



The Swedish CDM and JI Programme

Contributing to global climate change mitigation

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Foreword

Climate change is a global environmental problem and international cooperation is necessary in order to efficiently take measures to reduce greenhouse gas emissions. Within the framework of the Kyoto Protocol, the flexible mechanisms CDM (Clean Development Mechanism) and JI (Joint Implementation) were created to facilitate such cooperation.

The flexible mechanisms offer a possibility for industrialised countries to support projects in other countries where the abatement costs for reductions of greenhouse gas emissions are lower. This means that a larger environmental effect can be achieved at a lower cost, in other words at a better cost efficiency. Projects create opportunities for technology transfer and increased investments in clean, climate friendly technologies in developing countries, as well as for sustainable development in these countries.

The Swedish Energy Agency has been responsible for the Swedish governmental CDM and JI programme for over a decade. The programme focuses on direct participation in individual projects and on participation in multilateral CDM and JI funds. By September 2012 the programme was directly engaged in 54 individual projects in Asia, Africa, Latin America and in Eastern Europe. The projects result in investments in renewable energy, improved energy efficiency or other measures, such as afforestation, that mitigate climate change and promote the goals of the Kyoto Protocol. Through participation in CDM and JI funds in multilateral development banks, the Agency is engaged in an even larger number of projects in a wider group of countries.

The Kyoto Protocol has now reached the end of the fifth and final year of its first commitment period. CDM has been a successful part of the protocol and there are more than 4 000 registered projects that are expected to contribute to emissions reductions of more than 2 000 million tonnes of carbon dioxide equivalents (CO₂e). CDM has engaged both governmental and private investors and with time a broader group of host countries after that China and India dominated initially.

In the last few years, the Swedish Energy Agency has signed purchase agreements with numerous projects in Africa and South East Asia, including several in Least Developed Countries. A cook stove project in Nigeria, an afforestation project in Uganda, small scale hydro projects in Rwanda, Tanzania, and Vietnam and a biogas project in Laos are some examples.

The international negotiations under the UN Framework Convention on Climate Change and the Kyoto Protocol have been cumbersome in recent years due to political factors resulting in less focus on environmental problems such as climate change. The financial crisis has further contributed to this development and the carbon market has been severely affected, e.g. through an oversupply of credits. Well-functioning market based mechanisms are most likely necessary in order to reach a new, more ambitious global climate agreement. A reformed CDM with simplified procedures and sustained environmental integrity, as well as new market based mechanisms can be important components of such a deal.

Bengt Boström
Senior Climate Policy Advisor





*“Focus on small to medium sized
renewable energy or
energy efficiency projects”*

The Swedish CDM and JI programme

The Swedish Energy Agency supports CDM and JI projects through direct contracts with project owners and active participation in selected CDM and JI funds.

The CDM and JI programme is at present directly involved in 54 bilateral projects and seven funds. In both cases, the focus is on small and medium sized renewable energy or energy efficiency projects. Furthermore, the Agency aims at diversifying its project portfolio across regions so as to encourage broader geographical distribution of CDM and JI activities. The project's contribution to sustainable development is also an important aspect.

The majority of the bilateral projects the Agency currently has contracted are small to medium sized and they are estimated to generate emission reductions between 300 000 to 600 000 tonnes of carbon dioxide equivalent (CO₂e) per project over a crediting period of

7 or 10 years. The Agency contracts primarily Emission Reductions (ERs) from the period after 2012, to support future development of the international emission trading market.

Many of the bilateral projects have been contracted in an early stage of development.

Through engagement in CDM and JI projects and funds, the Swedish Energy Agency contributes to financing investments in environmentally friendly technologies and to support sustainable development in host countries.

The programme aims to contribute to the development of both CDM and JI as means to achieve cost effective reductions of greenhouse gas emissions and to enhance international cooperation in climate policy.



Sweden's engagement in bilateral CDM Projects in Brazil, India and China

Brazil, India and China are three rapid emerging markets. Common for these countries are that they were early movers in the CDM market but also where the Swedish CDM- and JI-programme contracted its first projects.

"The CDM has two core objectives, to reduce GHG emission and to enhance sustainable development"



BRAZIL:

Bagasse-based cogeneration projects in sugar industries, São Paulo region

Bagasse fuelled cogeneration projects, which increase the export of electricity to the regional grid, have been developed in three sugar mills. High-pressure boilers have been installed and energy efficiency improvements have been carried out in order to increase the availability of energy for electricity production. The increased electricity surplus is sold to the local power utility. An additional benefit is that the projects'

electricity production is expected to peak in the season when water resources, which are the main source of electricity to the grid, are scarce. Hence the projects will help to improve the security of electricity supply in the region. The projects have generated emission reductions corresponding to 600 000 tonnes of CO₂e during the first crediting period.



INDIA:

Biomass power plants in Tamil Nadu, 18 MW and 10 MW

The objective of both projects is to generate environmentally adapted electricity in the state of Tamil Nadu, India. The power plants utilise Juliflora, surplus biomass residues from charcoal production, as well as agricultural residues which otherwise would be left to decay or be burnt in the open air. The generated renewable electricity is sold to the local state owned power utility company and directly to private users. While the production technology

has been used in several projects around India, the 18 MW project has been adjusted for local water scarcity by adapting the technology to use air rather than water as a coolant. In addition to the electricity generated, the projects provide employment opportunities to the local communities, contributing to the alleviation of poverty. The Agency's contracted volume from the projects is approximately 500 000 tonnes of CO₂e.



INDIA:

3.5 MW Rice husk based Co generation project

Located in Uttar Pradesh – India, the CDM project utilizes rice husk, a by-product from the adjacent rice processing operation, for heat and electricity production. The 3.5 MW rice husk based cogeneration plant will ensure the rice factory's heat and electricity demand, thus

replacing 4 000 cubic meters of diesel per year. The project will result in emission reductions corresponding to roughly 100 000 tonnes of CO₂e during ten years. Also, the project activity helps in sustainable usage of natural resources.



INDIA:

Energy efficiency through use of compact fluorescent lamp

These four small scale CDM projects aim at replacing incandescent lamps with more efficient compact fluorescent lamps (CFLs). About 1.4 million CFLs have been distributed free of charge to employees housed in over 400 000 Indian Railways' residential quarters spread all across India. By replacing incandescent lamps with more efficient CFLs in households, domestic energy consumption will be reduced, resulting in reduced emissions of greenhouse gases. The four projects are expected

to generate emission reductions corresponding to about 470 000 tonnes of CO₂e by 2018. The projects demonstrate that many small measures can generate large emission reductions. The decreased electricity consumption will result in decreased electricity costs for the Indian Railways' employees and their families. Energy efficiency measures are crucial for the sustainable management of India's ever-growing electricity demand.



INDIA:

High-efficiency lighting technology through distribution of low energy lamps

The aim of this CDM Programme of Activities is to distribute approximately 550 000 compact fluorescent lamps (CFLs) to residential households in Habsiguda-district in Andhra Pradesh in India. The use of more efficient CFLs will replace less efficient incandescent lamps and will lead to reduced electricity demand from the

households participating in the project. This will subsequently reduce the need for electricity to be generated from fossil fuel plants and thus reduce greenhouse gases that would have been emitted otherwise. The project is expected to reduce emissions by approximately 230 000 tonnes of CO₂e during a seven year period.



CHINA:

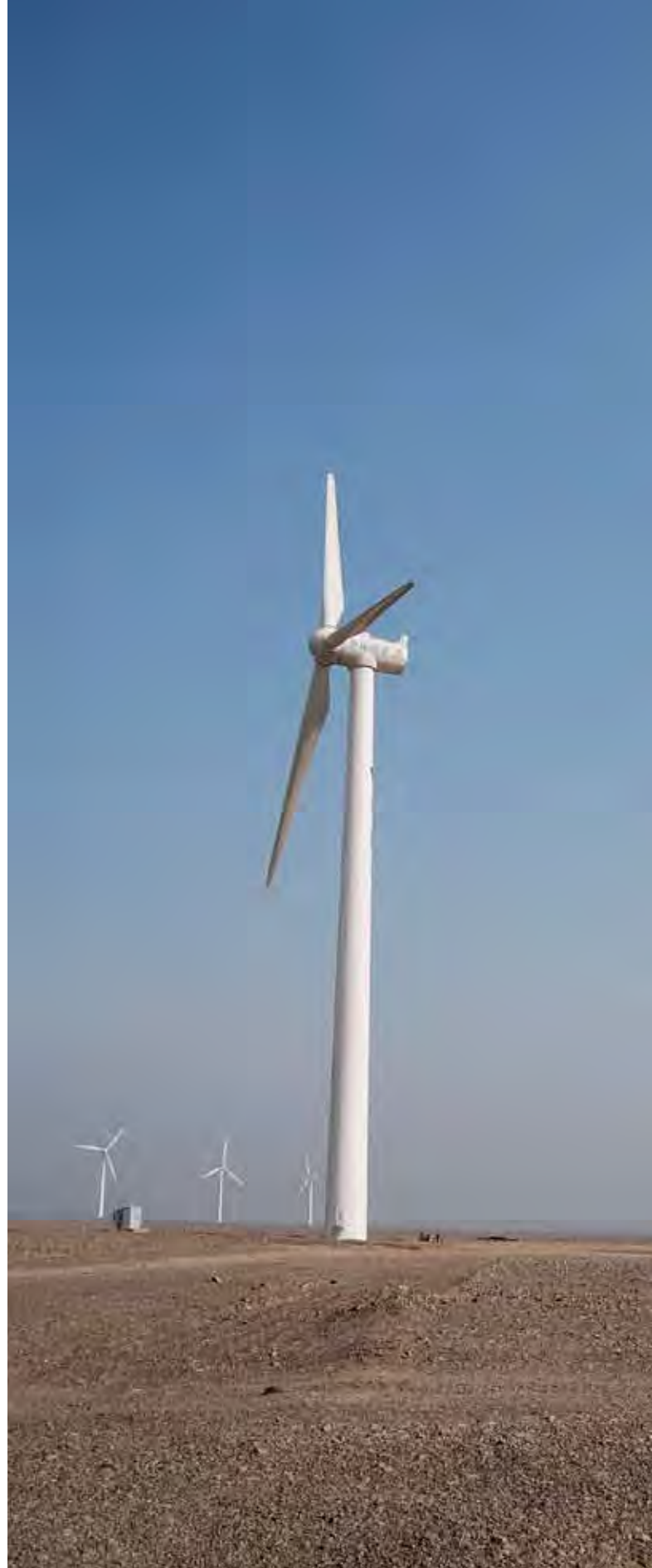
Energy efficiency through waste heat recovery in Gansu province

The project involves waste heat recovery and utilization at a cement plant in Gansu Province in North Western China. Four waste heat recovery boilers have been installed at two dry kiln cement production lines to feed steam to a 6 MW steam turbine. The power generated is used on-site and displaces fossil based power supplied by the local grid. The project will also have a positive impact on local air quality. This is the first time the technology is being used in the Gansu region and hence serves as a showcase project for the use of an environmentally friendly technology. The project is expected to generate emission reductions corresponding to 190 000 tonnes of CO₂e during the first crediting period.

CHINA:

16 wind parks in western and northern parts of China

The CDM projects include the construction of 16 wind parks in China. The wind parks are situated in the Inner Mongolia Autonomous Region (7), Gansu (4), Jilin (2), Xinjiang autonomous region (1), Hebei (1), Shanghai (1), i.e. primarily in the western and northern parts of China. The projected total installed capacity of the wind parks exceeds 1200 MW. The total emission reductions from these projects are expected to exceed 2 million tonnes of CO₂e annually during the 7-year crediting periods. The Swedish Energy Agency has contracted a minor share of the emission reductions from the wind parks. For 14 of the 16 wind parks the emission reductions are co-purchased with Tricorona, a Swedish carbon trading company. Emission reductions result from the displacement of fossil-based power production in the regional grids, where the production is largely dominated by coal. As a regional ancillary benefit, the projects have a positive impact on air quality due to the cleaner technology used for power production.





CHINA:
Biogas collection and production for energy use

The three CDM projects involve the construction of three biogas plants located in the Autonomous Region of Inner Mongolia, Liaoning province and Shandong province in China. The biogas is collected from sewage water treatment plants treating effluents from the food industry. Due to the CDM projects the biogas is collected, upgraded and finally delivered to the local gas grids and hence used for energy production instead of being released into the atmosphere.

Emission reductions are generated by reducing the existing methane emissions and by replacing the currently used fossil fuel gases. The projects contribute to sustainable development by reducing the dependency on fossil fuels, by improving the air quality and by contributing to new employment opportunities. The three plants are together expected to generate emission reductions corresponding to 60 000 tonnes of CO₂e annually during the first crediting period of ten years.



CHINA:

Straw-fired Power Generation Project in Jiangsu Province

The CDM project will be making use of various types of residues from local agriculture production to generate electricity, mainly straw from wheat and paddy rice. Formerly much of the residues were burned in the fields, i.e. without energy recovery or treatment of flue gases. The installed capacity of the project is 33 MW, and the project plant is expected to generate approximately 165 GWh per year, using 200 000 tons of straw. All electricity generated by the project

will be supplied to the East China Power Grid, displacing electricity generation from fossil fuel-fired power plants. The project will achieve emission reductions corresponding to about 150 000 tonnes of CO₂e per year. Additionally, the project will contribute to sustainable development by increasing power supply of the local area and by promoting the economic development, reducing emissions of SO₂ and NO_x and providing job opportunities to local residents.



Sweden's engagement in bilateral CDM Projects in South East Asia

Although China, India, and Brazil were early movers in the CDM market, countries in South East Asia, with a more challenging economic environment, have become strong players in the market over the past few years. Sweden is currently engaged in CDM-projects in Laos, Malaysia, Thailand and Vietnam.



LAOS:
Small scale biogas utilisation project

The CDM project involves the construction of a new wastewater treatment facility at a starch factory in Vientiane. The factory processes cassava to produce starch powder. The existing practice for wastewater treatment at the factory involves the use of open lagoons which release methane-rich biogas directly into the atmosphere. Methane has a global warming potential (GWP) over 20 times greater than carbon dioxide. The CDM project will install a covered

lagoon bio-reactor (CLBR), designed to capture the gas produced from the digestion of organic matter in the wastewater. The captured biogas will be combusted to produce heat for use in the starch production process.

Annual estimation of emission reductions is approximately 40 000 tonnes of CO₂e. In addition, the project will create more than ten permanent employment opportunities associated with operation of the plant.



MALAYSIA:

Small scale run-of-river hydropower plant in the province of Selangor

The CDM project involves construction of a small scale hydropower plant with a net capacity of 2 MW in Selangor province. The plant is a so called run-of-river plant where a part of the river is diverted and led through a penstock to a turbine before being led back to the river again. Emission reductions result from the displace-

ment of fossil fuel based power production in the regional grid. The project contributes to changing the negative trend of increasing greenhouse gas emissions in Malaysia and reduces dependency on fossil fuels. The project will generate emission reductions corresponding to 10 000 tonnes of CO₂e per year.



THAILAND:
Small scale biogas utilisation projects

Thailand produces and exports large quantities of cassava, including refined products. Cassava contains high quantities of starch and is normally used as a feedstock in the starch industry. Waste water from starch factories usually contains high levels of organic matter which causes emissions of methane. These CDM projects involve the installation of a new type of waste water treatment technology at

four separate starch factories. The new waste water treatment technology enables the released methane-rich biogas to be captured and used as fuel in the starch industry and/or for electricity generation. This will reduce the emissions of methane, as well as reduce the need for fossil fuels. The three CDM projects will reduce greenhouse gas emissions by approximately 85 000 tonnes of CO₂e annually.



VIETNAM:

Four small scale hydropower plants in Northern and Central Vietnam

Vietnam has experienced very high economic growth since the early 90's. There however remains a stark difference in living standards between urban and rural areas, as well as between the various minority groups. The economic growth, accompanied by the improved rural electrification, has resulted in a large increase in the electricity demand.

The Swedish Energy Agency supports four CDM projects involving small scale hydropower development in northern and central Vietnam. All four hydropower plants are run-of-river without any significant diversion of the natural stream flows. As of 2012, one hydropower plant is commissioned while the other three are under construction. Together,



the four hydropower plants will have an installed capacity of about 40 MW and will produce approximately 160 GWh annually. The electricity produced will be distributed throughout Vietnam's national electricity grid, thus reducing the need for fossil-based electricity production. When all four hydropower plants are commissioned they are expected to reduce the

greenhouse gas emissions by approximately 95 000 tonnes of CO₂e annually.

In addition the projects will contribute to sustainable development through improved infrastructure, as well as by the introduction of new technologies and job opportunities.



Sweden's engagement in bilateral CDM Projects in South America

Although economic growth and clean energy development in Latin America has outpaced other regions in the developing world, investment barriers remain in many parts of Central and South America. The Swedish CDM and JI program supports one project in Uruguay, and is currently expanding its support to other projects and programmes in the region.



URUGUAY:
Wind farm in south eastern Uruguay

The wind farm Minas I has an installed capacity of 42 MW and is expected to become operational by July 2013. It will be the first large wind farm in the region and will contribute to Uruguay's goal of generating 15 percent of the country's electricity from non-traditional renewable energy sources such as wind, biomass and small-scale hydropower by 2015.

The wind farm will deliver over 160 000 MWh per year to the national electricity grid. This represents about 2 percent of Uruguay's annual electricity consumption and facilitates the supply of more than 50 000 households with climate neutral electricity. The wind farm will reduce greenhouse gas emissions by more than 600 000 tonnes of CO₂e during a seven year period.



Sweden's engagement in bilateral CDM Projects in Africa

Africa, the continent with largest number of Least Developed Countries, has had difficulties establishing itself in the CDM market. The Swedish Energy Agency has made an extra effort both with capacity building and specific project support, in order to assist with the expansion of CDM in Africa.



**MAURITIUS:
18 MW wind farm**

The purpose of the project is to implement and operate an 18 MW grid-connected wind farm at Plaine des Roches, on the north eastern coast of Mauritius. The project consists of 18 cyclone-resistant wind turbines of 1 MW each. The net annual electricity generation of the wind farm is estimated at 33 000 MWh. The power output will be transferred to the national grid. This

first-of-its-kind large-scale wind farm project will displace the corresponding combustion of fossil fuels, and is estimated to result in emission reductions of about 30 000 tonnes CO₂e per year. The project was registered in September 2011 and is expected to commence operations in November 2013.



MAURITIUS:

Landfill gas collection with subsequent electricity generation

Mare Chicose, the only landfill in Mauritius, involves the installation of a new landfill gas collection network and flaring system which has resulted in a more efficient collection and combustion of the methane in the landfill gas. Methane has a global warming potential over 20 times greater than carbon dioxide. In addition, three electricity generation sets with a total capacity of 3 MW uses the landfill

gas as fuel to produce electricity which is distributed to the national grid. The CDM project will generate emission reductions by avoiding methane emissions and replacing primarily coal-based electricity with renewable electricity. The emission reductions from this project are estimated at around 400 000 tonnes CO₂e during its first seven years of operation.



NIGERIA:

Distribution of energy efficient cook stoves

This CDM Programme of Activities aims to distribute approximately 1.4 million energy efficient cook stoves in the Sahel region in northern Nigeria. The prevailing inefficient three-stone fires will be replaced by more efficient cook stoves which combust wood efficiently and improve the thermal transfer to pots, hence saving fuel and lowering greenhouse gas emissions. Furthermore, the efficient cook stoves will help reduce the diseases and death associated with smoke from open fires in homes. Through CDM, the efficient cook stoves can be sold below prevailing market prices, thereby reaching more impoverished households, which would other-

wise not have access to them. The household's payback period for the stove is estimated at a few months, while the lifetime of the cook stove is estimated to be several years. The households expenditure on firewood, which normally is its biggest expenditure in this region of Nigeria, can be significantly reduced.

Today, 70 percent of the household's energy consumption in Nigeria comes from non-renewable biomass. Efficient cook stoves reduce the rate of deforestation in the area and hence emissions of greenhouse gases. The programme is expected to reduce emissions by more than 10 million tonnes CO₂e in 10 years.



RWANDA:

Water purification using solar energy

These two CDM projects are providing a sustainable source of clean water for schools and institutions throughout Rwanda. Water treatment plants will purify water through filtration and ultraviolet disinfection. The projects will displace the use of wood and other biomass for boiling water which is the current method used for water purification. Unsustainable use of the biomass resources is one of the biggest environmental problems in this densely populated central African country. This use contributes to deforestation which in the end results in net carbon dioxide emissions. These projects contribute to providing a sustainable source of cleaning the water, improved sanitation, and decreased demand for traditional sources of carbon producing energy.



RWANDA:

Nine small-scale hydro power projects

The project involves nine small-scale hydro-power plants with a combined installed capacity of 17.2 MW. Eight of the hydropower plants are run-of-river and one plant has a dam construction. 86 percent of the energy consumption in the country comes from non-renewable biomass, coal and agricultural residues. The modern energy sector is small

and only 6 percent of the population has access to electricity. The total installed capacity for electricity in Rwanda is 85 MW which is based primarily on diesel generators and heavy fuels. This CDM project will help Rwanda to increase the total installed capacity in the country by 20 percent. The project is expected to generate 440 000 tonnes of CO₂e in seven years.



TANZANIA:
15 MW biomass power project, Mufindi district

The project consists of a 15 MW Combined Heat and Power (CHP) plant based on renewable wood residues as biomass fuel. The CHP plant will be located at a saw mill in the Mufindi district. Mufindi is one of the major industrial areas of Tanzania, but the district suffers from unreliable electricity supply.

The project will help the saw mill and surrounding industries in the Mufindi district to expand their operations. The project will supply surplus electricity to the national grid, replacing fossil fuel and thereby avoiding emissions of about 55 000 tonnes of CO₂e per year.



TANZANIA:

Small scale run-of-river hydropower plant

The project is a small 4 MW run-of-river hydropower project in Mufindi district. The project will supply a local tea company and about 2 600 households in the vicinity of the power plant with electricity. The electricity surplus will be distributed to the national grid. The project can establish a more reliable supply of electricity for the tea business, an

important crop in this region. Emission reductions will be achieved by displacing electricity in the national grid where the production is partly fossil fuel-based power plants and the use of fossil fuels in households. It is estimated that the hydro plant will reduce the emissions by approximately 14 000 tonnes of CO₂e per year.



UGANDA:
Reforestation project in Northern Uganda

The Kachung Forest Project is an afforestation (tree re-planting) project located in the Kachung Central Forest Reserve in northern Uganda. The project activity will establish and manage exotic and indigenous afforestation on approximately

2 000 hectares of degraded grass and shrub land. The project's objectives are to contribute to climate change mitigation while providing quality wood products from sustainably managed forest plantations to local markets. Additionally,



the project aims to promote community development and poverty alleviation in the 14 villages surrounding the project area. The project also promotes environmental conservation such as soil conservation, protection of water sources

and enhancement of biodiversity through the protection and management of existing indigenous flora and fauna. It started in 2006 and will generate about 540 000 tonnes of CO₂e in total during a 20-year period.



Sweden's engagement in bilateral JI Projects

Sweden, represented by the Swedish Energy Agency, currently has bilateral emission reduction purchase agreements with two JI projects.



ESTONIA:

Viru Nigula 24 MW wind park

The project involves the construction of a wind park with eight turbines with a total generation capacity of 24 MW. The turbines were put in operation during 2007. The project displaces fossil fuel based electricity in the national grid. The wind park is one of the largest in the three Baltic States and situated near the municipality

of Viru Nigula in the north eastern part of Estonia. The emission reductions from the project are co-purchased with the JI fund Testing Ground Facility. The project is expected to generate emission reductions corresponding to 45 000 tonnes of CO₂e per year between 2007 and 2012.



ROMANIA:

Combined heat and power rehabilitation project in Timisoara

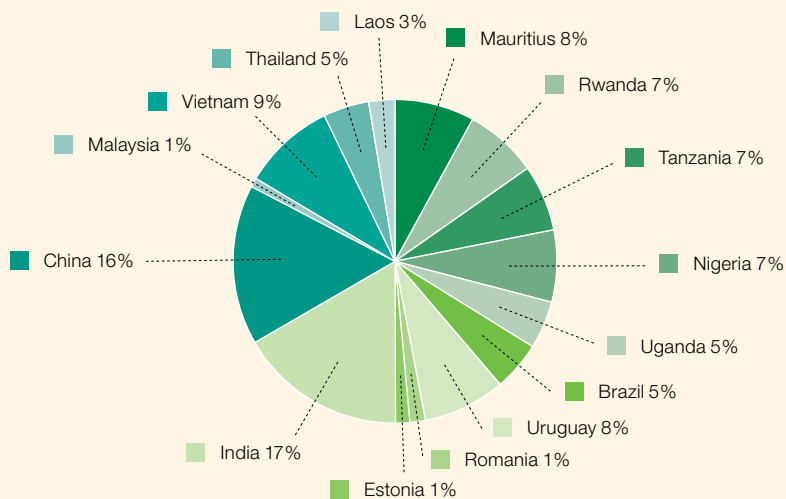
The Timisoara project has upgraded an existing heat production plant with coal and natural gas based steam boilers supplying heat to the city's district heating network. The project involved the installation of a steam turbine for co-generation of heat and power, thereby improving overall energy efficiency of the plant. The new co-generation capacity covers the electricity

needs within the plant and excess electricity displaces fossil fuel based electricity in the national power grid. As an ancillary benefit the project will have a positive impact on the air quality in Romania. The project will generate emission reductions corresponding to 190 000 tonnes of CO₂e between 2007 and 2012.

Distribution of bilateral projects within the Swedish CDM and JI Programme

VOLUME PER HOST COUNTRY

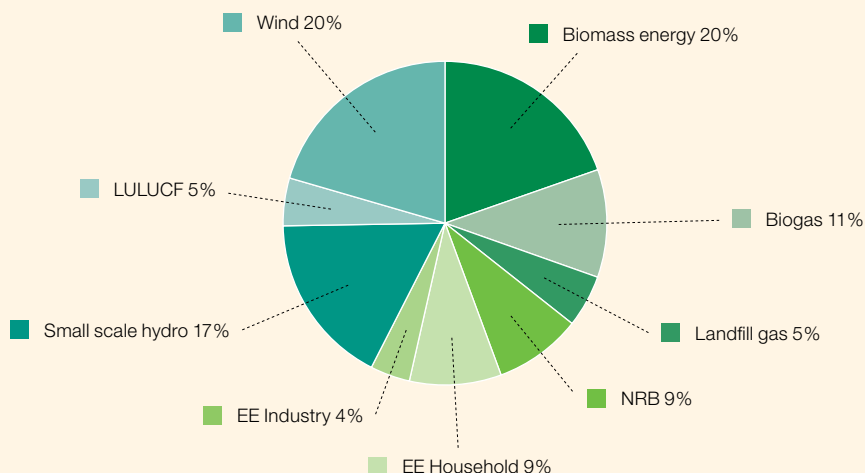
Contracted and risk-adjusted volume of CER or ERU, 54 bilateral projects.



The volume of Rwanda (NRB) has been adjusted downwards while awaiting amendment of the ERPA.

VOLUME PER PROJECT TYPE

Contracted and risk-adjusted volume of CER or ERU, 54 bilateral projects.



EE = Energy Efficiency

NRB = Non Renewable Biomass

The volume of Rwanda (NRB) has been adjusted downwards while awaiting amendment of the ERPA.



Swedens participation in multilateral CDM and JI Funds

Sweden, represented by the Swedish Energy Agency, is participating in seven multilateral CDM and JI funds. The Swedish Government's total investment in these seven funds amounts to more than USD 95 million.

An important criterion when selecting these funds has been the possibility to influence the operations of the fund. By active participation in the funds, the Agency has an influence over a total fund capital of more than USD 1 billion and currently about 90 CDM and JI projects.

APCF, ASIA PACIFIC CARBON FUND

CDM projects in Asia, mainly in the renewable energy and energy efficiency sectors

The Asia Pacific Carbon Fund (APCF) is a trust fund administered by the Asian Development Bank (ADB). The scope of the APCF has been to support greenhouse gas emission reducing projects in developing countries in Asia up to the end of 2012, the first phase of the Kyoto Protocol. The fund's primary objective is to engage in CDM projects in renewable energy,

energy efficiency and methane recovery. The participants of the fund represent seven European governments that have committed a total of USD 152 million. The Agency has contributed with USD 15 million to the fund. Examples of projects supported through APCF are wind power projects in China, innovative waste projects in India and a biogas project in Fiji.

FCF, FUTURE CARBON FUND

CDM projects in Asia for the period after 2012

The second ADB administered fund, the Future Carbon Fund (FCF), aims to support greenhouse gas emission reducing projects after 2012. This fund, like APCF, contributes to financing renewable energy, energy efficiency and other greenhouse gas mitigation projects in Asian developing countries. The FCF was launched during the United Nations Climate Change Conference in Poznan in December 2008. The investors are Sweden, Finland, Belgium, the Republic of Korea and two private companies, Eneco from

Holland and Posco from the Republic of Korea.

Sweden, through the Swedish Energy Agency, has contributed USD 20 million to the fund. The total capital of the fund amounts to USD 115 million. The FCF project portfolio consists of projects in India, China, Vietnam, Papua New Guinea, Thailand, Bhutan, Cambodia and Fiji. An even broader geographical distribution is expected since the project pipeline also includes projects from other developing countries in Asia and the Pacific region.



TGF, Testing Ground Facility

Small and medium sized JI projects in Eastern Europe

The Testing Ground Facility (TGF) is a regional JI fund in the Baltic Sea Region administered by the Nordic Environment Finance Corporation (NEFCO). TGF supports JI projects in Eastern Europe, where Russia and Ukraine are the two host countries with the largest potential for projects. Investors in TGF are the five Nordic governments, the German government, together

with major energy utilities and industrial companies in the region. The fund's total capital amounts to EUR 35 million, of which Sweden's contribution is EUR 3.5 million. Examples of projects supported by TGF are energy efficiency projects in Russia, energy efficiency projects in Ukraine and also biogas and wind power projects in the Baltic States.



“Active participation in multilateral funds leads to involvement in numerous projects in a wider range of countries”

MCCF, Multilateral Carbon Credit Fund JI and CDM projects in Eastern Europe and Central Asia

The Multilateral Carbon Credit Fund (MCCF) is administered by the European Bank for Reconstruction and Development (EBRD) and the European Investment Bank (EIB). The MCCF purchases emission reduction units from JI projects in Eastern Europe and CDM projects in Central Asia. The investors in the fund are six

European countries and five private companies. The total capital of the fund amounts to EUR 165 million and the contribution from Sweden amounts to EUR 2 million. Renewable energy and energy efficiency projects in Ukraine and Russia are the main project types supported by the MCCF.

PCF, PROTOTYPE CARBON FUND

CDM and JI projects in the World Bank's first carbon fund

The Swedish government also participates in the World Bank's Prototype Carbon Fund (PCF). The PCF was one of the first CDM and JI funds on the market and became operational in the year 2000. The fund has played an important role in the development of a global carbon market. The investors in the fund are six countries (including Sweden) and 17 private

companies. The total capital of the fund amounts to USD 180 million and the contribution from Sweden amounts to more than USD 12 million. Examples of projects supported by PCF are wind power projects in the Philippines, Colombia and China and hydropower projects in Costa Rica, Guatemala and Uganda.

UCF T2, UMBRELLA CARBON FACILITY TRANCHE 2

CDM projects for post-2012

Umbrella Carbon Facility, Tranche 2 (UCF T2) is a CDM fund administrated by the World Bank with the aim to purchase emission reduction units from the period after 2012. The fund reached its full capitalisation of EUR 105 million in February 2011 and is now operational. Sweden has contributed with EUR 10 million to UCF T2. The fund will support about 15 projects

mostly within energy efficiency and the renewable energy sector. Four of the projects are in the least developed countries Senegal, Mali, Bangladesh and Nepal. Four of the projects will be carried out as CDM Programme of Activities (PoA). An example of a PoA in UCF T2 is the replacement of incandescent lamps for more efficient compact fluorescent lamps in households.



CPF, CARBON PARTNERSHIP FACILITY

Programmatic and sector-based CDM for the post-2012 world

The Carbon Partnership Facility (CPF) is a World Bank administrated fund that will procure carbon credits after 2012. The CPF aims to develop programmatic-based approaches in developing countries to reduce greenhouse gas emissions. The intention is to scale up emission reductions in an effective way; inter alia through the development of innovative and large scale mitigation programmes. Programmatic-based approaches will be used in areas such as the power sector, energy efficiency, transport, waste management systems and urban development. To date, host countries that have indicated an interest in

participating in the CPF are: Brazil, Egypt, Indonesia, Morocco, China, Tanzania, Thailand and Vietnam.

The design and approach of the fund differs from that of other carbon funds, in that the CPF will have balanced participation of buyers and sellers; it brings different partners together to create, sell, and purchase, emission reductions. Sweden, through the Swedish Energy Agency, joined the fund in December 2010 and has contributed EUR 20 million to the fund with a total fund capital of EUR 132.5 million. Other financiers in CPF, in addition to Sweden, are Norway, Spain and two European utilities.



Taneja's MAKE MY TRIP
RAILWAY RESERVATION * AIRWAY
रेलवे आरक्षण व हवाई यात्रा टिकट

सभी व्यापारी भाईयों व प्रदेश वासियों को
नव वर्ष की हार्दिक शुभकामनाएं
मनोप न्यायन (पुल) मनोप धा (स्त्रीय) सूरज प्रकाश ललित (पुल) रंग प्रकाश (पुल)
नयन एड (पुल) अजय (स्त्रीय) सूरज एड (पुल) रंग प्रकाश (पुल)
गजानन (पुल) अजय (स्त्रीय) सूरज प्रकाश (पुल) रंग प्रकाश (पुल)
गजानन (पुल) अजय (स्त्रीय) सूरज प्रकाश (पुल) रंग प्रकाश (पुल)
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