BASIC COUNTRIES

CLIMATE POLICY - FACT SHEETS
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CHINA





China is currently the largest emitter of greenhouse gases (GHGs) in the world, accounting for 17 percent of annual global emissions. The IEA estimates of emissions (carbon dioxide from fossil fuel combustion only), amounts to 6027 Mt of CO_2 per year⁶, and emissions are expected to grow dramatically through 2020. However, given China's population size of approximately 1.3 billion people its present per-capita ranking remains low, averaging 5.5 mt of CO_2 e per year.

Over the next two to three decades, China is set to experience rapid economic growth. Owing to this, despite a declining trend in energy consumption per unit of GDP, the country's overall emissions are bound to increase drastically.

As a major developing country, China has made no binding commitments under the United Nations Framework Convention on Climate Change (UNFCCC). It adheres to the principle of 'common but differentiated responsibilities' (CBDR) of the UNFCCC, and while it has made its voluntary submissions under the Copenhagen Accord, it maintains that the states goals are voluntary and all actions and accountability domestic in nature.

Despite its high emissions profile, China has been undertaking a number of significant policy reforms aimed at restructuring the economy towards a more low-carbon growth path. Major focus areas for mitigation include energy efficiency, renewable energy production and afforestation. According to analysis by the Centre for Clean Air Policy (CCAP), recently implemented policies are expected to lower China's emissions to 7 percent below projected levels by 20209

CURRENT COMMITMENTS

In China's submission to the UNFCCC under the Copenhagen Accord, it has said it will take on autonomous domestic mitigation actions, 'as announced' prior to Copenhagen.

The country's (non-binding) commitments as stated in its submission are:

"endeavour to lower its carbon dioxide emissions per unit of GDP by 40-45% by 2020 compared to the 2005 level, increase the share of non-fossil fuels in primary energy consumption to around 15% by 2020, and increase forest coverage by 40

million hectares and forest stock volume by 1.3 billion cubic meters by 2020 from 2005 levels".

Domestically, the government aims to develop low-cost and efficient technologies in energy saving, energy efficiency, new and renewable energy, advanced nuclear technologies, carbon capture and storage, and emissions control through sound agricultural practices³.

CURRENT ACTIONS

In 1998, climate change coordination transferred from the more scientific State Meteorological Administration to the National Development and Reform Commission (NDRC), the premier planning and policy formulation body in China. This signaled the acknowledgment of climate change as a political and developmental issue.

In 2007, the State Council released China's landmark <u>National Climate Change</u> <u>Programme</u> (NCCP) which detailed the country's roadmap to addressing climate change. This marked the beginning of official acknowledgement of the threat of climate change.

China's 11th 5-Year Plan (2005-2010) incorporated plans to boost energy efficiency, setting targets to achieve 20% improvement by 2010. The country is now well on its way to achieving the 2005 goal of reducing energy used per unit of GDP by 20% by the year 2010 (compared to a 2005 base year).

China also set a renewable energy target of 10% primary energy consumption by 2010, and 15% by 2015.

The country's Energy Conservation Law (amended), Renewable Energy Law, Electricity Law, and the Clean Production Promotion Law all provide the NCCP with the legal framework needed to put climate change mitigation into effect. Other policies to promote mitigation include the *National Strategy for Sustainable Energy* and the *Long and Mid-term Plans for Energy Saving and Renewable Energy*.

In June 2008, the Provincial Programme for Climate Change Mitigation and Adaptation in China was launched in order to develop provincial climate change programmes in 20 provinces by 2020 (following pilots in seven provinces).

Domestic policy reforms include:

China's domestic policy reforms emphasise increasing energy efficiency and increasing the country's renewable energy capacity. Some details of both are provided below:

Increasing energy efficiency: Major initiatives to drive down China's energy use are implemented through the (amended) Energy Conservation Law. The law aims to reduce emissions, and improve energy efficiency and fuel economy. The 'Top 1000

Energy-Consuming Enterprises Programme' sets energy-conservation targets for leading industrial houses in China, and is well on track to achieving its 2010 goal. Coal-fired plants built after 2008 have to use the most up-to-date technology.

The energy efficiency drive even includes a performance review for government officials based on implementation of this law⁵, and all local governments are required to improve energy efficiency.

China's National Development and Reforms Commission (NDRC) has started an initiative to incentivizes consumers to buy energy-saving appliances including air conditioners, washing machines and refrigerators. It also includes mandatory energy-efficiency standards for electrical appliances.

The Electric Power Law aims to replace coal with natural gas in power plants and industry.

Increase Renewable Energy capacity: The NDRC details a *Mid and Long-term Plan* for Renewable Energy development, with a commitment to increase the proportion on renewable energy to 15% by 2020. Under China's Renewable Energy Law (2005), incentives are provided for private entrepreneurs to enter into RE projects including feed-in tariffs, tax benefits and low-interest lending.

China currently has the largest number of hydropower generators¹ in the world. It is the fourth largest producer of wind energy and the fastest growing installer of wind turbines. The 'Golden Sun' Programme announced in June 2009 aims to boost the installation of solar photovoltaic (PV) paneling across the country, with incentives of up to 70% for installation and transmission costs.

Biomass as a fuel is also being promoted through direct subsidies, with a goal of up to 1% of the country's energy coming from biomass in the near future.

However, despite ambitious policies that aim to move towards clean development, the lion's share of energy production is still projected to come from coal. In addition, an abiding challenged continues to be policy complicance with the State Environmental Protection Adminstration (SEPA) having an uphill task in ensuring effective enforcement of legislation.

The table below summarises a fuller range of policies and measures undertaken by the Chinese government on energy and climate issues (adapted from: IEA 2009).

Policy Name	Туре	Target	Status	Year
Efficient lightbulb subsidy programme	Incentives/SubsidiesVoluntary Agreement	•Appliances	Planned	2008
Hong Kong - Tax Incentives for	•Financial	Transport	In force	2008

Policy Name	Туре	Target	Status	Year
Environmentally Friendly Commercial Vehicles				
National Building Energy Standard	•Regulatory Instruments	•Buildings	In force	2008
Aluminium Industry Permitting Standards	•Regulatory Instruments	•Industry	In force	2007
Medium and Long Term Development Plan for Renewable Energy	•Policy Processes	•Energy Production	In force	2007
National Climate Change Program	•Policy Processes	•Framework Policy	In force	2007
Preferential Tax Policies for Renewable Energy	•Financial	•Energy Production	In force	2007
Retirement of Inefficient Plants	•Regulatory Instruments	EnergyProductionIndustry	In force	2007
Vehicle excise tax rates	•Financial	•Transport	In force	2006 (amende d 2008)
Efficiency Upgrade for Coal- burning Industrial Boilers and Kilns	Policy ProcessesRegulatoryInstruments	•Industry	In force	2006
Efficiency Upgrade for Electric Motors	•Education and Outreach •Policy Processes •RD & D	•Appliances	In force	2006
Energy Efficient Products for Government Procurement - Publication of Official Listing	•Public Investment	•Appliances	In force	2006
Energy Intensity Reduction Target	Policy ProcessesRegulatoryInstruments	FrameworkPolicyMulti-sectoralPolicy	In force	2006

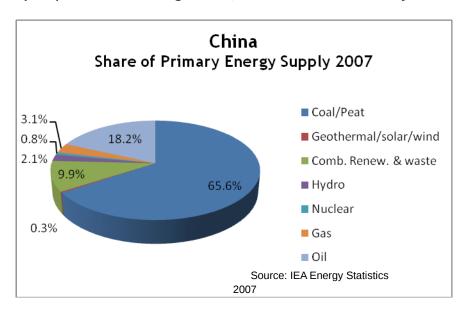
Policy Name	Туре	Target	Status	Year
Expansion of Local Cogeneration (CHP)	•Public Investment	•Energy Production •Industry	In force	2006
Fuel-switching and Conservation to Reduce Petroleum Use	Policy ProcessesPublic InvestmentRD & D	•Multi-sectoral Policy	In force	2006
Renewable Energy Development Targets	•Policy Processes	•Framework Policy	In force	2006
Renewable Energy Law	•Policy Processes	•Energy Production	In force	2006
Support for Biogas Projects	•Policy Processes		In force	2006
Top 1000 Industrial Energy Conservation Programme	•Voluntary Agreement		In force	2006
<u>Vehicle Fuel Economy</u> <u>Standards</u>	•Regulatory Instruments	•Transport	In force	2005 (and 2008)
Asia-Pacific Partnership for Clean Development and Climate			In force	2005
Medium and Long-term Plan of Energy Conservation: 10 Energy Conservation Programmes	Policy ProcessesPublic InvestmentRegulatoryInstruments	AppliancesBuildingsIndustryMulti-sectoralPolicyTransport	In force	2004
Australia - China Bilateral Cooperation on Climate Change (MOU)	Education andOutreachPolicy ProcessesVoluntary Agreement	•Framework Policy	In force	2003
Wind Power Concession Programme	•Incentives/Subsidies	•Energy Production	In force	2003
Reduced VAT and Income Tax	•Financial	•Energy Production	In force	2002

Policy Name	Туре	Target	Status	Year
Support for fuel ethanol production	•Financial •Incentives/Subsidies	EnergyProductionTransport	In force	2002
Brightness Programme	•Policy Processes	•Energy Production	In force	1996

EMISSIONS PROFILE

China is the world's largest emitter of greenhouse gases, with over 6.2 billion tonnes of greenhouse gases emitted per year⁶.

Over 63% of the energy produced comes from coal, 21% from oil and gas, with hydropower accounting for 2%, and other renewables just 0.3%⁵.



In terms of emissions by sector, electricity and heating account for the major proportion of energy (40%), while industry (27%) and agriculture (17%) account for the rest⁵.

KEY INSTITUTIONAL PLAYERS

China's climate change activities are guided by the National Coordination Committee on Climate Change (NCCCC), established in 1999, under the NDRC.

Departments of Climate Change have also been established under the NDRC, the State Ocean Administration and the Ministry of Environmental Protection.

The Ministry of Science and Technology, Ministry of Foreign Affairs, Ministry of Finance and the State Environment Protection Administration (SEPA) also play key roles in formulating and implementing climate policy.

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