

REPUBLIC OF KENYA



**MINISTRY OF ENVIRONMENT AND MINERAL RESOURCES
AND MINISTRY OF FINANCE**

KENYA CLIMATE CHANGE ACTION PLAN

SUBCOMPONENT 8: FINANCE

FINAL REPORTS AND ANNEXES

AUGUST 2012

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SUBCOMPONENT 8: FINANCE

SECTION A: INTRODUCTION

AUGUST 2012

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1. Abbreviations

AFD	Agence Française de Développement
AfDB	African Development Bank
CDM	Clean Development Mechanism
CERs	certified emission reductions
COP	Conference of the Parties
CSR	corporate social responsibility
DFID	Department for International Development
EU ETS	European Union Emissions Trading Scheme
GCF	Green Climate Fund
GW	Gigawatt
IFC	International Finance Corporation
KCCAP	Kenyan Climate Change Action Plan
KES	Kenyan shilling
KfW	Kreditanstalt für Wiederaufbau
MDBs	Multilateral development banks
MW	Megawatt
NCCRS	National Climate Change Response Strategy
RDBs	Regional development banks
SIDA	Swedish International Development Cooperation Agency
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollars

2. Introduction

The implementation of the Kenyan Climate Change Action Plan (KCCAP) will require substantial financial resources. The initial analysis within the National Climate Change Response Strategy¹ (NCCRS) suggests that the financial requirements to move Kenya onto a low-carbon, climate resilient growth path may be in the region of KES 235 billion (\$2.75 billion) per annum split roughly equally between mitigation and adaptation. Even allowing for a downward adjustment following the prioritisation exercise currently underway within the Action Plan, it is clear that Kenya is embarked on a bold and ambitious plan.

The international community is committed to supporting developing countries in providing the financial resources to realise their climate change goals. The Copenhagen Accord states that²:

“In the context of meaningful actions and transparency on implementation, developed countries commit to a goal of mobilizing jointly USD 100 billion dollars a year by 2020 to address the needs of developing countries. This funding will come from a wider variety of sources, public and private, bilateral and multilateral, including alternative sources of finance.”

This commitment was subsequently noted in the Cancun Agreements. Although delivery under this commitment is still uncertain, the scale-up of finance it implies provides important opportunities for Kenya to finance its Action Plan.

For Kenya to realise its bold ambitions, all sources of climate finance will need to be tapped – domestic action will also be crucial. Although international resources from both the public and private sector can play a key role in Kenya’s transition, they will need to be complemented by domestic financial resources both from the public and private sector. These can be targeted at the investment opportunities that most clearly both promote Kenya’s development and reduce its emissions and/or improve its climate resilience. Furthermore, the greater the efforts made domestically – both in terms of spending domestic resources and using international resources transparently and wisely – the more international resources are likely to flow.

This report provides a comprehensive package of recommendations and actions to scale up climate finance resources with Kenya. The report consists of five sections (sections A-E)³ which provide the substantive recommendations to meet this goal. These are supported by a number of background report and analyses which are included as annexes.

This introductory section (section A) provides a summary of the current landscape of climate finance, and its key debates, both internationally and as they relate to Kenya. It provides the context in which the specific recommendations and actions relating to the financing of Kenya’s Action Plan – identified in sections B-E – can be understood. It also explains the methodology by which the conclusions were reached.

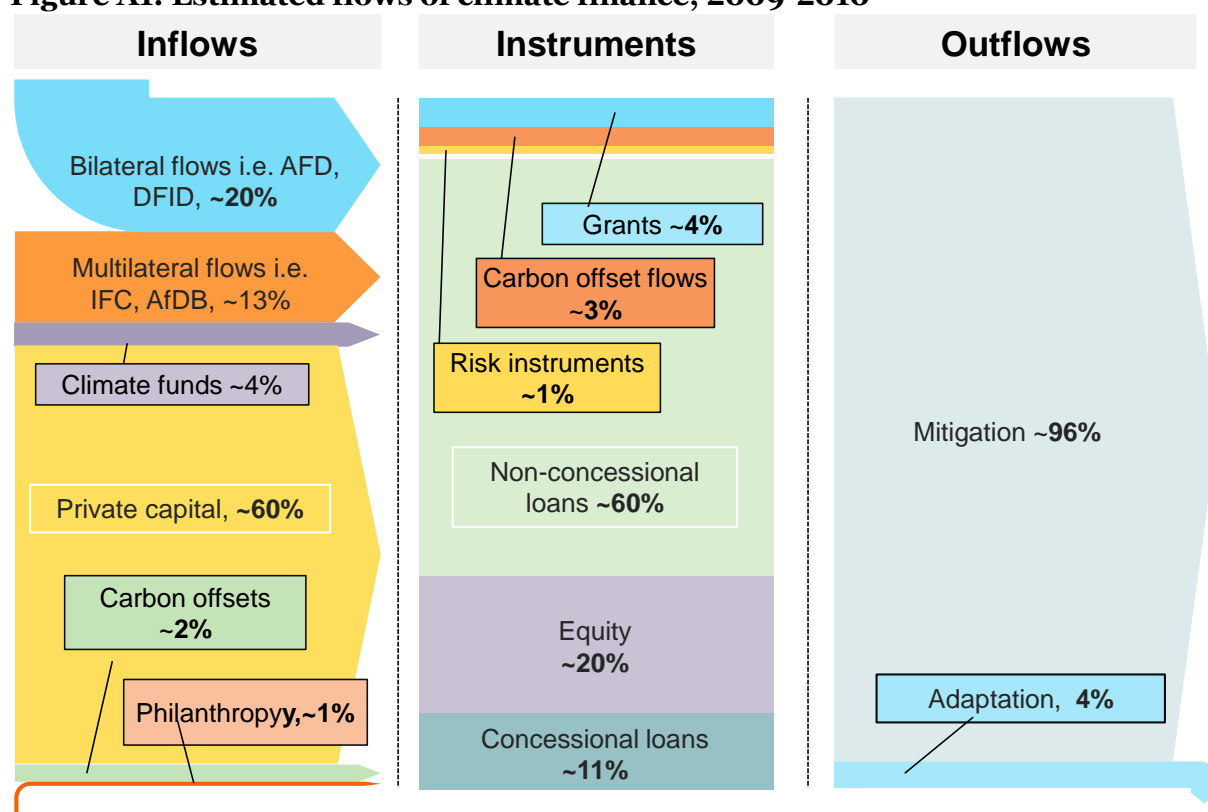
3. The current climate finance landscape

This chapter provides an overview of the current climate finance landscape, and Kenya’s existing interactions with it. It divides the analysis into international and domestic sources of finance.

3.1 International climate finance

Internationally, climate finance currently amounts to circa \$97 billion a year⁴. Figure A1 below provides a useful way of depicting the international climate finance landscape. The left hand side depicts different sources of climate finance, e.g. bilateral agencies, multilateral agencies, the private sector and philanthropy; the middle column specifies the financial instruments provided by these different parties; and the final column shows the activities that are supported by these financial resources. In other words, climate finance flows from bilateral sources account for around 20 per cent of climate finance flows, around 4 per cent of total climate finance is provided as grants and 96 per cent of climate finance flows are directed towards mitigation.

Figure A1: Estimated flows of climate finance, 2009-2010



Source: Vivid Economics (based on CPI (2011) ‘The Landscape of Climate Finance’. Analysis is based on flows over the period 2009-2010.

A number of key features can be seen from this figure:

- Private capital flows account for a significant proportion of international climate finance flows. Access to this source of finance will be crucial if Kenya is to finance its ambitions.
- Consistent with this, the majority of financial resources are provided as either non-concessional debt or equity.
- Globally, the vast majority of climate finance is flowing towards mitigation; less than 5 per cent is used to finance adaptation. This is inconsistent with Kenya's needs: the NCCRS has a much more even split of required financial resources between adaptation and mitigation.

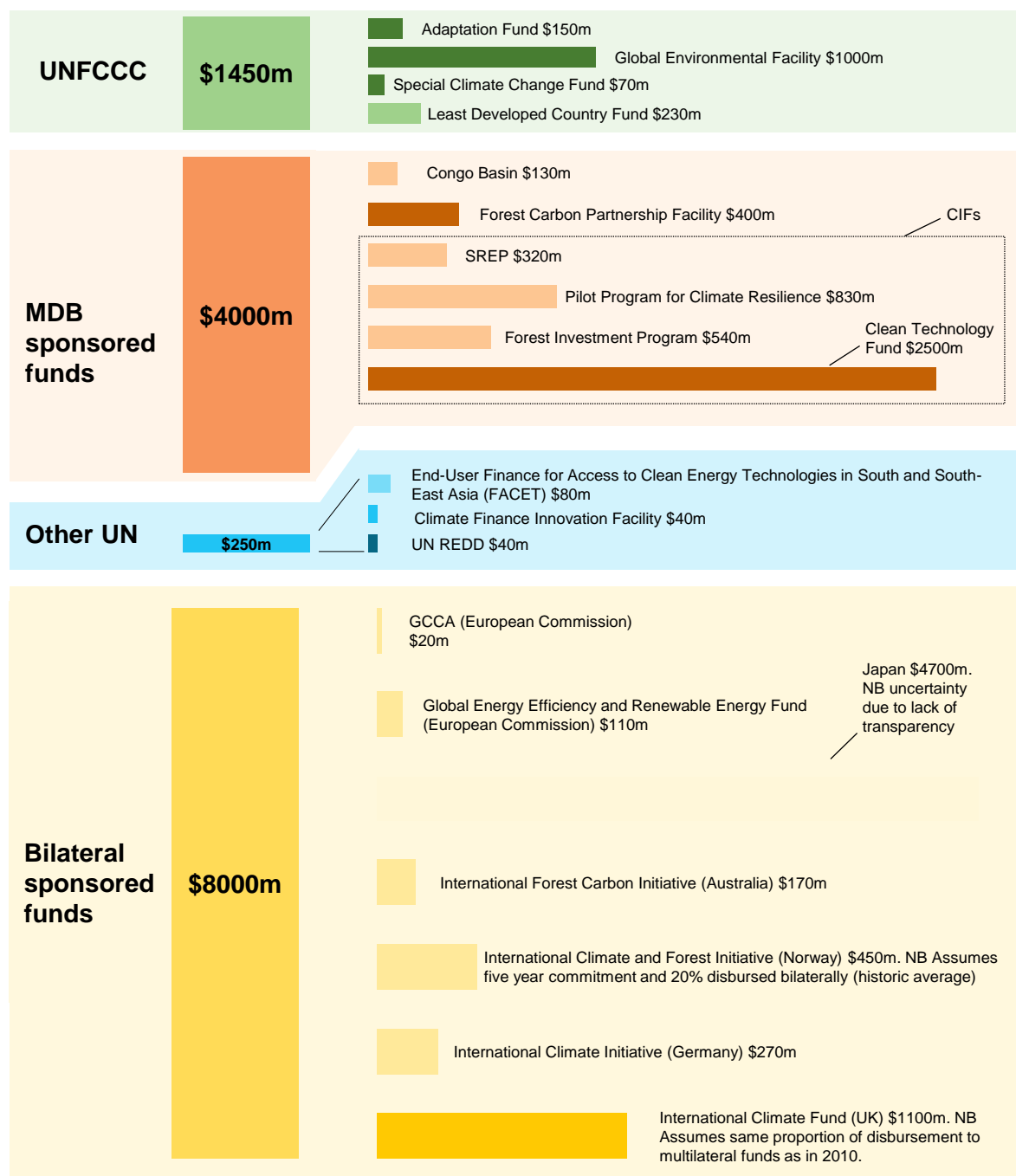
The two following sub-chapters go into more detail on public and private international climate finance in more detail.

3.1.1 Public sources of international climate finance

There are three sources of international public climate finance:

- Finance from bilateral agencies such as the Agence Francaise de Développement (AFD) or the UK Department for International Development (DFID), who support mitigation or adaptation activities as part of their broader development activities.
- Support from international financial institutions including Multilateral Development Banks (MDBs, i.e. the World Bank and regional development banks) and United Nations agencies, which likewise support mitigation or adaptation activities as part of their broader remit.
- International climate finance funds: international funds dedicated to supporting climate change activities. These, in turn, can be sub-divided between those explicitly linked with the United Nations Framework Convention on Climate Change (UNFCCC, e.g. the Adaptation Fund), those associated with MDBs (e.g. the Climate Investment Funds (CIFs)), those associated with UN agencies and those that are dedicated bilateral funds. The diagram below breaks down a range of different international climate funds according to this depiction and gives a sense of their relative level of capitalisation at present.

Figure A2: There are a large number of international climate funds



Source: Vivid Economics based on www.climatefundsupdate.org. The list of funds is largely taken from www.climatefundsupdate.org supplemented by additional research as necessary. Carbon funds purchasing compliance credits are excluded.

Relatively speaking, Kenya has done well from this architecture to date, with a number of high profile on-going programmes.

- In terms of bilateral development partners, it is estimated that projects and programmes valuing around \$1.4 billion are currently supported by bilateral agencies in Kenya. The AFD has the largest programme in Kenya (with projects valuing more than \$400m) with the Danish International Development Agency, the Swedish

International Development Cooperation Agency, DFID and KfW being other key development partners supporting climate change activities.

- Multilateral development partners have climate change relevant activities with a value of \$0.9 billion, with the World Bank and the African Development Bank being easily the most important partners.
- In terms of climate funds, the Scaling-Up Renewable Energy Programme has an investment plan of \$85 million in Kenya⁵, of which around \$25 million has been disbursed to date; while the Special Climate Change Fund, the Global Environment Facility Trust Fund and the Forest Carbon Partnership Facility Readiness Fund have all disbursed resources to Kenyan projects. In total around \$300 million worth of resources have been disbursed from climate funds to projects in Kenya.
- Of the total \$2.3 billion invested in Kenya by development agencies, roughly \$920 million is in the energy sector and \$670 million in water and sanitation. Forestry, agriculture and coastal areas account for most of the rest.
- The amount of funds devoted to mitigation and adaptation is roughly equal, with adaptation accounting for slightly more, as is appropriate for the Kenyan situation.

However, it is generally recognised that this architecture is complex and may have difficulty in effectively and efficiently channelling the increased flows of public climate finance anticipated in pursuit of the Copenhagen Accord’s \$100 billion target. As the World Bank’s World Development Report⁶ notes:

“There is a risk of [a] proliferation ... of special-purpose climate funds. Fragmentation of this sort threatens to reduce the overall effectiveness of climate finance, because as transaction costs increase, recipient country ownership lags, and alignment with country development objectives becomes more difficult. Each new source of finance, whether for development or climate change, carries with it a set of costs. These include transaction costs (which rise in aggregate as the number of funding sources increases), inefficient allocation (particularly if funds are narrowly defined) and limitations on scaling-up.”

These concerns are borne out in Kenya. Although Kenya has been relatively successful at attracting international public support, this has come at the cost of fragmentation. There are at least 15 different agencies supporting climate change activities and programmes in Kenya, each carrying their own administrative costs and with different rules and processes concerning both the extent, and means, of engagement with the Government of Kenya. There is little evidence of the pooling of resources. Although the Climate Change Coordination Group provides a forum for harmonisation, it is informal and not legally binding.

The problems created by this fragmentation have led to at least two initiatives of significance to Kenya: at the global level, the likely emergence of the Green Climate Fund (GCF), which may facilitate consolidation of the existing array of climate funds, and, at the national level, a greater interest in the role of national climate funds to manage the flows of international public climate finance within countries.

The Green Climate Fund intends ‘to evolve over time and become the main global fund for climate change finance’⁷. It was launched at the 17th Conference of the Parties (COP 17) in Durban in 2011 with the intention of making a significant and ambitious contribution to combatting, and adapting to, climate change. It is plausible that, over time, this will supersede the existing proliferation of different funds; indeed, the Climate Investment Funds contain an explicit sunset clause linked to the establishment of the GCF. A further key feature of the GCF is a commitment to provide balanced funding between

adaptation and mitigation, which would imply a different allocation to that currently achieved globally (as shown in Figure A1).

National funding entities (or national climate funds) are also emerging as a way to provide coordination on climate finance at the country level and strengthen country ‘ownership’. The aim of such funds is to provide a centralised pool of resources that can be allocated to individual projects and programmes according to a common, nationally-relevant set of priorities and criteria. Bangladesh, Brazil and Indonesia are among the countries that have developed a national funding entity. By allowing funding decisions to be made at a national level, it is expected that climate change financing will be better placed to address or respond to developing country concerns or priorities (such as formulated in the Kenya Climate Change Action Plan). By reducing the multiplicity of different procedures and processes associated with acquiring funding from different sources, they can also reduce transaction costs.

There is an important link between these two initiatives. The Governing Instrument for the Green Climate Fund states that *“The Board will consider additional modalities that further enhance direct access, **including through funding entities** [emphasis added] with a view to enhancing country ownership of projects and programmes”*⁸. The GCF is also committed to pursue country-driven approaches and promote and strengthen engagement at the country level through involving relevant institutions and stakeholders.

The Kenya National Climate Fund section (section B) provides more detail about how Kenya might respond to these initiatives in a way so as to maximise the opportunities for financing the KCCAP.

3.1.2 Private sources of international climate finance

Private sources of international climate finance have, and will continue to play, an important role in resourcing climate-relevant projects and programmes. As shown in Figure A1, the best estimates suggest that around 60 per cent of international climate finance currently comes from the private sector, and the Copenhagen Accord commitments explicitly note that in pursuing the \$100 billion target private sources of finance will be used. As the Report of the Secretary-General’s High Level Advisory Group on Climate Change Financing notes: *“Enhanced private flows will be essential to economic transformation towards low-carbon growth”*⁹. They are particularly relevant for (and in practice focused on) mitigation.

Kenya has already proven itself to be a competitive location for international private sector investors looking for low-carbon investment opportunities in Africa. As part of the consultation exercise among international investors undertaken as part of the Finance subcomponent of the KCCAP, Kenya was described by some stakeholders as being “head and shoulders” above other locations in East Africa. Consistent with this, it is estimated that Kenya has attracted more than \$600 million of international private sector investment in renewable energy alone. However, much more will be needed in the future: power generation alone is expected to increase from the current 1,479 MW to over 21 GW by 2030, requiring up to \$45 billion, including \$18 billion to develop 5 GW of geothermal power.

Traditionally, carbon markets have been a key way of incentivising private sector investment by international investors in mitigation activities in developing countries. Carbon market activities are (predominantly) private sector projects where it can be demonstrated that the project results in a deviation from a business-as-usual level of emissions. The deviation in emissions can be crystallised as a ‘credit’ that can be sold to credit purchasers, mainly in developed countries. The revenue from the sale of these credits is intended to make a substantial contribution to the financial viability of the project. There are two broad categories of purchasers.

- Compliance purchasers: those who can use the credits to fulfil their legal obligations regarding emission reductions. These may either be sovereigns (countries) in relation to their obligations under the Kyoto Protocol or regulated entities under national or regional emission reduction schemes, predominantly the EU Emissions Trading Scheme (EU ETS). To date, the recognition of the emissions reductions achieved by projects, and the associated Certified Emission Reductions (CERs), have been managed by the Clean Development Mechanism (CDM). Prices for CERs are currently trading at historic lows of under €4 (less than \$5).
- Voluntary purchasers: those who purchase credits for reasons other than legal obligations, i.e. corporate social responsibility (CSR).

Although Kenya has been relatively successful in attracting carbon market projects to date, it will face important challenges if it is to keep up this performance. These include both price falls and changes in the rules on credit eligibility in the EU ETS. Section D provides more detail on opportunities for Kenya from international carbon markets provide a more detailed analysis of these issues and a list of recommended actions for Kenya to pursue in this more challenging external environment.

The challenges associated with the carbon market mean that other ways to scale up international private sector investment will need to be developed. One set of instruments that will be of particular importance are public finance mechanisms: financial instruments provided by the public sector, at below market rates, that help to support private sector investment. By helping to share risk between the public and private sector in this way, small amounts of public investment can leverage much higher levels of private sector investment, as much as three to 15 times according to some reports. As the Report of the Secretary-General’s High Level Advisory Group on Climate Change Financing states: *“careful and wise of public funds in combination with private funds can generate truly transformational investments.”*¹⁰ The Kenya National Climate Fund described could be a key vehicle in providing these instruments.

More broadly, a suitable investment climate is crucial to encouraging international private sector investment. Arguably the most important determinant of the magnitude of international private sector flows will be Kenya’s policy and regulatory framework for low-carbon investment, in the context of its broader investment climate. There is a considerable body of work focussed on the key elements of what a so-called ‘investment grade policy’ for low-carbon (international) private sector investment might look like, centred around the ideas such as:

- Open dialogue;
- Transparent, long-term and predictable regulation;
- The use of price signals to support low-carbon options;
- The appropriate use of regulation and standards; and

- Public engagement with sources of private finance.

As explained in section E on the Investment Climate for Climate Investment, a key element of financing the Climate Change Action Plan will be to introduce reforms consistent with these ideas, so as to catalyse greater (international) private sector investment.

3.2 National sources of climate finance

National sources of climate finance will also play a key role in supporting Kenya's transition to a low-carbon, climate-resilient economy. Below we discuss the current state, and key areas of debate, in relation to these resources. As above, we distinguish between public and private sources.

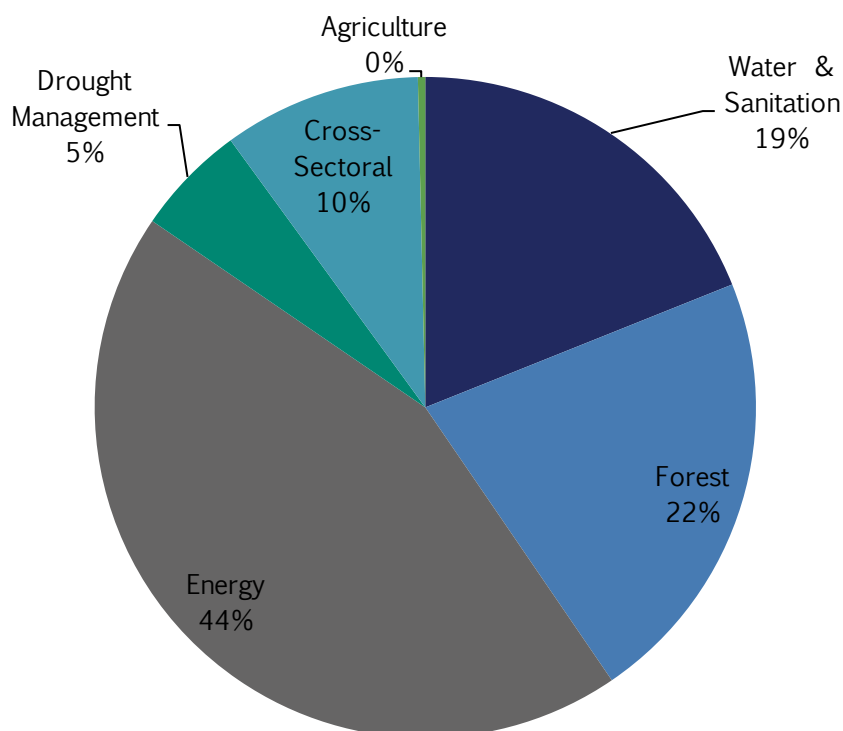
3.2.1 Public sources of domestic climate finance

The Kenyan government is currently implementing projects and programmes with climate change relevance to the value of KES 37 billion (~\$450 million). This is derived from some 30 to 35 ongoing projects and activities. As Figure A3 shows, the bulk of these resources, around 45 per cent, are in the energy sector, with forestry and land-use projects and water and sanitation activities accounting for a further 20 per cent of resources each. Consistent with this, the Ministry of Energy and Ministry of Environment and Mineral Resources are the two government agencies that account the majority of the government's spending on climate change-related activities.

Despite these funding levels, there has been relatively little attention given to climate change issues when formulating government strategies, nor efforts to monitor success. For instance, climate change did not feature in the 2008-2012 Medium Term Plan while Vision 2030 emphasises environmental management within its social pillar rather than within a specific environmental pillar. The monitoring of activity and financing levels on mitigation and adaptation is hampered by the lack of a specific climate change code or other reporting framework within the national accounts.

Given limited domestic resources, and other pressing development challenges, it is crucial that domestic public resources are spent as efficiently as possible, and with a view to exploit development co-benefits. As discussed below, and in the section on the Government of Kenya's absorptive capacity (section C), there are a variety of actions that can be taken to improve the efficiency with which Kenyan public resources allocated to climate change activities can be spent as efficiently as possible. These will also increase the efficiency with which any donor funds, whether through the National Climate Fund or otherwise, might be spent.

Figure A3: The bulk of the Government of Kenya resources devoted to climate change are allocated to the energy sector



Source: KIPPRA and ASI

3.2.2 Private sources of domestic finance

Kenya’s dynamic private sector can play a key role in helping the country realise its low-carbon, climate-resilient objectives, and it can build on the strong base already established. The Kenyan private sector is estimated to have invested close to \$150 million in renewable energy projects alone to date, a figure that rises to in excess of \$1.2 billion if the Kenya Electricity Generating Company and the Kenya Tea Development Authority parastatals are included. Much of this investment has been focused on geothermal activity, but relative to international investors the Kenyan private sector has also shown interest in other renewable technologies, especially small hydro and biomass.

The key factors determining the extent to which the Kenyan private sector can be brought in to help finance Kenya’s Climate Change Action Plan are the same as those for its international counterparts. It will require a supportive investment climate with clear and transparent regulation and well-designed policy incentives. Complementing this, the judicious use of public finance can help to leverage Kenyan private sector investment. This can build on the experience Kenya already has through such models as the Geothermal Development Corporation, a 100 per cent publicly-owned company which is absorbing the early stage drilling risks of geothermal power production.

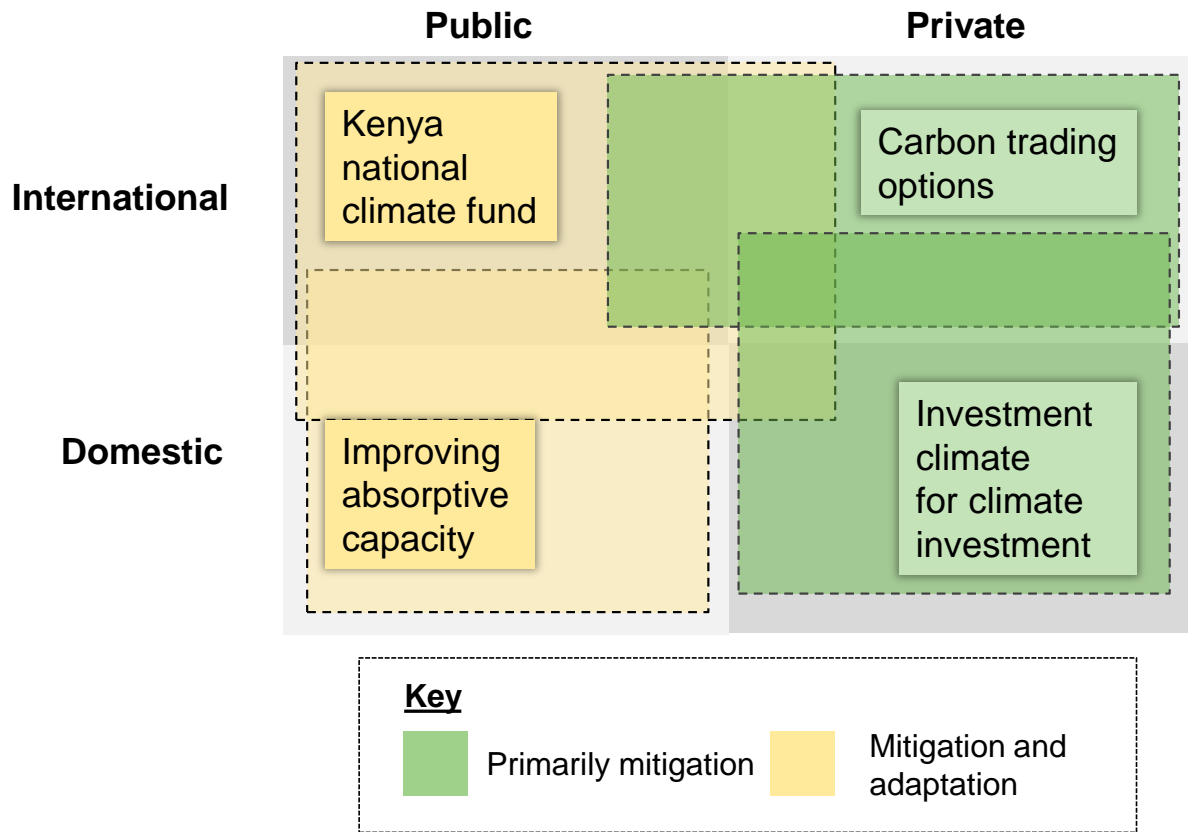
4. Financing the Climate Change Action Plan

This chapter provides an overview of the different elements of the strategy to enable the financing of the Kenyan Climate Change Action Plan and explains the methodology. It builds on the overall context provided in the previous chapter and shows how the key challenges can be overcome. Further details are provided in the four subsequent sections (B-E). The extensive research and analysis underpinning this analysis is also annexed to this report.

The methodology for developing the strategy has consisted on quantitative and qualitative desk research, complemented by extensive engagement with Kenyan and international experts. The strategy has been developed over a series of 9 months through a review of background literature, quantitative data analysis (for instance, on carbon market trends) and analysis of international precedents and experience. A crucial part of the work has been extensive engagement with Kenyan and international experts: over 70 experts have been engaged as part of this work. The relevant institutions consulted on are listed at the end of each section. In addition, the strategic insights and guidance provided by the Thematic Working Group (a body of Kenyan experts convened specially guide to this work) have been invaluable.

All aspects of climate finance are covered by the strategy. Earlier chapters in this section identified that climate finance sources can be helpfully divided into international and domestic, and, within this, public and private. The analysis and actions are intended to increase the scale and effectiveness of all four of these sources. This is displayed in Figure A4, It shows the different forms of climate finance – public and private, domestic and international – and how the recommendations cover all of these sources of climate finance. Each box represents a section and associated set of recommendations with the chart showing the extent to which they relate to public or private, domestic or international resources. For example, the absorptive capacity paper relates to domestic and international public resources. As such, the recommendations form a coherent package of actions intended to maximise the flows of climate finance into and within Kenya.

Figure A4: The climate finance strategy covers all sources of climate finance



Source: Vivid Economics

Section B provides a recommended design for a Kenya National Climate Fund.

It is intended that this would become the primary vehicle for receiving and disbursing international climate finance. In doing so, it would aim to overcome the challenges of fragmentation associated with the current disbursement of international public climate finance in Kenya, and build an institution within Kenya with core climate finance expertise. This expertise, together with the adoption of robust governance arrangements, safeguards and a clear set of funding priorities (the KCCAP) should help strengthen Kenya's position as a credible and attractive destination for international public climate finance flows. The Fund could also become a vehicle for providing public finance that might leverage greater amounts of private finance from both Kenyan and overseas investors. The Government of Kenya could also commit public resources to this Fund.

Section C complements the National Climate Fund design paper by analysing the Government of Kenya's current ability to absorb, manage and disburse climate finance and how this may be improved.

The process by which the government manages funds from development agencies (as well as its own revenue) has a major bearing on the speed of funds disbursement to implementing agencies (e.g. line ministries or NGOs), and consequently on the effectiveness of project implementation. The section identifies that the absorption rate of climate finance, and development finance more broadly, is low. This is due to a range of factors, from budgeting and fund flow challenges on the part of the Treasury and line ministries, to the non-alignment of government and development partner fiscal policies and procedures, to the lack of prioritisation of climate change within the budget. It makes a series of recommendations to improve absorptive capacity, including continuing improvements to the government's PFM system, the creation of a climate change code in the budget, the standardisation of government and development agency fiscal practices, and improvements to the modalities of project implementation. All of these will have a direct bearing on the full design and establishment of the National Climate Fund.

Section D looks at how Kenya might maintain and strengthen its ability to access international carbon markets, as a way of stimulating private sector international investment.

As referenced above, and discussed in more detail in the second paper, external factors mean that Kenya's access to carbon finance will be limited in the short to medium term. This demands a strategic response: balancing the greater need for action resulting from the tough external environment against the fact that the external environment makes any action more risky. The paper makes a series of recommendations consisting of both institutional reforms, e.g. capacity building of the Designated National Authority and the creation of a modest unit tasked with promoting and marketing Kenyan carbon market activity, as well as broader policy reform options.

The final section, section E, addresses Kenya's 'investment climate for climate investment'.

This investment climate will be key to unlocking the resources of the private sector, both in Kenya and overseas, so as to move Kenya onto a low-carbon climate resilient growth trajectory. The paper identifies that, despite Kenya's strengths, there are a number of ways in which the investment climate is hindering private sector engagement. This includes a project development process that is long and complex, a policy environment that is either deficient (in the case of renewable energy) or non-existent (in the case of energy efficiency), a finance community that does not yet fully meet the needs of project developers and a lack of technical capacity among project developers and financial institutions. It identifies a series of targeted interventions to overcome these weaknesses including the creation of a one-stop shop for permits and licenses; establishing standardised Power Purchase Agreements for

renewable energy; improvements to the Feed-in Tariff regime; the development of a national energy efficiency policy and greater co-ordination of technical assistance programmes. The implementation of these interventions would be an important complement to the Kenya National Climate Fund and carbon trading platform.

¹ Government of Kenya, National Climate Change Response Strategy, (April 2010)

² UNFCCC, Draft decision -/CP.15 'Copenhagen Accord' (18th December 2009)

³ Each section then consists of a number of different chapters. It is intended that each section could be read as a standalone document if desired.

⁴ CPI, *The Landscape of Climate Finance* (2011). As the authors of this paper note, there are a number of reasons why this need not be interpreted as implying that the Copenhagen Accord target is close to being met including the fact that not all of the \$97 billion is likely to be 'new and additional' as well as disagreements as to how the \$100 billion target should be interpreted.

⁵ This, in turn, is expected to leverage around a further \$850 million of resources from the Government of Kenya, the AfDB and World Bank Group, development partners and private investors.

⁶ *World Development Report 2010: Development and Climate Change*, World Bank (2009)

⁷ *Governing instrument for the Green Climate Fund*, Green Climate Fund (2011)

⁸ *Governing Instrument for the Green Climate Fund*, Green Climate Fund (2011)

⁹ Report of Secretary General's High Level Advisory Group on Climate Change Financing (5th November 2010)

¹⁰ Report of Secretary General's High Level Advisory Group on Climate Change Financing (5th November 2010)

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SUBCOMPONENT 8: FINANCE

SECTION B: KENYA NATIONAL CLIMATE FUND

AUGUST 2012

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Abbreviations

AF	Adaptation Fund
AfDB	African Development Bank
AFD	Agence Française de Développement
AGF	UN Secretary-General's High-level Advisory Group on Climate Change Financing
BCCRF	Bangladesh Climate Change Resilience Trust Fund
CDM	Clean Development Mechanism
CDTF	Community Development Trust Fund
COP	Conference of the Parties
CSO	Civil Society Organization
EBRD	European Bank for Reconstruction and Development
ECBI	European Capacity Building Initiative
EIB	European Investment Bank
ESCO	Energy Service Company
GCF	Green Climate Fund
GEF	Global Environmental Facility
GEEREF	Global Energy Efficiency and Renewable Energy Fund
GHG	Greenhouse gases
GoK	Government of Kenya
IFC	International Finance Corporation
KCCAP	Kenya Climate Change Action Plan
KENSUF	Kenya Slum Upgrading Low Cost Housing and Infrastructure Fund
MRV	Monitoring, Reporting and Verification
NCF	National Climate Fund
NIE	National Implementing Entity
PCN	Project Concept Note
PoA	Programme of Activity
PPCR	Pilot Program on Climate Resilience

PPD	Project Proposal Document
RTAP	Regional Technical Assistance Programme
SCAF	Seed Capital Assistance Facility
SEFA	Sustainable Energy Fund for Africa
SME	Small and Medium-sized Enterprises
UECCC	Uganda Energy Credit Capitalisation Company Ltd.
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNFCCC	United Nations Framework Convention on Climate Change
VC	Venture capital
WSTF	Water Services Trust Fund
YEDF	Youth Enterprise Development Fund

1. Introduction

This section provides recommendations on the design of a Kenyan National Climate Fund (“the Fund”), which will represent a key element of the financing of the Kenyan Climate Change Action Plan. The Fund is intended to be the key mechanism by which international (and potentially domestic) public resources will be managed and channelled towards Kenya’s climate change response priorities.

The issue of the appropriate way to manage climate finance resources has gathered increasing salience given the commitment by developed countries ‘...in the context of meaningful mitigation actions and transparency on implementation, to a goal of mobilising jointly USD 100 billion per year by 2020 to address the needs of developing countries.’ If this goal is realised it will imply a significant increase in the scale of finance flowing from developed to developing countries to support low-carbon, climate resilient (and hence broader development) ambitions. Managing and disbursing these resources in an efficient and cost-effective manner will be crucial. In this regard, a number of other countries have already explored the possible role of so-called National Climate Funds (NCFs), including Brazil, Bangladesh and Indonesia. This paper explores this possibility, and sets out a design for such an NCF, in the Kenyan context.

This section forms one of a series that sets out the strategy for financing the Kenya’s Climate Change Action Plan (KCCAP). The focus on this section is on the management of international (and possibly national) public resources. A further part of the strategy (section C) provide recommendations on how the absorptive capacity of the Kenyan government may be increased to use more efficiently domestic and international resources. These recommendations will complement those surrounding fund design provided in this section and will also be relevant for any public climate finance resources that do not flow through the Fund. Section D provides recommendations for how Kenya may be able to continue to exploit carbon markets to engage the international private sector in mitigation activity; while Section E sets out a series of actions to improve the investment climate for climate investment so as to increase both domestic and international private sector resources devoted towards climate change activities. In this way, the sections collectively form a coherent set of recommendations that may scale-up all sources of climate finance so as to help realise the ambitions of the KCCAP.

The section is structured as follows: the next three chapters (3 to 5) describe barriers to low-carbon and climate-resilient investments in Kenya, set out the rationale for a National Climate Fund in Kenya, and outline our recommendations as regards the design of this Fund. The subsequent chapter consist of a draft “governing instrument” for the Kenya National Climate Fund. The recommended next steps conclude.

2. Kenya's mitigation and adaptation needs and barriers to their realisation

2.1 Kenya's priority mitigation and adaptation investment needs

The priority mitigation and adaptation needs for Kenya are being developed elsewhere in the Action Plan process (Subcomponents 1, 3 and Subcomponent 4).

The preliminary analysis from this work indicates that in terms of mitigation opportunities in the period to 2030 there is likely to be considerable emphasis on geothermal electricity generation in the power sector with a smaller role for landfill gas, solar PV and wind power while in the transport sector the fund may be called on to support the development of new public transport systems (light rail and/or bus rapid transit). Outside the infrastructure sector, the greatest mitigation potential lies in agricultural co-generation and improved charcoal manufacturing in the industrial sector (the latter also has very high development benefits), advanced cookstoves and efficient electrical appliances in the household energy demand sector (the former has very high development benefits).

In the agriculture sector, the greatest mitigation potential lies in agroforestry, followed by soil carbon sequestration and limiting use of fire in croplands and rangelands. All have high development benefits. In the forestry sector, options with high mitigation potential include regeneration of woody vegetation on degraded lands, afforestation of marginal agricultural lands, avoided deforestation and reforestation of degraded forest. All of the options, and especially the first two, involve trade-offs around land-use, for example, regeneration of woody vegetation on degraded lands means setting aside large areas of land currently used by pastoralists for grazing; afforestation of marginal agricultural lands could be difficult as farmers will be reluctant to reforest even non-productive land/marginal land. The latter two options have less negative impacts and greater positive impacts - enhanced biodiversity, reduction of soil erosion, maintenance of water towers - and may be more likely to be taken up.

In terms of adaptation actions, the immediate priorities (i.e. in the period to 2017) identified elsewhere in the Action Plan process include:

- integrating climate change risk assessments into investment appraisal and development plans;
- selected infrastructure investments e.g. design and implementation of a climate resilient Urban Electrification Programme, improving the Kenya Meteorological Department's observational network and digitising meteorological data and data rescue and ensuring rural and urban communities have access to safe water and adequate sanitation; and
- building adaptive capacity through, for example, implementing a research programme into climate resilient transport construction designs and materials and identifying climate resilient building construction designs and materials relevant to Kenya.

2.2 Main current barriers to mitigation and adaptation in Kenya

Kenya's Action Plan will set out an ambitious programme of activities and investments that, if delivered, can move Kenya on to a low-carbon, climate resilient trajectory. However, despite progress by Kenya in recent years, as reflected in the development of the National Climate Change Response Strategy, as well as Kenya's relative success in developing Clean Development Mechanism (CDM) projects¹, there remain a number of barriers which will need to be overcome if Kenya's ambitions are to be realised. Drawing on other aspects of the strategy for financing the KCCAP², some of these key barriers are listed below.

Regulation and policy

- Insufficient understanding and experience across government of the low-carbon investment arena, including mandatory and voluntary carbon markets, renewable energy and energy efficiency.
- Inadequate communication between government and private sector on regulatory and policy matters.
- Little engagement of the (international) private sector by the Government of Kenya (GoK) on its low-carbon development strategy, with the goal of attracting investment.
- Low levels of transparency in decision-making and the awarding of contracts by ministries, departments and agencies of the Government of Kenya.

Access to commercial finance

- Very high interest rates; real interest rates are about 6-7 per cent and nominal rates close to 20 per cent for tenors less than 5 years; no long term funds readily available.
- Lack of experience of banks and other financial institutions with the financing of low-carbon projects, that is, in renewable energy and energy efficiency sectors.
- Limited development and early stage capital for project developers, especially at the small and medium enterprise (SME) level. A lot of private equity investors currently seek projects in Kenya, but the terms are often prohibitive – exit within five years and 25-30 per cent return on equity for long term energy efficiency and renewable energy projects.
- Lack of experience in, and availability of, project finance.
- High collateral requirements on the part of banks which disproportionately affects projects in the new sustainable energy space.

Technical and financial capacity

- Low level of capacity amongst firms, especially SMEs, in developing a bankable business plan and/or feasibility study, encompassing low skill levels in finance, accounting, auditing, management, addressing regulation and negotiating with government, amongst others.
- Challenges relating to availability and access to information on low carbon investment by all stakeholders including banks.

Government and development partners

- The slow disbursement of public funds to most projects and programmes implemented by the private sector, including by bilateral and multilateral development agencies, ministries and trust funds.

- Multiple and poorly-aligned sources of development partner finance for low carbon investment activities and duplication of effort.
- Competing and complex development partner requirements for accessing funding.

It should be emphasised that the most important means of overcoming these barriers is through establishing a sound policy and regulatory framework. In the long term, getting the policies right is likely to be of crucial importance in delivering the investment flows, especially from the private sector, that Kenya requires to grow in a low-carbon, climate-resilient fashion. There is considerable literature examining both the overall properties that such policies need to have³, as well as studies on the relative effectiveness of different types of policies in different circumstances⁴. These have informed the recommendations made elsewhere in relation to the wider investment climate for climate investment.

At the same time, there are a variety of reasons why exclusive reliance on establishing a conducive business environment is unlikely to be sufficient to overcome all the barriers and drive the necessary investment for Kenya to implement its Action Plan. Other important issues include market failures in capital markets, the social/redistributive impacts of introducing incentive policies too quickly (that is, a large increase in renewable energy capacity caused by high feed-in tariffs could lead to steep electricity price rises) as well as the fact that the characteristics of an important component of climate change activities and programmes such as some adaptation activity and capacity building will always require concessional/grant finance. Consequently, there is a need to complement these policy initiatives with a focus on publicly resourced finance mechanisms and the appropriate institutional arrangements surrounding their delivery. The next chapter examines the advantages and disadvantages of a National Climate Fund versus other options as a means to deliver these resources.

3. Rationale for a National Climate Fund in Kenya

A National Climate Fund (NCF) can be defined as: “a mechanism that supports countries to direct finance toward climate change projects and programmes by facilitating the collection, blending, coordination of, and accounting for climate finance. NCFs provide a country-driven system that can support climate change goal setting and strategic programming, oversee climate change project approval and implementation, measure performance, offer policy assurance and financial control of climate change funds, and assist with partnership management”⁵.

The first question to address is whether there is a strong rationale for setting up a fund. This requires assessing the advantages and disadvantages of the fund with alternative approaches for managing and disbursing public sources of climate finance, especially from development partners. We identify two alternatives.

- Scaled-up use of the existing architecture where bilateral and multilateral agencies continue to provide finance for climate change programmes largely according to their own criteria. This can be considered as, broadly speaking, a continuation of the existing approach. Our review of these arrangements shows that there is a large number of such institutions – at least fifteen – currently supporting climate change mitigation and adaptation activities in Kenya through this architecture.
- Greater provision of financial resources for climate change activities to the Government of Kenya for it to disburse using its existing structures and mechanisms that is, budgetary support. Such a model could be considered consistent with the Paris Declaration and Accra Agenda for Action⁶ both of which stress the importance of development partners aligning with developing country strategies and using (existing) systems (the ‘systems alignment’ principle).

In choosing between the three alternatives (a fund, current approach or budgetary support), it should be stressed that they are generic models/paradigms to illustrate the key underlying differences between the different approaches. In reality all three are likely to co-exist within Kenya for the foreseeable future. Nonetheless, such an approach helps to define the key strengths and weaknesses of different approaches and where future effort might be concentrated, especially in the context of the expected scale-up of international climate finance resources towards the USD 100 billion target stated in the Cancun Agreements.

These alternative models can be assessed against a range of criteria. Ideally, the management and disbursement of climate finance within a country would allow for a wide range of **sources (1)** of climate finance to be tapped; and that efficient and transparent **processes (2)** would transfer these sources in an appropriate form to a range of **recipients (3)**, in a manner consistent with **national priorities (4)**. Each of these four key characteristics of a financing mechanism can be broken down further into a number of criteria.

Sources

- Will development partners be willing to provide resources to the financing mechanism?
- In addition to support from development partners (the primary form of support in all models), will the mechanism/approach to managing climate finance allow for complementary sources to be tapped, especially domestic finance?

- Does the funding approach insulate funding for climate change from national budget cycles so as to facilitate longer term planning?

Efficiency and transparency

- Are the transaction costs associated with managing and disbursing climate finance reasonable?
- Are decisions about climate finance flows and disbursements made in a timely fashion?
- Is there transparency about flows of finance and decision making?
- Is there sufficient capacity and expertise in managing and disbursing climate finance?

Recipients

- Can the mechanism engage with, and potentially resource, a wide range of beneficiaries, including, civil society organisations (CSOs) and the private sector, in addition to the public sector?
- Does the mechanism have the flexibility to provide a wide palette of different financial instruments?

National ownership and priorities

- Does the financial mechanism support and align with existing democratic processes within Kenya?
- Does the mechanism ensure that climate change funding decisions are aligned with national plans and the wider fiscal planning processes?

Table B1 below provides an indicative assessment of these three financing mechanisms against each of these criteria in Kenya. The scores are (necessarily) subjective but where possible draw on a range of evidence collected throughout the study.

They suggest that a National Climate Fund would have the following advantages.

- Relative to greater budgetary support, an NCF would have more clarity of purpose and allow the development of expertise and transparency. Creating a national climate fund creates a specially focused body with a clear mandate. This clear focus can ensure greater efficiency in decision making – currently for development partner disbursement through government systems a gap of between six and nine months is common between the preparation and submission of reports and funding requisitions and the actual receipts of the funds by implementing agents. It also allows for the development of a body with corporate expertise and detailed understanding of the specific challenges associated with that mandate. This expertise, in turn, can allow it to operate in ways that would be atypical for a line ministry, that is, providing a wide range of financing instruments and entering into contracts with a wider range of beneficiaries. In addition, by explicitly creating a separate body there is likely to be greater focus on the transparency of its decision making and associated financial flows, making it easier to demonstrate the additionality of climate finance, and insulating climate change funding decisions from short-term budgetary pressures.
- Relative to maintaining/augmenting the current approach, a National Climate Fund would offer greater opportunities for alignment with national priorities (the ‘ownership’ principle). This is in line with much of the existing literature on national

funding entities (NFEs): the UN Development Programme (UNDP) notes, ‘national climate funds are consistent with several principles for the Paris Declaration on Aid Effectiveness and the Accra Agenda for Action’⁷ while Gomez-Echeverri⁸ states: *‘there is a gradual recognition that the current situation of financial support for climate change action in developing countries – characterised by a large number of international funds with complex administrative processes, minimal transparency or accountability, and conflicting mandates that do not always address or respond to developing country concerns or priorities – is untenable. Consequently, we see a gradual acceptance that more needs to be done in terms of shifting the responsibility for managing and disbursing the funds to developing countries...’* Further, by coordinating climate finance flows across a country, a national climate fund may also promote greater transparency and consistency in decision-making than is possible under the current approach. Finally NCFs may operate in a more streamlined cost-effective manner than existing bilateral and multilateral agencies. The underlying research undertaken for this study suggests that these arguments may be particularly salient in Kenya⁹. Although Kenya has been relatively successful at attracting international public support, this has come at the cost of fragmentation. There are at least fifteen different agencies supporting climate change activities and programmes in Kenya, each carrying their own administrative costs and with different rules and processes concerning both the extent, and means, of engagement with the Government of Kenya. There is little evidence of pooling of resources. Although the Joint Sector Working Group provides some harmonisation this is informal and not legally binding; it also focuses on a wide range of issues other than climate change.

There are two main challenges associated with the use of a National Climate Fund.

- Compared to the current approach, funds may operate under different rules and procedures to those to which development partners are accustomed and/or may not have an established track record of efficient disbursement. This can make it difficult for development partners to move away from established approaches and commit resources to an NCF and may create challenges for an NCF that could be asked to provide different information to different development partners.
- Compared to budgetary support, creating a separate modality for financing climate change investments prevents the ‘mainstreaming’ of climate change within departments and line ministries. Climate change continues to be treated as an exceptional issue (with exceptional approaches to acquire funding, and so on.)

These challenges are discussed in more detail in some of the underlying research annexed to this report.¹⁰ Although neither of these challenges is insurmountable, they do point to the importance of a strong design that seeks to minimise or overcome these potential disadvantages. This is discussed in the context of the draft Governing Instrument where we include a number of design aspects that seek to link the fund with existing government ministries, strategies, personnel and procedures and, for example, in terms of the approach taken to safeguards, and so on.

Table B1 A comparison of National Climate Funds with other modalities for disbursing climate finance

	Question/criterion	Existing approach	Budgetary support	National Climate Fund
Sources	Will development partners be willing to provide resources through this mechanism?	✓✓✓ - tried and tested. Kenya already receiving substantial climate change finance from development partners in the order of \$2-3 billion.	✓✓- some evidence of development partners providing general budget support to the government but also concerns over fiscal management and transparency e.g., Kenya is in bottom quintile in the World Bank's Governance indicator for control of corruption.	✓✓ - some evidence of development partners supporting similar funds in Kenya i.e. CDTF, but possible reticence over new (pooled) vehicle and corruption. However, new fund provides opportunity for best-practice processes.
	Can complementary sources be tapped (especially domestic sources)?	✓ - more reliant on existing development partner sources (cf. UNDP, 2011)	✓✓✓ - easy to collect and use domestic public resources; other sources may be more difficult	✓✓ - may be difficult to provide additional domestic budgetary support (especially if fund requires multi-year commitment)
	Is resourcing of climate change projects insulated from the budget cycle?	✓✓- main vulnerability is from budget cycle of development partners. Some programmes/funds demand multi-year commitments i.e. CIFs.	✓- no; considerable vulnerability	✓✓✓ - yes, conditional on receiving resources
Efficiency and transparency	Are the transactions costs associated with managing and disbursing climate finance low?	✓✓- no need to set up any new systems but processes can be complicated	✓✓✓ yes, can make use of existing disbursement mechanisms	✓✓- some costs associated with setting up the fund but thereafter processes can be designed to be streamlined and reasonably low cost
	Are decisions about climate finance flows made in a timely fashion?	✓ - development partner processes are typically lengthy	✓✓ - disbursement decisions and processes may take around 60 to 90 days	✓✓✓ - a potential strong advantage of a climate fund in Kenya. Disbursing resources through a strong, competent fund may be significantly quicker than through the standard budgetary routes.
	Is there transparency about flows of finance and decision making?	✓✓- lots of documentation but plethora of initiatives from different actors can make it difficult to monitor activity	✓- concerns over corruption (see above)	✓✓ depends on design and implementation but higher levels of visibility will attract attention
	Is the level of capacity and expertise in managing and disbursing climate finance sufficiently high?	✓✓ - individual initiatives likely to have capacity but plethora of initiatives can mean opportunities for learning are restricted	✓ - expertise will be focussed on broader government financing and disbursement activities; specialised focus on climate finance, and associated instruments, may be lacking	✓✓ team can be specifically selected for the objectives of the fund; some initial capacity building may be required
Recipients	Can the mechanism engage with a wide range of stakeholders?	✓✓ - yes, in principle; practice may vary	✓- focus is on providing resources to line ministries and parastatals. Institutions and frameworks to support CSOs and private sector less well established	✓✓ yes in principle; depends on implementation

	Does the mechanism have the flexibility to provide a wide range of financing instruments?	✓✓✓ - yes	✓ - no, existing focus and expertise is on providing grants/budgetary support to line ministries and parastatals	✓✓- yes in principle; some capacity-building may be required
Country ownership	Does the financial mechanism support and align with existing democratic processes within Kenya?	✓- in many cases, no; funding decisions taken outside of the government process	✓✓✓- yes, resources flow according to the priorities established by the government; resources for climate change treated identically to other funding priorities	✓✓ - funding decisions can be aligned with national priorities; if fund is at arms-length from government may be subject to less democratic accountability
		✓ - in many cases, no; funding decisions taken with only partial reference to GoK objectives or priorities	✓✓✓ - yes, resources flow according to the priorities established by the government; resources for climate change treated identically to other funding priorities	✓✓ -in part as decisions are made within the country but some challenges as separate funding mechanism to bulk of investments and programmes

Note: ✓ - scores poorly against question/criterion; ✓✓ - scores moderately well against question/criterion; ✓✓✓ - scores well against question/criterion

4. Summary of proposal

The proposed National Climate Fund of Kenya could have the following main features.

- The Fund's scope would include both mitigation (on account of the expected high growth of the Kenyan economy and the need to avoid locking in a carbon-intensive energy generation and other emissions intensive infrastructure) and adaptation (in light of Kenya's manifold potential vulnerabilities to adverse climate change).
- The Fund would aim to become the main (although not necessarily exclusive) recipient of external multilateral and bilateral climate finance mobilised by Kenya, and contribute to significantly scaling up these climate finance flows.
- The Fund would be structured as a separate legal entity for reasons of governance and effectiveness. The recommended form is that of a Trust Fund under the Financial Management Act N^o 5 of 2004, that could be rapidly established by ministerial decision.
- The Fund would develop in a phased approach, providing relatively simple financial instruments, most obviously grants, in an initial phase, before evolving to provide a wider palette of financing instruments. The early phase of this evolution would be consistent with the practice among many existing national funding entities e.g. Bangladesh, Indonesia and would allow time for the institution to build capacity; the latter phase would recognise that the challenge and complexity of Kenya's required response to climate change will require a broader array of financial instruments. This latter phase could be associated with the Fund having the capacity to borrow. The government could ultimately decide, in view of its skills, performance and track record achieved over a wide cross-section of the Kenyan economy, to convert the Fund into a national development bank.
- Building on the experience of multilateral development banks, the Fund would aim to be a catalyst of private sector funding and to the extent possible to provide wholesale finance, that is, by using third parties, including commercial banks and existing funds within the country, for example the National Environment Trust Fund, to channel finance to projects more diligently and efficiently.
- The Fund's governance would allow broad (and equal) representation of the four main stakeholder constituencies (government including counties, civil society organisations, private sector, and development partners supporting the Fund).
- The Fund would initially have recourse to an external, competitively selected, Fund Administrator to run its day-to-day operations. But the objective is to quickly build domestic capacity to make possible a full transfer of Fund management services to the government, should it be desired.
- The Fund would follow best international practices and standards as appropriate in the Kenyan context and given the likely small size of many of its future projects.

5. Draft Governing Instrument of the Kenyan Climate Change Fund

This chapter sets out the main elements of the governing instrument of the proposed National Climate Fund, which may serve as the basis for its legal creation.

5.1 Purpose, Functions and Guiding principles of the Fund

5.1.1 Purpose

The Fund would financially support the implementation of climate mitigation and adaptation actions prioritised in the Kenya Climate Change Action Plan (KCCAP) (as regularly updated), which require public support to be viable, and which the Fund would be best positioned and equipped to support. The Fund would assist Kenya in furthering its ambition to become a leader in the fight against climate change on the continent.

5.1.2 Functions

The Fund would have three main functions.

- i. The Fund would be responsible for the overall coordination of climate-related financing issues in Kenya, including, but not limited to the collection and publication, of relevant financial data in accordance with best practice¹¹. As regards the proposed new international Green Climate Fund (GCF), the Fund would become the “national designated authority” (referred to in point 46 of the GCF governing instrument approved by the Conference of the Parties (COP) 17 in Durban in December 2011), recommending funding proposals to the GCF Board and being consulted on all funding proposals originating from the country.
- ii. The Fund would be the vehicle (recipient) of choice for external multilateral and bilateral climate finance (including, possibly private finance). This is an objective consistent with the ‘country ownership’ principle of the Paris Declaration. However, development partners will not convert to this new approach immediately. Some development partner programmes are already being implemented; development partners may need some convincing to switch to a new approach which means less ‘development partner ownership’, the risk of losing influence and control, and potential concerns over the approaches to the allocation and spending of funds that may differ from their own. These will be addressed through features of the design of the Fund, particularly various ‘safeguards’ (see below.)

The two main exceptions to the Fund being the recipient of all external public climate finance flows would be: (i) development finance institution (DFI) project financing (for example, the direct financing of investment projects); and (ii) bilateral or multilateral development partner funding that is required to transit via accredited ‘implementing entities’ (were the Fund not willing or able to become one¹²): Three

prominent examples are the Adaptation Fund (AF) which accepts national ‘implementing entities’ (NIEs¹³); and the Global Environment Facility (GEF) and the Pilot Program on Climate Resilience (PPCR) which to date do not use NIEs¹⁴. Greater discussion on such national implementing entities, and their similarities and differences, with national climate funds are covered in the underlying research accompanying this paper¹⁵.

The Fund would also aim to become a ‘funding entity’ of the GCF (as referred to in point 47 of the above GCF document), should this modality of access to the GCF emerge.

- iii. The Fund would have overall responsibility for capacity building in relation to mobilising and spending climate finance in Kenya.

As such, the Fund would map capacity building needs in-country in relation to finance, draw up an action plan or road plan, and finance actions.

5.1.3 Guiding principles¹⁶

The Fund’s operations would be guided by the following principles which would be set out in a Fund Charter and if the need arises clarified and elaborated upon in internal policy documents.

- Coherence with the national policy framework and KCCAP: the Fund would finance or support projects and programmes which are included or consistent with the KCCAP (as periodically updated) and otherwise comply with Kenya’s policies.
- Additionality: the Fund would not provide financing or financial support when the applicant is able to obtain sufficient financing or facilities elsewhere on terms and conditions that the Fund considers reasonable; the Fund would aim to be catalyst to other parties’ funding, in particular the private sector.
- Equity: the Fund would seek to ensure that the needs of those most vulnerable to climate change in Kenya, i.e women, children and the elderly, are addressed in the projects and programmes it supports.
- Efficiency and effectiveness: the Fund would seek to operate cost-effectively and support projects and programmes that are viable and professionally managed and whose results and performance can be monitored.
- Risk management: the Fund would carefully consider the risks of the projects and programmes it supports, and use diversification and other risk management instruments adequate to the type of exposure it takes.
- Market distortions: the Fund would seek to avoid distorting competition and/or trade in making its funding decisions.
- Transparency and openness: the Fund would publish its decisions, and report at least annually on its operations in its annual report. Key stakeholders would be involved in decision-making and supervision of the Fund’s management and operations via representation on its Governing Board, and governance arrangements would be free from political interference.

- Flexibility: the Fund would adapt its approach, instruments and internal organisation to changes in the global and national environment in which it operates (in terms of needs; regulatory framework; new carbon finance and climate finance mechanisms and rules, amongst others).

5.2 Resources and fund raising process

5.2.1 Potential sources of funds

The Fund would mobilise its resources from the following main sources

International

- public bilateral grants;
- public multilateral grants, such as (possibly) from the Green Climate Fund; and
- private grants (most notably from philanthropists as commercial sources are not considered to be a realistic potential resource for the Fund, as the Fund will likely accept returns and take risks that commercial capital providers will not).

The first two are expected to provide the bulk of the Fund's resources. To date most other national climate funds have received the bulk of their international resources from public bilateral grants.

Domestic

- Budgetary resources, such as could originate from environmental fines and taxes, for example, a carbon tax and petrol tax (e.g. Thailand's Energy Conservation Promotion Fund).
- Private contributions (from individuals, charities, NGOs or corporations).

It is not envisaged at this stage that the Fund would borrow. The main reason is that the Fund will not at least initially give loans, and this is predicated on the assumption that the Kenyan banking system has liquidity and is broadly competitive and qualified enough to fulfil its role in implementing the KCCAP, with targeted support from the Fund. This is discussed in more detail in the accompanying paper on Kenya's investment climate for climate investment¹⁷. Another reason is that the Fund would not be able to borrow without a guarantee of the state and would borrow on no better terms than the state, which would not enable it to offer sufficiently concessional terms to target beneficiaries.

5.2.2 Fund mobilisation

In terms of process, the Fund should aim for the highest possible level of predictability of its resources, particularly for programmes that need to be implemented over the medium to long term, and to be regarded as a reliable partner by potential applicants.

The Fund should operate based on three-year cycles, allowing it to plan its operations and calibrate its financing, as well as human and other resources, accordingly.

This budgeting process (every three-year) could be institutionalised by holding a ‘fund-raising’ conference in Kenya prior to the beginning of each cycle. This would allow the Fund management to present its Action Plan (and initial list of priority spending items, both updated as the need may arise) and report on past activity of the Fund. This would contribute to greater visibility and transparency of the Fund operations.

5.2.3 Thematic windows

The Fund would create different financing ‘windows’ allowing development partners to earmark their funding, if they so wish (the Kenyan Water Sources Trust Fund offers a precedent).

5.3 The Fund’s approach to financing

5.3.1 Scope

The Fund would target both mitigation and adaptation. It would set rules to keep a balance between the two, for example: aggregate disbursements made under each window will not represent less than [40] per cent of the Fund’s total disbursements in any period of three years.

5.3.2 Beneficiaries and implementing entities:

The Fund would support projects or programme undertaken by the public sector (central and local government, and other public sector agencies), private sector, and civil society organisations (CSOs). The existing international experience of national climate funds tends to involve these bodies focussing on supporting public sector implementing entities and CSOs, e.g. the Indonesia Climate Change Trust Fund and the Bangladesh Climate Change Resilient Fund. However, other national climate funds have included support for the private sector, e.g. the Ecuador Yasuni Ishpingo-Tambococha-Tiputini Fund and Brazil National Fund on Climate Change, and others intend to do so in the future (e.g. the Indonesia Climate Change Trust Fund). In Kenya’s case, the broad range of implementing entities is justified by the wide range of activities that the Fund will support.

Detailed eligibility criteria would be laid out in the Fund’s Operations Manual, but would include, as a minimum, demonstrated need for Fund support, integrity and capacity to undertake the project or programme, amongst others.

5.3.3 Eligible expenditure

The Fund would support both specific projects and programmatic approaches. Detailed eligibility criteria would be laid out in the Fund's Operations Manual. The following types of expenditure would be eligible for Fund support:

- i. capital expenditure;
- ii. operating costs, where revenue streams are insufficient (for example, in the case of public good adaptation), including a possible reduction in interest payments charged on commercial loans;
- iii. preparatory activities (the likes of feasibility studies and energy audits); and
- iv. capacity building.

The Fund may wish to create a list of ineligible expenditures as part of its Operations Manual, as exists for example for the Pilot Program for Climate Resilience (PPCR), one of the suite of the World Bank-managed Climate Investment Funds¹⁸.

5.3.4 Financing modalities

Mitigation window: the Fund would not normally fund the entire project or activity cost (except for capacity building), but would co-finance projects roughly in proportion to the additional costs and risks associated with mitigation projects (that is, incremental costs; shortfall to normal returns¹⁹).

- *Example 1:* Geothermal project. The high capital costs and first-of-its-kind character of the project in a Kenya context may justify a capital investment grant to enhance project returns and bring them in line with investors' expectations. Additionally, banks may require a partial loan guarantee given the risks of the project.
- *Example 2:* Energy efficiency-retrofit project in industry. Fund support may be required to buy down the costs of the initial energy audit, a modest expenditure but one that sponsors may not be willing to consider given the barriers to information and lack of experience with similar projects in Kenya.
- *Example 3:* Off-grid solar PV systems, enhanced cook-stoves or bio-digesters. In non-electrified, primarily rural areas a range of proven technical solutions can simultaneously solve the issue of access to energy and reduce greenhouse gas emissions. However, because they are diffuse in nature they are difficult to finance with conventional carbon finance. Programmes of Activities (PoAs) under the Clean Development Mechanism were meant to remedy this problem, but new PoAs will be increasingly difficult to establish in Kenya given that credits from projects and PoAs registered after 2012 will not be eligible in the EU Emission Trading Scheme. The Fund could support these programmes at least pending the emergence of a successor to PoAs.

Adaptation window: The Fund would co-finance projects that reduce vulnerability to both current and future climate events (win-win adaptation) and the additional costs of integrating climate risk and resilience in long-term development activities, for example as they adversely affect the viability of investments²⁰.

- *Example 1:* In Tanzania, the Adaptation Fund (AF)²¹ is financing an integrated blend of ‘hard’ and ‘soft’ coastal protection measures in the Ilala and Temeke Districts (Dar Es Salaam region) with a \$5-million grant. The project approach is built on the idea that a sea wall alone is less effective than a sea wall supported by a restored shoreline (directly behind it), and a rehabilitated coral reef barrier (in front of it). Rehabilitated mangroves will provide a direct protective service to part of the city of Dar es Salaam, which is currently not adequately protected, and relieve some of the pressure from downward currents on the sea wall portion. Both types of interventions —hard and soft – will be further supported by a set of policy and learning process that will create the enabling environment for policy changes and the ground for project sustainability and coordination with on-going initiatives in the country²².
- *Example 2:* In Uruguay, the AF is financing with a \$10-million grant a project aimed at reducing vulnerability and building resilience to climate change and variability in small farms engaged in livestock production located in some extremely drought-sensitive regions of the country. This will involve investments in water supply, best practices for native grasslands management, shadow trees and animal management improvements and agro-forestry, as well as capacity building and other ‘soft’ measures²³.

Several types of financing instruments, on their own or in combination, can achieve these outcomes; they are described below.

5.3.5 Direct and indirect financing

The Fund would provide direct funding for larger projects and programmes, for example, a wind farm, or a large industrial energy efficiency retrofit, and other similar activities.

The Fund may also provide funding indirectly, via intermediaries, if this enables it to better reach out to projects and beneficiaries and enhance its impact. For example, the Fund could extend ‘wholesale’ funding to three types of intermediaries, and for the following purposes:

- Commercial banks:* to extend dedicated low-carbon loans²⁴, with a grant element as necessary, for example, through interest rate reductions (as exist in Lebanon), or investment grants paid on project completion, as are provided in several central and eastern European countries in parallel with European Bank for Reconstruction and Development (EBRD) or European Investment Bank (EIB) dedicated low-carbon credit lines.
- Venture capital (VC) funds* to support Kenyan developers of low-carbon or clean technology projects, including energy service companies (ESCOs) and renewable energy developers, with seed, and other forms of early stage capital and expansion capital if warranted²⁵.
- Other public sector funds and entities, or NGOs,* particularly to reach out to smaller projects, including at community and/or county level. The Community Development Trust Fund (CDTF), Water Services Trust Fund (WSTF) and the National Drought Contingency Fund (NDCF), for example, could request support from the Fund to finance specific adaptation costs in their respective fields of activity.

5.3.6 Financing instruments

Although initially focused on grants, the Fund may over time deploy a wider palette of financing instruments in order to address the various barriers to low-carbon investments prevailing in Kenya- see Table B2 and B3 below.

Table B2 Fund’s potential palette of financing instruments

Types of financing instruments	Definition	Application
<i>Short-term</i>		
Investment grants	Non-reimbursable grant for capital expenditure projects	Mitigation / adaptation
Operating grants	Recurring grant for non-investment spending	Adaptation mostly Preparatory activities Capacity building
<i>Longer-term</i>		
Partial credit guarantees	Guarantee that the loan principal and interest will be (re)paid	Mitigation / adaptation
‘Patient capital’	Equity with lower return expectations, longer exit, and junior to commercial investors’ equity	Mitigation mostly
‘Mezzanine’ debt	Type of debt that is subordinated to senior debt, and may have features of equity, e.g. convertible debt	Mitigation mostly
Contingent grants	Reimbursable grant, but reimbursement can be foregone if project fails	Mitigation / adaptation
Concessional loans	Loans on terms & conditions more favourable than those offered in the market	Mitigation / adaptation

Table B3 below provides an overview of how various barriers can be addressed by these mechanisms as well as examples of schemes or institutions that have implemented them.

Table B3 How selected financing mechanism address barriers to low-carbon investments

Issue	Fund instruments	Examples / precedents
Lack of development/early stage capital	Equity, contingent grants via grants to dedicated funds	UNEP/GEF Seed Capital Assistance Facility (SCAF) AfDB's Sustainable Energy Fund for Africa (SEFA)
Lack of equity for project developers	Mezzanine or equity via 'patient capital' investments in dedicated funds	Global Energy Efficiency and Renewable Energy Fund (GEEREF), Investment Fund for Environment and Renewable Energy (FIDEME)
Capacity building for banks and projects proponents	Technical assistance grant Project preparation Facility	Agence Française de Développement (e.g. RTAP programme in Kenya), EBRD, EIB, amongst others.
High risk perception by banks	Loan guarantees	International Finance Corporation, World Bank
Short loan tenors	Refinancing guarantee	Uganda Energy Credit Capitalisation Company (UECCC)
High interest rates	Interest rate subsidies	UK Carbon Trust
Low returns/long paybacks	Investment grants Concessional loans	EBRD in Eastern Europe, Tunisia, etc. AFD in Kenya, Uganda, Tanzania
High transaction costs of small transactions	Project preparation Facility Grants for energy audits/feasibility study Performance fees to banks	AFD Kenya (RTAP) EBRD in Eastern Europe
Lack of awareness	Campaigns, subsidised energy audits	Canada, New Zealand, Tunisia

Straight investment and/or operating grants would be the predominant instrument in the initial phase of the Fund's operations as grants are the most suitable instrument for early-stage adaptation (which, as discussed in the introductory section, section A, is currently relatively neglected by the international climate finance architecture), support for preparatory activities and capacity building. It would also allow the Fund to focus on the provision of a simple and well-understood instrument while building up capacity and expertise in terms of personnel, procedures, and so on.

Over time, as Fund capacity develops, investment barriers and the Fund's additionality can be better gauged, a track record is established, and financial resources have become more substantial, the Fund may decide to utilise more sophisticated instruments, such as equity, mezzanine debt, and guarantees. 'Patient capital' could be useful to leverage private investors in clean energy private equity funds. Loan guarantees could be instrumental in allaying the risk averseness of commercial banks to low-carbon investments. Interest rate subsidies and refinancing guarantees would reduce loan interest rates and extend bank loan tenors respectively, remedying two key barriers in the Kenyan context. For the latter instruments, careful monitoring will be required in order to ensure that it is the ultimate project developers who benefit from the concessional terms provided.

For reasons already mentioned, the Fund would, at least initially, not extend loans. The Kenyan banking sector is relatively liquid and competitive. The Fund's distinct role is to unlock and catalyse private capital addressing barriers with adequate instruments. Only if the Kenyan banking sector failed to play its role and respond to public incentives and support as provided by the Fund should the Fund consider directly providing loans. Another pre-requisite would be that the Fund's resources are sufficiently large and/or it has the ability to borrow on the desired scale and terms.

As in other climate-related funds, the Fund would justify that its support is indeed necessary, and (in a later stage when its offering of financing instruments has expanded) the level of concessionality²⁶ attached to it²⁷.

5.3.7 Project cycle

An indicative project cycle may consist of the following steps, inspired from the process used in multilateral development banks (simplified²⁸).

1. *Submission of a project concept note (PCN) by the project or programme proponent under the relevant window*

The Fund would develop a template for this PCN as well as a web-based interface, although paper-based applications will also be eligible.

2. *Screening by the Fund against eligibility criteria*
3. *Preparation and submission of project proposal document (PPD)*

Successful, applicants would prepare project proposals, possibly with support from the Fund to elaborate or improve the proposal as needed. The Fund would develop a template for this PPD.

For project and programmes of a certain size and/or complexity, a feasibility study would be required.

4. Project appraisal

The Fund would conduct a full appraisal of the project or programme in accordance with the following main criteria (to be fully elaborated in the Operations Manual):

- integrity of project or programme proponent;
- capacity of the project or programme proponent to implement the project or programme (as regards the likes of finance and human resources for example);
- financing plan;
- economic benefits;
- financial viability;
- climate-related impacts (that is, contribution to objectives of the KCCAP), and
- need for Fund support (that is, additionality of the Fund relative to other available sources of finance in the country).

5. Project approval

Following appraisal the Fund (and specifically the Operations Committee – see chapter 6 below) would decide whether to provide financial support to the project or programme, in which form (instrument), for what amount and on what terms (which may be indicative so as to allow some room for negotiation).

6. Signing of a financing agreement and implementation

Following project approval, the Fund will enter into negotiation with the project or programme to agree on the final terms of the financing. This process will culminate in the signing of a financing agreement, of which the Fund will develop templates (one for each key financing instrument as appropriate).

5.4 Governance

The three main bodies administering the Fund would be the Governing Board and under its authority the Operations Committee, and the Fund Administrator.

The rationale for this tripartite structure in ad hoc single-mandate institutions is as follows: the Governing Board where key stakeholders are represented is the body that provides overall guidance and has broad oversight over the Fund's operations; the Operations Committee makes funding and operational decisions; and the Fund Administrator provides the expertise and personnel necessary to run the Fund on a day-to-day basis.

A similar, three-tier, structure can be found, with nuances, in most existing national climate funds (e.g. Bangladesh and Indonesia), while multilateral climate funds (e.g. the AF and GCF) tend to use of two-tier structure (Board and Secretariat). The addition of an Operations Committee, to a large extent a sub-committee of the Board, is inspired from Multilateral Development Banks (although MDBs' board members normally do not sit in the Credit or Operations Committee) and aims to streamline and expedite the decision-making process, having in mind in the Kenyan context the likely high number of small projects. Numbers of members for each body are indicative.

5.4.1 The Governing Board

Composition

The Governing Board (the Board) would have [16] members (each with an alternate member) composed of an equal number of members from four constituencies: Government (central and counties); development partners; private sector; CSOs.

Selection of Board members

The [four] members (and alternate members) representing the Government would be appointed by the Ministers of Environment and Mineral Resources (MEMR) and of Finance²⁹, and by the counties³⁰, for the latter through a formal vote on the basis of a procedure agreed upon by at least a majority of the counties³¹.

The [four] members (and alternate members) representing the development partners would be appointed by development partners by the members of the development partner Climate Change Coordination Group through a formal vote.

The [four] members (and alternate members) representing the private sector would be appointed within the Kenya Private Sector Alliance ([two] members), the Kenyan Association of Manufacturers ([one] member) and the Kenya Banks Association ([one] member) through a formal vote, on the basis of a procedure agreed upon by these organisations.

The [four] members (and alternate members) representing the CSOs would be appointed jointly through a formal vote, on the basis of a procedure agreed upon among themselves by sector-relevant CSOs.

The Board would meet at least once every quarter, or at the request of at least half of its members.

Term of membership

Members and alternate members will serve for a term of [three] years, which can be renewed in accordance with the procedures adopted by their constituency.

Chairmanship

The Chair of the Board will be elected by the Board among its members representing the Ministry of Finance³². This is in line with other national climate funds, where senior government officials play a key role in the fund governance process. He/she will serve for a period of one year, which can be renewed.

Decision-making

Decisions will be normally made by consensus, save in circumstances set out in the Rules of procedure, which the Board may decide to adopt after its installation.

Role and functions

The Board would have overall responsibility for policy formulation and the good operation of the Fund in accordance with its constituting documents (for example, the Charter). In particular, the Board would:

- i. approve a mid-term (three-year) funding and expenditure strategy, in line with KCCAP (as periodically updated);
- ii. approve an annual budget and work programme;
- iii. approve operational modalities, including eligibility criteria for access to Fund support;
- iv. approve specific operational policies and guidelines;
- v. select, appoint and enter into legal arrangements with the Fund Administrator (see below);
- vi. confirm the appointment of the Executive Director of the Fund Administrator;
- vii. oversee the operation of the Fund;
- viii. commission independent evaluations of the Fund's operations; and
- ix. exercise such other functions as may be appropriate to fulfil the purpose of the Fund.

5.4.2 The Operations Committee

Composition

The Operations Committee (the Committee) will have [seven] members, [four] of whom will be elected by the Board among its members for a [two] year term, and the other [three] will be senior officers of the Fund Administrator (see below), including one of the latter's senior mitigation or adaptation experts as the case may be, depending on the window under which funding will be approved.

The Committee will be chaired by a member of the Board, elected by the Board for that purpose on the basis of his/her credentials.

The Committee will meet at least once a month depending on the agenda prepared by the Fund Administrator. Decisions will normally be taken unanimously by its members, and the quorum will be deemed constituted if at least [five] members are present.

Role and functions

The primary role of the Committee will be to take funding decisions (for example, on project approval), and prepare the annual budget of the Fund. The Committee will also run the selection process for the engagement of, and negotiate with, a firm or consortium of funds, which will provide Fund Administration services (see below.)

5.4.3 The Fund Administrator

In its initial configuration, the Fund would be staffed by an external Fund Administrator, brought from outside the Kenyan government, as a single coherent team possessing all the requisite skills to run an operation as proposed, including playing the role of secretariat and trustee to the Fund. In the future, as the Fund grows and becomes more institutionalised, it may hire its own staff. This arrangement is the most frequent one for existing NCFs. For example, in Bangladesh (in the Bangladesh Climate Change Resilience Fund) and Indonesia (in the Indonesia Climate Change Trust Fund), the World Bank and UNDP provide secretariat and trustee services on an interim basis. However, as explained below, in contrast to these arrangements, we propose that the Fund Administrator would be determined through an open competitive process, fully open to Kenyan citizens.

Role and functions

The Fund Administrator would:

- i. verify that eligibility criteria are being complied with;
- ii. independently assess the technical, economic, financial, institutional, environmental and social viability of each investment or programme application, and submit appraisal reports to the Committee for approval;
- iii. monitor operations and risks;
- iv. report on the Fund's activities and performance;
- v. organize and execute all administrative duties;
- vi. support the Board in arranging the Fund replenishment process;
- vii. manage the Fund's liquid assets;
- viii. prepare the Fund annual accounts; and
- ix. perform any other functions assigned to it by the Board.

The Fund Administrator would not be involved in taking funding decisions: that would remain the responsibility of the Operations Committee, acting under the guidance of the Governing Board, as established above.

Staffing

In an initial phase of two to three years, the Fund may engage, through an international competitive process, a core team of professionals (the Fund Administrator), which would be supplemented by staff seconded by the Government of Kenya in order to build domestic capacity and skills. Terms of Reference for the Fund Administrator will be prepared by the Committee and approved by the Board. It should be a requirement in the tender that the winning bidder include in its offer a significant proportion of Kenyan nationals of high calibre, and that, furthermore, it undertakes to train staff for, and beyond, the Fund Administrator's own needs. In addition, bids exclusively from Kenyan organisations are, of course, not excluded.

The Fund Administrator team will include experienced experts possessing the following skills:

- project management;
- mitigation project expertise (for example, in renewable energy, energy efficiency and land use and forestry);
- adaptation expertise;
- financial and risk analysis;
- finance and accounting; and
- training, knowledge management and capacity building.

The Fund Administrator would be headed by an Executive Director, whose appointment would be confirmed by the Board. The Fund Administrator would be resident in Kenya.

5.5 Legal status and location

5.5.1 Legal status

The Fund would possess juridical personality. It would be established by ministerial decision as a Trust Fund. Precedents include the Youth Enterprise Development Fund (YEDF), the Kenya Slum Upgrading Low Cost Housing and Infrastructure Fund (KENSUF), and the Community Development Trust Fund (CDTF), which is also a multi-donor fund.

This legal form presents a number of advantages:

- it can be set up quickly, through ministerial decision;
- it is very flexible in terms of rules of governance, procedures, and such like;
- it remains within the public sector;
- it could extend loans should it decide to do so in the future.

As a legal entity in its own right, the Kenyan NCF would have its own budget and accounts, and the legal capacity to enter into contracts, lend and invest funds.

5.5.2 Location and representation in the counties

The Fund will have its headquarters in Nairobi. It is recommended that it create initially up to three offices in the counties, in [to be determined]. Funding decisions will not be taken in these cities but staff of the Fund Administrator in these offices will (i) contribute to creating awareness about the Fund and the type of projects the Fund can support, (ii) assist smaller project proponents in preparing projects and filling in funding applications, and (iii) assist with conducting 'due diligence' on projects and programmes, for which a funding application has been submitted.

5.5.3 Future development of the NCF

At a later stage, when the Fund has built a strong portfolio, developed skills in several areas, established a track record of efficiency, effectiveness, and overall credibility, and if the need has arisen that the Fund add loans to its financing armoury, the government might consider transforming the Fund into a national development bank as exist in many countries. This would be a financing institution supporting Kenya's green growth and broader development objectives across a range of sectors of the economy with a palette of approaches and instruments that are not available from the market at the country's particular stage of development.

5.6 Safeguards

The Fund would follow best international practices and standards in all areas relevant to its mandate, having also consideration for cost-efficiency, and the relatively small size (relative to what multilateral development banks or a global climate fund will typically finance) of many projects. In developing these policies and guidelines, the Fund will also take account of the existing Government of Kenya practices and procedures.

One of the first tasks of the Board would be to develop and adopt policies and guidelines, covering the following issues:

- integrity (that is, corruption and money-laundering, among others)³³ ;
- environmental and social standards, including but not limited to gender equality;
- financial management, auditing and financial controls;
- procurement;
- risk management policy (including exposure limits);
- information disclosure policy;
- complaints and redress mechanism; and
- whistle-blowing mechanisms.

5.7 Monitoring, reporting and verification

Monitoring, Reporting and Verification (MRV) is essential to the effective tracking of progress in meeting national commitments and achieving the overall goals of the UN Framework Convention on Climate Change.

Most applications of MRV first outline the various potential elements and requirements of an 'ideal' MRV process then use this as a basis for examining the approaches that can be taken given available resources and constraints.

What needs to be measured, reported and verified depends to a large degree on the precise nature and objectives of the Fund's activities as well as the intended uses for the information. Much of it comes down to monitoring, metering, sampling, data management, benchmarking between sites, sectors, companies or projects to identify indicators and outliers, quality assurance systems and quality checks. It has applications for eligibility criteria and assessments, compliance, allocation methodologies and is implemented through standards and provision of guidance.

Two examples of the Fund MRV activities are provided thereafter.

1. The Fund would collect data and regularly report, in its annual report and on its website, to stakeholders on its *operations and financial position*, including but not limited to the following:
 - the projects and programmes supported, including their names, names of beneficiaries, sector to which they belong, location, and expected project or programme impact;
 - all (non-commercially sensitive) information that informed its project appraisal process so that it can show how the funded project met the objectives of the Fund. Funding decisions by the Operations Committee will be published; this will contribute to strengthening the independence of the Fund's decision-making.
 - the amount of funding mobilised by the Fund by contributor, window, and such like.
 - the amounts of financing committed and disbursed by the Fund in total (that is, the whole portfolio), and from each period.
 - performance indicators (for example, primary energy saved; renewable energy capacity added; greenhouse gas emissions saved).
 - financial status.
2. The Fund would also contribute, in relation to projects and programmes that it finances and in conjunction with the Fund's beneficiaries, to fulfilling *Kenya's reporting obligations to the United Nations Framework Convention on Climate Change (UNFCCC)*, in particular those arising from the COP 17 in Durban in late 2011.

In its decision N^o2, COP 17 decided that "non-Annex I Parties shall submit a biennial update report every two years, either as a summary of parts of their national communication in the year in which a national communication is submitted or as a stand-alone update report". It also adopted Guidelines for these reports according to which, non-Annex I Parties such as Kenya shall in particular provide:

- information, in a tabular format, on actions to mitigate climate change, including for each mitigation action or groups of mitigation actions:

- (a) name and description of the mitigation action, including information on the nature of the action, coverage (that is, sectors and gases), quantitative goals and progress indicators;
 - (b) information on methodologies and assumptions;
 - (c) objectives of the action and steps taken or envisaged to achieve that action;
 - (d) information on the progress of implementation of the mitigation actions and the underlying steps taken or envisaged, and the results achieved, such as estimated outcomes (metrics depending on type of action) and estimated emissions reductions, to the extent possible; and
 - (e) information on international market mechanisms;
- information on the description of domestic measurement, reporting and verification arrangement;
 - information on constraints and gaps, and related financial, technical and capacity-building needs; and
 - information on financial resources, technology transfer, capacity-building and technical support received from the GEF, Annex II Parties and other developed country Parties, the Green Climate Fund and multilateral institutions for activities relating to climate change, including for the preparation of the current biennial update report.

As to Fund beneficiaries, they will be held to reporting obligations to the Fund (on such aspects as the execution of the project and climate-related impacts, among others). The Fund will develop reporting templates adapted as appropriate to each type of project and/or category of beneficiaries.

6. Next steps

To launch the Fund without delay the following steps, some of which may run in parallel, are recommended (with implementing agents in brackets).

- agree on the design of the Fund based on the detailed analysis accompanying this Action Plan document (GoK and stakeholders);
- appoint a multi-departmental Task Force within GoK to steer the process of establishing the National Climate Fund of Kenya (GoK);
- convene a climate finance pledging conference (Task Force);³⁴
- create a Trust Fund via legal decree (GoK);
- communicate and consult nation-wide about the Fund, its mandate, and target date for operational start (Task Force);
- appoint the Governing Board (Task Force and stakeholders);
- draft terms of reference for the Fund Administrator (Governing Board with temporary assistance from Task Force);
- establish a joint financing agreement with development partners (Task Force and Governing Board);
- recruit the Fund Administrator (Governing Board with temporary assistance from the Task Force);
- prepare the initial budget (Fund Administrator);
- develop and approve key policies, guidelines, procedures and templates (Board with assistance from Fund Administrator);
- appoint the Operations Committee (Board, Fund Administrator); and
- approve the initial budget (Board, Operations Committee).

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- Climate Change Capital
- Climate Network Africa
- Commercial Bank of Africa
- Danida
- DI Frontier Market Energy and Carbon Fund
- European Investment Bank
- Global Canopy Programme
- Inter-American Development Bank
- Japan International Cooperation Agency
- Kenya Association of Manufacturers
- Kenya Bankers Association
- Kenya Private Sector Alliance
- KfW
- Globe
- Grantham Research Institute on Climate Change and the Environment, London School of Economics
- Ministry of Environment and Mineral Resources
- Ministry of Finance
- Ministry of Planning
- National Environment Management Authority
- National Environment Trust Fund
- Oxford Climate Policy
- Standard Bank
- Swedish International Development Cooperation Agency
- Swiss Agency for Development and Cooperation
- Transparency International
- UK Department for International Development
- United Nations Development Programme
- United States Agency for International Development
- World Bank
- World Economic Forum

In addition, the expertise and insights provided by the Finance Team's Thematic Working Group has been invaluable in guiding the research and recommendations.

¹ See the work also developed by the finance subcomponent on the appropriate carbon trading platform options for Kenya (section D of this report).

² See work also developed by the finance subcomponent on improving Kenya's low-carbon investment climate (section E of this report).

³ See, for instance, Hamilton (2009) Unlocking finance for clean energy: the need for 'investment grade' policy or CMCI (2012) Principles for investment grade policy.

⁴ See, for instance, IEA (2008) Deploying renewables- principles for effective policies.

⁵ UNDP (2011) Blending Climate Finance through National Climate Funds, http://www.undp.org/content/dam/undp/library/Environment%20and%20Energy/Climate%20Change/Capacity%20Development/Blending_Climate_Finance_Through_National_Climate_Funds.pdf

⁶ http://www.oecd.org/document/18/0,3746,en_2649_3236398_35401554_1_1_1_1,00.html#Documents

⁷ UNDP (2011) Blending Climate Finance through National Climate Funds, , http://www.undp.org/content/dam/undp/library/Environment%20and%20Energy/Climate%20Change/Capacity%20Development/Blending_Climate_Finance_Through_National_Climate_Funds.pdf

⁸ Gomez-Echeverri, L. (2010) National Funding Entities: Their role in the transition to a new paradigm of global cooperation on climate change, ecbi policy report.

⁹ See work also developed by the finance subcomponent on development partner activities in the climate change space in Kenya annexed to this report (Annex

¹⁰ Vivid Economics (2011) National funding entities: existing practices and lessons for Kenya

¹¹ This will mean that the Fund will have an important role in collecting the financial data required to comply with the biennial update reports to the COP that will be required of Kenya

¹² Benin's Fonds National de l'Environnement (FNE) is a funding entity which is also an Implementing Entity.

¹³ The National Environment Management Authority (NEMA) is the Kenyan institution accredited as National Implementing Entity (NIE) by the Adaptation Fund.

¹⁴ The GEF is currently developing proposals to allow 'direct access' to its funds through such national implementing entities.

¹⁵ Vivid Economics (2011) Current and future international climate finance architecture: implications for Kenya's financing mechanism, Annex A to this report

¹⁶ To be set out in a Fund charter.

¹⁷ See work also developed by the finance subcomponent on improving Kenya's low-carbon investment climate (Section E).

¹⁸ The PPCR, approved in November 2008, aims to pilot and demonstrate ways in which climate risk and resilience may be integrated into core development planning and implementation. In this way, the PPCR provides incentives for scaled-up action and initiates transformational change.

¹⁹ These are the concepts underlying the approach of the GEF and the Clean Technology Fund administered by the World Bank.

²⁰ Climate Investment Funds (2010) Pilot Program on Climate Resilience: Financing Modalities, May

²¹ The Adaptation Fund was established to finance concrete adaptation projects and programmes in developing countries that are parties to the Kyoto Protocol and are particularly vulnerable to the adverse effects of climate change. Over the past two years, the fund has dedicated more than \$165 million to increase climate resilience in 25 countries around the world. The Global Environment Facility (GEF) provides secretariat services to the AF Board and the World Bank serves as trustee of the Adaptation Fund, both on an interim basis.

²² Adaptation Fund (2012) Implementation of concrete adaptation measures to reduce vulnerability of livelihood and economy of coastal communities in Tanzania. Available from <http://adaptation-fund.org/project/implementation-concrete-adaptation-measures-reduce-vulnerability-livelihood-and-economy-coas>

²³ Adaptation Fund (2012) Uruguay: Helping small farmers adapt to climate change. Available from <http://adaptation-fund.org/project/uruguay-helping-small-farmers-adapt-climate-change#attachments>

²⁴ The largely subsidised ongoing Agence Française de Développement (AFD) €30-million credit line to Co-operative and CFC Stanbic banks is a precedent.

²⁵ It is recommended that the Fund work with the UNEP-sponsored Seed Capital Assistance Facility (SCAF) (which precisely seeks to encourage private equity funds in the clean energy space to scale up

early stage/development funding as part of their operations) to explore areas of cooperation. See <http://scaf-energy.org/index.html>

²⁶ Broadly defined, concessionality refers to various ways to provide financing on terms that are ‘softer’ than those available from commercial sources of capital (debt or equity). The concessionality can affect the rate, tenor, and so on. The most concessional form of financing is a straight, non-reimbursable grant.

²⁷ For example, the PPCR requires beneficiary multilateral development banks to “always seek the minimum concessionality necessary to enable projects to happen and [to] justify the amount of concessionality requested in each PPCR proposal”. Climate Investment Funds (2010) Pilot Program on Climate Resilience: Financing Modalities, para 44 .

²⁸ For example, at the World Bank, the documents prepared at steps 1 and 3 are called Project Concept Documents and Project Appraisal Documents respectively.

²⁹ The role of relevant ministers and ministries will be updated pending any changes in government organization under the new constitution.

³⁰ Exact number and allocation to be agreed between Central Government and counties.

³¹ In addition, in the event that a Climate Change Authority is established, this would also be entitled to appoint an individual to the Board.

³² At a later date, in the event of the establishment of a Climate Change Authority, the Chair could be appointed among the members representing this body.

³³ As an example regarding integrity, according to the CDTF website (<http://www.cdtfkenya.org/>) applicants to the CDTF must declare that the applying group ‘is not bankrupt or being wound up or are having their affairs administered by the courts; has not been convicted of an offence concerning their professional conduct; has not been guilty of grave professional misconduct; has fulfilled its obligations on payment of social security contributions or taxes; has not been the subject of a judgment for fraud, corruption, involvement in a criminal organisation or any other illegal activity’.

³⁴ It is also recommended that a target (in terms of aggregate financing pledges) be set for first closing, failing which the launch (and expenses on establishment) of the Fund would be postponed.

REPUBLIC OF KENYA



**MINISTRY OF ENVIRONMENT AND MINERAL RESOURCES
AND MINISTRY OF FINANCE**

KENYA CLIMATE CHANGE ACTION PLAN

SUBCOMPONENT 8: FINANCE

SECTION C: ABSORPTIVE CAPACITY DEVELOPMENT PLAN

AUGUST 2012

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Abbreviations

ACCPAC	Accounting Package
AFD	French Development Agency
AfDB	African Development Bank
AFREPREN FWD	Energy Environment and Development Network for Africa
AG	Auditor General
AIA	Appropriations In Aid
ATP	Alternative Technologies Project
BOT	Board of Trustees
BPS	Budget Policy Statement
BSD	Budget Supply Department
CALP	Community Adaptation Learning Programme
CBK	Central Bank of Kenya
CBO	Community Based Organisation
CDF	Constituency Development Fund
CDKN	Climate and Development Knowledge Network
CDTF	Community Development Trust Fund
COB	Controller of Budgets
Cogen	Co-generation
COMESA	Common Market for East and Southern Africa
CPC	Community Project Cycle
CRA	Commission for Revenue Allocation
CSG	County Steering Group
CSO	Civil Society organisation
CT- OVC	Cast Transfer Orphans and Vulnerable Children
CUBRESA	Capacity Building for Renewable Energy SMEs
DANIDA	Danish International Development Authority
DFID	UK Department for International Development
DMA	Draught Management Authority
EC	European Commission
EDF	European Development Fund
ERD	External resources Department
FAO	Food and Agriculture Organisation
GBM	Green Belt Movement
GEF	Global Environment Facility

GIZ	German Development Cooperation
GoK	Government of Kenya
HR	Human Resource
IFMIS	Integrated Financial Management Information System
IT	Information Technology
JFA	Joint Financing Agreement
KAM	Kenya Association of Manufacturers
KENAO	Kenya National Audit Office
KFS	Kenya Forestry Service
KfW	German Development Bank
KIPPRA	Kenya Institute of Public Policy and Analysis
KLGRP	Kenya Local Government Reform Programme
KOSIP	Kimira Oluch Small Holder Farm Improvement Project
KWS	Kenya Wildlife Service
KYEP	Kenya Youth Empowerment Project
LA	Local Authority
LATF	Local Authorities Transfer Fund
M&E	Monitoring and Evaluation
MEMR	Ministry of Environment and Mineral Resources
MFW	Ministry of Forestry and Wildlife
MGCSD	Ministry of Gender Children and Social Development
MIS	Management Information System
MOA	Ministry of Agriculture
MoE	Ministry of Energy
MoEd	Ministry of Education
MoF	Ministry of Finance
MoLG	Ministry of Local Government
MoPHS	Ministry of Public Health and Sanitation
MOU	Memorandum of Understanding
MoWI	Ministry of Water and Irrigation
MOYAS	Ministry of Youth and Sports
MPV2030	Ministry of Planning and Vision 2030
MRDA	Ministry of Regional Development Authorities
MTEF	Medium Term Expenditure Framework
NCCRS	National Climate Change Response Strategy

NEMA	National Management Environmental Authority
NGO	Non- Governmental Organisation
OPM	Office of the Prime Minister
PIU	Project Implementation Unit
PM	Project Manager
PS	Permanent Secretary
SAP	Integrated Enterprise Planning System
SIDA	Swedish Development Authority
SWG	Sector Working Group
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNICEF	United Nations International Children Education Fund
UPC	Urban Project Cycle
VAT	Value Added Tax
WDC	Water Users Association Development Cycle
WRMA	Water Resources Management Authority
WSTF	Water Services Trust Fund

1. Introduction

The objective of this section is to provide an understanding of the operations, practices and capacity of key Kenyan public institutions involved in the management of climate finance at the national and the local level, and to draw out key lessons for reform and improvement. These lessons will be integral to the full design and establishment of the National Climate Fund for Kenya and for its successful operation, as well as to efforts to strengthen the broader public financial management framework for climate finance. In essence, therefore, the purpose of the section is to ascertain how to spend available climate finance resources effectively and efficiently.

The section emerges from a review and analysis of literature and discussions with representatives of selected government ministries and other government agencies. Organisations were selected based on their involvement in the management of finance and the implementation, projects and programmes in sectors relevant to climate change – notably energy, environment, agriculture, water and forestry; thereby shedding light on the dynamics of the public management of climate finance. As such, government ministries included in the review were the:

- Ministry of Finance (MoF), specifically the External Resources Department (ERD);
- Ministry of Environment and Mineral Resources (MEMR);
- Ministry of Energy (MoE);
- Ministry of Regional Development Authorities (MRDA);
- Ministry of Forestry and Wildlife (MFW), mainly the Kenya Forest Service (KFS);
- Ministry of Agriculture.

Government of Kenya (GoK) authorities and trust funds included were the:

- Recently-constituted National Drought Management Authority (DMA) under the Ministry of Northern Kenya Development (MNKD);
- Local Authorities Transfer Fund (LATF) in the Ministry of Local Government (MoLG);
- Community Development Trust Fund (CDTF) under the Ministry of Planning and Vision 2030 (MPV2030);
- Water Services Trust Fund (WSTF) under the Ministry of Water and Irrigation (MWI).

For each of the organisations reviewed, discussions focused on budgeting processes, fund flow processes, disbursement practices, absorptive capacity, perspectives on public financial management under the new constitution, project and programme implementation arrangements, and accounting, reporting and audit arrangements. The analysis involved the collection and examination of data and information from reports, websites, legal notices, acts of parliament, draft bills, and the new (and to some extent the old) constitution. Interviewed representatives included those financial, accounting and technical staff involved in the management and implementation of climate change financing streams in government organisations.

2. Government Budgeting Processes

The allocation of government and development partner resources is guided by the government's short, medium and long-term priorities. These plans include Annual Budget Estimates in the short-term, Medium-Term Expenditure Frameworks (MTEFs) in the medium-term and Vision 2030 in

the long-term. The formulation of the annual budget is largely driven by a Budget Policy Statement (BPS) and the MTEF. The MTEF outlines the broad strategic macroeconomic issues that form the basis for budgeting in the coming financial year and the medium-term. A BPS goes into greater detail on the overall projected targets for total revenue, aggregate expenditure, domestic and external borrowing, and total resources to be allocated to individual programmes within a sector or ministry for the coming financial year and the medium term. It also defines the criteria used to allocate or apportion available public resources among the various programmes, proposes how to finance any deficits, and provides indications of borrowing intentions.

The Government MTEF is a budgeting tool used to translate government policies and plans into expenditure programmes within a coherent, multi-year macro framework. The Government of Kenya adopted the Medium Term Expenditure Framework (MTEF) in June 2000 following a public expenditure review in 1997. It provides guidance on how to divide up total national resources and how to trade off sectors against one another based upon certain priorities. A number of benefits concerned with the improvement of Kenyan fiscal management have been attributed to the MTEF. These include:

- The promotion of the predictability of resources in priority areas;
- Improved stakeholder consultation in decision-making;
- Efficient and predictable resource allocation mechanisms;
- Enhanced accountability;
- Transparency; and
- Fiscal discipline.

However, the MTEF has been faced with a number of challenges, including limited resources, which in turn leads to:

- The allocation of the national resources based on equality as opposed to equity;
- A lack of attention paid in ministries to the accurate fiscal projections in the later years of the MTEF;
- Political interference;
- Disruption due to national emergencies;
- The failure of Sector Working Groups (SWGs) to allocate adequate resources to priority areas; inflation and price changes;
- Fluctuations in the exchange rates;
- A failure to support and anchor MTEF in legislation.

Within the budget, expenditure is broadly-speaking classified as being either under the 'development' or the 'recurrent' vote. For example, development projects and capital investments are budgeted under the development vote, whereas operational and maintenance costs are budgeted under the recurrent vote. Funding from development agencies, whether for capital investments or operational costs, is always budgeted under the development vote. Development agency funding is further classified as either 'revenue' or 'appropriations in aid' (AIA), depending on the disbursement mechanism being used. Funding classified as revenue is exclusively channelled through the government's consolidated fund (the fund into which all government revenue from all sources is initially pooled). Funding classified as AIA has been agreed and negotiated with the government and factored into the budget but is usually disbursed directly from development agencies to implementing agents (for example line ministries, government departments, parastatals, firms,

NGOs, community-based organisations (CBOs), bypassing the consolidated fund. Government funding earmarked for development and investment projects is also budgeted under revenue.

The government's budgeting process has faced a number of challenges, some of which have to do with the relationship with development agencies. These include:

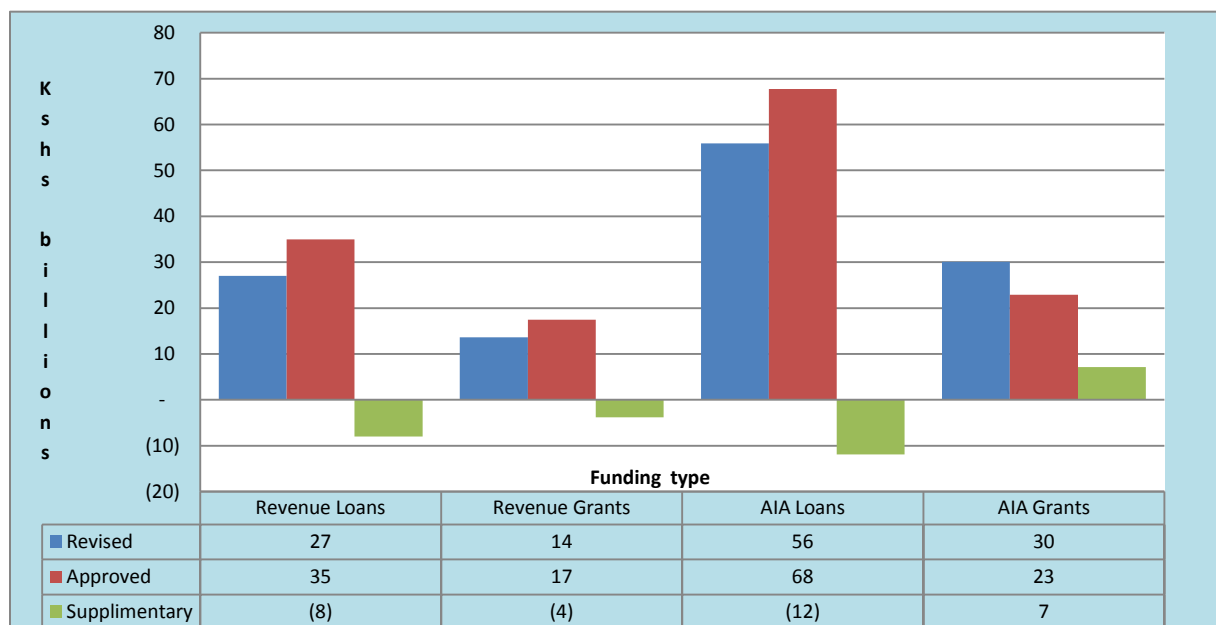
- Inadequate budgetary allocations by the government;
- Conditions placed on development partner funding;
- The inability of development partners to provide accountability for funding disbursed as AIA;
- Arbitrary government and development partner funding allocations or the failure to use detailed implementation plans and estimates as the basis for funding allocations;
- Difficulties in the harmonisation of resource allocations; and
- The harmonisation of fiscal years between the government and various development partners.

External development partner funding can be incorporated into the government's budget through two 'windows' – during the formulation of budget estimates or during supplementary revisions. The formulation of budget estimates takes place towards the beginning of the Kenyan fiscal year, whilst supplementary revisions are usually tabled two months before the end of the fiscal year. The standardisation of systems would facilitate a reduction of the need for supplementary revisions, which would make the budgeting and financial management process smoother and more efficient.

It is also important to ensure that annual budget estimates submitted by implementing agents to the Treasury at the beginning of the fiscal year are supported by detailed work plans and realistic cost estimates, which in many cases they currently are not. This would again reduce the need for supplementary revisions.

Figure 1 below provides a comparative analysis of the 2010-2011 financial year approved development partner budget estimates against supplementary revisions. Overall there was a downward revision of the approved budget allocation for revenue loans, revenue grants and AIA loans amounting to KSh 24 billion. During the same period there was a general increase in funding under AIA grants from KSh 23 billion to KSh 30 billion – an increase of KSh seven billion. The downward revision was brought about by the need for implementing agencies to scale back budgets to minimise audit queries relating to a lack of expenditure from the previous year – in other words it was a result of government institutions' inability to absorb external, development partner funding, which is addressed below. The increase in funding for AIA grants can be explained by the fact that additional funding was included in the budget during the supplementary revisions process.

Figure C1: Overall development partner funding budget analysis for the 2010-2011 financial year



Source: ERD

3. Government Fund Flow Processes

Delays in the disbursement of development partner funding via government systems have been a major hindrance to the absorption of funding. The revenue vote has been characterised by delays of as much as six to nine months from the preparation of reports and submission and funding requests to development partners by the government, to the actual receipt of funds by implementing agents. These delays can be attributed to:

- Lengthy bureaucracy within government systems;
- Inadequate financial management capacity within implementing agencies;
- Inadequate awareness and understanding of project needs as well as development agency rules and regulations.

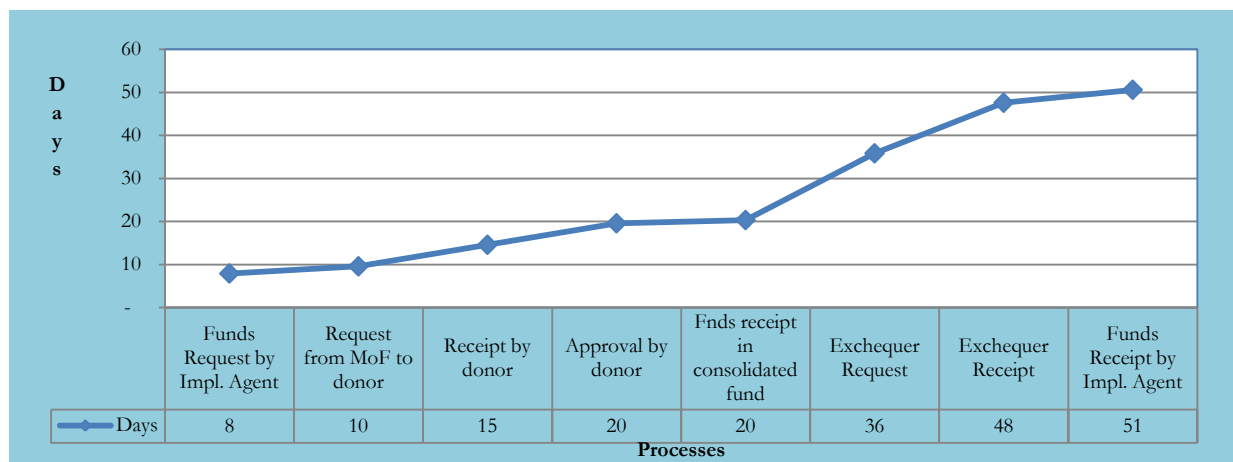
However, the government and development partners have taken a number of measures to address these delays, including:

- Agreement that development partners will close off-shore bank accounts and replace them with domestic accounts;
- The introduction of a more robust payments system at the Central Bank of Kenya, which is integrated with government's Integrated Financial Management System (IFMIS), in order to speed up payments;
- The development of a web-based portal to enable implementing agents to track the status of disbursement request from development partners to government;
- Hands on capacity building and training in public financial management; and

- The reengineering of the government’s IFMIS to enhance information sharing and awareness.

However, the longest delay to the disbursement of funds via government systems is caused by processes in Treasury. Figure 2 is an analysis of the average timeline involved for two projects funded through the government systems and classified as ‘revenue’: Cash Transfers for Orphans and Vulnerable Children (CT-OVC) and the Kenya Youth Empowerment Programme (KYEP). The CT-OVC is implemented by the Ministry of Gender, Children and Social Development, while KYEP was implemented by the Office of the Prime Minister (OPM) and six line ministries (MoWI, the Ministry of Youth (MOYAS), MRDA, MoLG, the Ministry of Roads (MOR), and MEMR). The analysis shows that 20 days elapsed from the preparation of the funding request until the approval of the same by the development agency and the transfer of funds to the Treasury’s consolidated fund. A further 31 days elapsed before the disbursement of funds from the consolidated fund to the implementing agent. The whole process took two and a half months. The majority of the delay can thus be attributed to the lengthy processes in the Ministry of Finance to process payments, authorise the release of funds and to actually release them from the line ministry exchequer bank account.

Figure C2: Cumulative fund flow timelines under the revenue vote funding mechanism



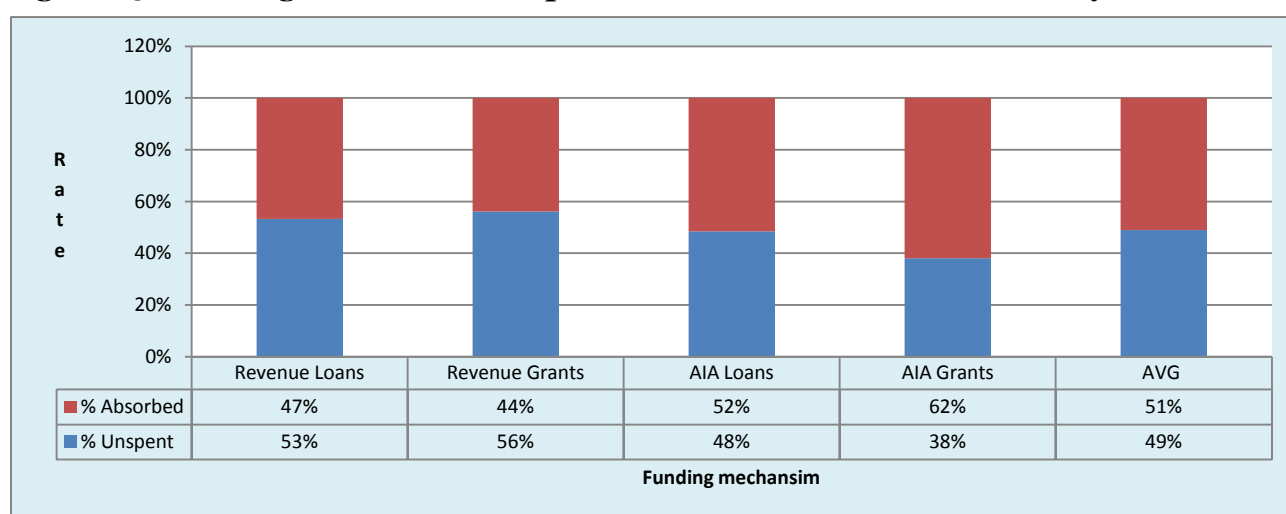
Source: ERD/MGCSD/OPM

The Treasury has taken a number of steps to address delays in disbursement of funds through the government systems. These measures include the agreement with development partners to close off-shore accounts with a view to eliminating unnecessary steps in the delivery of funds; the appointment and training of dedicated ERD staff to handle specific development partner projects; the disbursement of funds directly from the consolidated fund to implementing agencies, that is without the physical movement of funds through line ministry exchequer bank accounts; and quarterly disbursement and absorption tracking and monitoring. Although the Treasury has taken a number of steps in addressing these challenges, it should consider the deployment of dedicated trained finance, accounting and internal audit personnel to line ministries and implementing agents to deepen and expand necessary reforms throughout government.

4. Disbursement and Absorption Capacity

The government's overall capacity to absorb external development partner funding is low. Based on discussions with, and data from, the Ministry of Finance's External Resources Department, the absorptive capacity for the current financial year 2011-2012 is expected to be in the range of 40-45 per cent, that is of the total development partner funding made available to the Government of Kenya, only 40-45 per cent will be used. Figure 3 is a depiction of absorption rates for 2010-2011. The overall average absorption rate in that year was 51 per cent. AIA grants recorded the highest rate of absorption while revenue grants posted the lowest absorption. The absorption rate for revenue loans was 47 per cent while AIA loans recorded 52 per cent.ⁱ

Figure C3: Overall government absorption rate for the 2010-2011 financial year



Source: ERD

The absorptive capacity of Government of Kenya trust funds is higher than that of the government as a whole. Figure 4 shows indicative absorption rates for trust funds. From the figure, it is clear that the average absorption rate of the Water Services Trust Fund and the European Commission (EC) and Danish International Development Agency (Danida)-funded Community Development Trust Fund was 59 per cent, that is eight per cent higher than the government. Even so, this level of finance uptake should be considered low given that these trust funds are special purpose vehicles with specific service delivery mandates, and as such should operate at a high level of efficiency.

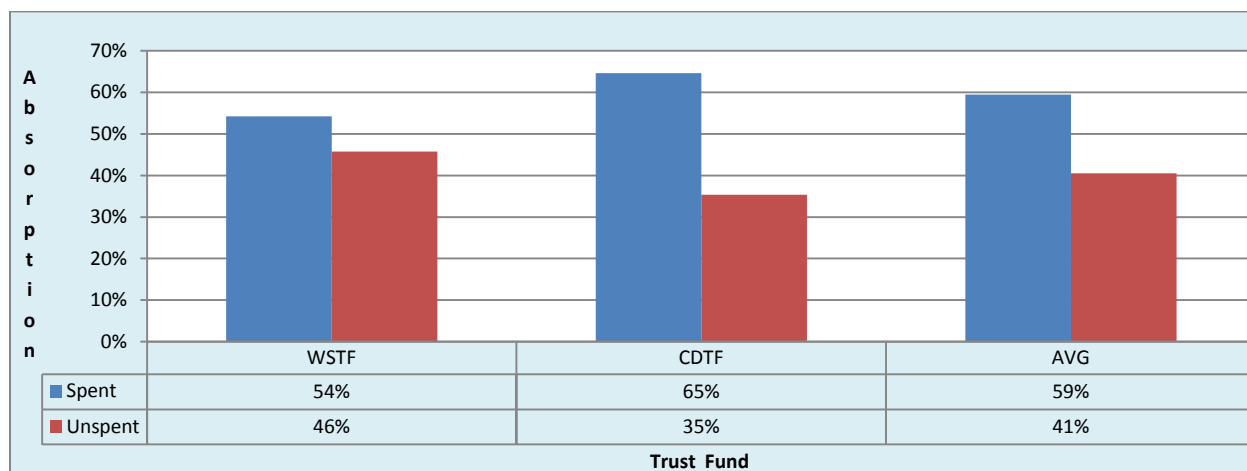
Downward pressure on trust fund absorption rates rate is attributable mainly to factors inherent to the overall government system, on which disbursement to trust funds is dependent. For instance, the CDTF's funding requests are prepared and submitted to the EC but are also submitted in parallel the Ministry of Planning and Vision 2030. The requests are then cleared by MPV2030 before being forwarded to the Authorising Officer in the Ministry of Finance for approval. It is the MPV2030 and MoF stage of the process that takes the time. The second major challenge facing trust funds is largely to do with delays in the identification and implementation of projects, largely due to low technical, project management and financial

management capacity amongst implementing agents, especially at the local level. Trust funds have taken a number of steps to address these challenges, including:

- Development partner harmonisation through joint financing agreements;
- Targeted, hands-on capacity building support;
- The moving of operations and the provision of support to the regional or local level.

The CDTF, for instance, has opened regional offices in Mombasa, Eldoret and Meru with the aim of transferring the provision of technical support to the local level, and the WSTF works through the regional Water Services Boards, who act as support organisations to local implementing agents.

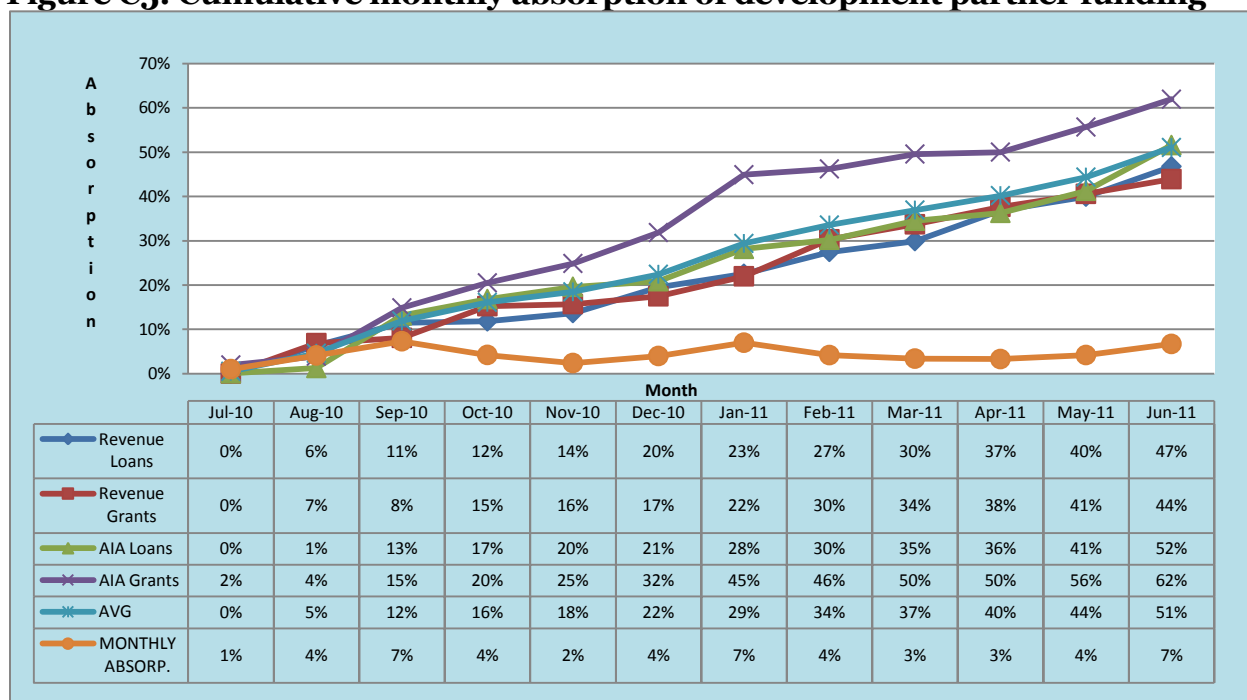
Figure C4: Absorption rates for trust funds



Source: ERD

Monthly absorption rates have generally been unpredictable and erratic. A principal cause of the unpredictability in spending patterns of line ministries and other government agencies, with concomitant knock-on effects for project and programme effectiveness and sustainability, is the volatility of revenue vote inflows from development agencies. For instance, looking cumulatively at the 2010-2011 financial year, the average monthly absorption rate was four per cent, with July recording the lowest rate at one per cent while January, June and September scored the highest rate at seven per cent.

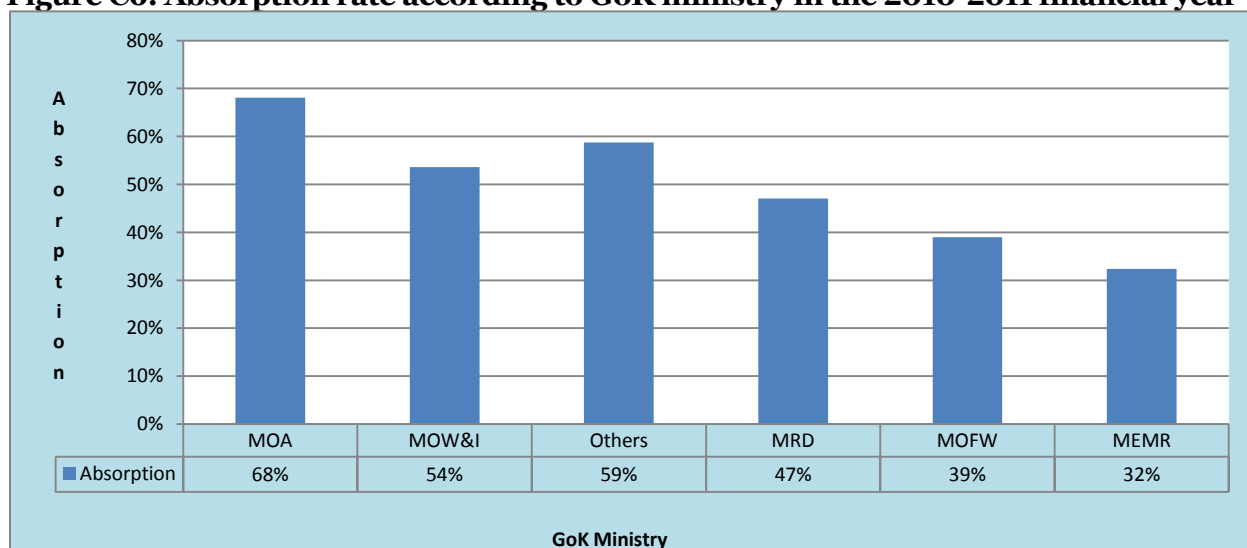
Figure C5: Cumulative monthly absorption of development partner funding



Source: ERD

The 2010-2011 absorptive capacity amongst those line ministries involved in the management of climate finance and the implementation of climate change initiatives was varied. The Ministry of MoA posted the highest absorption rate at 68 per cent, whereas MEMR posted the lowest absorption rate of 32 per cent, representing a 36 per cent variation in total (compared to the overall government average of 51 per cent). Figure 6 provides an overall overview of development partner funding absorptive capacity for government ministries involved in climate change activities.

Figure C6: Absorption rate according to GoK ministry in the 2010-2011 financial year

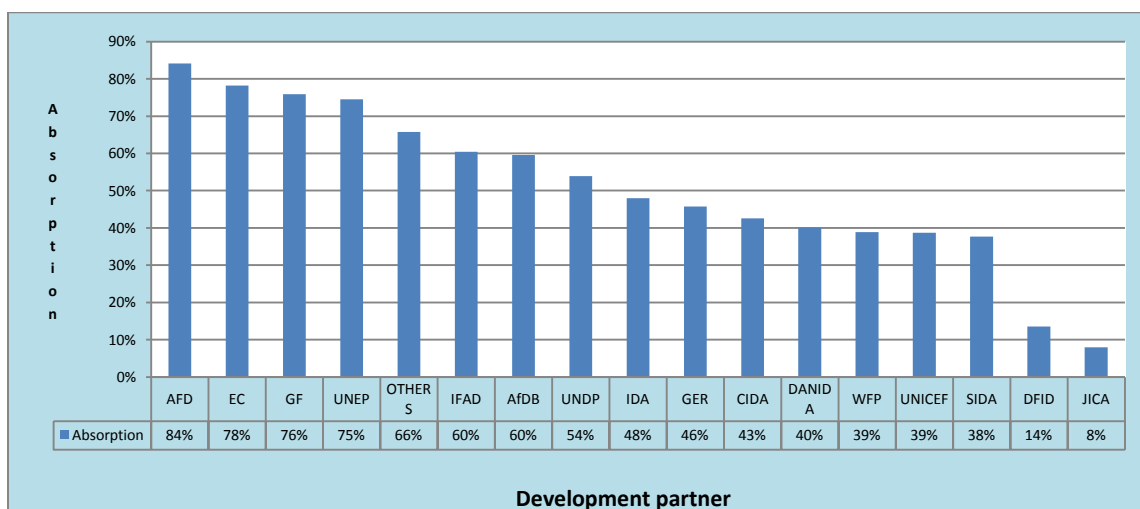


Source: ERD

The uptake of the funding of different development partners by the Government of Kenya varies widely. For example, the absorption of funding provided by the French government (the Agence Française de Développement) was 84 per cent compared to 38 per cent, 14 per cent and eight per cent posted by the Swedish International Cooperation Agency (SIDA), the UK Department for International Development (DFID) and the Japan International Development Cooperation Agency (JICA) respectively. Figure 7 provides a detailed overview of development partner funding absorption for the 2010-2011 financial year.

The disparity in absorption rates is a reflection of the different budgeting and fund flow mechanisms, rules and regulations used by the different development agencies. Each development agency has its own set of requirements, demanding high levels of staffing and skills and causing delays to funds' release and disbursement. The volume of funds delivered per development agency can play a role, although the direction of causality varies – higher volumes can sometimes lead to better procedures (due to economies of scale) or to the Treasury being overstretched in complying with regulation. The disparity is also a factor of the activities and sectors in which development agencies work.

Figure C7: Absorption rate according to development partner for the 2010-2011 financial year



Source: ERD

5. Public Finance Perspectives under the New Constitution

Chapter 12 of the new constitution contains a number of provisions that introduce major changes in the public financial management arena. Article 201 of chapter 12 provides the guiding principles and framework for this arena. Some of these provisions and principles have been incorporated into the Public Financial Management Act 2012, which was passed in the summer of 2012. The principles and provisions under the new constitution are:

- Open accountability and public finance participation;
- The promotion of equity with the tax burden shared fairly between the national and the county levels;

- Public expenditure that promotes equitable development and addresses marginalised areas and groups;
- The equitable sharing of debt benefits and burdens between current and future generations;
- The prudent and responsible use of public resources;
- Responsible financial management with clear fiscal reporting.

At the county level, the new constitution and the Public Financial Management Act 2012 sets out criteria to be followed when sharing the revenues vertically between the national and county governments. The national government is required to prioritise the national interest with a particular focus on:

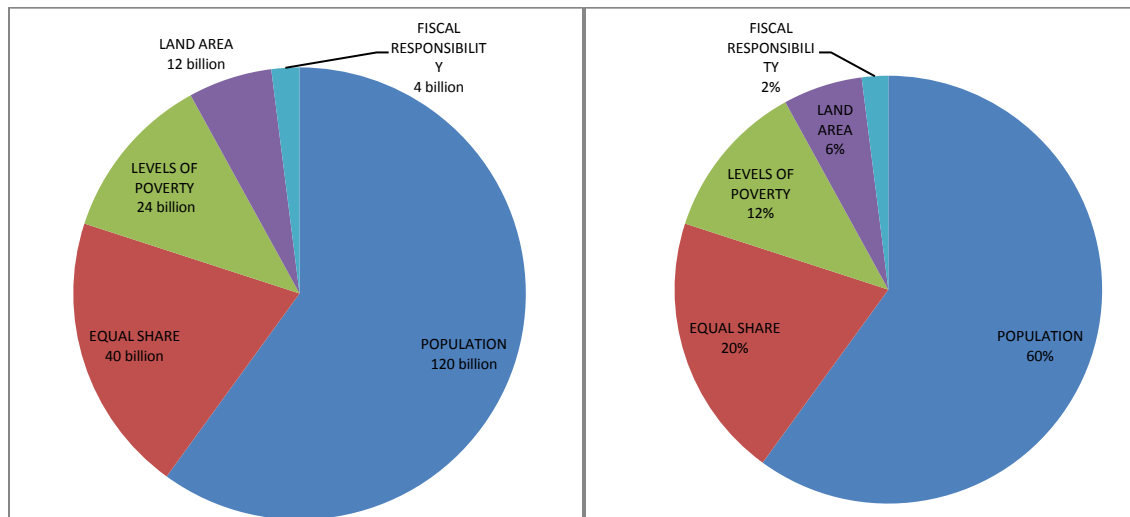
- National debt obligations;
- Addressing the needs of the national government;
- Ensuring that counties meet development needs and deliver on the responsibilities allotted to them;
- Maximising the fiscal capacity and efficiency of county governments;
- Developing affirmative actions to address the disparities between and within counties;
- Optimising county economic potentials;
- Guarantee stable and predictable revenue allocation; and
- Ensuring that there is flexibility in responding to emergencies.

The new constitution decrees that a minimum of 15 per cent of centrally-collected revenues, based on the last set of audited financial accounts, shall be allocated to the counties. (This does not apply to development partner funding, except possibly in the case of budget support.) The constitution further mandates additional allocations depending on the functions allotted to the counties. In addition, under the new dispensation, the government is required to establish an Equalisation Fund equivalent to 0.5 per cent of total national revenue collection. This fund shall be reserved for marginalised areas and to cater for basic services such as water, roads and electricity. The fund is expected to be maintained for at least the next 20 years with the possibility of an extension. The proposal released by the Commission on Revenue Allocation (CRA) in April 2012 suggests that 33 per cent of the total national revenue collection (or KSh 200 billion in 2010-2011) be allocated to the counties.

It is further proposed that the county allocation be distributed horizontally among the counties based on five key criteria, namely a baseline equal share, population, poverty levels, land areas and fiscal responsibility. Figures 8a and 8b provides an example distribution of KSh 200 billion to be allocated to the county governments FY 2012-2013. This institutional arrangement is paramount in avoiding discretionary decisions in the allocation of resources and reduces the influence of vested political interests in the process of resource allocation.

Figure C8a: Proposed county allocation in KSh

Figure C8b: Proposed county allocation criteria in per cent



Source: CRA

The new dispensation sets out provisions for the central government to withhold up to 50 per cent of the county allocation on the basis of persistent breaches of financial management policies and procedures. Parliament is authorised to suspend such transfers on the basis of recommendations by the COB. The framework further allows for sanctions intended to improve county-level financial management, one of which is the allocation of two per cent of county revenue on the basis of fiscal responsibility (as depicted in figure 8b above).

6. Project and Programme Implementation Arrangements

The implementation arrangements that development partners choose for their projects and programmes affect governance structures, financial management controls and fund flow mechanisms. These factors in turn have a great impact on absorption capacity if not carefully managed. Projects with more complex designs involving several players require greater financial and technical coordination. The most common types of implementation arrangement are described below.

Government trust funds are a popular means of support amongst development partners and the GoK. They can be established either with an act of parliament or a ministerial decision/legal notice. The CTDF was established with a legal notice whereas LATF and WSTF were established through acts of parliament. The CTDF is primarily funded by the EC and Danida with no government contribution, whilst LATF is a fiscal transfer mechanism funded primarily by the government consolidated fund to the sum of five per cent of total national revenue, and currently makes up approximately 24 per cent of local authority revenue. WSTF is funded by the Government of Kenya and a number of development partners including the EC, Danida, GIZ, KfW, SIDA, UNICEF, the Finnish government and the Dutch government.

Project Implementation Units (PIUs), charged with coordination and delivery of the projects at the national and local level, are another popular means of development partner support. PIUs are set up within government ministries and agencies at the behest of development agencies to provide dedicated day-to-day management of and support to development programmes, with specific results and outputs mapped according annual ministry and agency performance targets. The MEMR was identified as the leading ministry involved in the implementation of climate change projects funded by government as well as a cross-section of development agencies including the World Bank, EU, the UN Development Programme and the UN Environment Programme. These projects are specifically focused on environmental rehabilitation, conservation efforts and research, via technical assistance and other uses of funds. A large number of development agency projects are coordinated and implemented through the PIUs, and, there may be one or several PIUs within a single ministry or agency. PIUs are coordinated by a lead focal person supported by technical and administrative staff. They operate at the national level with significant decentralisation to the local level. Mostly, PIUs are managed and staffed by government, but in some cases development partners engage staff directly or supply technical assistance to them. For example, the UNDP-funded Wood Fuel Resource Development Programme in the Ministry of Energy is supported by a full-time UNDP project manager based at MoE offices.

PIUs face a number of challenges and are ineffective. These include:

- Complex and varying requirements for every development partner, using up valuable government resources;
- Inadequate deployment and rapid turnover of finance, accounting and internal audit staff with the result that knowledge of development rules and regulations at any one time is low;
- Unclear staff secondment policies from government to PIUs;
- Loss of good quality staff from government to PIUs due to higher pay scales;
- Often inadequate operations and maintenance budgets to support PIUs administrative functions; and
- Bureaucratic decision-making processes leading to delays.

Over the last 10 years, there has been a shift in implementation arrangements from a direct to a multi-tier model. Whereas direct implementation involves development agencies directly partnering with government institutions, the multi-tier model involves a single or combination of development agencies partnering with a consortium of government institutions, along with local and international NGOs, community-based organisations, civil society and in some cases the private sector, to carry out joint implementation of projects and programmes. Non-government consortium members are brought on board on the basis of sector expertise whilst government institutions are incorporated with view of facilitating policy guidance. Under this arrangement, development agencies delegate implementation arrangements to intermediary organisations or via consortium arrangements, and simply maintain broad oversight authority, supervision and monitoring responsibility. The SIDA-funded Fast Action Network Environmental Support Programme is a good example of this model.

The shift from a direct to multi-tier model has been driven by a number of factors. These factors include the

- Need for development partner harmonisation and coordination of funding efforts to maximise the achievement of results;

- Pressure to harness existing capacity and expertise to promote knowledge and cross-learning;
- Need to promote and coordinate efforts to shape national sectoral policies;
- Drive to minimise duplication of efforts;
- Need for better resource allocation and utilisation;
- Need to demonstrate and promote better accountability of resources and results;
- Need to tap into local expertise, particularly in the identification of localised sustainable interventions.
- However the multi-tier model has had its issues, including:
 - Internal competition among implementing institutions;
 - Complex and bureaucratic decision-making processes;
 - Differences in the design and nature of financing instruments preferred by development partners;
 - Competing development partner priorities and global strategies.

7. Accounting and Reporting

The current IFMIS does not have a specific code to track and report climate change budgets and expenditures. Climate change budgets and expenditures are not delineated and instead are bundled up into overall ministerial expenditures. As for trust funds and government agencies, the LATF relies on the IFMIS as funds are disbursed directly from Treasury with transfer requests originating from the MoLG. KFS has an oracle-based customised IFMIS deployed at the level of regional field offices. The IFMIS has been undergoing reengineering with a view to extending the system's functionalities to include end-to-end processes.

There are a number of accounting and reporting challenges due to lack of capacity that cause low absorptive capacity, especially at the local level. These include:

- Delays in reporting, particularly at the local level;
- The poor quality of reporting;
- Insufficient supporting documentation;
- The misappropriation of funds at times leading to suspension or closure of projects;
- Manual financial management systems at the local level;
- Manual monitoring and evaluation (M&E) systems;
- Complex shared cost allocation criteria;
- The inability of the current systems to track specific programmes costs;
- Delays in obtaining bank statements especially for accounts held at the Central Bank;
- Delays in obtaining authority from Treasury to open bank accounts; and
- Delays in obtaining tax exemptions, certificates and refundsⁱⁱ.

8. Audit Arrangements

Climate change funding through government systems is audited through existing government internal and external audit arrangements. Constitutionally the Kenya National Audit Office, now the Auditor General under the new constitution, is charged with the responsibility of carrying out

external audits on all the accounts of public institutions and reporting them directly to parliament. Internal audits of all government institutions are carried out by the Office of Internal Auditor General, which is a department within Treasury. Both of these institutions are largely decentralised with offices across the line ministries and at the local level. Projects in line ministries are audited both internally and externally as an integral part of the audit procedure.

The internal audit function has evolved over time with the latest focus being placed on risk-based systems audits. Government-managed finances and government-funded trust funds are exclusively audited through the government's own audit arrangements. The CDTF and WSTF, which have development partner involvement, have in-house internal audit capability, and employ independent external audit firms, normally appointed by the development partners with agreement from government, to carry out external audits.

9. Conclusions and Way Forward

The analysis of this paper contains important conclusions for the absorption and management of climate finance in Kenya. This relates both to the full design, establishment and mode of operation of the proposed climate Kenya National Climate Fund, and to the broader public financial management framework through which climate finance will flow. These conclusions are presented below (with proposed lead implementing agents in brackets).

- i. *Create the Kenya National Climate Fund as a separate legal entity (MoF).*

The higher absorption rates of GoK trust funds compared to the GoK as a whole, the ability of trust funds to facilitate pooled funding, as well as trust funds' higher levels of efficiency and effectiveness than other modes of project delivery (at the local level in particular), support the creation of a National Climate Fund for Kenya as a separate legal entity.

- ii. *Establish a joint financing agreement with development partners with regard to the Fund (MoF and MEMR)*

In the context of the Fund, and to increase funds absorption, it will be necessary for the GoK to establish the parameters and dynamics of pooling development agency (and government resources) within a common envelope through a joint financing agreement.

- iii. *Integrate climate finance, within and beyond the Fund, into the broader government public financial management framework (MoF and Ministry of Planning (MoPl)).*

It will be important for the government, development partners and other stakeholders to integrate and account for the Fund's finances within the annual budget and budget policy statement from the 2013-2014 financial year onwards and the MTEF 2013-2017. This should take account of the Public Financial Management Act 2012.

- iv. *Prioritise climate change funding within the annual budget, including the creation of specific climate change code (MoF and MoPl).*

The annual budget and budget policy statement provides a valuable avenue to prioritise climate change funding, and for the GoK and development partners to engage on climate finance issues. This includes the creation of unique code to track and report climate expenditures, both for internal government purposes and for purposes of reporting on climate expenditure to the development partners and the UNFCCC.

- v. *Harmonise and standardise government and development partner funding requirements (MoF and development partners).*

It is necessary to address difficulties in complying with development agency requirements to increase overall absorption rates to at least 75 per cent and reduce the disparity in absorption rates between development partners, in terms of both delays in, and transaction costs of, requesting and disbursing funding. This should happen according to the principles of the Kenya's Joint Assistance Strategy.

- vi. *Harmonise development partner and government fiscal calendars (MoF and development partners).*

For the reasons under (iv), the GoK and development partners should work to synchronise allocations to the Fund with the GoK fiscal calendar, i.e. to ensure that funding is proffered at the right time of year to either fit into the 'formulation of budgetary estimates' fiscal window or the 'supplementary revisions' window.

- vii. *Enhance integrity, predictability, sustainability and mutual accountability of fund flows between development partners and the government (MoF and development partners).*

This is especially with regard to the timely and accurate reporting of funding channelled into projects as AIA but is relevant to the revenue vote as well. The Fund's design should take this into account.

- viii. *Improve the level of financial management and project implementation capacity within trust funds, with a focus on the design of the Kenya National Climate Fund (MoF and MEMR).*

Continued reform efforts should include targeted, hands-on capacity building support, especially in financial management practices; a balance of transfer of operations and the provision of support to the regional or local level; and the provision of support to implementing agents (especially at the local level) to improve the identification and implementation of projects.

- ix. *Reduce the overall duration of the fund flow process, particularly where government systems are involved.*

The government needs to establish the means to significantly reduce the current fund flow duration from an average of 51 working days to less than 15 days, with a particular focus on funding channelled through the MoF as revenue (rather than AIA). This may include new practices and procedures, the improvement of the IFMIS (provide detailed, programme-

specific information), as well as the elimination of any redundant processes. This applies to the GoK, development agency and trust fund funding.

x. *Improve accounting and auditing capacity in the GoK (MoF).*

In order to improve accounting and auditing capacity, it will be necessary to implement the following recommendations.

- a. Identify opportunities and develop a single registry management information system platform for climate change initiatives in the country;
- b. Harmonise MoF, Fund and development partner reporting and banking arrangements;
- c. Build in-house Fund internal audit capability and employ independent external audit firms, following the lead of the CDTF and WSTF, with development partner involvement.
- d. Develop simplified financial management and operations manuals to be used in the training of implementing agencies (especially) at the local level.

xi. *Ensure Fund harmonisation with the new constitution (MoF and MEMR).*

The implications and impacts of the new constitution and associated legislation will need to be taken into account, particularly with regard to the redesign of public financial management frameworks (notably the Public Financial Management Act 2012) the impact of the devolution of certain functions to the county level, and other key issues identified in part V of this section.

xii. *Promote transparency and anti-corruption in climate finance flows and expenditure.*

It is imperative that the management of climate finance, like all public and development partner finance, is transparent and free from corruption. The National Climate Fund places transparency and openness as one of its guiding principles.

Acknowledgements

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- Care Kenya
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- Constituency Development Fund
- Danida
- Energy, Environment and Development Network for Africa
- Green Belt Movement
- Kenya Forestry Service
- Kenya Forest Service
- Local Authorities Transfer Fund
- Ministry of Agriculture
- Ministry of Energy
- Ministry of Environment and Mineral Resources
- Ministry of Finance
- Ministry of Forestry and Wildlife
- Ministry of Local Government
- Ministry of Regional Development Authorities
- Nature Kenya
- Swedish International Development Cooperation Agency
- UK Department for International Development
- Water Services Trust Fund
- World Bank

In addition, the expertise and insights provided by the Finance Team's Thematic Working Group has been invaluable in guiding the research and recommendations.

-
- i Under the public financial framework introduced by the new Public Financial Management Act 2012, a scion of the new constitution which passed in the summer of 2012, it is expected that absorption rates could rise to over 75%.
 - ii Exemptions and refunds, particularly VAT exemptions and refunds.

REPUBLIC OF KENYA



**MINISTRY OF ENVIRONMENT AND MINERAL RESOURCES
AND MINISTRY OF FINANCE**

KENYA CLIMATE CHANGE ACTION PLAN

SUBCOMPONENT 8: FINANCE

SECTION D: CARBON TRADING PLATFORM

AUGUST 2012

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1. Abbreviations

AFD	Agence Française de Développement (French Development Agency)
CBEEEX	China Beijing Environmental Exchange
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CI-DEV	Carbon Initiative for Development
COP	Conference of the Parties
CSR	Corporate social responsibility
DNA	Designated National Authority
EU	European Union
EU ETS	European Union emissions trading scheme
FONAM	El Fondo Nacional Del Ambiente-Peru (National Environmental Fund)
ICE	Intercontinental Exchange
ISO	International Organisation for Standardisation
KAM	Kenya Association of Manufacturers
KenGen	Kenya Electricity Generating Company
KenInvest	Kenya Investment Authority
LDC	Least developed country
MCX	Multilateral Commodity Exchange of India
MRV	Monitoring, reporting and verification
PDD	Project Design Document
PMR	Partnership for Market Readiness
PoA	Programme of Activities
PPP	Public private partnership
REDD	Reducing emissions from deforestation and forest degradation
SO ₂	Sulphur dioxide
tCO ₂	Tonne of carbon dioxide
UNEP	United Nations Environment Programme

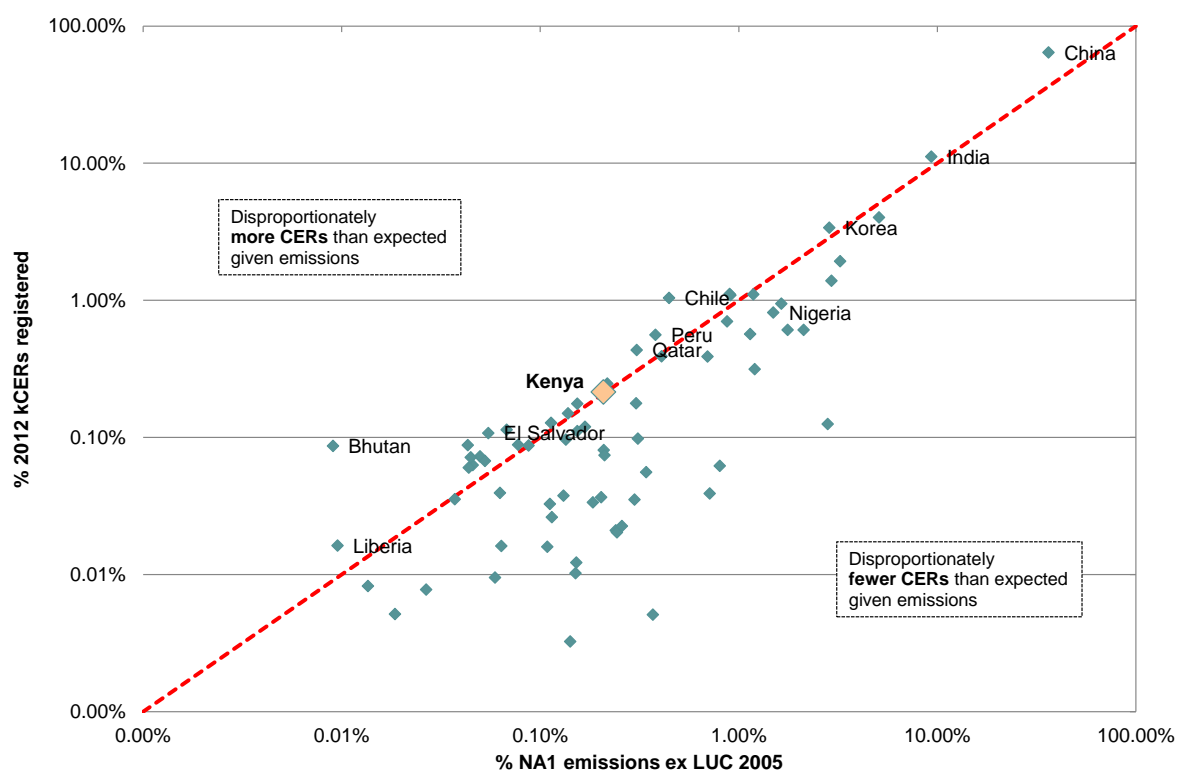
VCS Verified Carbon Standard

VCU Verified Carbon Unit

2. Introduction

This section outlines the possible design options for a Kenyan carbon trading platform and presents a set of recommended actions that might be taken forward in the design and implementation of Kenya's National Policy on Carbon Investments and Emissions Trading. The aim of the carbon trading platform and other recommendations is to put Kenya in the best position to exploit future international carbon market activity and ancillary activities so as to support of financing of the mitigation elements of its Climate Change Action Plan. These recommendations are particularly focussed on how, through leveraging the carbon markets, Kenya may be able to attract private resources to support its low-carbon ambitions. It complements three other work streams also undertaken by the finance sub-component of the Climate Change Action Plan: the design options for a Kenyan financial mechanism (fund) which aims to position Kenya to maximise opportunities to obtain (predominantly) international *public* climate finance resources; recommendations concerning Kenya's low carbon investment climate which will influence the likelihood and effectiveness of both public and private low-carbon/climate resilient investment in Kenya; and recommendations to improve the capacity of government institutions in Kenya to absorb, manage and spend climate finance, which shall influence the effectiveness of adaptation and mitigation activities undertaken by the public sector in Kenya.

Figure D1 Kenya has generated as many credits as might be expected given its emissions



Note: As of April 2012

Source UNFCCC, WRI CAIT v. 8.0 and Vivid Economics

Traditionally, carbon markets have been a key way of incentivising private sector investment by international investors in mitigation activities in developing countries. Carbon market activities are (predominantly) private sector projects where it can be demonstrated that the project resulted in a deviation from a business as usual level of emissions. The deviation in emissions can be crystallised as a ‘credit’ that can be sold to credit purchasers, mainly in developed countries. The sale from the revenue of these credits is intended to make a substantial contribution to the financial viability of the project. There are two broad categories of purchasers: compliance purchasers and voluntary purchasers.

Compliance purchasers are those who purchase credits to fulfil their legal obligations regarding emission reductions. A number of developed countries have committed to reducing their emissions under the Kyoto Protocol¹. On occasion, some developed countries, most notably those in the European Union, have chosen to partially meet these obligations by imposing caps on the emissions from heavy industry and the power sector. In both cases (i.e. either countries or industrial emitters), arrangements exist that allow some or all of these emission reductions to be met through purchasing international credits rather than making the emission reductions themselves. This can reduce the costs of meeting emissions targets and promote sustainable development in the countries that receive payment for such credits.

The Clean Development Mechanism has, to date, been the main mechanism for managing and regulating the process of generating international credits. At present, the most important form of international credits are Certified Emission Reductions (CERs). CERs are credits generated from emission reduction projects in developing countries that are recognised as such (registered) by the Clean Development Mechanism (CDM). The Executive Board of the CDM, which sits within the UNFCCC, regulates the process and determines in particular whether or not the emission reductions resulting from a project in a developing country are genuinely ‘additional’ i.e. broadly speaking, would not have happened without the additional financial incentive provided by the sale of credits. Within each developing country, a key actor is the Designated National Authority (DNA) which must approve whether a project seeking registration is consistent with the sustainable development objectives of that country.

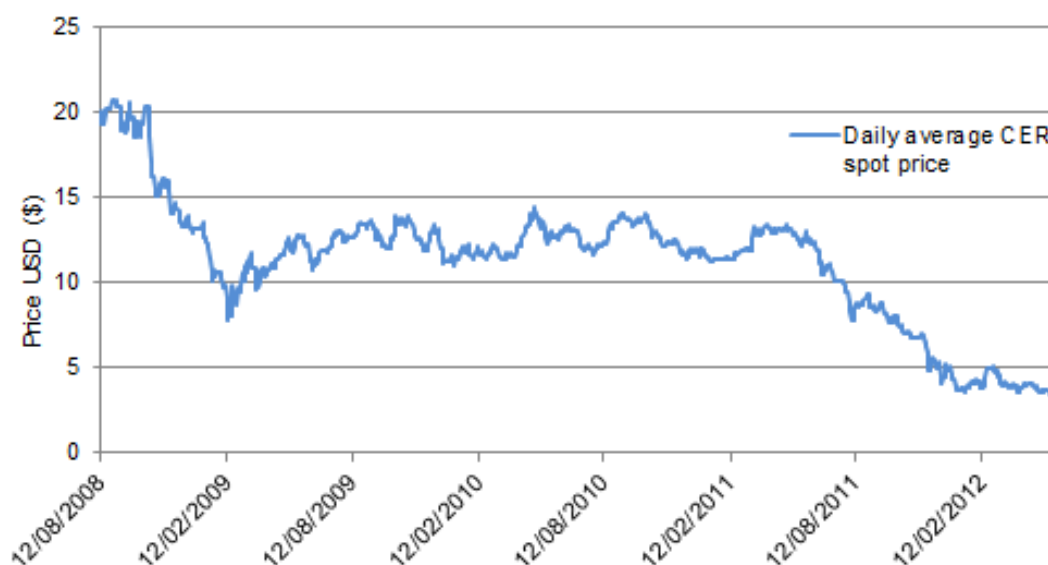
Voluntary purchasers are those who purchase credits for reasons other than legal obligations i.e. corporate social responsibility (CSR). Typically, but not always, project developers wishing to sell credits to voluntary purchasers do not seek registration with the CDM Executive Board due to the relatively high costs that this imposes. However, a number of voluntary standards exist e.g. the Gold Standard that assess and authenticate the emission reductions claimed by a particular project. Credits that have been approved by standards that are perceived as more rigorous typically generate higher prices than those approved by what are perceived as weaker standards i.e. higher quality credits generate a price premium.

Kenya’s relative performance in the international carbon markets to date has, contrary to the opinion often expressed, been reasonably good. In the Clean Development Mechanism, (CDM) market (compliance credits), as of April 2012, seven Kenyan projects had been registered by the CDM Executive Board. As shown in Figure D1, when account is taken of Kenya’s relatively low level of emissions, this performance looks relatively strong. In addition to the seven registered projects, there is one further project requesting registration and no fewer than 18 projects at validation. Consistent with this, Carbon Africa estimates that CDM may facilitate project financing of more than USD 1.5 billion in Kenya by 2020 with voluntary market activity additional to this. The voluntary carbon market is much smaller (though growing much faster) globally than the CDM, and voluntary market activity in Kenya has also been strong. For instance, Kenya was the first country to have a reducing emissions from deforestation and forest degradation (REDD)

project issue Verified Carbon Standard (VCS) Verified Carbon Unit (VCU) certificates (Kasigau corridor).

However, future market conditions are likely to be much tougher. As explained in more detail below, new Kenyan projects may be cut off from a principal source of demand for international offsets after 2012. Further, as shown below, the price of CERs has fallen significantly and most market forecasts also suggest that credit prices will remain close to the low levels seen today of around €3-4/tCO₂². On the one hand, this makes maximising whatever opportunities are available and the design of appropriate institutions to achieve this even more important. On the other hand, it also means that Kenya should be cautious in investing too many resources in trying to access a source of climate finance that is likely to diminish (significantly) in the short to medium term.

Figure D2 The price of CERs has fallen significantly in recent years



Source BlueNext data

This analysis and set of recommended actions is intended to support Kenya's National Policy on Carbon Investments and Emissions Trading. The Ministry of Finance has developed a policy that is aimed at providing a national policy framework to guide and support carbon inflows and management, clean technologies, and carbon trading in the country so as to allow Kenya to become a competitive carbon finance destination. This policy statement has developed a number of laudable policy goals in terms of, for instance, developing a governance and institutional framework that maximizes the opportunities for carbon finance and emissions trading and facilitating the implementation of initiatives to reduce carbon emissions and generate carbon credits through the regulatory and voluntary markets. This section is intended to complement this policy, in particular by identifying a set of actions for the Technical Advisory Committee responsible for implementing this policy, to take forward in order to realise its objectives.

Box D1 Key conclusions and proposed actions

The three key conclusions from our work are:

1. **Future carbon market conditions will be difficult.** The combination of an unfavourable demand/supply balance leading to low credit prices, and the intention of the European Union to exclude credits from Kenyan projects registered after 2013 from being eligible for compliance purposes under the European Union Emissions Trading Scheme (EU ETS), will both serve to make the environment challenging for carbon market project developers in the country. Kenya's future actions in relation to carbon market activity need to balance the fact that these conditions suggest government support is more urgent with the fact that they make it more difficult for that support to be effective.
2. **A primary trading platform is more appropriate to Kenya's needs than a secondary platform.** It is possible to distinguish 'primary' carbon trading platforms from 'secondary' carbon trading platforms. Primary platforms facilitate the origination of carbon credits, and their initial purchase from project developers; secondary platforms allow trading on a large scale to allow ultimate compliance purchasers and market intermediaries to purchase credits and manage their carbon price exposure. We find that a primary trading platform would be more appropriate for Kenya's needs in the current market environment.
3. **Within the primary platform options, a focus on enhancing the DNA and export promotion activities is desirable.** There are a number of different roles and activities that a primary carbon trading platform could perform. We identify three key options: making the Designated National Authority more efficient; an export promotion agency model where public resources are used to increase the supply of Kenyan credits and promote their sale in overseas markets; and a brokerage model where a new body is created which looks to bring together buyers and sellers of credits and works on a commission basis. Our analysis suggests that either or both of the first two are likely to be the most appropriate for Kenya.

The recommended actions include:

4. **Accelerate negotiations with the European Union regarding a bilateral deal in relation to EU ETS eligibility for credits from Kenyan projects registered after 2012.** Discussions might be held through a number of channels including direct discussions, through identifying potentially sympathetic European development partners and in conjunction with other affected African countries (possibly through the African Union).
5. **Advance discussions with Japan regarding its bilateral offset credit scheme (BOCS).** These discussions may wish to focus, in particular, on Kenya's ambitious geothermal plans which may be assisted by Japanese

technology, although care will be needed to avoid inappropriate and costly technology choices.

6. **Enhance the capacity of the DNA.** This could include a range of activities including, for instance, undertaking studies to create new methodologies; calculating and publicising baselines and emissions factors; and investigating the scope for sectoral crediting in Kenya.
7. **Seek external resources to support these DNA reform activities wherever possible.** Such sources might include UN Environment Programme (UNEP) Risoe, the African Carbon Support Programme of the African Development Bank and the World Bank's Carbon Initiative for Development and Partnership for Market Readiness.
8. **Determine the appropriate home to host a body that develops and promotes projects responsible for generating carbon credits, both in the compliance and voluntary markets.** There are a range of different activities that this body can perform including providing fora where credit buyers and project developers can meet, bringing together project developers and potential providers of capital (including the proposed climate fund) and providing technical assistance to project developers and financial institutions. As the activities that the body might undertake are modular, its size and ambition could adjust to available resources and only be scaled-up if found to be successful and market conditions permit. It is recommended that the unit start by focussing on activities that can support both voluntary and compliance market activity.

A number of other recommendations that have been made elsewhere in the Kenyan Climate Change Action Plan would also help to advance carbon market activity in Kenya. For instance, as part of its obligations under the UNFCCC, Kenya will be required to submit a Biennial Update Report part of which will require an up-to-date Greenhouse Gas Inventory; a process that Subcomponent 6 on MRV are helping to facilitate. This inventory will help to demonstrate and monitor the emission reductions generated by carbon market projects in Kenya and will be particularly important in the event that sectoral crediting gains prominence. In addition Section B of this report recommends the creation of a National Climate Fund which could help in improving the access to capital for carbon market projects. Similarly, section E discusses the challenges of limited technical capacity among some Kenyan developers and recommends, in the short-term, the creation of a one-stop-shop at which information on what technical assistance programmes are available and, in the longer term, establishment of a business development services centre within a reputed Kenyan business-focused institution to provide technical, business and financial services assistance and consultancy, building on existing successful models in Kenya.

The remainder of this section is structured as follows:

- Chapter 3 outlines the key findings from the relevant background research undertaken by the team over the period September 2011 to February 2012;
- Chapter 4 introduces a distinction between a 'primary' and 'secondary' trading platform and recommends that Kenya focus its attention on a primary trading platform;
- Chapter 5 identifies a number of different roles for a primary trading platform and from this presents three 'archetypes' that Kenya might consider. Of these, it concludes that two of the archetypal options are likely to be more attractive than the third; and
- Chapter 6 sets out a list of recommended actions.

3. Key findings from background research

Four pieces of background research have informed our thinking on the appropriate design for a Kenyan carbon trading platform. These are:

- a review of the current state of carbon market activity within Kenya;
- a review of the current state of international carbon markets, and their likely future development;
- a case study review of some other countries that appear to have been particularly successful in accessing international carbon markets (China, India, Peru and Chile); and
- a review of other attempts to set up carbon trading platforms in non-Annex 1 countries.

The key findings from the first three of these research pieces are presented in this chapter. As the results of the fourth research task have strongly influenced the proposed design options for the platform, this is considered more fully in chapter 4 below. The detailed analysis is annexed to the report (as referenced in the relevant endnotes).

3.1 International developments in the carbon markets³

The global carbon market, especially for compliance credits, is threatened by a severe supply and demand imbalance, which could see prices remain low for the foreseeable future. The uncertain future for the international negotiations, relatively low emissions targets for Annex 1 countries, and a recent acceleration of project development activity, coupled with greater efficiency of the CDM Executive Board, have led to a glut of credits in international offset markets. This will depress prices for the short to medium term – with price forecasts ranging from €2-€10/tCO₂ with greater risk on the downside - and makes the carbon market demanding for all but the most successful suppliers.

Kenya's access to international carbon markets is further threatened by the future rules of the EU ETS. Currently, the EU ETS intends not to accept Certified Emission Reduction certificates (CERs) registered after 2012 sourced from countries that are not classified as being a least developed country (LDC). The EU ETS accounts for a very substantial proportion of the demand for such certificates and, in turn, these certificates are far more numerous than voluntary certificates.

The relevant European legislation however allows for countries to sign bilateral deals with the EU to overcome this constraint. One important action that the Government of Kenya could take in relation to carbon market activity in Kenya is to seek to begin negotiations for a bilateral deal with the EU (possibly in conjunction with other affected African countries). Although there are no precedents for such negotiations at present, Kenya could take the lead among African countries in seeking a deal. There may be other non-LDC African countries with which Kenya could seek common cause.

In addition, Kenya should identify and exploit particular market niches where it may remain relatively insulated from these impacts. These might include selling

‘premium credits’, that is, those with substantial co-benefits, to European sovereigns who have announced they will sign-up to a second commitment period under the Kyoto Protocol; exploring, in relation to Kenya’s geothermal ambitions, the possibility of collaboration with Japan in its Bilateral Offset Credit Scheme; and supporting forestry/premium projects in the voluntary market. In the medium term, beyond 2015, Australia might become an additional source of demand of relevance to Kenyan projects while Kenya may also wish to prepare itself for the possible future inclusion of forestry projects within compliance markets⁴.

Finally, Kenya should begin to investigate opportunities to engage in sectoral crediting and sectoral trading mechanisms, possibly through the World Bank’s Carbon Initiative for Development (CI-DEV) or Partnership for Market Readiness (PMR) programmes. Part of the justification for the EU’s decision to ban credits from projects registered after 2012 is a desire to move the international carbon market architecture away from project-based crediting and towards sectoral mechanisms where mitigation actions are expressed and then monitored, reported and verified (MRV) at a sectoral level, which it is perceived will lead to greater mitigation actions in developing countries. This may be accompanied by a shift towards tougher baselines i.e. credits would only be awarded once a certain threshold of emission reductions had been achieved, implying that some costs would be borne by the host country. The Durban Platform (Conference of the Parties (COP) 17) *“defines a new market-based mechanism, operating under the guidance and authority of the Conference of the Parties to enhance the cost-effectiveness of, and to promote mitigation actions ... and, which, subject to conditions to be elaborated, may assist developed countries to meet part of their mitigation targets or commitments under the Convention.”* This ‘New Market Mechanism’ may also have a sectoral emphasis. Kenya should begin to explore how it could interact with these initiatives, that is, identify which sectors would be suitable for sectoral mechanisms and what MRV systems would be required. To facilitate these actions it could explore opportunities for engaging with one of two World Bank initiatives. The first is the Carbon Initiative for Development (CI-DEV) programme which is expected to launch later in 2012 and which will contain a Readiness Fund of around \$20m , part of which will be used to ‘improve programmatic approaches as a bridge towards new market mechanisms’⁵. The Financing Fund (\$50m) of this initiative may also be of interest to Kenyan project developers. The second programme, the PMR, ‘provides funding and technical assistance for the collective innovation and piloting of market-based instruments’. The first stage of this process would be to submit an Expression of Interest to the PMR to become an Implementing Country Participant. If successful, the country would receive a \$350,000 grant to formulate its Market Readiness Proposal. South Africa and Morocco are the only two African countries engaged with the PMR at present⁶.

3.2 Current carbon market activity in Kenya⁷

In terms of the CDM, following registration of the first CDM project in Kenya in September 2008, activity has now scaled up such that by April 2012 there were 7 registered projects, 1 requesting registration, 18 projects under review, and 29 CDM Programme of Activity projects with some activity in Kenya under request for review or validation. By 2020, these projects may have delivered cumulative emissions savings in excess of 135 million tCO₂e. More than USD 2.1 billion (~€ 1.7 billion at current exchange rates) is likely to have been invested in these projects. More details of the registered CDM projects in Kenya are provided in the Annex.

The voluntary market is also vibrant in Kenya. At present there are at least ten voluntary Gold Standard projects in operation, delivering emission reductions of more than 2 million tonnes per annum⁸, with a further five projects in the pipeline. Many of these are cookstove projects, improving household energy efficiency. The country also boasts seven forestry sector voluntary projects including the Rukinga REDD+ phase I, which is the first REDD+ project in the world to have issued VCU certificates. Kenya is the most successful African country (in volume terms) in tapping the forestry segment of the global voluntary carbon markets⁹. Further details on voluntary market projects in Kenya are provided in Annex A.

A number of barriers relating to the CDM process hold back further carbon market activity in Kenya. Three key barriers include:

1. **A lack of understanding of the CDM process and its requirements.** This leads certain project proponents to neglect the CDM potential or not consider carbon credits until it is too late. It also means that some projects enter the CDM pipeline without appreciating the rigour of the scrutiny to which their projects will be subject, leading to withdrawal of the project at a later date (after significant expense has been incurred).
2. **CDM development costs are relatively high.** For instance, even the Kenya Electricity Generating Company (KenGen) has not pursued CDM projects due to the high costs involved with CDM project development, validation, registration, and so on (although KenGen has pursued other projects).
3. **Absence of information, that is, methodologies and/or baseline data.** In some sectors with good potential for emission reductions in Kenya (such as transport), there is an absence of existing methodologies that a project can apply to generate and monitor CERs. Similarly, for certain methodologies and project developers, up-to-date, objective and transparent data and information from reliable sources on baseline emissions (for example, on traditional biomass use) is not readily available. Related to this, the absence of national Greenhouse Gas inventory may also make it more difficult to demonstrate the extent to which projects are generating genuinely additional emission reductions.

These challenges are compounded by three broader challenges relating to project development:

1. **Difficulties in accessing capital, especially for early stage risk capital.** As discussed more fully in the work on the Kenyan low-carbon investment climate, a number of factors combine to restrict the availability of capital to low-carbon sectors. Early stage project development capital is particularly scarce as many local entrepreneurs lack sufficient resources and foreign early stage investors may have unrealistic expectations of what can be accomplished within a certain timeframe.
2. **Lack of project development experience/expertise within Kenya.** This relates, for instance, to the technical and financial requirements associated with launching operations, entering relevant sectors, developing projects, or securing financing.

- 3. Political and institutional barriers and risks.** The key concern relates to the uncertainty of regulatory process in some sectors and the likelihood that this can be affected by political regime changes.

3.3 Lessons from other countries¹⁰

We have reviewed the experience of four countries that have been disproportionately successful, relative to their emissions profiles, in attracting carbon market activity: China, India, Peru and Chile. This research reveals a number of common themes across some or all of these countries that help to explain their success.

Carbon markets have been most successful in countries where there is a coherent policy of using the CDM to support low-carbon technologies and, where necessary, the role of the carbon markets within a suite of other policies is identified. For instance, some argue that China's success in the CDM is partly explained by making the CDM one component of a coherent policy towards renewables, including feed-in tariffs; the same is arguably true of India.

Efficient Designated National Authorities can help to streamline the CDM process. Specific actions/behaviours associated with efficient DNAs include allowing online submission of projects for approval; being transparent and predictable regarding the conditions in which such approval will be granted in the form of a Letter of Approval (LoA) which might be achieved through publishing an explicit list of criteria required for receipt of an LoA; publishing generic data for the most important methodologies, that is, emissions factors; and announcement of DNA meetings through a variety of media. Achieving international accreditation (ISO standards), as Peru's DNA has, sends a credible signal about the commitment to streamlining the CDM process.

Countries that have embraced international consultants and project developers have tended to be more successful in carbon markets. A common theme underlying the successes of China, Chile and Peru has been a willingness to use the experience and knowledge of foreign companies and investors both for project development and management.

Government (backed) agencies can play an important role in supporting carbon market activity. In Chile and Peru, economic development and export promotion organisations have been explicitly responsible for encouraging carbon market investment in the country, which they have achieved, for instance, through promoting participation in commercial missions and international events.

The broader investment climate and strength of the finance sector is crucial to carbon market activity. Much of the success of China, India, Chile and Peru is a result of their broadly supportive investment climate and the relative ease of accessing seed/development capital.

4. Primary versus secondary trading platforms¹¹

At a high level, it is possible to distinguish between a ‘primary’ trading platform and a ‘secondary’ trading platform. Primary platforms facilitate the initial purchase of carbon credits directly from project developers. When a platform is used for this purpose, the specific characteristics of the projects that generate credits are of great importance. By contrast, secondary platforms allow for secondary and subsequent trading of those credits. The aim of a secondary platform is to create a liquid market that allows ultimate compliance purchasers and market intermediaries to purchase credits and manage their carbon price exposure. On these platforms, carbon credits may be thought of as a ‘commodity’ product, and there are large volumes of trades in standardised, well-known products, and associated financial products such as derivatives. Examples of such secondary platforms include BlueNext, the IntercontinentalExchange (ICE) and the European Energy Exchange.

There are two key challenges associated with creating a secondary trading platform in Kenya:

- it will be difficult for the platform to gain sufficient market share;
- any market share that Kenya is able to secure will be of a market that is in decline.

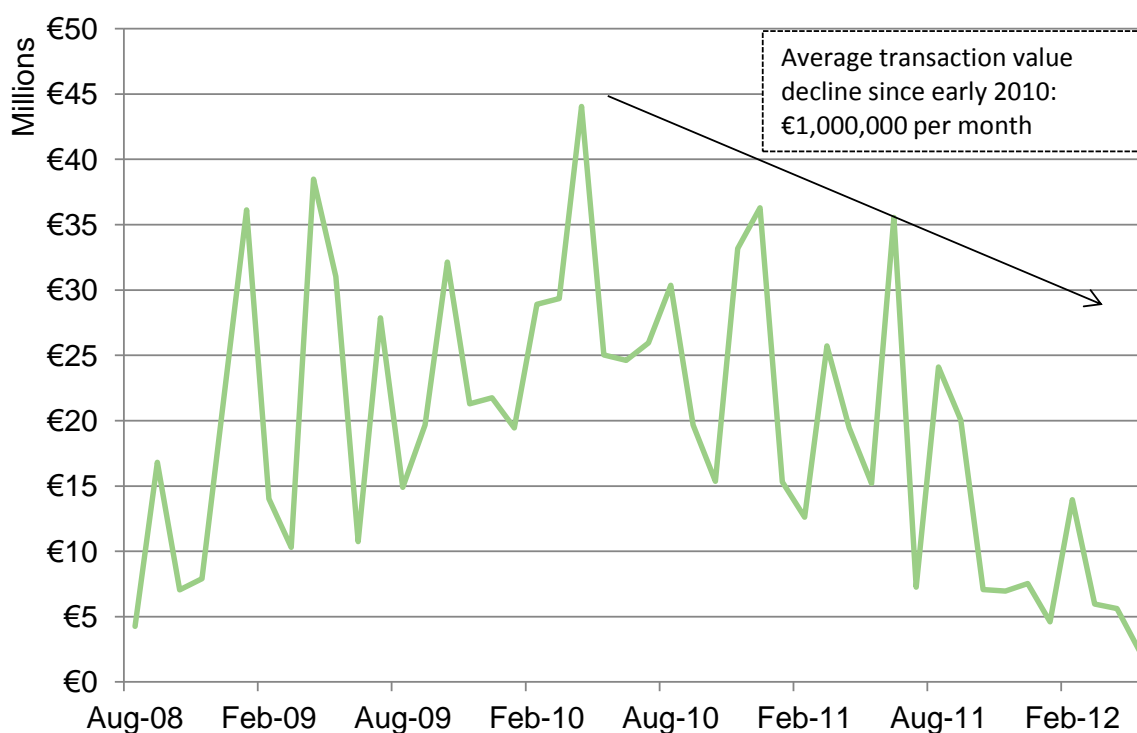
The likely lack of liquidity will mean that market participants on both the ‘buy’ and ‘sell’ side of any carbon credit transaction are likely to prefer to continue to execute trades on existing platforms based close to where ultimate compliance purchasers, who account for the vast majority of trades, are located. Exchange platforms are more attractive to users; the greater the number of other users: this makes it more likely that they will be able to find someone to take the other ‘side’ of a trade. This means that it is difficult for new exchanges to capture market share as potential users are unwilling to leave an existing, liquid platform in favour of a new one. This challenge is compounded by the growth of ancillary services, that is, legal services, at the same location as the exchange itself such that a ‘cluster’ of related activities is formed. The benefits that each organisation gets from being located close to others involved in similar activities can make it difficult for new locations to challenge the status quo. To date, such clusters have all developed close to the location of ultimate compliance purchasers. The challenges of establishing its own cluster is even greater in Kenya as it is located in a similar time zone to one of these existing clusters (London) and so offers little comparative advantage to those wishing to be able to trade on a 24 hour basis.

The experience of China and India illustrate the challenges associated with creating a new cluster and establishing carbon trading platforms away from the key centres of demand for credits, that is, Europe. In India, both the Multilateral Commodity Exchange of India (MCX) and the National Commodities and Derivatives Exchange offer the possibility to trade in carbon (futures). However, there have been no reported trades in carbon on either platform since 2009. Likewise, the trading platforms in China (Shanghai Environment and Energy Exchange, China Beijing Environmental Exchange, and the Tianjin Climate Exchange) have largely been focussed around pollutant allowance trading, that is, SO₂, voluntary emissions reduction trading and providing asset transaction services for environmental protection opportunities. Market participants report that they only expect to see an increased volume of carbon trading activity on these activities as and when a domestic compliance market is established in China. Similarly, Singapore also

moved away from trying to generate a secondary trading platform for carbon credits due to a lack of success.

The second challenge faced by any secondary trading platform in Kenya is that there appears to be a market-wide decline in trading activity. This reflects an uncertainty about the role of CDM and carbon markets more generally after 2012 as well as that there is likely to be over supply in the EU (the key market for international offsets) in this period. This latter phenomenon has depressed credit prices, as shown in Figure D2, and makes managing carbon price exposure relatively less important for credit purchasers. Figure D3 below shows that the value of trades on BlueNext has fallen by around €1m per month since early 2010 and that in May 2012 the value of trading was lower than in any month since August 2008.

Figure D3 The value of CER trading activity on BlueNext has been declining since the start of 2010



Source: BlueNext and Vivid Economics

Other platforms have been insulated from this decline in activity by offering opportunities to trade in related commodities; this may not be possible in Kenya. For instance, most European carbon trading platforms also offer opportunities to trade in coal, oil and electricity. The structure of these markets in Kenya does not allow any Kenyan carbon trading platform to also offer trading opportunities in most of these related commodities.

For these reasons, we conclude that a primary trading platform is more aligned with Kenya’s needs. The next chapter identifies in more detail what this primary trading platform might do.

5. What should a primary trading platform do?

5.1 What roles might a primary trading platform perform?

Based on a review of similar initiatives in other non-Annex 1 countries, we identify four broad roles that a primary trading platform might perform:

- *Increase awareness about the opportunities provided by carbon markets* – in this role, the carbon trading platform is a source of information about carbon market activity but does not directly engage in specific projects and/or commercial negotiations between parties.
- *Facilitating interactions between project developers and credit purchasers* – in this role, the carbon trading platform is not just a passive provider of information about the carbon market but actively engages to promote Kenyan carbon market opportunities both generally and, possibly in relation to specific projects, with carbon credit purchasers.
- *Match project developers with other capital providers* – in this role, the carbon trading platform undertakes similar ‘promotional’ activities as above but as well as (or instead of) targeting credit purchasers, it targets providers of capital.
- *Facilitate voluntary domestic/regional trading* – in this role, the carbon trading platform begins activities that promote domestic carbon trading within Kenya/East Africa.

Within each of these four broad roles, there are a number of different activities that could be undertaken. This is shown in the table below, along with existing examples of institutions that are performing these different roles.

Table D1 There are different roles and different activities to meet each role that the carbon trading platform could perform

	Roles of a primary trading platform			
	Increase awareness of carbon markets	Facilitate interactions between project developers and credit purchasers	Facilitate interactions between project developers and capital providers	Facilitate domestic/regional carbon market activity
Activities associated with each role	Increase awareness of carbon markets	Facilitate interactions between project developers and credit purchasers	Facilitate interactions between project developers and capital providers	Facilitate domestic/regional carbon market activity
	Publish information about methodologies, emissions factors etc. Example: efficient DNAs i.e. China	Organise conferences and opportunities for project developers to pitch their ideas Example: FONAM, Pro Chile	Organise conferences and opportunities for project developers to pitch their ideas Example: World Economic Forum	Selling domestic offsets to Kenyan/international purchasers Example: Santiago Climate Exchange,

			events in Kenya	Chile
	Create portal/website to provide information about carbon market activity Example: http://finanzascarbo.no.org/	Create an explicit platform where information about prospective projects are advertised Example: CDM Bazaar, BlueNext/CBEEEX database	Create an explicit platform where information about prospective projects are advertised Example: Shanghai Environment and Energy Exchange	Providing accreditation to firms or projects Example: Santiago Climate Exchange, Chile; Panda Standard (CBEEEX/BlueNext) for domestic Chinese land-use projects
		Provide technical assistance for project developers to develop business plans for projects Example: Regional Technical Assistance Programme (AFD) hosted by KAM	Act as a marketing contractor for (aggregated) projects requiring capital Example: No examples found	
		Push for reforms to regulatory environment to encourage carbon market activity Example: FONAM, ProChile		
		Act as a marketing contractor for (aggregated) projects requiring credit purchaser Example: No examples found		

Source: Vivid Economics

5.2 Three archetypes for a primary carbon trading platform in Kenya

The table above highlights that there is a wide range of activities that could be undertaken by a primary carbon trading platform in Kenya. To focus discussion on the different options available we have identified three ‘archetype’ models:

- an ‘enhanced DNA’ model;
- an ‘export-promotion agency’; and
- a ‘broker’ model.

It should be stressed that these different design options are neither exclusive nor exhaustive: different elements of the three different models might be combined in some circumstances. However, by setting out these different models and illustrating options that are internally coherent, we aim to help identify the key issues that need to be addressed when moving forward.

5.2.1 Enhanced Designated National Authority (DNA) model

Under this model, no new institution would be created; rather additional resources would be provided to the existing Kenyan DNA to perform its role even more effectively. Market participants suggest that the existing DNA, the National Environment Management Authority, is already performing its roles well. However, with additional resources, it might, for instance, undertake studies to develop baselines, (new) methodologies and emissions factors which it then widely publicises, as well as publishing transparent guidelines/criteria which would systematically inform when Letters of Approval would be issued. These are key lessons that emerge from the success of the carbon markets in China. There are a variety of other reforms and processes that the DNA could implement to carry out its role effectively including allowing online submission of projects for approval, enhanced publication of DNA meetings and greater transparency of approved project design documents (PDDs)¹², including listing those stakeholders consulted. Following the example of the Peruvian DNA, the Kenyan DNA might seek ISO accreditation to signal to project developers the procedures it would follow when applications are made and the efficiency with which it would deal with applications. Although the DNA is a necessary requirement for the CDM, some of these improvements, especially publication of data and methodologies, would also benefit voluntary market activity.

The DNA could also become the Kenyan counterpart for learning about the possibility of sectoral approaches in Kenya. As discussed above, there is a move within the international negotiations to look to move away from project based crediting mechanisms towards sectoral crediting mechanisms which may also be accompanied by a shift by which not all emission reductions achieved by an initiative are necessarily credited. The relatively low levels of industrialisation in Kenya mean that this trend may create challenges for Kenya as there may be fewer sectors with sufficiently high emissions to attract the interest of international credit buyers. Nonetheless, the DNA could begin to explore the implications for this trend in a Kenyan context, that is, which sectors may be appropriate for sectoral crediting, how baselines might be defined and what MRV might be required.

The DNA may also wish to engage in Kenya's elaboration of its National REDD+ Strategy. It is not yet clear if or when there will be large scale (compliance-market) demand for REDD+ credits. However, given this possibility may emerge, the DNA should be involved in helping to develop a clear set of procedures and rules for carrying out carbon credit generating activities once the national REDD+ Strategy is in place.

A key aspect of this model is that the DNA would maintain its adjudicatory/regulatory role: any additional activities it undertook would not compromise this. The DNA has an important regulatory function in determining whether a project will assist the host country in achieving its sustainable development goals. It is important that there is no (perceived or real) conflict of interest associated with the DNA

performing these roles. Therefore, under this model the institution would not seek to 'promote' carbon market activity in Kenya (either in general terms, or in relation to specific projects), it would simply undertake its regulatory duties as efficiently and effectively as possible so as to facilitate the activity of others. The DNA would not have any customers or clients.

This model would be largely met by resources from the public sector, probably shared between domestic and international resources. Any ongoing additional costs, that is, additional staff costs, from enhancing the resources of the DNA are likely to have to be sourced from Kenyan taxpayers. However, international public resources are likely to be available to aid specific capacity building efforts. In particular, the Government of Kenya may wish to open discussions with both UNEP Risoe and the African Carbon Support Programme of the African Development Bank, both of which provide technical support to DNAs. With respect to sectoral approaches, the Government of Kenya may wish to engage with the World Bank's Partnership for Market Readiness programme which is already exploring these issues in a range of countries including South Africa, Morocco, Chile and Brazil. The Readiness Fund of the Climate Initiative for Development (CI-DEV) fund may be able to offer support to Kenya on a range of issues and has informally indicated a particular interest in Kenya.

Although it appears only a modest reform, correctly executed, it could help overcome a number of the barriers to carbon market activity identified above. For instance, it would help address the lack of understanding of the CDM process and its requirements as well as the absence of information about certain methodologies. Moreover, it would have the advantage of doing this at reasonably low-cost. This latter point may be a particular advantage given the expected decline of Kenyan carbon market activity after 2012. Moreover, although it appears a modest reform, the review of the experience of other countries, especially China, indicates that making the DNA as efficient as possible has been an important determinant in successfully exploiting carbon market opportunities.

The changes under this model would be consistent with the National Policy on Carbon Investments and Emissions Trading. The National Policy identifies developing the capacity of the DNA as a strategic intervention to be pursued as part of implementing a governance and institutional framework that maximizes the opportunities for carbon finance and emissions trading in the various sectors.

There are a number of barriers to carbon market activity in Kenya that this approach would fail to address. In particular, its relatively narrow focus on improving CDM-related institutions means that it would not directly address some of the barriers that inhibit development of the underlying investment opportunity, that is, lack of access to capital or limited project development expertise. Further, although there would be some spillover benefits to voluntary market activity and the opportunities provided by sectoral crediting, its focus on an institution required largely for project-based crediting in the compliance market may not be appropriate given the expectation that this aspect of the carbon market will decline in importance in Kenya after 2012.

5.2.2 ‘Export promotion agency’ model

This model would involve an agency explicitly tasked with developing and marketing Kenyan carbon market projects and their associated credits. This could involve a range of different activities depending on the barriers most severely restricting development of Kenyan projects at any point in time, but, building on the examples cited in Table D1 might include:

- providing information, potentially through an online forum, on carbon market experts, that is, CDM and voluntary standard consultants and carbon footprinting services¹³, as well as information on national and international policy developments¹⁴;
- providing information on technologies relevant to carbon market activities, where it could work closely with Kenya’s emerging Climate Innovation Centre;
- following the successful examples of FONAM and Pro Chile, organising conferences and other opportunities for project developers to pitch their ideas to credit purchasers and/or explicitly taking on a contractual responsibility to market credits to overseas purchasers (this role may be particularly attractive to smaller scale project developers, including those involved in Programmes of Activity (PoA), where the agency could aggregate credits from a number of projects/activities, for whom the fixed costs of marketing projects may be prohibitive);
- acting as a ‘climate finance’ centre to bring together project developers and potential providers of capital – this might involve creating opportunities where project developers could directly pitch their projects to capital providers, as well as indirectly promoting information flows between developers and capital providers. The platform could also provide an early ‘screen’ for project developers helping them to understand the likely expectations of finance providers in terms of business plans and so on;
- creating a permanent ‘match-making’ platform where sellers can post projects for buyers to bid or transact (this could cover compliance and voluntary projects);
- providing (and coordinating the provision by others of) technical assistance for project developers to develop business plans for projects and to financial institutions to increase their knowledge and willingness to provide finance; and
- pushing for reforms of the regulatory environment to encourage carbon market activity.

An agency performing these roles would be consistent with a number of the interventions proposed in the National Policy on Carbon Investments and Emissions Trading. For instance, the policy identifies the establishment¹⁵ of a body independent of the DNA to help identify and promote project opportunities, as well as facilitate participation of relevant sectors in both mandatory and voluntary markets as a key intervention. It also discusses fostering the development of a national forum for participating in the carbon trading market through stakeholder awareness creation and capacity building, and marketing projects to investors both nationally and internationally, both of which could be undertaken by an institution with the remit envisaged above.

The institution would have no adjudicatory/regulatory responsibilities: it would be an advocate for Kenyan project developers, and would act in the interest of this

constituency. The role that FONAM and ProChile played in the development of carbon market activity in Peru and Chile respectively are examples of this model.

The body would have a broad remit to cover CDM-related activity as well as voluntary credits including REDD+ projects. This would provide it with flexibility to respond to the expected change in the portfolio of these different project types for post-2012 projects.

The Ministry of Finance, as the lead implementing agency for the Policy on Carbon Investments and Emissions Trading, will need to determine the appropriate institutional home for the body; regardless of the home, the platform could be implemented/managed in one of two ways. The Government of Kenya will wish to determine the appropriate home for this body which might be either directly within the Ministry of Finance, or a unit within KenInvest or elsewhere. In any event, there would be two implementation options:

- in the first option, the public sector would be responsible for managing and providing these services or
- more innovatively, a service contract could be tendered to a private sector contractor (determined through a competitive tender) to provide these services. Some or all of the resources paid to the contractor could be made on a 'results-basis', that is, upon successfully meeting various pre-defined criteria.

In either event, the costs of the organisation would need to be largely met through public resources. It would be difficult to charge for (many of) the services provided by the agency due to their public good aspects, that is, once provided to one project developer, all project developers would benefit. Its costs would need to be largely met through public resources. The only exception to this might be when providing specific tailored advice to project developers on, for instance, business plan development or charging to attend a conference. However, in these cases, there may be concerns that charging for the services would inhibit access for the project developers with the greatest need.

Development partners may be reluctant to provide significant resources to support the Government of Kenya with (at least some aspects of) this initiative. This is due to a concern that some/all of the activity generated by the agency may be at the expense of less activity in other countries, or that organizing this may be deemed optimal at a regional or sub-regional level. As such, international public resources are likely to be most forthcoming in the event that the agency engaged in activity that overcame barriers impeding carbon market activity across the region, that is, if the export promotion agency, followed the example of finanzascarbon.org in developing a website to promote information sharing about carbon market activity across East Africa.

The institution would have close links to, but be separate from, the proposed climate fund. As stated above, one of the key roles for the agency would be to provide information about potential capital providers and broker relationships between project developers and capital providers. One of these capital providers will hopefully be the climate fund that has also been designed as part of the Climate Change Action Plan. As such, the two bodies would have a close working relationship. However, in order to avoid potential conflicts of interest, it is proposed that the two be kept institutionally separate: the fund will

need to make decisions on funding across a wide range of different projects and activities. It would be much more difficult for the fund to act impartially when making these decisions if it was also involved in promoting some of the potential activities.

The advantage of this model is that it would have the flexibility to deal with a number of the barriers to carbon market development in Kenya. It would not need to be restricted to dealing with challenges associated only with the CDM process, which it could tackle through pressing for reforms, but can also look at a broader set of constraints holding back carbon market activity in Kenya. For instance, it could help tackle the limited project development experience in Kenya by offering technical assistance, or address the lack of capital for carbon market projects by organising events to bring together carbon project developers and capital providers. Activities could be tailored to support both compliance and voluntary market activity.

The main disadvantage of this model is likely to be the cost associated with its development, especially as this may need to be borne largely by the Kenyan taxpayer, and in the context of the decline in opportunities for Kenyan carbon market activity. This could be accommodated by tailoring the scale of the organisation's initiatives in the early years to gauge its effectiveness.

5.2.3 Broker model

In the third model, the carbon trading platform would explicitly act as a broker between project developers and credit purchasers. Either a new institution would be formed or an existing organisation would be adapted that would have a commercial mandate to bring together these parties and would take a share of the proceeds of any deals that were agreed. It would aim to provide this service through whatever routes it considered most likely to lead to the conclusion of deals but this might include organising events that brought together purchasers and project developers, establishing networks with credit purchasers in Annex 1 countries and providing technical advice to specific projects. At different times, it might have either Kenyan project developers or ultimate compliance purchasers (or their agents) as clients.

This model would be most effective at a regional or even continental scale. The current scale of carbon market activity in Kenya is relatively modest in the global context. In order to provide a compelling commercial proposition for credit purchasers, the activity would need to offer credits from a range of different projects, generating different levels of credits per annum with differing characteristics (that is, in terms of co-benefits, or sector), and potentially with differing project costs. This diversity would be best achieved if the projects could be sourced from a wider geographic region such as East Africa or even Sub-Saharan Africa.

This model could be at least part-funded by private capital. Given the commercial incentives that such an institution would have, there would be scope for some private capital to be attracted to support its operations. However, the very fact that there is not an organisation explicitly and exclusively performing this role at present suggests that there may also be a need for some public support. Innovative public-private partnership (PPP) models could be explored.

The main advantage of this model is that it would create strong commercial incentives to overcome some of the barriers to greater carbon market activity in Kenya and beyond. For example, the model would provide a commercial incentive to look to ways to overcome the high transaction costs of gaining accreditation under the CDM (or indeed under other standards), that is, through aggregation as discussed above. Likewise, if providing technical assistance to project developers would result a greater number of higher quality projects being put forward to credit purchasers then such an institution would undertake these activities.

The key disadvantage of this model is that it risks replicating (crowding-out) the role of (private-sector) organisations that already exist, and hence wasting Kenyan taxpayer resources. A review of the UNEP Risoe database suggests that there are around fifteen specialised carbon credit consultancies and similar companies associated with Kenyan projects in the CDM pipeline¹⁶. This suggests that there is a thriving private sector business in these activities. A government-sponsored organisation undertaking a similar role would face a trade-off: on the one hand, it would face pressure to be commercially successful; on the other hand, the more commercially successful it became, the less it would be offering a service that notably differed from existing brokers or which focussed on addressing the barriers that these other brokers were not able to. The more it leaned towards the latter, the greater the risk that it could displace some of the private sector players whose involvement in Kenya may already be threatened by the likely decline in carbon market activity in Kenya after 2012.

Overall, given the risks that such a model would replicate existing activities already adequately provided without taxpayer support, our initial view is that such a model is less compelling than the other two alternatives.

Table D2 The three different models vary across a number of dimensions

Variable	Enhanced DNA model	Export promotion agency model	Broker model
What would be the objective of the institution?	To undertake its regulatory functions as efficiently and transparently as possible	To aid in the development and promote the sale of carbon credits from Kenyan projects as an important Kenyan export	To broker deals between project developers and credit purchasers with financial compensation for deals successfully concluded
How might it meet these objectives?	Undertake studies to create new methodologies Calculate and publicise baselines, emissions factors Update website to inform stakeholders about relevant carbon market developments and allow for project documents to be uploaded online Obtain ISO accreditation Develop expertise in sectoral crediting opportunities	Would evolve over time depending on barriers but could include: – creating a platform where information on projects are advertised – providing technical assistance for project developers to develop business plans for projects – pushing for reforms to regulatory environment to encourage carbon market activity – organising conferences and opportunities for project developers to pitch their ideas to credit purchasers or capital providers	Whatever routes it considered most likely to lead to the conclusion of deals but this might include: – organising events that brought together purchasers and project developers – establishing networks with credit purchasers in Annex 1 countries – providing technical advice to specific projects
Who would be its 'customers'?	The DNA would maintain its adjudicatory/regulatory function. It would not have customers	Act to serve the interests of Kenyan project developers although it would not charge for most activities	For any one transaction, either project developers or credit purchasers
What would be the geographic scale?	Kenya	Kenya	Regional or continental
How would the institution be capitalised?	Mainly by Kenyan taxpayers. Some international public support may be available to assist with specific activities, i.e. from UNEP Risoe or African Carbon Support Programme of the African Development Bank. Partnership for Market Readiness could assist with sectoral crediting opportunities	Most resources would come from the public sector with some scope to charge for some activities. Development partners may provide some support but potential reluctance if perceived to be switching activity from other locations in the region. Implementation could be outsourced to the private sector, possibly (partly) on a payment for results basis	Possible public-private partnership arrangements
What barriers would it help	A lack of understanding of the CDM process and its	Flexible to respond to most of the barriers that were important in (a segment of) the market at the time,	Non-regulatory barriers that it was commercially

address?	requirements Lack of information about baselines etc. High transaction costs, uncertainty in processing carbon market transactions	both within Kenya and internationally	rational to address
What barriers would it not address?	Barriers outside the carbon market i.e. access to capital, project development capacity	Would only be able to lobby for regulatory changes at the DNA	The more it made decisions on purely commercial basis, the less likely it would be able to address existing barriers that existing commercial providers already face
Overall assessment	Reasonably low cost way of obtaining benefits Relative focus on compliance market activity may be inappropriate post 2012	Higher cost solution but could provide greater flexibility to deal with post 2012 carbon market context	Risk of crowding out private sector activity makes it unattractive

6. Summary of Actions/Next steps

The proposed actions that follow from this analysis can be divided into two broad categories: those related to improving the overall market conditions for Kenyan projects and those related to the design and implementation of the carbon trading platform.

In terms of the former, we recommend that:

1. **Kenya accelerate negotiations with the European Union regarding a bilateral deal in relation to EU ETS eligibility for credits from Kenyan projects registered after 2012.** Discussions might be held through a number of channels including direct discussions, through identifying potentially sympathetic European development partners and in conjunction with other affected African countries (possibly through the African Union). These discussions could identify both some of the on-going development challenges faced by Kenya, as well as the success that Kenya has had from carbon markets to date and how the associated build-up of expertise could be lost which would be to the detriment of both Kenya itself and the Least Developed Countries elsewhere in the East Africa region.
2. **Kenya advance discussions with the Japanese regarding its bilateral offset credit scheme.** These discussions may wish to focus in particular on Kenya's ambitious geothermal plans which may be assisted by Japanese technology. Almost 50% of the geothermal units ordered globally since 2000 have come from Japanese manufacturers. However, Kenya will need to be careful to avoid inappropriate – and ultimately costly – technology choices.
3. **Kenya begin to market its carbon to other potential sources of demand.** This might include European sovereigns (to whom the EU ETS rules do not apply) as well as Australia who may be interested in Kenyan credits when its carbon pricing mechanism becomes a trading scheme in 2015. This can be achieved through discussions with relevant embassy representatives as well as targeted presentations and exhibitions at carbon trade fairs such as the Carbon Expo.

In terms of the latter, we recommend that:

1. **Kenya enhance the capacity of its DNA through a range of activities.** These might include, for instance, undertaking studies to create new methodologies; calculating and publicising baselines and emissions factors; publishing approved PDDs and the stakeholders consulted; updating its website to inform stakeholders about relevant carbon market developments and allowing for project documents to be uploaded online; obtaining ISO accreditation; and developing expertise in sectoral crediting opportunities. Of these, the likely priorities should be those activities that can either support voluntary market activity as well (such as developing new methodologies, publishing emissions factors) or which offer the prospect of overcoming the barrier created by the change in the EU ETS rules, that is, identifying sectoral crediting opportunities.
2. **Kenya seeks external resources to support these activities wherever possible.** Opportunities might include UNEP Risoe and the African Carbon Support Programme of the African Development Bank in relation to general DNA capacity building and the Partnership for Market Readiness in relation to sectoral crediting.
3. **The Ministry of Finance determine the appropriate home to host a unit that develops and promotes projects responsible for generating carbon credits, both in the compliance and voluntary markets.** There are a range of

different activities that this body can perform including providing fora where credit buyers and project developers can meet, bringing together project developers and potential providers of capital (including the proposed climate fund) and providing technical assistance to project developers and financial institutions. As the activities that the body might undertake are modular, its size and ambition could adjust to available resources and only be scaled-up if found to be successful and market conditions permit. It is recommended that the unit start by focussing on activities that can support both voluntary and compliance market activity.

4. **The Government of Kenya determine whether the implementation of this unit might be undertaken by the private sector and gauge market demand for a contract of this sort.**

Finally, a number of other recommendations that have been made elsewhere in the Kenyan Climate Change Action Plan would also help to advance carbon market activity in Kenya.

A number of other recommendations that have been made elsewhere in the Kenyan Climate Change Action Plan would also help to advance carbon market activity in Kenya. For instance, as part of its obligations under the UNFCCC, Kenya will be required to submit a Biennial Update Report part of which will require an up-to-date Greenhouse Gas Inventory; a process that Subcomponent 6 on MRV are helping to facilitate. This inventory will help to demonstrate and monitor the emission reductions generated by carbon market projects in Kenya and will be particularly important in the event that sectoral crediting gains prominence. In addition Section B of this report recommends the creation of a National Climate Fund which could help in improving the access to capital for carbon market projects. Similarly, section E discusses the challenges of limited technical capacity among some Kenyan developers and recommends, in the short-term, the creation of a one-stop-shop at which information on what technical assistance programmes are available and, in the longer term, establishment of a business development services centre within a reputed Kenyan business-focused institution to provide technical, business and financial services assistance and consultancy, building on existing successful models in Kenya.

Section Annex – carbon market projects in Kenya

Table D3 CDM projects in Kenya

CDM ID	Name	Type	Registration date	Owner	Annual ERs	Carbon buyer
1368	“35 MW Bagasse Based Cogeneration Project” by Mumias Sugar Company Limited (MSCL)	Biomass energy	2 Sep 2008	IPP	129,591	Japan Carbon Finance (Japan)
4740	Olkaria III Phase 2 Geothermal Expansion Project in Kenya	Geothermal	4 Mar 2010	IPP	177,600	n/a
2448	Olkaria II Geothermal Expansion Project	Geothermal	4 Dec 2010	Govt	149,632	World Bank
6404	Lake Turkana 310 MW Wind Power Project	Wind	28 Feb 2011	IPP	736,615	n/a
5123	Aberdare Range/ Mt. Kenya Small Scale Reforestation Initiative - Kamae-Kipipiri Small Scale A/R Project	Reforestation	11 Jun 2011	NGO	8,542	World Bank Biocarbon Fund
3140	Aberdare Range / Mt. Kenya Small Scale Reforestation Initiative Kirimara-Kithithina Small Scale A/R Project	Reforestation	5 October 2011	NGO	8,809	World Bank Biocarbon Fund
5023	Redevelopment of Tana Hydro Power Station Project	Hydro	11 October 2011	KenGen	25,680	World Bank Community Development Carbon Find

Source: Carbon Africa and UNEP RISOE CDM Pipeline

Table D3 Voluntary projects using Gold Standard in Kenya

Name	Type	Annual VERs	Status	Location
Energy Efficient Cook Stoves for Siaya Communities, Kenya	Energy Efficiency – Domestic	45,154	Registered	Nyanza
Aberdares Improved Cook Stoves	Energy Efficiency – Domestic	70,000	Registered	Central Province
Sustainable Deployment of the LifeStraw Family in rural Kenya	Energy Efficiency – Domestic	2,073,328	Issued	Western Province
Kisumu Improved Cook Stoves	Energy Efficiency – Domestic	30,149	Registered	Nyanza

Shimba Hills Improved Cook Stoves	Energy Efficiency – Domestic	41,944	Registered	N/A
Likoni Improved Cook Stove Project	Energy Efficiency – Domestic	4,924	Registered	N/A
Shimoni Improved Cook Stoves	Energy Efficiency – Domestic	4,922	Registered	Shimoni
Kakuma Sustainable Energy Solutions	Other	2,000	Listed	Turkana
Paradigm Healthy Cookstove and Water Treatment Project	Energy Efficiency – Domestic	244,019	Issued	All
Meru Improved Cook Stoves	Energy Efficiency – Domestic	75,000	Listed	N/A
Msambweni Improved Cook Stoves	Energy Efficiency – Domestic	75,000	Listed	N/A
West Kisumu Improved Cook Stoves	Energy Efficiency – Domestic	75,000	Validated	N/A
Hydraid Water Filtration in Kenya	Energy Efficiency – Domestic	10,000	Listed	Nyanza
Gachiki Community Small Hydro, Kenya	Small, Low-Impact Hydro	1,968	Registered	Central Province
Stoves for Life: Energy Efficient Cook Stoves Project in Kakamega, Kenya	Energy Efficiency – Domestic	38,600	Registered	Western Province
Aqua Clara Water Filtration Program in Kenya	Energy Efficiency – Domestic	30,000	Listed	All

Source: Climate Care

Notes: While every effort has been made in acquiring this information, it may not be fully comprehensive.

Table D4 Voluntary Carbon Standard projects in Kenya

Name	Type	Annual VERs
OLKARIA III PHASE 2 GEOTHERMAL EXPANSION PROJECT IN KENYA	1. Energy (renewable/non-renewable)	244,798
The Kasigau Corridor REDD Project - Phase II The Community Ranches	14. Agriculture, Forestry, Land Use	1,614,959
The Kasigau Corridor REDD Project – Phase I Rukinga Sanctuary	14. Agriculture, Forestry, Land Use	251,432
TIST Program in Kenya, VCS 001	14. Agriculture, Forestry, Land Use	14,701
TIST Program in Kenya, VCS 002	14. Agriculture, Forestry, Land Use	13,663

TIST Program in Kenya, VCS 003	14. Agriculture, Forestry, Land Use	14,482
TIST Program in Kenya, VCS 004	14. Agriculture, Forestry, Land Use	13,790

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- European Investment Bank
- Global Canopy Programme
- Globe
- Inter-American Development Bank
- Idea Carbon
- International Emissions Trading Association
- Japan International Cooperation Agency
- National Environment Management Authority
- Planet B Ventures
- Santiago Carbon Exchange (SCX)
- Standard Bank
- Transparency International
- UK Foreign and Commonwealth Office
- United Nations Development Programme

In addition, the expertise and insights provided by the Finance Team's Thematic Working Group has been invaluable in guiding the research.

¹ The Kyoto Protocol committed most developed countries to reducing their emission reductions by, collectively, 5.2 per cent on 1990 levels by 2012. At the 17th meeting of the Conference of the Parties (COP17) the European Union and a number of other industrialised countries agreed to a second commitment period under the Kyoto Protocol whereby they will accept legally binding emission reductions in the period between 2013 and either 2017 or 2020.

² CDC Climat Research (2012) Will there still be a market price for CERs and ERUs in two years time? Climate Brief: focus on the economics of climate change, Number 13, May.

³ These findings draw upon Vivid Economics (2011) 'Developments in international carbon markets: implications for Kenya's carbon finance policy, November, Annex E to this report.

⁴ Conventionally, credits generated from forestry projects, or more generally from projects associated with reduced emissions from deforestation and forest degradation (REDD+) have not been eligible in compliance markets for a number of reasons, including fears about the lack of permanence. However, a number of new and emerging carbon markets, such as California, have announced the intention to accept REDD+ credits in their schemes, and there is increasing interest in the possibility of making credits from REDD+ projects more broadly acceptable in compliance markets.

⁵ Carbon Initiative for Development (2012) Leveraging the Carbon Market for Low-Income Countries: the Carbon Initiative for Development. Available at: http://wbcarbonfinance.org/docs/CI-Dev_Consultation_Note_Feb2012.pdf

⁶ We understand that at present the World Bank resources for this programme have been fully depleted but that there are examples where donors have met the costs for countries to engage in this initiative.

⁷ These findings draw upon Carbon Africa (2011) Analysis of the carbon market landscape in Kenya, November, Annex D to this report.

⁸ This aggregate figure is dominated by the Sustainable Deployment of the LifeStraw Family in rural Kenya project which alone is generating more than 2 million credits per annum. The remaining projects all generate between 2,000 and 40,000 credits per annum.

⁹ Ecosystem Marketplace (2011) State of the Forest Carbon Markets 2011: From Canopy to Currency.

¹⁰ This analysis is based upon Vivid Economics (2011) 'National CDM Governance: existing practice and lessons for Kenya' December, Annex G to this report.

¹¹ This analysis is based upon Vivid Economics (2011) Carbon trading practices: International experiences and lessons for Kenya, December, Annex H to this report.

¹² Project design documents describe in detail the project including quantifying the emission reductions it is expected to achieve.

¹³ There is a link to such a facility on the current DNA website but it does not appear to be functional.

¹⁴ The <http://finanzascarbono.org/> website is an example from which Kenya might draw.

¹⁵ It may be possible that a new institution would not be needed to perform these roles; as noted below, the Ministry of Finance will need to determine the appropriate home for such a body.

¹⁶ This excludes multilateral organisations such as the World Bank as well as companies who are unilaterally developing CDM projects without the use of consultants, for example, Mumias Sugar Company.

REPUBLIC OF KENYA



**MINISTRY OF ENVIRONMENT AND MINERAL RESOURCES
AND MINISTRY OF FINANCE**

KENYA CLIMATE CHANGE ACTION PLAN

SUBCOMPONENT 8: FINANCE

**SECTION E: INVESTMENT CLIMATE FOR CLIMATE
INVESTMENT**

AUGUST 2012

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Abbreviations

ACAD	African Carbon Asset Development Facility
ACP	African, Caribbean and Pacific
AECF	Africa Enterprise Challenge Fund
AFD	Agence Francaise de Développement
CAF	Climate-Smart Agriculture Financing Facility
CEEC	Centre for Energy Efficiency and Conservation
EE&C	Energy efficiency and conservation
EIB	European Investment Bank
FI	Financial institution
GDC	Geothermal Development Corporation
IFC	International Finance Corporation
IPP	Independent power producer
KAM	Kenyan Association of Manufacturers
KPLC	Kenya Power and Lighting Company
PPA	Power purchase agreement
RBF	Results-based financing
ReFiT	Renewable energy feed-in tariff
SCAF	Seed Capital Assistance Facility
SME	Small and medium-sized enterprise
SREP	Scaling up Renewable Energy Programme
UNEP	United Nations Environment Programme
WEF	World Economic Forum

Summary of key findings

It is well understood that the private sector needs to participate in the development of solutions to climate change and low-carbon investment. The scale of the investment challenge is too great for the public sector to undertake alone while, through technological and business innovations, firms can deliver climate solutions in an efficient and sustainable way. Factors that affect their participation include appropriate policy and regulation, internal technical and financial capacity, and access to finance, which in itself is a function of the capacity and willingness of local banks and other capital providers to invest.

Strengths	
<p>There are many positive aspects to Kenya's low-carbon investment climate, especially with regards to renewable energy. Many consider that the country offers one of the most favourable environments in Sub-Saharan Africa. Specific factors include:</p> <ul style="list-style-type: none"> ✓ High GDP and energy demand growth; ✓ Good renewable resources and energy efficiency potential; ✓ Kenya is a place to do business, with a fairly effective regulatory regime; ✓ Fairly favourable renewable energy, energy efficiency and conservation investment framework, including regulation and fiscal incentives (albeit with some challenges with implementation); ✓ Fairly innovative government engagement and equitable treatment of investors; and ✓ Relatively well-developed financial sector compared to other countries in the region. 	
Gaps	Recommendations
<p>Policy and regulation – renewable energy: Whilst noting its positive aspects, the regulatory process for renewable energy project development is overly long and complex, involving several government bodies, permits and licenses. Concerned institutions are Kenya Power (formerly the Kenya Power and Lighting Company or KPLC), the Ministry of Energy, the Energy Regulatory Commission (ERC), as well as the Ministry of Local Government and city and/or county councils. There are also concerns over the fact that Kenya Power is the only bulk power purchaser, increasing project developer and financier risk.</p> <p>In addition, the policy initiatives and incentives that exist do not work as effectively as they might. For example, Kenya's renewable energy feed-in tariff (FiT) could be improved; planned tax and duty initiatives and exemptions on renewable energy technologies could be implemented more, and more effectively, by the Ministry of Energy and Ministry of Finance; and renewable energy incentive programmes and funds like the Geothermal Development Corporation could be implemented and expanded. At a broader level, there are opportunities for enhancing government engagement and dialogue with both the foreign and domestic private sector on policy development and objectives, and in the rolling out of risk reduction solutions.</p>	<ul style="list-style-type: none"> ✓ Enhanced government engagement with (international) investors and supporting institutions via a regular (every three months) public-private dialogue platform hosted by the Ministry of Energy in collaboration with other government bodies and Kenya's private sector, and building on the Prime Minister's call for engagement at the World Economic Forum (WEF) in 2011 ✓ Engagement in proposals for a UK-Kenya Climate Change Financing Facility ✓ Support for the the implementation of a clear FiT tailored to power generation needs, rather than the current 'negotiation and ceiling' model, as planned under the draft Energy Policy and Bill 2012 ✓ Greater regulatory harmonisation and reduced bureaucracy by supporting a planned one-stop-shop within the ERC to gather all necessary information, permits and licenses for (renewable energy) project development ✓ Support for the creation of a standardised, bankable power purchase agreement (PPA), as planned under the draft Energy Policy and Bill 2012 and working with the WEF ✓ Dissemination of information to all relevant stakeholders regarding decision-making within relevant government institutions, through publication of reasons for all key decisions ✓ Support for the implementation of tax breaks

	and other fiscal incentives (which exist in law but not in practice) for all renewable energy technologies and products
<p>Policy and regulation – energy efficiency: Despite an energy inefficient economy and recognition that energy efficiency can play a key role in the energy sector, the implementation of a formal energy efficiency policy and regulatory framework to attract investment has been intermittent and inadequate. In 2004 the Ministry of Energy, with stakeholders, drafted Sessional Paper no. 4 to promote energy efficiency technologies and measures. The Energy Act 2006 repeated the effort, and the draft Energy Policy and Bill 2012 will further expand the energy efficiency legislative corpus. But other than the establishment of the Centre for Energy Efficiency and Conservation (CEEC, a component of Sessional Paper no.4 2004) by the Ministry of Energy at the Kenyan Association of Manufacturers (KAM) and the enforcement of efficiency standards for some solar technologies, few of the proposed policy interventions have been implemented. Concerned government institutions are the Ministry of Energy, the Ministry of Finance, Kenya Power and the ERC, amongst others. There are also no dedicated energy efficiency agencies at the national level that could be used to promote compliance with measures and take-up of technologies. Finally, whilst noting existing initiatives, knowledge of and expertise in the energy efficiency space amongst government staff, large scale end-users and residential consumers could be improved.</p>	<ul style="list-style-type: none"> ✓ Implementation of national energy efficiency policies, regulations and standards as legislated in Sessional Paper no.4 2004, the Energy Act 2006 and the draft Energy Policy and Bill 2012 ✓ Enforcement of energy efficiency policies, regulations and standards by various means, including market-based measures and fiscal incentives and penalties, as legislated in Sessional Paper no.4 2004, the Energy Act 2006 and the draft Energy Policy and Bill 2012 ✓ Labelling of end-user technologies such as lighting and refrigerators with minimum energy performance standards, working with the Standards and Labelling Programme at the Ministry of Industrialisation ✓ Awareness raising campaign amongst large-scale energy producers and industrial end-users, building on existing initiatives at the CEEC and Kenya Power ✓ Support for the institution of the Energy Efficiency and Conservation Agency as envisaged under the draft Energy Policy and Bill 2012 for promoting and enforcing energy efficiency standards and targets and expanding awareness ✓ Further training and capacity building of government staff in energy efficiency policies, practices and procedures
<p>Access to finance: Access to finance for the private sector operating in the low-carbon space is limited. The type of finance provided by Kenyan financial institutions (FIs) is expensive and not particularly suited to low-carbon investment and there is little project finance. Banks are risk averse; have a limited understanding of private sector opportunities; rarely offer long-term, affordable credit; require high levels of collateral; and are reluctant to lend to small or medium-sized companies based upon past experience. This is in part due to the fact that the banking system’s provision of credit is based upon short-term deposits and, until very recently, the attractiveness of high yield and short tenor government bonds. In addition, affordable, long-term equity from private equity firms is scarce. International financial institutions offer more opportunities but are still expensive.</p>	<ul style="list-style-type: none"> ✓ Establish the Kenya National Climate Fund for the sake of the recommendations in this and other sections ✓ Development of a public fund, possibly under the proposed Kenya National Climate Fund, with high risk appetite in order to provide patient, long-term early stage finance to project developers, building on the model of the Geothermal Development Corporation and working alongside WEF ✓ Provision and facilitation of technical assistance to Kenyan financial institutions to improve understanding of the risks, needs and opportunities in different renewable energy and energy efficiency sectors, and the provision of project finance. This could be provided by the proposed Kenyan Climate Fund ✓ Improved accessibility and coordination of technical assistance programmes to Kenyan FIs, for example via a one-stop-shop, the Kenya National Climate Fund, the Kenyan Private Sector Alliance or the Kenyan Bankers Association ✓ Use of the proposed Kenyan National Climate Fund to provide concessional credit lines to banks to lend on to firms on favourable terms, building on existing programmes

	<ul style="list-style-type: none"> ✓ Use of the proposed Kenyan National Climate Fund to provide loan guarantees to encourage local financial institutions to participate in lending
<p>Technical and financial capacity: Kenyan firms, especially smaller ones, often suffer from a lack of technical and financial capacity. This in practice means that they lack the ability to identify a resource (for example in a renewable energy sector or in energy efficiency) and appropriate technology; develop a feasibility study or business plan; navigate regulatory requirements; effectively prepare for and carry out negotiations with government and financial institutions; and reliably manage and account for finances. They also lack the financial skills to develop more complex financing models, e.g. project finance, exacerbating the ‘access to finance’ issues above. The absence of such skills acts as a disincentive to investors, in particular as regards small and medium-sized firms (SMEs). If an investment does take place, SMEs may require substantial and tailored coaching and support.</p>	<ul style="list-style-type: none"> ✓ Improved accessibility and coordination of technical assistance programmes for firms, for example via a one-stop-shop, the Kenya National Climate Fund, the Kenyan Private Sector Alliance or the Kenyan Association of Manufacturers ✓ Provision and facilitation of access to technical, business and financial services assistance and consultancy by development agencies, government bodies and business associations or banks to assist in the development of feasibility studies and business plans and to improve governance, financial management, marketing, and public relations, amongst other areas ✓ Provision and facilitation of access to expertise in energy efficiency and renewable energy technologies and practices

1. Introduction

Kenya is in a position to capitalise on private business and investment to address many of the challenges associated with climate change. In order for this to happen a vibrant private sector and a conducive investment climate are mandatory. Relevant sectors in which the domestic and international private sectors currently play a role in Kenya include renewable energy and energy efficiency, industry, agriculture, forestry and water. However, many of the activities and firms in these sectors are constrained by factors such as limited capacity, limited access to finance and regulation and policy that are at best passive and in some cases a hindrance.

The purpose of this section is to assess the broader enabling framework and environment for private sector low-carbon investment in Kenya so as to provide recommendations for improvement. The attractiveness of the low-carbon investment climate will have a major bearing on the implementation of the Kenya Climate Change Action Plan, with regard to efforts of the Kenya National Climate Fund and the carbon trading platform, and the roll-out of the activities of other subcomponents – notably 2 (Enabling Policy and Regulatory Framework), 4 (Nationally Appropriate Mitigation Actions) and 7 (Knowledge Management and Capacity Development). A positive business environment will enhance the Action Plan's activities and success, while a more negative one will detract from them.

This section first notes the main strengths of the low-carbon investment climate. It then addresses the policy and regulatory environment for renewable energy and energy efficiency and the existence of government incentives and barriers in that environment. Thirdly, it analyses the issue of how to access finance and the barriers therein. Fourthly, it looks at perceived and actual institutional strengths and weaknesses of businesses and financial institutions (FIs). Finally, it makes a series of recommendations for improvement, including potential implementing agencies. In terms of sectors, it predominantly looks at renewable energy and energy efficiency due to their dominant position in the low-carbon investment space, but many of its lessons are relevant to other climate change sectors as well.

2. Investment climate strengths

There are many positive aspects to the low-carbon investment climate in Kenya, and much of the business environment is viewed as favourable by investors. This is particularly the case when it comes to the country's approach to renewable energy: Kenya offers one of the most favourable environments in Africa for renewable energy investment.

The factors which support low-carbon investment in Kenya include, in no particular order:

- **High GDP and energy, especially power, demand growth:** Economic growth of 4.4 per cent in 2011 and an anticipated peak load growth of 771 per cent by 2030 (from 1,227 MW in 2010 to 9,458 MW in 2030ⁱ) provides plenty of opportunities for low-carbon energy investment;
- **Present imbalance of power demand over supply:** Surplus power generation capacity has been exhausted, which, with ever increasing demand, requires immediate action targeted towards renewable options – this challenge has already led to the development of government support programmesⁱⁱ;

- **High greenhouse gas emission reduction potential:** the three factors below combined represent strong emissions reduction opportunities:
 - **Good renewable resources:** Abundant geothermal resources, high wind speeds (in some locations) and high insolation rates provide ample opportunities for renewable energy investment;
 - **High current use of non-sustainable biomass:** About 70 per cent of primary energy used in Kenya is biomass-based (firewood and charcoal), half of which is from non-sustainable sources;ⁱⁱⁱ
 - **Good energy efficiency potential:** Kenya’s energy efficiency potential remains untapped. The use of inefficient equipment in industry, transportation and household sectors is common, and it is estimated that between 10 per cent and 30 per cent of primary energy input is wasted, all of which offers an opportunity for energy efficiency investment;^{iv}
- **Perception of Kenya as a ‘place-to-do-business’ and strong work ethic in labour force;**
- **(Relative) political stability:** In comparison to a number of other African countries;
- **Effective power sector model:** Vertical unbundling between generation and transmission/distribution has created an environment in which some independent power producers (IPPs) have flourished;
- **Innovative government engagement:** The development of Geothermal Development Corporation (GDC) to absorb early-stage geothermal drilling risks is regarded as a positive development;
- **Financial sector development:** Kenya has a well-developed financial sector, and, at least in terms of corporate finance for medium-sized and large firms, it is easier to secure investment in Kenya than in most other countries in Africa, notwithstanding extant barriers;
- **Reliability of contracts and payment:** Kenya Power (formerly the Kenya Power and Lighting Company or KPLC) has a fourteen year history of dealing with IPPs and during that time it has never defaulted on its obligations;
- **Foreign currency agreements:** IPP agreements and power purchase agreements (PPAs) can be signed in foreign currency, which is a good incentive for foreign investors as it reduces currency risk, facilitating access to finance; and
- **The revised renewable energy feed-in tariff (ReFiT) system is, with some significant caveats, workable.**

3. The renewable energy landscape

The tables and charts below provide an overview of the renewable energy landscape in Kenya. To date, this has formed the bulk of low-carbon investment in the country and so provides a useful overview of overall activity in the country. It is also the sector where the most complete data is available. In total, the available data suggests that:

- There has been around US\$ 2.8 billion of cumulative investment in renewable energy in Kenya, with a 46 per cent/54 per cent debt to equity split;
- In terms of numbers, according to the table below, 50 per cent of renewable energy projects are in biomass, 36 per cent in wind and the rest in solar, hydro and geothermal, but the majority of investment, by value, goes into geothermal and wind;
- Kenya hosts a wide array of investors from different countries, especially the UK and South Africa; and
- International investors are particularly important in geothermal and wind projects, while Kenyan investors are relatively more important in the hydro and biomass space.

Separately, the Electricity Sub-Sector Medium-Term Plan presents an overview of renewable energy projects under development by the private sector and parastatals, in some cases with development agency assistance, in advance of 2016. It reveals a total of a further 20 renewable energy projects in the pipeline with a generation capacity of 1,500 MW.^v

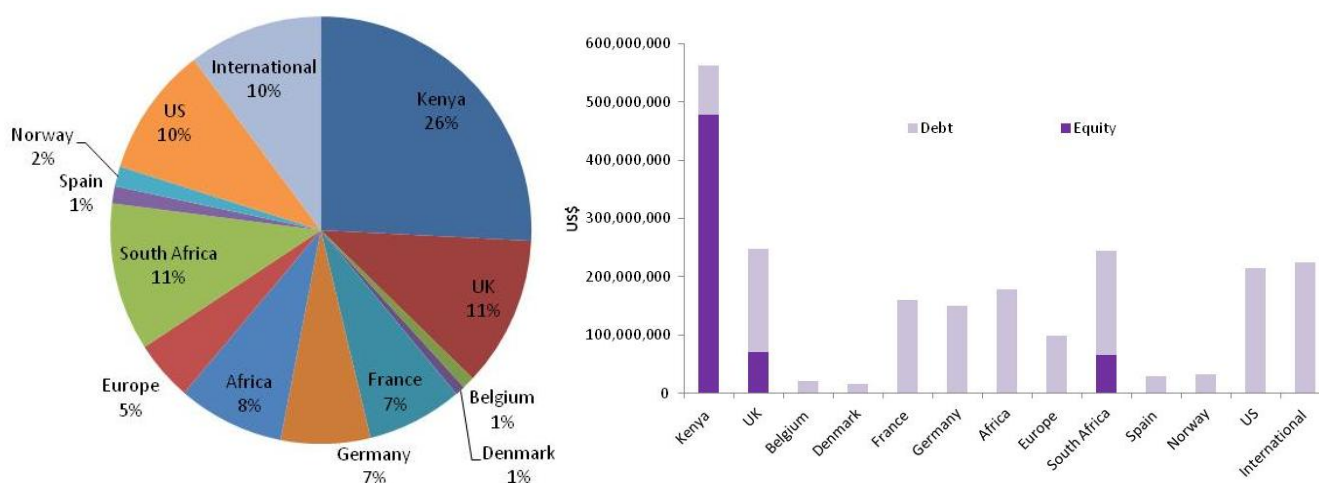
Table E1: Size and nature of cumulative renewable energy investment in Kenya^{vi}

Total Disclosed Investment in Renewable Energy in Kenya					
Equity (54%)	Debt (46%)		Total		
US\$ 1,532,099,125	US\$ 1,302,965,000		US\$ 2,835,064,125		
Name of Investment Vehicle	Sector	Investment (US\$)	Equity	Debt	Country
Tower Power Kenya Ltd	Private	2,138,000	x		Kenya
Oserian	Private	9,000,000	x		Kenya
Kenya Tea Development Authority	Parastatal	32,745,125	x		Kenya
KP&P	Private	49,178,571	x		Kenya
Kenya Electricity Generating Company	Parastatal	1,067,840,000	x		Kenya
Equity Bank	Private	14,967,000		x	Kenya
PIBO	Private	68,600,000		x	Kenya
Powergas International	Private	2,138,000	x		UK
Aldwych International	Private	65,571,429	x		UK
Standard Bank of London	Private	178,500,000		x	UK
Belgium Government through Kenya Commercial Bank	Government	20,500,000		x	Belgium
Industrial Fund for Development	Development agency	16,392,857	x		Denmark
Agence Francaise de Developpement (AFD)	Development agency	160,050,000		x	France
KfW Bankengruppe	Development agency	150,053,000		x	Germany
International Development Agency (IDA World Bank)	Development agency	225,405,000		x	International
African Development Bank	Development agency	178,500,000		x	Regional
European Investment Bank	Development agency	99,490,000		x	Regional

International Corporation	Development	Development agency	65,571,429	x		South Africa
Nedbank		Private	178,500,000		x	South Africa
Norfund		Development agency	32,785,714	x		Norway
Ormat International		Private	215,000,000	x		US

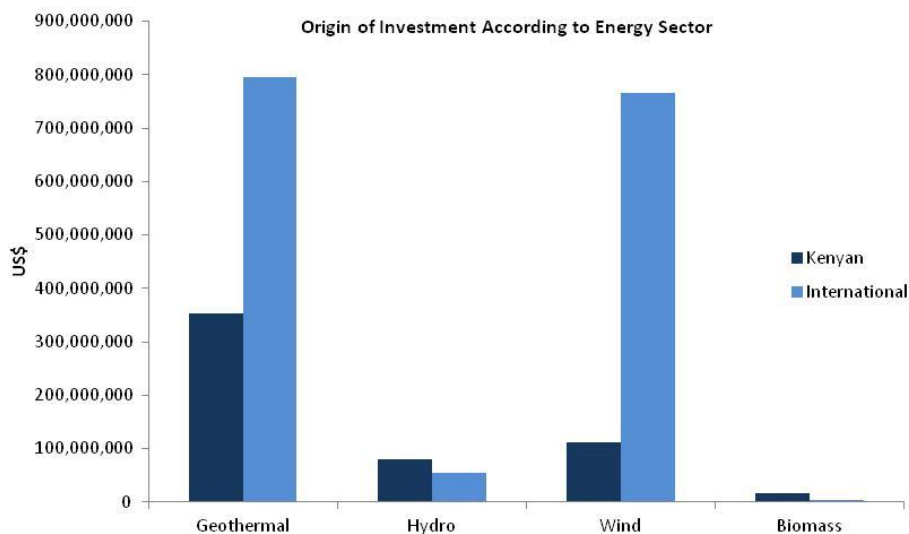
Source: ASI

Figures E1 and E2: Country of origin of investment in renewable energy in Kenya, broken down by debt and equity



Source: ASI

Figure E3: Origin of investment by sector



Source: ASI

4. Current development partner initiatives

A plethora of development partner activities aim, in variety of ways, to overcome the risks and problems associated with low-carbon investment in Kenya. Development agencies have established, or are in the process of establishing, instruments to either serve as actual sources of investment or to help unlock the barriers to investment, with a focus on capacity building.

Table E2: Examples of institutions and facilities to unlock climate investment in Kenya

Organization	Details
International Finance Corporation (IFC)	The IFC's clean energy investment portfolio comprises several tools and emphasises structured project finance. It includes the Capital Markets Initiative, which seeks to incentivise private equity investors to invest more in sustainable energy corporate finance, and the Climate Change Investment Programme for Africa, which provides advisory services and investments to financial institutions in Kenya, helping them build a market for sustainable energy projects, as well as focusing on capacity building and on raising awareness of sustainable energy investments.
IFC/European Investment Bank (EIB)	The EIB is collaborating with the IFC on the \$60 million African, Caribbean and Pacific (ACP) Sustainable Energy Facility, a climate change-focused investment facility that provides co-finance for investment to renewable energy developers as well as technical assistance to assist them in project development.
Agence Française de Développement	The AFD is providing €30 million in long-term concessionary debt for low-carbon (mitigation) investments through two local banks (CFC Stanbic and the Cooperative Bank of Kenya). To facilitate this, the AFD is also providing technical assistance to project developers and banks through a dedicated team housed at the Kenya Associations of Manufacturers (KAM).
Scaling up Renewable Energy Programme (SREP)	The Scaling up Renewable Energy Programme falls under the Strategic Climate Fund of the World Bank's Climate Investment Funds. SREP promotes both public and private sector actions to remove barriers that might otherwise inhibit scaled-up private sector investments. It will use a combination of grants, loans, guarantees and technical support.
World Bank – Climate Innovation Centre	The World Bank, through infoDev (a World Bank trust fund) is establishing the Climate Innovation Centre, which is intended to provide technical, financial and business advice to SMEs in the climate technology space in Kenya. It will also provide proof-of-concept grants and facilitate access to external investment.
Energy and Environment Partnership	The Energy and Environment Partnership, a European multi-donor programme, has been established to achieve more efficient renewable energy solutions and will contribute up to €200,000 to proposed projects. The total budget for the EEP programme for the first phase from 2010 to 2012 is €9.5 million.
Africa Enterprise Challenge Fund (AECF) REACT window	The AECF, a multi-donor fund spearheaded by the UK Department for International Development, REACT window co-invests in climate mitigation- and adaptation-focused businesses and projects, alongside the business itself. Together with the grant component, it also supports the business or project through the project development cycle.
UN Environment Programme (UNEP) Seed Capital Assistance Facility (SCAF)	The UNEP SCAF offers renewable energy and energy efficiency project developers a combination of business development assistance and start-up seed financing in Kenya and other selected African countries. It is designed to offset the hurdle of higher perceived risks and low expected returns resulting from early stage clean energy projects and enterprise development.
African Carbon Asset Development Facility (ACAD)	ACAD is designed to help African banks and entrepreneurs overcome market entry barriers to the carbon market, sharing the costs and early-stage risks of developing carbon projects. The facility offers carbon, energy and banking services provided by UNEP and Standard Bank.

Scaling up of the Energy and Environment partnership with Southern and East Africa	The programme has £27.6 million of International Climate Fund support to promote low carbon private sector development in Southern and East Africa through the provision of co-financing to viable projects focusing on improving energy access for poor people, improving energy supply, and improving energy efficiency by demonstrating new technologies.
Climate-Smart Agriculture Financing Facility (CAF)	This joint initiative by the World Bank, IFC, USAID, the UK Department for International Development and the Banking for Environment Initiative (a group of banks working together on issues on environment finance) is focused on initiatives that demonstrate a model for engaging the private sector to scale-up inclusive and 'climate-smart' agricultural investments.

5. Broader investment climate

In terms of the broader investment climate, that is, that which applies economy-wide and not simply to low-carbon sectors, there are a number of risks. These include inherent country-related risks, such as the political environment, openness in government and in business dealings, and currency risk, which are relevant to and can hamper those wishing to undertake investment in Kenya. There are various indicators that illustrate the bureaucratic and political issues that must be taken into consideration by those wishing to conduct business within Kenya. For instance, the Knaepen Package risk indicator, which classifies countries into eight categories (0-7) according to the likelihood that the sovereign government would honour its contractual obligations, scores Kenya as 6 (7 is worst); although this needs to be seen in the context that, as discussed above, to date, specifically in relation to IPPs in the power sector, there has not been a default. Similarly, the World Bank places Kenya in the bottom 20 per cent of countries as regards rule of law and control of corruption.^{vii}

Equally, Kenya scores unfavourably when it comes to the ease of doing business, for example in accessing necessary permits and licenses to start a business, acquiring land, paying taxes and duties, and pursuing judicial proceedings, amongst others. The World Bank Doing Business Survey reports that it takes 33 days to start a business at a cost of 37.8 per cent of average national per capita income in Kenya. By contrast, the comparable figures in Rwanda are three and 4.7 per cent.

Local investors are, as a result, less able to engage in business dealings than they might be in other countries, and international investors perceive that they typically require local partners before contemplating investment in Kenya. This challenge holds back all forms of investment in Kenya, not just in climate change sectors.

Table E3: Kenyan governance indicators

World Bank Worldwide Governance Indicators 2010 ^{viii}		
Governance Indicator	Percentile Rank (0 – 100)	Governance Score (-2.5 to + 2.5) +2.5 being best
Voice and Accountability	39.8	-0.23
Political Stability	13.7	-1.2
Government Effectiveness	35.9	-0.54

Regulatory Quality	48.8	-0.13
Rule of Law	16.6	-1.01
Control of Corruption	18.7	-0.91

Table E4: Kenyan Doing Business Indicators

World Bank and International Finance Corporation Business Indicators ^{ix}	
Indicator	Rank (out of 183)
Ease of Doing Business	109
Starting a Business	132
Protecting Investors	97

Table E5: Kenyan transparency and corruption indicators and Knaepen Package

Transparency International Corruption Perception Index ^x	
Rank (out of 182)	Score (out of 10) 10 being best
154	2.2
Knaepen Package Risk Category (0 – 7) 7 being worst ^{xi}	
1 st July 2011 – 4 th Nov 2011	28 th Oct 2011 – 31 st Dec 2011
6	6

6. Policy and regulatory barriers – renewable energy

There are specific areas where improvement to the renewable energy regulatory environment can and should be made, which could significantly increase renewable energy investment in the country. The government has in recent years not provided adequate support in incentives and other crucial assistance that could further promote climate investment. This is borne out by international and Kenyan investors' experiences. However, the government has taken steps towards making necessary improvements (notably in the draft Energy Policy and Bill 2012 expected to pass before the end of the year) which if implemented effectively, could lead to a more favourable investment environment for renewable energy.

Regulation and bureaucracy

While there is a framework for investment in, and development of, clean energy, the approval and regulatory requirements are slow and it can sometimes take in the region of three (or more) years for project approval to be given. This compares unfavourably with, for instance, Rwanda, where it takes an average of eight months to secure a PPA. The broader regulatory process

likewise requires several permits and/or licenses from several agencies, such as the Ministry of Energy, Kenya Power, the ERC, the Ministry of Local Government and city and/or country councils.

The Ministry of Energy has made plans to simplify the regulatory process by creating a one-stop shop under the ERC, where developers can address all regulatory requirements in one go; and by reducing the number of permits and licences needed to one permit for facilities under 10 MW in size and one license for facilities over 10 MW in size. These plans are yet to be enacted.

The ReFit policy

Through Kenya's energy policy Sessional paper No.4 of 2004, the Energy Act 2006, and the subsequent Renewable Energy Feed in Tariff policy of 2008 (revised in 2010), the Kenyan government supports the development of renewable energy projects. The ReFit has been moderately successful in attracting private sector interest in renewable energy project development. However, despite this interest, project implementation has been limited. Even allowing for a lag in take-up and implementation and Kenya Power's lack of focus on smaller projects, it is clear that the ReFit policy is not attracting investment as well as it might.

The main problem is that the ReFit does not provide a certain, fixed price per kilowatt hour (kWh) for developers before project outset. Rather, it creates a ceiling beyond which negotiations to determine a fixed price cannot exceed, and below which the price negotiated may lie. This creates uncertainty as to the price developers will receive and can lead to protracted negotiations. Secondly, the tariff does not apply to facilities with generation capacity of over a certain size (100 MW for wind and biomass, 70 MW for geothermal, 40 MW for biogas and 10 MW for hydro).^{xii}

The draft Energy Policy and Bill 2012 allows for the biennial reform of the ReFit policy. As such, a recent review of the current FiT will lead to the creation of a standard, non-negotiable feed-in tariff (i.e. one with a fixed price), and to the revision of the price per kWh for each renewable technology type.^{xiii} It also alters the restrictions on the size of project eligible for the FiT to make FiT more tailored to project capacities. Should the Bill pass, these measures would constitute a significant improvement to the ReFit.

Concerns over PPAs and the sale of power

Doubt exists amongst producers and investors as to the 'bankability' of power purchase agreements signed with Kenya Power. Uncertainty arises because of the regulatory process alluded to above, and because Kenya Power is the sole bulk power purchaser. International and Kenyan financiers are thus reluctant to invest in capital-intensive projects without more security of regulation and purchase, and often ask that the government act as a guarantor for Kenya Power, even if a PPA is signed. Currently the government is not in a position to provide such guarantees on renewable energy projects, but the World Bank is currently working with the government to provide a guarantee facility oriented towards geothermal production, and with Kenya Power as regards its liabilities vis-à-vis IPPs. It should be noted that for foreign investors the Africa Trade Insurance Agency^{xiv} and the Multilateral Investment Guarantee Agency are also options.

The government is addressing these concerns in two ways. Firstly, the Ministry of Energy, under the biennial review of the FiT allowed for in draft Energy Policy and Bill 2012, the ERC and Kenya Power are working together to create a standardised, non-negotiable PPA, which covers the terms of the IPP and includes a purchase obligation of the off-taker.^{xv} It is intended to give comfort to those financing renewable projects. Secondly, the draft Energy Policy and Bill 2012 will if passed allow for the expansion of the number of off-takers beyond just Kenya Power, allowing off-grid IPPs to sell to independent off-takers.

Fiscal incentives

There are limited tax and duty incentives in place for low-carbon technologies and for implementation of renewable energy and energy efficiency projects. This is largely a question of the implementation of legislation rather than of the legislation itself. Sessional Paper no.4 2004, the Energy Act 2006 and the draft Energy Policy and Bill 2012 all contain fiscal incentives such as subsidies and tax holidays, but, with a small number of exceptions, they have not been put into practice by the relevant authorities. The result is that the tax treatment of low-carbon technologies is in practice not harmonised and compares unfavourable with the exemption of kerosene from VAT, creating distortions in relation to some otherwise competitive low-carbon technologies, especially for off-grid alternatives to traditional fuels. The examples of tax breaks relevant to the renewable energy sector apply to solar photovoltaic technology; firstly, the import, construction and sale of solar photovoltaic cells are tax and duty exempt, and secondly small scale solar projects under the FiT are eligible for a ten-year income tax holiday.

The lack of harmonisation on incentives of this sort may put Kenya at a disadvantage when it comes to the international market for renewable energy investment and lead to technology choices in Kenya based on which technology has secured the most favourable tax break, rather than that which is most desired by consumers. As a result, the Ministry of Energy is currently working with the Ministry of Finance to implement fiscal incentives and create a positive list of renewable energy technologies that will be eligible.

Public-private dialogue

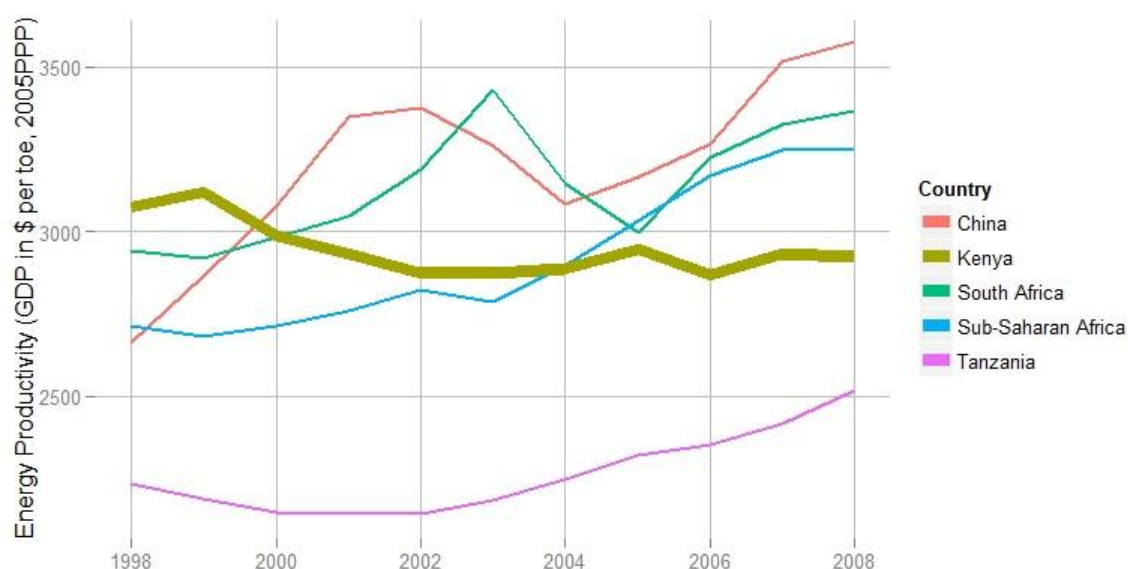
There is at present limited dialogue between the government and private sector, especially the international private sector, particularly in relation to Kenya's overall strategy for low-carbon development. Too few international investors seem to be aware of the National Climate Change Response Strategy of 2010. This was in contrast to the renewable energy initiative in South Africa, which sought to engage with international investors throughout its development. The South African initiative is also considered to be actively and personally supported in the highest echelons of government.

The Prime Minister's Round Tables between the government and (Kenyan) private sector is a good example of existing public-private dialogue. The Ministry of Energy's effort to engage the private sector through National Energy Conferences every two years is another. But more would be required to attract investment on a larger scale. It is noteworthy in this regard that Prime Minister Raila Odinga called for closer collaboration with the (international) private sector on the issue of financing in Kenya at the World Economic Forum at Davos in 2011.

7. Policy and regulatory barriers – energy efficiency

At just under \$3,000 of GDP generated per tonne of oil equivalent, Kenya is less energy efficient than South Africa and the sub-Saharan African average. Its energy productivity has also been falling since the late 1990s, the opposite trend to South Africa, Tanzania and rest of sub-Saharan Africa.^{xvi} It is thus notable that to date the implementation of an overarching energy efficiency policy and regulatory framework has been inadequate. This is despite the existence of energy efficiency policies and regulation on paper, an energy inefficient economy and recognition that energy efficiency can play a key role in the energy sector. As a result of the lack of implementation of planned policies, the energy efficiency framework is insufficient to attract investment on a significant scale. Knowledge and awareness of energy efficiency opportunities, policies and regulations amongst industrial, commercial and residential end-users and consumers is low.

Figure E4: Energy productivity trends in Kenya and other countries



Source: Vivid Economics

From a policy perspective, there are three initiatives of note. The biggest push came in 2004 when the Ministry of Energy, in consultation with stakeholders in the energy sector, developed Sessional Paper No.4. One of the specific objectives of Kenya's energy policy at this time was to promote energy efficiency and conservation as well as prudent environmental, health and safety practices, and to defer additional investment in power generation. The government proposed to promote energy efficiency technologies and measures by:

- Providing technical and financial support to the private sector;
- Enhancing the provision of energy audits and advisory services by the Ministry of Energy to companies and institutions, and establishing equipment testing laboratories for efficiency;
- Promoting cost-effective industrial energy efficiency and conservation (EE&C) measures;
- Encouraging demand side management by industrial and commercial sectors and developing standards and codes of practice on cost-effective energy use;
- Disseminating EE&C information to consumers; and

- Establishing a centre of excellence for EE&C at national level to guide and promote development and implementation of energy efficiency technologies and methods.

The second initiative was the Energy Act 2006 which reinforced these provisions. The third is the draft Energy Policy and Bill 2012 that will, if passed, further strengthen the impetus for action on energy efficiency. Combined, these initiatives would represent a relatively thorough and effective approach to improving energy efficiency.

However, in practice there are few energy efficiency interventions in place. Interventions that have been successfully implemented include:

- The CEEC, established by the Ministry of Energy at KAM. The Centre runs energy efficiency and conservation programmes designed to give recommendations on measures to be implemented as well as increase awareness. It helps industrial and commercial end-users identify energy wastage and determine saving potential. It provides professional training and technical services for developing, designing and implementing energy efficiency activities to suit the needs of government, commercial and industrial consumers.^{xvii} It also conducts the Energy Management Awards for the most efficient Kenyan energy users.
- The ERC has instituted energy management regulation, reporting requirements and standards for a number of technologies, including solar water heaters and solar PV.
- The Standards and Labelling Programme at the Ministry of Industrialisation has developed minimum energy performance standards for a number of household technologies, for example, refrigerators, air-conditioners, industrial motors and lights, which have been submitted to the Kenya Bureau of Standards for approval.
- Kenya Power has established a Demand-Side Management Unit that focuses on the promotion of energy efficient household appliances. It has, on behalf of the government, distributed 1.25 million compact fluorescent lights (CFLs), and is seeking finances to distribute a further 3.3 million.
- The Ministry of Energy has replaced old and inefficient lighting with more modern, efficient equipment in some government buildings.

Government institutions responsible for policy implementation include the Ministry of Energy, the Ministry of Finance, Kenya Power and the ERC, amongst others. But, whilst recognising the achievements to date, these institutions do not have the necessary capacity and training to fully execute and enforce energy efficiency activities. To ensure the implementation of an overarching energy efficiency policy and regulatory framework there is a need for a dedicated agency that can operate at the national and local level. The draft Energy Policy and Bill 2012 would establish an Energy Efficiency and Conservation Agency for this purpose. This agency would develop the requisite expertise in and knowledge of energy efficiency, would be responsible for capacity-building, training and awareness-raising in the public and private sector, would enforce compliance with efficiency measures and would promote the take-up of efficient technologies.

8. Access to finance

A bottleneck exists in access to finance in low-carbon sectors in Kenya. Firstly, debt and equity investment is hard to secure, in particular for small and medium-sized enterprises (SMEs), and secondly the type of debt that Kenyan financial institutions provide is unaligned with the needs of those to whom they provide it. This bottleneck is more apparent for local firms than

international or large Kenyan firms who are able to seek capital beyond Kenya's borders, but this latter group are still subject to high costs of debt, which can constrain investment. As a result, a large proportion of low-carbon finance to date has come from, or been facilitated by, Kenya's development partners, as laid out in the table in Section 8 below.

It is important to realise that difficulties in raising capital for a project identified below are inherently related to some of the other barriers affecting the economics of projects discussed in other sections of this section. In other words, these difficulties are as much a symptom of the challenges holding back low-carbon investment in the country, as a cause of that lack of development.

The Kenyan perspective

In general, FIs in Kenya display the following characteristics in their provision of financing to local firms.

- Debt is pegged to the central bank benchmark lending rate (Central Bank Rate) plus a premium that ranges from 400 to 600 basis points, leading to very high annual nominal interest rates of over 20 per cent and real interest rates of 6-7 per cent;
- Under 10 per cent of loans last longer than three months and under 5 per cent for more than a year –loan tenors are very rarely more than five years in duration;
- Firms are required to put up a large amount of collateral to secure their loan, which many of them do not have;
- There are particular challenges in securing loans of \$1 to \$5 million which are too large for micro-finance institutions to supply but sometimes too small for larger financial institutions, leading to a 'missing middle';
- Likewise, loans of above \$100 million, for heavily capital-intensive projects, are difficult to secure in Kenya;
- Although there are plenty of equity providers in Kenya, affordable and long-term early stage equity investment is hard to access from banks or investment funds, without which it can be difficult to secure debt ^{xviii}; and
- FIs prefer to offer corporate financing rather than project finance, and have limited experience in the latter.^{xix}

This kind of financing is not suitable for what many of firms operating in the low-carbon space need, that is dedicated financing models that offer long-term, low-cost, project finance-based loans and long-term low-cost equity investments. It is also unsuitable for the smaller and medium-sized firms, which are generally capital-constrained and have little collateral to offer. As a result it is often impossible or prohibitively expensive for firms to access the funds they require to launch and expand their operations.

There are a number of possible reasons for this disconnect, which are listed below:

- The banking system aligns the provision of debt to its source of funds, predominantly deposits, and deposits have a short (three month) turnover. As such, as mentioned above, the proportion of loans given of longer tenor than three months is under 10 per cent, and of over one year under 5 per cent.
- Government bonds yield high rates of return and, until five years ago, were of a maximum duration of ten years. Although the maximum term has now increased to thirty years, yields are still high. Both factors act as a disincentive for banks to lend long-term to the private sector by making government bonds a more attractive investment proposition.

- Low-carbon investment is a new type of activity and Kenyan FIs have a limited understanding of firms' financing needs, opportunities, operations and business models in the low-carbon space. They are unfamiliar, for example, with renewable energy investment practices and the long lead-time involved, or with the fact that while energy efficiency projects have large cumulative potential, they are often small individually and therefore need specially-designed incentives and financial products.
- There is still inadequate information available about low-carbon sectors, ranging from technologies to pricing to energy to industrial potential and financing.
- FIs are reticent to lend to smaller, early stage firms with minimal technical or financial capacity (see below), which many firms in the sector are, or to projects that are at an early stage of development.
- Banks already undertake good business in well-trodden sectors and investments, rendering them less willing to expand into new fields.
- Underlying the above, there is a general level of risk averseness based on other barriers discussed above and below.

As a result, Kenyan financial institutions are very strict about investing in low-carbon firms and projects. They require a very high level of consultation and risk assessment prior to any investment, at the end of which they may be unable to offer a suitable product, all of which can prove to be an expensive and often discouraging hurdle for many, especially smaller, firms to overcome.

The local appetite for financing (including equity) is nonetheless increasing slowly. The banking sector is maturing, deposits are increasing in size and duration, and knowledge and understanding of the risks and returns inherent in the renewable energy and other sectors is improving. Several international banks with Kenyan operations (e.g. Barclays, Standard Bank and Bank of Africa) have already established climate finance expertise, and others are in the process of doing so (for example NIC Bank). Some banks have built partnerships with international organizations, e.g. the IFC and the Agence Française de Développement, and with NGOs (for example GVEP-International), in order to facilitate the provision of debt to firms.

Tailored investment funds operating in Kenya are also beginning to offer an alternative. They are increasingly willing to supply debt and equity at more favourable conditions to other FIs, for example with a seven or sometimes ten year term, at an achievable rate of return and in the appropriate size bracket for SMEs. But while they are interested in low-carbon investment and have been evaluating firms and projects for several years, the investment rate has been low. This is again partly due to the issues mentioned above. It is also due to the limited capacity of firms seeking investment, which is addressed below.

The international perspective

As a result of the above, many large Kenyan or international firms prefer to seek debt and equity investment from international FIs, which is often cheaper and easier to arrange than from their Kenyan equivalents.^{xx} They are far more receptive to being approached for funding for renewable energy and are far more receptive to investment opportunities. They are able to offer loans and equity over a seven to ten year period. They are also able to offer larger investments, that is, of \$100 million plus, which are necessary for certain types of front-loaded, capital-intensive activities.

9. Capacity barriers

Investment in the low-carbon space in Kenya is relatively new and is still a niche area. As such, many firms are unfamiliar with the technical and financial requirements associated with launching operations, entering relevant sectors, developing projects, or securing financing, that is, they lack capacity. Such capacity constraints are more relevant to Kenyan SMEs than to international and large Kenyan players who have already acquired the appropriate skills or, if not, can access them independently. Not only does a lack of capacity impede the project development process, but it also serves to hamper the ability of firms to access finance from FIs.

The main areas in which firms are capacity-constrained are listed below. Most of them are not unique to Kenya but apply to firms in other developing countries as well.

- Low ability to identify a resource or business opportunity and the appropriate technology or business model;
- Low levels of available information, knowledge and awareness of where opportunities lie amongst both consumers and producers (in particular in the energy efficiency and conservation space but in other sector as well^{xxi});
- Insufficient expertise in developing a proof-of-concept note, a feasibility study and a business plan;
- Poor understanding of financing requirements and financial modelling (e.g. project finance and financial incentives) and of how to accurately assess risk;
- Low level of ability in engaging FIs and securing investment;
- Poor knowledge of how to navigate regulatory requirements and to effectively prepare for and carry out negotiations with government;
- Lack of competence and reliability in accounting and auditing; and
- Weak governance, management and human resources structures.

The means for firms to overcome these barriers include: building up expertise in-house via training and hiring new staff; hiring an external consultant (where competent and available); or accessing assistance from development agencies. The first two solutions are expensive, with the result that local firms tend not to pursue them. In addition, there are very few competent and expert training institutions, intermediaries and consultancies that are available to firms to support the development of low-carbon projects. For example, only a handful of renewable energy consultancy firms exist, and existing energy service companies are derived from consulting firms and have limited knowledge of energy efficiency methodologies.

Development partner initiatives exist to address the lack of capacity, for example the IFC/EIB ACP Sustainable Energy Facility, the World Bank infoDev Climate Innovation Centre^{xxii} and the IFC SME Solutions Centre, which support entrepreneurs in developing their business. However, there is a plethora of these schemes, often with different requirements and focus, and they are poorly coordinated. Unless firms have been active in the sector for many years, it is sometimes difficult to stay on top of all the developments and access the support available.

10. Recommendations

The following palette of recommendations (laid out below according to sector) has been developed based upon the needs and gaps identified in the preceding sections, as well as upon the ‘space for intervention’ given ongoing initiatives by other actors. Due to the diverse nature of the subject matter, i.e. the broad range of subjects that the low-carbon investment climate encompasses, the recommended actions are presented individually rather than as part of a larger strategy. All are, however, designed to support the functioning of the Kenya National Climate Fund, the carbon trading platform and the other subcomponents of the Kenya Climate Change Action Plan, notably Subcomponents 2 (Enabling Policy and Regulatory Framework), 4 (Nationally Appropriate Mitigation Actions) and 7 (Knowledge Management and Capacity Development). Many of these actions will be implementable under the National Climate Fund and the carbon trading platform, as well as forming part of policy and regulatory reforms and mitigation actions under the work of Subcomponents 2 and 4 respectively.

Policy and regulation – renewable energy: Priority actions			
What	How	Institution(s)	Legal or regulatory changes
Active partnership and enhanced engagement between government and (international) private sector and supporting institutions to support low-carbon investment	Via a regular (every three months) public-private dialogue platform (an Energy Round Table) hosted by the Ministry of Energy in collaboration with the Office of the Prime Minister, other government bodies and Kenya’s private sector, and building on the Prime Minister’s call for engagement at the World Economic Forum in 2011	Ministry of Energy Office of the Prime Minister Kenya Private Sector Alliance	N/a
	Active engagement in the proposals for a UK-Kenya Climate Change Financing Facility and other proposals being developed by, for example, the World Economic Forum	Ministry of Energy Ministry of Environment and Mineral Resources Development Partners	N/a
A better structured renewable energy feed-in tariff	Support for the planned establishment of a standard tariff that doesn’t leave room for uncertainty in negotiations Support for increased accessibility of the feed-in tariff to renewable energy facilities of all sizes in certain sectors	Ministry of Energy (Feed-in Tariff Committee) Energy Regulatory Commission Kenya Power	Regulatory changes
Support for greater harmonisation between government departments and institutions involved in the power purchase agreement approval process and reduced levels of	Promotion of the planned creation of a one-stop-shop within the Energy Regulatory Commission to gather all necessary information, permits and licenses for project development and to enable developers to bring	Ministry of Energy Energy Regulatory Commission	Regulatory changes

bureaucracy	<p>their projects to market more quickly a planned one-stop-shop to gather all necessary information, permits and licenses for (renewable energy) project development</p> <p>Dissemination of information to all relevant stakeholders regarding decision-making within relevant government institutions, through publication of reasons for all key decisions</p>		
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Tier 2 actions			
Establishment of a standardised, bankable power purchase agreement that facilitates access to finance from financial institutions	Support for the planned development of standardised, non-negotiable terms for power purchase agreement, based on international best practice and working with the World Economic Forum	Ministry of Energy Kenya Power Energy Regulatory Commission	Regulatory changes
Harmonisation of tax breaks and other incentives to all renewable energy technologies and products	Promotion of efforts by the Ministry of Energy and Ministry of Finance to implement fiscal incentives, including tax breaks, tax holidays and subsidies, which exist in law but not in practice, for renewable energy technologies, by creating a positive list of renewable technologies	Ministry of Energy Ministry of Finance	Legal and regulatory changes

Policy and regulation – energy efficiency: Priority actions			
What	How	Institution(s)	Legal regulatory changes or
Implementation of national energy efficiency policies, regulations and standards	<p>Implementation of existing policies, regulations and standards as legislated in Sessional Paper no.4 2004, the Energy Act 2006 and the draft Energy Policy and Bill 2012 and their integration into current energy, transport and industrial policy</p> <p>Enforcement of energy efficiency policies, regulations and standards by various means, including fiscal incentives and penalties and market-based measures, as legislated in Sessional Paper no.4 2004, the Energy Act 2006 and the draft Energy Policy and Bill 2012</p>	<p>Ministry of Energy</p> <p>Ministry of Finance</p> <p>Energy Regulatory Commission</p>	Legal and regulatory changes
Enhancement of awareness of energy efficiency technologies, practices and benefits	<p>Labelling of end-user technologies such as electric motors, lighting appliances, refrigerators and air-conditioners with minimum energy performance standards, working with the Standards and Labelling Programme at the Ministry of Industrialisation</p> <p>Awareness raising campaign amongst large-scale energy producers and industrial end-users, through the use of publications, brochures and workshops, building on existing initiatives at the Centre for Energy Efficiency and Conservation and Kenya Power</p>	<p>Ministry of Energy</p> <p>Ministry of Industrialisation</p> <p>Energy Regulatory Commission</p> <p>Rural Electrification Authority</p> <p>Kenya Revenue Authority</p> <p>Kenya Bureau of Standards</p>	Regulatory changes

Tier 2 actions			
Establishment of a dedicated government agency at the national and local level to ensure compliance with energy efficiency practices, increase awareness and promote the use of energy efficiency products	Support for the institution of the Energy Efficiency and Conservation Agency as envisaged under the draft Energy Policy and Bill 2012	Ministry of Energy	Legal and regulatory changes
Enhancement of expertise in and knowledge of energy efficiency in relevant government institutions	Further training and capacity building of government staff in energy efficiency policies, practices and procedures, in collaboration with Centre for Energy Efficiency and Conservation	Ministry of Energy	N/a

Access to finance: Priority actions			
What	How	Institution(s)	Legal regulatory changes or
Establish the Kenya National Climate Fund to enable the implementation and financing of many of the recommendations in this and other sections	Issue of a legal notice to establish the Fund within the Ministry of Finance, acquisition of funding from development partners and the Government of Kenya and the hiring of staff to act as fund manager and professional secretariat – see Section B of this report	Ministry of Finance Ministry of Environment and Mineral Resources Development partners	Legal and regulatory changes
Facilitation of long-term, patient, early stage capital to support early stage project development	Facilitation of funds, with high risk appetite, potentially supported by government money and aligned with existing initiatives, notably the Kenya National Climate Fund and the World Economic Forum	Ministry of Finance Ministry of Energy	N/a
Increased understanding of the risks, needs and opportunities of low-carbon investment on the side of financial institutions	Provision and facilitation of technical assistance to Kenyan financial institutions, aligned with existing initiatives, taking advantage of Kenya National Climate Fund	Ministry of Finance Kenya Private Sector Alliance, Kenya Bankers Association and Kenya Association of Manufacturers	N/a
Improved accessibility and coordination of technical assistance programmes to Kenyan financial institutions	Creation of a one-stop-shop at which information on what technical assistance programmes are available, taking advantage of Kenya National Climate Fund	Ministry of Finance Kenya Private Sector Alliance, Kenya Bankers Association and Kenya Association of Manufacturers	N/a

Tier 2 actions			
Facilitation of credit, in particular in the form of project finance, to support low-carbon project development	Provision of long-term credit lines to banks to lend to firms on commercial but attractive terms via the Kenya National Climate Fund	Ministry of Finance Development partners	N/a
	Provision of development partner and/or government loan guarantees to encourage financial institutions to participate in lending		

Technical and financial capacity: Priority actions			
What	How	Institution(s)	Legal regulatory changes or
Improved accessibility and coordination of technical assistance programmes for firms	Creation of a one-stop-shop at which information on what technical assistance programmes are available, taking advantage of Kenya National Climate Fund	Ministry of Finance Kenya Private Sector Alliance, Kenya Bankers Association and Kenya Association of Manufacturers Development partners	N/a

Tier 2 actions			
Improvement of capacity to develop feasibility studies and business plans and in areas of governance, financial management, marketing, and public relations, amongst others, and in all low-carbon sectors	<p>Establishment of a business development services centre within a reputed Kenyan business-focused institution to provide technical, business and financial services assistance and consultancy, building on existing successful models in Kenya and taking advantage of Kenya National Climate Fund</p> <p>Establishment of a centre within a reputed Kenyan institution to offer expertise in energy efficiency and renewable energy technologies and methods, building on existing successful models in Kenya and taking advantage of Kenya National Climate Fund</p>	Ministry of Finance Kenya Private Sector Alliance, Kenya Bankers Association and Kenya Association of Manufacturers Development partners	N/a

Annex – World Economic Forum

As part of its ongoing work helping to unlock private financing for green growth in developing countries, the World Economic Forum has convened a network of international and domestic private and public finance stakeholders, in collaboration with the Government of Kenya. The objective is to identify key bottlenecks to the deployment of private finance at scale (in large-scale renewable energy grid-connected and decentralized solutions), share best practices in financing clean energy from Kenya and abroad, and to identify or build instruments and means through which public finance can bridge the risk and return gap.

The work is taking place alongside, and in harmony with, the Government of Kenya's efforts to improve the low carbon investment climate under the Climate Change Action Plan. As can be seen, there is very significant overlap between the recommendations from our study and the initiatives being developed by the World Economic Forum and, as such, these WEF initiatives provide an important opportunity for the Government of Kenya to take forward our recommendations. As of June 2012, work is being carried out to identify and build a series of specific vehicles and instruments, below, that can unlock private financing for clean energy.

- i. Using some of the best available bankable PPAs that are getting closure in the next few months, develop a standard PPA. Given that a standardized PPA could lead to a large increase in applications from project developers, the application process could include a fee structure (linked to the size of the project) to limit applications of under- or unqualified project developers. Payment of the fee would give the project developer the right to develop a project over a previously agreed amount of time.
- ii. Working with private insurers and IPPs on concrete proposals from the geothermal sector for example, an effort will be made to un-bundle the various kinds of risks and to determine the normal energy market portion of the risk that could be covered commercially, thereby relieving some of the public bill.
- iii. A risk-sharing facility would be created to address the significant risk profile of decentralized energy projects. Through pooling, the same facility could be used for several transactions and especially for early-stage risk sharing. The pool would rely on agreed credit assessment and eligibility criteria, with a wholesale approach from the IFC for example and with domestic banks originating the business.
- iv. To increase lending capacity for domestic banks, a refinancing facility would be designed on the model of the European Bank for Reconstruction and Development in Eastern Europe or the €30 million credit facility by AFD for concessional financing through the Kenyan banking system for selected investments in renewable energy and energy efficiency.
- v. A take-out facility could be created in which lenders could opt to exit the loan after each consecutive five year period. When exiting the loan the bank would transfer the loan to a separate vehicle (presumably owned or backed by public sources, a development finance institutions public-private partnership), which would take it on its balance sheet or transfer it to other interested parties. The entity would need to build in margin risk, liquidity risk and project risk insurance. No defaulted (or soon defaulting) clients would be accepted by the facility. The take-out facility would address the issue of liquidity availability but would also help build capacity of the domestic banks through enabling and scaling deal and cash flows.
- vi. To address the lack of appropriate equity, including lack of early stage high-risk and high-return capital, a public venture capital fund could help support a more widespread attractiveness for private venture capital. A number of institutional funds are beginning to be active in the country and the equity returns are attractive, but the equity investment culture is difficult as a new structure.

A Kenyan results-based financing (RBF) mechanism could create the visible, long term, 'AAA' cash-flows needed to leverage significant amounts of private capital into emission reduction and pro-developmental projects. This would be a way of bringing about climate and development outcomes at least cost, while maximising private sector leverage. An RBF mechanism could take a number of forms, from a simple tender for verified outcomes to something more akin to a real financial instrument such as a put option for emission reductions. All of these would deliver enhanced value for money for taxpayers and significant private sector leverage.

Acknowledgements

We are indebted to a number of individuals and institutions with whom we have consulted as part of this work. These are:

- Actis
- Acumen Fund
- Agence Francaise de Développement
- Bank of America Merrill Lynch
- Camco
- Carbon Africa
- cdc Climat
- CG Dev
- Climate Bridge
- Climate Care
- Climate Change Capital
- Commercial Bank of Africa
- Danida
- Emerging Power Group
- European Investment Bank
- Fanisi Venture Capital Fund
- Global Environment Facility
- Innovator Capital Limited
- International Finance Corporation
- Kenya Association of Manufacturers
- Kenya Bankers Association
- Kenya Power
- Kenya Private Sector Alliance
- Kenya Tea Development Agency
- Lake Turkana Wind Power
- Ministry of Energy
- Ministry of Environment and Mineral Resources
- Ministry of Finance
- Ministry of Planning
- Open Capital
- OrPower 4
- Oserian
- Oxford Institute for Energy Studies
- Planet B Ventures
- Renewable Energy Ventures (K)
- Standard Bank
- Swedish International Development Cooperation Agency
- Tower Power Kenya
- Ubbink East Africa
- UK Department for International Development
- United States Agency for International Development
- World Bank
- World Economic Forum

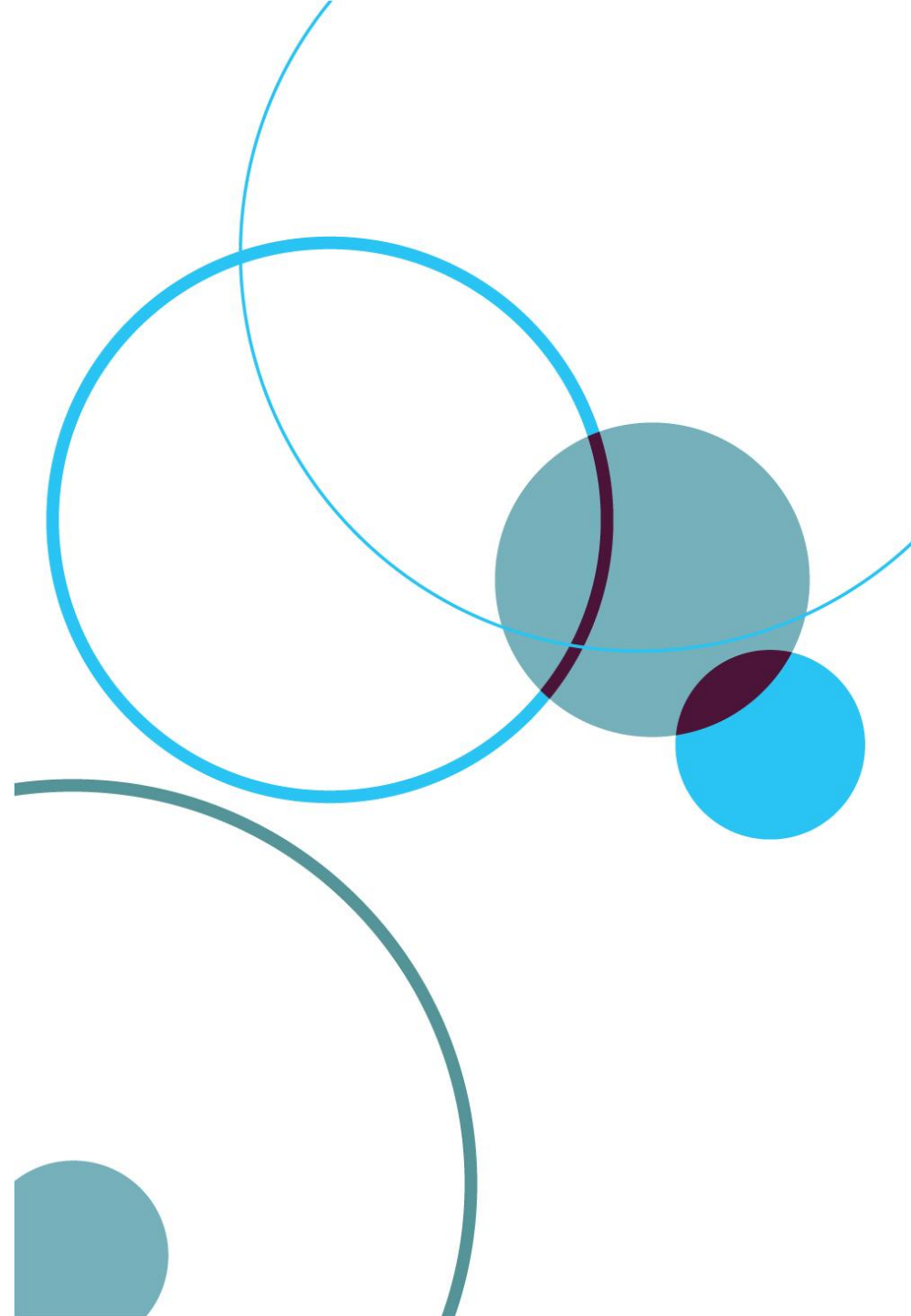
In addition, the expertise and insights provided by the Finance Team's Thematic Working Group has been invaluable in guiding the research and recommendations.

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- i Updated Least Cost Power Development Plan 2011-2031*, Ministry of Energy, March 2011
- ii* Renewable energy is one possible solution but by no means the only one. Other power generation options will be necessary to meet Kenya's needs.
- iii* All biomass is renewable in the sense that it is CO₂ temporarily fixed in biogenic material, and when combusted that CO₂ is returned to the atmosphere. Not all biomass is sustainable, however.
- iv* Further research will be necessary into energy efficiency levels and potential in different sectors of the economy and regional of the country, as data is currently not widely available. Energy efficiency investment will have concomitant social and environmental benefits.
- v Electricity Sub-Sector Medium-Term Plan (2012-2016)*, Ministry of Energy, April 2012
- vi* This table is non-exclusive.
- vii* http://info.worldbank.org/governance/wgi/sc_chart.asp
- viii* http://info.worldbank.org/governance/wgi/sc_chart.asp
- ix* <http://www.doingbusiness.org/rankings>
- x* <http://cpi.transparency.org/cpi2011/>
- xi* The Knaepen Package is a system for assessing political risk. It classifies countries into eight risk categories (0 - 7) according to the likelihood that a sovereign government will honour its contractual obligations, the higher the category the higher the risk factor.
<http://www.oecd.org/dataoecd/9/12/35483246.pdf>
- xii* <http://www.erc.go.ke/erc/fitpolicy.pdf>. Large projects of 100 MW-plus in some renewable energy sectors can often exist without a FiT framework, but in other sectors it may be a necessary incentive.
- xiii* *Technical and Economic Study for Development of Small Scale Grid Connected Renewable Energy in Kenya*, Submitted to the Ministry of Energy through the Energy Regulatory Commission by Economic Consulting Associates and Ramboll, June 2012
- xiv* Recently ATI for the first time provided political risk for insurance to an IPP for an energy investment in Kenya.
- xv* *Technical and Economic Study for Development of Small Scale Grid Connected Renewable Energy in Kenya*, Submitted to the Ministry of Energy through the Energy Regulatory Commission by Economic Consulting Associates and Ramboll, June 2012
- xvi* Source: Vivid Economics (2012). Note that data is not available post-2008.
- xvii* The CEEC recently provided training on energy efficiency to 132 government staff.
- xviii* Most private equity firms seek an annual rate of return of 25 per cent or more and to exit within five years.
- xix* Stanbic is the only bank in Kenya with extensive experience in project finance for renewable energy, via their operations in South Africa.
- xx* Though this is not always true. Due to frequent administrative delays and conditions inherent with IFI lending, project developers sometimes chose to finance projects independently.
- xxi* For example, industrial end-users are more concerned with enhancing operations through improved production and productivity rather than with reducing operational costs, including through energy efficiency measures.
- xxii* As of August 2012 the Climate Innovation Centre is in the process of being established.

Annex A: Current and future international climate finance architecture: implications for Kenya's financing mechanism

Report prepared for Government of Kenya

November 2011



The 2011 research phase consists of 8 tasks associated with the three key themes of the project

Task 1: survey of current and future sources of international climate finance

Task 2: survey of donor action in climate change in Kenya

Task 3: survey of Kenyan government action in and related to climate change

Task 4: identifying priority spending items for the financing mechanism

Task 5: assessment of international best practice in national climate financing mechanisms

Task 6: Analysis of Kenyan carbon finance landscape

Task 7: Analysis of international carbon market developments

Task 8: Analysis of Kenya's investment climate

**Design of
climate finance
mechanism**

**Improving
Kenya's access
to carbon
markets**

**Recommendations
on low-carbon
investment climate**

Key findings

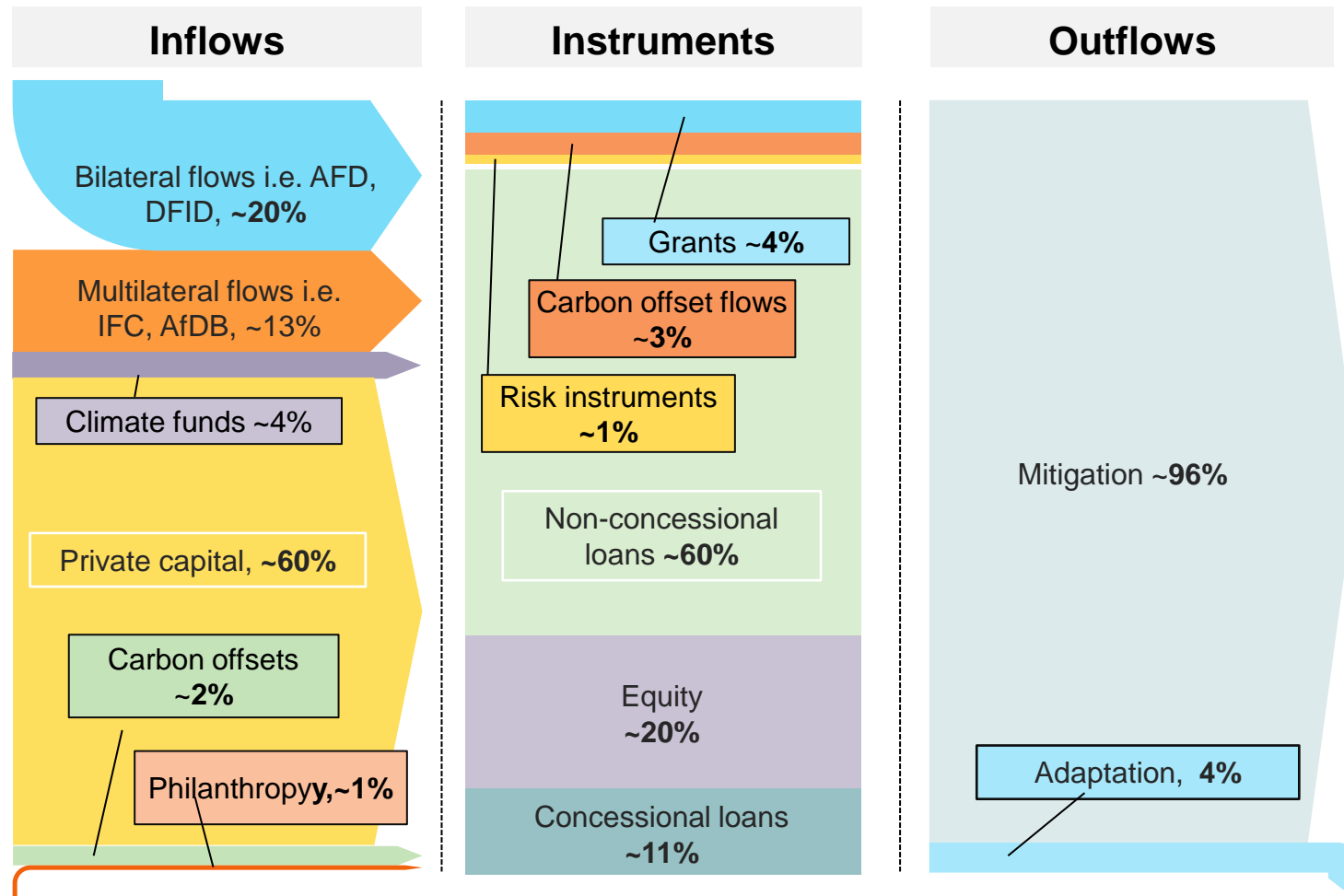
1. In the current climate finance architecture, the strongest candidates for resourcing a Kenyan mechanism are **direct bilateral support from government donors** (possibly supplemented by domestic resources) and the **small number of international climate funds that allow for 'direct access'** e.g. Adaptation Fund.
2. Although they could be combined, they have **different design and governance implications**. It will need to be decided whether the financing mechanism should just channel resources or also implement projects. Before the direct access modality can be used, the body will need to have a track record of project implementation.
3. Most other current sources of climate finance, especially those committed to explicit climate funds, are unlikely to resource a fund where disbursement of funds and implementation of projects are delegated to a national level. However, as these represent the bulk of current flows, it will be **important for any Kenyan financing mechanism to be able to work alongside these 'vertical' funds**.
4. Developments such as the Green Climate Fund and the Africa Green Fund might increase the resources that could flow through a Kenyan financing mechanism. **Developing a financing mechanism to access money in the current architecture should give Kenya a head start if these new institutions emerge.**
5. 96% of current climate finance goes towards mitigation. Given Kenya's needs, **its financing mechanism may wish to focus on adaptation.**

Contents

1. The current climate finance architecture and implications for Kenya's financing mechanism
 - the overall climate finance landscape
 - entry points for Kenya's climate finance mechanism
2. Possible future changes in the climate finance architecture and implications

The current climate finance architecture is dominated by private capital investing in mitigation projects

Figure 1. Average disbursements of different forms of climate finance, 2009-10



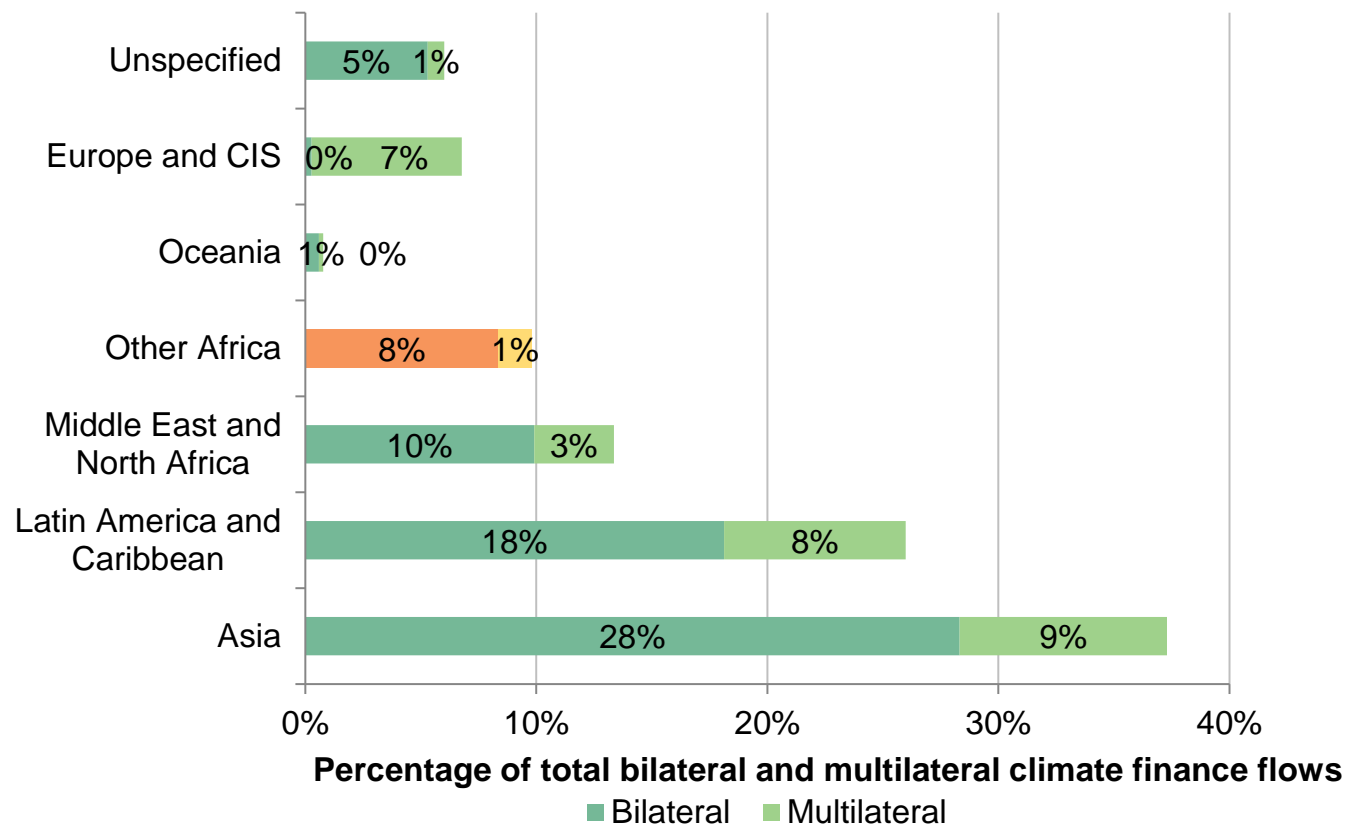
Note: see Annex slide for more information

Source: CPI (2011) adapted by Vivid Economics

Sub-Saharan Africa receives around 9% of climate finance disbursed by bilateral and multilateral agencies

Bilateral flows are especially important in Africa

Figure 2. In Africa, bilateral climate finance flows exceed multilateral flows by a ratio of 8:1

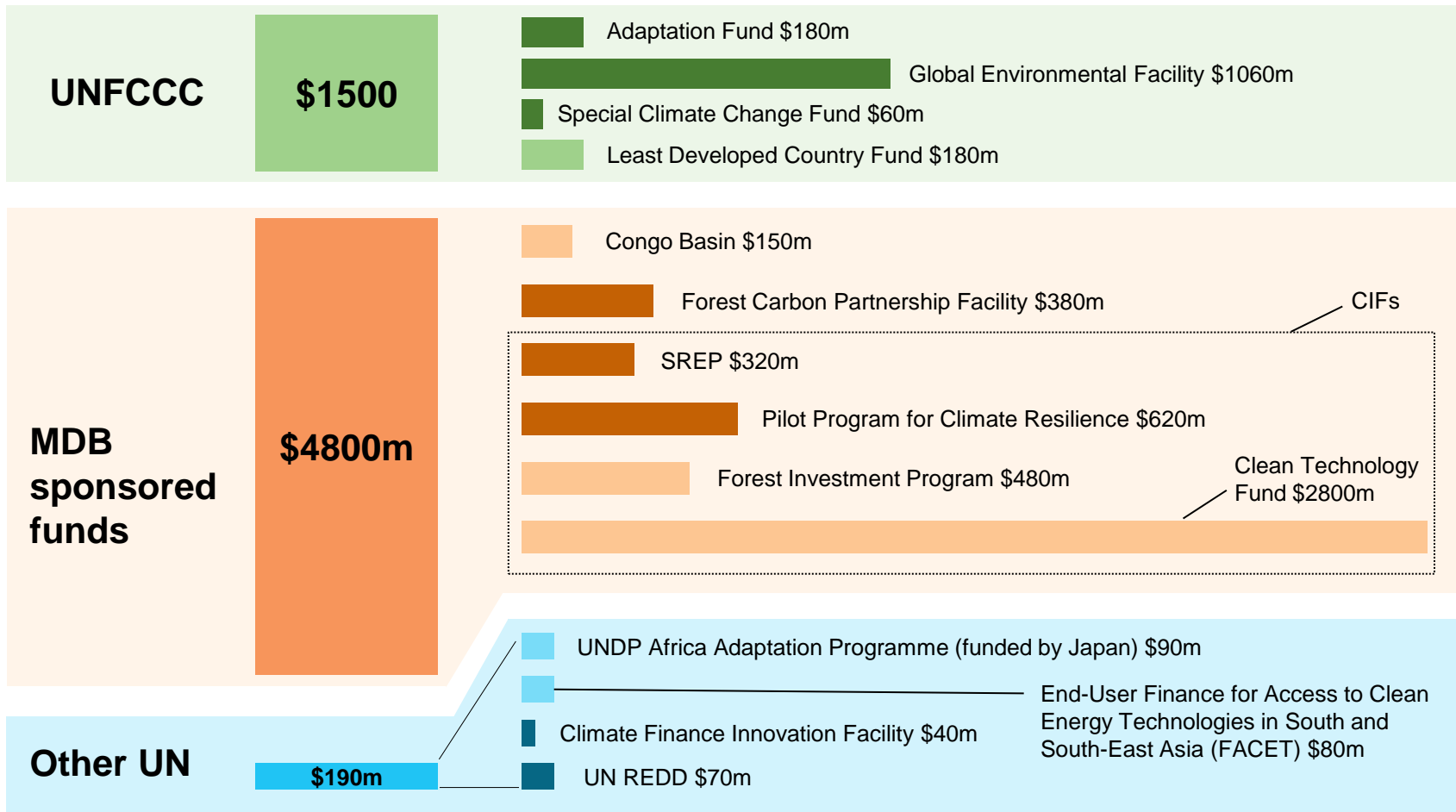


Note: Other flows of finance excluded due to lack of information

Source: CPI (2011) adapted by Vivid Economics

Though dedicated climate funds comprise only a small amount of climate finance, there is considerable fragmentation (1/2)

Figure 3. Dedicated climate funds can be divided into 5 main categories (1/2)

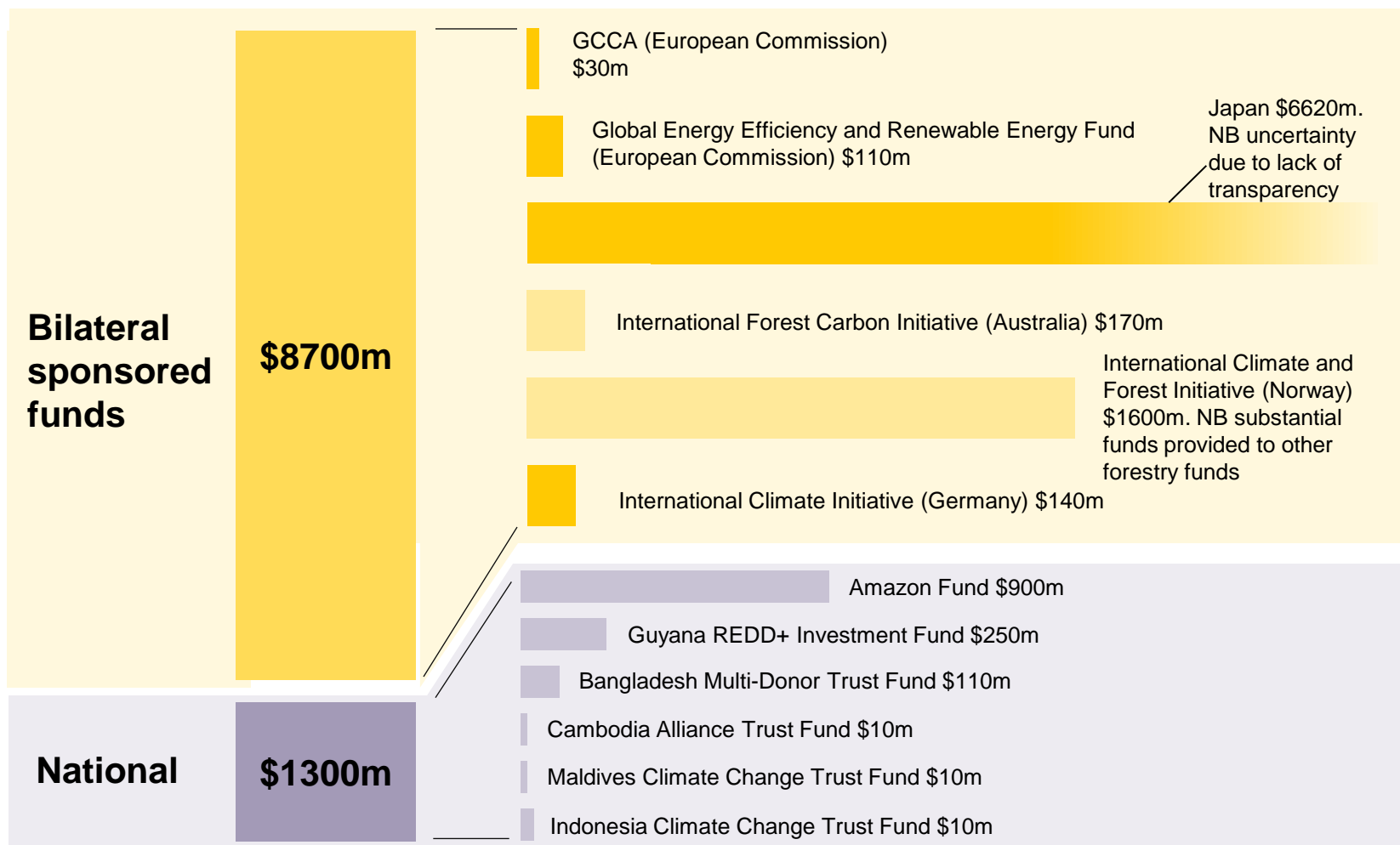


Note: values relate to total fund sizes (less committed funds) so differ from annual flows in previous slide. Darker shading represents funds with greater relevance to Kenya

Source: Vivid Economics based on climate funds update and others

Though dedicated climate funds comprise only a small amount of climate financing activity, there is considerable complexity (2/2)

Figure 3. Dedicated climate funds can be divided into 5 main categories (2/2)



Note: values relate to total fund sizes (less committed funds) so differ from annual flows in previous slide. Darker shading represents funds with greater relevance to Kenya

Source: Vivid Economics based on climate funds update and others

Contents

1. The current climate finance architecture and implications for Kenya's financing mechanism
 - the overall climate finance landscape
 - entry points for Kenya's climate finance mechanism
2. Possible future changes in the climate finance architecture

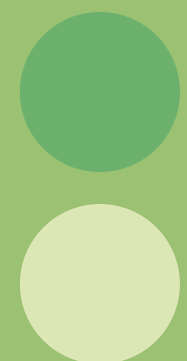
Within this landscape, there are two ‘entry points’ for any Kenyan financing mechanism to acquire resources

1. a ‘**national recipient fund**’ that bilateral donors decide to resource rather than (or as well as) other climate funds or their bilateral programmes
 - e.g. Indonesia Climate Change Trust Fund has received, in total, around \$18.5m direct from UK, Australia and Sweden
 - bilateral climate finance flows are more significant than multilateral flows in Africa
 2. applying to climate funds that allow ‘**direct access**’ by ‘national implementing entities’
 - e.g. the Adaptation Fund has accredited the Senegalese body ‘Centre de Suivi Ecologique’ (a public institution operating under the Environment Ministry) as a vehicle can apply for and implement adaptation projects in Senegal
 - similar relationship between national bodies and MDBs could also develop
- these are not mutually exclusive but have different design/governance implications
- a national recipient fund could just channel resources while NIEs also require project implementation capacity
 - with a national recipient fund all decisions made ‘in-country’ whereas under ‘direct access’ NIE’s choose which projects/programmes should apply for funding, and implement successful projects, but funding decisions are external

Only a few dedicated climate funds currently provide opportunity for direct access

11

Fund types		Opportunities for direct access	Score
UNFCCC	\$1500m	Opportunities with AF and possibly GEF. NIE's have had difficulties receiving accreditation	
MDBs	\$4800m	Historically, limited opportunities with implementation undertaken by the relevant MDB associated with the fund or project (CIFs), although these must be integrated into country strategy. However, greater access in, for instance, Congo Basin	
Other UN	\$190m	Historically, limited opportunities with implementation undertaken by UN body	
Bilateral	\$8700m	Varies by fund but typically bilateral funds will have their own implementing entities i.e. Germany's International Climate Initiative primarily using GTZ and KfW. By contrast GCCA has a preference for providing direct budget support	
National	\$1300m	By definition, implementation undertaken by national bodies	



The Adaptation Fund sets specific requirements for NIEs around financial management, institutional capacity and transparency

Table 1. The AF requires NIEs to meet criteria around three competencies

Competency required	Specific capability
Financial management and integrity	Accurately and regularly record transactions and balances
	Manage and disburse funds efficiently and with safeguards
	Produce forward looking financial statements
	Legal status to contract with AF and third parties
Institutional capacity	Transparent procurement procedures
	Ability to undertake monitoring and evaluation
	Ability to identify, develop and appraise projects
	Competence to manage or oversee project/programme execution
Transparency, self-investigative powers and anti-corruption measures	Competence to deal with financial mismanagement

To date, 5 NIEs have been accredited, 3 of which are in Africa

Meeting the accreditation standards has been a challenge for many institutions

Three African NIEs are:

- Center for Ecological Monitoring (Senegal),
- National Environment Fund (Benin), and
- National Institute for Biodiversity (South Africa)

as of September 2010, less than 15% of submissions for accreditation had been forwarded for review

to date, the challenges with getting accreditation have included difficulties in providing supporting documentation and evidence on fiduciary standards particularly

- institutional capacity, especially capacity to undertake project appraisal, monitoring and evaluation
- transparency, self-investigative powers and anti-corruption measures

GEF-5 will include a pilot project to attract national agencies

under GEF-5 (2010-2014) a pilot project will be launched with the aim to accredit 10 new GEF Project Agencies

of these agencies, at least 5 will be national institutions,

two stages of accreditation: first stage of accreditation will require body to be scored against six criteria (see following 2 slides)

The GEF applies stringent criteria and it is unlikely that a new body such as a National Climate Fund could prove compliance with the standards

if the new Fund wishes to serve as implementing body itself and expects to apply for GEF Project Agency status at a later time, it can use current criteria to set out a strategy that would lead to adherence by the time the application is made

The GEF has set stringent criteria for new agencies (1 of 3)

Criterion	Questions for applicant	Scoring			
		4	3	2	1
Relevance to the GEF	How is the agency's mission relevant to the GEF?	Mission/ areas of work align with GEF's missions, agency engaged in at least two GEF focal areas and in operation for at least 8 years with more than 5 projects funded by major organisations.	As for 4 but only engaged in one focal area	Low alignment with some areas of relevance. In operation for at least 3 years but completed less than 5 projects funded by international organisation	Agency has hardly any experience relevant to the GEF; in operation for less than 3 years and less than 3 projects funded by other organisations.
	In what GEF focal areas/ issue areas is the agency engaged?				
	What experience has the agency in implementing/executing relevant projects?				
Environmental or climate change adaptation results	What are the clear, quantified outcomes that the agency achieved through its projects?	Consistent achievement of satisfactory outcomes in projects, with up to 5 examples of projects that have achieved strong results in relevant areas. Consistent good independent evaluations	Moderately satisfactory outcomes with 3-5 examples of projects with strong results in relevant areas. Independent evaluations generally moderately satisfactory	Less than moderately satisfactory achievement on relevant projects with only 1-2 projects with strong results. Independent evaluations at least moderately satisfactory	Generally unsatisfactory project outcomes, bad independent evaluations
	What outcome ratings were given to the agency's projects in the terminal evaluation reports or equivalent?				
	If such evaluation ratings are not available, what are the implementation ratings for the projects?				

The GEF has set stringent criteria for new agencies (2 of 3)

Criterion	Questions for applicant	Scoring			
		4	3	2	1
Scale of engagement	Average project size over last five years?	Experience in engage in regular GEF full-size projects. Successful completion of of at least 3 projects for multi/bilateral orgs and of projects >USD10mn, adequate paid staff to work at this scale	Experience in in medium-sized GEF projects. Document 2 projects funded by multi/bilateral orgs. Successful completion of projects with total financing of >USD1.8mn, adequate paid staff	Low capacity to engage with GEF. Successful completion of 1 project for multi/bilateral org, but only projects worth <USD1.8mn, no adequate staff	Weak capacity to engage with GEF, no documentation of successful project for multi/bilateral org, no projects >USD1mn, no adequate staff
	Size of largest project and evaluation rating on this project?				
	What multilateral or bilateral agencies has the agency received funding from the past five years, and for what projects?				
Capacity to leverage co-financing	Average amount of financing that the agency has leveraged/raised? From which sources?	Average amount of financing raised for its projects to date equals to four times amount of GEF grants for its first GEF project. Able to commit own resources, limited dependence on GEF	As in 4, but average finance raised for its projects to date equals three times GEF grants for first project	Average finance raised to date equals two times GEF grants for first project. Difficulty committing own resources, not many other sources beyond GEF	Average finance raised to date equals GEF grant expected for first project. Weak capacity for committing resources, may become heavily reliant on GEF
	What percentage of these resources that came from the agency's own budgetary resources?				

The GEF has set stringent criteria for new agencies (3 of 3)

Criterion	Questions for applicant	Scoring			
		4	3	2	1
Institutional efficiency	Evidence on efficiency particularly with regard to controlling administrative costs and improving the efficiency of the agency's project cycle	Well developed system for improving efficiency, benchmarking performance, and basing decisions on evidence.	System with clear indicators for measuring efficiency, started to track performance, decisions based on evidence,	Only started or weak performance measurement. Efficiency improvements needed, admin costs 20-25%, 22 months between project concept and agency approval	No information available on, or substandard, admin efficiency, admin costs more than 25% of program costs, 24 months between project concept to agency approval
	What are the agency's total administrative costs and total program funding?	Admin costs 10-15% of program costs. 18 months between project concept and agency approval	Admin costs 15-20% of program costs, 20 months between project concept and agency approval		
	Time to bring a project from concept development to approval				
Networks and contracts	What organizations and experts does it co-operate with on the implementation of environmental projects?	Wide network of collaborators and experts, >3 examples of successful projects in which it commissioned an executing agency, 5-10 examples of collaborations with other partners	As in 4, but with 1 example of successful project with executing agency and at least 5 examples of collaboration	Experience in collaborating but not very extensive network. No supervision of executing partners and only 3-5 examples of collaboration	Only few collaborations and no deep network, only participated in project execution, <4 collaborations, interested in building network
	Provision of resources to other organizations to execute a project under its supervision?				
	How have collaborations with other organizations contributed to improvements in project quality?				

Some additional criteria/considerations apply for national institutions

Additional criteria for national institutions

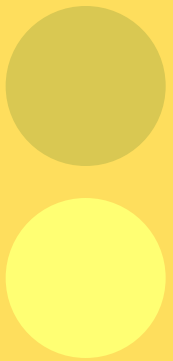
Project Experience: Does the agency implement and/or execute projects in their countries as a core part of their business? (Normally, national institutions primarily engaged in policy formulation will not be eligible for accreditation as GEF Project Agencies.)

Type of Project: Has the agency implemented a similar type of activity previously?

Enhancement of Country Ownership: Will accepting the agency help the GEF enhance country ownership? How will implementation of GEF projects by the agency help ensure that GEF funding is better aligned with country priorities for the generation of global environmental benefits, including as contained in country strategies?

Three implications of the current climate finance landscape for Kenya's financing mechanism

1. any financing mechanism will not be the only channel for climate finance to flow into Kenya
 - flows through dedicated climate funds represent only ~3% of climate investment with 97% of flows coming from private sector, bilateral and MDB activities which are likely to persist in the short term regardless of a Kenyan financing mechanism
 - Kenya does not want to displace these activities but complement and work in conjunction with them
2. there are two main entry points where Kenya's financing mechanism could attract resources
 - direct bilateral contributions from specific donors possibly supplemented by domestic sources
 - through the small number of climate funds that allow direct access, but these will require an existing track record in implementing projects
 - aside from this, most of the existing climate funds are not suitable for resourcing Kenya's climate change mechanism as they have existing mechanisms
3. given the bias in the current architecture towards mitigation, there may be a case for Kenya's financing mechanism prioritising adaptation



Contents

1. The current climate finance architecture and implications for Kenya's financing mechanism
 - the overall climate finance landscape
 - entry points for Kenya's climate finance mechanism
2. Possible future changes in the climate finance architecture and implications

The Green Climate Fund (GCF)... evolving to become ‘the main global fund for climate change finance’ ?

Cancun Agreements decided to establish the GCF

may both increase size and consolidate current climate finance structure

- WB CIFs have an explicit sunset clause linked to the establishment of GCF
- could also subsume some of existing GEF funds
- in longer term, some donors may prefer to place funds through GCF than bilateral funds

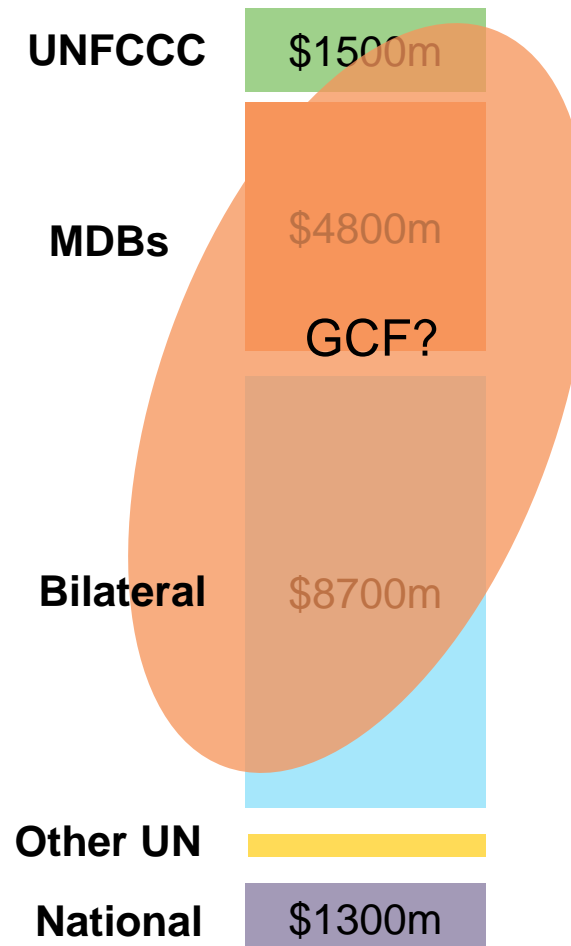
Transitional Committee released its report on GCF design to COP17 on 18th October

- unable to reach consensus but press comments suggest cautious optimism for COP17

optimistic timetable for implementation would be:

- detailed design issues being worked out in 2012 for endorsement at COP18
- donors start pledges in 2013
- disbursement from 2014

Figure 4. The GCF could simplify the current structure of climate funds



Source: Vivid Economics

What might the Green Climate Fund imply for a Kenyan financing mechanism

any Kenyan financing mechanism might be able to access resources from the GCF using the same two modalities as described above

1. GCF provides project by project support to projects undertaken by 'NIEs'

- same direct access model as used in Adaptation Fund
- receiving accreditation will be a key challenge

2. GCF provides support to national funds

- report of the Transition Committee appears to leave this option open
- *The Board will consider additional modalities that further enhance direct access, **including through funding entities** [emphasis added] with a view of enhancing country ownership of projects and programmes*
- accreditation will still be crucial and challenging

if Kenya can develop a financing mechanism that effectively taps resources in the current climate finance landscape then this may remain robust to the GCF

Transitional Committee report also identifies urgent needs for adaptation in Africa

The AfDB is also developing an Africa Green Fund

Framework Document shows design echoes many features of the proposed GCF

- principle of direct access with accredited ‘national implementing entities’ able to approach fund for projects/programmes
- priority for the AfGF: one of its four objectives is *‘Strengthen national institutions and support the use of country systems to ensure a sustained yearly increase in the number of African countries that have the capacity for direct access to the Fund’*
- unclear whether the AfGF would be able to resource a national climate fund (which would require delegating project-by-project funding decisions)
- AfGF recognises adaptation as priority spending area for Africa

relationship between this and GCF still under review/development

- possible that the resources under this fund may be better targeted at Kenya’s priority investment needs
- and if the GCF fails then it could become an attractive vehicle for donors to meet their Copenhagen Accord commitments
- and hence an important source of resources for Kenya

A financial mechanism design that is ‘fit-for-purpose’ in the current climate finance landscape can be robust to the future

Notwithstanding the uncertainties ahead

to recap, the two most likely sources of finance for a financial mechanism at present are

- direct bilateral contributions from specific donors possibly supplemented by domestic sources
- (possibly) supplemented through the small number of climate funds that allow direct access

designing a financial mechanism that can attract these resources should be robust to future changes in the climate finance landscape

- if initiatives such as the GCF/AfGF fail to emerge then these sources will continue to be Kenya’s best bet
 - although, in this instance, most climate finance resources will simply bypass a Kenyan financing mechanism
- if initiatives such as the GCF/AfGF emerge then the standards, procedures and principles in place to attract these resources initially will still be the right procedures to attract resources from these alternative sources
 - with there being more resources available for Kenya’s financing mechanism to tap

Next steps

1. Research progress in to EAC Adaptation Fund
2. Discussions with GEF on progress on direct access.

Annex: further details on the climate finance landscape flows

analysis based heavily on CPI (2011) *'The Landscape of Climate Finance'*

- so far as data allows, this reports annual disbursements through different channels
- data is a combination of 2009 and 2010
- often when there are different sources, values represent mid-points between two estimates i.e. for private finance, 'Green' FDI from UNCTAD is estimated at USD 37.0 billion while BNEF estimate USD 72.2 billion invested in renewable energy projects. Analysis is based on midpoint of these values (USD 55 billion)

adjustments to the analysis presented by CPI

we use the gross totals for disbursement through climate funds and net these flows out from bilateral/multilateral flows to avoid double-counting

while CPI use a point estimate for bilateral flows, we use a range with the low end taken from analysis of the OECD CRS database. Our high end corresponds with the CPI point estimate

these changes mean that our estimates for climate finance flows are USD~90 billion rather than USD~ 97 billion from CPI

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Company Profile

Vivid Economics is a leading strategic economics consultancy with global reach. We strive to create lasting value for our clients, both in government and the private sector, and for society at large.

We are a premier consultant in the policy-commerce interface and resource and environment-intensive sectors, where we advise on the most critical and complex policy and commercial questions facing clients around the world. The success we bring to our clients reflects a strong partnership culture, solid foundation of skills and analytical assets, and close cooperation with a large network of contacts across key organisations.

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Kenya Climate Change Action Plan Subcomponent 8: Finance

Annex B: Development Partner Climate Change Activities in Kenya

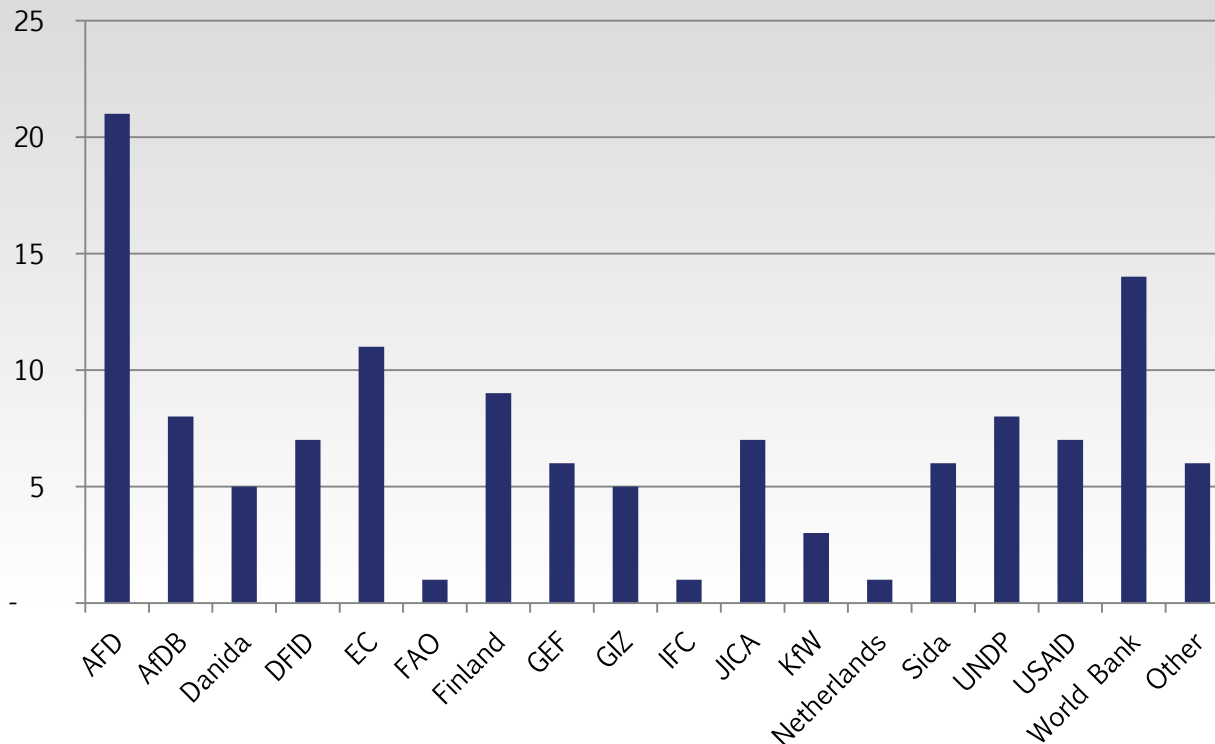
February 2012

Introduction and key messages

- » A scoping of climate-related finance shows that development partners play a significant role in funding climate change activities in Kenya.
- » By our estimation, there are currently 127 active climate-relevant projects in Kenya, with a value of \$2.29 billion, mainly across energy, agriculture, forestry, coasts and water. The data spans roughly ten years: the oldest active projects launched in 2005 and the most recent will continue until 2015.
- » Current activities are aligned to Kenyan government priorities in terms of theme (adaptation vs. mitigation) and implementing agent (government, private sector, NGO or development partner) but less so in terms financing type (loan vs. grant).
- » Greater transparency and clarity in climate finance spending and the activities of development partners would be beneficial for both themselves and the Kenyan government.
- » Better financial management and absorptive capacity by implementing agencies would enable more efficient and effective roll-out of climate finance and projects.

Development partner activity

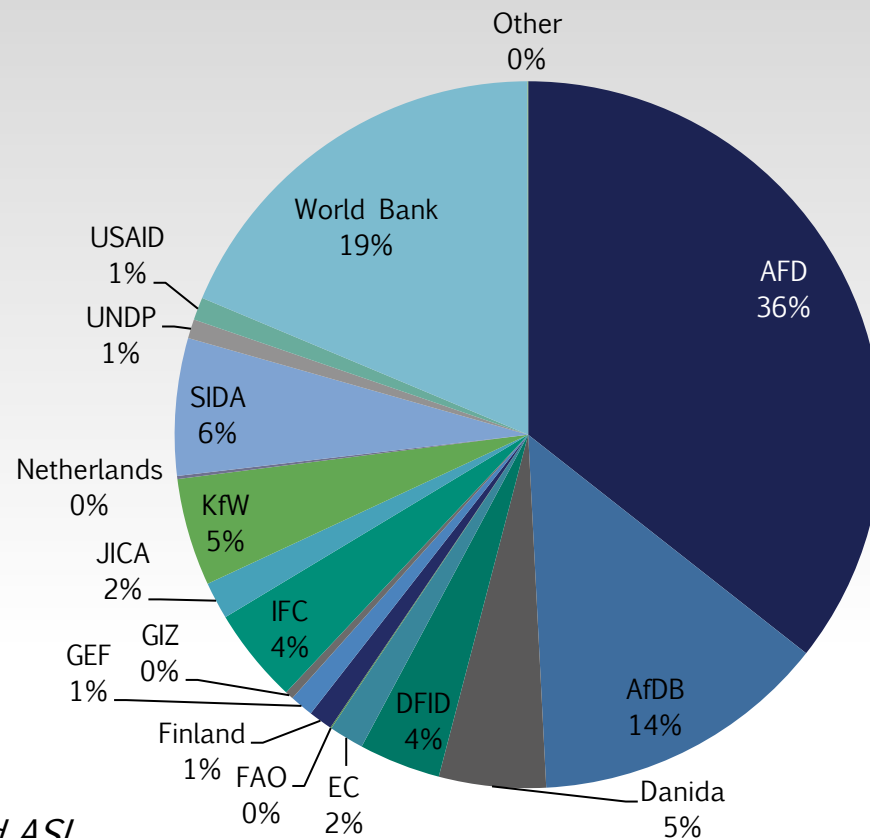
- » The largest three development partners are the AFD, the World Bank, and the European Commission, in terms of number of projects. Project duration varies from short (1-2 years) to medium (3-5 years).



Source: KIPPRA and ASI

Development partner activity

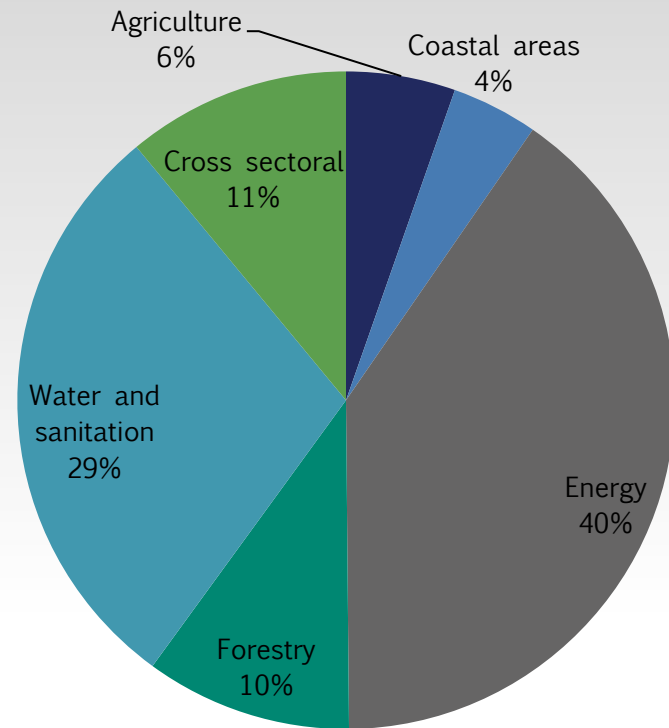
- » The largest three development partners, in terms of finance, are the AFD, the AfDB and the World Bank, followed by SIDA, KfW, Danida, DFID and the IFC.
- » There is no evidence of widespread pooling of funds among development agencies; most fund projects independently.
- » Activities vary widely in size, from a few hundred thousand to one hundred million dollars.



Source: KIPPRA and ASI

Sector (\$)

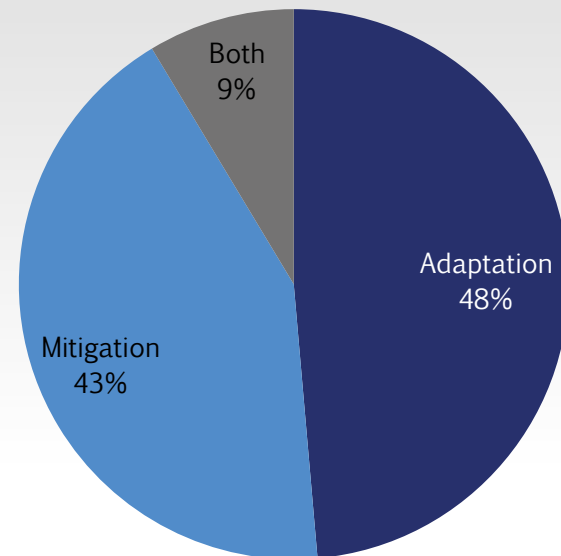
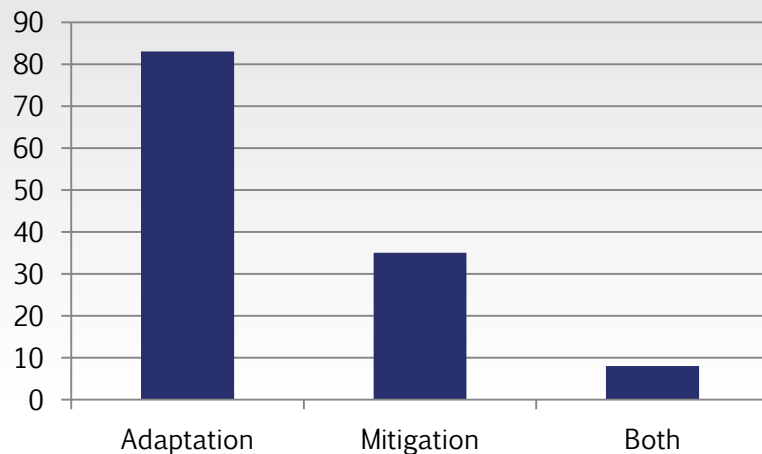
- » It is evident that substantial climate change funding is integrated into wider sectors, such as energy, water, agriculture or forestry. As a sign of climate change mainstreaming, that funding is integrated into wider projects is positive.
- » Direct climate change funding is only discernible where projects are specifically focused on climate change, e.g. coastal areas, some renewable energy; i.e. it is hard to assess the additionality of climate finance
- » Thus, not all projects in these sectors will be 100% climate-related though (and many may have low climate impact). But as it has been impossible to disaggregate them focus is placed on climate-relevant sectors.



Source: KIPPRA and ASI

Theme

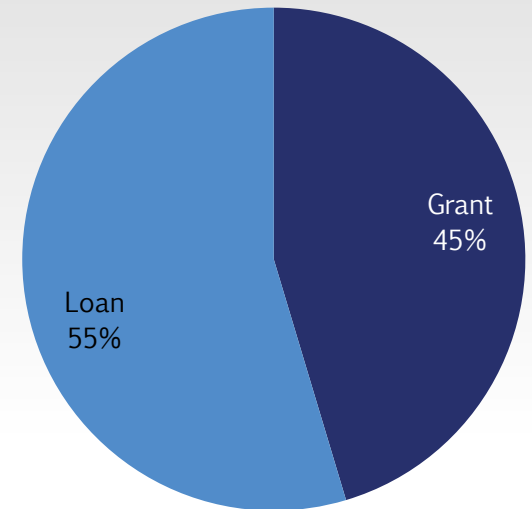
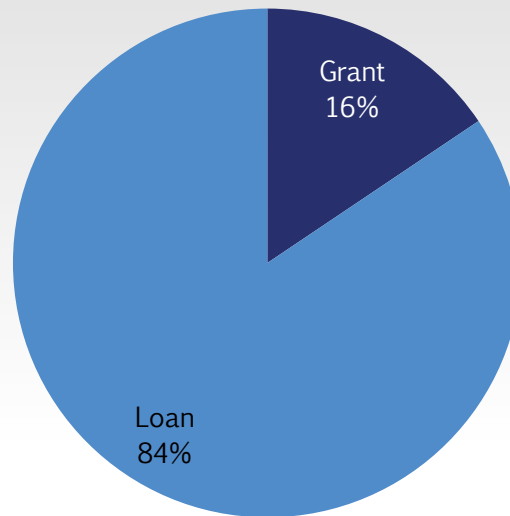
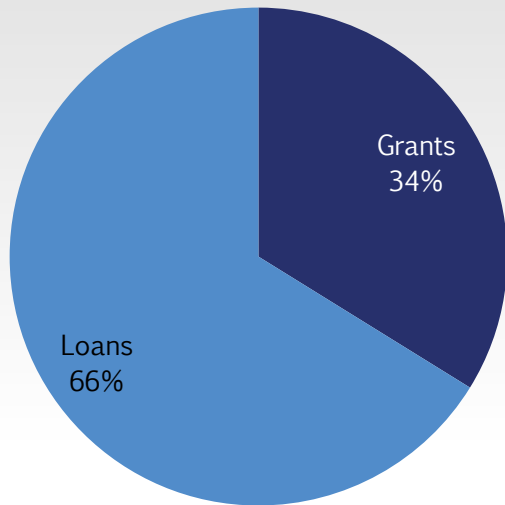
- » There is a greater number of projects (left) labelled as adaptation, but roughly equal amounts of finance flowing to mitigation (\$, right), as should be expected for a climate-vulnerable country such as Kenya. The greater weight of mitigation in terms of finance reflects the amount of assistance to the energy sector.



Source: KIPPRA and ASI

Financing type (S)

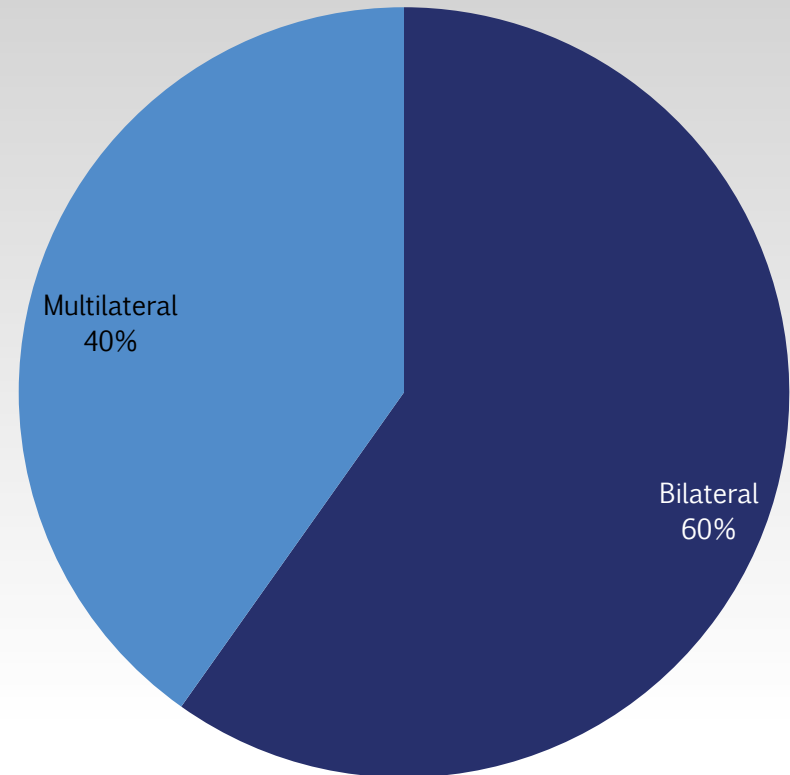
- » Finance is delivered as loans and grants, in a roughly two thirds to one third split respectively (left). The high proportion of loans is a result of the emphasis given to the energy sector by development partners.
- » Looking at adaptation (middle) alone, the split is more even, as should be expected in sectors that are often public goods in nature, whereas loans forms the majority of mitigation (and energy sector) spending (right).



Source: KIPPRA and ASI

Channel (\$)

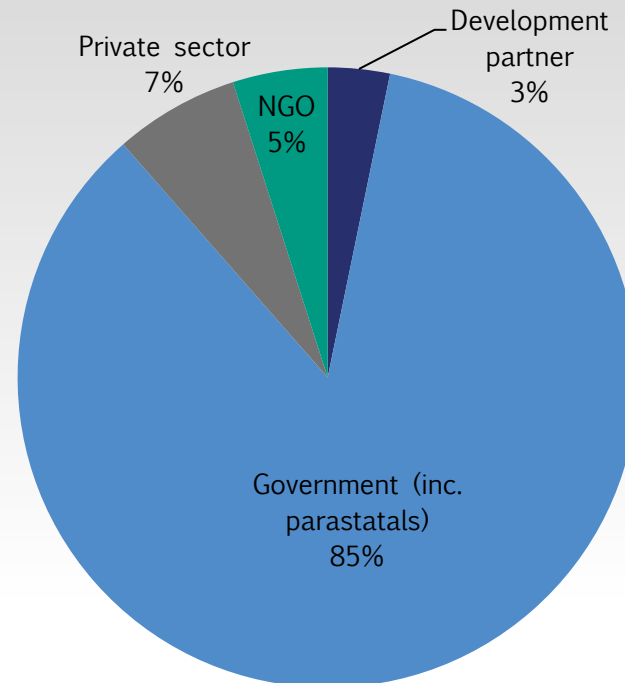
- » External finance for climate change is provided both bilaterally and through multilateral funding mechanisms.
- » Finance is on budget if it is either 'revenue', i.e. channelled via the Treasury, or as 'appropriations in aid', i.e. it goes directly to the line ministry in question.
- » Finance also goes directly to non-governmental agencies for project implementation, i.e. NGOs and the private sector.



Source: KIPPRA and ASI

Implementing agent (\$)

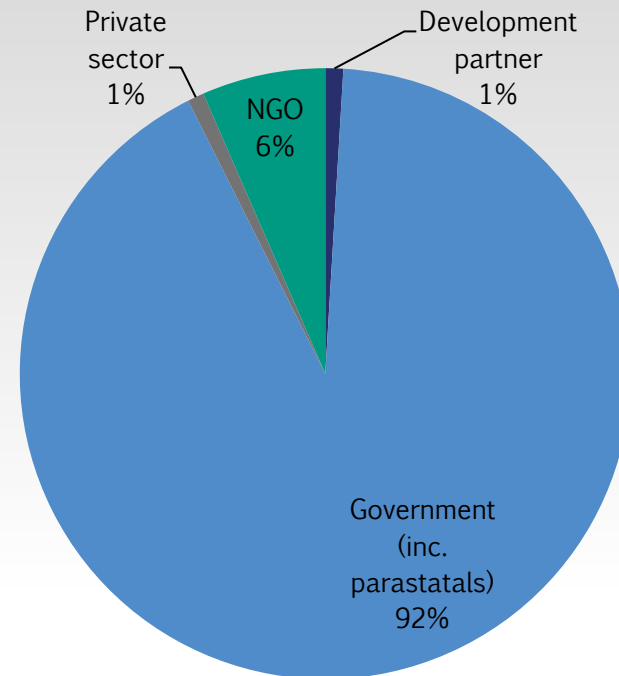
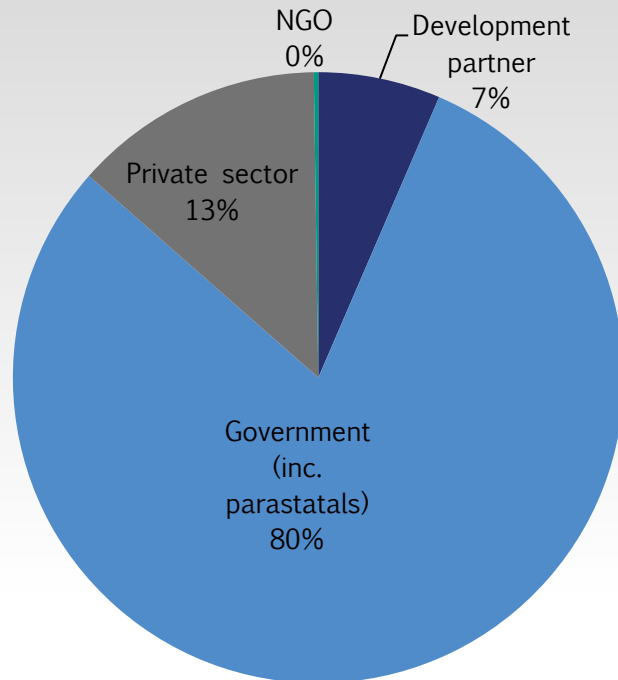
- » The vast majority of climate-financed activities are implemented by the government and parastatals, followed by the private sector and NGOs. Parastatals account for roughly two thirds of government funding.
- » The range of implementing actors and institutions has implications for absorptive capacity and the effectiveness of spending.
- » Of the three groups of implementing agent, each has different levels of capacity to absorb, spend and manage the flows of climate finance.
- » Finance made available to government, NGOs or the private sector is often not spent due to a lack of such capacity.



Source: KIPPRA and ASI

Implementing agent 2 (\$)

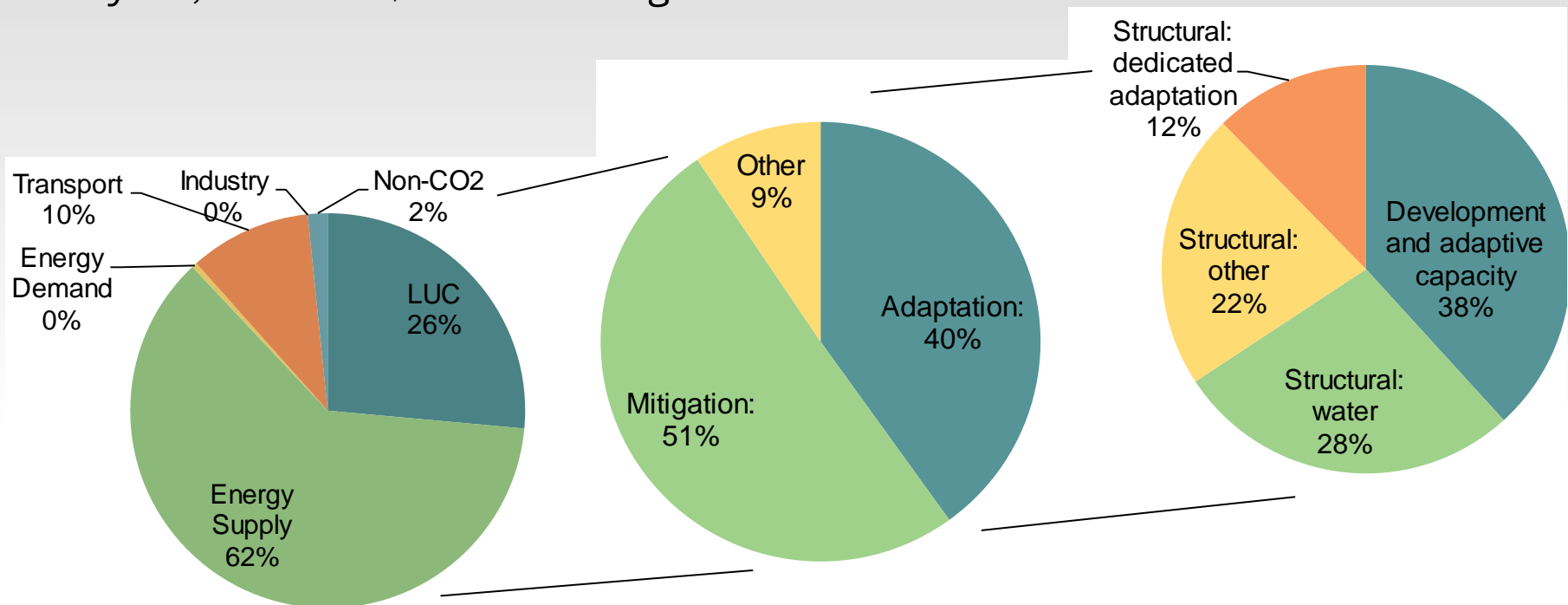
- » Separating mitigation (left) and adaptation (right), the roles of the each change. The private sector becomes a slightly more prominent player in mitigation and the government and NGOs in adaptation.



Source: KIPPRA and ASI

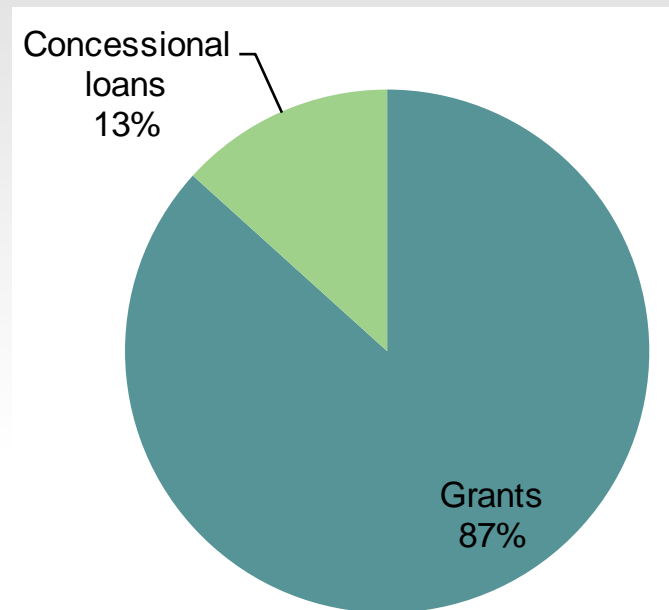
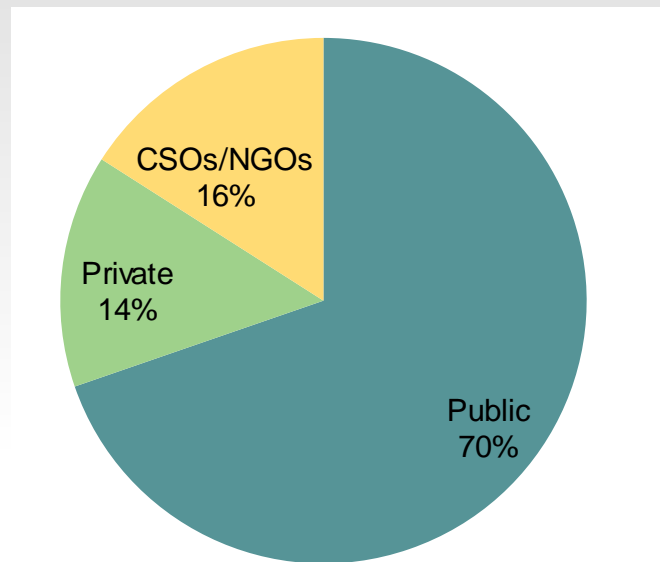
Comparison with the NCCRS

- » There has been no formal commitment for donors to align their climate change support behind government priorities, although individual donors acknowledge the NCCRS as the basis for such alignment.
- » The NCCRS estimates a total resource requirement of \$2.75 billion per year, of which \$1.5 billion might be best-suited for climate finance.



Comparison with the NCCRS 2

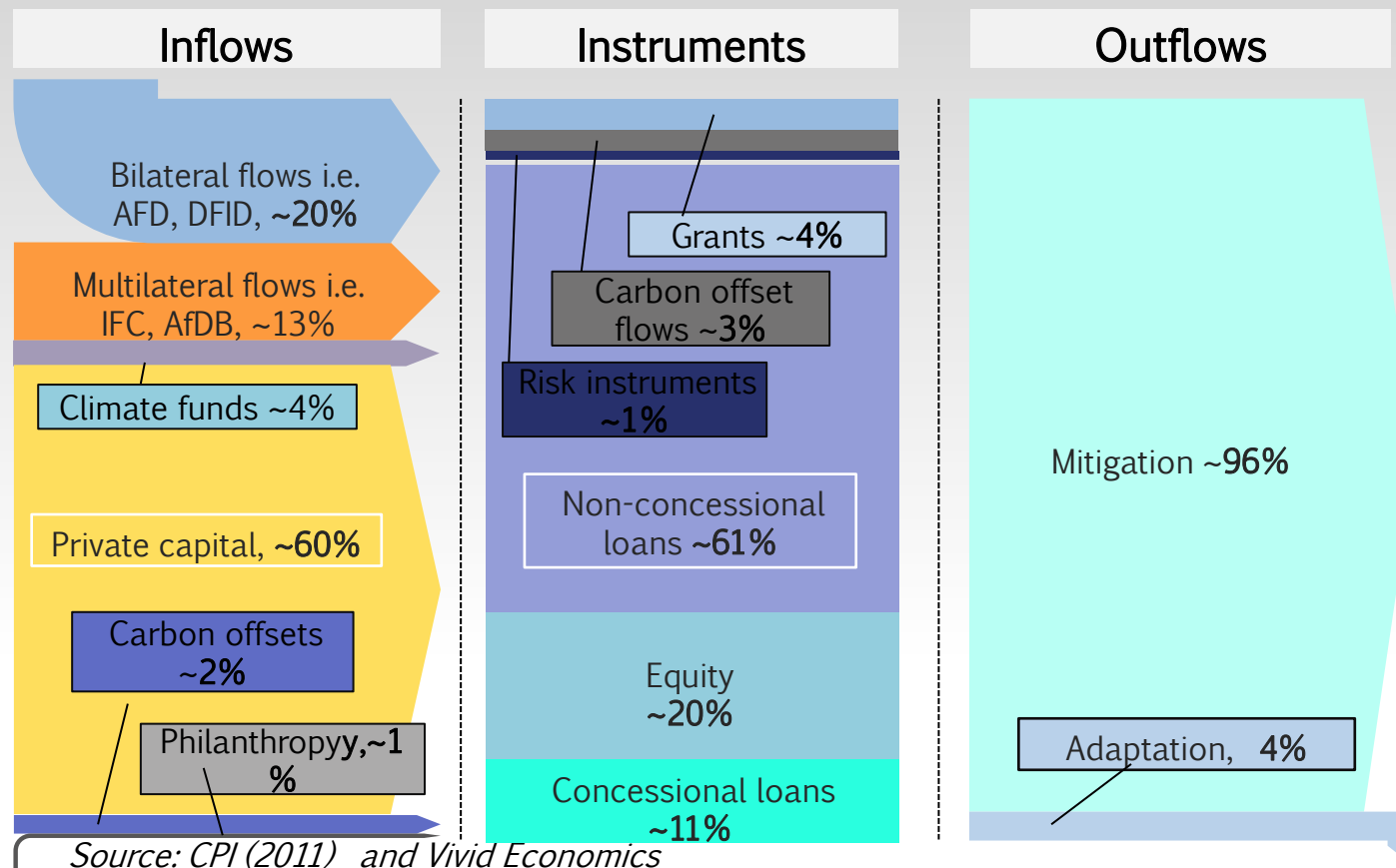
- » The proportion of mitigation vs. adaptation spending in the NCCRS is roughly equal, but adaptation accounts for a greater share in reality than estimated, and mitigation for less.
- » Like the reality, the government is forecast to be the largest implementer. But the NCCRS implies that the majority of climate financing should be in grants, the opposite of what is currently the case.



Source: NCCRS (2010) and Vivid Economics

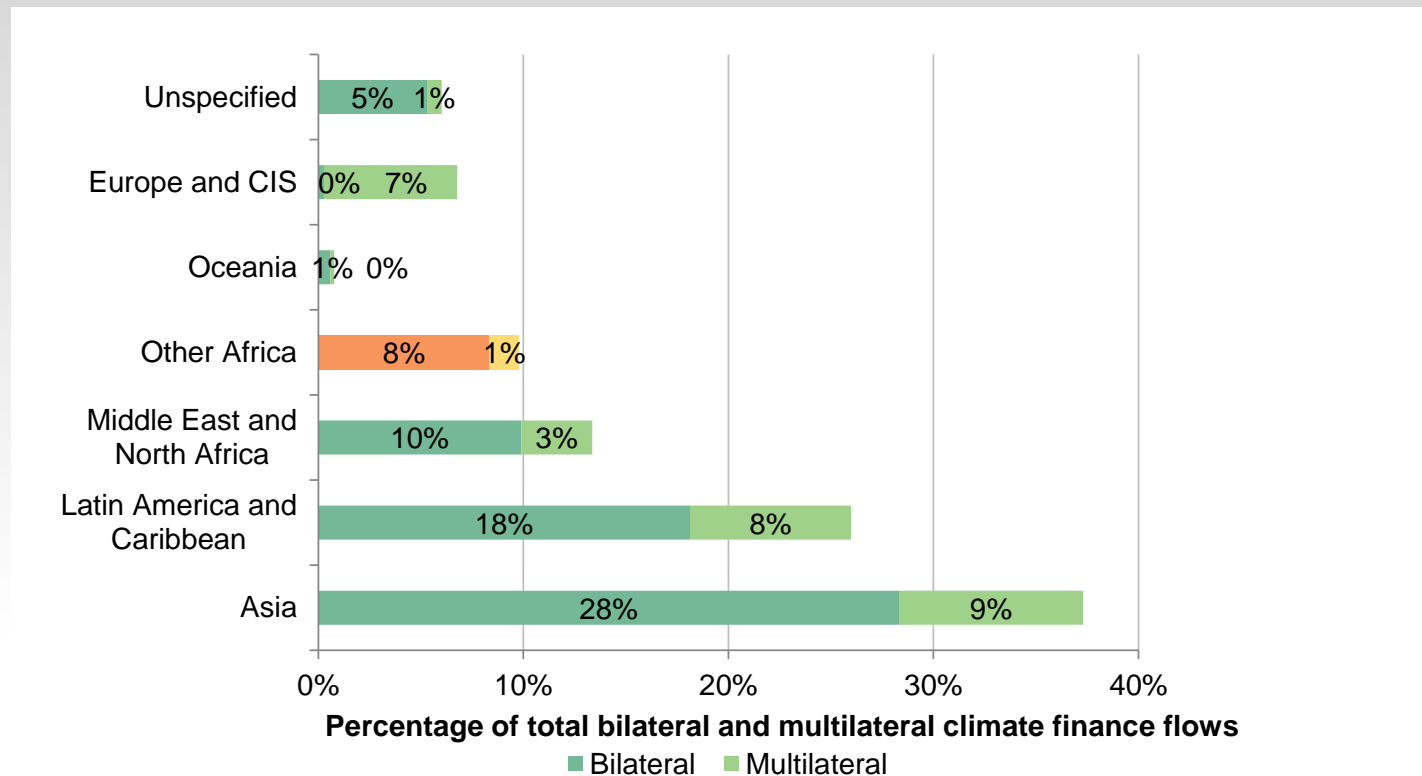
Comparison with international context

- » The current, international climate finance architecture is dominated by private capital investing in mitigation projects.



Comparison with international context 2

- » Sub-Saharan Africa receives around 9% of climate finance disbursed by bilateral and multilateral agencies.



Source: CPI (2011) and Vivid Economics

Coordination of information

- » Efforts to coordinate climate change financing and harmonize activities are currently conducted through the Joint Sector Working Group and informal discussion between development partners. It is intended to align strategies with Vision 2030 and the Medium Term Plan 2008-2012, but is not legally-binding.
- » The lack of a comprehensive tracking limits the ability to capture all the external climate change finance in Kenya. To a large extent, each development partner independently decides on issues they fund, which leads to issues of coordination and harmonization.
- » There is a big discrepancy between OECD data, fast start finance data and the data (see following slides) we have gathered, pointing to inconsistencies in development partner and recipient institution reporting.
- » Further transparency in the flows of climate finance in Kenya would be desirable, as would the creation of a database or information platform. Such information is currently hard to come by and such an effort should be led by Kenya's development partners. Not only would it facilitate integration by development partners, but it would make it easier for host government to understand the flows of climate finance and their implications.

Fast start climate finance

Title	Country	Theme	Channel	Financing type	Amount
Fast Start Climate Change Programme 1 and 2	Denmark	Adaptation	Bilateral	Grant	\$10.7 million
Adaptation Learning Programme for Africa	Finland	Adaptation	Bilateral	Grant	?
Development of a National Renewable Energy Development Plan	France	Mitigation	Bilateral	Loan	?
Risk Management Strategies for Adaptation to the Impacts of Climate Change in the Kenyan Highlands	Germany	Adaptation	Bilateral	Grant	\$3 million
Scaling-up Renewable Energy Program	United Kingdom	Mitigation	Multilateral	Loan	?

Fast start climate finance 2

Title	Country	Theme	Channel	Financing type	Amount
Scaling Up Renewable Energy Program in Low Income Countries	Netherlands	Mitigation	Multilateral	Grant	?
Partners for Resilience Programme	Netherlands	Adaptation	Multilateral	Grant	?
Africa Biogas Partnership Programme	Netherlands	Mitigation	Bilateral	Grant	?
Improved Cooking Stoves	Netherlands	Mitigation	Bilateral	Grant	\$3.25 million
Strengthening transparency, accountability, anticorruption and public oversight in governance and finance for climate change	Germany	Both	Multilateral	Grant	?
Ex-Im Bank - Geothermal energy generation	USA	Mitigation	?	?	\$6.3 million

Source: http://www.faststartfinance.org/recipient_country/kenya

OECD DAC's Rio Markers

- » Under the OECD Development Assistance Committee's Rio Markers, development partners classify their activities as being either:
 - » 0 – with no climate-related objective
 - » 1 – with significant climate-related objective or
 - » 2 – with principal climate-related objective
- » According to the database, there were, in 2010, 157 mitigation projects and 143 adaptation projects active, with values of \$760 million and \$380 million respectively, which is different to the information here gathered
- » The data is however incomplete: for many projects there is no financial information available, rather just a title, and sector.
- » Discrepancy issues notwithstanding, the data reveals a broad proportion of development partners, though the proportion of mitigation vs. adaptation spending is the reverse of that collected in this survey.



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Kenya Climate Change Action Plan Subcomponent 8: Finance

Annex C: Government of Kenya Climate Change Activities

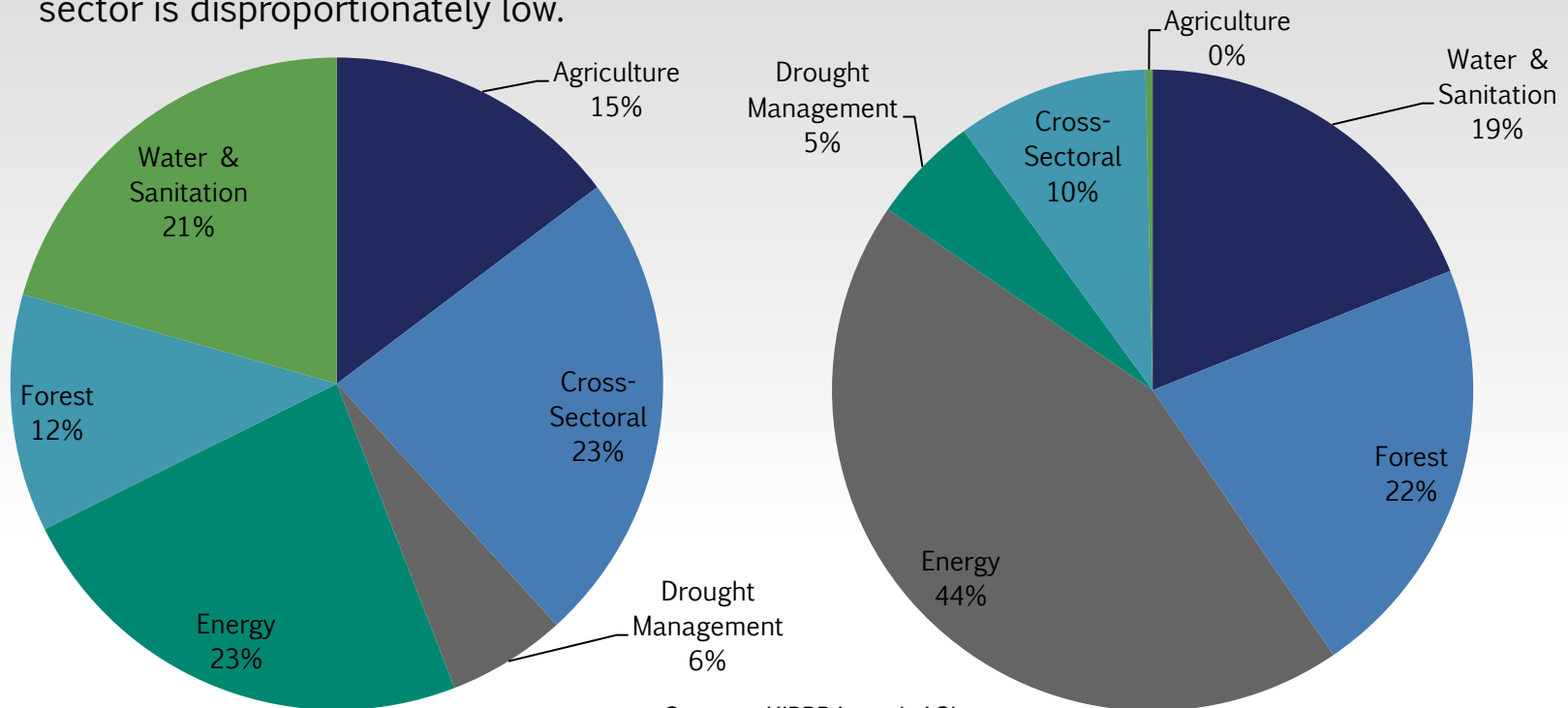
February 2012

Introduction and key messages

- » This paper analyses existing climate change activities under the Government of Kenya, funded by domestic resources. According to our analysis, the government currently finances 34 activities in the climate change space, with total resource use across all projects and programmes of KSh 36.9 billion or \$444,400,000.
- » Within government, increased awareness of climate change and climate finance and activities has emerged in the Office of the Prime Minister, the Ministry for Environment and Mineral Resources and, recently, in the Ministry of Finance and Ministry of Energy.
- » Substantial public sector climate funding is integrated into wider sectors, such as water, agriculture and forestry. It is positive that climate funding is integrated into wider sectors.
- » However, broad recognition of the need to allocate specific budget resources to, or undertake activities in, climate change is limited. For example, there is no climate change budgetary code, nor is there an specific environmental pillar in Vision 2030.
- » Under the new Constitution, a devolved government structure in certain climate-relevant sectors is likely to increase the role of regional and sub-sovereign finance regimes.
- » The majority of climate finance is insufficiently earmarked. The lack of a national framework for climate change reporting makes it difficult to comprehensively capture all climate change related funding by the Government of Kenya.

Sector

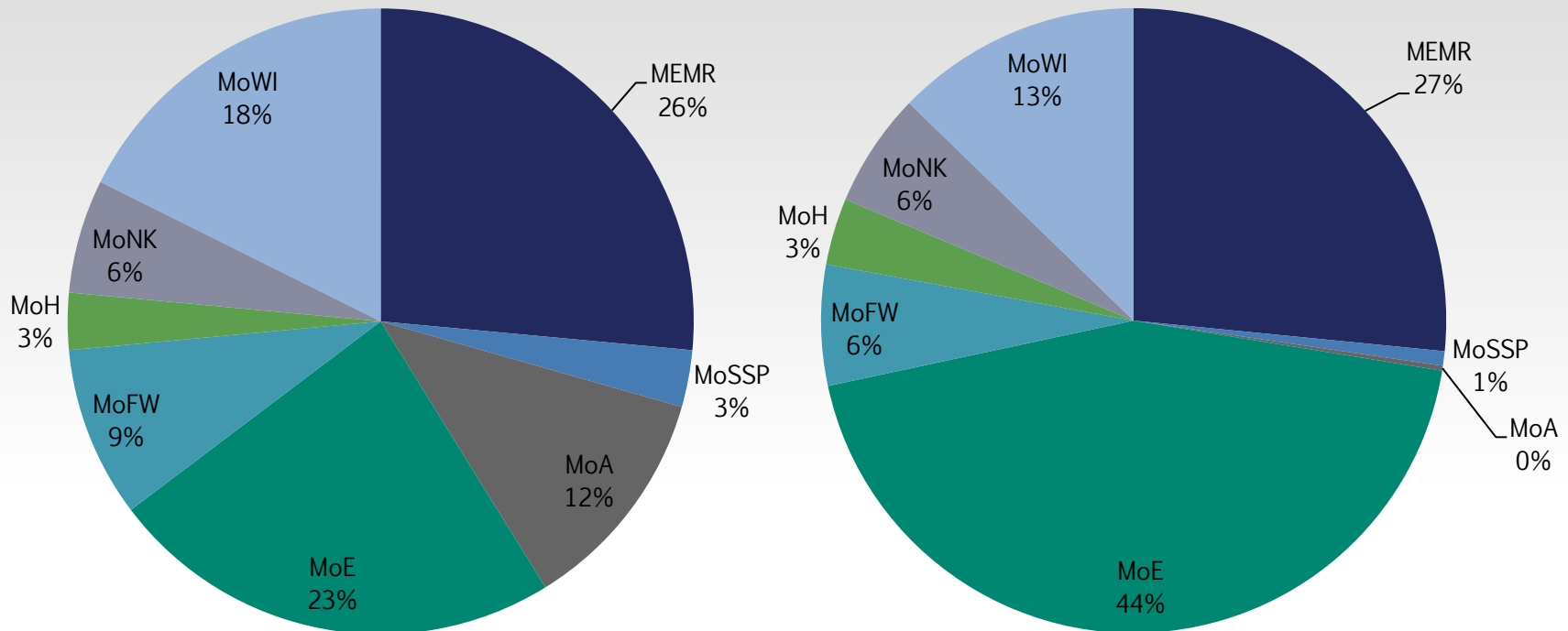
- » The government undertakes activities in climate-relevant sectors such as agriculture, drought management, energy, forestry and water and sanitation. Energy specific projects constitute the greatest number of public sector climate change projects, followed by water and sanitation and agriculture (left). In terms of financing, energy is the largest recipient, followed by water and sanitation and forestry (right). Financing of climate-relevant projects in the agriculture sector is disproportionately low.



Source: KIPPRA and ASI

Government agency

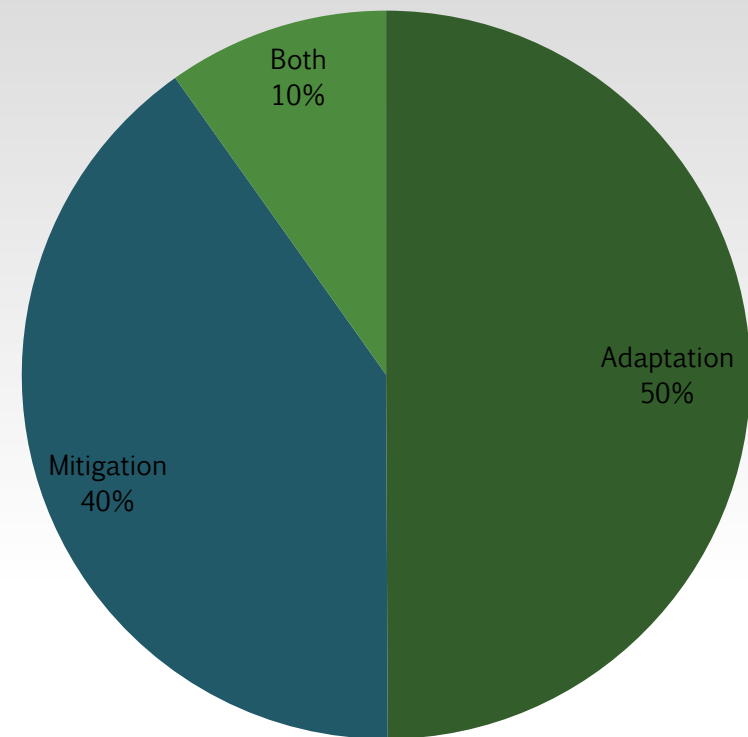
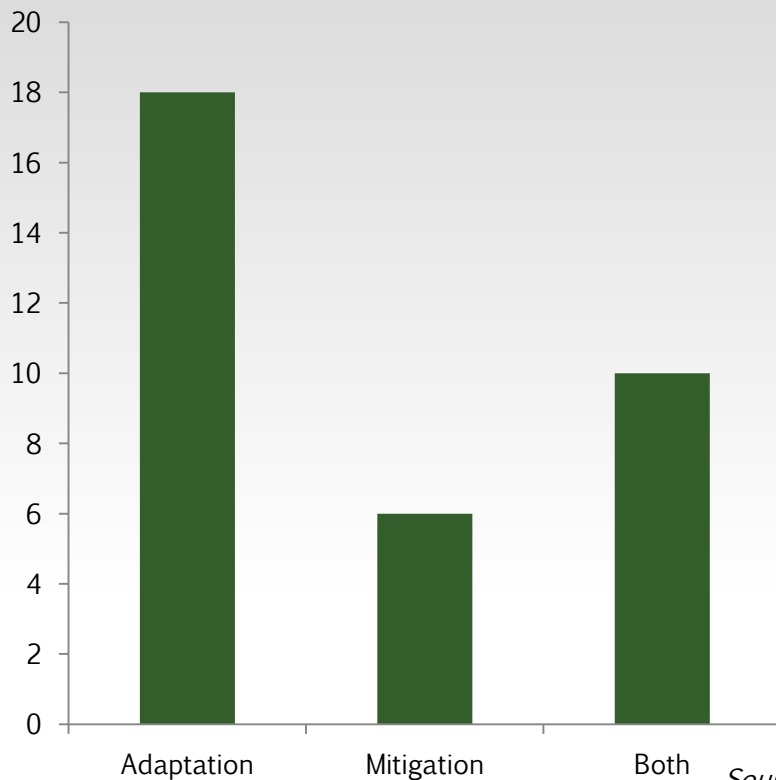
- » Government agencies that undertake projects in climate relevant sectors are shown below according to number (left) and finance (right). They are the Ministries of Environment and Mineral Resources (MEMR); Agriculture (MoA); Energy (MoE); Forestry and Wildlife (MoFW); Health (MoH); Northern Kenya (MoNK); Special Programmes (MoSSP); and, Water and Irrigation (MoWI).



Source: KIPPRA and ASI

Adaptation or mitigation

- » There are a greater number of public sector projects labeled as adaptation than mitigation and more financing flows to adaptation projects, reflecting the government's focus on 'public good' adaptation projects and Kenya's vulnerability to the effects of climate change.



Source: KIPPRA and ASI

Policy framework and the Constitution

- » Vision 2030 emphasizes environmental management within its social pillar, thereby seeking to build a just and cohesive society with social equity in a clean and secure environment, though there is no specific environment pillar.
- » Section 69 (1) of the Constitution of 2010 lays out broad principles to ensure:
 - » Sustainable exploitation, utilisation, management and conservation of the environment and natural resources
 - » Elimination of processes and activities likely to endanger the environment
- » 4th Schedule of the Constitution provides for certain powers to be devolved to the county level, including:
 - » Implementation of policies on natural resources and environmental conservation including soil and water conservation and forestry
 - » Control of air pollution
 - » Energy regulation
- » However, climate change does not feature in Kenya's current Medium Term Plan (MTP 2008 – 2012). The next MTP (2013 – 2017) will provide an opportunity to mainstream climate change actions.

Devolved public funding mechanisms I

- » Besides the central government expenditure mechanisms there are devolved funding mechanisms which have been developed to ensure:
 - » Better targeting of government resources
 - » Better prioritisation of needs
 - » Enhanced community participation and inclusion
 - » Better actions against poverty and inequality
- » Sub-sovereign funds are useful for catalysing funds at local levels and providing communities with an opportunity to participate in selection and implementation of projects
- » Devolved funds have not be driven by any specific principle of decentralisation but it they provide better avenues for funding the centralised government funding system.

Devolved public funding mechanisms 2

- » However, mixed results have been reported. For example;
 - » 81% of Kenyans are satisfied with the Constituency Development Fund
 - » A large proportion are dissatisfied with the Local Authority Transfer Fund

- » The reason for this is that the devolved funds have been designed and implemented outside a clear social development policy and coherent institutional framework.

- » However, there are a number of reforms which could make the devolved funding schemes operate in a better manner:
 - » Funds should be guided by clear operational and legal frameworks
 - » Where there are several funds targeting a specific area of development, it is important to put in place a framework for coordination and collaboration to avoid duplication of roles
 - » Management structures should be refined with clear checks and balances to eliminate opportunities for corruption and poor transparency

Devolved public funding mechanisms 3

- » These mechanisms include:
 - » Constituency Development Fund
 - » Local Authority Transfer Fund
 - » Community Development Trust Fund
 - » Rural Electrification Levy Fund
 - » Poverty Alleviation Fund
 - » Youth Enterprise Development Fund
 - » Women Enterprise Development Fund
 - » Water Services Trust Fund
 - » Tourism Trust Fund

- » Many of these sub-sovereign finance schemes were set up through Acts of Parliament and given clear mandates. Others came into existence through presidential or ministerial executive orders and gazette notices.



Adam Smith
INTERNATIONAL

SUBCOMPONENT 8: FINANCE

Kenya Climate Change Action Plan

**Analysis of the Carbon Market
Landscape in Kenya**

Prepared by Carbon Africa

December 2011

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1. Introduction

This short paper provides an analysis of the carbon credit market in Kenya, with a focus on the Clean Development Mechanism (CDM), but also on other voluntary market standards. A brief overview of the regulatory environment is followed by a detailed look at the carbon credit pipeline, including projects that are registered and those under development. Key parameters such as the project developer, the number of emission reductions and the carbon buyer are identified where possible for each project, although some of this information is found in an annex rather than in the body of the report. An assessment of the barriers to carbon project implementation is included. The paper gives an outlook of the carbon market potential in Kenya and concludes with a list of recommendations for the expansion of the sector.

This analysis has been prepared by Carbon Africa Limited based on a desk review of publicly available information and data in addition to the consultants' own industry knowledge.

2. Summary facts and figures

This analysis is summarized in the following table.

Regulatory and institutional environment	<ul style="list-style-type: none"> » Kenyan regulatory environment is sufficient to attract carbon finance and investment although there is room for improvement. » There is relatively good capacity in carbon project development and transaction management available in Kenya. This is found primarily in the private sector. » Any changes to the regulatory treatment (including tax) of emission reduction projects in Kenya should be carefully planned so as not to discourage private sector participation.
CDM status	<ul style="list-style-type: none"> » The first CDM project in Kenya was registered in September 2008. » Currently there are five registered CDM projects, and 21 CDM projects and six CDM Programme of Activity (PoA) sub-projects under request for review or validation. » Four of the registered CDM projects are commissioned and operational. » The sectoral and regional distribution of CDM projects in Kenya is fairly diversified although key sectors and regions have yet to participate. » Total aggregate emission reductions by projects in the CDM pipeline in Kenya are expected to exceed 18 million tonnes of carbon dioxide equivalent (tCO₂e) by 2020.
CDM finance	<ul style="list-style-type: none"> » The CDM may be able to facilitate project financing and investment in Kenya of more than \$1.5 billion by 2015. » Total revenue from certified emission reductions (CERs) should exceed €90 million by 2020.
Voluntary market	<ul style="list-style-type: none"> » The voluntary carbon market is important in Kenya in terms of piloting new approaches to emission reductions (e.g. reduced emissions from deforestation and forest degradation (REDD)), attracting carbon finance for certain types of projects, including pre-registration carbon credits and could play an even bigger role as the only major carbon market available for Kenyan project developers post 2012. » At present there are 14 voluntary Gold Standard projects in the pipeline in Kenya and seven forestry sector voluntary projects.
Barriers	<ul style="list-style-type: none"> » CDM specific barriers include (a) lack of awareness of CDM requirements by project developers, (b) high CDM development costs and lack of funds or appetite to pre-pay for such, (c) absence of methodologies and baseline data in some sectors of special interest to Kenya (e.g. ethanol or petrol blending), (d) mistakes in project development, (e) abandonment of the underlying project, and (f) the bureaucracy and 'bean-counting' of designated operational entities (DOEs). » Main project barriers among many are (a) lack of access to underlying project capital, (b) project developer inexperience, (c) sectoral risks, and (d) political and institutional risks.
Future market outlook	<ul style="list-style-type: none"> » The CDM pipeline is expected to increase considerably in the short-term rush to meet the 2012 registration "deadline" for continued access to the EU market. » Kenya is set to become the number two CDM country in Africa after South Africa. » Once the 2012 deadline has passed, further CDM development will be stifled in Kenya, resulting in a loss of momentum for project-based approaches (except those for the voluntary market) due to EU market rules. » However, carbon and climate finance activities will continue under sub-projects that can be added to registered CDM Programmes of Activities, voluntary markets and new approaches such as nationally appropriate mitigation actions (NAMAs) and forest funds. This might see new sectors benefit that are absent from the CDM, such as transport and REDD.
Recommendations	<ul style="list-style-type: none"> » Nine near and mid-term suggestions are provided to help facilitate increased CDM project uptake, diversify into new areas and position Kenya to continue to access carbon finance and climate investment,

3. Carbon market regulatory environment

3.1. Policies and regulations

Kenya does not have specific legislation relating to climate change or carbon credit markets. However, as a developing country, and having ratified the United Nations Framework Convention on Climate Change (UNFCCC) on 30th August 1994 and acceded to the Kyoto Protocol on 25th February 2005, Kenya is able to host Clean Development Mechanism projects.

Certain laws and policies, such as the Forest Act (2005), make reference to climate change and the role of greenhouse gas emissions but do not provide directly on for the CDM or voluntary carbon markets. Only the Energy Act (2006) provides explicitly for the Minister of Energy to use the CDM and carbon trading to promote renewable energy.

Vision 2030, Kenya's development plan to transform the country to middle-income status by the year 2030, includes a goal under environmental management to attract "at least five Clean Development Mechanisms (CDM) projects per year in the next five years." However, measures to be taken to implement this are not elaborated.

In April 2010, Kenya finalized its National Climate Change Response Strategy (NCCRS), which was a collaborative effort led by the Ministry of Environment and Mineral Resources (MEMR). The strategy includes a budget with proposed climate change projects and programmes as well as recommendations on CDM and Reducing Emissions from Deforestation and forest Degradation. Currently, the MEMR has divided further development of the strategy into an elaborate Action Plan through eight sub-components, which have been contracted out to external consultants.

The Ministry of Finance in 2011 prepared a draft National Policy for Carbon Investments and Trading, which could bring significant changes to the Kenyan market and should have more inputs from stakeholders before it is adopted.

3.2. Key institutions

The Ministry of Environment and Mineral Resources is in charge of climate change issues and is the country's focal point to the UNFCCC. An inter-ministerial committee on environment coordinates climate change issues between government bodies and other stakeholders, and includes technical committees such as the National Climate Change Activities Coordination Committee (NCCACC), for which the National Climate Change Coordinating Office in MEMR is the secretariat.

The National Environment Management Authority (NEMA), established under EMCA 1999, acts as the principal instrument for the implementation of government policies relating to the environment. NEMA is housed in MEMR, and hosts the Designated National Authority (DNA), which is responsible for CDM regulation and promotion in Kenya.

The Kenya Forest Service (KFS) is designated as the government body responsible for REDD in the country. Kenya is participating in both the World Bank Forest Carbon Partnership Facility (FCPF) and the United Nations REDD Programme (UN-REDD), and is formulating a National REDD Readiness Plan, strategy and implementation framework under the former.

The Climate Change Coordination Unit (CCCU) in the Office of the Prime Minister is playing a supervisory role as a key promoter of climate change mitigation and adaptation activities in Kenya. While the CCCU does not involve itself directly in CDM projects, the Office of the Prime Minister is responsible for administering the Water Towers Conservation Fund established in 2010 to help finance forest protection initiatives. This and other similar funds may in the future be linked to climate finance.

The Ministry of Finance is responsible for formulating financial and economic policies. At present there are no specific fiscal or taxation requirements for CDM projects and carbon credit revenues, although Ministry officials have indicated that such may be implemented in the future. In 2010, the national budget speech by the Minister of Finance included plans for a carbon credit investment framework in Kenya, with the establishment of an emission trading scheme as one of the priorities for fiscal year 2010/2011.

The Kenya Investment Authority (KIA) has an indirect role in promoting investment in the underlying assets of CDM and REDD projects in Kenya.

3.3. The Designated National Authority

Kenya's DNA office became operational around 2005. The Director General of NEMA is the official contact point for the DNA, which is staffed by a secretariat of NEMA personnel. The 2001 Kenya National Guidelines on the CDM provide guidance for the eligibility of CDM projects in Kenya and set out the institutional framework for a CDM National Clearing House (NCH) for the processing of CDM proposals and the issuance of Letters of Approval by the DNA.

On the basis of a CDM Project Idea Note (PIN) or draft Project Design Document (PDD), the DNA can issue a Letter of No Objection, normally within one to two months. The Letter of Approval and/or authorization can take a bit longer (three to four months) and is usually obtained prior to or during the CDM validation process, although the project proponent must also show that they have received the Environmental Impact Assessment License, if applicable.

Kenya's DNA office has more than five years of experience in the appraisal and approval of CDM projects. The process is fairly standardized. A list of sustainable development criteria against which a project can be assessed is available. A record of meeting minutes and DNA decisions can be provided upon request. The DNA has no requirements with regards to voluntary market carbon projects.

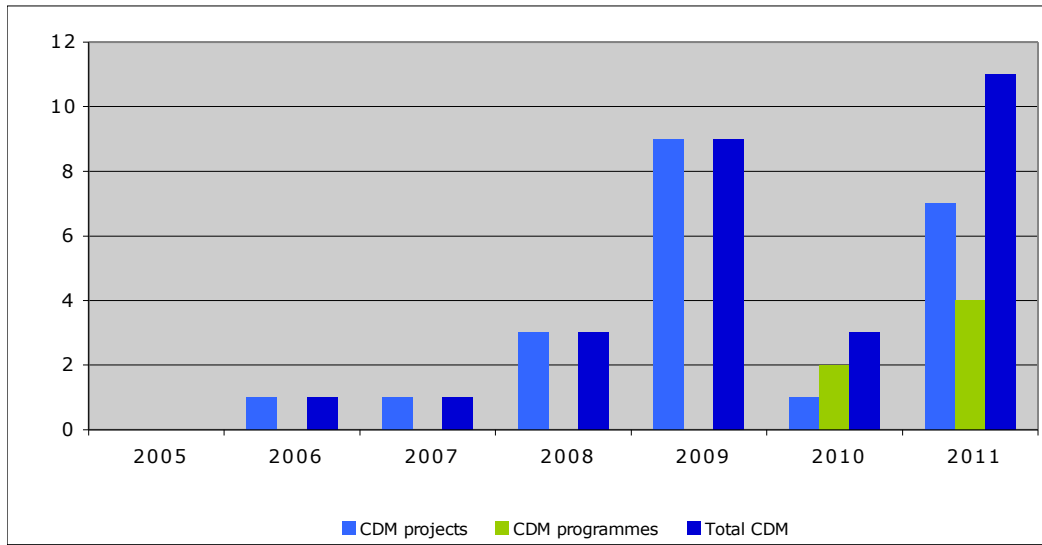
The DNA does face human resource challenges in terms of a busy work schedule and high staff turnover, which often results in loss of institutional memory and delays in approving projects. The DNA has also not been as proactive as it could be with regards to, for example, identifying a list of small-scale technology types that could be classified as automatically additional (as permitted under CDM rules) or the determination of baseline emissions in different sectors. However, in general the regulatory environment in Kenya supports the development of CDM projects and the use of carbon finance. This is also due to the country's broader investment laws and climate.

4. Carbon markets in Kenya

4.1. The Clean Development Mechanism

In November 2006, the first Kenyan project began the CDM validation process. Almost two years later in September 2008, it became Kenya's first registered CDM project, the "35 MW Bagasse Based Cogeneration Project" by Mumias Sugar Company Limited. The next project was not registered until March 2010, but since then there have been an increasing number of new projects and Programmes of Activities applying for CDM registration.

Figure 1: Number of new CDM projects and programmes starting validation in Kenya



The sudden jump in CDM projects starting validation in 2009 was due to seven World Bank-supported small-scale reforestation projects by the Greenbelt Movement entering the pipeline at the same time.

As of 1st November 2011, the country has five registered CDM projects: two geothermal power plants, one wind farm and one reforestation project in addition to the aforesaid biomass cogeneration project. Another 16 projects are undergoing validation, and one project is currently subject to a request for review. Furthermore, at least 20 projects have submitted CDM Prior Consideration forms indicating that they intend to apply for CDM registration. In total, CDM projects that are registered, requesting registration or under validation are expected to reduce greenhouse gas emissions by 2.45 million tCO₂e before the end of 2012 and by more than 16 million tCO₂e by the end of 2020.

The pipeline in Kenya is expected to increase dramatically between November 2011 and mid-2012 due to the number of projects rushing to meet the 2012 CDM registration deadline for continued access to the European Union Emission Trading Scheme (EU-ETS). Carbon Africa estimates at least 15 new projects and programmes entering validation in the last quarter of 2011 and the first two quarters of 2012, increasing the current pipeline by about 35%.

Table 1: Registered CDM projects in Kenya

CDM number	Name	Type	Registration date	Owner	Annual emission reductions (tCO ₂ e)	Carbon buyer
1368	"35 MW Bagasse Based Cogeneration Project" by Mumias Sugar Company Limited (MSCL)	Biomass energy	2 Sep 2008	IPP	129,591	Japan Carbon Finance (Japan)
4740	Olkaria III Phase 2 Geothermal Expansion Project in Kenya	Geothermal	4 Mar 2010	IPP	177,600	n/a

2448	Olkaria II Geothermal Expansion Project	Geothermal	4 Dec 2010	Govt	149,632	World Bank
6404	Lake Turkana 310 MW Wind Power Project	Wind	28 Feb 2011	IPP	736,615	n/a
5123	Aberdare Range/ Mt. Kenya Small Scale Reforestation Initiative - Kamae-Kipipiri Small Scale A/R Project	Reforestation	11 Jun 2011	NGO	8,542	World Bank Biocarbon Fund

In addition to single CDM projects, there are five CDM Programme of Activities currently under validation in Kenya, and a Ugandan-based PoA that includes one of its first sub-projects in Kenya. Project proponents are developing PoAs for a variety of reasons:

- » Reduced unit transaction costs
- » Better applicability to smaller scale or decentralized activities
- » It is possible to include multi-country activities
- » Post-2012 EU market eligibility for registered PoAs in Kenya
- » PoAs are seen as the precursor to sectoral approaches and NAMAs

Table 2: CDM Programme of Activities under validation with at least one sub-project in Kenya

CDM ID	Name	Type	Validation start	Managing entity	ERs to 2012	Carbon buyer
PoA0062	Improved Cook Stoves for East Africa	EE stoves	11 Nov 2010	Uganda Carbon Bureau	0 in Kenya	n/a
PoA0070	Efficient Cookstove Programme: Kenya	EE stoves	25 Dec 2010	Co2balance	65,600	n/a
PoA0118	KTDA Small Hydro Programme of Activities	Small hydro	27 Aug 2011	Kenya Tea Development Agency	0	n/a
PoA126	Barefoot Power Lighting Programme	Solar LEDs	7 Sep 2011	Barefoot Power	20,300	n/a
PoA154	Kenya Improved Woodstoves project	EE stoves	22 Oct 2011	Climate Pal	16,400	EcoAct (France)
PoA156	Green Light for Africa	EE lighting	25 Oct 2011	Standard Bank	19,900	Standard Bank (UK)

Kenya's current CDM pipeline of single CDM projects makes up 11.6% of the total African pipeline and is the biggest on the continent after South Africa. The CDM PoA pipeline is similar, with South Africa leading with 20 projects and Kenya in second place with six.

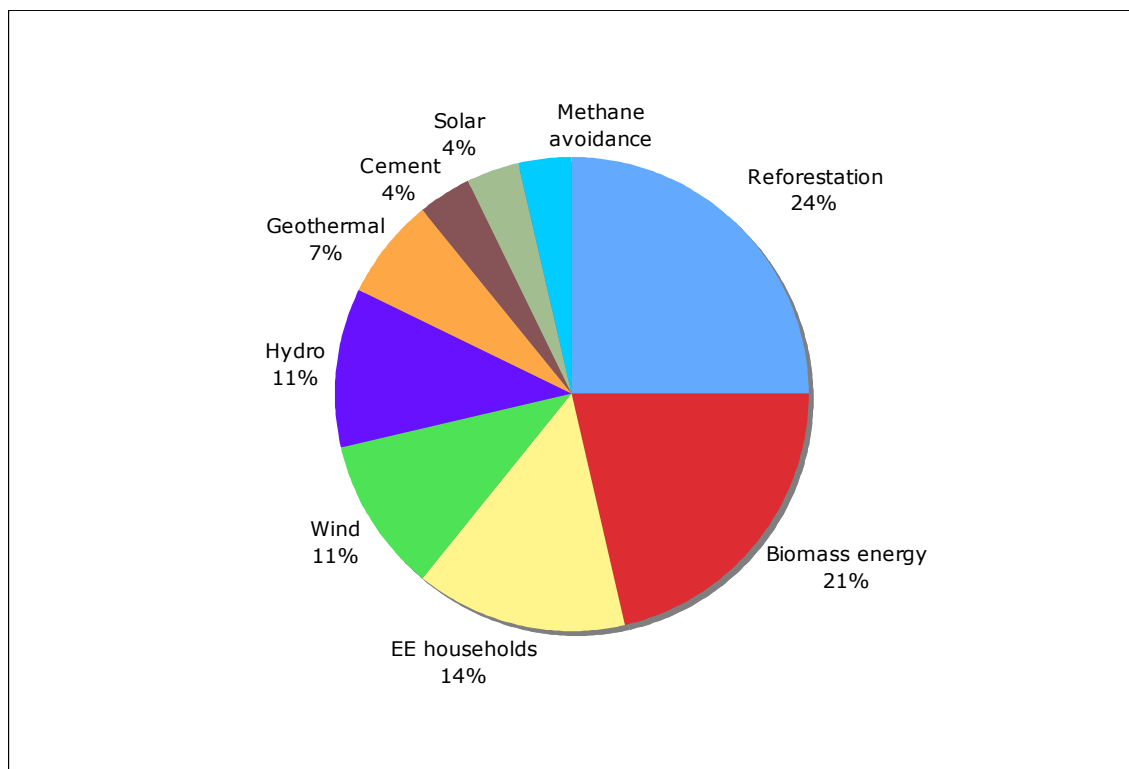
Table 3: African CDM project pipeline (PoAs and countries with less than 4 projects not shown)

Country	Registered	At validation	Total
South Africa	20	31	51
Kenya	5	17	22
Egypt	10	7	17
Morocco	6	11	17

Uganda	5	9	14
Nigeria	5	8	13
Tanzania	1	6	7
Tunisia	2	3	5
Senegal	1	4	5
DR Congo	2	2	4
Madagascar	1	3	4
Ghana	0	4	4
Rwanda	3	1	4
Cameroon	2	2	4

A broad range of sectors are covered by CDM projects and PoAs in Kenya. In terms of renewable energy, technologies include wind, large and small hydro, geothermal, biomass (fuel switch and cogeneration) and solar LED lighting. Household level energy efficiency and renewable energy projects (cookstoves, lighting and biogas) are next in importance. One site in particular (Aberdares National Park) has a number of small-scale CDM reforestation activities, although forest and agriculture-related mitigation is more covered by the voluntary carbon markets in Kenya. One cement clinker replacement project rounds out the CDM pipeline in Kenya. Sectors that are absent include those involving industrial gases, mining, transport and municipal waste management, the former two due to the lack of such activities in Kenya and the latter perhaps because they traditionally fall under the public sector and have more complex institutional requirements.

Figure 2: Distribution of CDM project and programme pipeline in Kenya by type



The regional breakdown of CDM projects and CDM Programmatic Activities (CPAs) under a PoA in Kenya is provided below, and is somewhat representative of where renewable energy resources (for power plants)

and higher population densities (for household efficiency projects) are found. There is a notable absence of projects in Coast Province, which does have good CDM potential in areas such as fuel switch in industry, waste heat recovery, renewable energy, cement, biomass cogeneration and household energy efficiency. Coast Province does, however, have a number of voluntary market carbon projects and is expected to enter the CDM pipeline soon as developers move to beat the 2012 “deadline” for CDM registration.

Name of province	Number of projects or programmes in CDM pipeline
Central	10
Coast	0
Eastern	6
Nairobi	0
North Eastern	0
Nyanza	1
Rift Valley	3
Western	4
More than one province	4

Of the four registered CDM projects in Kenya that involve substantial investment, three are already commissioned and operational. The investment costs of these as per the CDM project documentation are as follows:

- » \$20 million – 35 MW Bagasse Based Cogeneration Project at Mumias
- » \$76.3 million – 48 MW Olkaria III Phase II Geothermal Expansion Project
- » \$90.2 million – 35 MW Olkaria II Geothermal Expansion Project

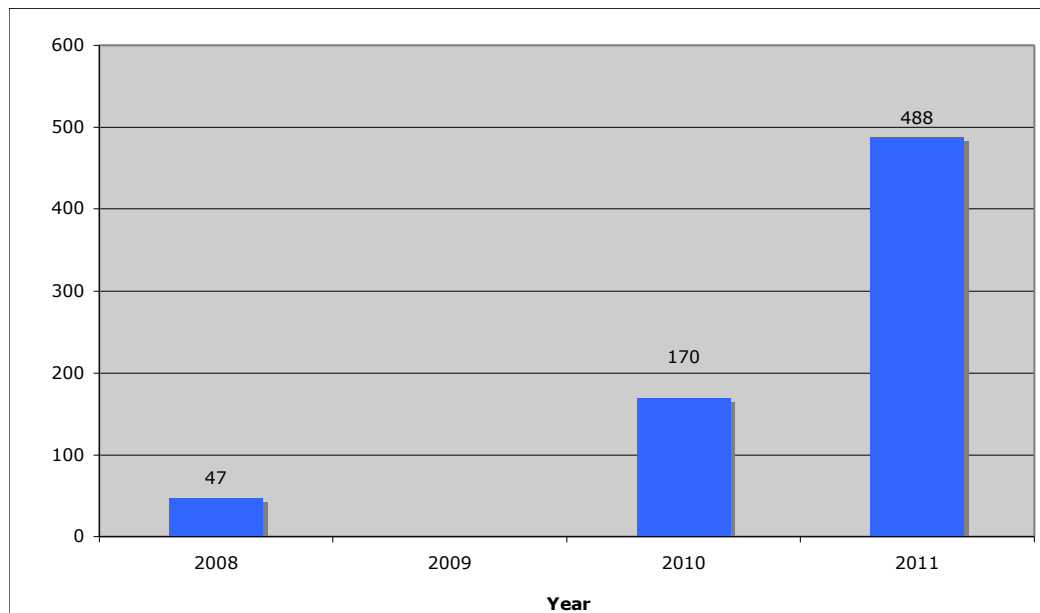
As such, to date more than \$185 million of investment in renewable energy in Kenya has been facilitated in part by the CDM. Looking forward, if all other projects in the Kenyan CDM pipeline are successfully registered by 2012 and implemented, this would lead to additional investment of at least – since not all information is available for all projects – \$887 million by 2013. As the CDM pipeline is expected to increase by 35% or more from the current level to beat the 2012 registration deadline, it is possible that total project financing under the CDM in Kenya could reach \$1.5 billion by 2020. However, project developers will have to work diligently and the Kenyan DNA may need to fast-track its approval procedures in order to achieve this potential.

In terms of total revenue from the commercialization of CERs in Kenya, if we assume a very conservative price of €5.00 per CER, for projects already registered by the CDM alone aggregate annual income will be more than €6 million and will exceed €52 million in total by 2020.

If CDM projects and Programmes of Activities with first CPAs under validation or requesting registration are included, total emission reductions by 2020 in Kenya will reach 18 million tCO₂e and generate more than EUR 90 million in revenue.

The above figures do not consider carbon credit revenue from voluntary market projects, so with the conservative price it is reasonable to assume more than EUR 100 million in carbon credit income to projects in Kenya by 2020.

Figure 3: Investment in underlying projects in the CDM pipeline in Kenya according to Project Design Document data and timelines



4.2. Voluntary market projects

The two voluntary market standards most widely applied in developing countries around the world are also preferred by project developers in Kenya, namely the Gold Standard (GS) and the Verified Carbon Standard (VCS). The Climate, Community and Biodiversity Alliance (CCBA) Standards are also often added to VCS forestry projects to provide third-party certification of the social and biodiversity benefits.

A small number of CDM projects in Kenya are pursuing parallel registration under voluntary market standards to achieve price premiums, such as the Lake Turkana 310 MW Wind Power Project (Gold Standard), the Nairobi River Basin Biogas Project (Gold Standard) and the Aberdares small-scale reforestation initiatives (CCBA). These projects are, however, the exception, especially as the additional value of CDM plus voluntary standard registration is not what it used to be (although recently the average Gold Standard carbon price exceeded that of secondary market CDM certificates). Instead, project developers in Kenya who use voluntary market standards do so for other reasons:

- » No applicable CDM methodology exists
- » Project is not likely to achieve CDM registration (e.g. 2012 deadline issue)
- » Lower carbon project development costs
- » Project is too small to make the CDM worthwhile
- » Developer has already targeted a voluntary market buyer or expects a price premium
- » Pre-registration VERs resulting from start of project implementation earlier than CDM registration

As an example of the voluntary market potential, there are currently 14 Gold Standard Verified Emission Reduction (VER) projects in the pipeline, of which six are registered.

Table 4: Registered Gold Standard projects in Kenya

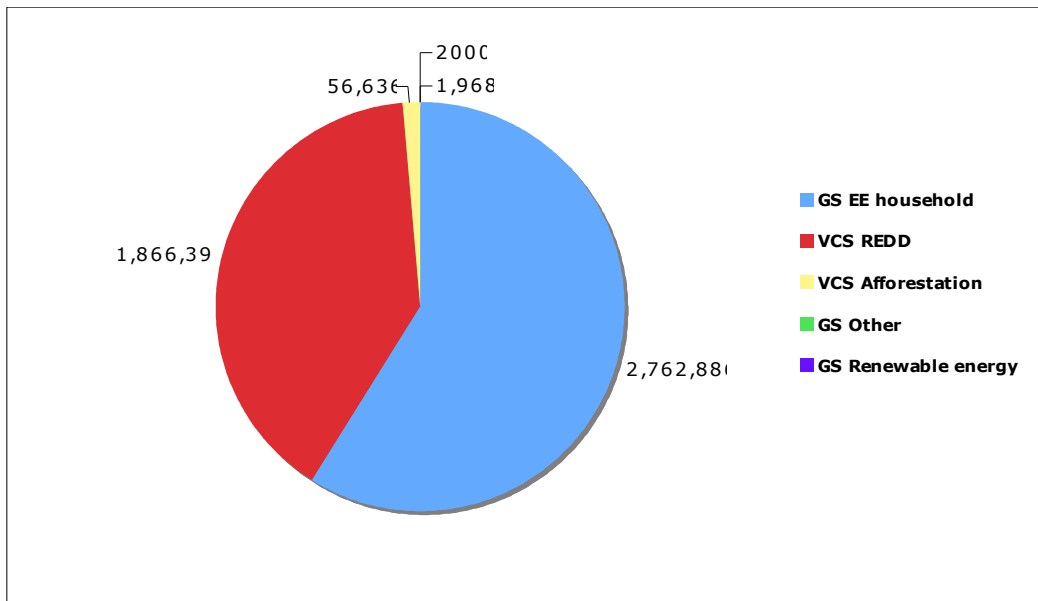
Gold Standard ID	Name	Type	Registration date	Province	Annual emission reductions (tCO ₂ e)	Carbon developer
462	Gachiki Community Small Hydro, Kenya	Mini hydro	25 Oct 2010	Central	1,968	JP Morgan
824	Shimba Hills Improved	Eenergy	24 Jan 2011	Coast	41,944	co2balance

	Cookstoves	efficiency (EE) household				
825	Likoni Improved Cookstoves	EE household	24 Jan 2011	Coast	4,924	co2balance
827	Shimoni Improved Cookstoves	EE household	24 Jan 2011	Coast	4,922	co2balance
843	Kisumu Improved Cookstoves	EE household	24 Jan 2011	Nyanza	30,149	co2balance
886	Sustainable Deployment of the LifeStraw Family in rural Kenya	EE household	4 Feb 2011	Western	2,073,328	Vestergaard Frandsen

Even though emission reduction or sequestration projects applying voluntary market carbon standards are sometimes seen as being of secondary importance to the CDM, they are pioneering carbon transactions in sectors of relevance to Kenya, such as avoided deforestation, and on a case-by-case basis are delivering real emission reductions and attracting carbon finance to Kenya. A good example of the carbon potential is the privately-developed Rukinga REDD+ phase I project near Tsavo in Kenya that is jointly VCS and CCBA-certified, has annual emission reductions of approximately 250,000 tCO₂e and is the first project in the world to have issued VCS Verified Carbon Unit (VCU) certificates. Both Nedbank and BNP Paribas have signed carbon offtake agreements with the project.

As the chart below shows, the voluntary carbon market is playing a particularly important role in the domestic energy efficiency (e.g. cookstoves and water filters) and forestry sectors in Kenya, which are sometimes related as they reduce the unsustainable consumption of non-renewable biomass.

Figure 4: Projected annual average emission reductions (in tCO₂e) from voluntary project pipeline in Kenya by type and standard



In addition to the above, there are pilot activities in Kenya to prepare agricultural and soil carbon projects. The first is called the Kenya Agricultural Carbon Project that is being implemented by a Swedish NGO, Vi Agroforestry, with support from the World Bank and participation in carbon credit off-take from the World Bank’s Bio-Carbon Fund. The second is being led by the World Agroforestry Centre (ICRAF) in dryland areas of Kenya.

While the voluntary market focus to date is on the generation of carbon credits for buyers outside of Kenya, recently a number of Kenyan companies have also begun measuring their carbon footprint and

offsetting via CDM and voluntary market projects. For example, Kenya Airways in mid-2011 launched a Carbon Offset Program for its passengers in cooperation with the International Air Transport Association (IATA) and is planning to offset initially via pre-CDM voluntary emission reductions (VERs) from geothermal projects in Kenya.

4.3. Carbon developers and buyers

There are a good and increasing number of carbon credit developers and carbon buyers active in Kenya, both in the CDM and voluntary markets. Most of these have entered the market in the last three years, although ClimateCare, Camco, ECM Centre and the World Bank in particular are notable for their longer presence as carbon actors in Kenya. Private entities make up the majority of both developers and buyers, although a small number of donor, NGO and sovereign developer and buyer institutions are involved. A number of carbon developers have their headquarters in Nairobi and can be considered to be locally based. Four or five of these are Kenyan-owned and operated.

Table 5: Select list of carbon developers and buyers active in Kenya

Name	Type	Relevant office(s)	1 st year of carbon interest or presence in Kenya	Carbon standards
ClimateCare	Developer, Buyer	Nairobi, London	2007	CDM, GS
Camco Kenya	Developer, Buyer	Nairobi, London	2002	CDM
Viability Africa	Developer	Nairobi	2010	CDM, GS
Carbon Africa	Developer	Nairobi	2009	CDM, GS
ECM Centre	Developer	Nairobi	2005	CDM
co2balance	Developer	Nairobi, Mombasa, London	2008	GS
Climate Pal / Carbon Manna	Developer	Nairobi	2009	CDM
Cool NRG	Developer	Nairobi	2011	CDM
Low Carbon Development	Developer	Nairobi	2010	CDM
Atmosfair	Developer	Germany	2005	GS
myclimate	Developer	Switzerland	2002	GS
Hivos/SNV	Developer	Netherlands	2010	CDM, GS
Uganda Carbon Bureau	Developer	Kampala	2009	CDM, GS, Plan Vivo
African Development Bank (AfDB)	Developer, Buyer	Tunis	n/a	CDM
KfW	Buyer	Nairobi	n/a	CDM
The Paradigm Project	Developer	Nairobi	2010	GS
JP Morgan	Buyer	Nairobi, London	2009	CDM, GS
EnBW	Project owner, Developer, Buyer	Germany	2009	CDM

Standard Bank	Developer, Buyer	London	2009	CDM
World Bank	Developer, Buyer	Washington	2005	CDM
Japan Carbon Finance	Buyer	Japan	2007	CDM
Wildlife Works	Developer	Nairobi	n/a	VCS, CCBA
Clean Air Action Corporation	Developer	USA	2007	VCS, CCBA
BEA International	Developer	Nairobi	2005	CDM
Promethium Carbon	Developer	Johannesburg	2008	CDM
Kengen	Project owner, Developer	Nairobi	2002	CDM

5. Barriers to CDM project development

Since 2008, Kenya has witnessed upward momentum in the development of carbon projects and programmes, both under the CDM and voluntary market standards. However, there are also a significant number of potential CDM projects that have either not commenced as expected or were stalled or abandoned prior to successful registration.

For example, in 2007, before Kenya had its first registered CDM project, a GTZ regional report and the CDM pipeline database identified at least 16 projects seeking CDM registration. Of these, as of 1st November 2011, three (all backed by the World Bank) had achieved CDM registration, two are still under validation, eight had failed to proceed, two were rejected/terminated during CDM validation and one opted for voluntary market certification. In 2011, a reforestation project became Kenya's third project to fail during the CDM validation phase.

Table 6: Current status of projects in Kenya that were considering the CDM as of 2007

	Project name or description	Location	Annual CERs	Project proponent	Status as of November 2011
1	30 MW wind farm	Kinangop	n/a	Ecogen Windfarm Ltd	Project sold to new owners, under validation
2	Charcoal from sugar cane bagasse	n/a	n/a	Cheng Yong Company Ltd	Project failed
3	Replacement of fuel oil with renewable biomass	Meru	100,000	Michimukuru & Kiegoy tea factories	Project failed, now considering a wind farm
4	Small-scale reforestation	Country wide	n/a	TIST	Registered under voluntary market standards
5	Oil to biomass fuel switch in factories	n/a	n/a	n/a	Unknown
6	Jatropha biofuel	Migori and Malindi	n/a	n/a	Project under development but in Malindi not as a carbon project
7	50 MW wind farm	Ngong Hills	n/a	n/a	Project still under development
8	Jatropha biofuel	Msambweni	n/a	n/a	Project failed
9	Replacement of motorized water pumps with treadle pumps	n/a	n/a	Kick Start?	CDM development stopped
10	7.5 MW sugar cane bagasse co-generation	Nyando	n/a	Chemilil Sugar Company	Project still under development, will likely not meet 2012 CDM deadline
11	Solar PV project	n/a	n/a	n/a	Project implemented but not as a carbon project. It is possible that the credits were bought by John Deer
12	Aberdares reforestation projects 1-7	Aberdares	Various	Greenbelt Movement	One of 7 sub-projects has been CDM registered
13	Olkaria III Geothermal	Hell's Gate	n/a	Kengen	CDM registered
14	Olkaria II Geothermal	Hell's Gate	n/a	Kengen	CDM registered
15	60 MW Sondu Miriu Hydro Power Project	Nyanza	211,000	Kengen	CDM validation negative

16	Conversion of Kipevu Open Cycle Gas Turbine	Coast	45,000	PDD consultant World Bank	CDM validation terminated
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The above reveals a historic no-start or failure rate of more than 50%, which indicates that barriers do still remain to successful CDM registration and/or project development and implementation. An overview of the barriers is provided, although it should be noted that some are universal to the CDM irrespective of the host country and are not specific to Kenya per se.

5.1. Barriers to successful CDM participation

Lack of awareness of the CDM requirements

While awareness raising activities and trainings with regards to the CDM have been a regular feature in Kenya for some years and there is general awareness of carbon credits, there is a lack of understanding of the CDM process and its requirements. This leads certain project proponents to neglect the CDM potential or not consider carbon credits until it is too late and on the other hand leads to raised or unrealistic expectations of carbon income on the part of some developers.

High CDM costs and lack of funds/appetite to pay for such and take on CDM risks

CDM investment costs and in some cases risks are relatively high and this is an evident barrier in Kenya. On the one hand, there are those project developers who wish to apply for CDM registration but lack the resources to pay for the CDM cycle costs. Even well-established institutions sometimes do not have the funds to undertake CDM development. For example, the Kenya Electricity Generating Company (KenGen) as early as the year 2000 submitted CDM proposals to both the Japan Carbon Fund and the Government of Belgium, but were told to cover the CDM documentation costs first. This was not an option for KenGen and hence the projects did not pursue CDM registration. On the other hand, there are those who have the necessary capital but choose for one reason or another (e.g. no risk appetite, other investment priorities) not to undertake CDM development.

Absence of appropriate methodologies and/or baseline data

In some sectors with good potential for emission reductions in Kenya (such as transport), there are no appropriate approved methodologies that a project can apply to generate and monitor CERs and the process of developing a new methodology is long, expensive and risky. Similarly, for certain methodologies and project developers, up-to-date, objective and transparent data and information from reliable sources on baseline emissions (e.g. on traditional biomass use) is not readily available and this introduces both costs of obtaining such data and risks that the project will be rejected or carbon credit volumes will be reduced during validation or monitoring and verification due to a lack of supporting evidence.

Mistakes in carbon development

Three potential CDM projects in Kenya entered the validation stage (e.g. contracted and paid for an external auditor – which is evidence of their commitment to reach CDM registration) and failed before achieving registration. Two of these were terminated during validation likely due to the realization that they were not adequately able to reply to the auditor's questions or that there were faults in project design that could not be rectified. The third received a negative validation opinion.

In addition to the above projects that did not pass the validation phase, a number of CDM and voluntary market projects and programmes that are being prepared or have entered validation have weaknesses with regards to additionality, conservativeness and emission reduction calculations. This is often due to project developers underestimating the auditing requirements for CDM projects. While validators and the CDM Executive Board may have been more lenient in the past in an effort to help facilitate more CDM development in Kenya, it can be expected that quality control will become more stringent and those projects with poorly prepared CDM documentation will face more risks of delays or rejection.

Underlying project is abandoned

In a number of cases (see for example Table 6), the CDM application process did not commence or was halted because the underlying project that would generate the CERs did not make it past the conception, feasibility or development phase.

5.2. Barriers to underlying project development

While this short analysis is not able to describe in detail the barriers to the realization of the projects that could generate carbon credits themselves, a summary of the main issues is provided.

Access to finance

While access to finance is improving as more and more investors (both indigenous and foreign) look to Africa as an investment destination, it still remains one of the main barriers. Early risk stage capital for project development is hard to come by, as many local entrepreneurs lack sufficient resources and foreign early stage investors may have unrealistic expectations of what can be accomplished within a certain timeframe. In addition, early investment in other ventures in Kenya (such as real estate) can provide higher and quicker returns with less risk than an investment in a wind farm, a solar LED light distribution project or a REDD initiative. The potential and risks of small scale or distributed projects is also not well understood by many investors or banks, and there is not much local expertise to assess projects developed on a non-recourse basis. Lastly, many projects require amounts of capital that are too small to attract larger investors but too big to be eligible for microfinance or donor support.

Lack of project developer experience

Project developers themselves are also partially to blame for being unable to overcome barriers to project development due to a lack of experience. This is again evident in the number of projects that could seek CDM registration that have delayed or failed along the way. As a further example in the renewable energy sector in Kenya, more than 50 projects have been granted a development license by the Ministry of Energy for a site under the Feed-in Tariff Policy, but not a single one of these reached financial closure.

Political and institutional barriers

Political and institutional risks in Kenya negatively impact on the enabling environment and on the development and implementation of potential CDM projects. The key concern relates to the uncertainty of the regulatory process in some sectors and the likelihood that it can be affected by political regime changes. Other concerns include favoritism, cronyism, corruption, lack of transparency in decision making, lack of adherence to guidelines and regulations, and the possibility of having project licenses revoked. A case in point is that in which a new sugar mill has been permitted to start operations within close proximity of an existing mill, in total disregard of existing laws. There are also 'invisible' risks such as those of poor governance and entrenched interests, which can delay the approval and permitting requests of projects at various stages. Private sector and civil society participation in CDM projects in Kenya is currently encouraged by the government but certain changes under consideration in Kenya (e.g. taxation and revenue share on CER streams) may result in increased administrative burden and costs and lower returns for CDM developers and buyers.

6. Potential for carbon market growth

As described above, both the CDM and voluntary carbon markets in Kenya have since 2008 shown increasing activity in terms of carbon project development, successful registration and transactions, carbon credit volumes, capital investment and diversification of sectors and sizes of projects. In 2011 to date already 11 new CDM projects and programmes have entered the pipeline as compared to only one project in 2006 and 2007, and 15 projects have submitted CDM Prior Consideration forms in the 10 months from the start of the year. Project developers are also increasingly using the CDM Programme of Activities framework as a preferred approach especially in the distributed household energy efficiency and renewable energy sectors as evidenced by the five Programmes that have started validation since December 2010. In the short-term, Kenya is positioned to become Africa's second largest participant in the CDM.

This recent growth is supported in part by new developments in the enabling environment, such as the adoption of the Kenyan renewable energy Feed-in Tariff Policy in 2008, and later updated in 2010, which has helped promote investment in projects that in almost all cases may also qualify under the CDM.

Table 7 below lists those project types with good potential for emission reductions and credit generation under the CDM and voluntary markets.

Table 7: Sectors with carbon credit potential in Kenya

Sector	Project/Activity
Energy supply and consumption	<ul style="list-style-type: none"> » Energy efficiency (supply side, demand side-domestic, industrial and outdoor) » Fuels switching » Renewable energy (hydropower, solar, wind, biomass, geothermal, biogas)
Manufacturing	<ul style="list-style-type: none"> » Fuels switching in industrial applications » Industrial energy efficiency » Structural change to less energy/emission intensive industries » Charcoal production (methane emission reduction, renewable charcoal) » Cement industry (waste energy recovery, cement blending) » Methane avoidance and recovery in organic liquid and solid waste » Renewable energy from industrial waste (saw dust, coffee wastes) » Biofuel production
Agriculture and forestry	<ul style="list-style-type: none"> » Afforestation and reforestation » REDD+ » Biofuel production » Animal manure management
Transport	<ul style="list-style-type: none"> » Improved urban planning and traffic management » Improved vehicle efficiency » Modal shift in transport from road to rail » Mass rapid transit such as improved public transport
Residential, commercial and government buildings	<ul style="list-style-type: none"> » Renewable energy (solar, wind, hydropower) » Fuel switching in households » Energy efficient building design » Energy efficiency and management (efficient lighting, boiler insulation) » Waste management

Apart from the transport and waste management sectors, CDM or voluntary market projects and programmes are being developed or planned in almost all the areas listed.

6.1. Post-2012

Unfortunately, the recent growth witnessed in the Kenya market and the potential for further project-based carbon market developed is severely threatened by the EU Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009, which substantially reduces the global compliance market for CERs from Kenya. According to the Directive, if no binding international agreement is reached by the

end of 2012, CERs from CDM projects in non-Least Developed Countries (LDCs) that are not registered by 2012 will not be accepted into the EU ETS, by far the world's biggest carbon market. Such CERs will only be accepted if there is a separate bilateral agreement between the EU and the CDM host country in question.

The impact of this Directive is already apparent as there is a rush by project developers to achieve CDM registration in Kenya before the end of 2012 and carbon buyers are less and less inclined to give upfront payments for CERs in Kenya from projects that face registration risks.

Non-LDCs such as Kenya hosting post-2012 registered CDM projects have four options to ensure continued market access for such CERs:

- » *Agreement of a bilateral treaty with the EU.* As the modalities for such as treaty have not been defined, this is not likely to be a solution earlier than 2013/14.
- » *Request for exemption of African non-LDCs from the Directive.* Kenyan could lobby with other African non-LDCs for an amended or exemption to the Directive, although this would be politically difficult as the EU may not be able to support regional favoritism.
- » *Ensure the registration of Programme of Activities before 2012.* If a broad enough range of Programme of Activities covering different sectors and methodologies are registered before the end of 2012, post-2012 CDM sub-projects could in theory be added to the Programme for a period of 28 years. This has been confirmed by the EC DG Climate in a 23 June 2011 letter to the Project Developer Forum and number of CDM developers are already taking this approach, although the EU has reserved the right to place other eligibility restrictions on Programmes of Activities in the future if it thinks it is warranted.
- » *Seek non-EU-ETS markets for Kenyan CERs.* European and other sovereign buyers with targets under the Kyoto Protocol, as well as the Australian emissions trading scheme (to be operational from 2015) offer possible alternatives, albeit with lower level of demand.
- » *Switch to the voluntary carbon market.* This is a viable option for post-2012 carbon projects. However, other than those projects that deliver 'branded' (i.e. well-certified) VERs, the price attracted is likely to be low.

Another factor influencing the poor Kenyan carbon market outlook is the current uncertainty in carbon credit value, as the economic events in Europe have pushed down the CER price to its lowest levels ever in Q4 2011. While according to most analysts prices are expected to rise post-2012, the low price provides a negative signal to many potential CDM project owners and carbon buyers. It also makes fixed-price Emission Reduction Purchase Agreements (ERPAs) harder to achieve, so that CER revenue streams cannot be as easily used as an asset or collateral to leverage project finance.

All of the above point to a significant reduction in the potential of the CDM to deliver carbon finance and facilitate project investment in Kenya. New market participant entry will similarly be curtailed and existing CDM project developers will focus on ensuring delivering of existing CDM assets and diversifying into new areas.

6.2. New initiatives underway or proposed to attract carbon or climate finance

In contrast to the negative outlook for the CDM markets, a number of new developments are occurring in Kenya that provide some examples of what the climate finance landscape might include (apart from registered CDM projects and programmes) post-2012.

Establishment of a carbon or climate exchange

March 2011 saw the establishment of the Africa Carbon Exchange (ACX) in Kenya, the second on the continent after the African Carbon Credit Exchange in Lusaka, Zambia. The ACX, which is a private initiative with close ties to the government, has replaced earlier informal discussions among a range of stakeholders regarding a Nairobi Carbon Exchange. The exchange aims to replicate those in place elsewhere in the world and facilitate the transaction of greenhouse gas allowance trading with price transparency. The plan is to have a registry and trading platform that seeks to match orders for buying and selling, not only for projects in Kenya but for all African countries. At present the legal and technical infrastructure of the exchange are still being developed and there are no active participants from either the buy or the sell side.

The potential of the idea of a climate exchange in Kenya is good. However, a number of critical questions remain, such as:

- » How exactly will the exchange's infrastructure work – will it be a real exchange or more of a clearing house like the CDM Bazaar?
- » Is there really enough supply of carbon credits and liquidity on the market to warrant an exchange?
- » What will be the role of the government in participating in or regulating the exchange?
- » How will the exchange deal with smaller carbon credit volumes and address the transaction costs for market participants?
- » How will the exchange ensure quality control and transaction security?
- » Will the exchange be exclusively focused on carbon credits (CERs and VERs) or will it also aim to play a role in attracting future public climate finance?
- » How will the exchange address the administrative requirements regarding the ownership and transfer of CERs under CDM rules?

A well thought-out and properly developed exchange could help to increase buyer awareness of projects in Kenya and local project participation in the carbon markets. It could also be a potential conduit for future public finance and possibly for the monitoring, reporting and verification of emission reduction activities. However, the above questions remain to be answered and it will likely be three to four years before a real exchange could become functional and attractive to participants.

Government-led sectoral efforts, policy PoAs and NAMAs

There are a number of efforts underway to increase government involvement in emission reduction activities in Kenya. Concrete programmes include for example a draft regulation that will require all new buildings in Kenya to install solar water heaters and a broad initiative from the Prime Minister's Office for a kerosene-free Kenya. These and other activities could be developed under a "policy" CDM Programme of Activities and hence apply for carbon credits (keeping in mind the 2012 registration deadline), or could become part of future Nationally Appropriate Mitigation Actions (NAMAs) that the government is preparing with support from consultants. Sectoral approaches may also facilitate the participation of certain emission reduction activities that have been absent under the CDM in Kenya, such as in the transport sector.

Forest conservation funds

In July 2010, the Minister of Finance gazetted the Water Towers Conservation Fund, with an initial capitalization of KSh 50 million (~€500,000) and the primary aim of allocating funding to the preservation of the Mau Forest Complex and other threatened primary forests in Kenya. While the initial monies for the fund come from public sources (government and donor), there is scope for any revenues from carbon credit commercialization from avoided deforestation activities to be reinvested in the fund. There are now further attempts in the exploratory phases to set up larger forest funds for Kenya that will likely include planned carbon and climate finance from private and public monies.

Voluntary market projects

As described above, Kenya hosts the world's first registered REDD+ project that has been issued VCUs under the Voluntary Carbon Standard. The country also boasts the world's first agricultural soil carbon project, which has inked an agreement with the World Bank's BioCarbon Fund. These examples show that even as the CDM is likely to lose its importance as a carbon finance mechanism in Kenya, there may be alternative project-based approaches, although in the short-term these are still likely to be developed on an ad hoc basis rather than under a broader national or global framework that would allow for more certainty in attracting climate finance and in the monitoring of emission reductions.

7. Recommendations

In order to overcome the existing barriers to CDM project development, improve the carbon market outlook and ensure that the private sector has continued incentive to participate in the evolution of greenhouse gas emission reduction activities in Kenya (such as the shift from project to sectoral approaches and the increase in the importance of public climate finance, government participation and monitoring and verification), the following recommendations are proposed:

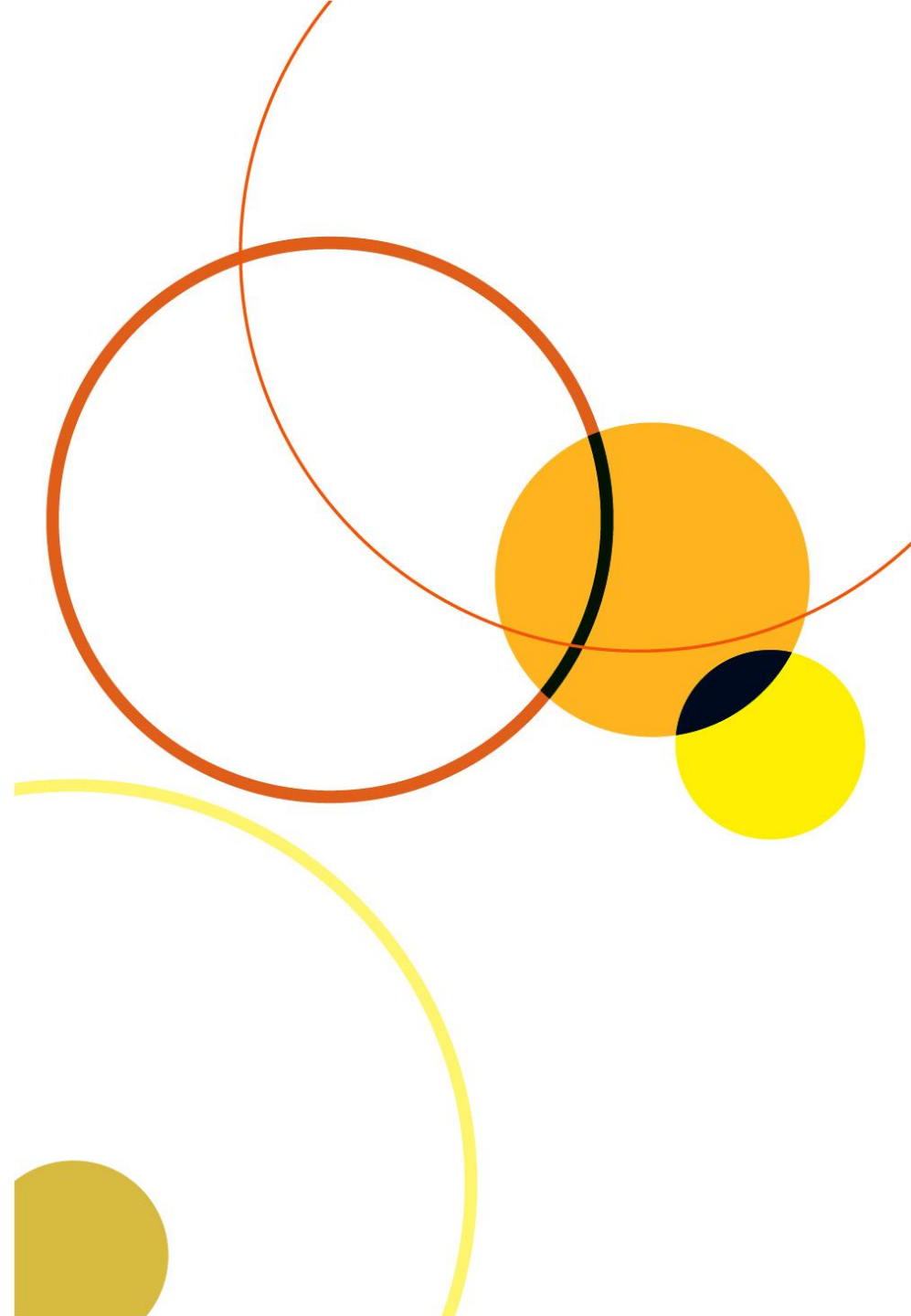
Lobby with other non-LDC African countries for an EU exemption to Directive 2009/29/EC	While this might not be possible to achieve immediately and is subject to political sensitivities, it could be very useful for an African non-LDC bloc to start such discussions with the EU, perhaps even at the Durban Conference of the Parties.
Establish seed capital funding for carbon and underlying project development	There are a number of donor-funded initiatives to provide CDM development funding (e.g. the African Carbon Asset Development Facility and the AfDB) and project development capital (e.g. the Africa Enterprise Challenge Fund and the Energy and Environment Partnership Africa) to which Kenyan projects can apply, but these could be supplemented.
Increase DNA's activities in CDM promotion activities, including emission baseline setting and CDM awareness creation activities	The Kenyan DNA working with other relevant entities (e.g. Ministry of Forests for biomass, Ministry of Transport for transport) could conduct updated studies on baseline GHG emissions in different sectors, which could be relevant not only for CDM and voluntary market projects but also for the development of nationally appropriate mitigation actions. Also, the DNA should provide sectoral awareness and promotional activities, and, with an increasing number of CDM projects entering the pipeline, should install procedures (e.g. more frequent committee meetings) to fast-track issuance of Letters of Approval
DNA designation of certain projects as automatically additional	With regards to small or micro-scale projects in the renewable energy and other sectors, the DNA could designate a list of technology types that are automatically additional under the CDM. If this is not done soon it may have little impact on CDM development, but again it could be a useful exercise linked to future NAMA activities.
Provide financial incentives to project owners for investment in underlying projects that reduce or remove GHG emissions	Such incentives could include tax breaks and concessions and more favourable import tariffs on for example technologies that reduce GHG emissions, something that has been considered for a long time by the government but only partially implemented to date.
Enabling policy framework should promote both public and private sector participation	The draft carbon emissions and trading policy and law should be formulated to promote continued participation of both the public and private sectors. The private sector has gained significant experience in developing and managing carbon assets and can help to ensure continued access to carbon and climate finance and monitoring and verification for such
Design "policy PoAs" based on the CDM that can be converted into NAMAs in the future	Quick win policy CDM PoAs could be developed by public and/or private actors based on existing CDM rules and methodologies and these could generate CERs and be the precursor of NAMA activities that would attract more public climate finance in the future. A policy PoA could be a good way for the public and private sectors to cooperate and define their respective roles. However, time is running out for such a PoA.
Provide financial or other support to local banks to lend to CDM and climate mitigation projects	While a small number of local banks have experience in project finance and a larger number in micro or trade finance, many are reluctant to lend to renewable energy, energy efficiency and other potential CDM projects. Banks could be encouraged to provide debt to such projects through, for example, credit support facilities.
Including climate/carbon finance and project development training in university curricula in Kenya	Relevant post-secondary subjects such as in finance, economics, engineering and project management could include carbon project development, monitoring and climate finance

: vivideconomics

Annex E: Developments in international carbon markets: implications for Kenya's carbon finance policy

**Report prepared for Government of
Kenya**

November 2011



The 2011 research phase consists of 8 tasks associated with the three key themes of the project

Task 1: survey of current and future sources of international climate finance

Task 2: survey of donor action in climate change in Kenya

Task 3: survey of Kenyan government action in and related to climate change

Task 4: identifying priority spending items for the financing mechanism

Task 5: assessment of international best practice in national climate financing mechanisms

Task 6: Analysis of Kenyan carbon finance landscape

Task 7: Analysis of international carbon market developments

Task 8: Analysis of Kenya's investment climate

**Design of
climate finance
mechanism**

**Improving
Kenya's access
to carbon
markets**

**Recommendations
on low-carbon
investment climate**

Key findings

- 1. Kenya should be wary of over reliance on future flows from carbon markets.**
The general supply-demand balance coupled with the ineligibility of Kenyan credits registered after 2013 for phase III of the EU ETS creates a challenging environment.
- 2. Kenya, in concert with other non-LDC African countries i.e. Ghana, Nigeria, should seek a bilateral deal with the EU which would allow CERs originating from these countries to continue to be eligible in the EU ETS.**
- 3. There are opportunities for Kenya** in these challenging market conditions by **strategically positioning itself** towards particular market niches where it has a comparative advantages. These might include:
 - sales of ‘premium credits’ to EU sovereigns noting that Denmark, Italy, Spain and Sweden have historically been large purchasers of African credits
 - exploring the mutual interests between the GoK and Japanese companies in developing geothermal technology which could be effected through the Japanese Bilateral Offset Credit Scheme
 - premium and forestry credits to voluntary purchasers interested in projects with large co-benefits

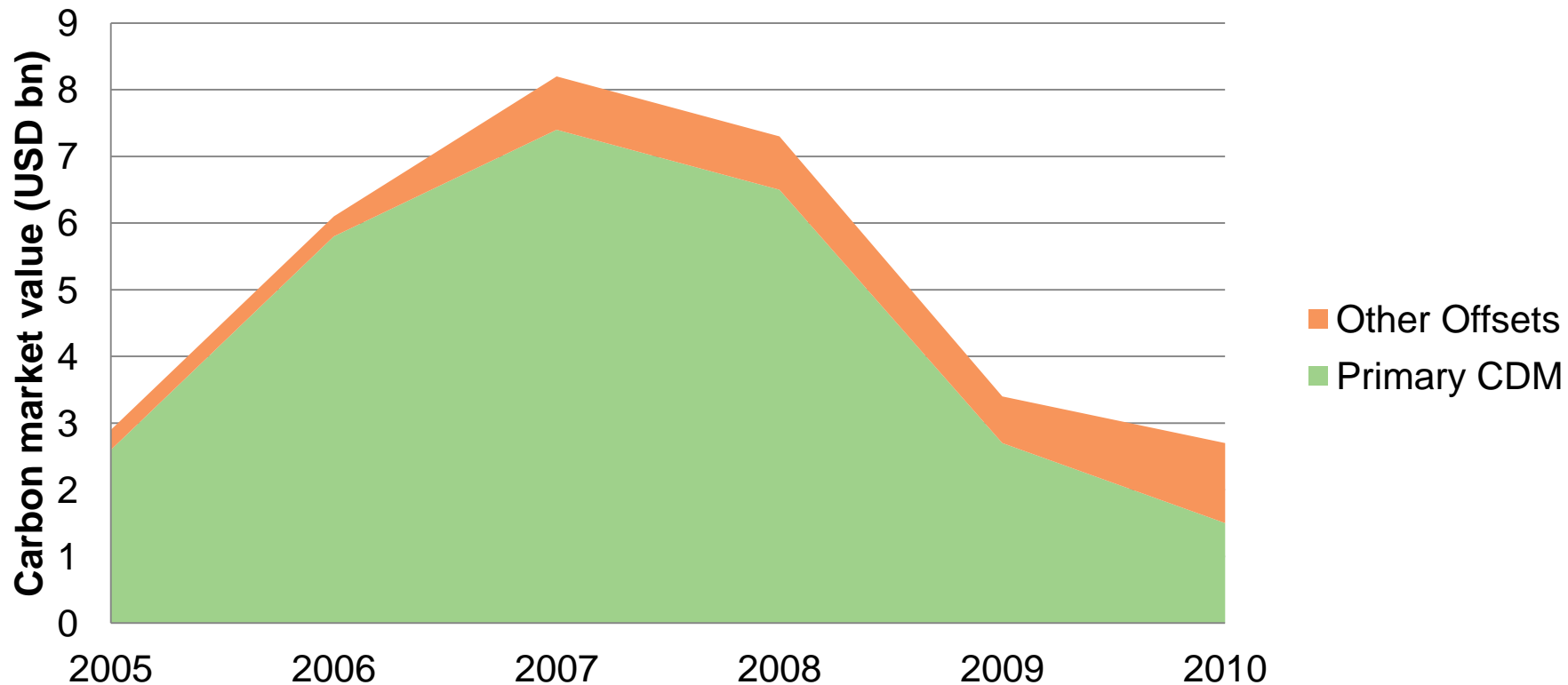
Contents

1. Offset market demand/supply balance 2013-2020
2. Identification of offset opportunities for Kenya, 2013-2020
3. Future changes in platforms for trading carbon credits

Offset carbon market activity has declined since 2008-2009

The decline is a result of uncertainty around post-2012 international negotiations

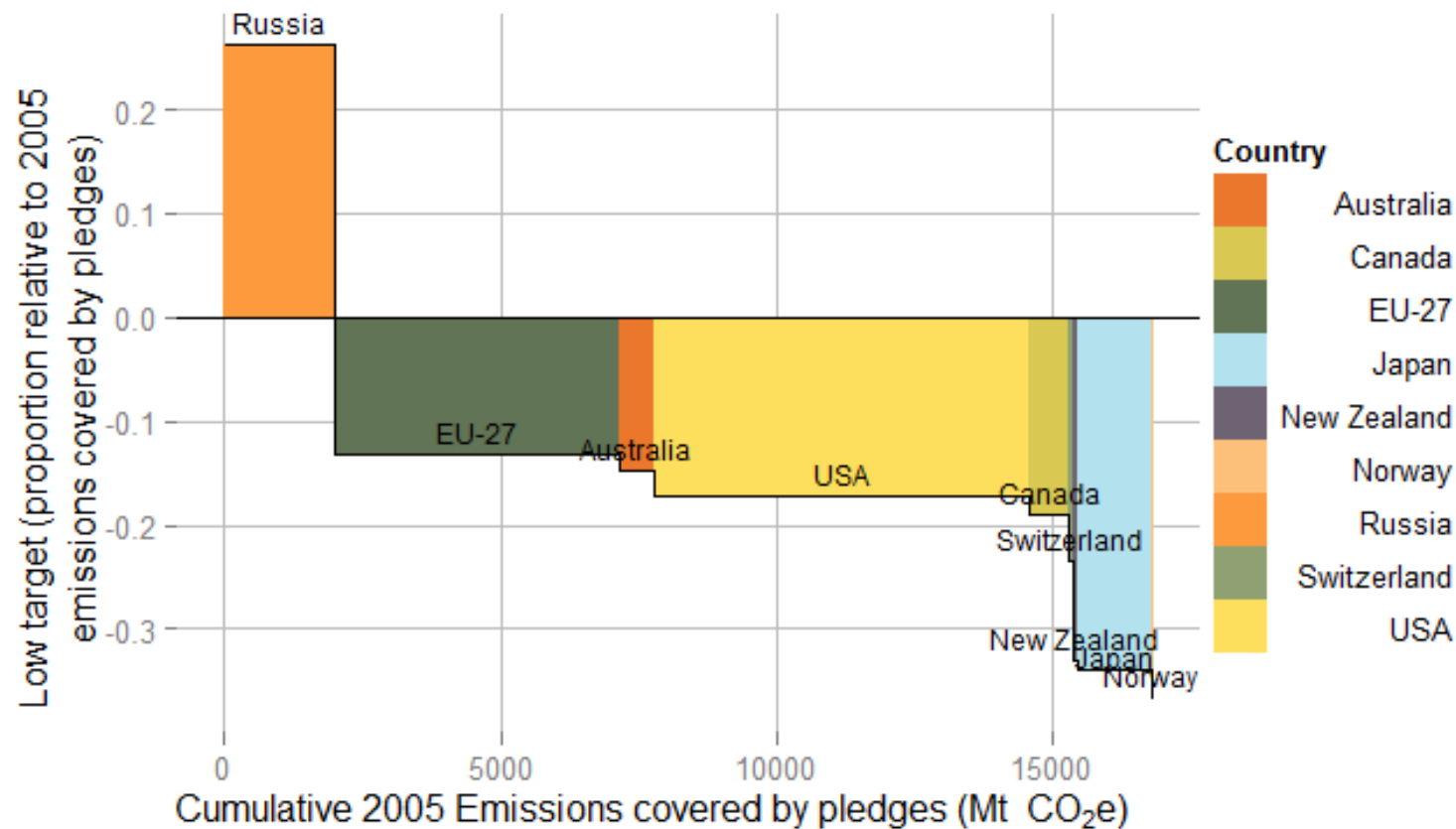
Figure 1. The value of transactions in the offset carbon market peaked in 2007



Source: World Bank (2011) State and trends of the carbon market. Note we exclude secondary market activity from the above.

Copenhagen Accord pledges mean that there will be continued efforts by some Annex 1 countries to reduce their emissions

Figure 2. Demand from offsets may be greatest from countries that are a long way from their target and have high emissions: EU27, USA and Japan are some of the most likely countries



These pledges will continue to create demand for offsets beyond 2012 although in some cases, restrictions will be introduced

Table 1. Different regions apply different rules to the use of offsets

Region	Source of demand	Restrictions on eligibility
EU	EU ETS participants	CERs generated post-2012 must come either from a project registered before end of 2012 or from a project based in an LDC. Credits from some industrial gas projects banned from EU ETS.
	Sovereign demand	No restrictions apply at the EU level. Restrictions may apply at the national level.
Japan	Sovereign	No restrictions thus far. Focus on energy efficiency, renewable energy and REDD+.
Australia	ETS participants post 2015	All CERs allowed (including forestry), except some industrial gas projects and large hydro projects.
New Zealand	ETS participants	All CERs (except forestry) allowed. Possible restrictions on HFC-23 and N ₂ O restrictions being reviewed.
US/Canada	Participants in the Western Climate Initiative	Likely only allowing international forestry offsets, may be open to sectoral credits and other credits.
Global	Voluntary demand	No legal restrictions.

Using existing sources, we derive three projections for future offset demand

we use three offset demand scenarios for 2013-2020, two of which are based on World Bank, State and Trends of the Carbon Market 2011

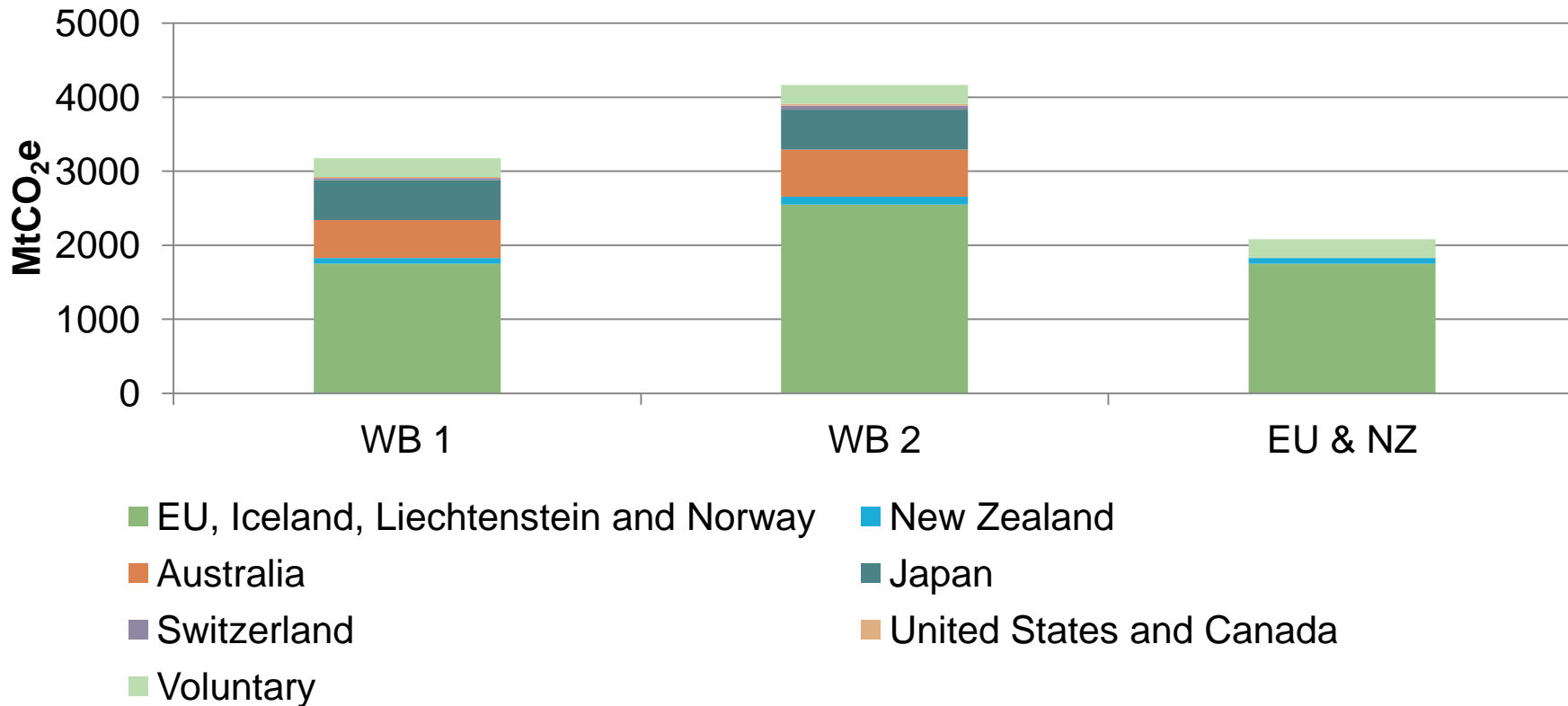
- Scenario **WB 1** assumes action in line with unconditional Copenhagen Accord pledges, including newly emerging cap-and-trade schemes
- Scenario **WB 2** assumes action in line with high end of Copenhagen Accord pledges, including newly emerging cap-and-trade schemes
- Scenario **EU & NZ** assumes only action in EU and New Zealand, based on the only substantive commitment to offset use so far in the EU Climate and Energy Package and the Emissions Trading Scheme in New Zealand.

NB: Projections represent maximum theoretical demand based on expected shortfall and rules governing the use of offsets, not taking into account the availability and price of offsets relative to other types of credits.

Driven by the EU, cumulative offset demand 2013-2020 will be between 2-4bn tCO₂e

There is a reasonable degree of uncertainty, reflecting other industry projections

Figure 3. The major projected demand sources are EU+, Australia, Japan from 2013-2020



Source: Vivid Economics, World Bank (2011) State and trends of the carbon market

Demand can be compared with future supply of CERs already in the CDM pipeline

The CDM represents only one source of potential supply

we have constructed three scenarios on future offset supply 2013-2020 from CDM data

1. Scenario **Max supply** represents all current and future projects in the CDM pipeline
2. Scenario **Max supply - adjusted** represents all current and future projects in the CDM pipeline, adjusted for performance (rate of 49%)
3. Scenario **Qualitative restrictions - adjusted** assumes that HFC-23, hydro, N₂O and PFCs & SF6 projects will not be eligible for compliance in any market and the remainder is adjusted for performance (rate of 49%)

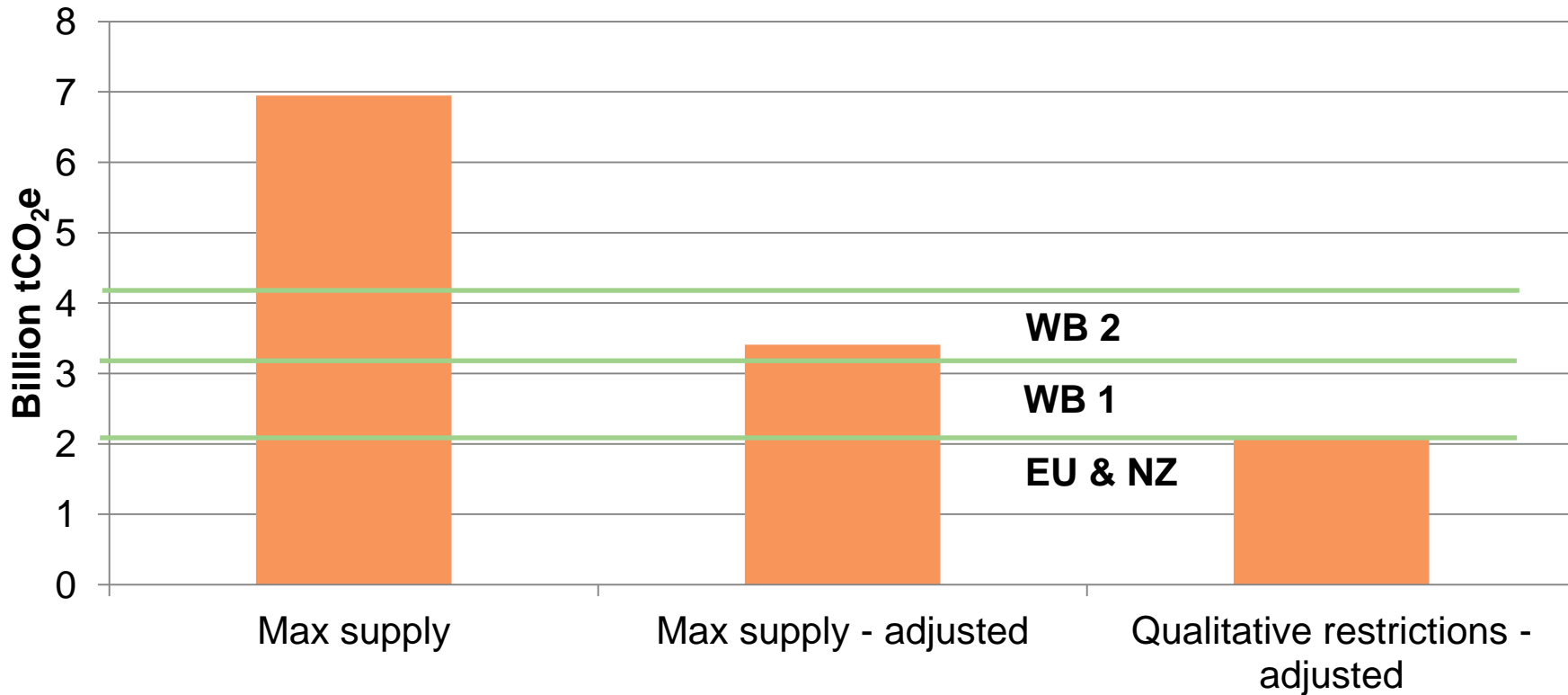
the second and third assumptions are conservative

- a performance rate higher than 49% may be expected as CDM governing bodies and project developers improve project handling.
- qualitative restrictions are extreme as it is likely that some demand sources will continue to accept supply from these project types

may also be non-CDM sources of credit supply including sectoral approaches, REDD+ credits, voluntary credits

In a number of scenarios, supply of credits from projects already in the pipeline exceeds future demand

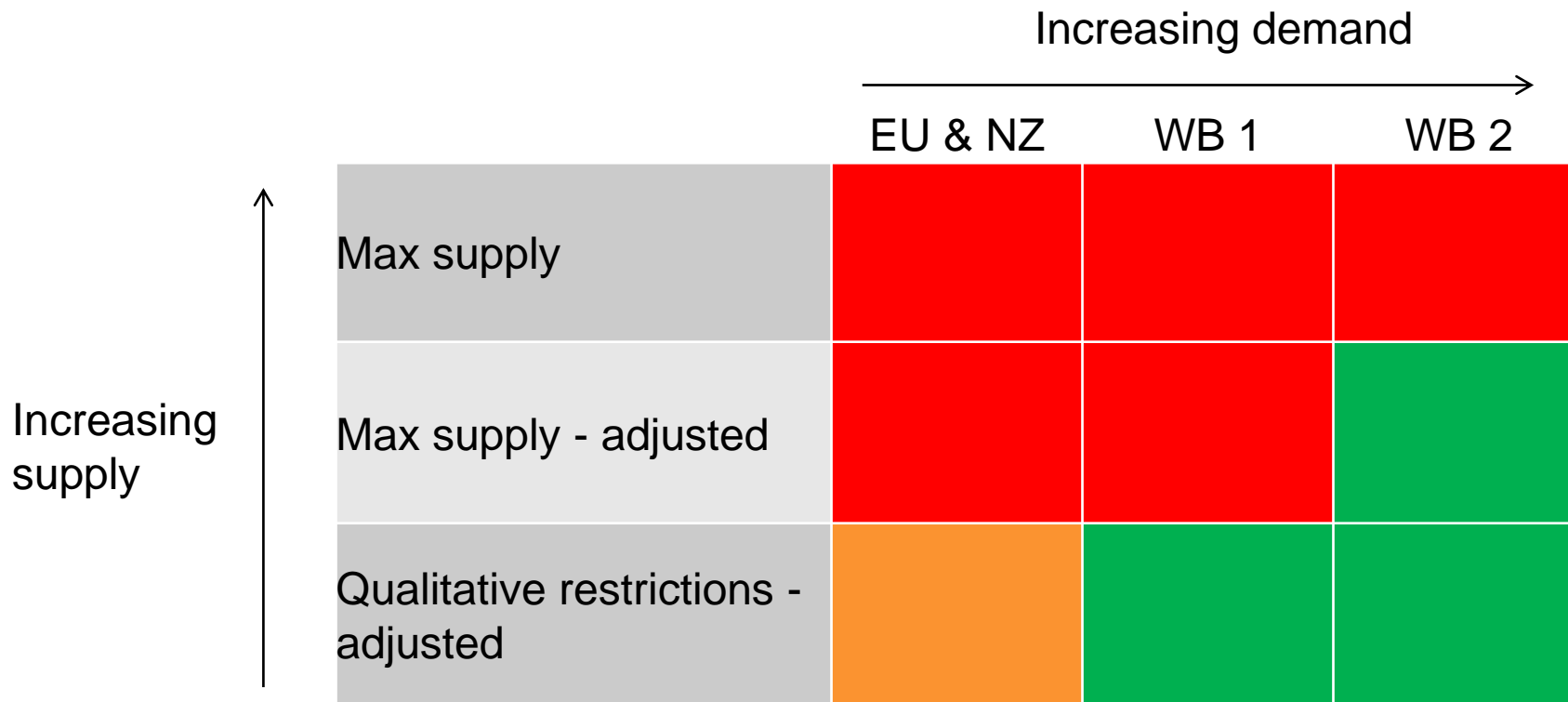
Figure 4. The scenarios indicate that there is likely excess supply of CERs from 2012-2020



Source: Vivid Economics, World Bank (2011) State and trends of the carbon market

Supply of offsets from existing projects exceeds demand in most scenarios

Figure 5. The scenarios indicate that there is likely excess supply of CERs from 2012-2020



Source: Vivid Economics, World Bank (2011) State and trends of the carbon market

Global demand – supply balance: implications for Kenya

future global demand-supply situation in carbon markets is unlikely to be particularly favourable to Kenya

two caveats not captured in the above analysis

- China may stop issuing CDM Letters of Approval, as it aims to use reductions under own commitments.
- If a decision on the phase IV (post 2020) of the EU ETS was reached that included banking between phase III and phase IV

→ **Nonetheless, Kenya should be cautious about future flows of carbon finance that it can attract**

two implications

- **Kenya, in line with other African countries should continue to push Annex 1 countries for steeper emission reduction commitments**
- **in challenging market conditions, Kenya needs to strategically target those buyers who are most likely to be interested in Kenyan offsets**

Contents

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Identifying strategic opportunities for Kenyan offsets

Our analysis considers both geographic sources of demand and Kenyan sources of supply

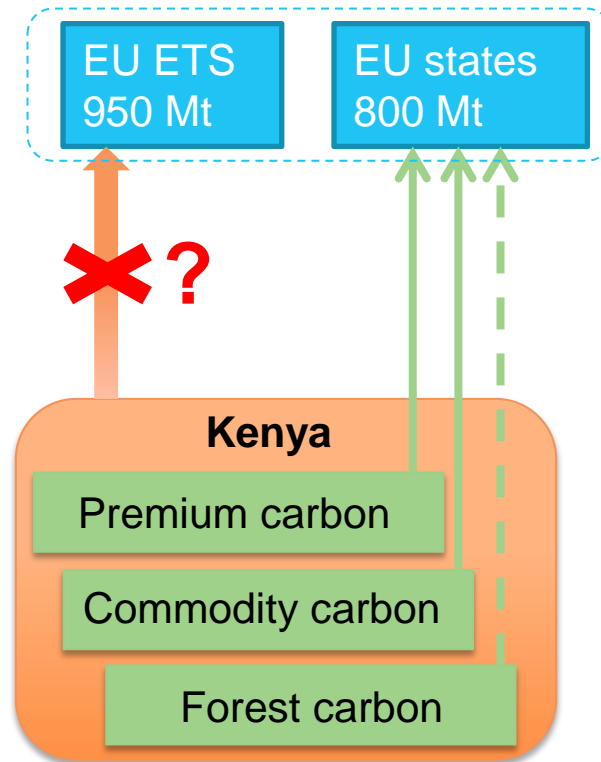
the following slides map global offset demand (as per WB1 scenario) in different regions, identifying where opportunities for Kenyan credits are and may emerge

we assume Kenya can supply three types of offset

- premium carbon: carbon offsets with substantial co-benefits certified by high standards
- commodity carbon: bulk offsets that do not meet high standards associated with various standards
- forest carbon: offsets generated from REDD+ activities

these different forms of offsets will be more or less attractive for buyers in different markets as indicated by the green arrows

Legal constraints restrict demand from the EU ETS but not from European sovereigns



At present, after 2012 Kenyan credits will not be eligible for compliance in the EU ETS

Kenya, in conjunction with other non-LDC African countries, should push EU for bilateral agreements

from 2013, companies wishing to use CERs for compliance in the EU ETS must either use credits generated from a project registered before end of 2012 or from a project based in an LDC if registered after 2013

this restricts future Kenyan offsets from the largest single source of post 2012 demand

two options for Kenya and its project developers (not mutually exclusive)

1. facilitate quick registration of projects, especially Programme of Activity projects

but... this needs to be happening now to have any chance of meeting end 2012 deadline (there is already considerable private sector activity in this regard)

2. push for an exemption to EU ETS rules for non-LDC African countries

but... this will be a timely process, requiring agreement from all EU27 countries. **Kenya could act in concert with other affected African countries e.g. Nigeria, Ghana, South Africa.**

Kenya can still sell offsets to individual EU states

sovereign EU demand for credits is substantial at 800 Mt and no offset restrictions apply so far at the EU level, although restrictions may apply at the national level

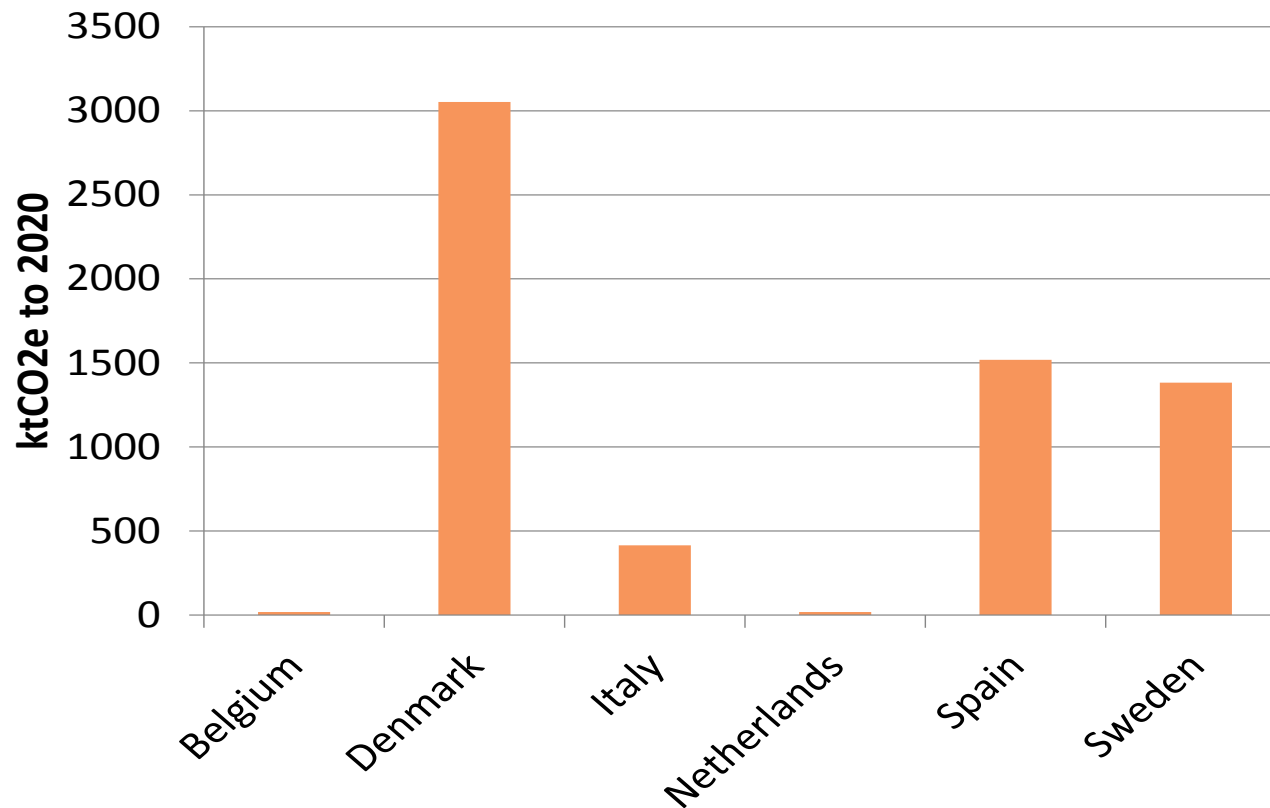
EU sovereigns may find bilateral deals with Kenya attractive, especially for premium carbon purchase

Kenya should consider actively marketing (premium carbon) to specific EU member states with a track record of purchasing African carbon in the primary market including Denmark, Italy, Spain and Sweden

— although a history of past purchases is no guarantee of future demand

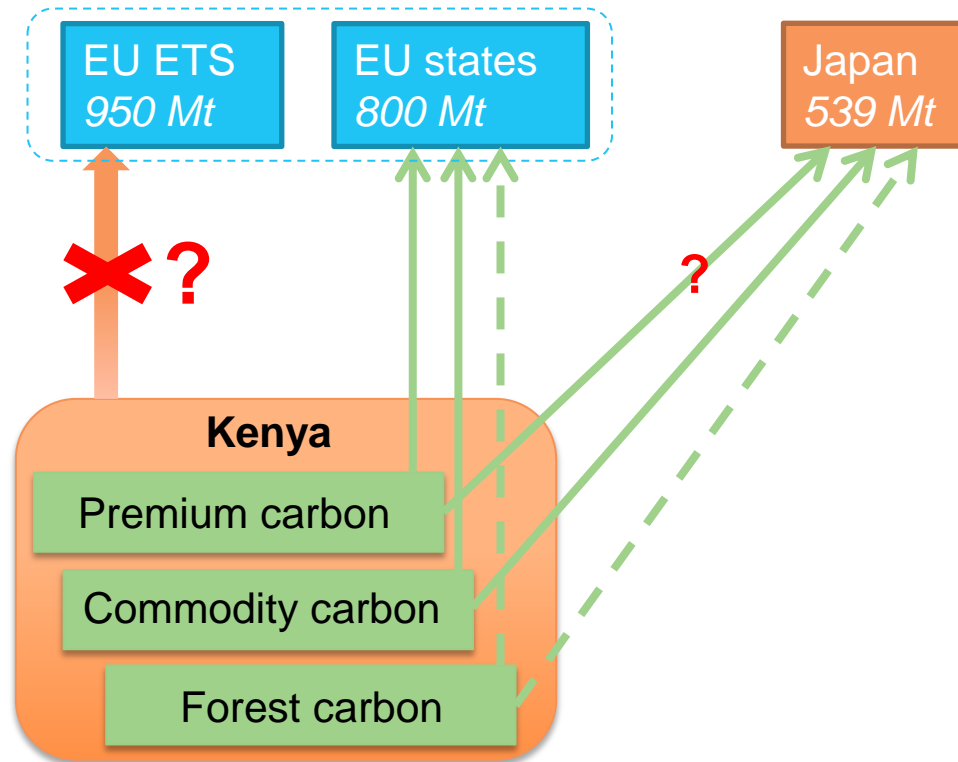
Denmark, Spain and Sweden have historically been large purchasers of African CERs

Figure 6. African CERs purchased by EU states, ktCO₂e to 2020



Source: CDM pipeline, Vivid Economics analysis. Indicative estimate only based on incomplete data.

Japan could become a considerable source of offset demand



This demand is likely to be channelled through its Bilateral Offset Credit Mechanism

The mechanism that will be likely to sit outside the CDM process

Japan is in the process of developing its own 'Bilateral Offset Credit Mechanism' (BOCM)

- focus on generating carbon credits from co-investing in Japanese technology deployment in developing countries including
 - ultra super-critical coal power plants
 - geothermal power plants
 - nuclear power
 - energy efficiency technology in steel, cement etc.
 - highly efficient manufacturing by using IT
 - highly efficient eco-driving
 - REDD+ related technology
 - CCS
- will establish its own quality standards for offsets
- this is likely to proceed regardless of any decision on a Japanese ETS
- pilot scheme projects mainly in Asia and relatively small budget (USD 9m in FY2010)

Although Japan's main focus is likely to be in Asia, there may be opportunities for Kenya in relation to geothermal energy

Japan's offset demand is widely expected to be predominately met through Asian offsets

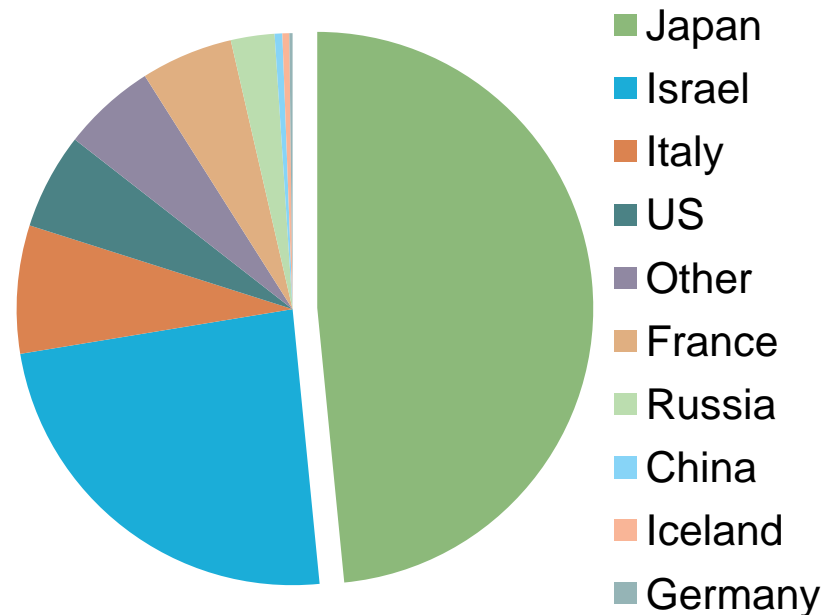
however, Japan has recently begun discussions with African countries (including Kenya) to explain scheme

Kenya and Japan's interests may coincide in relation to geothermal energy of which Japan is a major manufacturer

Kenya may wish to have (further) discussions with Japanese government to explore opportunities for development of geothermal energy through Japanese BOCM

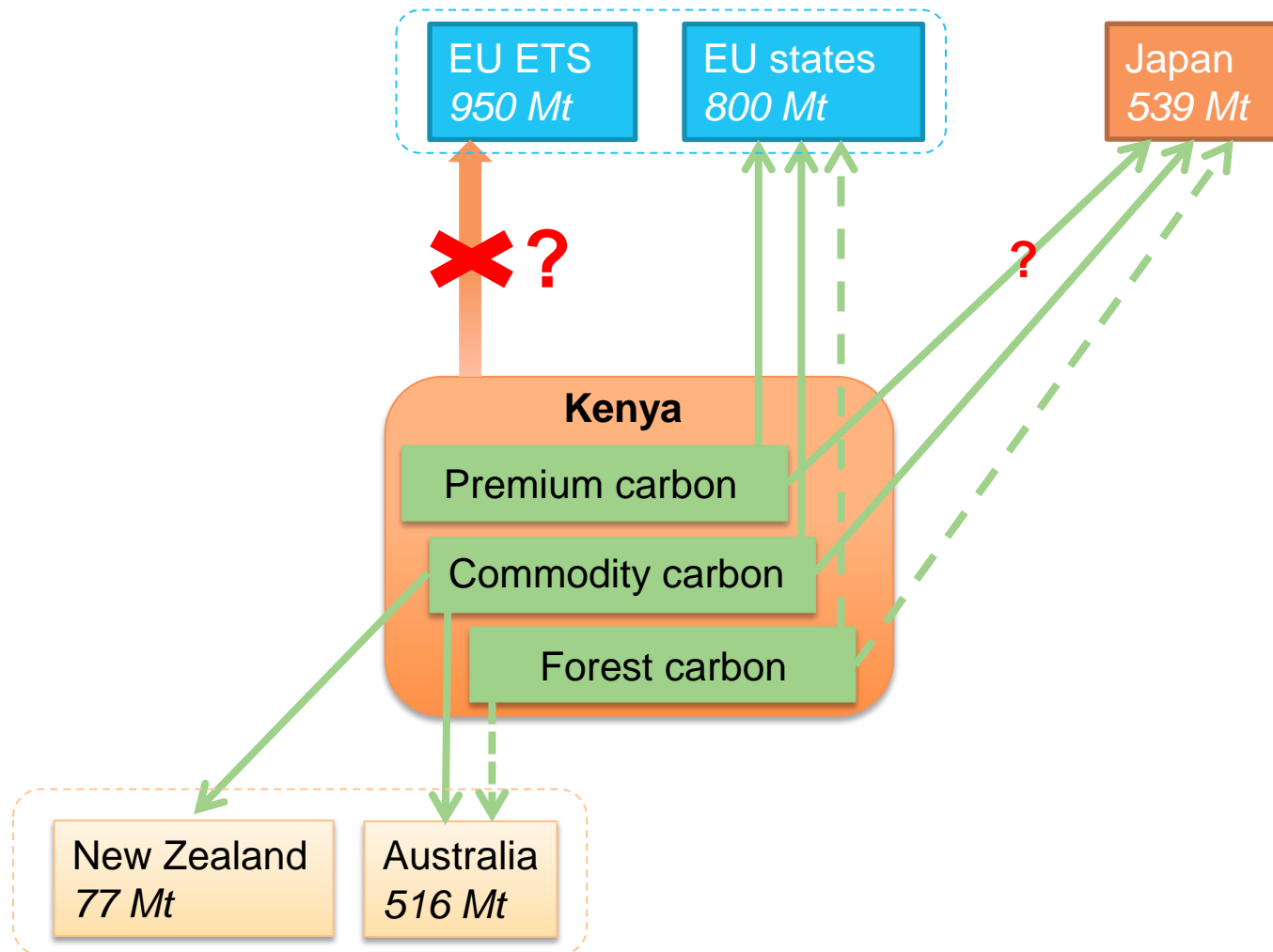
overcoming other (perceived) constraints i.e. security of off-take arrangements will be critical to success

Figure 7. Almost 50% of the geothermal units ordered since 2000 have come from Japanese manufacturers



Source: Earth Policy Institute data (2011)

Australia & New Zealand may boost offset demand



But it is unlikely to provide many clear opportunities for Kenya

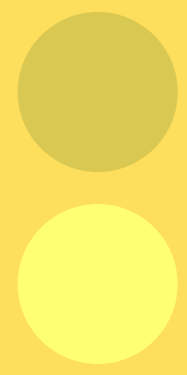
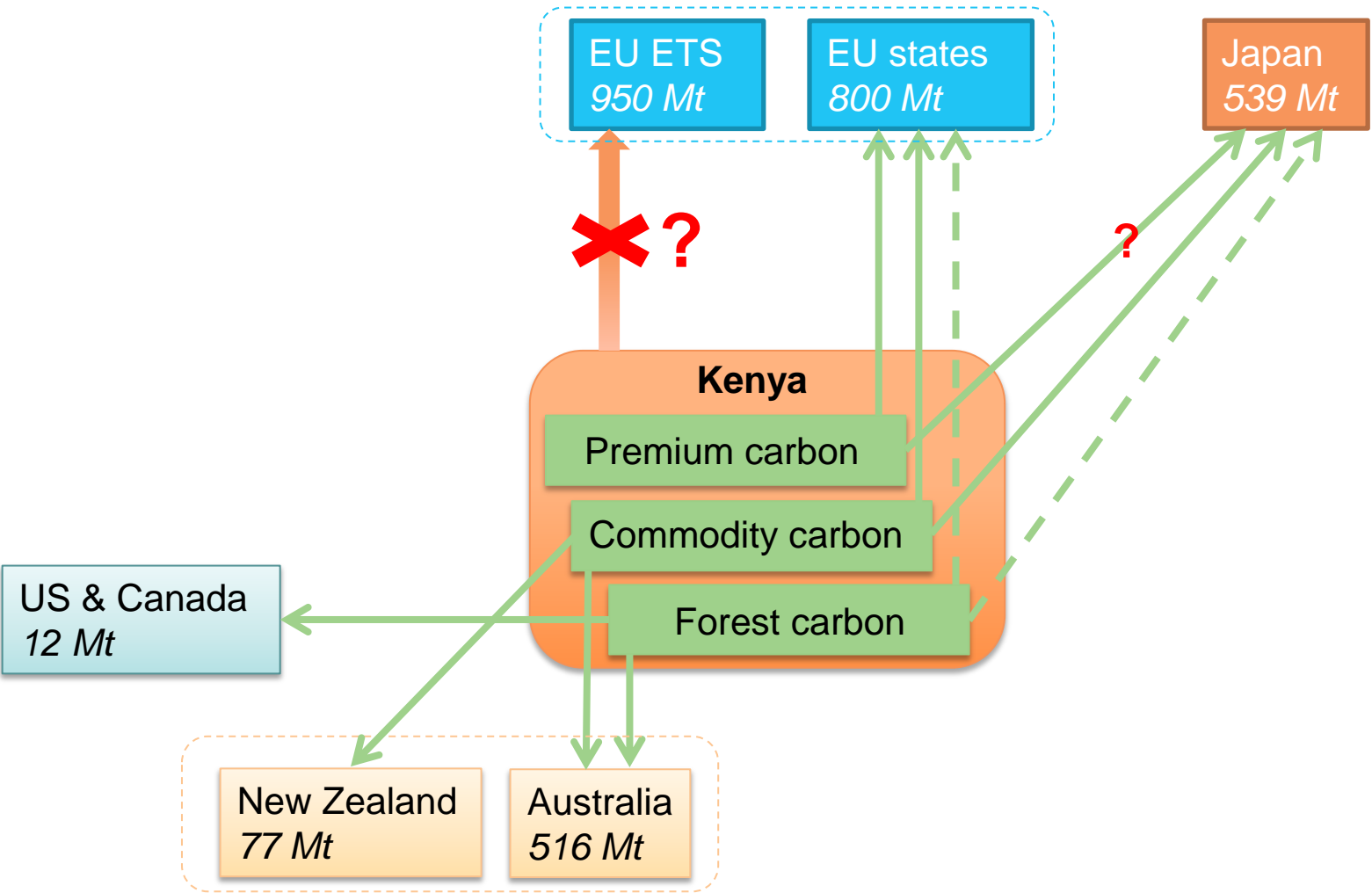
Australia and New Zealand allow use of international offsets with qualitative restrictions:

- Australia ETS participants: most CERs (including certified forestry projects) allowed; nuclear, HFC-23, N₂O, and large hydro projects disallowed
- New Zealand ETS participants: CERs excluding forestry and nuclear. HFC-23 and N₂O restrictions under review

CER procurement focus probably on price not on co-benefits and so may not be especially targeted at Kenyan offsets

to the extent that Australian purchasers explicitly focus on forestry credits, this will only be for internationally certified credits and is most likely to focus on the Australasia region, especially Indonesia and Papua New Guinea

US & Canada demand is small and limited to forest carbon



And this demand is likely to be mainly met from projects from Brazil, Indonesia or Nigeria

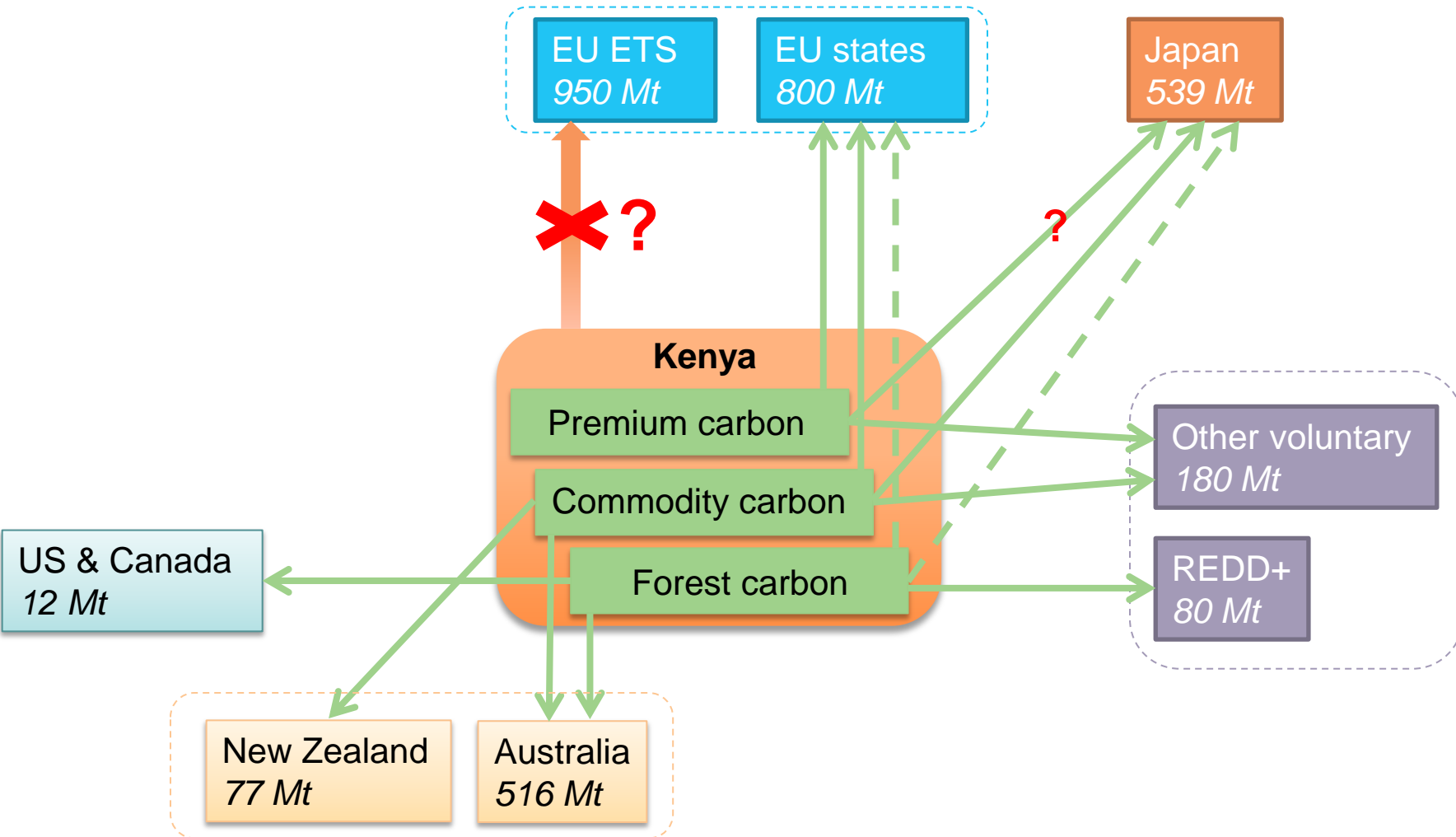
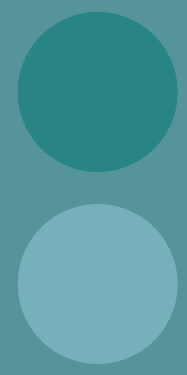
US & Canada states and provinces allow international offsetting to a limited extent and focus on domestic offsetting

— any international offset demand likely to be limited to forestry offsets

Governors' Climate and Forests taskforce is subnational collaboration between US states (California, Illinois) and those in Brazil, Indonesia and Nigeria focussing on development of rules and procedures needed to generate compliance grade REDD+ credits

likely that credits used for compliance in US/Canadian schemes will come from these countries in first instance

Voluntary markets remain interesting from a Kenyan perspective



Voluntary markets: interesting from an African perspective

voluntary offset demand could remain reasonably strong while there is a lack of action by international community and individual regions

projects with significant co-benefits will be an attractive propositions for voluntary buyers

REDD+ is a particularly strong asset on voluntary markets

- there are funds in development that are interested in purchasing African forestry carbon
- Kenya has demonstrated ability to develop projects generating voluntary carbon credits

Voluntary purchases of premium carbon offsets, including from forestry projects, represent an important opportunity for Kenya in the 2013-2020 period

- other work within the subcomponent will identify barriers and possible ways of overcoming these, to the successful delivery of these projects

Identifying market opportunities for Kenyan offsets: conclusions

1. Acting in concert with other affected African countries, Kenya should push for a bilateral agreement that will continue to allow its CERs to be compliant in the EU ETS post 2012
2. There remain opportunities to market high quality Kenyan offsets to European sovereign purchasers especially Denmark, Spain and Sweden
3. The Japanese BOCM may offer an interesting opportunity for Kenya to help realise its geothermal ambitions and could be developed further with the GoJ.
4. Voluntary purchases of premium carbon offsets, including from forestry projects, represent an important opportunity for Kenya in the 2013-2020 period
5. Imperative to accessing these international opportunities is the further development of a sound institutional framework for CER generation

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1. Offset market demand/supply balance 2013-2020
2. Identification of offset opportunities for Kenya, 2013-2020
3. Future changes in platforms for trading carbon credits

In the longer term, there is a potential market shift to alternative crediting mechanisms

This provides both threats and opportunities to Kenya

slow trend away from project based-crediting towards a variety of approaches i.e. bilateral agreements, credited NAMAs, sectoral agreements

- common theme is to increase the emissions reductions achieved per 'deal' (possibly at the expense of demonstrating strict additionality)

in anticipation of this shift readiness funding, funding for demonstration projects and other capacity building support is becoming available from several sources including Annex 1 country governments, MDBs, UN

this may be a **threat** to Kenya

- Kenya is a relatively small market for low-carbon technologies and risks being overlooked relative to larger countries with more emission reduction opportunities

but also offers **opportunities**

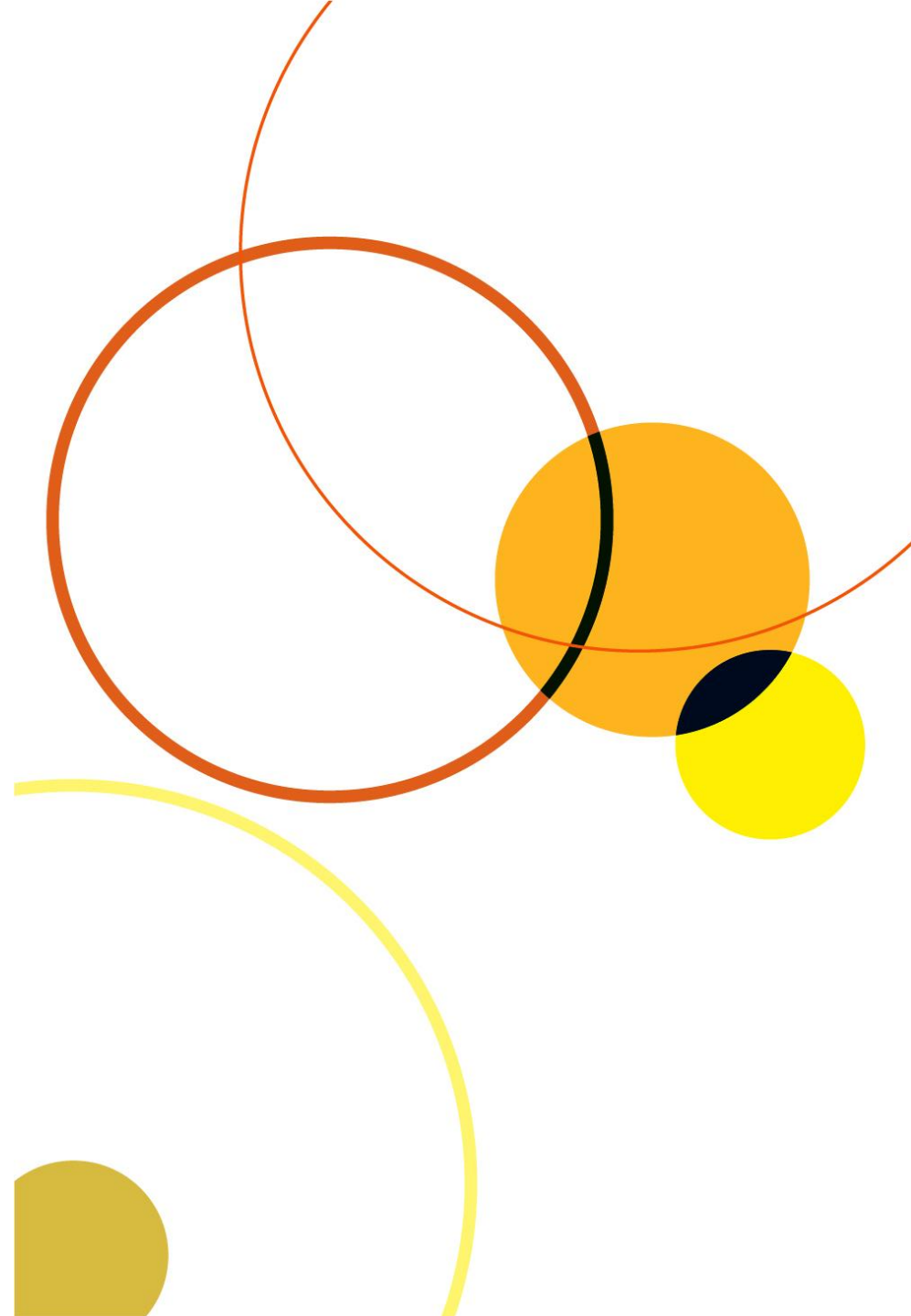
- Kenya might play a regional co-ordination role, aggregating and marketing the similar mitigation opportunities available across the East Africa region
- continued/heightened interest in programmatic CDM where Kenya may have advantages i.e. cook stoves

: vivideconomics

Annex F - National Funding Entities: existing practice and lessons for Kenya

**Report prepared for the Government
of Kenya**

December 2011



Common features of most national climate funds

This slide deck investigates the key features and emerging lessons from the development of National Climate Funds (NCFs) – institutions set up in developing countries to receive international climate finance and allocate resources to climate projects according to their own decision-making processes. We focus on NCFs capitalised with international resources.

1. **Domestic government representatives have a majority of seats on key decision-making fora in the fund**
2. **Most NCFs have a two tier structure.** This consists of a management committee undertaking the day-to-day management of the fund and a steering committee providing strategic direction.
3. **Development partners normally have up to three roles**
 - non-majority members of management and steering committees (sometimes observer status)
 - trustees to the fund (i.e. WB, UNDP)
 - to provide technical advisory expertise in helping to design and/or assess projects (but not with ultimate decision-making power)
4. **Different funds are located in different Ministries.** For instance, in Bangladesh and Cambodia the Ministry of Environment is primarily responsible, in Indonesia the fund comes under the purview of the Ministry of National Planning, while in Ecuador the 'Government Co-ordinating Entity' is in the Ministry of Heritage.
5. **The bulk of funding provided by NCFs is provided as grants for direct budget support to line ministries.** Some funds provide small amounts of funding for CSOs/NGOs; in other cases, a wider range of implementing entities is envisaged in the future.

3 key lessons from the development of climate funds to date

This is a selection of the most important lessons drawn from the countries analysed

- 1. The role of external agencies should be made clear from the outset; overall government control on decision making will help political acceptability.** Much of the delay in setting up the BCCRF resulted from a lack of clarity over the respective roles of the WB and GoB and a concern that the GoB would not have control over how funds were allocated. There is a need to specify precisely the role of external agencies.
- 2. A separate climate change fund needs to be designed carefully if it is to result in climate change being mainstreamed, rather than silo-ed.** Some observers have been concerned that the creation of a separate climate change fund has resulted in some Ministries not trying to integrate climate change into their day-to-day activities as it is considered that climate change is being dealt with 'elsewhere'.
- 3. To convince donors, there is a need for the government to be able to articulate a strong vision of what the Fund is designed to achieve which is closely linked to a climate change action plan (or equivalent) with identified priorities.** In Indonesia, there has been some uncertainty about what the Fund is designed to achieve, especially as it was established significantly before the Climate Change Action Plan was completed. In Bangladesh there have been concerns that the lack of specificity in the country's Action Plan will make it difficult to know how to allocate resources between competing priorities.

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3. Other funds



Bangladesh Climate Change Resilience Fund

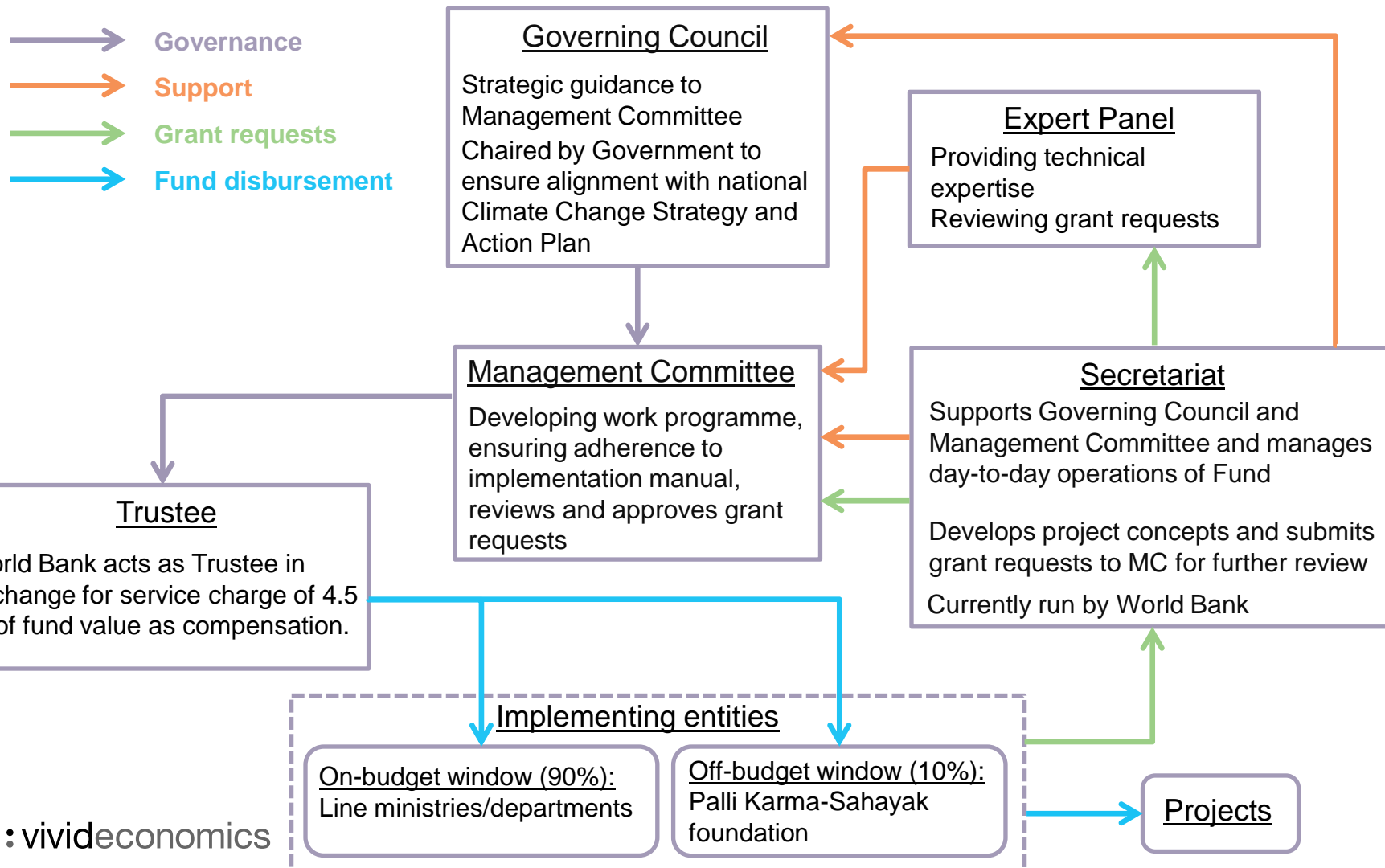
Design aspect	Comments
Objectives	Provide support to vulnerable communities in adapting to greater climate uncertainty and changing agricultural conditions. Linked to Climate Change Strategy and Action Plan for 2009-2018.
Capitalisation	\$110m: UK (\$94.6m), Denmark (\$1.8m), EU (\$11.7m), Sweden (\$13.6 m), Switzerland (\$3.8m). Australia about to join.
Governance	<p>Governing Council (GC) provides guidance on high level issues such as setting strategic goals, alignment with Strategic Plan and determining grant criteria. It is chaired by the MoEF and has 16 members, including representatives from the Prime Minister's office, the Planning Commission, 5 ministries, as well as 2 representatives from development partners and 2 CSO representatives (nominated by the government). WB has observer status without voting right.</p> <p>Management Committee (MC) oversees the Fund's operation, establishes the work programme and budget allocation, reviews/approve grant requests. It is supported in this work by the Secretariat, currently staffed by World Bank employees, which independently assesses the viability of each project. It is chaired by the MoEF and has 9 members, including representatives from ministries, 2 representatives from development partners (only one has a vote), 1 CSO representative. WB has observer status without voting right</p>

Bangladesh Climate Change Resilience Fund (2)

Fiduciary management	World Bank acts as Interim Trustee for a 4.5% service charge. As well as financial management, this role comprises provision of services including establishing activity codes and process contracts, drafting agreements with donors and others. The GC aims to transfer this role to the BCCRF Secretariat in 5 years.
Implementation	90% of funding is on-budget where line ministries implement projects, with technical support from WB. 10% of funding is directed at NGOs /CSOs where the implementing entity is Palli Karma-Sahayak foundation. All funding is provided as grants. Implementing partners are coordinated by the Secretariat and WB, which also team up for implementation support and monitoring missions twice a year.
MRV	MC meets at least 3 times a year during implementation period. It reviews semi-annual monitoring and evaluation reports prepared by Secretariat for submission to Development Partners. The WB also issues an annual report on progress. A monitoring matrix tracking inputs, outputs, and outcomes is developed with performance indicators. Separate grant agreements that include World Bank safeguard measures govern use and disbursement of funds. Procurement is governed by World Bank policies and procedures.

The BCCRF has a two tier structure coupled with an expert panel and secretariat providing support

And the World Bank acting as (temporary) trustee



The BCCRF has a developed project cycle including M&E procedures

the project cycle for the fund consists of three stages:

1. **preparation:** typically 2-3 years but the intention is to bring it down to 1 year
 2. **implementation:** approved grants governed by legal Grant Agreement between WB (as Trustee) and recipient to ensure funds only used for agreed purposes
 3. **monitoring and evaluation:** consists of three tiers
 - **project level:** WB team, with members of Secretariat will undertake implementation support missions every 6 months to review technical and fiduciary aspects of the project and consult beneficiaries and stakeholders. Will be based on Results Framework and Monitoring table established during preparation phase
 - **annual:** WB to prepare annual report on project progress (physical and financial) and an annual report
 - **mid-term evaluation:** two years after grant programme to assess progress
- to Nov 2011, one project approved for US 25m for multipurpose cyclone shelters
- two others approved development to full project proposals

The BCCRF took a long time to set up due to concerns over the role of the World Bank

This has led to the creation of two funds: one funded by donors and one by the government

BCCRF was first in 2008 proposed to be a Multi-Donor Trust Fund (MDTF) but quickly led to disagreement

- GoB and key NGOs objected to the perceived role that the WB in project decision making as well as the lengthy and complex procurement processes which would be required, the level of fees, and the perceived poor environmental record of the WB.
- donors concerns about financial management and fiduciary risk

compromise involved WB acting as Trustee and staffing Secretariat for an initial three year time frame while capacity is built up in GoB, and with GoB having sufficient safeguards about overall control.

delay led to the establishment of the entirely separate, exclusively government-funded, Bangladeshi Climate Change Trust Fund (BCCTF)

Ministry of Environment is deeply involved in both funds and is a focus of capacity building efforts

Key learning points from Bangladesh

- 1. The role of external agencies should be made clear from the outset; overall government control on decision making helps political acceptability.** Much of the delay in setting up the BCCRF resulted from a lack of clarity over the respective roles of the WB and GoB and a concern that the GoB would not have control over how funds were allocated. There is a need to specify precisely the role of external agencies.
- 2. Decision-making needs to be as transparent as possible and with whistle-blowing facilities easily available.** There have been controversies over some of the decisions made in relation to Bangladesh's climate finance architecture such as:
 - controversy over the choice of the implementing entity for CSO window (PKK);
 - concerns in relation to project decision making in BCCTF.

As well as making public the reasons for all key decisions, there may also be a formal role for independent oversight by CSOs or others.

- 3. Institutional overlap makes implementation more challenging.** Although the BCCRF and BCCTF have now established separate niches (BCCRF focussing on larger projects; BCCTF on smaller projects), there are concerns that the overlap creates complexity and duplication.

Key learning points from Bangladesh (2)

4. **The decision on where to locate any trust fund can determine its effectiveness.** Some have expressed concern that the location of the BCCRF and BCCTF within the Ministry of Environment has limited its effectiveness as it does not have the convening power of other Ministries. As a consequence, there is a concern that adaptation is not being adequately integrated into government actions.
5. **If external agencies are being used, it is important to ensure that programmes for capacity building within government are developed.** A recent UK Independent Commission on Aid Effectiveness report expressed concerns that capacity building efforts within the Ministry of Environment were not being prioritised making it likely that the BCCRF would rely on external support for longer.
6. **The development of a civil society window has helped to build the Fund's acceptance, but it is important to find an appropriate Implementing Entity.** In the case of the BCCRF, the desire for this to be a national institution, coupled with distrust over the role of the WB, meant that the WB was not the appropriate institution to support the development of this window.
7. **A fund will work most effectively where there is a fully agreed Action Plan which identifies priorities.** Concerns have been expressed (Khan et al, 2011) that the absence of a list of priority actions in the Bangladesh Action Plan will make it difficult for the Fund to allocate resources. A list of agreed priorities could also reduce the risk of tension between donors and the government

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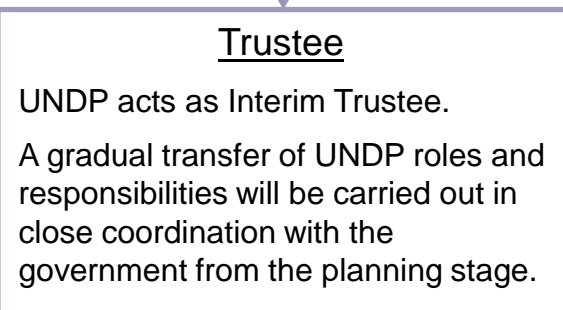
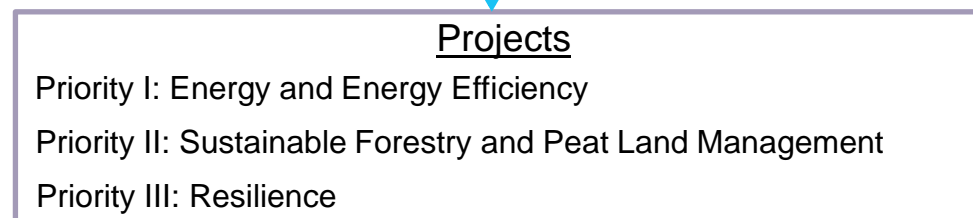
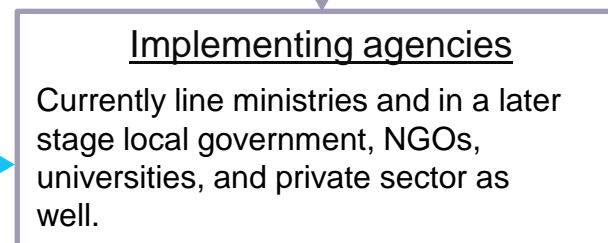
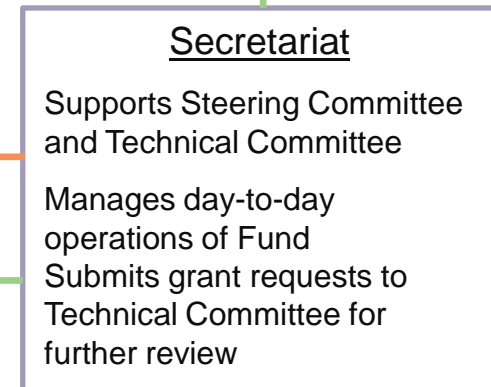
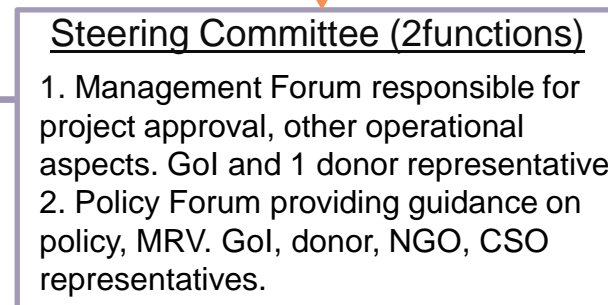
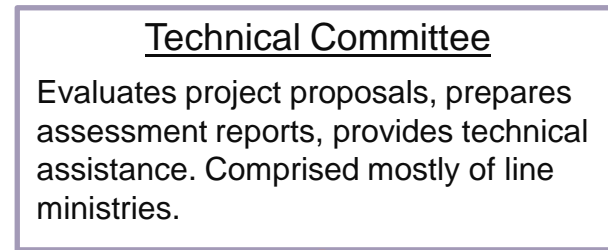
The Indonesia Climate Change Trust Fund (1)

Design aspect	Comments
Objectives	<ol style="list-style-type: none"> 1. Achieve GoI's goals of a low-carbon economy and greater resilience to climate change 2. Enable GoI to increase the effectiveness and impact of its leadership and management in addressing climate change issues. (To this end, all external assistance interventions will include capacity development activities to ensure the sustainability of future ICCTF operations without relying on international assistance.)
Capitalisation	\$18.5m (pledged). UK (\$16.5m); Australia (\$1.m); Sweden (\$0.17m)
Governance	<p>Steering Committee (SC) both functions as a Management Forum, undertaking final project approval and other operational aspects; and a Policy Forum, providing guidance on policy, operations, management and MRV. A Technical Committee (TC) evaluates project proposals and is comprised of line ministries. A Secretariat supports SC and TC and manages daily operations with Technical experts supporting this Secretariat.</p> <p>The SC consists of representatives of line ministries and the National Council on Climate Change. Development partners, NGOs and CSOs may take part in the Policy Forum. One development partner representative may take part in the Management Forum.</p>

The Indonesia Climate Change Trust Fund (2)

Fiduciary management	UNDP is Interim Fund Manager and is developing capacity so it can transfer this responsibility to a national entity.
Implementation	Currently, line ministries can apply for funding. At a later date, it is anticipated that local governments, NGOs, universities, private firms may apply as well. Three priority funding windows: Energy and Energy Efficiency, Sustainable Forestry and Peat Land Management, and Resilience.
MRV	The Secretariat organises annual missions to monitor and evaluate projects. The SC, Trustee and grant recipients will undergo annual audits by independent accountants.

The ICCTF also has a two tier structure



The Indonesia Green Investment Fund

originally envisioned that the ICCTF would consist of:

- an Innovation Fund, channelling donor grants, and
- Transformation Fund, to make investments in projects

Transformation Fund recently replaced by Indonesia Green Investment Fund, a Sovereign Wealth Fund promoting low-carbon investment

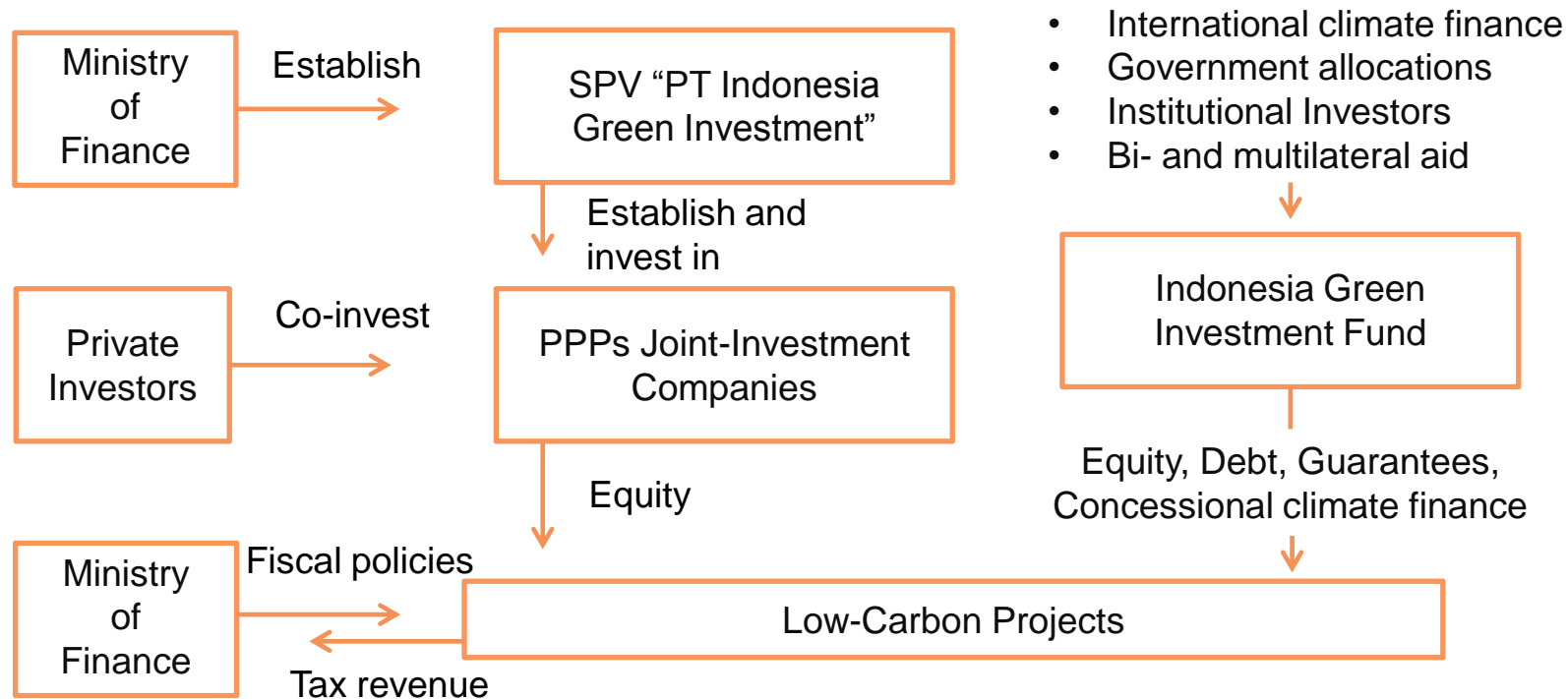
currently capitalised with \$400m provided by the GoI but donors are expected to provide (concessional) loans and grants to IGIF as well (including DFID, AFD) in future

aims to leverage private investment mainly in low-carbon infrastructure by offering a blend of \$20-80m grants, equity and (concessional) loans as co-investments

IGIF is an association of accounts rather than a fund

- each contributor manages its own account by their own governance rules, but at the same custodian bank
- execution is unified while the governance is not, avoiding issues of different contributors needing to agree on common rules and procedures
- provides high individual control over spending regimes

The Indonesia Green Investment Fund will seek to leverage private sector low-carbon investment



Source: Gol Ministry of Finance (2010) in Brown & Peskett (2011)

Key learning points from Indonesia

- 1. A separate climate change fund needs to be designed carefully if it is to result in climate change being mainstreamed, rather than silo-ed.** Some observers have been concerned that the creation of a separate climate change fund has resulted in some Ministries not trying to integrate climate change into their day-to-day activities as it is considered that climate change is being dealt with 'elsewhere'.
- 2. There is a difficulty in getting donors to commit to basket funds (funds where resources are pooled with those from other donors); government will probably need to make concerted effort to push donors to support such a modality.** Of the 15 donors supporting climate change actions in Indonesia, only three have committed resources to the ICCTF.
- 3. To convince donors, there is a need for the government to be able to articulate a strong vision of what the Fund is designed to achieve which is closely linked to a climate change action plan (or equivalent).** In Indonesia, there has been some uncertainty about what the Fund is designed to achieve, especially as it was established significantly before the Climate Change Action Plan was completed .

Further key points from the Indonesia experience

5. **A lack of vision can also make it difficult to evaluate projects brought forward through a competitive process.** Concerns have been expressed that the projects being supported by the ICCTF are not focussed on long-term strategic mitigation priorities. Once again, this illustrates the importance of integrating any financing mechanism within a broader strategic framework.
6. **There will be a risk that effectiveness will be undermined if other donors operate outside the mechanism.** The role of the ICCTF is unclear in light of the recent funding commitment by Norway to support REDD+ investments which has been made outside of the ICCTF.
7. **Unless the fund is large enough, it may be imbalanced towards capacity-building grants.** A recent report (Brown and Peskett, 2011) has highlighted concerns that the ICCTF appears to mainly provide capacity building grants that do not directly lead to mitigation. This may reflect the relatively low capitalisation of the fund which means that only relatively small projects can be provided and possibly also a challenge in providing financing instruments other than grants.

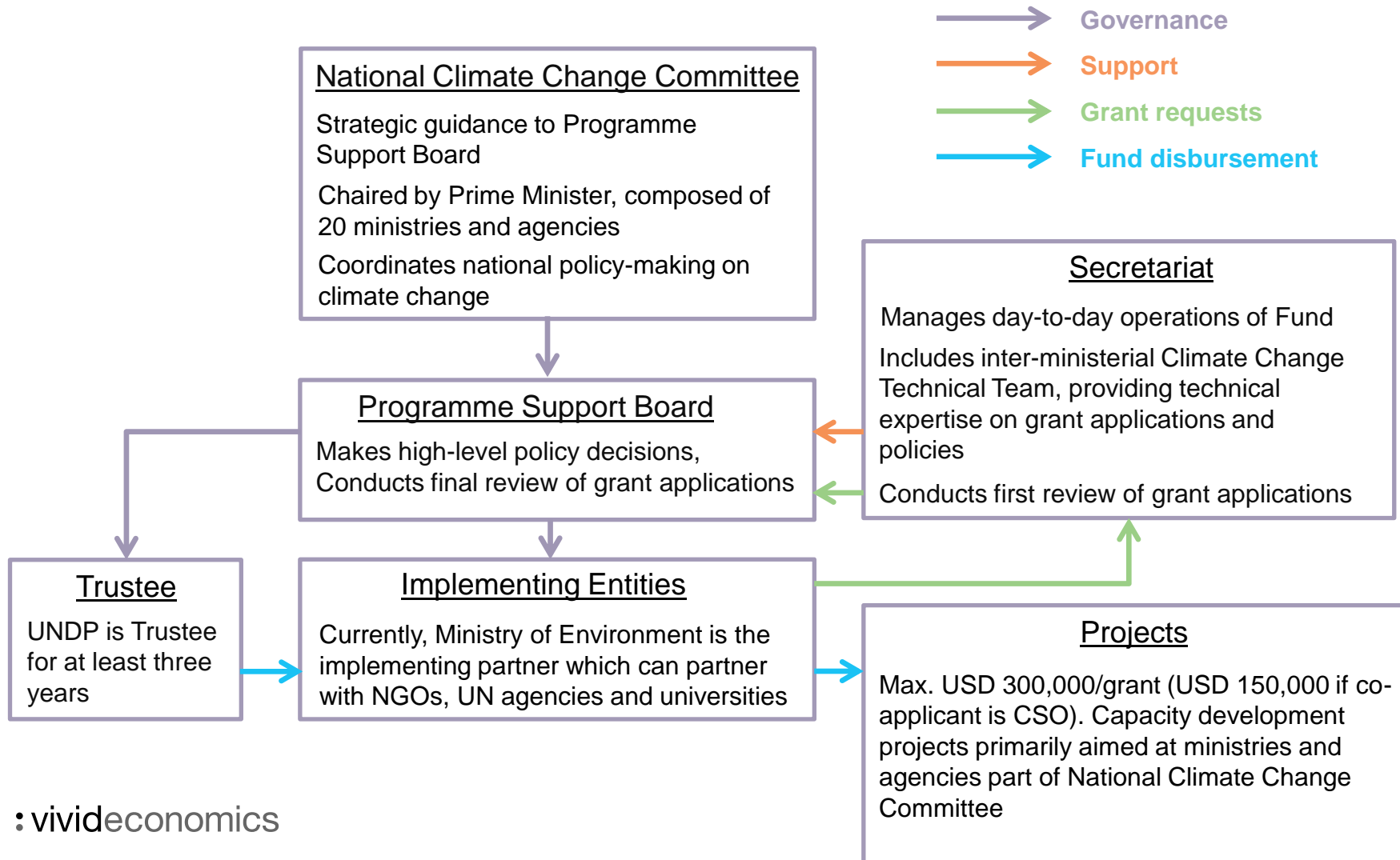
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The Cambodia Climate Change Alliance Trust Fund

Design aspect	Comments
Objectives	Supporting capacity building and priority interventions to enhance adaptation and long-term resilience. Funding arm of Cambodia Climate Change Alliance (CCCA).
Capitalisation	~\$9m. UNDP: \$3m UNDP; \$3.2m EU; \$2.1 Sweden; \$0.6m Denmark.
Governance	<p>The Programme Support Board (PSB) makes high-level policy decisions for the fund and make the final decisions on grant applications. The PSB has eight members: four from Government agencies and four CCCA donors, as well as other observers including other Development Partners. Initially co-chaired by an NCCC (see below) and a donor representative.</p> <p>The PSB is guided by the National Climate Change Committee which is chaired by the PM and provides strategic guidance to the fund</p> <p>The PSB is supported by a Secretariat which hosts an inter-ministerial Climate Change Technical Team that provides technical advice on grant applications.</p>
Fiduciary management	UNDP will administer the Fund for at least 3 years.
Implementation	Implementation is undertaken either solely by government agencies or in partnership with NGOs, UN agencies and universities. Maximum \$300,000 per grant except if implemented in partnership with a CSO in which case \$150,000.
MRV	Grantees submit implementation reports every 3 months to the Secretariat which provides quarterly progress reports and annual report. Secretariat's annual report is reviewed in the Joint Programme Annual Review.

In the CCATF, the National Climate Change Committee provides strategic guidance to the Programme Support Board



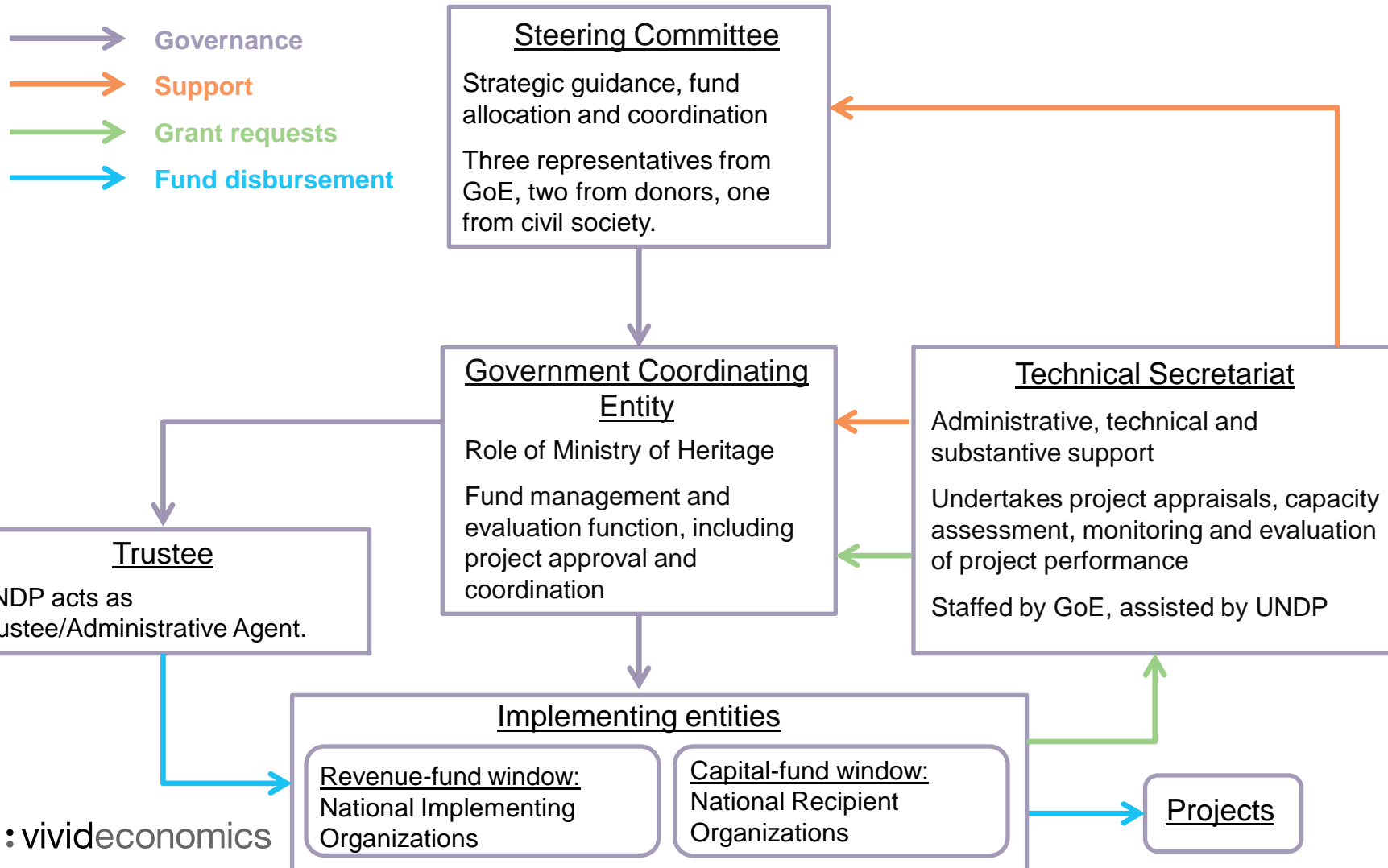
The Ecuador Yasuni ITT Trust Fund

Design aspect	Comments
Objectives	Finance strategic sustainable development programmes within the guidelines of the Ecuadorian National Development Plan. Established in 2010 to support Ecuador's decision to permanently forego the extraction of the Yasuni ITT oil fields.
Capitalisation	Ecuador is requesting contributors to compensate 50% (at 2008 oil prices) of the income it is forgoing, amounting to \$3.6 billion. \$53m has been committed to date, including \$50.8m from Italy.
Governance	<p>A Steering Committee (SC) made up of 3 GoE representatives, 2 from donors and 1 from civil society, provides strategic direction and oversight of the fund.</p> <p>Government Coordinating Entity within the Ministry of Heritage is responsible for project approval and co-ordination and overall monitoring and evaluation.</p> <p>Technical Secretariat (TS) provides administrative, technical and substantive support. It is staffed by the Government and supported by UNDP. It undertakes project appraisals, capacity assessment and monitoring and evaluation of project performance.</p>

The Ecuador Yasuni ITT Trust Fund (2)

Fiduciary management	The UNDP Multi-Partner Trust Fund Office is Administrative Agent. It also performs a range of reporting functions.
Implementation	<p>Two funding windows:</p> <ol style="list-style-type: none"> 1. Capital Fund Window —to finance renewable energy projects, providing a return. 2. Revenue Fund Window — replenished with mandatory annual revenue payments received from national entities for the use of the Capital Fund Window. This is used to develop projects within the framework of the sustainable development plan. <p>Implementation partners include NGOs/CSOs, private enterprises and intergovernmental orgs.</p>
MRV	Recipients provide annual narrative reports & financial statements, mid-year updates, project completion reports and certified final financial reports to the trustee. The trustee consolidates and provides to each contributor and the SC. The trustee provides annual certified financial statements.

The Ecuador Yasuni ITT Trust Fund has a broadly similar structure to the others analysed



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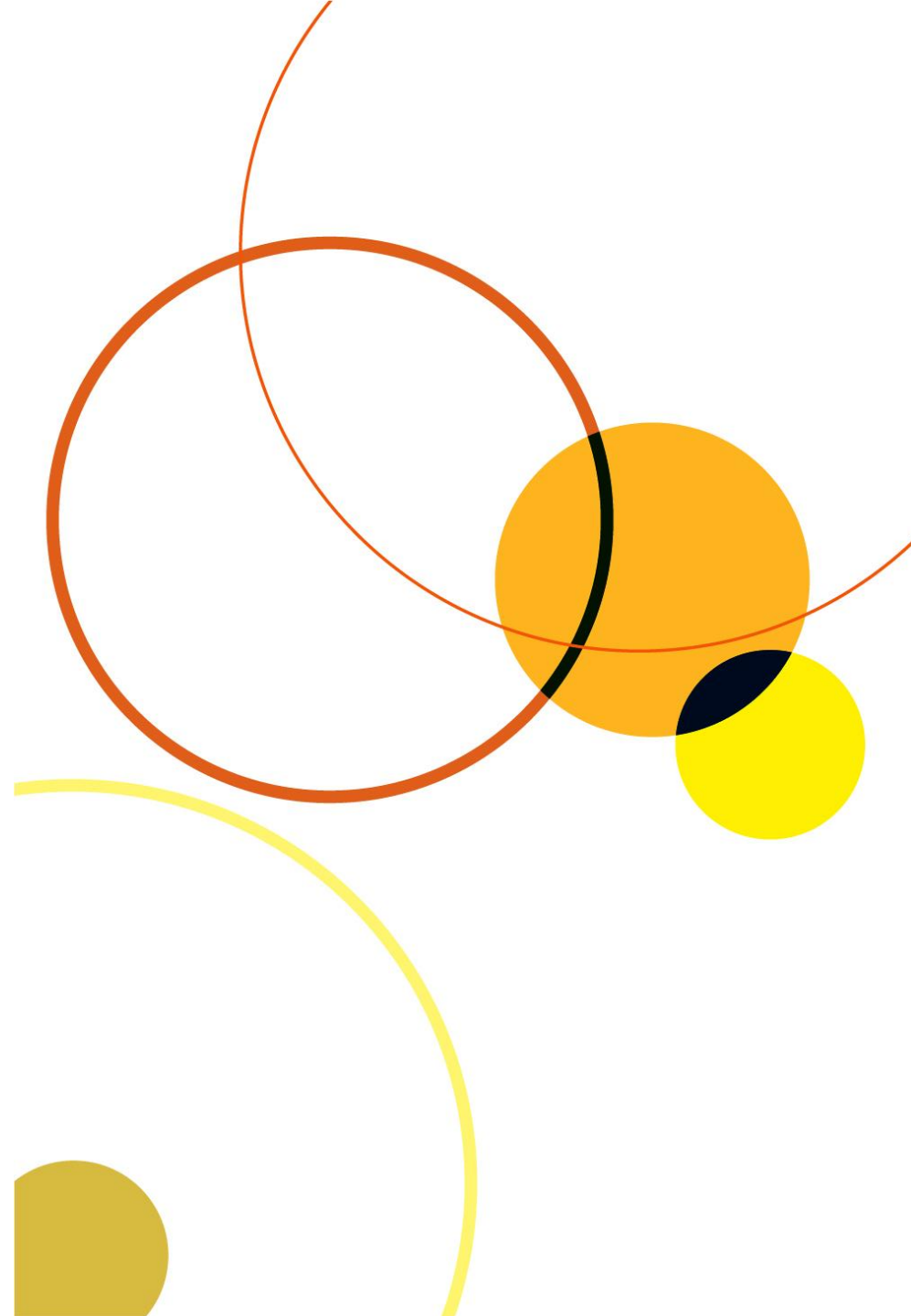
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Annex G - National CDM governance: existing practice and lessons for Kenya

**Report prepared for Government of
Kenya**

December 2011



8 key lessons from carbon market experience in other countries (Part I)

- 1. Kenya has, on a relative basis, done reasonably well from the CDM.** Taking into account its emissions, it has generated as many CERs as would be expected. This is a stronger performance than most other African countries.
- 2. Carbon markets have been most successful in countries where there is a coherent policy of using the CDM to support low-carbon technologies and, where necessary, the role of the carbon markets within a suite of other policies is identified.** For instance, China's success in the CDM is partly explained by making the CDM one component of a coherent policy towards renewables, including feed-in tariffs; the same is arguably true of India. It is helpful to prioritise which sectors of the economy are expected to benefit from carbon markets.
- 3. Designated National Authorities (DNAs) can do lots to streamline the CDM process.** Specific actions/behaviours include being transparent and predictable in acquiring Letters of Approval (this could take the form a specific, published list of criteria required for receipt of an LoA) and publishing generic data for the most important methodologies i.e. emissions factors. It is important that this information is easily verifiable. If the DNA was to achieve international accreditation (ISO standards) then this could send a signal of the commitment of the Kenyan government to streamlining the CDM process.
- 4. Countries that have embraced international consultants and project developers have tended to be more successful in carbon market.** A common theme to the successes of China, Chile and Peru has been a willingness to use the experience and knowledge of foreign firms both for project development and managing the CDM process.

8 key lessons from carbon market experience in other countries (Part II)

5. **Government (backed) agencies can play an important role in supporting CDM investments; linking the career development of individuals within such agencies to carbon market activity provides powerful incentives.** In Chile and Peru, economic development and export promotion organisations have been explicitly responsible for encouraging carbon market investment in the country, which they have achieved through, for instance, promoting participation in commercial missions and international events. One of the reasons for the success of the CDM in China is that (regional) government officials have had their career development linked to carbon market activity.
6. **Large companies, with the capacity to commit their own internal resources for carbon market activities, can provide an example for the opportunities provided by carbon markets.** In Chile, much of the success in the early days of carbon markets came from large companies who could commit the resources to, for instance, developing methodologies as well as providing a broader demonstration effect.
7. **The broader investment climate and strength of the finance sector is crucial to carbon market activity.** Much of the success of China, India, Chile and Peru is a result of their broadly supportive investment climate and the relative ease of accessing seed/development capital. In China, the opportunity project developers have to access debt for projects that begin operation allows for a rapid recycling of equity into new projects.

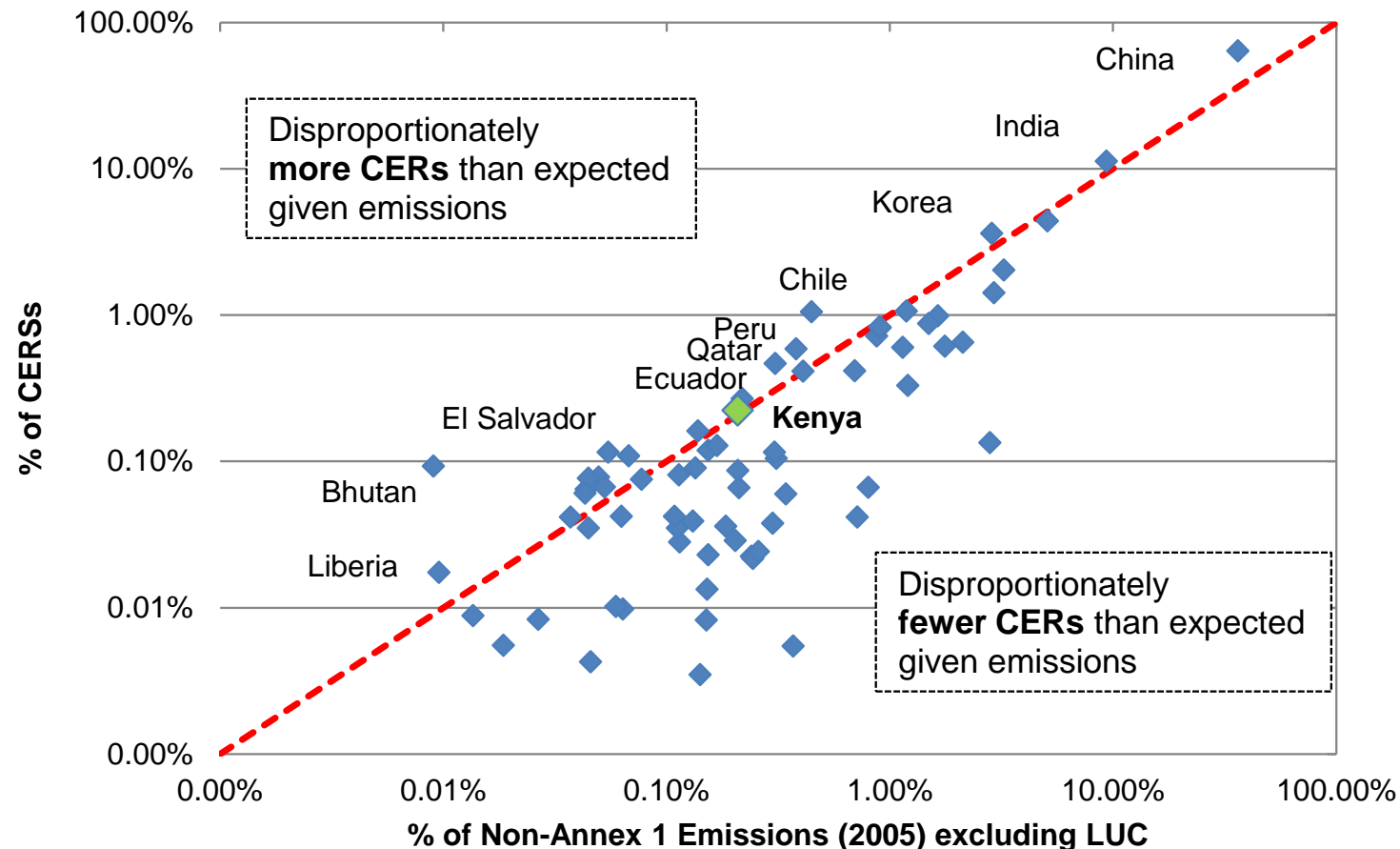
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2. China's success in the CDM
3. India's success in the CDM
4. Chile's success in the CDM
5. Peru's success in the CDM

Kenya has generated as many CERs as would be expected given its emissions profile

Yet lessons can be learned from countries that have been disproportionately successful

Figure 1. Kenya has generated as many CERs as might be expected given its emissions



Source: UNFCCC, WRI CAIT v 8.0 and Vivid Economics. Calculated November 2011

There are a number of factors that help to explain this international diversity in CDM performance

Winkelman & Moore (2011) analyse country-level data related to CDM to find explanatory factors for CDM host countries

They find that the following factors significantly increase the chance that a country hosts CDM projects and generates CERs:

- the level of carbon emissions;
- the growth of electricity generation capacity;
- CDM capacity building programmes;
- education levels.

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3. India's success in the CDM
4. Chile's success in the CDM
5. Peru's success in the CDM

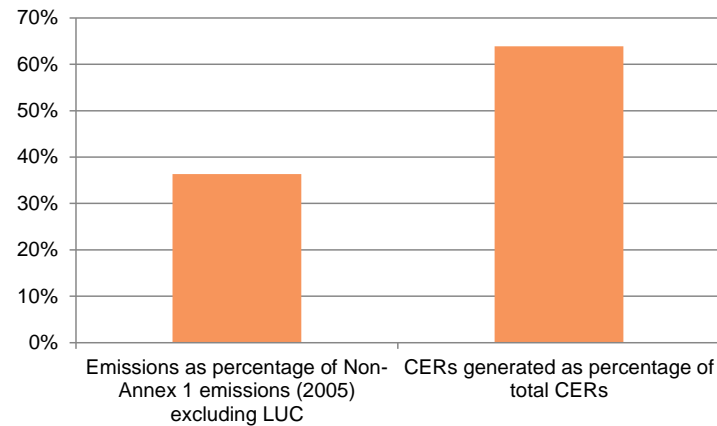


Key statistics on China's performance in the CDM

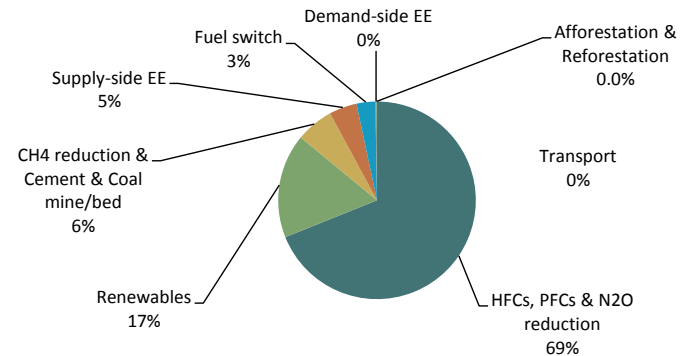
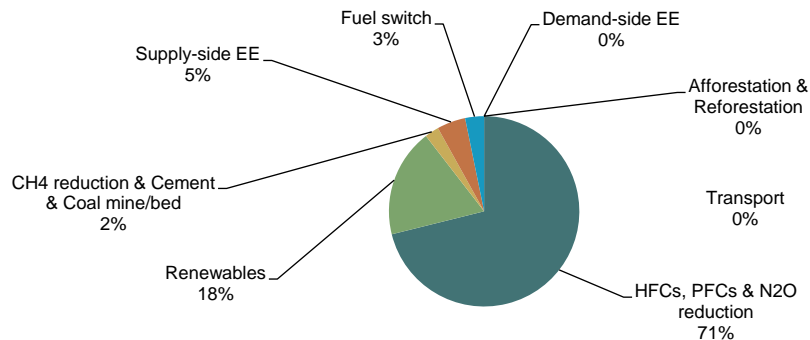
Table 1. China has a number one ranking on CDM performance across a range of metrics

Criteria	Number	% of total	Ranking
CDM projects	3,118	43	1
kCERs issued to date	457,096	58	1
kCERs in pipeline to 2020	5,729,912	54	1
Estimated investment	\$104.3bn	66	1

Figure 1. It has generated almost twice as many CERs as would be expected given its emissions



Figures 2a and 2b. China's CER profile is more skewed towards industrial gases than is typical in Non-Annex 1 countries





Market participants point to a number of CDM specific factors that help to explain China's success

- 1. China identified how it wanted to use the CDM within its broader strategic goals and, where necessary, there were a suite of policies aimed at developing low-carbon technologies/ and the CDM.** This is particularly relevant in the case of renewables where, for instance, preferential tariffs (while still ensuring that the support was low enough for the project to pass the CDM 'additionality' test) low PPA risk, and supporting infrastructure (built by the Chinese government) has been key in developing capacity. Likewise, the Chinese government providing subsidies in wholesale lending to banks that lent to CDM projects, as well as, effectively, regional guarantees. Reflecting these priorities, China also applies differential tax rates to different CDM project types.
- 2. Within its strategic priority sectors, China provides centralised official information that helps project developers with the CDM process i.e. grid emissions factors.** This information can be quickly verified by Designated Operating Entities, further streamlining the CDM process.
- 3. The DNA is efficient.** Developers cite clear rules, reliability and swift processes of the DNA as particularly helpful when developing projects. In particular, the requirements for receiving a Letter of Approval are transparent, predictable and requests are processed quickly.
- 4. China has embraced knowledge transfer opportunities by encouraging foreign consultants and companies.** Around 60% of the projects have been developed/operated in conjunction with specialist carbon consultancies.
- 5. Success for officials is tied up with success in promoting CDM.** This either comes from explicit public-sector involvement i.e. JVs or from public officials' careers being associated with success in encouraging CDM development. **This is easier to achieve with responsibility for the CDM delegated to the province level.**



Broader factors also explain the success of China in the CDM

- 1. China's debt market are sophisticated enough to lend to projects post construction, in order to free-up equity for project developers to recycle to new projects.** In China this is in generally provided by local banks who have the technical capacity to provide non-recourse lending, but could be Chinese branches of foreign banks as well.
- 2. The broader investment climate is conducive to investment.** Rapid economic growth fosters investment opportunities in all sectors of the economy. China ranks 91 out of 183 on the Doing Business 2012 ranking. It has been improving its legislative framework in recent years, including establishing a new company law in 2005 and a new bankruptcy law in 2007.

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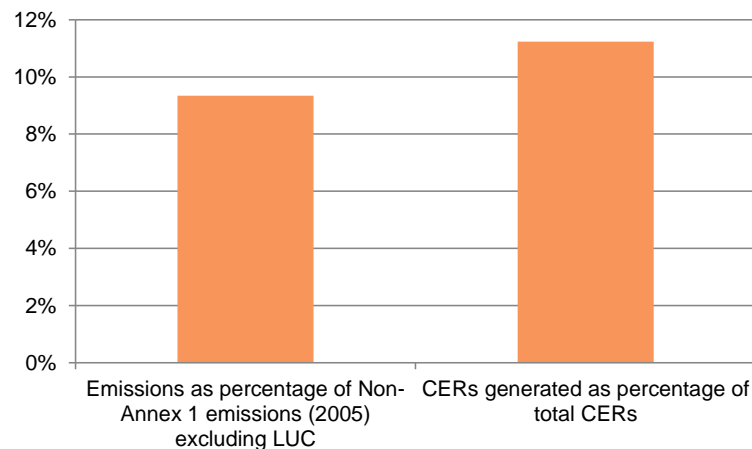


Key statistics on India's performance in the CDM

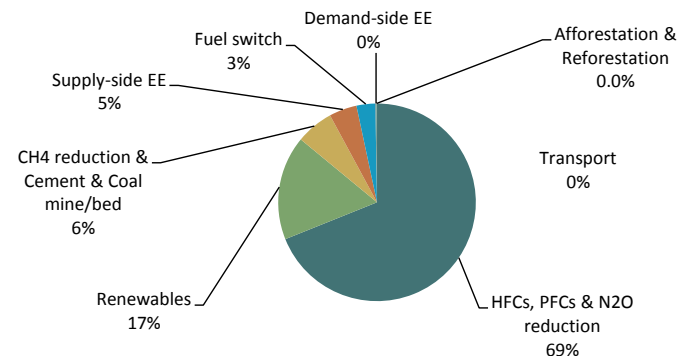
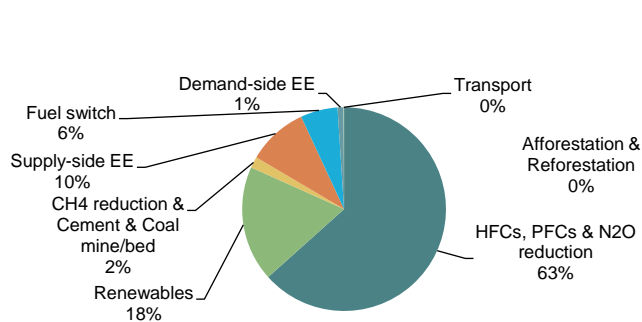
Table 2. India has seen the second highest amount of CDM activity across a range of metrics

Criteria	Number	% of total	Ranking
CDM projects	1,823	25	2
kCERs issued to date	123,570	16	2
kCERs in pipeline to 2020	1,703,955	16	2
Estimated investment	\$30 bn	19	2

Figure 3. India has generated slightly more CERs than would be expected given its emissions



Figures 4a and 4b. India's CDM activity has been disproportionately focussed on supply-side energy efficiency projects than typical for Non-Annex 1 countries





Lessons from India

- 1. The CDM is one part of a broader policy suite to promote low-carbon technologies, especially renewable energy generating capacity.** A dedicated Ministry for New and Renewable Energy and its financing arm India Renewable Energy Development Agency, alongside other ministries promote renewable energy development with policies including preferential tariffs, capital subsidies and tax incentives.
- 2. India boasts an advanced institutional CDM landscape.** The country started cooperating with development agencies in building capacity within government and private sector from an early stage. This includes the establishment by GTZ of a “technical cell” within the DNA, workshops across industrial sectors, supporting PDD development and training PDD consultants. The DNA sees itself primarily as a service provider and concentrates on a speedy and effective approval process.
- 3. India’s rapid economic growth presents ample abatement opportunities and a conducive investment climate.** India is dedicated to maintain high growth rates, establishing a conducive investment climate, and to reduce the emissions intensity of its economy.
- 4. India’s reluctance to accept international project developers and consultants may have held back the CDM in the country.** Although India has done reasonably well from the CDM, its performance has not been as impressive as China’s. Its apparent success may also reflect the availability of a large number of low-cost industrial gas projects, as much as deliberate strategies to facilitate the CDM. Market participants suggest that India’s reluctance to encourage foreign consultants and project developers, manifested through difficulties in acquiring Letters of Approval, may have held back even greater use of the CDM.

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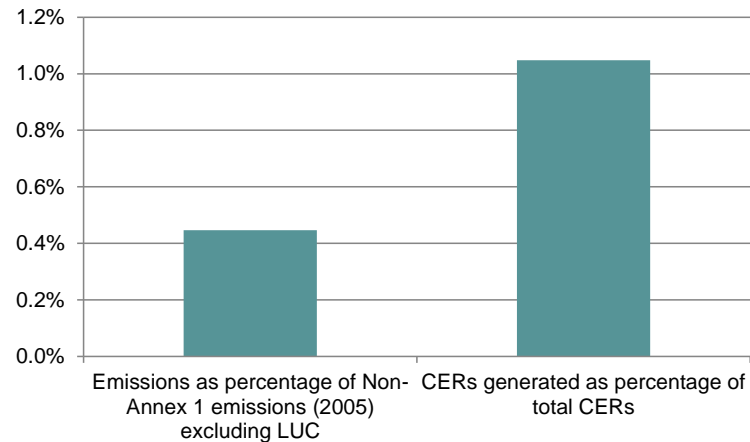


Key statistics on Chile's performance in the CDM

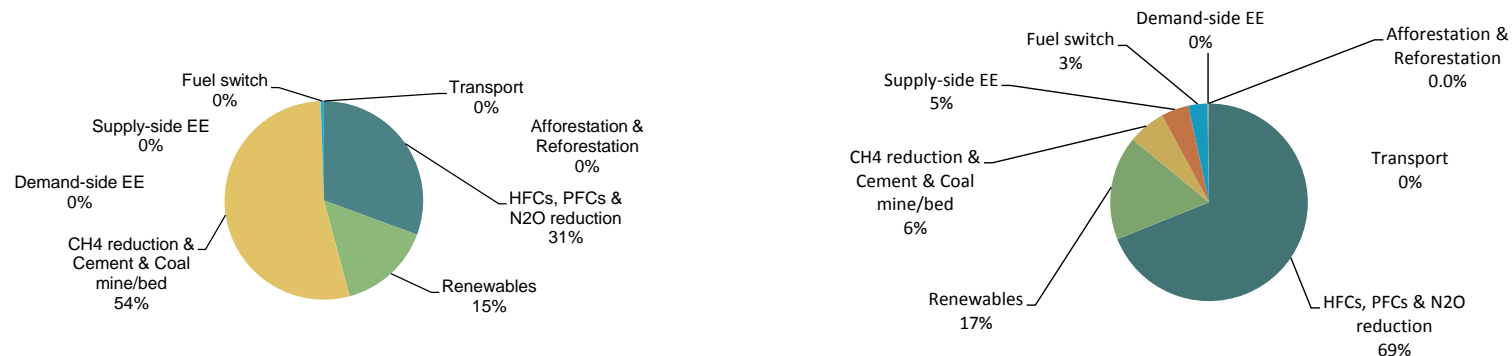
Table 3. Chile has generated almost \$1bn of investment from the CDM

Criteria	Number	%	Ranking
CDM projects	91	1.2	6
kCERs issued to date	7,356	0.9	6
kCERs in pipeline to 2020	108,252	1	10
Estimated investment	\$947m	1	9

Figure 5. Chile has generated two and a half times more CERs than would be expected given its emissions



Figures 6a and 6b. Chile's CDM activity has been very heavily focussed towards methane reduction and other industrial processes





Several factors explaining Chile's success in international carbon markets

- 1. The long-term regulatory stability and conducive investment climate in Chile has helped to build investor confidence around the CDM.** The country ranks 39th out of 183 in the Doing Business 2012 ranking with this survey, in particular, noting that it is easy to start a business and that the country provides strong investor protection.
- 2. A few large companies can help to set an example of the opportunities from carbon markets.** In Chile, the early steps in the CDM were taken by large companies who had the resources to go through the CDM process. This had a positive 'demonstration effect' in terms of bringing consultants into the Chilean market, helping the development of methodologies that could be used by others, and showing the positive benefits to be obtained from carbon markets.
- 3. Chile has been open to international consultants and carbon market professionals.** The Chilean government, mainly through ProChile, institutionalised cooperation with other countries by sending missions to conferences and organising workshops with key players. It also took part in CDM capacity building programmes.
- 4. Carbon credits have been treated as export commodities and as a tool for economic development.** The CDM has been seen as an explicit target for promoting economic development with government support coming from the export promotion agency, ProChile, and the economic development agency (see next slide). There have been some concerns that this has been at the expense of broader sustainable development objectives (Rindefjäll, Lund & Stripple 2011).

Chile shows the important role that public institutions can play in promoting the development of carbon market activity

ProChile is an agency under the Government of Chile promoting external commerce, including CDM projects.

ProChile's activities include:

- organising missions to international conferences and fairs to promote Chilean products;
- organising seminars for (prospective) exporters, centred around key themes such as certification and trade risks;
- providing information about export opportunities, such as a website explaining the CDM project cycle in plain language.

The screenshot shows the ProChile website interface. At the top, it says 'pro|CHILE | Dirección de Promoción de Exportaciones'. Below that is a navigation menu with links like 'INITIATION', 'ABOUT PROCHILE', 'CONTENT', 'ACTIVITIES', 'NEWS', 'SIAC (HELP DESK)', 'SITE MAP', and 'BLOG'. The main content area is titled 'QUALITY AND ENVIRONMENT' and includes a 'Contents Menu' with links to 'Subdepartment Sustainable Trade', 'Corporate Social Responsibility', 'Carbon Footprint', 'Carbon Credits', 'Traceability', 'How and Why Certify?', 'International Requirements and TLO', 'Events and Exhibitions', and 'News'. There are also promotional banners for 'ANTAD 2012 Guadalajara' and 'EUROPEAN SEAFOOD EXPOSITION 2012'. A section titled 'Carbon Credits' includes a table of greenhouse gases and their CO2 equivalents.

Greenhouse Gases	CO2 equivalence of a measure of gas (CO2e)
Carbon Dioxide (CO2)	1
Methane (CH4)	21
Nitrous oxide (N2O)	310
Hydrofluorocarbons (HFCs)	740
Perfluorocarbons (PFCs)	1300
Sulphur hexafluoride (SF6)	23,900

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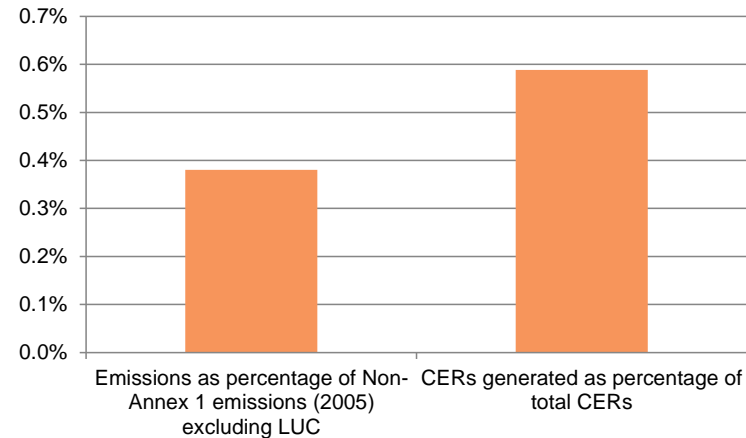


Key statistics on Peru's performance in the CDM

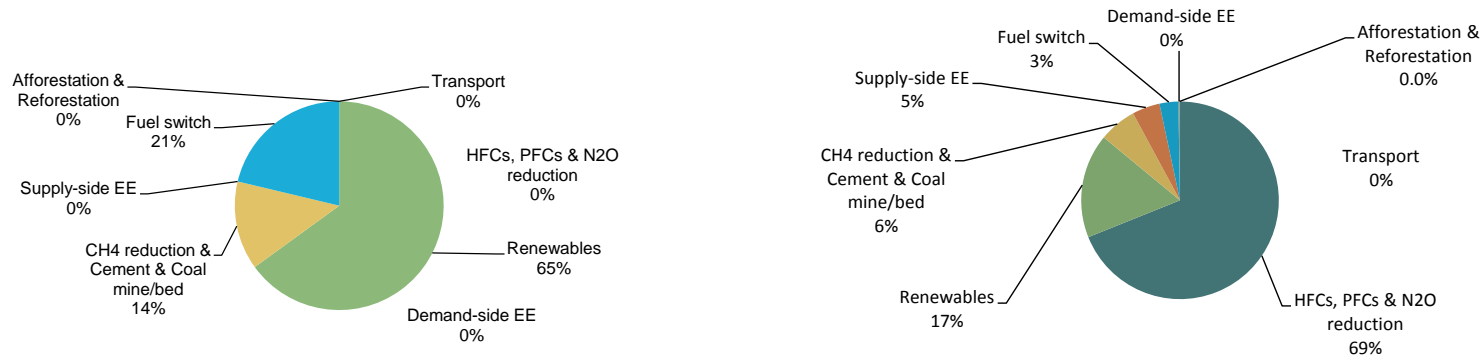
Table 4. Chile has generated almost \$1bn of investment from the CDM

Criteria	Number	% of total	Ranking
CDM projects	54	0.7	14
kCERs issued to date	1,165	0.15	17
kCERs in pipeline to 2020	85,252	0.8	15
Estimated investment	\$1bn	1	8

Figure 7. Comparison with Non-Annex 1 countries



Figures 8a and 8b. The CDM in Peru has had a heavy focus on renewables and fuel switching





Several factors explaining Peru's success in international carbon markets

- 1. Peru has a favourable investment climate.** The country ranks 41 out of 183 on the Doing Business 2012 ranking. It performs well on most indicators including investor protection and access to credit. It has established firm laws governing FDI and it has an institution dedicated to promote private investment, Proinversion.
- 2. Cooperation with international institutions and other countries can help in building domestic capacity for CDM project development.** Peru established strong ties with international institutions (including the World Bank and UNEP) and other countries (incl. JICA, GTZ) that assisted the Government of Peru in building CDM capacities.
- 3. The DNA is efficient.** This is reflected in it having received an ISO 14001 certificate, an environmental management standard, which implies that project approval has to be issued within 45 days at the risk of losing its ISO certification.
- 4. CDM activities are supported by FONAM; an institution established by Congress that actively promotes CDM investment.** [See next slide]



In Peru the CDM sector has also benefitted from a promotional agency (FONAM)

The Fondo Nacional del Ambiente-Peru (FONAM) is a private institution established by the Peruvian congress. It aims to promote investment in sustainable development of the country.

FONAM's activities include:

- developing capacity for CDM project development and assisting developers throughout the project cycle;
- promoting participation in commercial missions and international events, as well as marketing a Peruvian carbon portfolio to potential buyers at fairs;
- proposing improvements in domestic CDM institutions and regulation

The screenshot shows the FONAM website interface. At the top, there is a logo for FONAM (FONDO NACIONAL DEL AMBIENTE - PERÚ) and navigation links for 'Select Language', 'contáctenos', and 'mapa del sitio'. Below this is a main navigation bar with categories: 'Área de carbono & Cambio Climático', 'Energía', 'Bosques', 'Transporte Sostenible', 'Pasivos Ambientales', and 'Agua y Residuos'. A left sidebar contains a menu with items like '¿Quiénes Somos?', '¿Qué hacemos?', 'Programas y Proyectos', 'Eventos FONAM', 'Cambio Climático', 'Desertificación', 'Biodiversidad', 'Publicaciones', 'Documentos', 'Enlaces', 'Nuestros Aliados', 'Convocatoria', and 'Oportunidad Laboral'. The main content area features a 'Bienvenido a FONAM PERÚ' section with a welcome message in Spanish. Below this is a 'NOTICIAS Y ACTIVIDADES' section with a headline: 'FONAM Y PRO COBRE promueven el uso de Motores y transformadores eficientes en las empresas'. A photo shows two men in suits at a podium. On the right, there is a vertical sidebar with logos for 'Haz click a qui', 'III FERIA INTERNACIONAL EEC', 'Energía 2011 Ecoeficiencia', 'PROYECTOS FONAM', 'DE MERCADO PARA LAS ENERGÍAS LIMPIAS', 'FONAM - CF ASSIST', 'CARBON FINANCE ASSIST', 'FONAM - CD4CDM', 'PROYECTO FONAM CD4CDM', and 'CDiCDM'.

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Company Profile

Vivid Economics is a leading strategic economics consultancy with global reach. We strive to create lasting value for our clients, both in government and the private sector, and for society at large.

We are a premier consultant in the policy-commerce interface and resource and environment-intensive sectors, where we advise on the most critical and complex policy and commercial questions facing clients around the world. The success we bring to our clients reflects a strong partnership culture, solid foundation of skills and analytical assets, and close cooperation with a large network of contacts across key organisations.

Practice areas

Energy & climate change

Competition & strategy

Infrastructure & resources

Development economics & finance

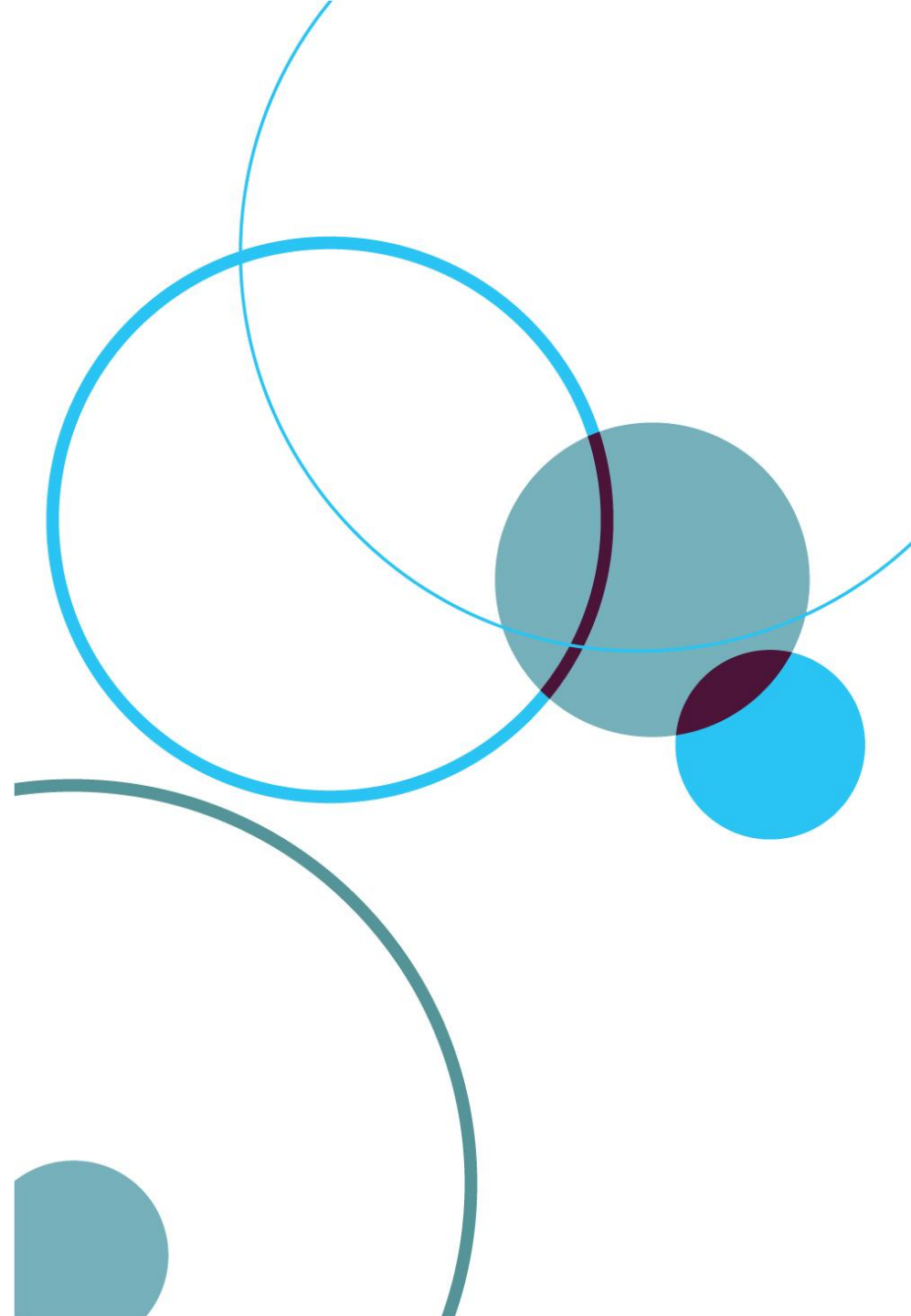
Innovative policy

: vivideconomics

Annex H - Carbon Trading Platforms: International Experiences and Lessons for Kenya

**Report prepared for Government of
Kenya**

December 2011



Key Findings

1. It is possible to **distinguish between primary and secondary carbon trading platforms**. Primary platforms allow carbon credit purchasers to buy credits from project developers. Secondary platforms allow ultimate compliance purchasers and market intermediaries to purchase credits and manage their carbon price exposure.
2. It is **unlikely that a secondary trading platform would be effective** in Kenya. These platforms are located close to the ultimate source of demand for credits. The volume of credits typically traded on these platforms is far in excess of the cumulative CERs that have been generated in by Kenyan/East African projects to date. In addition, volumes on these markets are declining. Other attempts at developing such trading platforms in Non-Annex 1 countries have failed.
3. There are considerably **greater opportunities to develop a primary trading platform**. This could perform a number of roles including **providing project developers with information about carbon finance and matching credit purchasers with project developers**. Over time, it could evolve to help source capital for project developers and support the emergence of domestic voluntary trading and carbon offsetting.
4. The **number of projects/credits on the platform will be crucial to its success**. Buyers will be reluctant to engage unless it is large enough. To act as a permanent platform, it may need to offer ~1m credits per annum from around 20-40 projects. This points to the importance of changes to the EU ETS rules, engaging projects generating both voluntary and compliance credits and potentially looking at developing a regional platform as crucial to the platform's success. Creating a series of regular conferences bringing together buyers and sellers may be more be easier to achieve and more effective in the short-term.



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1. Alternative views of carbon trading platforms
2. The problems with creating a secondary market trading platform in Kenya
3. The opportunities for a primary trading platform

Two models for a carbon trading platform

What is a carbon trading platform?

'Secondary' trading platform

- allows compliance buyers and market traders to purchase credits/manage carbon risk through various carbon credits including CERs
- 'commodity' markets, large volume of trades of standardised, well-known products
- examples include BlueNext, ICE, EEX etc located in Annex 1 countries

'Primary' trading platform

- facilitates matching of project developers with carbon credit purchasers (and brokers)
- specific characteristics of each project/opportunity are important
- aspects of what this platform might do can be seen across range of NA1 countries

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Two key challenges with creating a secondary trading platform of in Kenya

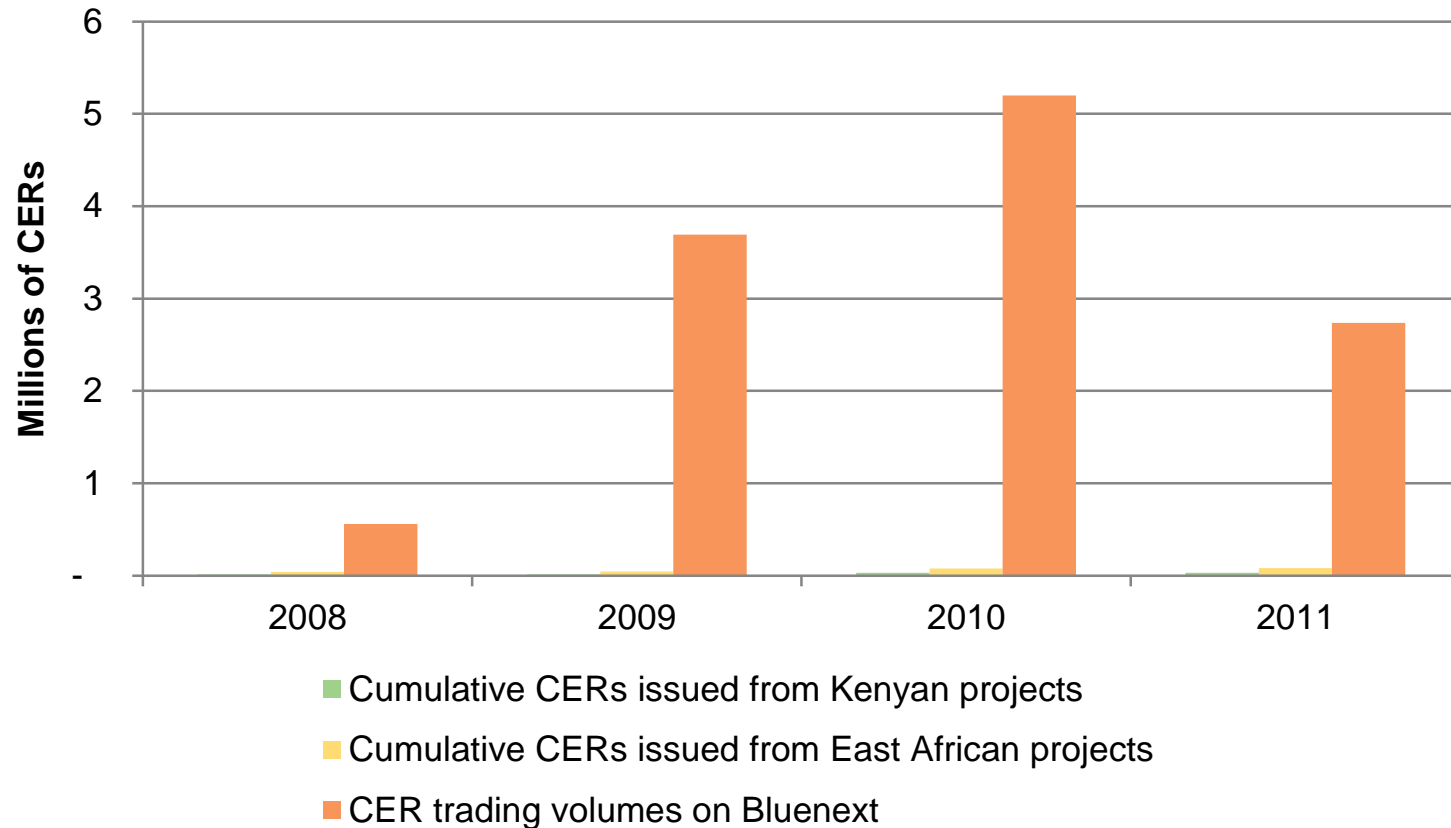
Assuming that there are no plans to create a domestic compliance market in Kenya

although it appears possible in principle for CERs to be traded in Non-Annex 1 countries, there are good reasons to believe a secondary trading platform in Kenya would be ineffective

1. Liquidity and pools of talent have already concentrated in a few key locations which are close to where **credit buyers and providers of ancillary services e.g. legal services, are located**. Kenya is unlikely to be able to replicate this liquidity.
2. Volumes on trading platforms are either in decline (in the case of spot markets) or supported by trading in a range of other commodities that may not be so readily traded in Kenya.

Challenge 1: Kenya is unlikely to be able to generate the liquidity needed for a secondary trading platform

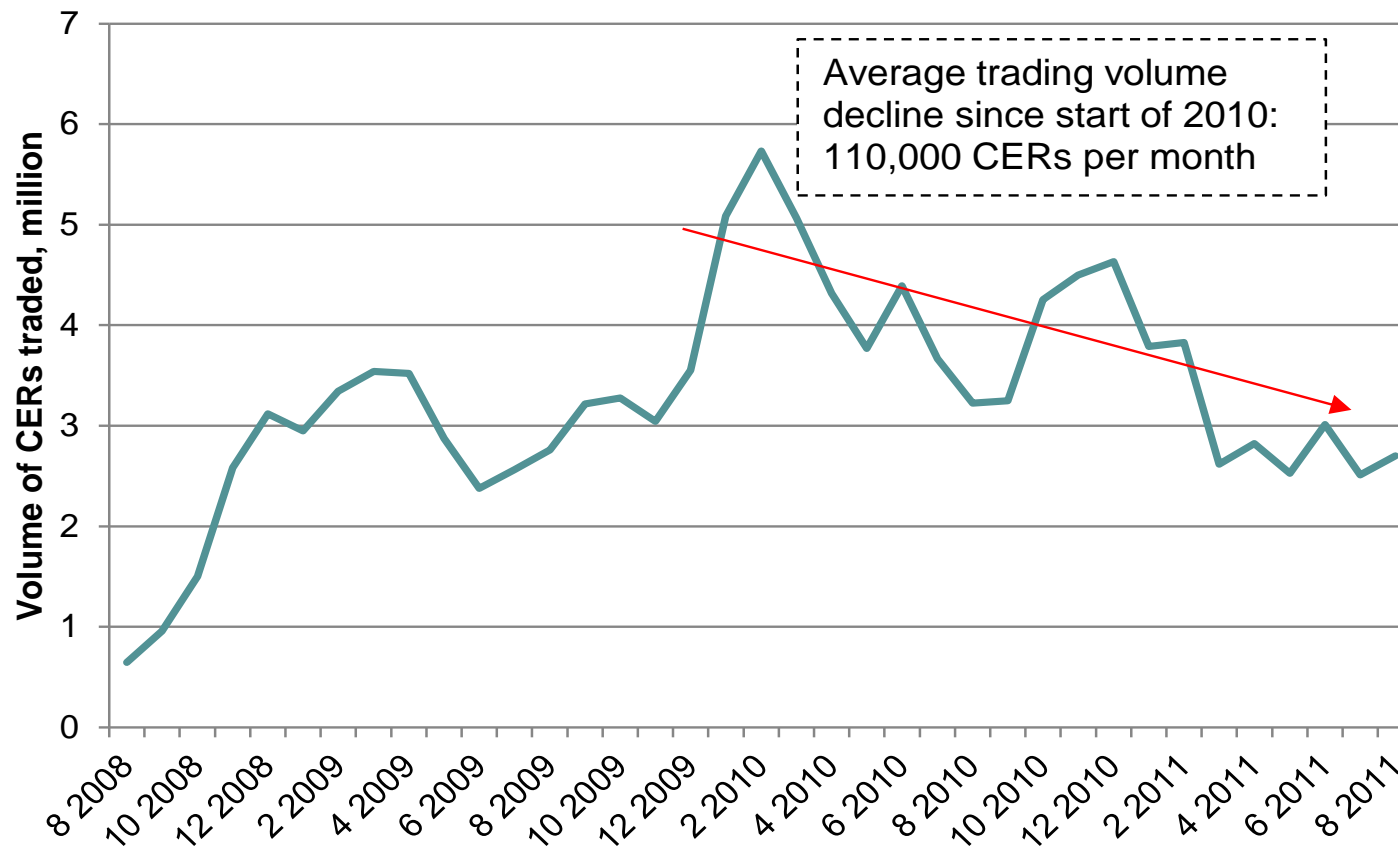
Figure 1. The volume of CER trading on Europe's only pureplay CER spot market (Bluenext) exceeds the number of CERs issued in Kenya by almost 100 times



Challenge 2: CER trading volumes are declining...

Since the start of 2010, trading volume have fallen by an average of >100,000 CERs per month

Figure 2. Volumes of CER trades on Bluenext's have been falling



Challenge 2: ... with most other platforms having a diversity of commodities that protect them from this decline

Many of these are unlikely to be traded in Kenya in the near-term

Figure 3. Most European carbon exchanges allow a wide range of commodities to be traded

				
ICE	✓	✓	✓	✓
EEX	✓		✓	✓
Nordpool			✓	✓

Source: Vivid Economics and Bluenext

: vivid economics

Most other Non-Annex 1 platforms have either been a failure or await the development of domestic compliance markets

India

two platforms where carbon (futures) contracts could be traded: MCX and NCDEX

- no trading of carbon on MCX platform since 2009
- or on NCDEX platform since September 2009 (and no longer reported since March 2010)

China

3 main environmental exchanges: Shanghai Environment and Energy Exchange, China Beijing Environmental Exchange, Tianjin Climate Exchange

main activities have been pollutant allowance trading (SO₂ and COD), VER trading and providing asset transaction services for environmental protection opportunities

some activity in relation to helping to transact CDM projects i.e. Shanghai Environment and Energy Exchange is reported to have helped transact around 70 CDM projects, but this is akin to 'primary platform' model discussed below

gearing up for emergence of domestic compliance market i.e. recent deal between China Industrial Bank and Shanghai Environment Exchange to finance trading activity will coincide with launch of pilot trading market in the City

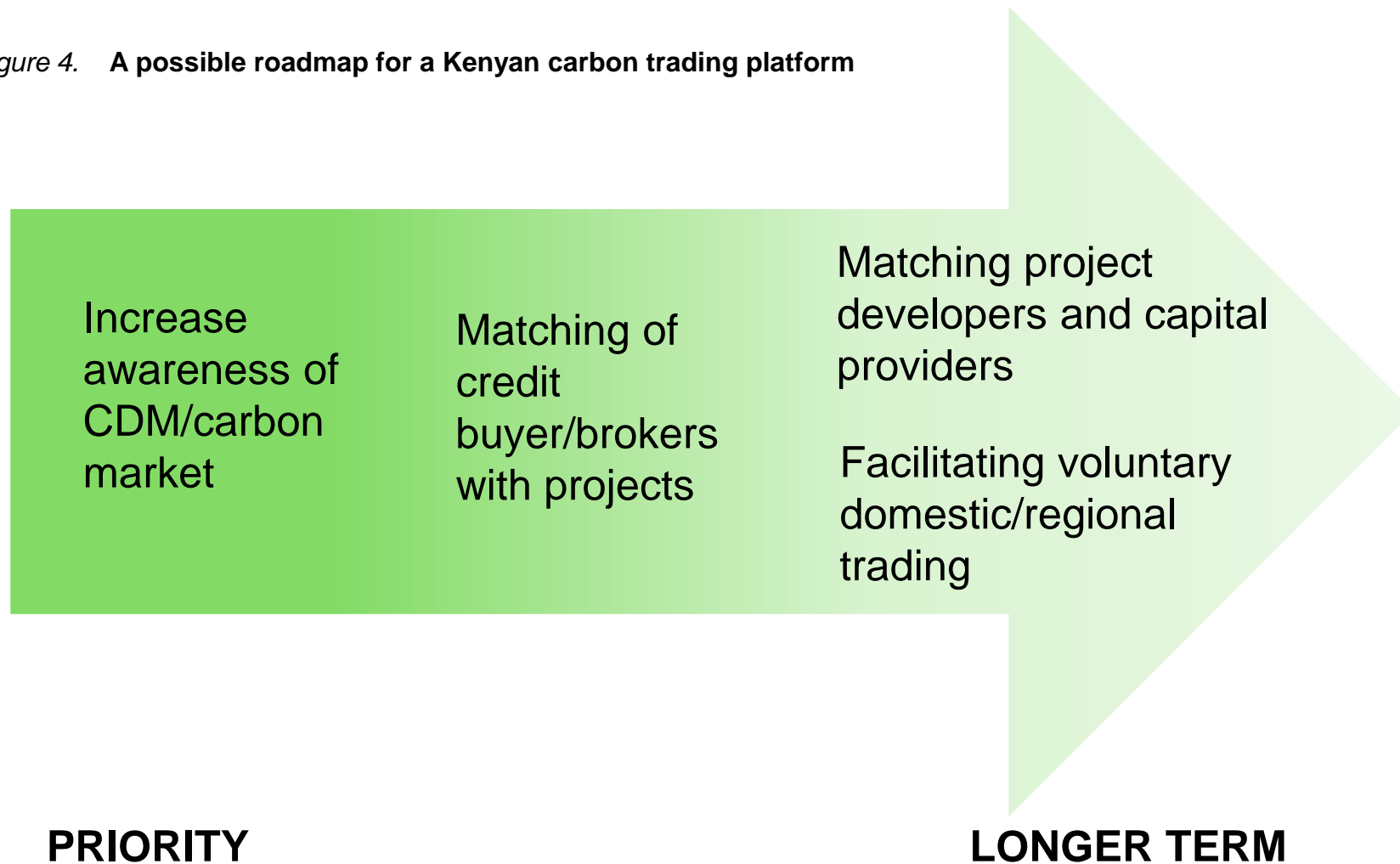
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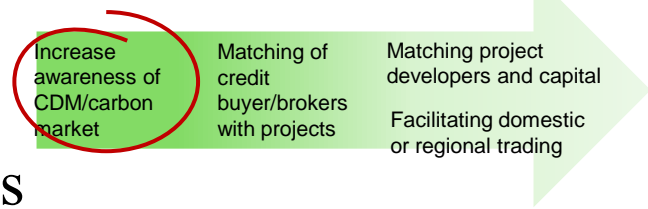
1. Alternative views of carbon trading platforms
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A possible roadmap for a Kenyan carbon trading platform

This takes account of Kenya's key constraints to greater carbon market access and international experience on what has worked

Figure 4. A possible roadmap for a Kenyan carbon trading platform





Increasing awareness of CDM possibilities

other work in the subcomponent identified lack of awareness of CDM possibilities as a key constraint holding back CDM activity in Kenya

- *‘there is a lack of understanding of the CDM process and the its requirements. This leads certain project proponents **to neglect the CDM potential** or not consider carbon credits until it is too late and on the other hand leads to raised or unrealistic expectations of carbon income on the part of some developers’*

important first role for a carbon platform (or an enhanced DNA) might be to address this lack of information :

- explain CDM process, provide guides/support on compiling PINs and PDDs
- provide up-to-date information on policy developments, networking opportunities

examples include Finanzocarbono.org (see next slide) as well as Prochile and FONAM (Peru)

this would not be a profitable activity, would be a need for public support

a website would not be sufficient; would need to become a ‘one-stop shop’ for all activity related to carbon markets in Kenya/East Africa

- marketing campaign would be very important

Finanzascarbono.org provides an example

Increase awareness of CDM/carbon market

Matching of credit buyer/brokers with projects

Matching project developers and capital
Facilitating domestic or regional trading

Conversation being organised

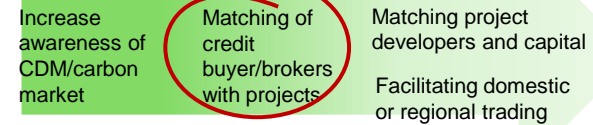
Finanzascarbono.org aims to increase awareness of carbon markets in Latin America, established by IADB, World Bank Institute, and UNEP

Provides information on:

- carbon project development and funding mechanisms
- characteristics and application of methodologies and for establishing baselines
- current status of carbon markets in Latin America
- institutional and regulatory environment in LAC

also offers for a for discussion on relevant topics
: **vivideconomics**

The platform could also help match project developers with credit purchasers



the platform could help to match project developers with credit purchasers or brokers

- possibly help to improve price transparency for Kenyan/East African developers

to work, the lower ‘search costs’ for investors/brokers from the platform, would need to offset the possible higher credit prices

- CBEEEX offers a similar service for China, helped by partnership with Bluenext

- FONAM and ProChile organised conferences to facilitate matching in Peru and Chile

this requires the platform to reach a certain **critical thresholds** so that investors could no longer ignore it (see next slide)

key benefit would also come if the only projects listed were known to be supported in principle by the government of Kenya i.e. consistent with national strategies (prior to receipt of Letter of Approval)

would need to be more than just a website; other activities to bring together project developers and brokers/purchasers would be needed, **especially conferences**

- individuals in the institution would need to become recognised as the key contact people for information on offset projects in Kenya (or that region)

To be effective, there would need to be sufficient projects listed on the platform

Increase awareness of CDM/carbon market

Matching of credit buyer/brokers with projects

Matching project developers and capital
Facilitating domestic or regional trading

Points again to the importance of access to EU ETS and developing cross-regional approach

How many projects/CERs might be required?

industry experts have suggested that this might be 1 million CERs per annum or 20-40 possible projects including ones of sufficient size

China's CBEEEX platform – in partnership with Bluenext – currently lists 48 projects with total potential credits of almost 6,000,000 tonnes per annum

How does this compare with Kenya's current pipeline?

around 20 Kenyan projects have submitted a CDM Prior Consideration form (and a further 42 from the rest of East Africa)

— but these statistics are flattered by the rush to beat the 2012 deadline, so is the likely maximum flow from CDM pipeline in Kenya

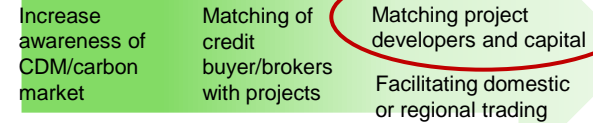
Implications

number of CDM projects from Kenya alone unlikely to justify a platform **especially if no change in EU ETS rules that will make credits registered post 2012 from non-LDC countries (including Kenya) ineligible for compliance**

need to combine CDM and voluntary projects and look at an East African platform

or start smaller by organising conferences for selected (high quality) buyers and sellers (in which case only ~10 credible projects and 100-200,000 tpa required) along with publication of handbooks for key methodologies and ERPA templates

Over time, the platform might also help developers find capital for projects



access to capital remains a significant barrier to offset project development in Kenya

- ***Early stage risk capital for project development is hard to come by ... the potential and risks of small scale or distributed projects is also not well understood by many investors or banks ... lastly many projects require amounts of capital that are too small to attract large investors but too big to be eligible for microfinance or donor support***

as well as matching project developers with carbon credit purchasers (or brokers), the platform could also provide opportunities for project developers to access capital for project

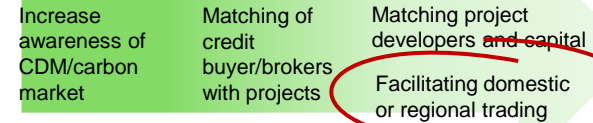
- for some Chinese ‘carbon’ platforms this is one of their main roles i.e. Shanghai Environment and Energy Exchange

more likely to work in relation to projects that are already reasonably mature and looking for capital for financial close

could also be used to help project developers with early stage, seed-capital requirements building on initiatives such as kickstarter.com, ongreen.com

- also a possible/role overlap for financing mechanism/fund
- : vivideconomics

It could also help domestic companies in purchasing voluntary offsets



Carbon Africa reports increasing interest by Kenya companies in measuring their carbon footprint and offsetting through (voluntary) projects

- e.g. Kenya Airways launched a Carbon Offset Program for passengers (through IATA) and is planning to offset initially via pre-CDM VERs from geothermal projects in Kenya

if this activity grows then a carbon trading platform in Kenya could facilitate this activity in two ways:

- providing a source of Kenya offsets for purchasers
- providing carbon neutral accreditation to Kenyan firms

this activity would be insulated from international developments and could be profitable for a private company without government support

The SCX has had success in supporting voluntary market activity in Chile

Increase awareness of CDM/carbon market Matching of credit buyer/brokers with projects Matching project developers and capital
Facilitating domestic or regional trading

Santiago Climate Exchange formally launched in April 2011 as collaboration between Celfin Capital and Fundación Chile, and eight other leading companies in Chile

initially envisaged two roles

- to involve players other than sophisticated large corporates – and, especially, the financial market, in international carbon offset trade.
- to support the development of the voluntary market in Chile through bringing together domestic offset projects and domestic purchasers of offsets

the latter aspect of its business has become increasingly important

provides carbon neutrality accreditation (based on internationally recognised standards) and sources domestic credits to ensure this

demand from current clients is expected to be around 500,000 tonnes in 2012 rising to 1,000,000 tonnes in 2013

unclear whether there would be similar demand for credits from Kenyan companies

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Company Profile

Vivid Economics is a leading strategic economics consultancy with global reach. We strive to create lasting value for our clients, both in government and the private sector, and for society at large.

We are a premier consultant in the policy-commerce interface and resource and environment-intensive sectors, where we advise on the most critical and complex policy and commercial questions facing clients around the world. The success we bring to our clients reflects a strong partnership culture, solid foundation of skills and analytical assets, and close cooperation with a large network of contacts across key organisations.

Practice areas

Energy & climate change

Competition & strategy

Infrastructure & resources

Development economics & finance

Innovative policy