

## VL URUGUAY

### INSTITUTIONAL STRENGTHENING AND ENABLING ACTIVITIES TO COMPLY WITH THE UN FRAMEWORK CONVENTION ON CLIMATE CHANGE

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#### PROJECT DESCRIPTION

##### General Objective:

To strengthen the technical and institutional capacities of the Ministry of Housing, Territorial Regulation and Environment (MVOTMA) to enable the Government to comply with its obligations under the U.N. Framework Convention on Climate Change.

GEF Focal Area:	Climate Change
Country Eligibility:	<input checked="" type="checkbox"/> Eligible under financial mechanisms for JCCS/CBD
	<input type="checkbox"/> Eligible under paragraph 9(b) of the Instrument.
Total Costs:	US\$ 980,000
GEF Funding:	US\$ 700,000
Implementing Agency:	UNDP
Executing Agency:	Ministry of Housing, Territorial Regulation and Environment
Tentative Approval Date:	April 1995
Project Duration:	3 years

##### Specific Objectives:

1. Institutional strengthening of the National Environment Directorate (MVOTMA), Climate Changes sector, to enable the Government:
  - a) To suitably fulfil the commitments acquired under the U.N. Framework Convention on Climate Change.
  - b) To identify, formulate, and execute programmes and projects aimed at applying specialized technologies and knowledge regarding the reduction of Greenhouse Gas (GHG) emissions and the increase in carbon sequestration.

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2. Enhancement of awareness and knowledge of the causes and consequences of climate change, in both government and civil society, by:
- a) Broadening and increasing the scientific and technical knowledge base concerning climate change throughout government and civil society.
  - b) Developing a greater and broader awareness, at a general level, with respect to climate change, its impact, and possible mitigation and adaptation actions.

## STRATEGY

This proposal forms part of a two-phase project aimed at effectively reducing emissions of GHG in Uruguay. This technical assistance project - the first phase - will provide the information and establish the technical capacity to support the development and execution of investment activities - the second phase - targeted at reducing overall greenhouse gas emissions. The national government, in designing this approach, has collaborated closely with UNDP and the World Bank to ensure that this project's outputs provide the basis for timely identification of potential investment projects and their development and promotion with MDBs, the GEF (through the World Bank) or other funding entities.

## JUSTIFICATION

As a Party to the UNFCCC (ratification 08/18/94) the government of Uruguay has demonstrated its formal commitment to compliance with the provisions of the Convention. As part of this commitment, the Government of Uruguay will establish a Climate Change Unit within the Division for Global and Regional Affairs of the National Environment Directorate of MVOTMA which will be charged with ensuring Uruguay's fulfilment of its obligations under the UNFCCC. The project proposed here will receive significant in kind support (approx 22% of total project cost) by the Government of Uruguay.

This project is consistent with the enabling activity and capacity building objectives listed in INC Document (A/AC.237/90/Add.3)), prepared jointly by the interim secretariat of the UNFCCC and the GEF Secretariat to facilitate coordinated and timely assistance to countries for the implementation of the Convention. This project responds to such objectives by implementing an activity needed to enable Uruguay to fulfil its commitments under the Convention.

## BACKGROUND

### **Institutional Framework:**

MVOTMA was created by Law 16,112 on 8 June, 1990. Among other things, it is legally competent to formulate, execute and evaluate national plans and programmes for the protection of the environment as

well as to implement the relevant national policies, and to coordinate the execution of projects with other public agencies, be they national or departmental. It is likewise empowered to enter into Agreements with either public or private organizations, both national and foreign.

The National Environment Directorate (DINAMA) is charged with planning, programming, supervising and implementing the nation's environmental policies; coordinating actions with other public or private agencies in the execution of its duties, and establishing standards and monitoring environmental quality.

The Global and Regional Affairs Division (DAGR) of DINAMA, is responsible for planning, organizing, managing and executing projects and programmes in the framework of the application of the global and regional conventions and protocols to which Uruguay is a party.

The National Commission on Global Change was established by Executive Decree in May 1992. It is formed by 7 Ministries and the Universidad de la República, and is in charge of the coordination of activities and research in the field of Global Change. DINAMA houses the Commission's Secretariat.

#### **Activities carried out in this Sector:**

DINAMA's DAGR, with bilateral and multilateral assistance, is carrying out programmes in the framework of the Montreal Protocol aimed at reducing concentrations of ozone depleting substances: Country Programme, Halons Bank, Technical Adaptation Projects for the Industrial and Commercial Sectors.

The National Commission for Global Change expects the approval of a project to evaluate the impacts of Climate Change on Uruguay, to be executed with the assistance of the U.S. Country Study Programme. This project focuses its studies on the potential impacts of sea level rise on coastal areas as well as climate change on the agricultural sector.

Uruguay is currently awaiting approval of a project supported under the US Country Studies Program to assess impacts of climate change; the proposal presented here has been formulated taking into account the CSP study to avoid duplication of efforts and to achieve complementarity of purpose. Consultations with the US Country Studies Programme and analysis of the CSP document for Uruguay indicate that there will be no significant overlap in institutional strengthening activities.

## **PROJECT DESCRIPTION**

### **Institutional Strengthening**

The objective of this component is the establishment and operation of the **Climate Change Unit** within the DAGR. The CCU will implement the following activities:

- To prepare, update, publish and communicate the National GHG Inventory.
- To obtain available international information on technologies, practices and processes for the reduction of GHG emissions, and to disseminate information on them among the relevant local sectors.

- To identify, formulate, and implement projects, in coordination with the relevant local agencies, with the assistance of international agencies concerning the technical options for the reduction of GHG emissions.
- To act as liaison for communication purposes and for the exchange of information between the Permanent Secretariat of the Convention and the national government.
- To develop relationships with the international agencies in charge of the implementation of the Convention and with other technical intergovernmental organizations linked to it, in order to gather, compile and update information in the field of climate change.
- To disseminate and promote, in coordination with all the other relevant sectors (energy, transportation, industry, agriculture, forestry and waste management) the application of technologies adopted at a national level for the monitoring, reduction and prevention of GHG emissions.
- To promote and support training and sensitization of the public concerning climate change, via the organization of campaigns and mass dissemination events in coordination with the corresponding public and private agencies.
- To make the relevant communications, as requested by the Conference of the Parties or the Secretariat of the Convention, with regard to the measures adopted or foreseen in order to apply the U.N. Climate Change Framework Convention.
- To prepare the National Report to be submitted to the Conference of Parties to the Convention.

### **National GHG Inventory**

Uruguay has a territory of about 187,000 km<sup>2</sup> and a population of little more than 3,000,000 inhabitants.

Approximately 85% of the surface area is used for farming and 8.5% is land under cultivation. More than 80% of the livestock is raised on natural grasslands. Although in the 50's and 60's oil was the primary source of energy, the development of hydroelectric capacity has grown considerably.

Recently, the end use consumption of energy was estimated at 2,100 Ktep (oil equivalent kilotons). This includes the consumption of oil derivatives, biomass waste burning, mineral coal, coal derivatives and electricity.

It has likewise been estimated, in a first attempt, that Uruguay emits slightly more than 6 million tons of carbon dioxide (CO<sub>2</sub>) a year, as a result of energy consumption, without considering other sources of emissions, the values of which are unknown: changes in land use, methane from rice crops, enteric fermentation and animal depositions, garbage dumps and other wastes, industrial processes emissions, etc.

## **Status of Information regarding the Inventory**

**Energy Sector:** Basic information is available concerning CO<sub>2</sub> emissions, through the National Energy Balance Sheet provided by the Ministry of Industry, Energy and Mining (MIEM). Nevertheless, detailed information is required with respect to GHG emissions as broken down by sectors.

In the case of methane and other gases produced by traditional biomass fuels, the necessary complementary information on volumes and types will be coordinated with the Ministry of Livestock, Agriculture and Fisheries (MGAP), the MIEM and the National Statistics Institute.

**Industrial Sector:** Information is required for the principal activity - the production of portland cement - concerning the output of the existing plants, one of which is private and the remainder belonging to the National Administration of Fuel, Alcohol and Portland Cement (ANCAP).

**Solvents Sector:** Since no methodology exists for the quantification of gas emissions in this sector, no action has been foreseen.

**Agriculture, Forestry and Land Use Changes:** With regard to livestock raising and manure treatment, rice crops, the burning of agricultural residue, grassland conversion, abandonment of cultivated land and managed forests, information collection will be coordinated with different departments and divisions of the MGAP. Grasslands are not burned in Uruguay.

**Waste Treatment Sector:** Information is necessary as to volume and disposal of solid wastes with data to be provided by the Departmental Governments.

Data regarding municipal sewage and industrial waste water must be gathered. For this purpose, information for the municipal sector must be collected via Departmental Governments, and for the private sector with the support of the Environmental Quality Directorate of the Environmental National Directorate (DINAMA).

Although the use of IPCC methodology in preparing this Inventory is foreseen, there is no experience available nationally concerning its use.

Likewise, plans exist for the structuring, implementation and operation of an Information Management System to meet the needs of this activity. This System will cover the organization, obtention, evaluation and monitoring of data and information and the manner in which said information will be processed and presented for future use.

## **Training and Identification of Priority Areas**

The following training activities have been envisaged as important components of the Project:

- Training of staff of the Climate Change Unit, to implement and operate an Information Management System for the GHG Inventory. This training must cover the following aspects: organization, obtention of data and reports, evaluation, quality control and processing of the information and preparation of the Inventory.

- Holding a national Workshop in order to promote, and provide information and training on, the GHG Inventory. The Workshop should include, at its core, the methodology adopted for the drafting of the Inventory and the development of a coordinated data and report collection system as required for its preparation. This event will involve the staff of the Climate Change Unit and that of the competent agencies in the different sectors covered by the Inventory (central and departmental governments).
- Carrying out training and priority area identification activities on technological alternatives for the energy, industry and waste treatment sectors.
- Holding a Workshop on methodologies to estimate cost-benefit of projects on emission reduction and GHG absorption increase, as well as for the calculation of their incremental costs. This Workshop will be aimed at decision makers and national technicians in positions of responsibility involved in the implementation of the identified projects, and will be attended by representatives of bilateral and multilateral funding bodies.

#### **Information Dissemination and Sensitization of the Public**

A Dissemination and Public Sensitization Programme will be developed to inform the different sectors of society about climate change, its causes and effects and the contribution of different economic activities to its growth and evolution. It is likewise envisaged that technical information will be disseminated among the specific sectors, with the purpose of producing an awareness of the problem and its impact, and with regard to the adoption of mitigation or adaptation measures. In this regard, the project will develop a deliberate campaign of systematic information dissemination involving a range of media.

The following actions are envisaged: development of a media strategy, preparation of material for dissemination of information (booklets, technical newsletters), development of media campaigns, organization of non-formal educational seminars with the participation of NGO's aimed at groups of educators and social communicators, as well as participation in informative events at the different education levels.

#### **Implementation Arrangements**

The project will be executed by the Ministry of Housing, Territorial Regulation and Environment through its National Environment Directorate. Project activities will be implemented under the coordination of the Climate Change Unit under the guidance of the National Commission on Global Change. Representatives of UNDP, the World Bank and the U.S. Country Studies Programme will be invited attend the meetings of the Commission regarding the implementation of this project.

#### **Description of Inputs and Budget:**

##### **a) Assistance requested from GEF:**

As the activities described in this proposal would not have been undertaken by Uruguay to address its developmental goals but rather are required by the UNFCCC to which Uruguay is a party, the baseline

does not involve any action or expenditure. The incremental costs for this project, in consequence, are the full project costs.

**1) Institutional Strengthening: Operation of the Climate Change Unit.**

Assistance is requested to ensure effective operation of the above Unit for a term of 3 years. This will involve supporting the Unit with 2 technicians and an engineer's assistant.

**Cost Description:**

1.a) Human Resources (Climate Change Unit):	US\$ 190,000
1.b) Computer equipment, fax and modem:	US\$ 15,000
1.c) Operational expenses (mail, photocopies, electronic mail):	US\$ 30,000
<b>Subtotal:</b>	<b>US\$ 235,000</b>

**2) National GHG Inventory:** The Inventory will be carried out by the Climate Change Unit of MVOTMA previously trained by international experts on data collection, management and processing. This task will be performed in coordination with different national agencies and with the assistance of local specialists on specific subjects. A portion of the costs to be incurred in this activity have been considered under the previous item "Institutional Strengthening."

**Cost description:**

2.a) International experts:	US\$ 70,000
2.b) Local specialists and technical services:	US\$ 40,000
2.c) Travel:	US\$ 13,000
2.d) Specific information material:	US\$ 12,000
<b>Subtotal:</b>	<b>US\$ 135,000</b>

**3) Training and Priority Area Identification:** This includes activities to be carried out by international experts aimed at building the capacities of the officials in the different agencies that contribute information to the GHG Inventory and other activities. Likewise, specific workshops and visits will be made to identify priority areas on technological alternatives for the energy, industry and waste treatment sectors, and others covering the concepts regarding cost-benefit and incremental costs for decision makers in the different sectors of national activity.

**Cost Description:**

3.a)	International experts for training and priority area identification:	US\$ 160,000
3.b)	Material and logistics:	US\$ 24,000
3.c)	Travel:	US\$ 6,000
	<b>Subtotal:</b>	<b>US\$ 190,000</b>

**4) Information Dissemination and Public Sensitization:**

This activity involves undertaking an information dissemination and public sensitization campaign regarding climate change, organized by educational institutions and NGOs. In the second place, another approach would be the distribution of technical material among the different sectors of national activity that contribute to the development of the phenomenon.

**Cost Description:**

4.a)	Local expert for the preparation of the information material:	US\$ 12,000
4.b)	Booklet design and printing for mass information dissemination:	US\$ 22,000
4.c)	Newsletter design and printing containing specialized technical information:	US\$ 28,000
4.d)	Organization, promotion and conduction of media campaign	US\$ 40,000
	<b>Subtotal:</b>	<b>US\$ 102,000</b>

**5) Miscellaneous:**

5.a)	Administration costs	US\$ 20,000
5.b)	Miscellaneous:	US\$ 18,000
	<b>Subtotal:</b>	<b>US\$ 38,000</b>

**Total Requested from GEF: US\$ 700,000**

**B) Contribution in Kind by the Government of Uruguay:**

**1) Institutional Strengthening:**

1.a) Salaries:	US\$ 85,000
1.b) Stationery and press:	US\$ 10,000
1.c) Communications, telephones, FAX:	US\$ 9,000
1.d) Services:	US\$ 6,000
1.e) Maintenance, cleaning:	US\$ 10,000
1.f) Transportation, insurance:	US\$ 30,000
1.g) Premises:	US\$ 15,000
1.h) Furniture and office equipment:	US\$ 60,000
<b>Subtotal</b>	<b>US\$ 225,000</b>

**2) National GHG Inventory:**

Most of the contributions for this component have been included under institutional strengthening.

2.a) Hiring of experts and local services (design, mapping, drawing, etc.):	US\$ 15,000
<b>Subtotal</b>	<b>US\$ 15,000</b>

**3) Training and Area Identification:**

3.a) Stationery, and press conferences:	US\$ 6,000
<b>Subtotal</b>	<b>US\$ 6,000</b>

**4) Information Dissemination and Public Sensitization:**

4.a) Stationery, and press conferences:	US\$ 22,000
4.b) Transportation:	US\$ 6,000
4.c) Communications (Fax, telephone):	US\$ 6,000
<b>Subtotal</b>	<b>US\$ 34,000</b>

**Total Provided by the Government** **US\$ 280,000**

## BUDGET TABLE

Note: The values shown in the table are in thousands of US dollars.

The heading of each column is that of the number of the relevant component, either requested as foreign aid (GEF) or contributed by the Government of Uruguay (Gov):

1. Institutional strengthening
2. National GHG Inventory
3. Training and Area Identification
4. Information Dissemination and Public Sensitization

Item 5 (Miscellaneous) is presented outside the chart.

ITEM	1 GEF	1 Gov	2 GEF	2 Gov	3 GEF	3 Gov	4 GEF	4 Gov
CC Unit Technicians	175	85	40	-	-	-	-	-
Equipment	15	79	-	-	-	-	-	-
Inputs	30	31	12	-	24	6	90	28
Travel	-	30	13	-	6	-	-	6
Int'l Consultants	15	-	70	-	160	-	-	-
Local Consultants	-	-	-	15	-	-	12	-
Subtotal	235	225	135	15	190	6	102	34

### *Total Budget Requested from GEF:*

<i>Subtotal:</i>	<i>US\$ 662,000</i>
<i>Miscellaneous:</i>	<i>US\$ 38,000</i>
<b><i>TOTAL:</i></b>	<b><i>US\$ 700,000</i></b>

### Contribution in Kind by the Government of Uruguay:

<b>Total:</b>	<b>US\$ 280,000</b>
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## TECHNICAL OPINION

### URUGUAY

#### INSTITUTIONAL STRENGTHENING AND ENABLING ACTIVITIES TO COMPLY WITH THE UN FRAMEWORK CONVENTION ON CLIMATE CHANGE

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According to the *Background* section of the proposal, Uruguay has created a Global and Regional Affairs Division (DAGR) within the National Environmental Directorate (DINAMA) of the Ministry of Housing, Territorial Regulation and Environment (MVOTMA). Moreover a National Commission on Global Change was set up in 1992. This includes representatives of seven Ministries and the National University.

While an institutional structure exists, the proposal suggests that little has been accomplished so far in the Climate Change area. The US Country Study Program has been approved but apparently not initiated, and will evaluate the impacts of climate change in Uruguay, specifically with respect to sea level change and climate change in the agricultural sector.

Thus the proposed project for institutional strengthening in implementing the requirements for the Framework Convention on Climate Change (FCCC) is to be carried out simultaneously with another project with strong institutional strengthening components. The two projects could potentially strengthen Uruguay's capabilities in the area of climate change analysis, adaptation, and mitigation [*consultations with the US Country Studies Programme and analysis of the CSP document for Uruguay indicate that there will be no significant overlap in institutional strengthening activities*].

However, the simultaneity of the two projects and the absence of any declared national commitment in climate change points to the risk that upon project termination there may not be continuity [The government of Uruguay ratified the UNFCCC earlier this year, has proposed the creation of a Climate Change Unit within the Division of Global and Regional Affairs of the MVOTMA, is currently awaiting approval of a project under the US Country Studies Program, and will support the proposed GEF project at approximately US\$ 200,000 in kind]. For instance, this proposal requests support for two technical staff and one engineering assistant for three years with a total remuneration of US\$ 180,000, compared to the national in-kind counterpart staff commitment of US\$ 85,000 (see description and budget pages of the institutional strengthening component "fortalecimiento institucional"). The only significant continuity that may be expected would be in the implementation of greenhouse gas emissions reduction programs. Financing for such programs will form the basis of a "second phase" request to the World Bank, building on the "first phase" activities in this proposal.

While institutional continuity may be a concern, technical and financial assistance are essential for Uruguay to fulfill its obligations under Articles 4 and 12 of the FCCC. The proposal is well formulated with regard to meeting these obligations, specifically in creating a national inventory of sources and sinks of GHGs and formulating policy options to favorably alter these sources and sinks. One important task, creating baseline projections of emission trends — essential for modelling climate change — is not specifically mentioned.

Institutional strengthening is the overall objective and the proposal includes most of the expenses for the national staff and expenses in this category.

The two main objectives – preparing a national inventory and identification of priority areas – both involve training and capacity building (principally with the assistance of international experts) as well as the preparation of the results. It is the reviewer's opinion that the budget is likely to be insufficient for task 2 (preparation of inventory).

While estimating TOTAL greenhouse gas emissions from the combustion of fossil fuels is straightforward, if not trivial, obtaining the emissions at the level of energy sector and end use – essential for developing any emissions reduction strategy – is extremely time consuming, mainly in the form of estimating energy use broken down by end use. Estimating GHG emissions from land-use changes would require extensive data analysis, e.g. interpretation of satellite image data, or land survey data. While other countries have conducted emissions estimates, and the methodologies are available, the actual work involved in the analysis should not be underestimated. The expenses associated with this task appear to be insufficient, and should be increased to around \$220,000 over the three year period, e.g. 80,000 additional for staff or national analysts (e.g. at the university) and 30,000 additional for data collection expenses.

By contrast, task 3 (training and identification of priority areas) appears to be over budgeted. There is now significant experience internationally in developing strategies for reducing GHG emissions or increasing sinks, and the accumulated experience, both from industrialized countries and more advanced developing countries, could be transferred to Uruguay at far lower cost than indicated in this proposal. This reviewer would suggest reducing the international experts component to US\$ 50,000.

The proposal lacks information on the duration and sequence of the tasks. Clearly the sequence is important. Tasks 2 and 3 can start at the same time and continue throughout project duration. It is important, however, that task 4 is delayed until tasks 2 and 3 are sufficiently advanced. The reason is simple: there should be significant national expertise AND national level data on inventories and mitigation strategies, quantifying costs and benefits, before engaging in a significant information campaign and public debate. The involvement of national professionals, especially at the University of the Republic, though not specifically mentioned in the proposal, should be initiated early and continue throughout the project. Such involvement will also help to maintain continuity of the technical capability sought to be developed through this proposal.

In summary, this reviewer observes that Uruguay appears to be at the initial stages of developing capability in climate change, and while there is some risk of lack of continuity beyond the project period, financial support appears to be essential for fulfilling FCCC commitments. The proposal is well formulated, and if the emphasis is shifted between tasks 2 and 3 as suggested here, the proposal deserves support.