 2010 brought the realities of extreme weather events into stark relief for the government. CDKN was asked for expanded support to build institutional capacity, strengthen governance and scope a National Climate Change Strategy. And after Pakistan's devastating flood events in 2010, CDKN was asked to support the Punjab Disaster Management Authority to integrate climate change and vulnerability assessments into post-disaster reconstruction guidelines. CDKN is now working with the National Disaster Management Authority on a risk-insurance framework to support poor and vulnerable communities.

Driver 2. A need for energy security and natural resource efficiency

Most developing countries are net oil importers, and oil prices are forecast to rise over the next 10–20 years. Increases in oil prices can jeopardise growth, leaving countries uncomfortably exposed in their dependence on fossil fuel producing nations. Many countries strive towards developing cheaper (in the long term), nationally managed, renewable energy sources through their CCD strategies.

Box 2: CDKN support to energy security objectives

In the Caribbean, CDKN funded the development of an Implementation Plan for the Caribbean Community's (CARICOM) Regional Framework for Achieving Development Resilient to Climate Change. This was formally adopted by Heads of State in 2012.

Although the case for action was framed around adaptation and resilience, the consultation process revealed that some countries spend 30–40% of foreign exchange earnings on fossil fuels. Reducing the cost of energy, in particular for the poorest of those countries, was a key driver for action on CCD. Many Caribbean states are too small to take unilateral action but the Implementation Plan, along with other work on adaptation and resilience, identified opportunities for a regional approach to making the transition to low-carbon energy. CDKN has also supported individual countries to create the policy environment that incentivises the take-up of renewable energy options where available, including recent work with the Government of Anguilla on solar energy.

Demands on natural resources are expected to rise over the coming decades, particularly as a result of growth in the large middle-income countries such as China and India. Access to land, water, energy and other resources could increasingly constrain growth in many countries. One of the main motivations behind China's low-carbon-growth strategy has been securing future access to resources in order to ensure sustained production capabilities and meet internal demands for resources as the economy continues to grow. This is set out in China's 12th Five-Year Plan.⁸ Latin American countries rich in natural resources are also motivated to consider the potential ecosystem services they present for combining mitigation, adaptation and development options in CCD strategies.

Food security can also be a driver. Climate change is expected to increase food insecurity in many countries, particularly in sub-Saharan Africa. Increasing competition for land and water will strengthen the need to manage these resources carefully and maximise productivity. This is driving an enhanced emphasis on sustainable agricultural practices that will help to increase agricultural productivity. However, there is also increasing competition for land to grow biofuel crops, which can push up food prices. Finding a balance between these competing objectives is a key issue within CCD strategy development.

Box 3: Resource efficiency in China's 12th Five-Year Plan

China's National Climate Change Programme (2007) recognises that high growth rates cannot be sustained without effective resource management. It states that China is "a country with a large population and at a relatively low level of development, and its economic development has long been constrained by the scarcity of per capita resources and it will continue to be so for a long time".⁹ The effective use of natural resources has hence become a key priority. China will address this in a variety of ways, including restructuring key industries, promoting research and development, increasing energy efficiency and conservation, promoting innovation in renewables, developing clean energy sources and expanding public transportation.

Driver 3. A desire to capitalise on new economic opportunities

The development of innovative technologies can create new economic opportunities, as technologies can be exported and thus generate revenue. For example, the early development of solar photovoltaic (PV) technologies has enabled China to become a market leader. By engaging the private sector in dialogue on these issues, and developing policies that support green investment and innovation, CCD processes can provide the platform for integrating climate-related technologies and green growth innovation as strategies for economic growth.

By promoting more efficient use of energy and resources, CCD processes can also help to enhance the long-term competitiveness of a country's products on world markets.¹⁰ There are a number of competitive advantages that can be achieved, including:

- improved production efficiency
- improved management of natural capital
- signalling of sustainability practices to the global market, to increase market access and market share
- improved competitiveness in the face of international mitigation policies¹¹
- protecting competitive advantage; if competitors are investing in the above, then there is a risk of losing any existing competitive advantage.

Climate change mitigation and natural resource scarcity are likely to have big implications for global commodity prices and patterns of trade and comparative advantage. Countries can position themselves to manage the risks and capitalise on the opportunities this creates. CCD policies can help, for example by ensuring that natural assets such as forests are managed more sustainably and represent a flow of revenue for the long term. This enables domestic producers to more easily meet new standards and regulations imposed in export destination markets. It also positions them to take advantage of new sources of investment and climate finance that may become available in future, such as the Clean Development Mechanism and REDD+.¹²

Box 4: Capitalising on green industries

Policy-makers are beginning to recognise the potential for CCD strategies to generate new green industries and jobs, and promote climate change-related reforms that generate co-benefits. For example, the use of renewable energy technologies can provide energy to under-served areas such as rural provinces, as well as providing new employment opportunities through small-scale and localised energy provision, such as cogeneration or small-scale solar technologies. These can generate knock-on benefits by reducing the cost of doing business and stimulating private sector development.

Some countries see future jobs as a major driver. In Germany, an estimated 2 million people were employed in green growth sectors in 2006, and an additional 1 million jobs are expected by 2020.¹³ A study of the potential for green jobs in China within energy, forestry and industry found that there is the potential to create around 30 million new jobs by 2020.¹⁴ In Rwanda, the National Strategy for Green Growth and Climate Resilience sets out the intention to create jobs and reduce reliance on oil by expanding the electricity grid based on renewables.¹⁵

Driver 4. A desire to improve access to climate finance and aid

A desire to tap into international climate finance can encourage countries to develop CCD strategies. Donor funds are increasingly being channelled into CCD-related initiatives, so engaging with this agenda is likely to become more important for aid-dependent countries. Substantial funds are currently promised and countries see this as a new opportunity to access additional sources of funds beyond traditional aid budgets. Although the largest share of financing for development and infrastructure investments will probably continue to come from traditional domestic or international sources, climate finance can play an important catalytic role in redirecting such flows towards climate-resilient and low-emission paths.

Market mechanisms also promise additional sources of finance, as indicated under Driver 3. Guyana, through a partnership with the Government of Norway, has created a forest preservation strategy aimed at accessing REDD+ financing. It plans to use this to fund investments in renewable energy and invest in other industries to promote economic diversification.¹⁶

Countries often need access to international financing mechanisms to help implement CCD policies. For example, Mexico attempted to access a US\$500 million Clean Technology Fund set up by the World Bank, in order to implement the Special Climate Change Programme it had established.¹⁷ Similarly, Bangladesh's plans to implement an adaptation strategy were heavily reliant on international climate finance to support the proposed measures.¹⁸

Box 5: CDKN helps countries to access climate finance

Developed countries pledged 'fast start' funding of US\$30 billion by 2012, and there are ongoing discussions about the development of a new Green Climate Fund with the potential to provide up to US\$100 billion a year. These have caught the attention of finance ministries in developing countries, which are keen to ensure that their countries are able to access their share. This is helpful, as a national approach to tackling climate change needs buy-in from finance ministries in order to ensure that all development and investment supports climate change goals.

CDKN has seen that a climate change strategy is often quickly followed by a desire to develop a national climate finance and investment strategy. In its broadest sense, this covers national budgetary allocations, access to bilateral and multilateral climate finance, and creating the optimal conditions for international and national private sector investment. For example, CDKN is supporting the development of the Rwanda National Climate and Environment Fund (known by its French acronym FONERWA) through which domestic and international finance from various sources can be coordinated. CDKN's work with Kenya is broader and includes opportunities for attracting private sector finance.

Driver 5. Strong government leadership

Strong political leadership is a critical factor for country engagement on any type of policy and CCD is no exception.¹⁹ This leadership can come from individual champions. In Rwanda, the President has established a clear vision for the country to become a developed, low-carbon economy by 2050. This has created a clear mandate for each part of the Rwandan Government to engage on the CCD agenda, as well as inter-ministerial governance and decision-making structures.²⁰

Leadership can also come from a particular government department or institution. In many countries, environment ministries have initiated engagement with CDKN. However, CCD is not just an environmental issue, and needs to be embedded in ministries of finance and planning in order to be integrated into development plans and mainstreamed into sectoral planning. Through processes that help to build the evidence base, strengthen institutional capacity, drive cross-government coordination and develop policies and plans, leaders in ministries of the environment are able to increasingly engage with other parts of government and, over time, other ministries come on board.

Box 6: CDKN support to in-country leadership

CDKN supported Kenya's Ministry of Environment and Mineral Resources' Climate Change Secretariat to coordinate the development of a National Climate Change Action Plan. Through a combination of strong leadership from the Ministry and enhanced capacity, a wider set of leaders emerged. A breakthrough moment came in 2012 when the Ministry of Planning and National Development agreed to 'climate proof'²¹ the forthcoming Medium Term Plan 2013–2017, which will implement key parts of the Action Plan. The Ministry of Finance is also now well engaged in progressing a national climate finance mechanism.

Opportunities for peer-to-peer learning between national leaders can also be valuable. CDKN co-funded the Low Emissions Development Strategies' (LEDS) Global Partnership Collaboration in Action event in March 2012. This brought together senior leaders and practitioners from different developing and developed countries to learn from each other about LEDS processes.

Political leadership can also begin at the sub-national level, where it can provide a platform for scaling up and driving wider change. In Colombia, CDKN funded the development of a climate change vulnerability assessment for Cartagena, one of Colombia's most iconic cities. The political support provided by three successive mayors has been critical to promoting the mainstreaming of vulnerability in the city's zoning plan. This process has now been endorsed by the National Ministry of Environment and Sustainable Development and has produced guidelines for adaptation planning that are being shared elsewhere in the country.²² Similarly, a CDKN project to develop a climate change vulnerability assessment in Colombia's Upper Cauca Basin is generating national interest and the methodology is expected to be replicated elsewhere.²³

Key challenges to implementing CCD policies and processes, and possible solutions

The drivers of CCD listed above are countered by many significant constraints and challenges. Enormous uncertainty remains about the future impacts of climate change, the mitigation policies that countries will adopt, and the technological solutions that will come to the fore. The evidence base on economic costs and benefits is still weak and economic trade-offs remain unclear. Carbon markets and compensation mechanisms remain under-developed and are subject to great uncertainty and price fluctuations. We do not yet have a new international agreement under the United Nations Framework Convention on Climate Change: without this, commitment to future mitigation remains unclear at the national and international level.

In order to strengthen the drivers of CCD, it is important to understand and address these difficult constraints. Below, CDKN suggests seven such challenges, along with solutions that could help to overcome them, and examples of how CDKN is working to implement such solutions.

Challenge 1. Costs associated with change

One of the main constraints to the uptake of CCD measures is the high perceived and actual associated costs of these measures. This relates in part to the monetary cost of implementation – a particular challenge in countries already facing serious budgetary constraints – but also to significant opportunity costs.

The costs of adaptation to climate change in the Least Developed Countries are estimated to be, on average, almost 13% of GDP (Purchasing Power Parity adjusted) by 2030.²⁴ These are clearly broad estimates, given the difficulties of calculating such figures robustly. However, it is clear that funding requirements are very high and only a relatively small proportion of the promised or needed climate finance is forthcoming.

In addition, there are many challenges associated with managing the provision of climate finance effectively. For example, climate finance would ideally be distributed on an unconditional basis to those countries that will face the greatest adaptive costs. But climate finance is in fact being withheld from some low-income countries, as there are fears that unconditional access may prop up regimes with a questionable record of public expenditure management, which would channel a lower proportion of finance to CCD policies and measures.²⁵

But the high opportunity costs associated with CCD probably represent the most significant constraint. For example, if a country has fossil fuel reserves, the opportunity cost associated with leaving them in the ground is likely to be very high. After estimating the economic cost of leaving oil in the Yasuni-ITT oilfield underground, Ecuador has invited the world to contribute 50% of that opportunity cost to cover development areas, such as health and education, and ensuring biodiversity conservation, the protection of indigenous peoples and emissions avoidance. Similarly, if a country has forestry assets, refraining from deforestation will have a very high opportunity cost.

Box 7: Conserving Guyana's forests

Guyana has estimated the amount of compensation it will need from the international community to forgo the benefits that could be derived from alternative land uses. For example, if its forests were harvested and the land put to its highest-value subsequent use, the value of this rainforest – known as the Economic Value to the Nation (EVN) – is estimated to be between US\$4.3 billion and US\$23.4 billion.²⁶ This translates into a likely average annual annuity payment of US\$580 million. Conservative valuations of the Economic Value to the World (EVW) provided by Guyana's forests suggest that, left standing, they contribute US\$40 billion to the global economy each year. Compensation of an amount somewhere between the EVN and the EVW is considered sufficient to protect the forests. The country is now seeking ways to develop such compensatory mechanisms through public finance and mechanisms such as REDD+, although this particular source of finance is a long way from effective global implementation.²⁷

Shifting global patterns of production and trade could also hinder the uptake of CCD strategies. For example, rich countries have 'outsourced' to developing countries the carbon emissions associated with the production of goods, worsening the carbon footprint of the exporting nations. But the rich countries then import and consume these goods. Increased investment by emerging economies in Asia in Africa's Low Income Countries, for example in mining, may generate a significant new opportunity for growth in these countries, but may make CCD more difficult to achieve – yet ignoring those opportunities would generate significant opportunity costs.

As before, compensation mechanisms or significant funding sources could help to ensure that these new opportunities are taken up in a well-regulated and sustainable way, although the scale of such finance would need to be large. Yet compensatory market mechanisms such as the Clean Development Mechanism remain limited in scale and scope. So far, only a few developing countries – mainly middle-income countries such as China – have benefitted from them in a significant way. CDKN is supporting partner countries to gain access to climate finance (see Box 5). But a strong and realistic price for carbon is key to building effective carbon markets and driving countries away from development based on fossil fuels.

Another approach is to undertake national and sectoral-level economic impact assessments, which more robustly set the costs of CCD in the context of the higher longer-term economic costs of inaction. Building confidence through initial 'no or low regrets' pathway approaches, and identifying co-benefits in terms of the wider CCD context, can also be useful. At the sector level, there are many opportunities to mainstream climate change considerations within existing investments and budgets. In Colombia, CDKN is supporting the integration of climate change adaptation into national procurement processes for road building, thus seeking to use the market to drive innovation and resilience within current budget envelopes.

Challenge 2. Interest groups opposed to change

Industries that represent the mainstays of the national economy can often be resistant to change that they consider a threat to their growth. Lobby groups and coalitions challenge progress towards CCD. These can range from those with vested interests in highly polluting industries to groups representing the interests of poor people; indeed, sometimes such groups join forces. Given there are many trade-offs and CCD processes create both winners and losers, some resistance to change is inevitable, even where the overall outcome of that change is beneficial to the country as a whole.

Box 8: The issue of fossil fuel subsidies

Political economy challenges are particularly clear in relation to fossil fuel subsidies in developing countries. Such subsidies significantly undermine incentives to undertake green investment and innovation. They often impose a heavy financial burden on governments, while distorting economic incentives. Yet removing subsidies remains politically challenging in many countries: it is both unpopular with big business, which claims it will undermine its competitiveness, as well as with the public (particularly poor people), who fear it will push up household energy prices.

In practice, fossil fuel subsidies tend to disproportionately benefit richer people, who have higher energy consumption, so they are not a good way of targeting assistance to poor people. Some US\$409 billion was spent on fossil fuel subsidies globally in 2010, of which only 8% was distributed to the poorest 20% of the world's population.²⁸ Yet this is a strong coalition for governments to fight and many countries maintain fossil fuel subsidies for this reason.

There are examples of different approaches. The Australian Climate Framework has established mechanisms to 'buy off' losers, including payments to consumers to compensate for higher energy prices, changes to pensions and tax codes, the phasing in of payments by companies, and targeted grant programmes.

One way to address the concerns of interest groups opposed to CCD is to design policies in a way that compensates the losers from any particular reforms. For example, a policy to promote more sustainable forest management might explicitly support alternative livelihoods strategies for those negatively affected by the reform. Or the welfare system can be used, through the provision of direct transfers to underprivileged groups, to compensate for the removal of fossil fuel subsidies. However, compensation is likely to have significant budgetary implications that may be unaffordable in many situations.

Another way to tackle these diverse interests is to set up dialogue processes that enable all interested parties to participate, including government, party-political, private sector and civil-society representatives. These groups can then explore and discuss the benefits and costs of CCD. Such an engagement method can help to draw out concerns, negotiate possible solutions and mobilise interest groups in favour of reform.

Participatory processes also mobilise public support, especially among possible pro-reform groups that would help to offset politically any vested interests opposed to CCD reforms. Examples are civil society groups that represent the interests of citizens that could be negatively affected by climate change, and associations that represent businesses that would benefit from a growth in green industries. These varied groups should be effectively mobilised in order to ensure that the arguments made by status-quo lobby groups are neutralised as far as possible.²⁹ Broad public support for CCD can also potentially help to strengthen incentives to undertake reform, if it is significant enough to act as an electoral driver. Thus, civil society campaigns and activities that raise awareness can play an important role in generating support for CCD.

Box 9: CDKN support for dialogue processes

CDKN recently helped the Government of Anguilla to prepare for the legislative changes required to integrate renewables into the energy grid. Some of the proposed changes will have negative implications for some parts of the current energy industry. But by keeping channels of dialogue open, and presenting all sides of the argument transparently before reaching a conclusion, CDKN was able to support the Government in making pragmatic changes that should serve the country's best interests in the long term.

Challenge 3. A lack of awareness or trusted information about uncertainties, risks, opportunities and trade-offs

To provide robust information for sound CCD decision-making, and to build wider support for CCD policies, there needs to be a strong evidence base. This should be communicated in a way that decision-makers can engage with. The information must be accurate, with assumptions and limitations clearly defined; this can be challenging given the inherent uncertainties in modelling and assessing long-term climate change impacts. It can also be difficult due to the gaps in reliable longitudinal monitoring in developing countries that is needed to generate the models. There are also often conflicts inherent in sharing knowledge between government departments or in validating certain sources of information to develop baselines. It is crucial that stakeholders and decision-makers are engaged in the evidence-building process, so that there is trust and belief in the data and the messages they imply.

Box 10: Mitigation Action Plans and Scenarios

The Mitigation Action Plans and Scenarios (MAPS) process is a collaborative effort among developing countries to establish the long-term evidence base needed to support the transition to a resilient, low-carbon economic model. It is a process for revealing creative and in-depth evidence about a country's needs and opportunities for a low-carbon and climate-resilient economy. Combining research with participative policy and planning processes, and involving stakeholders from all sectors, the scenario-based approach supports robust decision-making in the face of uncertainties in climate data and projections.

Developed in South Africa, it is now being applied in Latin America. CDKN is co-funding Peru's PlanCC, which applies the MAPS process as a key part of the CCD planning process, and is fully owned and driven by the Government of Peru. A thorough initial engagement process has produced a very specific and robust mandate to explore key issues and examine different scenarios and their implications for low-carbon, climate-resilient growth. Researchers, policy-makers, civil society and the private sector are coming together for the first time in Peru to validate data and co-create trusted information as a basis for dialogue.

It is important to recognise that implementing CCD policies and practices often requires trade-offs, and that the scale and distributional impact of these trade-offs need to be measured. Despite promoting the concept of CCD as a 'triple win' for development, mitigation and adaptation, CDKN has found only modest evidence of triple wins in action. Some of the most successful initiatives identified as achieving triple wins in practice are natural resource-based livelihood programmes, such as the 'Evergreen Agriculture' programme in Zambia, the 'Farmer Managed Natural Regeneration' programme in Niger and the 'Socio Bosque' programme in Ecuador. These are documented in CDKN's 'Inside Stories in Climate Compatible Development' series.³⁰

However, these were driven by livelihood and poverty-reduction imperatives, being set up as integrated conservation and development programmes, without explicit climate goals. They happen to be delivering excellent climate adaptation and mitigation co-benefits but these aspects are poorly monitored, or are being captured only post-facto as they were not integral to the initial programme design. Emerging messages from recently funded CDKN research and case studies in the coastal zones of Belize, Ghana, Kenya and Viet Nam suggests that while some policies are truly triple wins, others only generate co-benefits or trade-offs.³¹

The simplified depiction of triple wins ignores the reality that policies designed with CCD objectives in mind can generate negative impacts at the same time. It is therefore important that policy evaluation looks equally at the benefits gained as well as the costs borne elsewhere to achieve those triple wins. Understanding and communicating these trade-offs in a transparent way, for example through integrated policy appraisal approaches, is key.

Box 11: Providing information in an accessible way

It is often difficult to present the case for action on CCD in a way that allows stakeholders to participate in dialogue about complex issues. In Cartagena, Colombia, CDKN funded the production of digital terrain models that visually demonstrated the impact of sea level rise on vulnerable areas of coastline. By supporting local institutions to visually communicate the evidence, policy-makers and businesses engaged. Climate change adaptation became important for mayoral candidates and Cartagena's mayor integrated climate change into the city's land-use planning process. Businesses previously saw climate change adaptation as a cost that would reduce competitiveness, but now many business leaders recognise that investments in adaptation can bolster Cartagena's competitiveness.

The UK Government's My2050 Calculator is another useful tool for communicating the effects of macro-economic changes on carbon emissions for decision-makers at a national level.³²

Challenge 4. Short-termism

The case for CCD is stronger the further ahead you look.³³ But many governments – both developed and developing – prioritise the achievement of high growth in the short term over CCD that may be more socially beneficial in the long term; this perhaps reflects the immediacy of electoral pressures. Many countries that do set out ambitious CCD goals still subjugate them to more traditional growth objectives in difficult economic times. However, this is arguably a false economy as every year in which investment in CCD is not made, environmentally damaging and high carbon capital will be laid down in its place, locking in high emissions and resource depletion for years to come. The case for green growth can be redefined as the case for a growth path that can be sustained over more than just the next few years.³⁴

One way to lock in CCD commitments and ensure their implementation for the longer term is to embed them in law and longer-term processes. This reduces their vulnerability to electoral and business cycles, and also ensures there is genuine national buy-in to the agenda. The 3rd Global Legislators' Organisation's (commonly known as GLOBE) Climate Legislation Study, undertaken with CDKN's support, shows that 32 of the 33 countries surveyed have progressed or are progressing significant climate and/or energy-related legislation. This indicates that national-level progress is being made. Where engagement and buy-in are achieved across political parties, civil service officials and the private sector, they may help to ensure a consistent approach across successive governments and encourage a greater degree of policy certainty, even when a newly elected government enters office. This provides stronger incentives for private sector investment and innovation (this approach underpins the MAPS approach described in Box 10).

Institutional mechanisms can also encourage this long-term approach. For example, the UK's independent Committee on Climate Change should provide a longer-term focus on CCD and greater continuity over time. Engaging a wider set of stakeholders can also ensure ongoing implementation that holds governments to account in the face of short-term political changes.

Box 12: Structured stakeholder mobilisation

CDKN's work on CCD in Rwanda was overseen by a cross-government national committee. There was also a series of wider national stakeholder forums and dialogues. The first phase of the work was to produce a baseline report that drew together all available evidence and information on progress on climate change in Rwanda. This helped build consensus on climate change data, created a central repository for information and established a starting point from which stakeholders could engage further in the strategy development process.

The baseline report led to the creation of a Green Growth and Climate Resilience Strategy, which was signed off by Rwanda's Cabinet as a platform for implementation, but the document itself is a small part of the story. The process of engagement raised awareness, mobilised stakeholders and built momentum, and was arguably more important than the document itself. By the time the Strategy was published, line ministries, civil society and donor programmes were already reaching out to support implementation.

In Kenya, the current process of developing the National Climate Change Action Plan has been overseen by a national Ministerial Committee and senior-level Task Force, which has brought together representatives from across government and civil society. Underneath this, each component of the Action Plan has a cross-sectoral working group that steers and reviews the work. There has also been a strong national stakeholder forum, a series of county-level consultations and a national validation process. These have been well attended and have drawn out some important distinctions in regional priorities; addressing these will be critical to the success of the Action Plan.

A lack of democratic accountability can be a major problem. Developing countries that are highly dependent on a small group of commodities may not see the long-term potential of diversification within their economy, as they are focused on maximum 'rent extractions' from their dominant commodities (i.e. trying to obtain as large a share of the existing wealth as possible, rather than generating new wealth).³⁵ Rent-seeking is the dominant behaviour of governments in these countries, with little attention paid to how that can be converted into any form of longer-term, more inclusive economic growth for the country, let alone CCD.

Challenge 5. A lack of state capacity to respond to and implement strategies

The development of CCD strategies and the implementation of associated policies are often limited by the technical or institutional capacity of the responsible government bodies. In many developing countries, there are only a small number of individuals with responsibility for taking these issues forward. These people are often very stretched by the wide range of processes they are involved with, including both national policy development and international negotiations on these issues.

One approach to overcoming limitations in state capacity, and weak implementation and enforcement, is to encourage or facilitate solutions led by civil society. This can include self-regulation of business through measures such as voluntary reporting guidelines or voluntary labelling schemes. In India, National Voluntary Guidelines on the social, environmental and ethical responsibilities of business have recently been developed through a multi-stakeholder process that had significant private sector involvement.³⁶ The Carbon Disclosure Project³⁷ is another example of a mechanism that facilitates voluntary reporting of carbon emissions and other environmental information by businesses and other stakeholders, with a view to incentivising improved management and monitoring.

Box 13: Building government capacity

The Government of Kenya recognised that the Climate Change Secretariat within the Ministry of Environment and Mineral Resources needed additional capacity and coordination support to manage the Action Plan process. CDKN embedded a full-time team within the Secretariat to help coordinate the process, provide global expertise and advice, and support knowledge sharing. Focal points were identified across key sectors and the Secretariat also engaged directly with consultant teams and global experts.

In the Caribbean, CDKN supported the Caribbean Community Climate Change Centre (5Cs) to produce an Implementation Plan by providing funding for them to hire a local consultant, who worked full-time within 5Cs, and a team of global experts. The local consultant acted as a conduit for knowledge transfer and recording corporate activities on this issue, and was subsequently hired as a permanent member of 5Cs' staff. The Implementation Plan process was a contributing factor to how countries wanted to build and institutionalise capacity for CCD. For example, the Government of Jamaica has since focused on climate change as a key area in the newly created Ministry of Environment, Water, Land Use and Climate Change.

Capacity development is also about providing the tools for mainstreaming CCD into decision-making processes, particularly when these are about priorities and investments. Working with the Global Water Partnership, CDKN supported the African Ministers' Council on Water to develop a Strategic Framework for Water Security and Climate Resilient Development.³⁸ Launched in May 2012, this was designed to help senior professionals and decision-makers in the water sector identify and develop 'no or low regret' climate-compatible investment decisions, integrate these into planning processes and influence future development activities. The next phase of CDKN engagement focuses on strengthening the capacity of regional, national and local planning departments, in water and related sectors, to apply the framework in programmes and projects.

Challenge 6. Institutional constraints

Another common barrier to implementing CCD effectively is unclear differentiation, and even conflict, of responsibilities across different ministries, or the relative weakness of the lead ministry – often the ministry of the environment – to assert policies or processes over other ministries. Given the complexity and multi-dimensional nature of CCD, inter-ministerial approaches are likely to be required, but this can potentially result in long, drawn-out negotiation processes. Turf wars can prevent inter-ministerial collaboration or result in parallel processes led by different ministries. Also, in many developing countries, climate change coordination teams are small parts of larger ministries or institutions. They are often not yet formally constituted or lack a high-level mandate. This can mean that they find it difficult to access sustained budget allocations, staff and other resources.

Box 14: Overcoming institutional constraints

CDKN, together with the Oak Foundation, recently funded a review of the state of public policy on climate and development in 10 Latin American countries.³⁹ The key finding of the study was that although an important number of climate change-relevant policies existed in the region, the level of implementation was disturbingly low. In Chile, a mid-term evaluation of the 2008 National Action Plan on Climate Change revealed that only 25% of the recommended actions had been implemented. In Uruguay, implementation of the 2010 National Climate Change Response Plan is hindered by the lack of the required annual operational plan and five-year budget preparation. Financial constraints were reiterated as a principal cause for the low implementation; one of the main reasons for this was a lack of institutional capacity to achieve budget allocations and to drive implementation.

Findings on institutional constraints were consistent with the messages in this paper. Key messages related to institutional capacity for implementing successful CCD policies and practices included the following:

- Where political support for CCD is low, the technical capacity of middle-management bureaucracy to develop projects and access international funding has enabled countries to maintain climate change as part of the government agenda, above and beyond the shorter-term priorities of the government. This was particularly the case of the Climate Change Unit in Uruguay.
- Policies must include effective mechanisms for social and public-private participation, and for the subsequent monitoring and evaluation of its impacts.
- Policy and its implementation need to be better joined up between sectors and levels of government. In Brazil and Colombia, there are clear examples of the positive impact of creating inter-ministerial committees with a specific mandate to articulate and mainstream climate change into policy beyond the environmental agenda. In both countries, the committees had direct lines of accountability to the President's office.
- National policy is mainly implemented at the sub-national and sectoral level, but municipal and sub-national participation in the development of national policy is often lacking.
- Dedicated budget allocation for the institutions charged with implementing new policy is often lacking, and this needs to be addressed.
- Institutional readiness for implementation requires the development of the appropriate technical, human (staff, skills and management structures), financial and political resources. The CDKN/Oak Foundation review found that many of the achievements reported had been driven by committed individuals, despite the lack of institutional structures. This led to discontinuity or a lack of institutional memory and ownership when the individuals changed jobs.

Challenge 7. Technological constraints and uncertainties

Many low-carbon technologies, such as solar energy, are still relatively immature and expensive compared with traditional fossil fuel alternatives. There is considerable uncertainty about how technological development will evolve, and which technologies will become competitive and when. There is also uncertainty about future fossil fuel prices. This can act as a strong disincentive to invest in particular technologies now, in the face of uncertainty about future costs vis-à-vis substitutes which will, in turn, affect levels of market demand and thus returns on investment.

There are many different solutions, most of which shift the burden of this risk to the public sector to some degree. These include policy measures for financial risk-sharing (e.g. challenge funds), subsidised credit, government procurement policies, and mechanisms such as feed-in tariffs and advanced market commitments that can guarantee a certain level of market demand in the future.

A clear policy framework can help to overcome this kind of constraint to some extent. This sets out a clear policy direction and vision for the future development trajectory of the country, including any policy tools, financial incentives, or guarantees that will be used to stimulate investment in certain types of investment or innovation (e.g. to stimulate investment in particular types of energy generation). This should help to reduce at least some of the uncertainties associated with the risk/return trade-off facing investors. The implementation of a comprehensive and detailed CCD process can help to develop this kind of policy framework.

Box 15: Creating a secure investment climate

India's Jawaharlal Nehru National Solar Mission was launched in 2009 to create policy conditions to make solar power as affordable as conventional power by 2022, and establish India as global leader in solar energy. The Mission was designed to create a secure investment structure that encouraged large-scale investment, technical innovation and rapid cost reductions in solar energy technologies. It did this through the establishment of 25-year Power Purchase Agreements that guarantee payment for the power generated by project developers, and requiring state utilities to purchase a minimum percentage of solar-based power within their energy portfolio. An additional level of security was established by setting up a fund to guarantee payments to developers in case state utilities defaulted on payments. Through this structure, the Indian Government demonstrated a clear, long-term commitment to guaranteeing a secure investment environment for solar energy, which generated a very strong response from the private sector with many firms bidding for contracts.

Conclusions: building the evidence base over time

The relationship between CCD and economic outcomes such as growth, poverty and equity is not straightforward. There will be winners and losers, and trade-offs between social, economic and environmental goals and between long-term and short-term benefits. This makes the political and institutional dimensions of CCD particularly challenging. Understanding and managing the political economy of CCD is arguably the most effective way to promote it, to strengthen incentives for its adoption, and to overcome challenges to implementation.

This Working Paper has set out some of the key drivers of CCD strategies and some of the main constraints to their adoption and implementation, along with examples of how these constraints can be addressed. It is not exhaustive; rather, it is designed to stimulate a debate on the political and institutional context for CCD, which can then help to inform the prioritisation of policies and interventions; to help donors to design effective and strategic support mechanisms for countries implementing CCD; and to help shape an agenda for further research to fill gaps in the evidence base.

To summarise, the key drivers of CCD identified in this paper are as follows:

1. **A recognised need at the national level to adapt to climate change in order to bolster resilience, achieve growth and reduce poverty.** This is a particularly strong driver for the least developed countries, which are often the ones most likely to be badly affected by climate change.
2. **A need for energy security and natural resource efficiency.** Energy security is a particularly strong driver for countries dependent on imports of fossil fuels; natural resource efficiency is a strong driver for countries such as China that are growing fast and have a large population.
3. **A desire to capitalise on new economic opportunities.** These include the development of new industries to meet growing global demand for certain types of green goods and services (e.g. solar energy applications), and new sources of competitiveness arising from improved energy and resource efficiency. While this is a potentially important driver for all countries, high- and middle-income countries tend to have considered these issues the most.
4. **A desire to improve access to climate finance and aid.** This is another strong driver for most developing countries, although sources of finance may vary between them: middle-income countries are in the strongest position to benefit from carbon markets, given their larger mitigation opportunities; low-income countries are more likely to benefit from new sources of public climate finance from the international donor community.
5. **Strong government leadership.** This can come from a particular individual within the government, or from a government department or institution. Strong leadership at the sub-national level can lead to wider interest at the national level.

The key barriers to the development of CCD policies, and potential solutions are identified as follows:

1. **Costs associated with change.** These include both opportunity costs and implementation costs, and can potentially be offset through compensatory mechanisms, for example through carbon markets or facilities such as the Clean Development Mechanism or REDD+.
2. **Interest groups opposed to change.** These range from industries who consider CCD to be a threat to growth to groups representing the interests of poor people. These challenges can be addressed through the establishment of appropriate compensation mechanisms for those who stand to lose from the reforms; through multi-stakeholder dialogue processes at which different views can be expressed and compromise solutions negotiated; and through the organisation of coalitions in favour of reform, to balance lobbying strategies by those opposed to reform.
3. **A lack of awareness or trusted information about uncertainties, risks, opportunities and trade-offs.** The creation of a strong evidence base is needed to identify the costs and benefits of CCD reforms, to provide robust information for sound CCD decision-making, and to build up wider support for CCD policies. Often there are gaps in the information and conflicts over the sources of information used to generate models. This can be addressed through participatory processes, which enhance acceptance of the resulting information as a basis for action.
4. **Short-termism.** Many governments prioritise the achievement of high growth in the short term over CCD that may be more socially beneficial in the long term. One way to lock in CCD

commitments and ensure their implementation for the longer term is to embed them in law and longer-term processes, which reduces their vulnerability to electoral and business cycles.

5. **A lack of state capacity to respond to and implement strategies.** The development of CCD strategies and the implementation, monitoring and enforcement of associated policies are often limited by the technical or institutional capacity of the responsible government bodies. Support from donors for capacity building is important. Solutions led by civil society also have a role to play, such as voluntary emissions reporting initiatives by the private sector.
6. **Institutional constraints.** Unclear responsibility across different ministries, or the relative weakness of the lead ministry to assert policies or processes over other ministries, can hamper the design and implementation of CCD policies. Appropriate coordination mechanisms need to be developed to facilitate inter-ministerial discussion and decision-making; these need a clear mandate, long-term funding and appropriate human resources.
7. **Technological constraints and uncertainties.** Uncertainty about how technological development will evolve, and about the evolution of fossil fuel prices, can act as a strong disincentive to invest in green technologies such as renewable energy. Solutions include policy measures for financial risk-sharing, subsidised credit, government procurement policies, and mechanisms such as feed-in tariffs and advanced market commitments, which can guarantee a certain level of market demand in the future.

CDKN is now supporting over 40 developing countries in their journey towards CCD. These countries are facing many of the challenges described, and are innovating and implementing the kinds of solutions discussed in this paper, often in collaboration with partner countries. We hope this Working Paper captures some of the lessons from experiences so far, and can inform similar processes elsewhere. In order to do this, CDKN has instigated a programme of project evaluation and knowledge sharing through its Thematic Workstream on CCD. CDKN will also publish other knowledge products on these topics over time.

We would be interested to hear your views on the issues identified in this paper, and your additional suggestions in relation to drivers and challenges for CCD based on your own experiences. Questions for feedback and discussion include:

- What examples do you have to support, or challenge, the drivers, challenges and solutions identified?
- Which other drivers, challenges and solutions are important?
- How do countries most effectively integrate climate change into their development planning?
- What tools are needed to assess trade-offs and look for triple wins?
- What are the biggest gaps in knowledge and conflicts around sharing of knowledge, and how have they been overcome?

Please contact the CDKN Thematic Group on CCD with your responses.

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Endnotes

- 1 Mitchell and Maxwell, 2010
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- 17 Ellis et al., 2009
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- 19 Meadowcroft, 2009
- 20 See www.youtube.com/watch?v=w_Ls5r9z9aA
- 21 In the case of Kenya, this involves making sure priority projects under the Medium Term Plan are climate-resilient and that the Medium Term Plan is consistent with a low-carbon and climate-resilient development pathway.
- 22 INVEMAR et al., 2012
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- 30 See the full set of Inside Stories at http://cdkn.org/cdkn_series/inside-story
- 31 CDKN 2012b/Dr Emma Tompkins, University of Southampton, UK. Personal communication with CDKN, December 2012
- 32 DECC website
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About CDKN

The Climate and Development Knowledge Network (CDKN) aims to help decision-makers in developing countries design and deliver climate compatible development. We do this by providing demand-led research and technical assistance, and channelling the best available knowledge on climate change and development to support policy processes at the country level. CDKN is managed by an alliance of six organisations that brings together a wide range of expertise and experience.



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