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Item 4 (c) of the provisional agenda
National communications from Parties not included in Annex I to the Convention
Provision of financial and technical support

List of projects submitted by Parties not included in Annex I to the Convention in accordance with Article 12, paragraph 4, of the Convention

Note by the secretariat

Summary

This note lists mitigation projects proposed by Parties not included in Annex I to the Convention in their national communications for financing. The list includes proposals submitted to the secretariat up to 30 April 2004. The projects are grouped in accordance with the Intergovernmental Panel on Climate Change mitigation sectors: agriculture; energy supply; forest; industrial; residential, commercial and institutional buildings; solid waste and waste-water disposal; and transport.

I. Mandate

1. Article 12, paragraph 4, of the Convention, states that developing country Parties may propose projects for financing, including specific technologies, materials, equipment, techniques or practices that would be needed to implement such projects, together with, if possible, estimates of removals of greenhouse gases and an estimate of the consequent benefits. In line with this Article, the Conference of the Parties, by its decision 12/CP.4, requested the secretariat to compile and make available to Parties a list of projects submitted by Parties not included in Annex I to the Convention (non-Annex I Parties).

II. Approach and scope of the note

2. In response to the above mandate, the secretariat reviewed the relevant sections of all 112 initial national communications submitted by non-Annex I Parties as at 30 April 2004 with a view to compiling the list of project proposals.

3. The updated list contained in this note comprises 683 mitigation project proposals. About 27 per cent of these relate to energy supply, 20 per cent to residential, commercial and institutional buildings, 15 per cent to industrial, 14 per cent to forest, 13 per cent to transport, six per cent solid waste and waste-water disposal and five per cent to agriculture. Many of these proposals in the national communications contain information relating to the types of benefits likely to result from their implementation, including both global and local sustainable development benefits. Some expected benefits described include improved local air quality, reduced deforestation, enhanced biodiversity, job creation, diversification of energy supply, improved quality of life and health benefits.

List of projects submitted to the secretariat by Parties not included in Annex I to the Convention in accordance with Article 12, paragraph 4

	Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
A.	**Agriculture**				
A.1	**Subsector: Adopt manure management practices for CH_4 collection**				
	1 Manure management using biodigesters			Ecuador	2000
	2 Research into low-methane-emitting agriculture systems			Chad	2001
A.2	**Subsector: Expand biofuel production as carbon offset**				
	1 Biogas programme in the agriculture and livestock sectors	2.68	60	Ecuador	2000
A.3	**Subsector: Improve efficiency of use of nitrogen fertilizer**				
	1 Improve efficiency of use of nitrogen fertilizer			Mauritania	2002
A.4	**Subsector: Improve management of ruminant animals**				
	1 Animal breeding and use of biodigesters for the production of energy			Mali	2000
	2 Better management and improvement of pastures		65 400	Madagascar	2004
	3 Better management of pastures and the adjustment of stocking rates			Albania	2002
	4 Diet enhancement of livestock using mangement programmes			Ecuador	2000
	5 Improve livestock management (lower enteric fermentation and manure management)		80 000	Mauritania	2002
	6 Improvement of livestock diet			Chad	2001
	7 Improving the efficiency of livestock feed			Uganda	2002
	8 Information, education and communication of greenhouse gas emission reduction in agriculture and cattle breeding			Burundi	2001
	9 Programme on livestock and carbon uptake			Nicaragua	2001
	10 Reduction of methane emissions in livestock by introducing diet changes			Costa Rica	2000
	11 Research and development on technologies aiming to reduce greenhouse gas emissions in agriculture and cattle breeding			Burundi	2001
	12 The improvement of digestibility in ruminants			Albania	2002
A.5	**Subsector: Improve rice production practices**				
	1 Improve cultural practices and introduce new technologies		880 000	Madagascar	2004
	2 Improve water and fertilizer management		70 000	Mauritania	2002

		Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
	3	Improve water management in irrigated rice cultivation			Mali	2000
	4	Irrigation management of wetland rice fields to reduce methane emissions		5 025	Viet Nam	2003
	5	Use and management of rice crop wastes			Ecuador	2000
A.6		**Subsector: Increase carbon storage in agricultural soils**				
	1	Awareness programme on agricultural practices that could help to curb greenhouse gas emissions			Seychelles	2000
	2	Climate change mitigation through development of carbon sinks		600	Kenya	2002
	3	Maintain or increase carbon sequestration through better soil management and sustainable practices			United Republic of Tanzania	2003
	4	Programme on carbon uptake			Nicaragua	2001
	5	Reduction in savannah burning			Chad	2001
	6	Restore abandoned agricultural lands and plant trees			Belize	2002
	7	Soil nutrient management			Seychelles	2000
	8	Application of methane fermentation in agriculture		35	Armenia	1998
A.7		**Subsector: Reduction of fossil energy use**				
	1	Completion of rehabilitation of irrigation systems and reform of management of irrigation network and general overhauling and maintenance of the water supply		6 600	Kyrgyzstan	2002
	2	Increasing efficiency of irrigation systems; reduction of energy consumption by water pumps and agricultural equipment			Tajikistan	2002
	3	Introduction of systems for metering and control of consumption of energy resources and water		72 300	Uzbekistan	2000
	4	Rationalization of energy-saving of irrigation systems and reduction of irrigation water losses		2 500	Uzbekistan	2000
	5	Replacement of diesel pumping plants by electric pumps		120 200	Uzbekistan	2000
	6	Replacement of out-of-date machinery by new machinery		1 000	Uzbekistan	2000
	7	Training of farmers and rural inhabitants on implementation of new production techniques		47 500	Kyrgyzstan	2002

	Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
B.	**Energy supply**				
	1 Construction of 220 kV high voltage line between Frunzenskaya and Ala Archa		164 000	Kyrgyzstan	2002
	2 Construction of 500 kV substation at Datka with 220 kV high voltage line		44 300	Kyrgyzstan	2002
	3 Improve the conversion efficiency of charcoal kilns			United Republic of Tanzania	2003
	4 Install 230 MW of combined-cycle power plants instead of simple cycle gas turbines			United Republic of Tanzania	2003
B.1	**Subsector: Decarbonization of flue gases and fuels, and CO_2 storage and sequestering**				
	1 Assessment of CH_4 emissions from leaking facilities in the upstream oil and gas sector and options for reduction			Nigeria	2003
	2 Reduction of flaring gas by 50 per cent			Algeria	2001
	3 Reduction of fugitive emissions by renovating oil and gas installations (refineries, pipelines)			Algeria	2001
B.2	**Subsector: Efficient conversion of fossil fuels**				
	1 Action programme for the promotion of energy efficiency using energy audits, training programmes, public awareness and promoting solar energy			Niger	2000
	2 Alkylation unit		30 000	Jordan	1997
	3 Carry out regular energy audits and put in place energy management plan			Seychelles	2000
	4 Chemical industry: three projects for upgrading energy systems		688 400	Uzbekistan	2000
	5 Coal gasification			Botswana	2001
	6 Co-boiler for the fluid catalytic cracking unit		2 740	Jordan	1997
	7 Construction of a 60 MW cogeneration plant			Barbados	2001
	8 Continuous catalytic informer		85 000	Jordan	1997
	9 Crude oil distillation unit		2 500	Jordan	1997
	10 Electric power supply: 12 projects for upgrading and more efficient new gas turbines and boilers		1 118 600	Uzbekistan	2000
	11 Energy conservation project			Micronesia (Federated States of)	1997
	12 Energy efficiency improvement and greenhouse gas reduction			Egypt	1999

	Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
13	Expansion of distillation capacity		80 000	Jordan	1997
14	Ferrous and non-ferrous metallurgy: seven projects for power equipment		275 300	Uzbekistan	1999
15	Gasification		225 000	Jordan	1997
16	Heat recovery from sulphuric acid plant/Jordan Phosphate Mining Company		26 000	Jordan	1997
17	Heat recovery from the public electricity generation power stations			Seychelles	2000
18	Hydro-desulphurization for diesel		60	Jordan	1997
19	Hydrocracking		100 000	Jordan	1997
20	Improve transmission and distribution system to bring down the current energy losses			Sri Lanka	2000
21	Improvement of baseline scenarios for the development and selection of appropriate policies and measures to mitigate climate change			Chad	2001
22	Improvement of electricity supply and heating networks efficiencies			Tajikistan	2002
23	Improvements in efficiency relating to the control and administration of electricity distribution			Grenada	2000
24	Isomerization unit		30 000	Jordan	1997
25	Merox upgrade		1 000	Jordan	1997
26	Modern fluid catalytic cracker		200 000	Jordan	1997
27	Modernization and rehabilitation of power plants		1 061	Kazakhstan	1998
28	Modernization of flare facilities			Tajikistan	2002
29	Modernization of petroleum storage facilities			Tajikistan	2002
30	Oil, gas and coal industry: six projects for upgrading and more efficient new technologies		969 100	Uzbekistan	2000
31	Paper sludge and solid waste		AUD 9 000 000	Indonesia	1999
32	Power generation and fuel refining		2 019	Azerbaijan	2000
33	Programme for the achievement of greater energy efficiency in energy transformation centres			Grenada	2000
34	Project for the reduction of losses in supply/distribution			Grenada	2000
35	Project to improve the efficiency of generators			Grenada	2000
36	Reduction in electricity supply system losses			Seychelles	2000
37	Replacement of out-of-date gas distributing equipment			Tajikistan	2002
38	Sulphur recovery plant		5 000 to 10 000	Jordan	1997

	Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
B.3	**Subsector: Switching to low-carbon fossil fuels**				
	1 Electricity generation using residual natural gas	53/year	35 000	Ecuador	2000
	2 Integrated solar thermal/natural gas power plant			Egypt	1999
	3 Natural gas substitution of coal	7 800		Peru	2000
	4 Natural gas substitution of diesel	6 000		Peru	2001
	5 Piping of natural gas from the proposed West Africa Gas Pipeline to and within some urban areas of Ghana		480 000	Ghana	2001
	6 Reducing CO_2 emissions from fuelwood consumption through large-scale introduction of liquefied petroleum gas	782		Gambia	2003
	7 Support construction of a gas pipeline from Mexico in order to promote the use of natural gas in Honduras			Honduras	2000
	8 Technical upgrading and change of fuel in two thermal plants			El Salvador	2000
	9 Two additional gas pipelines will substitute coal, residual oil and diesel	2 400		Peru	2001
	10 Utilization of associated gas/increase in natural gas share in the energy consumption			Kazakhstan	1998
B.4	**Subsector: Switching to renewable sources of energy**				
	1 16 MW wind turbine farms at good wind sites in northern Barbados			Barbados	2001
	2 Alternative energy sources			Kiribati	1999
	3 Construct wind power stations for Coto Island in Quang Ninh province		200	Viet Nam	2003
	4 Construction of wind farms			Barbados	2001
	5 Demonstration project for grid-connected renewable energy technologies and their commercial and economic potential			Antigua and Barbuda	2001
	6 Development and implementation of long-term renewable energy policy programmes, including the development and application of carefully selected technological and institutional "leapfrogging" strategies			Antigua and Barbuda	2001
	7 Development of renewable energy		50 000	Viet Nam	2003
	8 Development of renewable energy	11 091 equivalent (2001–2020)		Morocco	2001
	9 Dissemination of solar, wind and biogas energy technology			Ethiopia	2001
	10 Encouraging utilization of renewable energy in rural areas		460	Viet Nam	2003
	11 Establishment of a renewable energy centre			Barbados	2001
	12 Generation of energy from Botswana Meat Commissioin abattoir waste			Botswana	2001

		Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
	13	Geothermal hot water supply: Hippodrome district geothermal hot water supply project		860	Georgia	1999
	14	Hydroelectricity substitutes diesel	8 500		Peru	2001
	15	Hydroelectricity substitutes natural gas	2 300		Peru	2001
	16	Power generation options for Botswana from mixing and hybrids of renewable energy resources (solar, wind and waste)			Botswana	2001
	17	Promote the use of renewable energy technologies and energy-efficient appliances by energy users			Seychelles	2000
	18	Promoting the use of renewable energy			Ethiopia	2001
	19	Promotion of renewable energies: solar, wind and micro-hydro			Chad	2001
	20	Removal of barriers to rural electrification with renewable energy			Chile	2000
	21	Solar collectors	1 000		Peru	2001
	22	Solar energy		482	Kazakhstan	1998
	23	The Asian Development Bank's Promotion of Renewable Energy, Energy Efficiency and Greenhouse Gas Abatement (PREGAA) programme			Cambodia	2002
	24	Use renewable sources of energy to satisfy energy demand by 2010	61.49/year		Costa Rica	2000
	25	Wind turbines	900		Peru	2000
B.4.1	**End use/description: Biomass/biogas**					
	1	10 MW waste combustion plant			Barbados	2001
	2	Accelerated promotion of biogas technology in rural low-income households			Zimbabwe	1998
	3	Application of renewable energy system to sustainable rural development and demonstration hybrid system (biomass/biogas)		AUD 240 000	Indonesia	1999
	4	Biogas production			Guinea	2002
	5	Biogen Project, use of wood waste and waste of African palm to produce electricity			Honduras	2000
	6	Electricity generation using wood waste in Ocotal area			Nicaragua	2001
	7	Phytothermal energy production		880	Ghana	2001
	8	Production of electricity using bamboo			Honduras	2000
	9	Promoting sustainable biomass energy use in rural areas to reduce CO_2 emissions			Morocco	2001
	10	Promotion of application of biogas technology		750	Kenya	2002

		Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
	11	Remove barriers for using fast-growing trees in the private sector as a source of renewable energy		50	Armenia	1998
	12	Replacement of wood-fuel boilers for tea drying		2 000	Kenya	2002
	13	Using biogas as fuel to mitigate greenhouse gas emissions in rural areas		1 500	Viet Nam	2003
	14	Utilization of organic residues from food processing plants for energy generation			Botswana	2001
B.4.2		**End use/description: Geothermal and ocean energy**				
	1	2 MW of solar photovoltaic system distributed around the island			Barbados	2001
	2	2 MW wave power plant			Barbados	2001
	3	3 MW ocean thermal energy conversion plant			Barbados	2001
	4	Conditions of geothermal resource studies and prospects for the practical use of geothermal energy			Armenia	1998
	5	Expand the use of geothermal energy in electricity generation			El Salvador	2000
	6	Exploitation of geothermal energy in Viet Nam		400	Viet Nam	2003
	7	Exploration regarding geothermal energy in Jordan		1 400	Jordan	1997
	8	Geothermal hot water supply: Tbilisi geothermal hot water supply project		30 800	Georgia	1999
	9	Geothermal hot water supply: Zugdidi geothermal heat supply project		15 000	Georgia	1999
	10	Identification of renewable energy sources (geothermal-feasibility study)		400	Comoros	2003
	11	Production of electric energy using geothermal resources	4 496	88 000	Djibouti	2002
B.4.3		**End use/description: Hydropower**				
	1	Action programme for energy supply using hydro dams			Niger	2000
	2	Alternative/renewable energy sources for the outer islands of the Maldives			Maldives	2001
	3	Assessing small-scale hydropower potential and demonstration project in combination with dissemination of electric cooking stoves			Lao People's Democratic Republic	2000
	4	Construction of 500 kV high voltage line from Toktogul hydropower station to Kemin substation		327 700	Kyrgyzstan	2002
	5	Construction of seven small hydropower stations in Batken oblast with a total power of 20 MW		21 600	Kyrgyzstan	2002
	6	Construction of Kambarata Hydropower Station		323 400	Kyrgyzstan	2002
	7	Construction of Mpanda hydropower unit			Burundi	2001

	Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
8	Construction of small hydroelectric plants			El Salvador	2000
9	Development of mini-hydropower plants (101 kW to 10 MW)			Cambodia	2002
10	Energy generation using small hydroelectric systems	8.8/year	3 200	Ecuador	2000
11	Feasibility study on other renewable energy resources			Micronesia (Federated States of)	1997
12	Harness the total maximum identified potential of hydropower, based on a study of the economic and environmental impacts of identified potential hydropower			Sri Lanka	2000
13	Hydropower-based mitigation options			Uganda	2002
14	Increasing the number of hydropower units	4 902 equivalent (2001–2020)		Morocco	2001
15	Install mini- and micro-hydropower generation for electricity in high-potential areas of Sudan			Sudan	2003
16	Introduction of hydropower plants to replace heavy fuel oil plant in Albania's power sector			Albania	2002
17	Introduction of hydropower plants to replace natural gas plant in Albania's power sector			Albania	2002
18	Introduction of small hydropower plants		578	Kazakhstan	1998
19	Introduction of small hydropower plants and utilization of renewable energies			Tajikistan	2002
20	Investment in small-scale hydroelectricity power stations to supply rural and peri-urban consumers			Zimbabwe	1998
21	Pilot programme for rural electrification using small hydropower plants			Nicaragua	2001
22	Putting into operation large hydropower plants, which are currently projected and/or under construction			Tajikistan	2002
23	Removal of barriers to the development of hydroenergy			Haiti	2002
24	Renewable sources of energy: two hydropower plants		720 000	Uzbekistan	1999
25	Renovation and extension of Matandani mini-hydropower station in Mwanza		600	Malawi	2003
26	Replacement of diesel generators by hydropower, mainly in urban centres			Ethiopia	2001
27	Siltation reduction along Shire River for hydropower enhancement and greenhouse gas emission reduction		1 000	Malawi	2003

		Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
	28	Small hydro-energetics: Abasha hydropower plant rehabilitation project		1 000	Georgia	1999
	29	Small hydro-energetics: Intsoba hydropower plant rehabilitation project		850	Georgia	1999
	30	Small hydro-energetics: Martkopi hydropower plant rehabilitation project		750	Georgia	1999
	31	Small hydro-energetics: Misaktsieli hydropower plant rehabilitation project		2 300	Georgia	1999
	32	Small hydro-energetics: Stori hydropower plant project		8 400	Georgia	1999
	33	Technologies required for implementation of mitigation policy: electric and mechanical equipment for small hydro			Georgia	1999
B.4.4	**End use/description: Solar energy**					
	1	Action programme for energy supply using solar energy			Niger	2000
	2	Application of renewable energy system to sustainable rural development and demonstration hybrid system (solar energy)		AUD 3 400 000	Indonesia	1999
	3	Building houses with efficient lighting and solar energy			El Salvador	2000
	4	Decentralized energy supply through solar home systems in rural households			Lao People's Democratic Republic	2000
	5	Decentralizing electrification by photovoltaic systems			Burundi	2001
	6	Displacement of diesel generators by solar home systems	130	2 450	Gambia	2003
	7	Electricity supply sector: removing barriers for implementing renewable energy (solar and wind)			Lebanon	1999
	8	Encourage the use of photovoltaic energy			Tuvalu	1999
	9	Encouraging the use of solar water heaters	728 equivalent (2001–2020)		Morocco	2001
	10	Enhancement of the market for solar water heaters			Tunisia	2001
	11	Expand rural electrification by promoting the use of renewable energy			El Salvador	2000
	12	Heat supply from solar energy		21 800	Egypt	1999
	13	High-efficiency photovoltaic module station: manufacturing and testing		25	Armenia	1998
	14	Install solar mini-grid utilities to serve rural centres not connected to the grid			Zimbabwe	1998
	15	Introduction of photovoltaic-based mitigation options			Uganda	2002
	16	Introduction of solar photovoltaic to replace diesel generators in Albania's power sector			Albania	2002
	17	Irrigation using photovoltaic systems			Mauritania	2002

		Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
	18	Large-scale power generation from solar energy			Botswana	2001
	19	Power supply by photovoltaic systems to remote villages		3 500	Jordan	1997
	20	Promote use of solar energy in rural areas through education and public awareness, capacity-building and technology transfer		310	Djibouti	2002
	21	Promoting the use of photovoltaic equipment	161	943	Mauritania	2002
	22	Promotion of solar-based rural electrification		1 200	Kenya	2002
	23	Reducing wood consumption by promoting energy-saving technologies such as solar lighting equipment			Mali	2000
	24	Rehabilitation of the Regional Centre for Solar Energy (CRES)			Mali	2000
	25	Reverse osmosis water desalination with renewable energy hybrid system in remote areas		2 400	Jordan	1997
	26	SALT-gradient solar pond pilot plant		633	Jordan	1997
	27	Solar and wind energy resources assessment and mapping		600	Mongolia	2001
	28	Solar energy desalination			Indonesia	1999
	29	Solar energy project for communities		115	Ghana	2001
	30	Solar pilot project			Micronesia (Federated States of)	1997
	31	Subsidy programme for solar energy			Micronesia (Federated States of)	1997
	32	Use of solar energy for water heating in the residential setor		3 900	Ecuador	2000
	33	Utilization of photovoltaics to reduce fossil fuel use			Guinea	2002
B.4.5	**End use/description: Wind**					
	1	Action programme for energy supply using wind energy			Niger	2000
	2	Development of wind energy map			Cambodia	2002
	3	Electricity generation using wind energy	12 655 equivalent (2001–2020)		Morocco	2001
	4	Electricity supply sector: removing barriers to implementing renewable energy (solar and wind)			Lebanon	1999
	5	Honduras ZOND project. A 60 MW wind power station to be installed in the area of Tegucigalpa			Honduras	2000

		Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
	6	Installation of wind generators in Nouadhibou		4 150	Mauritania	2002
	7	Introduction of wind turbines to replace diesel generators in Albania's power sector			Albania	2002
	8	Pilot project to generate electricity using wind			Grenada	2000
	9	Promote use of wind energy in rural areas through education and public awareness, capacity-building and technology transfer		310	Djibouti	2002
	10	Substitution of thermic plants by a 25 MW wind energy unit	56 per year		Colombia	2001
	11	Technologies required for implementation of mitigation policy: electric and mechanical equipment for wind power plants		11 000	Georgia	1999
	12	Use of aeolian energy			Mexico	1997
	13	Wind energy			Kazakhstan	1998
	14	Wind power: Karenergo wind power plant project		5 000	Georgia	1999
C.		**Forest**				
C.1		**Subsector: Conservation forests**				
	1	Activities implemented jointly: Río Cóndor carbon sequestration project			Chile	2000
	2	Activities implemented jointly: SIF carbon sequestration project			Chile	2000
	3	Application of proper resources management (existing forest reserves and rangeland sites)			Sudan	2003
	4	Carbon sequestration projects in Bahia Kino in Sonora and in forested areas of Ciapas			Mexico	1997
	5	Conservation and management of ecosystems in the Uraba zone	21 920 in 30 years		Colombia	2001
	6	Conservation of biodiversity by the rehabilitation of arid and semi-arid areas in the Trarza region		12 366	Mauritania	2002
	7	Conservation of natural forests in the Tinigua and Macarena zones	15 289 in 30 years		Colombia	2001
	8	Controlling forest fires			Seychelles	2000
	9	Conversion of livestock farms to agroforestry systems in the Puerto Carreño zone	5 034 in 25 years		Colombia	2001
	10	Expansion of closure system			Eritrea	2002
	11	Forest conservation and protection		3 870	Madagascar	2004
	12	Forest conservation and reforestation in the Medio Atrato zone	1 193		Colombia	2001
	13	Forest conservation and reforestation in the Purace zone	24 531 in 30 years		Colombia	2001
	14	Forest conservation and reforestation in the Quindio zone	9 146 in 30 years		Colombia	2001

		Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
	15	Forest conservation in the Bucaramanga Corporation's zone	7 408 in 25 years		Colombia	2001
	16	Forest conservation in the Guerrero zone	359		Colombia	2001
	17	Forestry: Tbilisi Dendrological Park restoration project		230	Georgia	1999
	18	Improve the conservation and management of forest resources		500	Comoros	2003
	19	Protecting/managing forests in reserves and protected areas			Seychelles	2000
	20	Protection of existing natural forest			Eritrea	2002
	21	Quantitative evaluation of the carbon sink potential of ecosystems in the Federated States of Micronesia			Micronesia (Federated States of)	1997
	22	Restoration and protection of the tropical humid forest in the area of Esperanza Verde, Rio San Juan			Nicaragua	2001
	23	Restoration of forests		2 500	Madagascar	2004
	24	Three further projects in Oaxaca, Campeche and Monarch Butterfly Reserve			Mexico	1997
C.2		**Subsector: Forest practices/goals**				
	1	Afforestation			Eritrea	2002
	2	Afforestation and reforestation programmes for waste degraded rangelands			Sudan	2003
	3	Afforestation with exotic species	9 900		Peru	2001
	4	Afforestation with indigenous species	4 300		Peru	2001
	5	Afforestation, reforestation, and enhancement of natural regeneration and agroforestry practices			United Republic of Tanzania	2003
	6	Artificial reforestation: long-term rotation on hill forest land			Bangladesh	2002
	7	Artificial reforestation: medium-term rotation on hill forest land			Bangladesh	2002
	8	Artificial reforestation: short-term rotation on hill forest land			Bangladesh	2002
	9	Changing cultivars (pijuayo for palmito)			Peru	2001
	10	Coffee cultivation			Peru	2001
	11	Control of deforestation			Seychelles	2000
	12	Controlling commercial biomass harvest			Seychelles	2000
	13	Controlling outbreaks of pests and invasive species			Seychelles	2000
	14	Enhancement of Ecuador's national system of protected areas	25 609		Ecuador	2000
	15	Establishment of silvopastoral systems in the Gaumote area	477		Ecuador	2000
	16	Expansion of forest area to 340,000 ha by 2025	1 336	136 000	Kyrgyzstan	2002

	Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
17	Forest management	2 400		Peru	2001
18	Forest management in the Calamar zone	35 012 in 25 years		Colombia	2001
19	Forestry: afforestation project of Red Bridge environs		250	Georgia	1999
20	Forestry: Nabadkhevi forest rehabilitation project		270	Georgia	1999
21	Forestry: reforestation project of Kaspi District		350	Georgia	1999
22	Hydrologic rehabilitation and carbon uptake project for the sustainability of coffee production in the Matagalpa area			Nicaragua	2001
23	Implementation of the forest improvement operations			Albania	2002
24	Improvement of timber harvesting techniques			Sudan	2003
25	Increase forest cover and ensure sustainable management of the forest estates			Uganda	2002
26	Introduce forest management plans			Belize	2002
27	Joint forestry project to offset greenhouse gas emissions		5 000	Ghana	2001
28	Management of 330,000 ha of forests		14 220	Mauritania	2002
29	Management of forests in order to slow down rates of deforestation			Chad	2001
30	Management of forests in the Puyango area	29		Ecuador	2000
31	Management of natural resources in wet zones		25 900	Mauritania	2002
32	Participatory coastal plantation: medium-term rotation on littoral land/newly accreted char land			Bangladesh	2002
33	Participatory woodlot plantation: short-term rotation on littoral forest land			Bangladesh	2002
34	Planting protective forest in the watershed of Ngan Sau, Ngan Pho Rivers		7 010	Viet Nam	2003
35	Prepare a database to (a) quantify the role of forests and forest soils as reservoirs, sinks and sources of carbon and (b) define ways to alter forest management systems to optimize adaptation to climate change, sequestration and storage of carbon			Sri Lanka	2000
36	Promote planting of Pourghere to preserve vegetation, to maintain the fertility of soils and to increase the sequestration of CO_2			Niger	2000
37	Protected areas project			Costa Rica	2000
38	Reforestation			Albania	2002
39	Reforestation and forest rehabilitation	616.4 per year	110 000	Iran (Islamic Republic of)	2003
40	Reforestation and management of forests through the Environmental Protection Agency, capacity-building and database studies		1 095	Djibouti	2002

		Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
	41	Reforestation and management of plains and small catchment areas		2 205	Djibouti	2002
	42	Reforestation of 30,000 ha per year			Burundi	2001
	43	Reforestation of 600 ha (between 2003 and 2006)			Central African Republic	2003
	44	Reforestation of mountain regions		1 095	Djibouti	2002
	45	Reforestation of several areas using trees able to adapt to difficult ecological conditions			Chad	2001
	46	Reforestation programmes in Assaba, Gorgol, Brakna, Trarza, Guidimakha, Hodh el Gharbi, Hodh Chargui and Tagant		688	Mauritania	2002
	47	Rehabilitation and sustainable management practices for degraded rangelands			Sudan	2003
	48	Rehabilitation of degrade forest areas		1 500	Ghana	2001
	49	Replication of a reforestation project in other regions of the country			Mali	2000
	50	Sal plantation: medium-term rotation on inland forest land			Bangladesh	2002
	51	Socio-economic development of rural communities in the Caribbean zone	3 818 in 25 years		Colombia	2001
	52	Support for the implementation of the Forestry Policy and Action Plan			Grenada	2000
	53	Supporting the reforestation master plan	7 147 equivalent (2001–2020)		Morocco	2001
	54	Sustainable management of the Chachi native forest in the Cayapas river	8		Ecuador	2000
	55	The use of remote sensing for monitoring forest cover changes and for establishing base-line data			Ghana	2001
C.3		**Subsector: Fuel wood conservation and substitution**				
	1	Sensitize charcoal makers about new techniques and promote more efficient charcoal kilns in order to minimize pressure on forest		200	Central African Republic	2003
	2	Substitution of firewood by other energy resources			Chad	2001
C.4		**Subsector: Production forestry/agroforestry**				
	1	Agroforestry for production of cashew nuts	12 864	8 407	Guinea	2002
	2	Agroforestry projects in 12 areas that have degraded soils			Honduras	2000
	3	Establishment of agroforestry systems in the Carmen area	1 750		Ecuador	2000
	4	Forest plantation on sandy soil at the coast of southern central Viet Nam		11 500	Viet Nam	2003
	5	Forestry plantations in the Balzar area	477		Ecuador	2000

	Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
6	Forestry plantations in the Bolivar area	143		Ecuador	2000
7	Green belt of Guayaquil city	11		Ecuador	2000
8	Management of natural forests by communities		4 829	Gambia	2003
9	Private forestry project			Costa Rica	2000
10	Sequestration of CO_2: demonstration of carbon increase in forests			Chile	2000
11	Sequestration of CO_2: measurement of carbon sequestration in Chilean forests and promotion in a global carbon market			Chile	2000
12	Teak production	6 754	6 260	Guinea	2002
13	The development of agroforestry	4 613 equivalent (2001–2020)		Morocco	2001
C.5	**Subsector: Use of recycled and more efficient wood products**				
1	Enhancement of the use of treatments for the better preservation of wood products			Burundi	2001
D.	**Industrial**				
D.1	**Subsector: Cogeneration and thermal cascading**				
1	Cogeneration in sugar cane production			Colombia	2001
2	Cogeneration in the textile industry	9 equivalent per year		Colombia	2001
3	Cogeneration project			Grenada	2000
4	Development of cogeneration	4 002 equivalent in the period 2001–2020		Morocco	2001
5	Gasification of sugar cane bagasse for energy generation			Colombia	2001
6	Introduction of combined heat and power and district heating plants in industrial zones			Albania	2002
7	Research on cogeneration technology from biomas fuel		1 350	Viet Nam	2003
8	Utilization of heat from clinker production in cement industry			Tajikistan	2002
D.2	**Subsector: Energy efficiency gains**				
1	Building and industrial building sectors: six projects		13 000	Uzbekistan	1999
2	Energy auditing in the industrial sector			Sudan	2003

		Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
	3	Energy conservation and saving in small and medium-sized enterprises		1 500	Viet Nam	2003
	4	Energy saving in industry		3 300	Viet Nam	2003
	5	Improving biomass boilers			Bangladesh	2002
	6	Improving coal boilers			Bangladesh	2002
	7	Improving fuel boilers			Bangladesh	2002
	8	Improving the efficiency of gas boilers			Bangladesh	2002
D.3	**Subsector: Fuel switching**					
	1	Elimination of residual fuel oil in industry			Uganda	2002
	2	Energy switch to sources with lower greenhouse gas emission factors (e.g., electricity)			Eritrea	2002
	3	Replacing biomass fuel with higher-energy-density fuels in sectors of household, bakeries and brick-making industry			Sudan	2003
	4	Substitute natural gas for fuel oil in two production plants			United Republic of Tanzania	2003
D.4	**Subsector: Introducing new technologies and processes**					
	1	Activities implemented jointly: CHILIPAVE: Chili cold mix in place; recycled asphalt pavement greenhouse gas reduction project			Chile	2000
	2	Coal bed methane investigations			Botswana	2001
	3	Demonstration and introduction of smokeless and high-efficiency coal bracketing technology		15 000	Mongolia	2001
	4	Desalination of water using wind energy in Tan-Tan	292 equivalent (2001–2020)		Morocco	2001
	5	Desalination water plant for San Andres	5 equivalent per year		Colombia	2001
	6	Develop an inventory on emissions from different industries			Sri Lanka	2000
	7	Develop mechanisms to reduce greenhouse gas emissions from different industries			Sri Lanka	2000
	8	Developing appropriate agricultural technologies to mitigate climate change		1 020	Malawi	2003
	9	Drying sugar beet by using superheated steam in the Doukkala sugar refineries	350 equivalent (2001–2020)		Morocco	2001

	Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
10	Economic evaluation of greenhouse gas abatement strategies			Senegal	1997
11	Efficiency improvement and conversion of industrial boilers	2 100		Peru	2001
12	Electricity generation from biogas in Bogota	12 218 equivalent in 20 years		Colombia	2001
13	Electricity generation from biogas in Tumaco	5 equivalent per year		Colombia	2001
14	Electricity generation from biogas in Tunja	11 equivalent per year		Colombia	2001
15	Energy auditing in industries			Burundi	2001
16	Exploring potential markets for natural gas			Barbados	2001
17	Finish construction of the aggregates for production of weak nitric acid and ammonia saltpetre at PO Azot in Fergana		8 800	Uzbekistan	1999
18	First stage of methanol production to replace ammonica at PO Navoiazot		2 500	Uzbekistan	1999
19	Gas boiler retrofitting			Bangladesh	2002
20	Improved energy efficiency in brick manufacture	54 339 equivalent per year		Colombia	2001
21	Improved energy efficiency in coke production	65 equivalent per year		Colombia	2001
22	Improved energy efficiency in juggery production	277 equivalent per year		Colombia	2001
23	Improvement of drying systems in textile industry			Tajikistan	2002
24	Improvement of efficiency of power supply for industrial consumers			Albania	2002
25	Improvement of energy consumption through better management			Albania	2002
26	Improvement of furnaces in metal smelting, with introduction of ‘know-how’ technologies			Tajikistan	2002
27	Industrial sector: efficiency improvements to boilers and furnaces via replacement and fuel switching options			Lebanon	1999
28	Industrial sector: motor-driven system improvement and replacement			Lebanon	1999
29	Installing automatic control system for reducing the amount of fuel used in the production of cement			United Republic of Tanzania	2003
30	Integration of climate change topics in curricula of technical studies			Grenada	2000
31	Introduction of district heating plants in industrial zones			Albania	2002
32	Introduction of efficient coal-fired boilers for industrial consumers			Albania	2002

	Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
33	Introduction of efficient electrical motors for industrial consumers			Albania	2002
34	Introduction of efficient heavy fuel oil fired boilers for industrial consumers			Albania	2002
35	Introduction of efficient lighting for industrial consumers			Albania	2002
36	Introduction of gas power plant to replace heavy fuel oil power plant in Albania's power sector			Albania	2002
37	Introduction of mini-hydropower plants to replace diesel generator in Albania's power sector			Albania	2002
38	Introduction of new industrial technology which consumes less energy (lower energy intensity)			Albania	2002
39	Modification of wet-type cement mills to dry-type mills in the Mongolian cement industry		20 000	Mongolia	2001
40	Other industries: three projects (cotton, butter-oil (2)) to improve power generation		20 800	Uzbekistan	1999
41	Partial substitution of clinker by fly ash from thermal plants	6 000 equivalent (2001–2020)		Morocco	2001
42	Process improvement in brick making			Bangladesh	2002
43	Process improvement in paddy parboiling			Bangladesh	2002
44	Programme/project to disseminate information on energy audits, rational use of energy, energy diversification and clean technologies in the industrial sector			Grenada	2000
45	Project for the standardization and certification of industrial equipment			Grenada	2000
46	Project to build national consulting capacity in energy and the environment in the industrial sector			Grenada	2000
47	Project to increase energy efficiency in Kaspi cement plant		1 000	Georgia	1999
48	Research on agricultural by-products, vegetable oils and alcohol as alternative sources of energy			Mali	2000
49	Set up energy education and extension services for industries			Seychelles	2000
50	Setting up of manufacturing facilities to produce high-purity silicon for the computer chip and solar photovoltaic industries			Barbados	2001
51	Technological upgrading in cement industry			El Salvador	2000
52	Technologies required for implementation of mitigation policy: electric filters necessary for the Kaspi cement plant		500	Georgia	1999

		Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
	53	Technology characterization inventory to support technology baselines and options for greenhouse gas emission reduction			Nigeria	2003
	54	Updating technology of nitrate producing aggregate at PO Azot in Fergana		30 000	Uzbekistan	1999
	55	Upgrading of nitrate-producing factory in Chirchik PO Eletrohimprom		20 000	Uzbekistan	1999
	56	Use of efficient electric motors, mechanisms and drives in all industries			Tajikistan	2002
	57	Use of humid phosphate instead of dry phosphate in the Jorf Lasfer plant	894 equivalent (2001–2020)		Morocco	2001
	58	Use of more energy-efficient and clean technology in industries			Seychelles	2000
	59	Use of renewable energy technologies in hotels and guesthouses			Seychelles	2000
	60	Use of solar distillation as a source of fresh water for the outer islands and Male			Maldives	2001
D.5		**Subsector: Material substitution**				
	1	Partial substitution of black phosphate by white phosphate in Youssoufia	1 981 equivalent (2001–2020)		Morocco	2001
	2	Promotion of the substitution of wood with non-metallic mineral material for construction usage		860	Comoros	2003
	3	Use of alternative materials for clinker in cement production			Costa Rica	2000
	4	Valorization of waste as energy source	1.02/year	12 360	Djibouti	2002
D.6		**Subsector: Process improvements**				
	1	Cement industry: conservation and preheating in pyroprocessing and improvements in the grinding process			Lebanon	1999
	2	Coal upgrading (coal drying plant)			Indonesia	1999
	3	Combustion optimization in boilers in the industrial sector	21	1 500	Ecuador	2000
	4	Commission a study on energy recovery from waste			Sri Lanka	2000
	5	Cooling system in cement production			Indonesia	1999
	6	Economic and environmental benefits of energy efficiency and conservation at the Barnangwato Concession Limited copper/nickel mine			Botswana	2001
	7	Energy demand side management programme for Mongolian industry		500	Mongolia	2001
	8	Heat recovery in the Safi and Jorf Lasfer chemical plants	4 690 equivalent (2001–2020)		Morocco	2001
	9	Improvements to the La Sierra thermic power plant			Colombia	2001

		Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
	10	Increased use of natural gas in the industrial sector	15 354 equivalent (2001–2020)		Morocco	2001
	11	Rational use of energy in the industrial sector	10 920 equivalent (2001–2020)		Morocco	2001
	12	Recover liquefied petroleum gas from natural gas	686/year	67 000	Ecuador	2000
	13	Reduction of losses in the energy sector	0.385/year	128 000	Ecuador	2000
	14	Rehabilitation of mining sites in Khouribga	264 equivalent (2001–2020)		Morocco	2001
	15	Replacement of boilers in the industrial and tertiary sectors	450 equivalent (2001–2020)		Morocco	2001
	16	Use of wastes as energy source for clinker in cement production			Costa Rica	2000
E.	**Residential, commercial and institutional buildings**					
E.1	**Subsector: Building equipment**					
	1	Energy saving in the tertiary and residential sectors		XOF 800 million	Burkina Faso	2002
E.1.1	**End use/description: Cooking**					
	1	Assessment of emissions from kerosene stoves			Kiribati	1999
	2	Developing project proposal for improved cooking stoves demonstration project			Lao People's Democratic Republic	2000
	3	Dissemination of ecological stoves in the Pacific region of Nicaragua			Nicaragua	2001
	4	Greenhouse gas abatement using improved cooking stoves to reduce fuelwood consumption	988	2 952	Gambia	2003
	5	Improve biomass cooking stoves			Bangladesh	2002
	6	Improvement of carbonization techniques			Burundi	2001
	7	Improving carbonization efficiency		350	Mauritania	2002
	8	Improving cooking stoves of the rural mountain communities		350	Viet Nam	2003
	9	Improving/promoting energy efficiency and conservation, e.g., wide distribution of improved biomass and charcoal stoves			Ethiopia	2001
	10	Introduction of energy-efficient devices (e.g., wood stoves)			Eritrea	2002
	11	Introduction of improved stoves			Ethiopia	2001
	12	Introduction of solar cookers in household and service sectors			Sudan	2003

		Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
	13	Promoting biogas use for greenhouse gas emission reduction			Lao People's Democratic Republic	2000
	14	Promoting the use of butane		5 250	Mauritania	2002
	15	Promoting the use of improved stoves		400	Mauritania	2002
	16	Promoting the use of improved stoves in rural and urban areas			Burundi	2001
	17	Promoting the use of kerosene as cooking fuel		70	Mauritania	2002
	18	Promotion and diffusion of improved ovens and practices to reduce the use of fuel wood	70	400	Ecuador	2000
	19	Promotion of improved stoves and charcoal kilns			Namibia	2002
	20	Recovery and use of sawing waste for briquette production			Burundi	2001
	21	Substitution of fuelwood in rural areas through promotion and use of residues			Botswana	2001
	22	Use of liquefied petroleum gas for domestic cooking			Seychelles	2000
	23	Use of peat as cooking fuel		1 770	Mauritania	2002
E.1.2	**End use/description: Cooling**					
	1	Demonstration heating and cooling system implementation on the basis of environmentally safe heat-pump equipment		20	Armenia	1998
	2	Installing reflective glass windows			Bangladesh	2002
	3	Introduce energy-efficient cooling devices			Eritrea	2002
	4	Introduction of solar cooling devices			Eritrea	2002
	5	Maximization of ventilation in newly built houses			Eritrea	2002
	6	Rehabilitation of cooling of buildings by environmentally safe systems for the earthquake zone of Armenia		2 000	Armenia	1998
	7	Switch to coolers that use energy sources with lower greenhouse gas emission factors			Eritrea	2002
	8	Using efficient air conditioners			Bangladesh	2002
E.1.3	**End use/description: Energy management**					
	1	Adopt energy-efficient building codes and standardization and labelling of energy-consuming end-use equipment			Sri Lanka	2000
	2	Commercialization of the supply of electricity			Cambodia	2002

	Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
3	Connection of Nouakchott to the OMVS (Organisation pour mise en valeur du fleuve Sénégal) grid		10	Mauritania	2002
4	Demand management and promotion of substitute energy sources			Senegal	1997
5	Demonstration project to create a demand-side management programme unit			Antigua and Barbuda	2001
6	Develop procedures to ensure consistency of classification of energy data with the economic data			Cambodia	2002
7	Development of a plan to decentralize electrification			Burundi	2001
8	Development of a system for assessing potential mitigation options			Cuba	2001
9	Efficiency improvements for existing and new building shells			Cambodia	2002
10	Electricity supply improvement			Cambodia	2002
11	Electricity trading with neighbouring countries			Cambodia	2002
12	Electrification of the Vallée village		276	Mauritania	2002
13	Encouraging building retrofits			Cambodia	2002
14	Energy audits for commercial and institutional buildings			Seychelles	2000
15	Energy conservation programme			Barbados	2001
16	Energy conservation programme in the public sector			Grenada	2000
17	Energy pricing			Cambodia	2002
18	Energy saving in government buildings		20	Mauritania	2002
19	Establishment of a fuel and appliance testing laboratory			Cambodia	2002
20	Establishment of a sustainable energy centre		2 000	Mongolia	2001
21	Establishment of an education campaign to promote the rational use of energy			Honduras	2000
22	Evaluation of the electricity generation system			Kiribati	1999
23	Expand and strengthen the capacity of the Energy Conservation Fund to improve its capability to assist different stakeholders in the energy sector in the areas of energy conservation and management			Sri Lanka	2000
24	Financing the decentralization of rural electrification	604 equivalent (2001–2020)		Morocco	2001
25	Improvement of energy database			Cambodia	2002
26	Improvement of energy efficiency of buildings in West Africa (Senegal and Côte d'Ivoire)		3 500	Senegal	1997
27	Improvements in building insulation		500	Mongolia	2001

	Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
28	Improvements in Électricité du Cambodge (EDC)			Cambodia	2002
29	Incorporation of energy-efficient measures and standards in building design			Seychelles	2000
30	Information programme in efficient use of energy and energy diversification in the service sector			Grenada	2000
31	Installation of gas consumption monitoring systems			Tajikistan	2002
32	Introduce demand-side measures such as peak lopping through appropriate pricing, popularization of more efficient end-use devices such as luminaries, refrigerators, air conditioners and motors, etc.			Sri Lanka	2000
33	Introduction of incentives for the substitution of electricity by renewable energy			Grenada	2000
34	Introduction of prepaid meters for domestic consumers			Albania	2002
35	Introduction of solar water heating system to replace electric boilers in households			Albania	2002
36	Introduction of solar water heating systems to replace electric boilers in service consumers (hotels, restaurants, hospitals)			Albania	2002
37	Introduction of thermostatic time switches for electric boilers in household consumers			Albania	2002
38	Introduction of total energy supply schemes (hydro/solar energy and small-scale combined heat and power, based on diesel generators) for meeting electricity and heat demand in tourist villages			Albania	2002
39	Investing in demand-side management in the electricity sector			Zimbabwe	1998
40	Lower energy consumption through demand-side energy efficiency and conservation programmes and incentives			Mauritius	1999
41	National transmission system			Cambodia	2002
42	Passive solar building design			Cambodia	2002
43	Programme of training and technical assistance for efficient use of energy			Grenada	2000
44	Programme to conserve and efficiently use energy through seed fund			El Salvador	2000
45	Providing the public with a menu of architectural designs for residential buildings that take advantage of natural lighting and cooling			Grenada	2000
46	Provincial and rural electrification			Cambodia	2002
47	Rational use of energy in government buildings	350 equivalent (2001–2020)		Morocco	2001
48	Reconstruction and improvement of small-size boiler houses		5 000	Mongolia	2001

		Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
	49	Regulatory reform action: establishment of power sector regulatory framework			Cambodia	2002
	50	Rehabilitation of the electricity system			Cambodia	2002
	51	Reorganization of the information system in the energy sector		170	Djibouti	2002
	52	Residential and commercial energy efficiency building codes			Botswana	2001
	53	Setting rules for thermic building efficiency			Tunisia	2001
	54	Setting up of an energy-efficient use and conservation extension service within the Energy Affairs Bureau			Seychelles	2000
	55	Sustainable management of the domestic energy sector		20 000	Haiti	2002
	56	Training on energy audit			Cambodia	2002
E.1.4	**End use/description: Heating**					
	1	Demonstration heating and cooling system implementation on the basis of environmentally safe heat pump equipment		20	Armenia	1998
	2	Energy saving in district heating system improvement		814	Kazakhstan	1998
	3	Introduction of biodigesters, solar heaters, electric heaters			Eritrea	2002
	4	Introduction of central heating plants to replace individual ones			Albania	2002
	5	Introduction of combined heat and power and district heating plants in the service sector			Albania	2002
	6	Introduction of district heating plants in the service sector			Albania	2002
	7	Rehabilitation of heating of buildings by environmentally safe systems for the earthquake zone of Armenia			Armenia	1998
	8	Removing barriers to energy efficiency in municipal heat supply		211	Georgia	1999
	9	Use of solar energy for water heating in the residential setor	73	3 900	Ecuador	2000
E.1.5	**End use/description: Lighting**					
	1	Building houses with efficient illumination and solar energy			El Salvador	2000
	2	Carbon emission reduction through replacement of incandescent bulbs with compact fluorescent lamps		12 000	Mongolia	2001
	3	Demonstration project to promote compact fluorescent lamps for residential use			Antigua and Barbuda	2001
	4	Efficient lighting and alternative energy sources			Namibia	2002
	5	Efficient lighting programme			Botswana	2001

	Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
6	Energy saving in the residential sector by lamps substitution	680	27 200	Ecuador	2000
7	Enhance energy saving in the residential sector by using compact fluorescent lampss			Costa Rica	2000
8	Improved kerosene lamps			Bangladesh	2002
9	Incandescent lamps substitution by efficient lamps, oriented to the residential sector			Honduras	2000
10	Introduction of compact fluorescent bulbs and timers/switches to low-income consumers via the removal of common external tariff and domestic taxes/levies			Grenada	2000
11	Introduction of efficient lighting for domestic consumers			Albania	2002
12	Introduction of efficient lighting for service consumers			Albania	2002
13	Introduction of solar panels for light energy generation and storage whenever possible			Eritrea	2002
14	Lighting efficiency improvements through the use of fluorescent lamps in place of incandescent lamps			Eritrea	2002
15	Reducing CO_2 emissions through use of compact fluorescent lamps in the government and commercial sectors			Lao People's Democratic Republic	2000
16	Rural electrification with solar photovoltaic systems	8.4	5 100	Ecuador	2000
17	Substitution of conventional lamps in Villavicencio	1 equivalent per year		Colombia	2001
18	Substitution of photovoltaic lanterns for kerosene lighting			Ethiopia	2001
19	Transition to efficient lighting equipment, in particular luminescent lamps, halogen infrared lamps, automatic systems of street illumination, etc.			Tajikistan	2002
20	Use of compact fluorescent lamps			Bangladesh	2002
21	Use of low-wattage and renewable energy technologies, such as compact fluorescent lamps and solar water heater			Seychelles	2000
E.1.6	**End use/description: Motors**				
1	Introducing efficient motors			Bangladesh	2002
2	Introduction of efficient electrical motors for service consumers			Albania	2002

	Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
E.1.7	**End use/description: Other appliances**				
	1 Promote the use of improved boilers in business establishments (hammams, ovens)	3 426 equivalent (2001–2020)		Morocco	2001
E.1.8	**End use/description: Refrigeration**				
	1 Certification of refrigerators			Tunisia	2001
	2 Introduction of energy-efficient refrigerators			Eritrea	2002
	3 Introduction of energy-efficient refrigerators for household consumers			Albania	2002
	4 Introduction of energy-efficient refrigerators for service consumers			Albania	2002
	5 Use of energy-efficient refrigerators and freezers			Seychelles	2000
	6 Using energy-efficient refrigerators			Bangladesh	2002
E.1.9	**End use/description: Water heating**				
	1 Introduction of solar water heat collectors into the energy system			Armenia	1998
	2 Pilot project on heating and hot water supply		814	Kazakhstan	1998
	3 Removing barriers to energy efficiency in municipal water heating			Georgia	1999
	4 Solar hot water supply demonstration system for the international post-trauma rehabilitation centre		200	Armenia	1998
E.2	**Subsector: Building thermal integrity**				
	1 Energy efficiency: building sector			Lebanon	1999
	2 Enhancing thermal performance of building envelopes: capacity-building project			Lebanon	1999
	3 Enhancing thermal performance of building envelopes: market-based programme			Lebanon	1999
	4 Improvement of heating systems, enhancing conditioning and optimizing the microclimate of residential and commercial buildings			Tajikistan	2002
	5 Introduction of new building techniques to improve natural ventilation and air-conditioning in household and commercial buildings			Sudan	2003
	6 Introduction of progressive thermo-insulation of households			Tajikistan	2002
	7 New approach in planning, design and construction of residential and commercial buildings, with increased application of high-tech materials for walls, roofs, windows, etc.			Tajikistan	2002

		Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
	8	Thermo-insulation of households in cases when the main energy sources are electricity, fuel wood, liquefied petroleum gas or kerosene and when a district heating system is in operation			Albania	2002
	9	Thermo-insulation of stock of buildings which use electricity, firewood, liquefied petroleum gas, kerosene for meeting space heating energy demand			Albania	2002
F.		**Solid waste and waste-water disposal**				
F.1		**Subsector: Methane recovery**				
F.1.1		**End use/description: Solid waste disposal**				
	1	Climate change early action technology measures: methane recovery from landfill			Egypt	1999
	2	Composting		1 250	Madagascar	2004
	3	Composting and landfilling with gas recovery and flaring			Lebanon	1999
	4	Composting and landfilling with gas recovery and utilization			Lebanon	1999
	5	Construction of new sanitary landfills: the gas generated from the landfill will be utilized			Albania	2002
	6	Development of sewage treatment facilities			Maldives	2001
	7	Establish secondary treatment systems for new residential sites			Belize	2002
	8	Expand sewage system in Belize City			Belize	2002
	9	Implement methane recovery at landfills			Belize	2002
	10	Integrated household waste management and process		4 500	Kenya	2002
	11	Landfilling with gas recovery and flaring			Lebanon	1999
	12	Landfilling with gas utiilzation			Lebanon	1999
	13	Promote proper solid waste management with methane recovery			Sri Lanka	2000
	14	Recovery and utilization of the methane from landfills			Grenada	2000
	15	Recovery of biogas from solid waste disposal sites in Mediouna and Marrakesh	6 121 equivalent (2001–2020)		Morocco	2001
	16	Reduction of methane emissions to the atmosphere through commercial utilization of landfill methane			Egypt	1999
	17	Upgrade sewage treatment system in Belmopan			Belize	2002
	18	Waste management in Nouakchott village	59.97 (2003–2010)	12 593	Mauritania	2002
	19	Waste treatment and use of waste for energy production	82.62 equivalent	15 160	Djibouti	2002

	Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
F.1.2	**End use/description: Waste-water treatment**				
	1 Aerobic treatment of waste water			Seychelles	2000
	2 Construction of new sewerage systems with waste-water treatment plants			Albania	2002
	3 Generation of electricity using natural gas from the Rio Azul landfill	76.44 equivalent per year		Costa Rica	2000
	4 Implementation of an integrated waste management system			Maldives	2001
	5 Recovery of biogas from waste water treatment plants in Benslimane and Grand Agadir	834 equivalent (2001–2020)		Morocco	2001
	6 Treatment of commercial and industrial waste before discharge into aquatic and terrestrial environment			Grenada	2000
	7 Waste-water treatment in coffee production			Costa Rica	2000
F.2	**Subsector: Source reduction**				
	1 Collection and transport of solid waste in major cities		9 000	Mongolia	2001
	2 Extending the collection and utilization of secondary sources through the application of separated collection to reduce the amount of municipal solid waste			Albania	2002
F.2.1	**End use/description: Composting**				
	1 Composting		2 800	Djibouti	2002
	2 Composting and smart selection of materials for use			Grenada	2000
	3 Composting of solid waste			Seychelles	2000
	4 Pilot production of biohumus by processing organic part of solid urban wastes and manure		65	Armenia	1998
	5 Promotion of composting for biogas production			Chad	2001
	6 Reducing greenhouse gas emissions from burning of waste through composting	553	1 780	Gambia	2003
F.2.2	**End use/description: Incineration**				
	1 Construction of a new municipal solid waste incinerator with energy utilization			Albania	2002
	2 Municipal and household sector: waste incinerating plant for Tashkent		45 000	Uzbekistan	1999

	Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
F.2.3	**End use/description: Recycling**				
	1 Promotion of waste reuse and recycling		1 500	Kenya	2002
	2 Recycling of solid waste			Seychelles	2000
	3 Recycling, reuse and smart selection of materials for use			Grenada	2000
	4 Recycling/sustainable management of waste in order to mitigate CH_4 emissions by setting-up a 100 t/day capacity plant			Central African Republic	2003
G.	**Transport**				
G.1	**Subsector: Alternative energy sources**				
	1 Integrated system for zero or reduced emission fuel cell bus operation in Cairo			Egypt	1999
	2 Introduction of electric vehicles, trolleys and trains			El Salvador	2000
	3 Introduction of petrol/ethanol blending			Uganda	2002
	4 Natural gas vehicles (refuelling station and conversion kit)		AUD 32 800 000	Indonesia	1999
	5 Producing hydrogen from renewable energy to power fuel cell vehicles, e.g., cars and buses			Barbados	2001
	6 Promote the use of gasohol (blending of ethanol with gasoline) for cars			Ethiopia	2001
	7 Promoting the use of fuels with low carbon content (fuel switching)			Ethiopia	2001
	8 Rapid public transport system utilizing electric-powered vehicles			Mauritius	1999
G.2	**Subsector: Energy efficiency improvements**				
G.2.1	**End use/description: Improve fleet management**				
	1 Adopt an appropriate road pricing system			Sri Lanka	2000
	2 Better engine and tyre maintenance and driver training			Grenada	2000
	3 Declare emission standards for mobile and stationary sources			Seychelles	2000
	4 Development of a concept, strategy and action plan to reduce emissions from road vehicles		400	Armenia	1998
	5 Development of a sustainable inter-island sea-based mass transport system			Maldives	2001
	6 Diagnostic centres for vehicle engines	4 187 equivalent (2001–2020)		Morocco	2001

	Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
7	Dissemination of leaflets, pamphlets and brochures on vehicle selection; advice on maintenance, control of fuel combustion emissions and good driving practices			Grenada	2000
8	Driver and pedestrian training and education			Cambodia	2002
9	Encouraging vehicles with lower energy consumption in relation to capacity			Uganda	2002
10	Energy-efficient and pollution-control technology			Cambodia	2002
11	Equipping the highway patrol unit with required resources to enforce measures and regulations			Seychelles	2000
12	Expansion of the use of four-stroke three-wheelers			Bangladesh	2002
13	Implementation of proper transport/traffic management using control changes in traffic flow through improved traffic signal timing and adopting measures to encourage increased capacity utilization			Grenada	2000
14	Implementing measures to reduce the atmospheric pollution caused by the transport sector			Mali	2000
15	Implementing the National and the Greater Kampala Transportation Master Plans			Uganda	2002
16	Improve efficiency of the transport system in Nigeria			Nigeria	2003
17	Improve traffic management systems through the use of information technology			Sri Lanka	2000
18	Improvement of the public transport system			Seychelles	2000
19	Improving the efficiency of the transport system in Ghana			Ghana	2001
20	Improving vehicle efficiency by carrying out maintenance, inspections and training			Ethiopia	2001
21	Integrate bus–rail operation through proper network planning			Sri Lanka	2000
22	Introduce a suitable vehicle inspection and monitoring programme			Sri Lanka	2000
23	Light electric rail system for the east coast/shifting to sea transport			Seychelles	2000
24	Limit import of used vehicles, reinforce technical inspections, encourage use of public transport	10 932	54 000	Mauritania	2002
25	Nairobi city traffic flow improvement project		210	Kenya	2002
26	Promoting environmentally friendly transport modes such as bicycles			Ethiopia	2001
27	Promotion of the use of smaller cars through tax differentiation based on engine size			Ethiopia	2001

		Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
	28	Removing barriers to energy use efficiency in the urban transport system		1 200	Kenya	2002
	29	Road transport (improve fleet management)		2 000	Uzbekistan	1999
	30	Technical inspections in the transport sector	23 800		Peru	2001
	31	Traffic management plan			Seychelles	2000
G.2.2	**End use/description: Improve speed management**					
	1	Driver awareness campaign for efficient use of vehicles			Seychelles	2000
	2	Improving urban traffic			Ethiopia	2001
	3	Implementation of proper transport/traffic management using control changes in traffic flow through improved traffic signal timing and adopting measures to encourage increased capacity uitlization			Grenada	2000
G.2.3	**End use/description: Vehicle energy intensity reduction**					
	1	Climate change early action technology measures: retrofitting two-stroke engines			Egypt	1999
	2	Conversion of taxis to liquefied petroleum gas	500		Peru	2001
	3	Conversion of vehicles from normal fuel to liquefied petroleum gas			Colombia	2001
	4	Encourage importation of fuel-efficient vehicles			Belize	2002
	5	Encourage use of four-stroke outboard engines			Belize	2002
	6	Encouragement of use of low-fuel-consumption motor vehicles			Tajikistan	2002
	7	Establish level of vehicular emissions for purposes of adequate planning		48	Ghana	2001
	8	Expansion of exhaust emission rationing tools and mechanisms			Tajikistan	2002
	9	Formulation and implementation of a procurement policy for vehicles in the public (government) sector (more efficient vehicles and system of transporting larger groups and bigger loads)			Grenada	2000
	10	Fuel efficiency in transport			Botswana	2001
	11	Initiate a 'Clean Air Act'			Mauritius	1999
	12	Introduction of efficient vehicles using catalysers and the provision of good-quality roads and proper traffic planning			Eritrea	2002
	13	Introduction of technologies to improve fuel quality in the road transport sector aimed at reducing harmful emissions			Tajikistan	2002
	14	Introduction of trade regulations, tariffs for fuel efficiency and domestic fuel taxes			Grenada	2000

		Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
	15	Modernization and technical upgrading of the vehicle fleet			El Salvador	2000
	16	Modernization and technical upgrading of vehicle park			El Salvador	2000
	17	Phase out old vehicles	3 700		Peru	2001
	18	Planning and implementing a programme for technical testing of vehicles to reduce fuel consumption			Niger	2000
	19	Removing barriers to adoption of four-stroke engine for two-wheelers			Lao People's Democratic Republic	2000
	20	Road transport (vehicle energy intensity reduction)			Uzbekistan	1999
	21	Switching of public transport to alternative fuels, in particular liquefied gas			Tajikistan	2002
	22	Vehicle fuel efficiency improvement		900	Mongolia	2001
G.3		**Subsector: Infrastructure changes, modal shift and fleet management**				
	1	Energy conservation in the transport sector (redesign the construction of roads and rehabilitation of existing roads)			Sudan	2003
	2	Improve transport infrastructure			Belize	2002
	3	Rehabilitate and expand the rail system			United Republic of Tanzania	2003
G.3.1		**End use/description: Traffic reduction**				
	1	Electrification of railway and development of urban electrified transport			Tajikistan	2002
	2	Establishing dedicated non-motorized transport lanes			Uganda	2002
	3	Implementation of an integrated transport system in the large metropolitan areas of Costa Rica			Costa Rica	2000
	4	Improvement of urban and inter-urban road networks			El Salvador	2000
	5	Increase use of mass public transport			El Salvador	2000
	6	Promotion of use of bicycles			El Salvador	2000
	7	Rail infrastructure improvement			Namibia	2002
	8	Rail transport		1 464 000	Uzbekistan	1999
	9	Road improvement in urban areas			Cambodia	2002
G.3.2		**End use/description: Transport energy intensity reduction (fleet management)**				
	1	Air transport		1 000 000	Uzbekistan	1999

	Project title	Estimated emission reduction/ sequestration (kt CO_2)	Cost (thousands of USD)	Country	Year
2	Bicycle paths	23 900		Peru	2001
3	Development of alternative transport, including bicycles; and emission reduction from light vehicles, which are most popular in the republic			Tajikistan	2002
4	Encourage the use of non-motorized transport systems, such as bicycles			Eritrea	2002
5	Expansion of public transport infrastructure			Ethiopia	2001
6	Improvements in motor fleet structure, technical characteristics of engines and quality of roads		460	Azerbaijan	2000
7	Introduce energy-efficient mass transit			Cambodia	2002
8	Introduction of non-motorized modes of transport			Albania	2002
9	Railway network enhancement		Between US$ 52.836 million and 111.888 million	Ghana	2001
10	Reopening of the railway services to reduce the use of fuels on the roads			Costa Rica	2000
11	Setting up of a second city on Mahe			Seychelles	2000