

Year end snapshot of the CDM

25th November 2008, UNEP Risoe CDM Pipeline (www.cdmpipeline.org)

Global overview

The table below shows the cumulative number of CDM projects in all three project phases: Validation, Requesting Registration and Registered. The numbers are shown from 2004 to late November 2008 for Asia & Pacific, Latin America, Africa, Middle-East and Eastern Europe/Central Asia. The listed regions shares of the total number of projects are shown in percentage for 2008.

Cumulative number of projects

Host Region	2004	2005	2006	2007	Nov 2008	
Asia & Pacific	18	305	865	2.074	3.240	76%
Latin America	41	208	454	626	814	19%
Africa	2	15	34	52	87	2%
Middle-East	0	1	9	28	54	1%
E. Europe and C. A.	0	5	14	29	42	1%
Total global	61	534	1.376	2.809	4.237	100%

The major developing economies China, India, Brazil and Mexico are hosting a large part of the projects in their respective regions. Therefore, it is relevant to look at the regional development without the project numbers from these countries. The following table shows the cumulative number of projects without China & India in the Asian & Pacific number and without Brazil and Mexico in the Latin American number.

Cumulative number of projects excl. China, India, Brazil & Mexico

Host Region	2004	2005	2006	2007	Nov 2008
<i>Asia & Pacific ex. China & India</i>	5	69	137	347	548
<i>Latin America ex. Brazil & Mexico</i>	19	80	128	203	288
Africa	2	15	34	52	87
Middle-East	0	1	9	28	54
Europe & C. A.	0	5	14	29	42

The table below shows the projected number of CDM projects by 2012 in each region and the projected CERs generated until 2012. The projection of the 2012 CERs takes into account performance factors such as project success rates, CER issuance success, time-lags, etc. The financial flows from the CERs generated until 2012 are shown assuming a CER value of 20 \$/CER. Finally, the 2012 CERs per capita and the \$/capita from the CERs generated until 2012 are shown. Please note that the projected CERs and financial flows are in given million CERs & USD, while the per capita numbers are given in USD and CERs.

Projections and financial flows

Host region	Proj. 2012 nr	Proj. 2012 mill CERs	mill \$ by 2012	2012 CERs/capita	\$/capita by 2012
Asia & Pacific	6300	1.220	24.400	0,36	7,2
Latin America	1600	260	5.200	0,58	11,6
Africa	250	60	1.200	0,07	1,4
Middle-East	100	20	400	0,11	2,2
Europe and C.A.	80	10	200	0,07	1,4
Global	8330	1.570	31.400	0,31	6,2

While some project types are used extensively, others are lacking behind their real potential. This is e.g. the case for energy efficiency in buildings. The following table shows the distribution of projects on different project types. The upper part of the table shows the number and percent of projects in each project type, the average Kilo-CERs generated per year and the value of the Kilo-CERs generated per year assuming a CER price of 20 \$/CER. It should be mentioned that that agriculture type mainly covers biogas projects in the agricultural sector.

The lower part of the table shows the same numbers, but for aggregated project categories. Here, Renewables include Hydro, Wind, Solar, Geothermal, Biomass, Biogas and Tidal. Both tables are sorted by decreasing number of projects.

Projects type distribution

Project type	Number of projects		kCERs/yr	CER value
	Nr.	%	kCERs/yr	mil \$/yr
Hydro	1.116	26%	115.391	2.308
Biomass energy	638	15%	38.677	774
Wind	596	14%	50.102	1.002
Electr. from waste heat, industry	383	9%	59.595	1.192
Landfill gas	306	7%	48.066	961
Biogas	269	6%	12.873	257
Agriculture	229	5%	8.597	172
Energy efficiency industry	176	4%	6.589	132
Fossil fuel switch	137	3%	44.157	883
N2O	66	2%	48.572	971
Coal bed/mine methane	61	1%	27.865	557
Energy efficiency supply side	48	1%	14.342	287
Cement	38	1%	6.782	136
Fugitive emissions	29	1%	10.690	214
Afforestation & Reforestation	35	1%	1.784	36
Solar	26	1%	703	14
HFCs	22	1%	83.048	1.661
Geothermal	13	0,3%	2.457	49
Energy efficiency Households	14	0,3%	945	19
Energy efficiency service	10	0,2%	151	3
PFCs	8	0,2%	1.121	22
Transport	8	0,2%	728	15
Energy distribution	7	0,2%	2.040	41
Tidal	1	0,0%	315	6
CO2 capture	1	0,0%	7	0
Total	4.237	100%	585.597	11.712
Renewables	2.659	63%	220.519	4.410
CH4 reduction & Cement & Coal mine	664	16%	102.006	2.040
Supply-side energy efficiency	438	10%	75.978	1.520
Demand-side energy efficiency	200	5%	7.684	154
Fuel switch	137	3%	44.157	883
HFCs, PFCs & N2O reduction	96	2%	132.741	2.655
Afforestation & Reforestation	35	1%	1.784	36
Transport	8	0,2%	728	15

CDM in Asia & Pacific

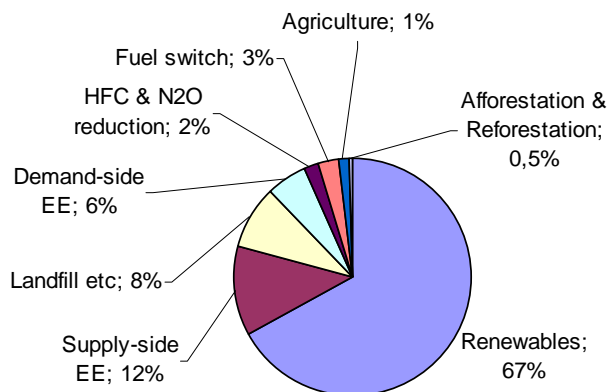
The table below shows the cumulative number of CDM projects in all three project phases: Validation, Requesting Registration and Registered for the countries in the Asia & Pacific region. The development from 2004 to late November 2008 is shown and the numbers for China and India are highlighted. The percentage of the global number projects is included for each country for 2008.

Cumulative number of projects

Country	2004	2005	2006	2007	Nov 2008	% of global
Bangladesh	0	3	3	4	4	0,1%
Bhutan	1	1	1	3	3	0,1%
Cambodia	0	1	1	3	5	0,1%
China	2	27	249	942	1557	36,7%
Fiji	0	1	1	1	1	0,0%
India	11	209	479	785	1135	26,8%
Indonesia	1	5	14	54	96	2,3%
Lao PDR	0	0	1	1	1	0,0%
Malaysia	2	7	23	93	145	3,4%
Mongolia	0	0	3	4	4	0,1%
Nepal	0	2	3	3	3	0,1%
Pakistan	0	0	2	5	12	0,3%
Papua New Guinea	0	1	1	1	1	0,0%
Philippines	0	20	30	66	77	1,8%
Singapore	0	0	0	1	5	0,1%
South Korea	1	8	21	38	53	1,3%
Sri Lanka	0	4	11	13	18	0,4%
Thailand	0	12	13	42	75	1,8%
Vietnam	0	4	9	15	45	1,1%
Asia & Pacific	18	305	865	2074	3240	76,5%
<i>Total Global</i>	<i>61</i>	<i>534</i>	<i>1376</i>	<i>2809</i>	<i>4237</i>	<i>100,0%</i>

The figure below shows the distribution of projects in Asia & Pacific on project types in late November 2008.

Number of projects in Asia by type



The table below shows separate columns for projects under Validation, Requesting Registration, Registered and a Total sum. Both number of projects and annual CER generation in Kilo-CERs are shown. The situation is a snapshot the 25th November 2008 and over the coming months, projects in the Validation phase starts Requesting Registration, while projects Requesting Registration will become Registered. About 82 % of the projects in the Validation phase will continue Requesting Registration, while about 95 % of the projects Requesting Registration will become Registered. These success rates are included in the CER projections listed earlier.

In the last row, the value of the annual CERs generated is shown assuming a CER value of 20 \$/CER. The numbers are given as million \$/year.

Projects under Validation, Requestion Registration and Registered

Host country	At validation		Req Registration		Registered		Total		CER Value mil \$/yr
	Number	kCERs/yr	Number	kCERs/yr	Number	kCERs/yr	Number	kCERs/yr	
Bangladesh	2	65	0	0	2	170	4	235	5
Bhutan	2	3.781	0	0	1	1	3	3.782	76
Cambodia	2	388	1	6	2	102	5	496	10
China	1.059	154.091	187	47.143	311	123.726	1.557	324.960	6.499
Fiji	0	0	0	0	1	25	1	25	0
India	717	57.537	47	3.270	371	32.090	1.135	92.897	1.858
Indonesia	75	5.391	4	607	17	2.580	96	8.578	172
Lao PDR	0	0	0	0	1	3	1	3	0
Malaysia	108	10.249	2	591	35	2.870	145	13.710	274
Mongolia	1	181	0	0	3	70	4	251	5
Nepal	1	36	0	0	2	94	3	130	3
Pakistan	11	2.024	0	0	1	1.050	12	3.074	61
Papua New Guinea	0	0	0	0	1	279	1	279	6
Philippines	54	1.304	3	800	20	732	77	2.835	57
Singapore	4	572	1	15	0	0	5	587	12
South Korea	29	1.214	5	121	19	14.601	53	15.935	319
Sri Lanka	14	397	0	0	4	116	18	513	10
Thailand	62	3.173	3	180	10	875	75	4.228	85
Vietnam	40	1.615	3	289	2	681	45	2.586	52
Asia & Pacific	2.181	242.018	256	53.024	803	180.064	3.240	475.105	9.502
<i>TotalGlobal</i>	<i>2716</i>	<i>294.985</i>	<i>285</i>	<i>57.994</i>	<i>1236</i>	<i>232.618</i>	<i>4237</i>	<i>585.597</i>	<i>11.712</i>

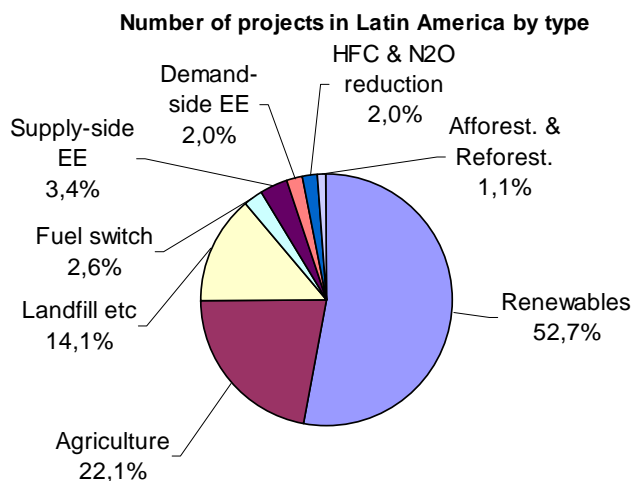
CDM in Latin America

The table below shows the cumulative number of CDM projects in all three project phases: Validation, Requesting Registration and Registered for the countries in Latin America. The development from 2004 to late November 2008 is shown and the percentage of the global number projects is included for each country in 2008.

Cumulative number of projects

Country	2004	2005	2006	2007	Nov 2008	
						% of global
Argentina	1	7	11	21	31	0,73%
Bolivia	1	4	5	5	7	0,17%
Brazil	18	104	184	248	329	7,76%
Chile	5	17	28	46	63	1,49%
Colombia	0	6	10	23	36	0,85%
Costa Rica	1	2	5	6	8	0,19%
Cuba	0	0	1	2	2	0,05%
Dominican Republic	0	0	2	3	5	0,12%
Ecuador	2	8	12	19	22	0,52%
El Salvador	0	4	5	6	8	0,19%
Guatemala	2	6	11	13	19	0,45%
Guyana	0	0	1	1	1	0,02%
Honduras	7	12	14	20	25	0,59%
Jamaica	0	1	1	1	2	0,05%
Mexico	4	24	142	175	197	4,65%
Nicaragua	0	3	3	3	7	0,17%
Panama	0	4	7	8	16	0,38%
Paraguay	0	0	0	2	4	0,09%
Peru	0	5	10	21	27	0,64%
Uruguay	0	1	2	3	5	0,12%
Latin America	41	208	454	626	814	19,21%
<i>Total Global</i>	<i>61</i>	<i>534</i>	<i>1376</i>	<i>2809</i>	<i>4237</i>	<i>100,00%</i>

The figure below shows the distribution of projects in Latin America on project types in late November 2008.



The table below shows a snapshot of projects in the three phases: validation, requesting registration and registered the 25th November 2008. As mentioned in the section above, projects will over the coming months move from the Validation stage to Request Registration for eventually becoming registered. A CER value of 20 \$/CER is assumed for calculating the value of the CERs generate per year.

Projects under Validation, Requestion Registration and Registered

Host country	At validation		Req Registration		Registered		Total		CER Value <i>mil \$/yr</i>
	Number	kCERs/yr	Number	kCERs/yr	Number	kCERs/yr	Number	kCERs/yr	
Argentina	17	1.472	0	0	14	4.115	31	5.587	112
Bolivia	5	442	0	0	2	224	7	666	13
Brazil	175	12.596	8	950	146	18.838	329	32.384	648
Chile	34	2.915	3	189	26	4.325	63	7.429	149
Colombia	22	2.713	1	757	13	1.234	36	4.704	94
Costa Rica	2	140	0	0	6	294	8	434	9
Cuba	1	69	0	0	1	342	2	411	8
Dominican Republic	4	873	0	0	1	124	5	997	20
Ecuador	9	1.213	0	0	13	667	22	1.879	38
El Salvador	3	159	0	0	5	475	8	634	13
Guatemala	11	720	2	394	6	308	19	1.423	28
Guyana	0	0	0	0	1	45	1	45	1
Honduras	10	337	1	14	14	274	25	625	13
Jamaica	1	232	0	0	1	53	2	284	6
Mexico	85	6.645	5	762	107	7.566	197	14.973	299
Nicaragua	4	184	0	0	3	456	7	641	13
Panama	11	1.678	0	0	5	119	16	1.796	36
Paraguay	4	92	0	0	0	0	4	92	2
Peru	10	2.542	3	293	14	1.218	27	4.053	81
Uruguay	2	99	0	0	3	251	5	350	7
Latin America	410	35.120	23	3.360	381	40.928	814	79.409	1.588
<i>TotalGlobal</i>	<i>2716</i>	<i>294.985</i>	<i>285</i>	<i>57.994</i>	<i>1236</i>	<i>232.618</i>	<i>4237</i>	<i>585.597</i>	<i>11.712</i>

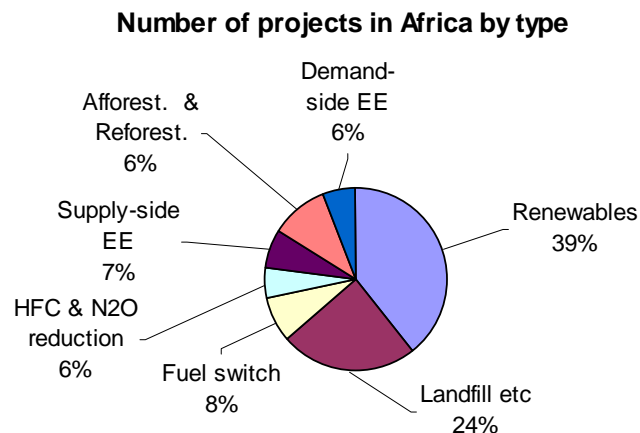
CDM in Africa

The African region has been lacking behind in the development of CDM projects but is now starting to catch up - partly due to activities under the Nairobi Framework and an increased demand for African CERs. As for the other regions, the table below shows the cumulative number of CDM projects in all three project phases: Validation, Requesting Registration and Registered. The numbers for North Africa is shown in the upper part of the table, while the numbers for Sub-Saharan Africa are shown below.

Cumulative number of projects

Country	2004	2005	2006	2007	Nov 2008	
					% of global	
Egypt	0	0	5	7	12	0,28%
Morocco	1	4	5	5	9	0,21%
Tunisia	0	0	2	2	2	0,05%
North Africa	1	4	12	14	23	0,54%
Congo DR	0	0	0	0	2	0,05%
Equatorial Guinea	0	0	0	0	0	0,00%
Ethiopia	0	0	0	0	1	0,02%
Ivory Coast	0	1	1	1	2	0,05%
Kenya	0	0	1	4	7	0,17%
Madagascar	0	0	0	0	1	0,02%
Mali	0	0	0	1	2	0,05%
Mauritius	0	0	0	1	1	0,02%
Mozambique	0	0	0	1	1	0,02%
Nigeria	0	2	2	2	4	0,09%
Rwanda	0	0	0	0	1	0,02%
Senegal	0	0	0	1	2	0,05%
South Africa	1	7	16	23	27	0,64%
Swaziland	0	0	0	0	1	0,02%
Tanzania	0	0	1	2	3	0,07%
Uganda	0	1	1	2	8	0,19%
Zambia	0	0	0	0	1	0,02%
Sub-Sahara Africa	1	11	22	38	64	1,51%
TOTAL AFRICA	2	15	34	52	87	2,05%
<i>Total Global</i>	<i>61</i>	<i>534</i>	<i>1376</i>	<i>2809</i>	<i>4237</i>	<i>100%</i>

The figure below shows the project type distribution in Africa, late November 2008.



As for Asia and Latin America, the table below shows a snapshot of African projects in the three phases: validation, requesting registration and registered the 25th November 2008. Like for the other regions, a CER value of 20 \$/CER is assumed.

Projects under Validation, Requestion Registration and Registered

Host country	At validation		Req Registration		Registered		Total		CER Value <i>mil \$/yr</i>
	Number	kCERs/yr	Number	kCERs/yr	Number	kCERs/yr	Number	kCERs/yr	
Egypt	7	947	1	455	4	1.795	12	3.198	64
Morocco	5	253	0	0	4	256	9	509	10
Tunisia	0	0	0	0	2	688	2	688	14
North Africa	12	1.200	1	455	10	2.738	23	4.394	88
Congo DR	2	579	0	0	0	0	2	579	12
Equatorial Guinea	0	0	0	0	0	0	0	0	0
Ethiopia	1	29	0	0	0	0	1	29	1
Ivory Coast	2	1.027	0	0	0	0	2	1.027	21
Kenya	6	524	0	0	1	130	7	654	13
Madagascar	1	49	0	0	0	0	1	49	1
Mali	2	168	0	0	0	0	2	168	3
Mauritius	1	298	0	0	0	0	1	298	6
Mozambique	1	46	0	0	0	0	1	46	1
Nigeria	3	3.887	0	0	1	1.497	4	5.384	108
Rwanda	1	19	0	0	0	0	1	19	0
Senegal	2	220	0	0	0	0	2	220	4
South Africa	12	1.900	1	379	14	2.558	27	4.837	97
Swaziland	1	64	0	0	0	0	1	64	1
Tanzania	2	347	0	0	1	202	3	549	11
Uganda	7	141	0	0	1	36	8	177	4
Zambia	1	150	0	0	0	0	1	150	3
Sub-Sahara Africa	45	9.447	1	379	18	4.423	64	14.249	285
Total Africa	57	10.647	2	834	28	7.161	87	18.642	373
<i>TotalGlobal</i>	<i>2716</i>	<i>294.985</i>	<i>285</i>	<i>57.994</i>	<i>1236</i>	<i>232.618</i>	<i>4237</i>	<i>585.597</i>	<i>11.712</i>

CDM in the Middle-East

The table below shows the cumulative number of CDM projects in all three project phases: Validation, Requesting Registration and Registered for the countries in the Middle-East. The development from 2004 to late November 2008 is shown and the percentage of the global number projects is included for each country in 2008.

Cumulative number of projects

Country	2004	2005	2006	2007	Nov 2008	
					Number	% of global
Iran	0	0	0	0	1	0,02%
Israel	0	1	8	26	33	0,78%
Jordan	0	0	0	1	4	0,09%
Qatar	0	0	1	1	1	0,02%
Syria	0	0	0	0	2	0,05%
United Arab Emirates	0	0	0	0	13	0,31%
Middle-East	0	1	9	28	54	1,27%
<i>Total Global</i>	<i>61</i>	<i>534</i>	<i>1376</i>	<i>2809</i>	<i>4237</i>	<i>100%</i>

As for the other regions, the table below shows a snapshot of Middle-Eastern projects in the three phases: validation, requesting registration and registered the 25th November 2008. Like for the other regions, a CER value of 20 \$/CER is assumed.

Projects under Validation, Requestion Registration and Registered

Host country	At validation		Req Registration		Registered		Total		CER Value <i>mil \$/yr</i>
	Number	kCERs/yr	Number	kCERs/yr	Number	kCERs/yr	Number	kCERs/yr	
Iran	1	463	0	0	0	0	1	463	9
Israel	19	1.823	2	589	12	1.181	33	3.592	72
Jordan	3	445	0	0	1	397	4	843	17
Qatar	0	0	0	0	1	2.500	1	2.500	50
Syria	2	149	0	0	0	0	2	149	3
United Arab Emirates	13	831	0	0	0	0	13	831	17
Middle-East	38	3.711	2	589	14	4.077	54	8.377	168
<i>TotalGlobal</i>	<i>2716</i>	<i>294.985</i>	<i>285</i>	<i>57.994</i>	<i>1236</i>	<i>232.618</i>	<i>4237</i>	<i>585.597</i>	<i>11.712</i>

CDM in Eastern Europe & Central Asia

The table below shows the cumulative number of CDM projects in all three project phases: Validation, Requesting Registration and Registered for the countries in the Eastern Europe and Central Asia. The development from 2004 to late November 2008 is shown and the percentage of the global number projects is included for each country in 2008.

Cumulative number of projects

Country	2004	2005	2006	2007	Nov 2008	
					Number	% of global
Albania	0	0	0	0	1	0,02%
Armenia	0	2	5	7	8	0,19%
Azerbaijan	0	0	0	2	3	0,07%
Cyprus	0	0	2	3	7	0,17%
Georgia	0	0	1	2	6	0,14%
Kyrgyzstan	0	0	1	1	1	0,02%
Macedonia	0	0	0	0	2	0,05%
Malta	0	0	0	1	1	0,02%
Moldova	0	3	4	5	5	0,12%
Tajikistan	0	0	1	1	1	0,02%
Uzbekistan	0	0	0	7	7	0,17%
E. Europe & C.A.	0	5	14	29	42	0,99%
<i>Total Global</i>	<i>61</i>	<i>534</i>	<i>1376</i>	<i>2809</i>	<i>4237</i>	<i>100%</i>

As for the other regions, the table below shows a snapshot of Eastern Europe and Central Asian projects in the three phases: validation, requesting registration and registered the 25th November 2008. The assumptions are similar to the other regions.

Projects under Validation, Requestion Registration and Registered

Host country	At validation		Req Registration		Registered		Total		CER Value mil \$/yr
	Number	kCERs/yr	Number	kCERs/yr	Number	kCERs/yr	Number	kCERs/yr	
Albania	1	23	0	0	0	0	1	23	0,5
Armenia	3	157	1	9	4	195	8	361	7
Azerbaijan	3	785	0	0	0	0	3	785	16
Cyprus	5	308	0	0	2	73	7	380	8
Georgia	5	623	0	0	1	73	6	695	14
Kyrgyzstan	1	73	0	0	0	0	1	73	1
Macedonia	2	83	0	0	0	0	2	83	2
Malta	1	20	0	0	0	0	1	20	0,4
Moldova	1	80	1	179	3	47	5	306	6
Tajikistan	1	51	0	0	0	0	1	51	1
Uzbekistan	7	1.287	0	0	0	0	7	1.287	26
E. Europe and C.A.	30	3.488	2	188	10	387	42	4.064	81
<i>Total Global</i>	<i>2716</i>	<i>294.985</i>	<i>285</i>	<i>57.994</i>	<i>1236</i>	<i>232.618</i>	<i>4237</i>	<i>585.597</i>	<i>11.712</i>

CDM in the Least Developing Countries

The table below shows the status of the CDM in the Least Developing Countries (LDC). For each country, the table lists the number of projects, the percent of the global number of projects, the average Kilo-CERs generated per year and the value of the annual CERs generated assuming a CER value 20 \$/CER.

Projects in LDCs

Host country	Number	% of global projects	kCERs/yr	CER Value mill \$/yr
Bangladesh	4	0,1%	235	4,7
Bhutan	3	0,1%	3.782	75,6
Cambodia	5	0,1%	496	9,9
Lao PDR	1	0,0%	3	0,1
Nepal	3	0,1%	130	2,6
<i>LDC Asia & Pacific</i>	<i>16</i>	<i>0,4%</i>	<i>4.646</i>	<i>92,9</i>
Congo DR	2	0,0%	579	11,6
Equatorial Guinea	0	0,0%	0	0,0
Ethiopia	1	0,0%	29	0,6
Madagascar	1	0,0%	49	1,0
Mali	2	0,0%	168	3,4
Mozambique	1	0,0%	46	0,9
Rwanda	1	0,0%	19	0,4
Senegal	2	0,0%	220	4,4
Swaziland	1	0,0%	64	1,3
Tanzania	3	0,1%	549	11,0
Uganda	8	0,2%	177	3,5
Zambia	1	0,0%	150	3,0
<i>LDC Africa</i>	<i>23</i>	<i>0,5%</i>	<i>2.050</i>	<i>41,0</i>
LDC Total	39	0,9%	6.696	133,9

Programmatic CDM

Programmatic CDM is an approach to develop many smaller projects as part of a larger CDM program, coordinated by a coordinating entity. The programmatic approach can be of special interest for LDCs since these countries often have potential for smaller scattered projects such as biogas for households, rural electrification etc. The table below shows the existing programmatic CDM projects with the projects in LDCs highlighted.

Programmatic CDM projects

Title	Host country	Status	Type	Sub-type	MW	ktCO ₂ /yr	Credit start	Credit buyer
Installation of Solar Home Systems in Bangladesh	Bangladesh	At Validation	Solar	Solar PV			29-jun-05	
Installation of Solar Home Systems in Bangladesh (IDCOL)	Bangladesh	At Validation	Solar	Solar PV	11,86	35	01-jan-08	CDCF
Methane capture and combustion from Animal Waste Management System (AWMS) of the 3S Program farms of the Sadia Institute	Brazil	At Validation	Biogas	Biogas flaring			08-aug-08	
BRA/SC – 678228 S02 / 3SP – AWMS/SI	Brazil	At Validation	Biogas	Biogas flaring		0,4	08-aug-08	n.a.
New Energies Commercial Solar Water Heating Programme in South Africa	South Africa	At Validation	Solar	Solar water heating			27-mar-07	
New Energies Commercial Solar Water Heating Programme in South Africa. CPA Nr 1	South Africa	At Validation	Solar	Solar water heating		1,0	01-okt-08	United K. (EcoSecurities)
CUIDEMOS Mexico (Campana De Uso Inteligente De Energia Mexico) – Smart Use of Energy Mexico	Mexico	At Validation	EE households	Efficient light bulbs			01-nov-08	
CUIDEMOS Mexico (Campana De Uso Inteligente De Energia Mexico) – Puebla	Mexico	At Validation	EE households	Efficient light bulbs		28	01-jan-09	United K. (Cool nrg Carbon Investments)
UGANDA MUNICIPAL WASTE COMPOST PROGRAMME	Uganda	At Validation	Landfill gas	Composting			31-okt-07	Italy (IBRD)
Municipal waste composting Project for Jinja Municipality	Uganda	At Validation	Landfill gas	Composting		22	01-jan-09	

UNEP CDM activities

UNEP plays an active role in the CDM area. This includes market analysis, market facilitation, research, publication of CDM guidebooks and capacity development activities in a wide range of countries. The table below lists the countries where UNEP currently supports public and private institutions in participating actively in the CDM (several new countries will be added over the coming months). Furthermore, UNEP is collaborating with China, India, Brazil and South Africa on CDM research and methodological development.

UNEP currently collaborates with following countries on CDM capacity development

Africa	Latin America	Asia
Algeria	Belize	Bangladesh
Benin	Bolivia	
Burkina Faso	Chile	
Cameroon	Ecuador	
DR Congo	El Salvador	
Ethiopia	Honduras	
Gabon	Nicaragua	
Ghana	Peru	
Kenya	Suriname	
Madagascar	Uruguay	
Mali		
Mauritius		
Mozambique		
Niger		
Senegal		
Tanzania		
Uganda		
Zambia		

Examples of CDM projects currently supported by UNEP.

UNEP is collaborating with two sisal producers in **Tanzania**, Katani Limited and Dominion Plantation, to realize a CDM project that would leverage investment into an appropriate technology that promises to deliver large environmental and local economic benefits for rural areas, including replacement of chemical fertilizers with quality organic fertilizer for farming activities. The technology involves capturing biogas from waste streams generated by sisal fibre processing (at least 1000 tons of waste per day, much of which is currently dumped) and using this gas to generate electricity for surrounding communities and workers. The project is currently receiving support for the elaboration of the PDD.

UNEP has supported the development of the Felou Regional Hydropower Project in **Mali**. The project is a 62,3 MW run-of-river hydroelectric plant constructed on the Senegal River 200 kilometers downstream of the Manantali Dam, which will deliver clean, low-cost electricity to

consumers in Mali, Mauritania and Senegal while offsetting 160 ktCO₂ per year. This sub-regional CDM project was initially supported through the Carbon Finance for Sustainable Energy Services in Africa (CF-SEA) technical assistance partnership implemented in 2005 through 2007 by UNEP and UNEP Risoe, in cooperation with the World Bank's Community Development Carbon Fund in five countries, including Mali. The project is currently at the validation stage.

UNEP is supporting the development of an onion preservation project in **Niger**. Niger has a significant onion production and is exporting to several West African countries. Since the onions are not preserved properly they decompose with the emission of methane. It is estimated that as much as 60 % of the annual onion production is lost before it reaches the market. Annually, about 5000 tons onions are produced in Niger and the onions are generally produced by many small farmers. The CDM project would therefore lead to a significant increased income from onion production for local farmers at the same time as reducing methane emission. The project developers are currently working on the development of an elaborated Project Idea Note (PIN) and subsequent a PDD with support from UNEP.

UNEP is supporting the development of a waste composting project in Accra, **Ghana**. Currently, about 65 % of the waste collected from Accra is organic which means that it is well suited for composting. The project will reduce methane emissions while eliminating the need for large landfills and at the same time generate valuable compost for local farmers. The project is currently receiving support from UNEP for the development of a Project Idea Note and PDD.

UNEP is supporting the Rural Electrification Agency (REA) in **Zambia** with the development of a programmatic CDM project for clean, hydro based electrification of rural areas in Zambia. About half the Zambian population is rural and of this, only 4 percent has access to electricity. The CDM project could therefore speed up the rural electrification at the same time as ensuring it is done using clean energy technologies. UNEP is currently supporting REA with the development of a Project Idea Note and PDD for the project along with providing general CDM support for REA.

UNEP is supporting the development of a rice husk gasification project in the Neiuw Nickerie district, **Surinam**. The project is expected to be in the size of 6-10 MW. UNEP is currently supporting the elaboration of the project idea and subsequently PDD.

UNEP is supporting the development of the Mancahuara Hdropower project in **Peru**. The project will rehabilitate a small abandoned hydropower plant in Apurimac and the installed capacity of the CDM project will be 2,5 MW. UNEP has been supporting the project developers with the elaboration of the PDD and commercialization of CERs