





INTRODUCTION:

RESPONDING TO THE CLIMATE CRISIS

Climate change is emerging as one of the most profound environmental threats to the human future. Scientists predict that in the absence of global action to reduce human-caused greenhouse gas emissions—principally carbon dioxide from burning fossil fuels—the average global temperature of the planet will increase by 1.4 to 5.8 degrees Celsius over this century, bringing with it an increase in extreme weather events and radically changing weather systems of drought and rain.

The United Nations Intergovernmental Panel on Climate Change estimates that the steady warming of the Earth's surface temperature will lead to falling agricultural production in tropical and sub-tropical countries, especially in Sub-Saharan Africa, where people are least able to cope in terms of adjusting crops and cropping patterns. Sea level rise associated with projected increases in temperature could displace tens of millions of people living in low-lying areas, such as the Ganges and the Nile deltas, and could threaten the very existence of some small island states.

Climate change will put new stresses on populations in the weakest economies and areas as they try to resist the spread of vector-borne diseases and are forced to move away from increasingly marginal lands and habitat.

Reducing emissions of carbon dioxide and other greenhouse gases in order to mitigate climate change is therefore a key challenge facing the international community. The Kyoto Protocol (Protocol) and the European Union's Emissions Trading Scheme (ETS) provide an opportunity for OECD countries to reduce greenhouse gas emissions and at the same time help developing and transition economies invest in environmentally friendly technologies and infrastructure that will contribute to their sustainable development.

The Kyoto Protocol

The Kyoto Protocol was adopted at the third session of the Conference of the Parties to the Convention (COP), held at Kyoto, Japan, on December 11, 1997. Once entered into force, the Kyoto Protocol will commit the Annex I countries that will have ratified it, to individual targets to limit or reduce their emissions, adding up to a total cut of at least 5% from 1990 levels in the "commitment period" 2008-2012. The individual targets for Annex I countries are listed in the Protocol's Annex B, and range from an 8% reduction for the European Union and several other countries, to a 10% increase for Iceland. The targets cover emissions of six main greenhouse gases listed in the Protocol's Annex A.



In order to enter into force, the Protocol must be ratified (or acceded to) by 55 Parties to the United Nations Convention on Climate Change including Annex I countries accounting for 55% of carbon dioxide emissions from this group in 1990. One hundred and twenty-one nations and the European Union had ratified or acceded to the Protocol as of the time of printing of this document, representing 44.2% of the Annex I emissions. Ratification by the Russian Federation would bring the share of Annex I emissions beyond the 55% threshold and cause the Kyoto Protocol to enter into force. The United States, which accounts for about a quarter of the world's greenhouse gas emissions and over 35 percent of the Annex I emissions, has stated its intention not to ratify the Kyoto Protocol.

The Mechanisms of the Kyoto Protocol

The Annex I countries may meet part of their emission targets through the so-called “Kyoto mechanisms”. Article 12 of the Kyoto Protocol defines a Clean Development Mechanism (CDM) allowing the issuance of Certified Emission Reductions (CERs) for projects located in non-Annex I countries that generate permitted reductions of greenhouse gas emissions or sequestration of greenhouse gases. Once verified and certified by a designated independent entity, such emission reductions may be

used by Annex I countries to meet their quantified emission limitation and reduction commitments.

The other two mechanisms envisaged by the Kyoto Protocol—projects under Article 6 (Joint Implementation) and Emissions Trading under Article 17—allow an Annex I country to acquire, respectively, emission reductions generated through a project undertaken jointly with another Annex I country and units of another Annex I country's quota of permissible emissions (Assigned Amount Units), and to use these units for the purpose of meeting its targets. The rulebook for the implementation of the Kyoto mechanisms is contained in the Marrakesh Accords, adopted by the seventh session of the COP held in November 2001 in Morocco.

The Marrakesh Accords allow for land use, land use change and forestry projects to be eligible under the CDM (for the first commitment period), but limited these afforestation and reforestation activities. COP 7 also agreed that an Annex I country may account for emission reductions from such CDM projects up to 1% of its base year. COP 9, held in December 2003 in Milan, Italy, resolved some of the issues left pending from the previous negotiations.



The linking of JI and CDM projects to the European Union's Emissions Trading Scheme is key to reducing the costs of compliance of companies covered by the ETS.

Accordingly, emission reductions from afforestation and reforestation projects are allowed for up to 60 years subject to verification and certification of continued storage of carbon every five years.

The Emissions Trading Scheme of the European Union

Beyond the Kyoto Protocol, the European Union's Emissions Trading Scheme (ETS) is the single largest greenhouse gas mitigation regime in the world. In its pilot phase (2005-2007) the ETS imposes a cap on carbon dioxide (CO₂) emissions of medium and large fixed sources, which amount to about 45% of the total CO₂ emissions of the European Union (EU). The second phase of the ETS will be 2008-2012.

The ETS requires European Union member states to set legally binding caps on carbon dioxide emissions from facilities involved in energy activities, iron and steel production and processing, cement, glass or ceramic production, or pulp, paper or board production. The documents which establish the liabilities of the individual facilities covered by the ETS are the National Allocation Plans which set individual emissions caps and allowance allocations. Almost 15,000 EU facilities are covered by the ETS, about 2,900 of which are located in Italy.

On April 21, 2004 the European Parliament approved an amendment of the ETS which allows for the linking between the ETS and the Kyoto Protocol. The linking enables emission reductions under the Kyoto Protocol's Clean Development Mechanism and Joint Implementation to be used by companies for compliance in the ETS. The linking of JI and CDM projects to the EU's Emissions Trading Scheme is key to reducing the costs of compliance of companies covered by the ETS.

The Carbon Finance Business of the World Bank

With the benefit of a rewarding partnership with six governments and 17 private companies, the World Bank has played a pioneering role in developing the market for greenhouse gas emission reductions through the Prototype Carbon Fund (PCF). Operational since 2000, the PCF's mission is to pioneer the evolving carbon market while promoting sustainable development and offering a learning-by-doing opportunity to its stakeholders. In 2002, the Bank expanded this effort in partnership with the Ministry of Environment of the Netherlands, with the launch of the Netherlands Clean Development Mechanism Facility (NCDMF), which purchases greenhouse gas emission reductions from projects in developing countries.



Following initial consultations with the United Nations Framework Convention on Climate Change (UNFCCC) secretariat and the International Emissions Trading Association (IETA), in March 2003, the World Bank established the Community Development Carbon Fund (CDCF) with the dual objective of purchasing and facilitating the generation of high-quality greenhouse gas emission reductions from small-scale projects which also reduce poverty and improve the quality of life of local communities in poorer countries and areas of the developing world. The CDCF is intended to extend the reach of carbon finance and the Clean Development Mechanism to developing countries that would otherwise be potentially excluded from their benefits.

The World Bank launched the BioCarbon Fund in November 2003 to provide an opportunity to channel private capital to pilot projects that sequester and conserve greenhouse gases in forest and agricultural ecosystems. Currently, the market is bypassing opportunities to remove carbon dioxide from the atmosphere through sustainable land management, agriculture, and forestry—including forest restoration for biodiversity conservation—and is therefore missing an opportunity to increase financial support for the rural poor through sustainable natural resource utilization. Ultimately carbon

sequestration may be the only significant option for many poor nations which have only small industrial sectors and energy use to benefit from carbon finance.

Italy is also a participant in both the CDCF and the BioCarbon Fund.

Italy's Climate Change Policies

The Ministry for the Environment and Territory is the lead agency in Italy with respect to climate change policy.

Italy's emission reduction target under the Kyoto Protocol is a 6.5% reduction from 1990 levels by 2008-2012. Projections indicate that business as usual emissions are likely to increase to around 13% above 1990 levels. Therefore a reduction in emissions of around 19.5% may be required by 2008-2012. To address this challenge, in 1998 the Italian Government adopted a national plan that envisages a number of measures, including increased energy efficiency and use of renewable energy (through such incentives as "green certificates"), enhancement of domestic "carbon sinks", reduction of fuel for transport, and reduction of energy use for industry and household.

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In addition, the Kyoto Protocol Ratification Law approved by the Italian Parliament on June 1st 2002, foresees full use of the project-based Kyoto mechanisms—Clean Development Mechanism and Joint Implementation—to achieve the emission reduction targets in a cost-effective way and promote sustainable development.

Italy is fully engaged in the European Union's Emissions Trading Scheme. Recently, the Ministry for the Environment and Territory of Italy published the proposed draft National Allocation Plan, which foresees allocating a total of 837.4 million tons of allowances to these sources over the first phase 2005-07. The proposed allocation will be annual, starting with 278.5 million tons of allowances in 2005, increasing to 279.7 million tons of allowances in 2006, then 279.2 million tons of allowances in 2007.

The Italian Carbon Fund was established at the request of the Ministry for the Environment and Territory of Italy. The Fund is designed to purchase emission reductions from projects that meet the regulatory requirements of the Clean Development Mechanism, Joint Implementation and/or the EU's Emissions Trading Scheme.



The ICF operations are intended to share knowledge and information with Italian government and business, helping to reduce the costs for both the public and private sectors of achieving their emission reduction commitments, as well as assisting developing countries by purchasing emission reductions from projects in those countries.