

## ARGENTINA

### 1 CDM investment climate index: regional comparison

*CDM investment climate index (CDM ICI), Latin America - January 2010 (excerpt)*

| Rank | Country           | CDM ICI<br>(max. 100 points) | Regional classification |
|------|-------------------|------------------------------|-------------------------|
| 1    | Chile             | 93.6                         | Very good climate       |
| 2    | Brazil            | 88.1                         | Good climate            |
| 3    | Mexico            | 87.9                         | Good climate            |
| ...  | ...               |                              |                         |
| 12   | Argentina         | 72.3                         | Satisfactory climate    |
| ...  | ...               |                              |                         |
| 28   | St. Kitts + Nevis | 12.5                         | Unsatisfactory climate  |

Source: Deutsche Investitions- und Entwicklungsgesellschaft mbH - DEG  
(For calculation method, see [www.kyoto-coaching-cologne.net](http://www.kyoto-coaching-cologne.net))

The CDM ICI measures the investment climate for CDM projects. It can range between 100 points (highest) and 0 points (lowest). Altogether, the climate is rated as satisfactory in Argentina. The less favourable assessment in comparison with the top rankings is particularly due to the general climate for private investments. The institutional environment for CDM projects, however, bears comparison with that in Chile, Brazil and Mexico.

### 2 General climate for foreign investments

| General economic statistics 2008                                      |   |
|---|---|
| Population:   | approx. 40.1 million inhabitants  |
| Nominal GDP:  | US\$ 324.8 billion  |
| Per capita GDP:   | US\$ 8,171  |
| GDP growth (real):  | +6.8% (IMF estimation for 2009: -2.5%)                                    |
| Consumer prices:  | +8.6%   |
| Goods exports:  | US\$ 70.6 billion   |
| Goods imports:  | US\$ 57.4 billion   |
| Foreign direct investments:   | US\$ 8.9 billion  |
| Foreign debt (end of 2008):   | US\$ 157.8 billion (gross)  |
| Currency reserves (end of 2008):                                      | US\$ 44.9 billion   |
| Exchange rates (as at 31 Jan. 2010):                                  | EUR 1 = ARP 5.29; US\$ 1 = ARP 3.82                                       |
| Country credit rating acc. to Institutional Investor (September 2009) | 31.1 out of 100 points (Rank 110 of 178, -12 points on previous year)     |
| Corruption Perceptions Index 2009 (Transparency International):       | 2.9 out of 10 points (Rank 106 of 180; 10 = free of perceived corruption) |

### *Locational advantages:*

Extensive natural resources, strong agro-economy, good transport routes, European culture, well-trained labour force

### *Locational disadvantages:*

Unpredictable economic policy, weak local capital market, comparatively high inflation (6-10% in recent years), bottlenecks in energy supply, inefficient and in part politically motivated judiciary

## 3 Specific climate for CDM projects

### 3.1 Ongoing and planned CDM projects in the country

In the opinion of market analysts, there are diverse opportunities for climate protection projects in Argentina, principally located in landfill gas, energy efficiency, renewable energies, farming and forestry.

As at March 2010, a mere 17 Argentine CDM projects were registered with the Executive Board (EB; responsible UN body for the international approval of CDM projects). These made up 0.8% of projects worldwide. Another 16 were undergoing validation.

Measured by CERs (Certified Emission Reductions) expected from the projects registered at EB in Latin America up to 2012, Argentina takes fourth place behind Brazil, Mexico and Chile with 4.2 million a year. The certificates already issued by March 2010 amounted to 3.6 million. According to UNEP Risø Centre together with the projects undergoing validation, the expected average annual CERs amount to 5.4 million by 2012. The expected emission reductions sum up to total 60 million CERs by 2020. Even at a conservative estimate, experts consider a threefold to fourfold increase in emission abatements to be possible in Argentina.

#### *Projects in Argentina registered by the CDM Executive Board (as at March 2010)*

| <b>Project category</b>                       | <b>Number of projects</b> | <b>Estimated annual emission reductions up to 2012 (1,000 t CO<sub>2</sub>e)</b> |
|---|---------------------------|--|
| Landfill gas extraction and use               | 9                         | 2,426  |
| Industrial gases (HFC, SF <sub>6</sub> , PFC) | 2                         | 1,475  |
| Biomass                                       | 2                         | 36   |
| Energy efficiency/cogeneration                | 1                         | 148  |
| Energy efficiency in industry                 | 1                         | 45   |
| Methane gas avoidance (waste water)           | 1                         | 44   |
| Windpower                                     | 1                         | 27   |
| <b>Total</b>                                  | <b>17</b>                 | <b>4,201</b>   |

CO<sub>2</sub>e = carbon dioxide equivalent

Source: UNFCCC, UNEP Risø Centre

Altogether 38 Project Design Documents (PDDs) for CDM projects were submitted to the Argentine Designated National Authority (DNA) by March 2010. Of these, 30 received approval from DNA. Measured in terms of emission savings, landfill gas projects account for a major part (48%), followed by industry (26%), energy efficiency (18%), renewable energies (3%)

and wastewater treatment and forestry (2% each). Experts attribute the large stake of landfill gas projects to the availability of cost-effective technology and easily verifiable additionality. A list of the projects is published on the DNA website.

The largest individual registered CDM project in Argentina to date is the reduction of HFC<sub>23</sub> emissions at the cooling gas producer Frío Industrias Argentinas. The project is scheduled for a term of 21 years and aims to save 1.4 million t CO<sub>2</sub>e a year. Since, however, the company is the only manufacturer of these products in Mercosur, no further projects of this kind are expected.

The reason why Argentina has lagged behind its CDM potential till now is according to experts the adverse climate for investment. Lack of confidence in economic policy and the institutional setup as well as a shortage of finance facilities also impair prospects for an upswing in CDM activities. The aftermath of the debt crisis in 2002 continues to make itself felt today. The latest efforts by the government to return to the international capital market by compensating assignors could bring about an improvement.

In a number of cases, high transaction costs in comparison with the small scale of the individual projects also have an adverse effect on the Argentine CDM market. Particularly in the generally promising sector of renewable energies there are problems with profitability and proof of additionality. A solution here could be to adopt the programmatic approach (programme of activities - PoA) of bundling many small measures into one programme.

Altogether 293 project ideas were registered at the state carbon fund, Fondo Argentino de Carbono (FAC, [www.ambiente.gov.ar/?idseccion=111](http://www.ambiente.gov.ar/?idseccion=111)), in December 2009. In numerical terms, the energy, waste and forestry sectors account for the bulk of these. A (slightly incomplete) list of the project ideas can be found at [www.ambiente.gov.ar/archivos/web/FAC/file/151209\\_base\\_datos\\_proyectos.pdf](http://www.ambiente.gov.ar/archivos/web/FAC/file/151209_base_datos_proyectos.pdf). One task of FAC is to help project developers in identifying and planning CDM projects and place projects with investors via calls to tender. At the moment, in contrast to its promising title, the fund can hardly draw on any financial resources of its own.

*Project ideas submitted to the Fondo Argentino de Carbono (as at December 2009)*

| Sector           | Number of projects | Estimated annual emission reductions (1,000 t CO <sub>2</sub> e) | Required investments (in US\$ millions) |
|------------------|--------------------|--|---|
| Energy           | 107                | 2,539  | 2,442                                   |
| Waste management | 56                 | 2,185  | 118                                     |
| Forestry         | 46                 | 1,477  | 137                                     |
| Biofuels         | 18                 | 111  | 30                                      |
| Farming          | 14                 | 6  | 2                                       |
| Industry         | 10                 | 66   | 4                                       |
| Transport        | 9                  | No figures   | No figures                              |
| Unspecified      | 33                 | No figures   | No figures                              |
| Total            | 293                | 6,384  | 2,733                                   |

*Source: Fondo Argentino de Carbono based on information from project initiators*

As the voluntary market is not regulated, it is difficult to ascertain its growth and size. It is, however, regarded as interesting, partly because transaction costs are lower. A local consultant sees particularly good prospects for voluntary projects in forestry.

The main CER buyers come from countries with which Argentina has concluded partnership agreements (see 3.5). International CO<sub>2</sub> consultants such as EcoSecurities and MGM International also purchase emission certificates. The World Bank has also long been engaged in Argentina. For the first time, the Latin American development bank, Corporación Andina de Fomento (CAF), signed a purchase contract in Argentina in December 2009 for CERs from the CDM project at the thermal power station Central Térmica Patagonia. The Carbon Fund of the Kreditanstalt für Wiederaufbau (KfW) was also involved in the purchase. KfW agreed on cooperation with CAF in CDM in Latin America in mid-2009.

### 3.2 Mode of operation of Designated National Authority (DNA)

Argentina ratified the UN Framework Convention on Climate Change and the Kyoto Protocol at an early stage. The Secretary for the Environment and Sustainable Development (Secretaría de Ambiente y Desarrollo Sustentable - SAyDS, [www.ambiente.gov.ar](http://www.ambiente.gov.ar)) is responsible for implementing the laws. Appointed as DNA is the Clean Development Mechanism Office (Oficina Argentina del Mecanismo para un Desarrollo Limpio - OAMDL), which is located at the Directorate for Climate Change (Dirección de Cambio Climático) in SAyDS.

OAMDL consists of a permanent secretariat (Secretaría Permanente - SP), an advisory board (Comité Asesor), including representatives of private enterprises, NGOs and scientists, as well as an executive committee (Comité Ejecutivo - CE). The CE is chaired by SAyDS and is made up of representatives of another six government agencies.

The national approval procedure for CDM projects was regulated by Resolution 825/2004 and is described in Spanish at [www.ambiente.gov.ar/?IdArticulo=1765](http://www.ambiente.gov.ar/?IdArticulo=1765). The project developer must submit the PDD to the SP together with other declarations and documents, such as an explanation of the project contribution to sustainable development. The PDD does not yet need to be validated by a designated operational entity (DOE) at this point. Within 20 days, the SP appraises whether the project and the documents meet CDM requirements and whether it is in line with the national priorities for environmental protection and sustainable development. The SP also conveys the PDD to the responsible authority in the province where the project is located and publishes it on the Internet. It then presents an assessment to the CE together with the PDD.

Depending on the complexity of the project, the CE decides whether an external evaluation institution registered at OAMDL should be engaged to conduct the technical project assessment. The project developer must bear the costs. Within 20 days, the CE gives a recommendation for approval or rejection of the project to SAyDS. Where the application has been successful, this then issues a letter of approval (LoA).

In the estimate of specialists, it takes about four months for the procedure up to project approval by DNA. They recommend notifying DNA early about the project objective. A consultant engaged in the region says that procedure in Argentina is not more cumbersome than in Brazil but "a little less speedy than in Chile".

A detailed description of the procedure and other information on the Argentine CDM market are available in German in the free publication issued by the German-Argentine Chamber of Industry and Commerce "Klimaschutz in Argentinien und Brasilien - Marktpotentiale und Ratgeber für CDM-Projekte" ([www.ahkbrasil.com/argentina/desc\\_publicacao.asp?id=178](http://www.ahkbrasil.com/argentina/desc_publicacao.asp?id=178)).

### 3.3 Local consultants, validators and verifiers

According to an FAC list, there are as many as over three dozen national and foreign consulting firms on the small Argentine CDM market. The leading consultants locally are the international companies EcoSecurities, MGM International and PricewaterhouseCoopers. Also engaged are CantorCO2e, Asja Ambiente Italia and Mitsubishi UFJ. Numerous advisers deal with Argentina from foreign locations, mostly from Chile or Brazil. A leading national consultant is Ecoayres, which belongs to the waste disposal company Cliba and specialises in projects for landfill gas. Another local consultant is Dinámica del Proceso, which cooperates with Natsource (USA) and concentrates in particular on solid-waste and forestry CDM projects.

The Argentine Association of Regional Consortiums for Agricultural Experimentation (Asociación Argentina de Consorcios Regionales de Experimentación Agrícola - Aacrea) provides advice on CDM projects in farming ([www.crea.org.ar](http://www.crea.org.ar)). Aacrea works in particular with the Argentine authorities in preparing PoAs.

Det Norske Veritas, SGS and TÜV South have been the leading DOEs in Argentina till now. TÜV Rheinland and TÜV North from Germany are also engaged on the market.

The costs for developing a CDM project up to approval by DNA are estimated by a local consultant at between US\$ 50,000 and US\$ 100,000, depending on the type of project. An agreement can also be made for the consultant to share in the proceeds from the sale of CERs. According to the Buenos Aires Stock Exchange (BCBA), the following, variable costs can be incurred, depending on the size and complexity of the project: for the PDD US\$ 15,000 to US\$ 80,000 plus performance bonus for CERs and US\$ 13,000 to US\$ 35,000 for validation. Added to this are costs for monitoring, registration at EB, additional international taxes and possible brokerage fees for the sale of CERs. The local authorities do not levy any charges for approval.

### 3.4 Local legal requirements and taxation aspects

There are no special legal provisions for CDM projects. Tax treatment is regulated under general fiscal law. The most important taxes are the tax on business profits (35%), sales tax, which differs by province (ingresos brutos, as a rule 3 to 4%) and stamp duty (around 1%). The application of value added tax (IVA, 21%) is controversial. Although CERs should be VAT-exempt if they are sold as service exports abroad, this has not been conclusively settled. Caution is also needed when importing financial capital, which under certain circumstances can be subject to a compulsory cash deposit of 30%. Precise information should be obtained in advance from the relevant bank about this.

### 3.5 CDM partnership agreements

Argentina concluded partnership agreements (Memoranda of Understanding - MoU) with the following countries under the Kyoto agreements at the end of 2004: Denmark, Austria, Spain, Italy, Netherlands, Canada, Portugal and France. The Japanese development agency, JICA, maintains particularly close cooperation with Argentine CDM institutions. The German-Argentine Chamber of Industry and Commerce has also launched and carried out a number of initiatives and events on CDM in Argentina.

### 3.6 Opportunities for CDM projects in the energy sector

The prices of energy in Argentina are well under the usual international level, because the government has only allowed the largely privatised energy utilities to partially adjust rates since the sharp devaluation of the peso in 2002. Since these consequently made few investments, repeated bottlenecks in energy supply have occurred in recent years. The decline in energy demand due to the recession in 2009 together with increased public investments has recently resulted in improved supply. There is still, however, a considerable backlog in rates adjustments and investments in power generation. For commercial users, electricity and gas prices have already risen considerably over the last two years. Private households will also have to pay more in future, so that investments in power generation and higher energy efficiency ought to be worthwhile again.

#### Energy and environmental data

|  | Argentina                 | Latin America | OECD  |
|--|---------------------------|---------------|-------|
| Primary energy supply (Mtoe, 2008) <sup>1)</sup>                                     | 74.7                      |               |       |
| of which from renewable energy sources   | approx. 11% <sup>2)</sup> |               |       |
| Electricity consumption (TWh 2007)   | 104.99                    |               |       |
| of which from renewable energy sources   | approx. 30% <sup>3)</sup> |               |       |
| CO <sub>2</sub> emissions from fuel combustion (Mt, 2007)                            | 162.57                    |               |       |
| Electricity consumption/capita (kWh/capita, 2007)                                    | 2,658                     | 1,838         | 8,477 |
| CO <sub>2</sub> /Primary energy supply (t of CO <sub>2</sub> /toe, 2007)             | 2.22                      | 1.85          | 2.37  |
| CO <sub>2</sub> per capita (t of CO <sub>2</sub> per capita 2003)                    | 4.12                      | 2.21          | 10.97 |
| CO <sub>2</sub> /GDP (kg of CO <sub>2</sub> /US\$, purchase power parity 2000; 2007) | 0.28                      | 0.27          | 0.40  |

1) Commercially traded energy; 2) Primarily large-scale hydropower; 3) Renewable energies without large-scale hydropower amount to less than 1%

Sources: IEA, BP Statistical Review

Expert opinion assesses the conditions for renewable energy as very good. Particularly for bioenergy use, there are promising opportunities in agribusiness, forestry and timber, livestock breeding, landfills and wastewater. The natural conditions in some provinces are also excellent for windpower, solar energy and small hydropower stations. The potential has, however, hardly been harnessed at all till now. With Decree 562/2009 in May 2009, the government therefore issued the implementing regulations on Law no. 26.190 for the promotion of renewable sources already promulgated at the end of 2006. The aim is to increase the share of renewables in power supply from currently 1% to 8% (without large-scale hydropower stations) by 2016.

Besides tax privileges, the law also provides for feed-in compensation (photovoltaics: ARP 0.9 per kWh, all others: ARP 0.015 per kWh) for 15 years, to be paid in addition to the regular price of electricity. In the view of market experts, the larger assistance for photovoltaics takes into account the higher investment costs for this technology. Till now, no use has been made of feed-in compensation, however, because it does not offer enough incentives due to the heavily subsidised electricity prices.

The call to tender in 2009 by the state energy company Enarsa for altogether 1,015 MW capacity from renewable energy under the title Genren has, however, given an impetus to the renewables sector. By mid-December 2009, projects had been submitted for a total capacity of 1,460 MW. Accounting for the major portion was windpower (1,203 MW), followed by biofuels (155 MW), biomass (54 MW), solar energy (23 MW), small hydropower (13 MW) and biogas (14 MW). Compensation varies depending on the prices tendered by the contract bidders and is granted for 15 years. The exact rates are not yet known, but they ought to be generally above the government feed-in subsidies.

There is also scope for emission reductions in energy-efficient power generation. With its thermal power station, Central Térmica Patagonia, the enterprise Energías del Sur succeeded for the first time worldwide in registering the conversion of a gas power station to a combined-cycle power station as a CDM project.

### 3.7 Local finance facilities for CDM projects

The Buenos Aires Stock Exchange (BCBA - [www.bcba.sba.com.ar/carbono](http://www.bcba.sba.com.ar/carbono)) supports the development of local CDM projects and also aims at providing a local platform for trade in CERs. According to its own information, BCBA maintains a database with information on potential CDM investors (contact: Irene Wasilevsk, email: [Iwasilevsky@bcba.sba.com.ar](mailto:Iwasilevsky@bcba.sba.com.ar)).

Local financial institutions are reportedly planning to set up a fund (Fondos Comunes de Inversión) for investments in CDM projects.

The Deutsche Investitions - und Entwicklungsgesellschaft mbH (DEG) has been engaged for decades in long-term investment finance for private enterprises in Argentina. Finance is offered as loans on market terms and conditions. Through its climate protection network, Kyoto Coaching Cologne (KCC), DEG can also draw on know-how and partners to provide support in CDM registration procedure. Moreover, it can cofinance certain project activities with special developmental impacts under the PPP Programme of the Federal Ministry for Economic Cooperation and Development (BMZ) with up to EUR 200,000.

## 4 Recap

Though relatively underdeveloped till now, the CDM market in Argentina has considerable potential, principally in landfill gas, energy efficiency, renewable energies, farming and forestry. Compared with anticipated CO<sub>2</sub> abatements up to 2020 of about 60 million CO<sub>2</sub>e from CDM projects that are already registered or in the process of registration at EB, a threefold to fourfold increase is feasible even at a conservative estimate.

To better harness the scope for CDM, a lasting improvement in the macroeconomic investment climate would be helpful. Recent government efforts to reach a compromise with the assignors, who have not been serviced since 2002, could mark an important step in this direction. Aligning prices more closely with market conditions in the energy industry should make investments in power generation and increased energy efficiency more attractive in future. To make smaller projects more profitable, the programmatic approach (PoA) could be adopted. The operations of the local CDM authority merit a favourable assessment.

## 5 Advice/Service

### **DNA/Oficina Argentina del Mecanismo para un Desarrollo Limpio (OAMDL);**

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