

# The Climate Competitiveness Index 2010:

National progress in the low carbon economy

Summary for Decision-Makers







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# **Foreword**



It is a pleasure to introduce to you the Climate Competitiveness Index 2010, a pioneering exploration of how countries are making progress towards a low carbon, resource-efficient Green Economy.

The UN Climate Convention meeting in Copenhagen in December 2009 has, despite many concerns, delivered some central elements towards a cooperative agreement between the countries of the North and the South.

However, UNEP and other modelling centres indicate that the pledges made are still below the ambition needed to reach a target of keeping the global temperature rise below 2 degrees Celsius by 2050.

Nevertheless, we are seeing unprecedented action from all sectors of society. Governments, businesses, trade unions, civil society organisations and citizens are now responding with concrete climate change actions across their operations and in their daily lives.

Crucially combating climate change is being recognised as an opportunity to move from the economic models of the past century, towards the clean and green industries urgently needed in the 21st century.

A green economy brings with it not only the opportunity to reduce greenhouse gas emissions, but also to generate new jobs, new technologies and new businesses.

This report underlines the move towards a green economy in different regions and helps to assess which regions are currently best placed to thrive in the low carbon economy of the future.

It is also a contribution towards the need for quality, climate performance data, closely linked with the discussions on Monitoring, Reporting and Verification within the UN Framework Convention on Climate Change discussions.

AccountAbility in partnership with UNEP have shone the broadest possible lens in order to explore how 95 countries are creating green jobs, decarbonising energy supplies and engaging the private sector.

Developing the Climate Competitiveness Index and the accompanying analysis has also made us even more aware of shortcomings in the underlying data and the need to push for more robustness and comprehensiveness for the Index to become even more meaningful and applicable in the coming years.

UNEP welcomes the Index and will work to fine-tune the methodology and improve its empirical base, in our quest to promote a low carbon, more resource efficient Green Economy.



#### **Achim Steiner**

UN Under-Secretary General and Executive Director United Nations Environment Programme (UNEP)

# Summary for Decision-Makers

Climate Competitiveness is the ability of an economy to create enduring economic value through low carbon technology, products and services.

Climate competitiveness strategies have not been stalled by Copenhagen. Despite uncertainty about the international negotiations, businesses, governments and citizens around the world are getting on with the task of seizing opportunities in the emerging low carbon economy. The report identifies significant activity in the first quarter of 2010. India's new commitments will create 1,200 energy efficiency projects and open up a market worth US\$15 billion. Germany has already created 250,000 green jobs and aims to find 400,000 more, while China and the USA are neck and neck in the race to generate renewable energy.

The Climate Competitiveness Index 2010 identifies good practices in countries around the world. From the investment promotion agency in Finland and the Presidential office in Guyana to consumer watchdogs in New Zealand, key institutions are preparing for climate competitiveness. If such good practices are converted into meaningful national strategies, it will accelerate progress towards the low carbon economy.

The low carbon economy will be competitive. While economic value can eventually become widely shared and collaborative, the market in 2010 is fiercely competitive as people strive to achieve first mover advantages. Climate-related businesses could have revenues in excess of US\$2 trillion by 2020. Investors are asking the leading companies in all sectors to show how they are winning market share. Smaller businesses, entrepreneurs, urban planners, policy-makers, business associations, stock exchanges, investment agencies, labour unions and civil society organisations are all building support for climate competitiveness and prosperous, low carbon societies.

The Climate Competitiveness Index 2010 shows which countries and regions are best placed to thrive in the low-carbon economy. The Climate Competitiveness Index (CCI) is a new metric that analyses low carbon leadership, performance and accountability. The underlying model captures the key trends in a sample of 95 countries covering the vast majority of businesses and 97% of global economic activity, as well as 96% of global carbon emissions.

The CCI is a dynamic model assessing both accountability (the climate strategy is clear, ambitious, and supported by all stakeholders) and performance (the country has the track record and capabilities to deliver the strategy).

In building climate competitiveness, the leading countries effectively combine climate accountability and climate performance.

- Climate accountability is how government, business and civil society formulate a climate strategy that covers all the key opportunities and challenges, that involves all relevant stakeholders in providing solutions, and that is clearly articulated, communicated and adjusted if necessary.
- Climate performance is the track record of action and capabilities demonstrated by government, business and civil society in setting incentives, building effective systems and reducing carbon intensity while expanding low carbon products and services.

Climate competitiveness is the enduring economic value created when accountability and performance are successfully combined. Although it is easier to measure action (such as investments in clean technology, changes in fuel supply or trends in emissions intensity), such performance indicators are an inadequate guide to competitive potential as market transformation gets under way. The Climate Competitiveness Index also includes a first global assessment of the missing dimension of climate accountability. Climate accountability means:

- Political leadership that articulates a big vision, not just the ability to navigate safely through international negotiations;
- · Policies and pledges that are fully embedded and deliverable, not just the aspiration of the low carbon policy elite;
- · Action by a critical mass of businesses, associations and entrepreneurs, not just among the largest corporations; and
- Citizens who demand national success and global solidarity in the low carbon economy, supported by consumer groups and media that see the major opportunities beyond fashionable scepticism.

100% OECD Climate Performance Index Nordics East Europe/Central Asia G20 LAC EU27 50% SIDS BASIC South ASEAN Eastern Sub-Asia MENA Saharan South Asia Africa 0% 25% 50%

Exhibit 1: The Climate Competitiveness Index 2010 - Key Clusters

Climate Accountability Index

KEY

- OECD High Income (26 countries)
- South Eastern Asia (10)
- East Europe/Central Asia (15)
- LAC: Latin America and the Caribbean (13)
- MENA: Middle East and North Africa (10)
- South Asia (6)
- Sub-Saharan Africa (14)

- BASIC: Brazil, South Africa, India and China (4)
- G20 (20)
- EU27 (27)
- ASEAN: Association of South East Asian Nations (7)
- SIDS: Small Island Developing States (6)
- Nordic States: Denmark, Finland, Norway and Sweden (4)

Please note: Some countries may appear in more than one cluster. The EU representation in the G20 for this study consists of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, Greece, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.

Countries, regions and economic groupings of countries have significantly different approaches to climate competitiveness. There is statistical evidence for a positive relationship between performance and accountability among successful economies. However, there is no single blueprint or pathway to climate competitiveness. The 2010 Index reveals that countries and regions are pursuing distinctive climate strategies based on their national priorities and capabilities [see Exhibit 1, noting that the regional and economic categories include overlapping membership].

# The Climate Competitiveness Index Methodology

The Climate Competitiveness Index 2010 provides a comprehensive insight into a wide range of countries at all income levels. It combines indicators that are already available in the public domain with new data generated by AccountAbility.

Climate competitiveness analysis demands good quality and timely climate data. The most readily available data, such as emissions intensity (expressed as kg  $CO_2/US$1000$  GDP), may mislead policy-makers and investors when used in national comparisons. Copenhagen made clear the imperative of incorporating accountability into climate analysis, as well as the significant controversy surrounding monitoring, verification and reporting. Global policy-making and the emerging debate on how to allocate financing for climate mitigation and adaptation will require widely accepted multi-country assessment frameworks to demonstrate performance and accountability as well as vulnerability. The quality of global data for climate performance and accountability deserves a major upgrade.

Over the last year, trained analysts at AccountAbility's offices have analysed the performance of 95 countries by assessing publicly-disclosed information made available by relevant governmental departments, authorities and businesses on their official websites. The research effort was equalised to 7.5 hours for each country (and all results were quality controlled). Information was analysed if it appeared in one of the six official languages of the United Nations (UN): Arabic, Chinese (Mandarin), English, French, Russian and Spanish.

These results were combined with the most reliable and relevant multi-country data produced by international organisations into two indices, each with four domains and 13 variables (see Exhibit 2):

- The Climate Accountability Index examines the degree to which a country has the leadership, institutions, systems and practices in place to deliver climate competitiveness. In addition to government actors, it considers the role of business associations, investment promotion agencies, citizen and consumer groups. The Climate Accountability Index assesses countries on over 150 parameters.
- The Climate Performance Index assesses the economic drivers of the low carbon economy, covering energy and water price signals, clean energy networks, consumer demand, carbon management by businesses and the emissions intensity track record. It draws on 13 hard and soft datasets from the International Energy Agency (IEA), World Economic Forum (WEF), Gallup, Swiss Re, GTZ, OECD, UNSTAT and AccountAbility.

Every effort has been made to ensure the Climate Competitiveness Index provides robust, relevant and timely climate data for 95 countries. There are a number of caveats to the methodology. The Climate Accountability Index is based

**Exhibit 2: The Architecture of the Climate Competitiveness Index** 

# **Climate Competitiveness Index**

#### **Climate Accountability Index**

(4 areas, 13 indicators)

#### **National Leadership**

- Statements by Head of State
- Commitments to Green Jobs agenda
- Engagement with UNFCCC

#### Strategy & Coordination

- Materiality of Climate Strategy
- Policies at Ministry of Finance
- Policies at Ministry of Energy

# Investment Promotion & Business Support

- Activities of Competitiveness Council
- Activities of Investment Promotion Agency
- Activities of Chamber of Commerce
- · Activities of Stock Exchange

#### Citizen Engagement

- Activities of Consumer Body
- · Activities of Civil Society
- Uptake of Green Standards

#### **Climate Performance Index**

(4 areas, 13 indicators)

# **Incentives & Price Signals**

- Gasoline Price (GTZ)
- Electricity Price to Industry (IEA)
- Water Price (GWI/OECD)

#### Awareness & Risk Management

- Knowledge of Climate Change (Gallup)
- Concern about Climate Change (Gallup)
- Insurance Penetration, non-life as % of GDP (Swiss Re)

# **Access to Clean Electricity**

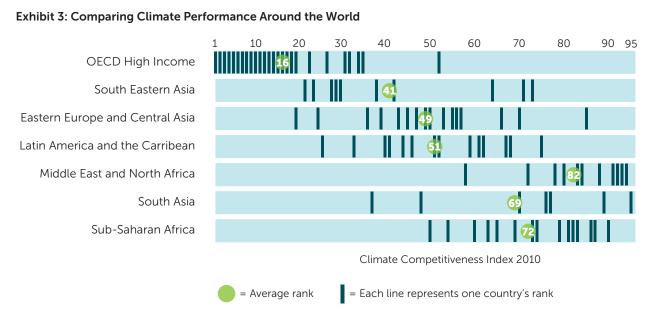
- Access to Electricity (IEA)
- Renewables % of Electricity Generation (EIA)
- Efficiency of Distribution (IEA)
- Quality of Supply (WEF)

# **Intensity Emissions Trends**

- Emissions Intensity Trend (IEA)
- Emissions Intensity Trend in Manufacturing Sector (IEA/UNSTAT)
- Emissions Trend in the five largest companies (AccountAbility)

on publicly disclosed communications, rather than auditable achievements. A country disclosing climate information in a language other than those used in the UN system may be deemed to underperform its peers. The 2010 CCI does not apply different measures or weightings to countries at different levels of development, or to differentiate Annex-1 and Non-Annex 1 countries. Finally, not all hard data sets cover the full set of countries included in the analysis.

While recognising these limitations, the Climate Competitiveness Index nevertheless represents the largest and most systematic effort to gauge how countries around the world are placed to succeed in the low carbon economy (see Exhibit 3).



# Ten Key Findings

The Climate Competitiveness Index 2010 has ten key findings:

- 1) Countries that have strong climate performance generally have higher levels of climate accountability. Less strong performers tend to be less accountable. While there are many exceptions to this pattern, and only anecdotal evidence as yet on causality between the two dimensions, prudent climate strategies will focus on strengthening both dimensions.
- 2) There has been an increase in climate accountability since the UNFCCC Copenhagen conference in December 2009. Nearly half (46%) of the countries assessed have improved their climate accountability somewhat or significantly, suggesting the Copenhagen Accord has had a positive impact, with improved climate competitiveness registering in 32 countries. Major climbers include Rwanda, Kenya and Ghana, and from the OECD, Republic of Korea and Ireland. These developments demonstrate the importance of debate and citizen action in strategy development.
- 3) There are examples of good practice to be shared in dozens of countries [see Exhibit 4]. In most countries, there is still plenty of room for improvement among many of the competitiveness actors. Specifically, much more can be done by business associations, competitiveness and investment agencies, stock exchanges and consumer groups to promote more business action.
- 4) Each country will have a distinctive competitiveness strategy, but some broad patterns are discernible in different regions and in different economic clusters. For example, Bolivia, Ghana, Vietnam and Bangladesh all demonstrate strong citizen concern coupled with limited business engagement. Emerging economies like Brazil and the Philippines enjoy strong government leadership. In other cases, leadership is evident in the business community, for example in Scandinavia and Singapore. However, climate leadership will increasingly require engagement from most or all stakeholders.

- 5) Climate accountability is becoming a vote-winner for governments and parliamentarians. Citizens are demanding visible, coherent and tangible climate leadership from national leaders. Many politicians are opening dialogues to gauge opinions. Climate accountability is becoming a key differentiator in elections, for example in Brazil, Japan and the UK. In Republic of Korea, the President's office has engaged with numerous stakeholders to create the 'Low Carbon Green Growth Strategy'.
- 6) Climate competitiveness is not dictated by income level, despite strong performance on the Index by many northern European countries. The Philippines is highly accountable and has made green jobs a political priority. Guyana, China, Chile, Mauritius and South Africa are all building distinctive strategies for low carbon competitiveness. There is no evidence for a climate Kuznets Curve or that resource endowments dictate national performance.
- 7) Consistency is the key to climate competitiveness. Northern European countries, notably Germany, France, the UK and Nordic countries, have the most consistent performance across the eight domains and between accountability and performance. In North America and Australia, there is a telling mismatch between citizen concerns and price signals, and divergent views within the business community and in politics. The BASIC states outperform the rest of the G20 on accountability. Latin American countries are stronger on performance than accountability. In Asia, the Middle East and in Africa, there is high variability in both performance and accountability, as indeed there is in the EU27 states.
- 8) Climate action in the private sector is crucial for climate competitiveness. Strong performance on the CCI by Japan, Republic of Korea, Germany, the Nordics and the USA is manifested by active engagement by the largest firms in reducing their emissions and offering low carbon products and services. The track record on carbon disclosure and management of the five largest companies headquartered in each country is a robust predictor of broader business action within the country. In some countries, action is still lacking even among the biggest firms, let alone the broader business community.
- 9) Companies and countries are scrambling to win share in new markets. The clean energy sector, estimated to be worth US\$200 billion in 2010, has seen rapidly growing investment in recent years, with a moderate setback due to the 2009 downturn. Low carbon street lighting is a good example of fierce competition. Trials of rival LED technologies, running in Hong Kong, New York, Tianjin and Toronto will dictate success for companies in what is expected to be a US\$1 billion market in 2010. Countries such as Turkey, Italy, the USA and China have all increased their investments in clean energy by over 100% in the last five years. It is of concern that significant investments are being made in some countries with only moderate levels of climate accountability [See Exhibit 5].
- 10) The countries most vulnerable to climate change do not yet have the accountability and capacity they will require to adapt and thrive. Proactive adaptation policies are being developed in countries like Bangladesh, Cambodia and the Maldives, but international support will be needed for many countries to build climate resilient growth strategies. This support includes the current offerings of climate models, mitigation menus and strategy advice, but also needs to encompass capacity building for all the key actors in climate competitiveness, including business associations, trades unions, stock exchanges and civil society and consumer groups.

#### **Exhibit 4: Examples of Good Practices Around the World**

United Kingdom: introduced the Green Home Strategy to reduce emissions from UK homes by 29% by 2020. It could create up to 65,000 jobs in the green building sector and 7 million British households could benefit from a partnership that allows citizens to offset the price of insulation and solar panels against their energy bills.

Germany: ambitious investments in green technologies, including support for small and medium sized enterprises, and a good track record of exports, have led to 250,000 jobs in the renewable energy sector. Now, the government is aiming for 400,000 more.

Finland: Invest in Finland set up a Cleantech cluster to provide venture capital support and networking opportunities for companies, policy-makers, academics and stakeholders. So far, the Cleantech cluster has created over 40 highgrowth companies annually, and 10% of inward investments in 2009 were in clean tech.

China: making progress at both company and city level, Baoding, near Beijing, is being transformed from heavy manufacturing to low carbon sectors. The municipality introduced an industrial energysaving policy and regulations for local businesses, as well as support for solar panel and wind turbine production. The city now has 20,000 people working in clean energy.

Algeria: actively entering the solar energy market, recently announcing plans to produce solar panels for remote, off-grid, rural communities in southern Algeria. The goal is to meet 6% of energy demand from clean energy sources by 2015.

United Arab Emirates:

is building a low carbon city in Abu Dhabi.
Masdar City combines high-performance architecture with clean fuel sources, and aims to attract and retain clean technology industries.

Kenya: the charity, Kenya Green Energy Foundation, will connect renewable energy entrepreneurs with under-served communities. It secures and distributes funds for small businesses to replace conventional high cost energy generation with low cost, green alternatives. Mauritius: Sustaining Green Mauritius offers incentives to develop a high-tech, low carbon economy. The 2010 budget removed customs duty from energy-efficient lights and provided subsidies for solar water heaters. The government is also promoting green buildings. India: to attract foreign direct investment, in 2009 the Indian Ministry of Commerce led the development of draft "green guidelines" for Special Economic Zones. The draft guidelines focus on the energy efficiency of new and existing buildings and, if adopted, could result in certification for individual buildings.

Republic of Korea: the government allocated over 80% of its US\$38 billion economic stimulus package to green investment. There was broad public consultation, including businesses and local authorities, to agree to the Low Carbon Green Growth Strategy.

Japan: promoting energy efficiency in automotives and consumer goods like fridges and microwaves through the Top Runner Programme. Unlike other energy standards that set minimum efficiency targets, it scouts the world for the most stringent energy efficient standard, and aims to make this Japan's industry average in 4 to 8 years.

USA: civil society organisations are forming strategic partnerships to lobby the government for stronger climate change legislation. Founded in 2006 by the Sierra Club and the United Steelworkers, the Blue Green Alliance brings together trade unions and environmental organisations and unites more than 8.5 million citizens in the pursuit of jobs in the green economy.

Guyana: the national Low Carbon Development Strategy outlines a package of policies to promote mitigation and adaptation, grow new sectors and develop institutions to support the transition to a prosperous, low carbon economy.

Singapore: the
Sustainable Singapore
blueprint will improve
resource efficiency,
enhance the physical
environment, develop
capabilities and build an
environmentally
responsible community.
Singapore aims for
energy intensity
improvements of 35%
from 2005 levels by
2030.

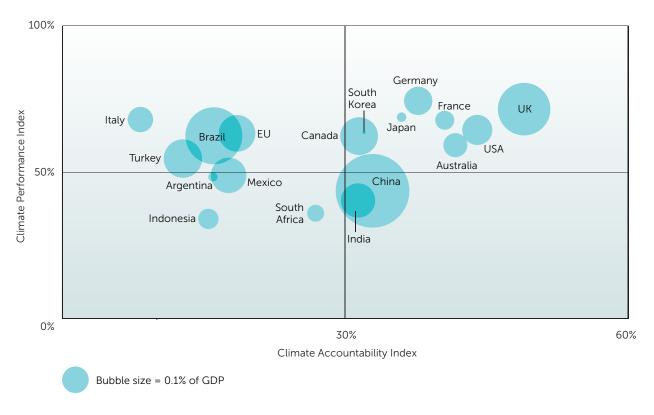
New Zealand: the national consumer group, New Zealand Consumer, is raising awareness of energy efficiency in electrical and electronic appliances and provides tangible, cost-effective recommendations for 64,000 consumers.

Chile: the National Council for Innovation is raising awareness and training for companies in all sectors to understand the wide-ranging economic risks and opportunities from climate change. Brazil: offers legal support for the development of wind, biomass, and hydroelectric sources since 2002. The Programme of Incentives for Alternative Electricity Sources (PROINFA) aims to increase the share of renewable energy to 10% in 20 years. PROINFA is expected to generate 150,000 jobs and private investments of US\$2.6 billion into the country.

More examples of good practices can be found at www.climatecompetitiveness.org, marked with a gold star  $\bigstar$ 

Exhibit 5: The Climate Competitiveness Index and Clean Energy Investment

Sources: AccountAbility's own analysis, the International Monetary Fund and Pew Centre.



# **Next Steps: Building Climate Competitiveness**

Climate competitiveness metrics will increasingly inform the strategies of policy-makers, businesses and citizens alike. The Climate Competitiveness Index 2010 is a pioneering effort in this space. AccountAbility is committed to testing and where necessary upgrading the CCI methodology. We aim to train more analysts, expand country coverage and language capabilities, and secure improvements in the quality and range of data available on climate performance and accountability.

The Climate Competitiveness Index will be enhanced by existing partnerships with global institutions and national governments, as well as academia, foundations, businesses, NGOs and consultancies. A specific focus of the work in 2010/11 is to harness the capabilities of local businesses, citizens and civil society organisations to act as datagatherers and accountability analysts.

Over time, the Climate Competitiveness Index will become a trusted and inspiring source of evidence and good practice for developing national, regional, sectoral and organisational strategies. We encourage countries and organisations to benchmark their performance across the two dimensions of the index, enriching the framework with locally relevant data. We will work to find ways to disseminate practical experiences to campaigning groups, international initiatives like the UNEP Climate Neutral Network and to relevant policy-makers.

We will be in active debate throughout 2010 on how to engage countries more deeply in the Climate Competitiveness Index process, and to ascertain the most useful formats for communicating the results. In particular, we will be enhancing the functionality of the online climate competitiveness site (www.climatecompetitiveness.org). The ultimate goal of the CCI is to help improve the competitive potential in all nations and achieve a global low-carbon economy.

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Alex MacGillivray is a Director at AccountAbility, leading the organisation's research team. He has 20 years experience working on sustainable development, climate change and responsible business. One of his core specialities is the translation of strategy into management systems and stakeholder engagement processes. Alex has been central to the development of a broad range of sustainability metrics projects, from the Index of Sustainable Economic Welfare to

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# **About the Organisations**



AccountAbility works to promote accountability innovations for sustainable development. AccountAbility founded in 1995 is a global, not-for-profit organisation with offices in Beijing, London, New York, Sao Paulo and Washington DC. AccountAbility drives a global network of leading business, public and civil institutions working to build and implement innovative solutions for tomorrow's global markets. We work to:

- · Enable open, fair and effective approaches to stakeholder engagement
- Develop and reward strategies for responsible competitiveness and sustainability in companies, sectors, cities, regions and nations
- Create and develop effective collaborative governance strategies for partnerships and multilateral organisations that are delivering innovation and value
- Set and influence sustainability standards including the AA1000 series

#### www.accountability.org



The United Nations Environment Programme (UNEP) was established in 1972 and is the voice for the environment within the United Nations system. It provides leadership in caring for the environment by inspiring nations and communities to improve their quality of life without compromising that of future generations. To accomplish this, UNEP works with a wide range of partners, including United Nations entities, international organizations, national governments, non-governmental organizations, the private sector and civil society. UNEP's work encompasses:

- Assessing global, regional and national environmental conditions and trends
- Developing international and national environmental instruments
- Strengthening institutions for the wise management of the environment
- Facilitating the transfer of knowledge and technology for sustainable development
- Encouraging new partnerships and mind-sets within civil society and the private sector.

www.unep.org





The Climate Competitiveness Index (CCI) is the most comprehensive analysis to date of national progress towards a low carbon economy. The 2010 CCI shows how countries are creating low carbon strategies by combining performance and accountability. The report draws on a robust new assessment of public policy business action and consumer patterns in 95 countries.

The **CCI** provides a timely insight into which countries are best placed to make progress towards green jobs and the low carbon economy. It will be of interest to policy makers, investors, businesses, researchers, civil society organisations and activists. It pinpoints many examples of good practice and also the pressing need for major investments in strategy, data and capacity building.

This summary for decision makers is supplemented by more detailed material for download from www.climatecompetitiveness.org







The AccountAbility CCI Team

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