



for low carbon positive development in the country. These also include: tapping into the growing arsenal of carbon financing schemes; transferring new clean technologies; and increasing energy efficiency. The involvement of the private sector is central to the success of this approach. **The vision is to reduce the effects of climate change whilst ensuring sustainable development and economic growth.**

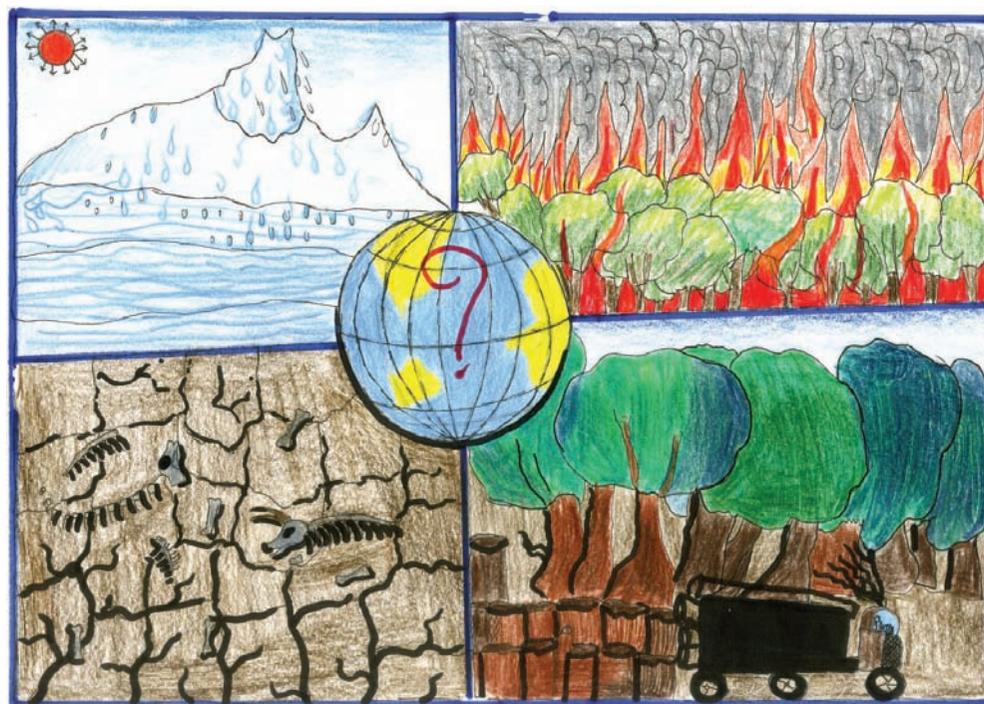
### About the Planned Cambodia Human Development Report 2010

Contrary to the popular perception as an 'environmental' issue, climate change is a major development challenge. **The Royal Government of Cambodia did not delay in recognising that climate change poses a serious threat to the country's growth prospects**, along with the current financial crisis. Most recently with the Rectangular Strategy-II, the RGC has made a commitment to tackle this massive challenge. While informed decisions and actions are needed at all levels, and while various studies are being undertaken on climate change in the region and in Cambodia, there is still a major knowledge and awareness gap in the country.

In this context, a new national Human Development Report (NHDR) is being prepared to address climate change in Cambodia from the economic and human development angles. The national HDR is an in-depth, independent, nationally-owned policy analysis document commissioned and facilitated by UNDP around the world. The main objective of this HDR for Cambodia (CHDR), aimed for publication in 2010, is to promote awareness and understanding on climate change as a major development challenge for the country today, and help develop relevant national capacity and support coordination.

**The vision is to reduce the effects of climate change whilst ensuring sustainable development and economic growth.**

It is to be done by clarifying both threats and opportunities that climate change brings to Cambodia's economy and human development. Throughout its development and follow-up advocacy process, the CHDR aims to make this emerging issue more 'relevant' in the eyes of policy makers, development practitioners and the general public, with evidence-based quality research and advocacy work. The process will build upon a wide range of ongoing initiatives as well as strong partnership with multiple stakeholders including the government, international community, civil society, academia and private sector.



"Change of the Earth", drawing by Im Nop, 13-years-old, Friends-International (Mith Samlanh)

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# CHALLENGING THE CLIMATE:

*Knowing Climate Change Threats and Turning them into Opportunities*

## Cambodia Human Development Report 2010

### Human Development and Climate Change – Why Is it Important?

The concept of human development entails freeing and enlarging people's choices within a society. There are three fundamental elements in it: 1) that people live a long and healthy life (life expectancy); 2) that they attain knowledge (adult literacy, school enrolment); and 3) that they acquire the resources necessary to provide for a decent standard of living (income). The essence of human development is to strengthen people's capacities and options for livelihood, and to create an enabling environment for it.

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**Today, climate change poses one of the world's greatest challenges to human development.** Global temperatures and sea levels are rising and will continue to do so throughout the 21st century. Human activity, particularly deforestation and the burning of fossil fuels, is driving this change by increasing atmospheric concentrations of carbon dioxide and other greenhouse gases.

As a result, the world is experiencing greater weather extremes, changes in rainfall patterns, heat and cold waves, increasing drought and floods. These phenomena, in turn, are having a negative impact on the environment and on the lives and livelihoods of communities, especially the marginalised or poorest groups in the poorest regions



**CLIMATE CHANGE poses one of the world's greatest challenges to human development**

who are at the same time least responsible for these changes. Short-term disasters and the longer-term effects of climate change threaten people's ability to lead long and healthy lives, to be knowledgeable, to have a decent standard of living, and to participate in community life with dignity and self-respect.

On the other hand, a country, society or community's ability to cope with climate change impact – or the level of vulnerability – is closely correlated with the level of economic and human development. However, as argued by the global Human Development Report (HDR) 2007/2008 *Fighting climate change: Human solidarity in a divided world*, if all the world's countries generated greenhouse gases at the same rate as some developed countries, we would need nine planets to support humanity. In this context, business-as-usual development can no longer be an option for any country.



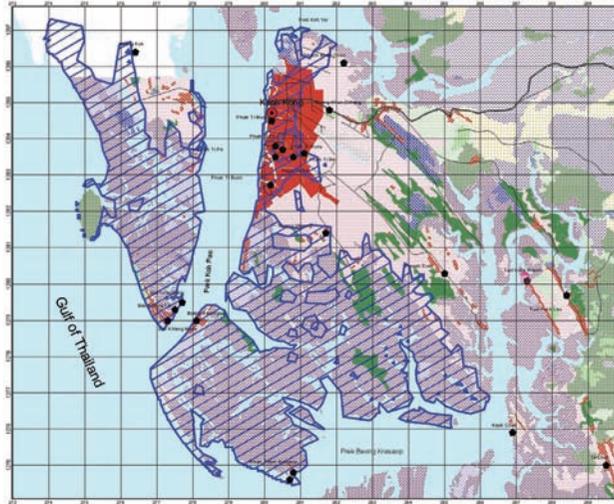
The HDR 2007/2008 was instrumental in making the issue of climate change as a development challenge part of an international dialogue.

**Failure to address climate change not only threatens efforts to reach the Millennium Development Goals, but also could lead to major reversals of current development efforts and investments.**

**What Does it all Mean to Cambodia?**

Due to its relatively recent historical turmoil, data on Cambodia's past climate trend is limited. However, in the whole Southeast Asia region, past observations show a clear picture. The mean temperature increased 0.1-0.3°C between 1951 and 2000, and sea levels have risen 1-3 mm per year. Heat waves, droughts, floods, and tropical cyclones have been more intense and more frequent, causing extensive human and economic damage.

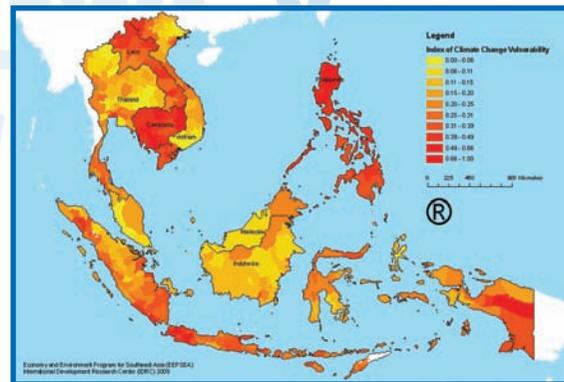
The first climate change vulnerability assessment of Cambodia (2001) projected that the country's temperature would increase up to 1.35-2.50°C by 2100. Annual rainfall would increase between 3 and 35 percent from the current condition. (More rainfall does not necessarily mean a longer rainy season, but it can mean more erratic, intense rain patterns). Lowland areas, where most of the population resides and where most of the country's economic activities take place, will be more affected than highland areas.



Source: Ministry of Environment (2002)  
A one-metre sea level rise would submerge 56 percent of Koh Kong City (shaded areas).

Increasing temperature, floods and drought, erratic and intense rainfalls, and sea level rise are all expected to have long-term negative impacts across sectors. The impact on agricultural productivity, including fisheries, will lead not only to economic losses but also to food insecurity, unemployment, and social instability. Degradation in water supply and quality and increased water-borne diseases will have significant health and economic implications in a country which already suffers from a large number of malaria and dengue cases every year. It is expected that with a one-metre sea level rise, 56 percent of Koh Kong city will be submerged. Cambodia's coastline has prime locations for agriculture, economic development and tourism investments, and failure to consider future climate change in development of such area could lead to significant economic losses.

**Climate Change Vulnerability**



Yusuf and Francisco (2009)

**Cambodia's Vulnerability**

According to recent studies, **Cambodia is extremely vulnerable to climate change**, even in comparison with neighbouring countries in the region, which as a whole is known to be highly vulnerable. A low level of economic and human development, high dependency on rain-fed agriculture, an undiversified economic base, and the nascent stage of policy development and institutional capacity to address climate change concerns, are among the contributing factors making the country highly vulnerable.



Contrary to the popular perception as an 'environmental' issue, climate change is a major development challenge.

With the significant costs associated with increased damages and need to prepare for further impacts, as well as investment needs for inevitable mitigation measures, economic implications associated with climate change are extremely high. For this reason, **climate change is also recognised as the greatest and widest-ranging market failure ever seen.** A recent study which examined four countries in the region (Thailand, Viet Nam, Indonesia, and the Philippines), concluded that, in the 'business-as-usual' scenario, climate change-related economic losses could amount to 6.7 percent of GDP by the next century. Given the relative high vulnerability of Cambodia the costs that the country may have to bear could even be higher.

*With the significant costs associated with increased damages and need to prepare for further impacts, as well as investment needs for inevitable mitigation measures, economic implications associated with climate change are extremely high.*

**Leverage for Sustainable Development**

It is often argued that developing countries have contributed least to the climate change problem, and the developed world should pay for it. There is indeed an increasing amount of donor funds and other financing schemes made available for Cambodia, both to prepare for imminent impacts which see no national border, as well as to help prevent further global warming. **Cambodia can access these funds to turn climate change into opportunities for prosperity**, i.e. "making it work"