

Secretary of the Environment and
General Direction of Environmental Health
Ministry of Public Health and Social Welfare
Republic of Paraguay

Fig. 1

Monitoring and Improvement of Water Quality in the Ypacaraí Lake and Paraguay River Basin

Final Report

May 2007

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JAPAN INTERNATIONAL COOPERATION AGENCY

JUAN FRANCISCO FACETTI

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General Direction of Environmental Health
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in the Ypacarai Lake and
Paraguay River Basin**

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SUMMARY OF PROJECT FINAL EVALUATION

Date: 15/March/2007

JICA Paraguay Office

1. Outline of the Project		
Country : Republic of Paraguay		Project Name : Monitoring and Improvement of Water Quality in the Ypacarai Lake and Paraguay River Basin
Issue/Sector : Environmental preservation and sustainable development of natural resources		Cooperation Scheme : Technical Cooperation
Division in Charge : JICA Paraguay Office		Total cost : 34.500.000 japanese yen
Cooperation period	10/December/2003 - 9/December/2006	Implementation Organization : Secretary of the Environment (SEAM), and General Direction of Environmental Health (DIGESA) in Ministry of Public Health and Social Welfare
		Supporting Organization in Japan : none

1-1 Project Context and Summary

Since the execution of the "Study on the Basin of the Ypacarai Lake and Pollution Control Plan" in the year 1983, JICA has been executing several technical assistances related to the control of water quality and its improvement.

The monitoring and Improvement of water quality of the Ypacarai Lake and Paraguay River is a Technical Cooperation Project, with SEAM and DIGESA, from the Ministry of Public Health and Social Welfare as counterpart institutions, with a period of three years from December, 2003, and is composed mainly by sending third country Nikkei experts from Brazil. The main issues were the "Strengthening the administration of quality norms

and environmental conservation" and the "Environmental Monitoring of the Paraguay River basin and the Ypacarai Lake".

As a result of three years of cooperation, legislation related to the protection of water quality in accordance with a categorization of the rivers and streams in Paraguay has been established. On the other side, water in the Paraguay river basin has been monitored, being the most important water source, used by over one million citizens as drinkable water. With regards to the monitoring of water quality, with 26 points of study, seven water quality analyses were performed, as well as the study on the variation in quality of water in the different seasons of the year.

During the three years of project execution. 12 counterparts were trained at the investigation institutes in Brazil, and have learned modern technologies related to environmental management and water quality control. Also, and besides the principal consultant, three water quality experts and one water management and regulation expert have performed missions to support SEAM, DIGESA and the National Environmental System.

1-2 Project Overviews

(1) Overall Goal

Strengthening the control activities and the environmental policy for the water resources

(2) Project Objectives

- a) Establishment of the norms for the freshwater quality and the strengthening the policy for preservation of water resources
- b) Environmental survey of the basin of the Ypacarai Lake and the Paraguay River

(3) Results

- a. Participative definition of necessary countermeasures for the environmental preservation
- b. Increased interest of the population in environmental preservation
- c. Definition of present situation of the water quality of the Paraguay River basin

d. Guidelines for the integral use of water resources provided to national authorities

e. Local capacities to determine in future the pollution of the Pantanal basin, establishing the comparative data for the management and control of the water quality of the Paraguay River

f. Increase and implementation of the measures of control and remediation of the Ypacarai lake and research in relation to the use of the water for drinkable water

(4) Inputs

1) Japanese Side

Third-country short-term experts 5 person x 9 times

Local cost Approx. 3 million yen

Equipment supply Approx. 6.5 million yen

No. of trainees received in Brazil 12 people

2) Paraguayan side

No. of counterpart staff SEAM (6), DIGESA/MSP (6)

Local cost Approx. 5 million yen

Land, facilities, vehicles

2. Evaluation Team Overview

1) Member of the team

Leader: Yutaka Iwatani, Vice resident representative, JICA
Paraguay

Evaluation Analysis: Juan Francisco Facetti

Administration of Plan: Kenji Yamamoto, Coordinator, JICA Paraguay

3. Overview of Evaluation Results

3-1 Achievements

(1) Output Achievement

- About the result 1 and 2, through citizen participatory workshops and installation of Ypacarai Lake basin committees, the partnership relation between public and private (Citizen) sector has been enhanced. These activities under public-private relations and publication of the project's results like analyzed data about water quality, has enhanced the interests of the Paraguayan nation.

- About the result 3, the points of quality study of Paraguay River basin were set for periodical observation and has been transferred the necessary technology to the counterpart institutions. The water qualities of branch rivers were also detected.

- About the result 4, 5 and 6, it has been able to drafted the integrated management plan of the water resources including the Ypacarai basin and other domestic rivers, and to be launched the Resolution for the classification of superficial water for Paraguay.

(2) Project Purpose Achievement

- The water quality of the Ypacarai Lake and Paraguay River Basin were detected and proved and the integrated management plan of the water resources could be developed utilizing the data. And at the same time, the technicians of SEAM and DIGESA have been strengthened. Therefore, the project purpose has been almost achieved.

3-2 Summary of Evaluation Results

(1) Relevance (High)

1) The project fulfills with the Government Program objectives and the activities performed under its framework contribute to improve Water Resources Policy and the National Environmental Policy, as well as Paraguay's environmental diplomacy. The project and its results defined in the logical framework (PDM) cover the following sectors : policies, institutional capacities, environmental preservation.

2) JICA anticipated and responded to significant changes that took place in the environmental sector that might specifically affect the environmental sector. But it is not fully achieved because the external factors (conditions), in particular the continuous changes of Ministers, prevented that the Project permeate at the higher authorities level. The Project awareness was not sufficiently high so that the SEAM authorities credit it with the importance it represented.

3) However, the Project, from the point of view of the needs (training and "hard technology") of the sector, was perceived as very relevant.

4) Considering the immense needs of the environmental sector in Paraguay, any activity selected by JICA and effectively executed by the counterparts will be in accordance with national priorities, will leave its mark and will teach that intervention is relevant, many times, due to the flexibility of the administrative system and the internal decision making system.

(2) Effectiveness (High)

1) The Project has regional and national importance. In particular, the water quality data generated by the Project and its use, has had an important relevance in the last year of project, when SEAM used the dates for the drafting of Resolution 255/06, which establishes the category or type of superficial water for Paraguay..

(3) Efficiency (Almost achieved)

1) All investments were performed as defined in the PDM and disbursement timetable. Some activities not foreseen were included, and this contributed to create trust in the water quality results and in having public participation that was not foreseen at first, including participation of vulnerable groups.

2) Considering local counterpart investment, there was a great difficulty on the part of DIGESA and SEAM in providing the means (mobility, per diem, etc.) to comply with the monitoring water quality campaigns. In spite of this, thanks to the good will, in particular of the DIGESA technicians and of the principal counterpart, all activities were performed timely. Other important factors that affected the effectiveness of the Project have been the absence of coordination between SEAM and DIGESA as well as the nonexistent coordination within SEAM directorates, in particular due to the lack of managerial abilities.

3) The Project provided all necessary elements (results of physical-chemical and biological analysis) that justified ESSAP's intervention, in performing a special treatment (activated carbon) for the elimination of potential toxic substances in drinkable water.

4) Assisting Paraguay in the strengthening of local and regional capacities for integral management of the water basins. Within this objective, the inclusion of the issue of management by basin was determined.

5) The project as executed under the form of using Japanese technology in the region has been extremely efficient, both technically and financially, if compared with projects where counterparts are sent to Japan, and missions are sent from Japan to Paraguay. The reasons for this advantage are economical, and technological. Economical, due to the high transportation and staying costs for missions, while technological, due to two aspects: a) Soft technology, that is, the knowledge that the regional expert has on the scientific and technical characteristics of Paraguay, and the cultural aspects of the Paraguayan technician, and b) the climatic conditions (Brazil has a sub-tropical or tropical climate very similar to that of Paraguay, as well as the same species of phito-plankton in its slower water streams, that condition the physical-chemical, biological and bacteriological phenomena that take place in the water bodies.

(4) Impact (Almost achieved)

1) The results obtained contribute to the implementation of a water resources policy and the national environmental policy. In particular, it is evident that the Project Final Report recommendations provide a Route Map to follow that will allow for the consolidation of the project's impacts. One notable contribution of the project that will have a large impact in the water resources development policy, in Paraguay's environmental diplomacy, especially in the interventions within the projects of Hidrovia, Jindal - Mutun(*fn.), and gold mining in the Brazilian Pantanal. The data base and the recommendations provided by the Project, allow that Paraguay have a data base line today, on the water quality of the Paraguay river.

(*): Largest gold mining project in South America

2) The Project had determined the influence of Public Health on the quality of water from the Ypacarai Lake used for public supply. The project had a very significant impact within this component, allowing for pollution

prevention and a more rigorous care of water quality controls in the areas affected by the presence of toxic algae.

(5) Sustainability (Medium)

1) Within the priorities program prepared by the Technical Secretary of Planning, the environmental component is placed at number 8 out of 15 topics proposed by the new Government. DIGESA and SEAM which could gain the capability through the Project, can contribute to the priorities programs. However, in the case of DIGESA, in spite of the fact that the beneficiaries feel capable to continue on their own; there is financial weakness in terms of budget. In the case of SEAM, this institution does not see itself as the project's owner.

2) The 2007 budget for the counterpart institutions, considering the budget assigned for the years 2007 (the Project ended in December 2006), there are no changes evidenced in relation to the previous year, neither in DIGESA nor in SEAM. That is to say, no financial resources have been secured to provide continuity to the project.

3-3 Factors Contributing in the Production of Effects

1) The dispatch of Brazilian Nikkei experts who can use technical language and know the similar situation in the region, was very useful to achieve the efficient effect. And the counterpart persons who had acquired the technical knowledge through the past JICA's project, also have contributed the continuous activities during the absence of the JICA's experts.

2) Therefore, the interest for environmental issue of the Paraguayan nations, through the big problem of Yapacarái Lake water as big social problem, and the stance of government were also the supporting factor for the project.

3-4 Problems and Factors that Raised Problems

1) Institutional weakness, especially of SEAM, has caused frequently the negative factor for the project management.

3-5 Conclusions

- The personal capacity of SEAM and DIGESA has been strengthened very well through the technical transfer of the third country experts team and technical training in Brazil, so on. In spite of the short period of the Project, a lot of concrete outputs have been obtained such as the norms of water quality, the categorizations of rivers, Ypacarai Lake Basin committee under citizen participate concept, install of the points of water quality study, real water quality data, the compilation of the integrated management plan of water resources which will be base for the future national policy of water resources in Paraguay.

3-6 Recommendations

1) In projects where the execution through two or more agencies is required, it is important to anticipate the establishment of formal mechanisms of coordination between agencies, in order to ensure an effective and efficient completion of the cooperation.

2) It has been demonstrated, with the few diffusion and public participation events, the avidity and necessity to strengthen the community based organization and the local environmental authorities, in order to assure the implementation of national policies in to regional/local policies. This planning of public hearings, training, workshops, must be in accordance with the socioeconomic situation in the project's area of influence. Environmental education and public participation are sectors that have less possibility to accede to funds.

3) JICA must provide more soft assistance aiming to orient the Paraguayan Government on the possibilities of opening other windows of financing and to incorporate other sectors like; truisms, catchment' s conservation, remediation of water basin and sensible ecosystems. A key issue to reach the outcomes and sustainability will be to build alliances, but creating leadership in governmental agencies.

4) Other key issue is that the Government must assure funds for inputs (Vehicles, fuel, per diem) as well as salary adjustment of civil servants before starting any new Project. It is also , a key issue, to build an

structured management system from the new project, identifying responsibilities and tasks allowing the principal consultant or expert to be just an articulator or "hinge" between agencies and not to be the visible leader of the Project.

5) It is important that the civil servants from several participating agencies, remains within a logical framework, like the Joint Coordination Committee in order to provide continuity to the activities of the Annual Operative Plan.

6) Other key recommendation is to strengthen links and relations between public and citizen sector (public citizen partnership), as well as to facilitate public participation in the preparation of environmental policies at the national and local level and strengthening of local governments. JICA must do their best to build empowerment of projects.

7) For future projects, JICA must include as a condition: a) to implement a selection process for local counterparts; the express commitment of the Paraguayan government to provide financial support to the Project; commitment that the salary level of the human resources of the Project are enough in order to avoid a "Diaspora" to the private sector; to assure the permanence of the trainee civil in his/her position during the project,

8) JICA must continue providing expertise with regional experts, especially in environmental and rural development projects. for its cultural and technological reasons.

3-7 Lessons Learned

1) The preliminary discussions at the initial stage of the project is fundamental to deeply analyze the mechanisms and the budgetary state, fulfillment of both Organization and Methods protocols, relations between the receiving institutions of the cooperation (Counterpart), which will constitute one of the required conditions to reach an effective outcome.

2) At the stage of planning of the Project, :

- a) It is necessary to carry on the monitoring of the project during several moments. In the execution of the projects of technical cooperation, based on the PCM methodology (Administration of the Cycle of the Project), it will be avoided that the logical frame be inflexible, to avoid to create gaps between necessary activities and the looked for objectives.
 - b) It is necessary to avoid the absence of local leadership in the coordination of the Project, to avoid the isolation of some components of the program, in relation to the objectives.
 - c) The absence of fulfillment of local counterpart to accompany the activities, as well as not forecasting the budgetary support for the sustainability of the project when finalizes the cooperation, can generate a backward movement.
 - d) The absence of improvement of salaries of technicians puts in risk the permanence of them in the institutions, having serious danger losing the acquired knowledge, which would cause a negative impact in the SEAM and DIGESA.
- 3) It was found that there are not channels developed with other organisms to share learned lessons of the interventions in the sector. There are donors with vast experience of working with the Paraguayan government, with those is important that the lessons learned and experience gained be shared to improve the quality of the program, to develop greater efficiency and to enhance results. Valuable developed initiatives have been detected within other agencies of the system (BGR, OPS/OMS, I.A.D.B.). Other donors as the USAID has vast experience of working with the organized civil society, organizations of base and/or municipalities, advantage that must be operated by the JICA to enhance the results determined within the Logical framework in relation to the local and regional capacities of planning and environmental management.

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1. Summary

1.1 Goals and Objectives of the evaluation

All local Representation of the JICA needs to know, to understand and to learn what works and what not work in a project, being a key issue to improve its management and performance. The present evaluation is done with the goal of improving the positioning of the JICA in the environmental sector in relation to its partners: the citizens and the Paraguayan Government. It is so this evaluation studies in depth the outcome of the Project of Control and Improvement of the Water Quality of the River basin of Ypacarai Lake and the River Paraguay, related with the global mission where it mentions “... as a bridge between the citizen of Japan and developing countries, it will advance in the international cooperation through the transmission of the knowledge and experiences and we will work to construct a world more prosperous and pacific” and with the country’s objective N°3 that enunciates¹ “promoting the environmental conservation and the sustainable development of natural resources” and offers recommendations to improve the future management of the cooperation of the JICA for Paraguay. The studied areas are:

1. the analysis of the result considering its relevance
2. the effectiveness and efficiency of the program
3. the impact and sustainability of the program: the alliances, the external soft assistance, as well as factors that escape to the management of the JICA local office.

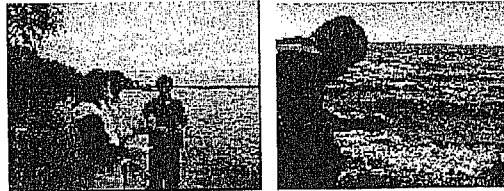
The result of this report is a realistic evaluation of the JICA’s assistance in the environmental sector, especially of the Project of Control and Improvement of the Water Quality of the River basin of the Ypacarai Lake and the Paraguay River, providing lessons learned to key stakeholders, in order to build ownership and to improve the management by results. It tries to determine the links between the project and the proposed outcomes, looking forward to build policies in environmental preservation, water quality standards and strengthening capacities of the environmental authorities. It looks for to determine the amplitude and quality of the alliances forged with the partners of the government and the Paraguayan citizens.

It contains a series of recommendations so that the Office of Environmental Programs of the JICA can be reoriented and maximize its management and to enhance the obtained outcomes to date. This document also aids the JICA to understand why some projects are successful and other not.

This evaluation will help the JICA to design a new Project of Assistance for the environmental sector for the next three years. The evaluator’s team found this evaluation illustrative, novel and a learning exercise. The evaluation began with the formulation of questions which originated other new ones. It would be very pretentious to think that in this evaluation, will be all the answers. Perhaps will only help to better understand and define them.

¹ Web page: www.jica.go.jp

2. Project Description and the Context



2.1 Title of the Project

Project of Control and Improvement of the Water Quality of the Ypacarai Lake and the Paraguay River Basin

2.1 Timeframe of the project

From 1 December 2003 until 30 of November 2006

2.2 Headquarter of the project

Asunción, Paraguay

2.3 Beneficiaries

Secretary of Environment and the General Directorate of Environmental Health

2.4 Execution Unit

Paraguayan side:

- 1) Secretary of Environment SEAM.
- 2) General Directorate of Environmental Health DIGESA/MSPByS

Japanese side:

Japan International Cooperation Agency

2.5 Context of the Project

From the execution of the “Study on the Plan of Control of Contamination of Ypacarai Lake and its River basin” in the year 1983, the JICA has been implementing diverse type of technical cooperation in relation to the control and improvement of the water quality.

The project of Control and Improvement of the quality of Waters of the basin of the Ypacarai Lake and the Paraguay River, is a project of technical cooperation that has as counterpart the SEAM and the DIGESA from the Ministry of Health Public and Social welfare. It was implemented during a period of 3 years from December 2003 and composed by the shipment of Nikkei experts originating from third countries as Brazil. Thematic the main subject of cooperation were the “Strengthening of the management of water quality standards and conservation of environment” and the “environmental survey of the river Paraguay and Lake Ypacarai basin”.

As result of these three years of cooperation, the project has been able to establish legislations related to the freshwater quality protection according to a categorization of the rivers and streams in Paraguay. On the other hand, it has been possible to identify the quality of water in the river basin of the Paraguay River. This is the most important water source for drinking water, being used by more of a million citizens. As far as the survey in the 26 points of study of the freshwater quality, a total of seven survey campaigns of water quality have been carried out, and the study of seasonal variation of different parameters of the quality of water have been made through the year.

During the three years of the project implementation, 12 local technicians were trained in institutes of research in Brazil, and have learned advanced techniques for the environmental analysis and for the control of the water quality. Thus also, two experts in water quality and one in management of river basins and water regulation have accomplished missions to support to the SEAM, DIGESA and in general to the Environmental National System.

2.6 Project Description

Main Objective: Strengthening the control activities and the environmental policy for the water resources

Project Objectives

- a.) Establishment of the norms for the freshwater quality and the Strengthening of the policy for preservation of water resources.
- b.) environmental survey of the basin of the Ypacarai Lake and the Paraguay River.

Results:

- a. Participative definition of necessary countermeasures for the environmental preservation.
- b. Increased interest of the population in environmental preservation.
- c. Definition of the present situation of the water quality of the River Paraguay basin.
- d. Guidelines for the integral use of water resources provided to national authorities
- e. Local capacities to determine in future the pollution of the Pantanal basin, establishing the comparative data for the management and control of the water quality of the Paraguay River.
- f. Increase and implementation of the measures of control and remediation of the Ypacarai Lake and research in relation to the use of the water for drinkable water

Activities

- a) Categorization of freshwater bodies, according to the objective of the use of the water resources.
- b) Elaboration of the policy for basin conservation and development of the corresponding law.
- c) Execution of survey campaigns during three years, determination of the water quality 4 times by year in 13 points in the Paraguay River to carry out the limnology and toxicology analysis.
- d) Classification of toxic algi and other toxic elements of the Ypacarai Lake
- e) Study of drinkable water supply of the Ypacarai Lake.
- f) Consideration of alternatives for water use of the river basin
- g) Elaboration at level of Feasibility Study (F/S) the improvement of the quality of water of the Lake.
- h) Training of local experts in abroad Institutes.
- i) Mission of 3 experts of foreign countries for in site training and works within the institutions beneficiaries.
- j) Strengthening of the DIGESA laboratories.

j.1 Date of evaluation

From 12 March until 30 of March 2007

j.2 Goal of the Evaluation

To determine:

1. The analysis of the result considering its pertinence or relevance
2. The effectiveness and efficiency of program
3. The impact and sustainability of the program: the alliances, the external soft assistance, as well as factors that escape to the management of the JICA.

j.3 Methodology of Evaluation

The evaluation activities were coordinated by a main consultant and a team conformed by a assistant consultant. These activities included the analysis of results, summary, and discussions with the members of the team in charge of outputs, following the PCM methodology, based on project advances and five criteria both described next.

Evaluation Criteria

1. Two aspects on Project advance

- (1) **Real results:** it refers to the confirmation of the reached degree on investment, outcome, objective of the Project and main objective.
- (2) **Process of implementation:** the term refers to the confirmation of the process of implementation of the activities of the project.

2. Five aspects of the evaluation

- (1) **Pertinence or relevance:** it refers to the validity of the project's objective and its final goals in connection with the policies of development of the Paraguayan government, as well as with the necessities of the beneficiaries.
- (2) **Efficiency:** it refers to the productivity of the implementation process, examining if the investment through project cycle, were efficiently turned into results.
- (3) **Effectiveness:** it refers to the dimension in which the expected benefits of the project have been obtained according to the planning, and examines if the benefit was obtained as a result of the project and not by external factors.
- (4) **Impact** Indirect, positive and negative impact. Caused by the implementation of the project, including the dimension in which the goals have been obtained.
- (5) **Sustainability.** Sustainability refers to the dimension in which the beneficiary country can continue it development beyond the project, and the benefits generated by the project can be maintained under the policies of the beneficiary country, the technology, systems and state financing.

2.10 The National Context

2.10.1 The Political Context

“The last decade has been witness of important changes in the Paraguayan political scope, derived mainly from a process of transition towards the democracy and transformations within the constitutional and legal framework. In fact, the promulgation of the Constitution of 1992 and new laws, as well as the creation and transformation of the environmental sector in 1999-2000, contributed to take more attention on the environmental issues from national authorities”. UNDP-National Report on Human Development Paraguay 2003.

“Despite these outcomes, the instability of the environmental authorities in the first six years of the SEAM existence has been remarkable, taking place six changes of ministers in only five years, the most important time for the consolidation and strengthening of the environmental authority”

The follow table shows the most important political and administrative events that affected the execution of the environmental policies in Paraguay.

Relevant Political Events that affected the JICA Project	
1. May 2002	Miguel Ángel Paredes appointed as a Minister of the SEAM
2. February 2003	Menandro Grisetti. appointed as a Minister of the SEAM
3. 15 August 2003	Asunción del Pdte. Duarte Frutos y Luis Alberto Castiglioni
4. August 2003	Carlos Luis Filippi appointed as a Minister of the STP
5. September 2003	Luis López Zayas. appointed as a Minister of the SEAM
6. August 2004	Julia Maciel Gonzalez appointed as a Minister of the STP
7. October 2005	Rosa Miguelina Gomez appointed as a Minister of the STP
8. May 2004	Alfredo Molinas appointed as a Minister of the SEAM
9. 27 April del 2005.	Creación de DIGESA .Resolución 266/05
10. February 2007	Carlos Lopez appointed as a Minister of the SEAM

2.10.2 Economic Context ²

The advances obtained in the first two years of the present government along with the aid of favorable conditions of the region, have allowed the restoration of the fiscal balance, eliminating the arrears of the external debt, initiating the recovery of the economy, and to recover the public confidence towards the government. This confidence allowed the generation of a climate of good governance and an incipient economic reactivation.

Nevertheless, these changes are not reflected in a modification of the rules of engagement. The rent seekers from the spheres of the State or the market are strong and have sufficient forces to dominate innovating sectors in the economic field or in the political arena. The dispute for the control of the State is in fact a competition or the control of the economic rent. This conception of the power restrains the development of the market, the State and the good governance beyond the electoral act and beyond the attempts of economic reforms.

² Dionisio Borda. 26 March 2007 Análisis de coyuntura Económica. ABC color.

This double vicious circle: economic and political delay, and the lack of links between the economic results and the electoral behaviors, explains the long stagnation and isolation of Paraguay. This circle continues delaying the emergency of a new model of development based on a more equitable distribution of the opportunities and resources and a modern system of incentives that break with the nihilism crystallized in the democratic transition.

Finally, the inequality restrains the growth and the reduction of the poverty by its negative effect. Paraguay is one of the countries of greater inequality in the region, which is predetermined by exogenous factors from the effort and talent of the individual as well as the ethnic conditions, gender or social segment. These barriers prevent that the poorest sectors accede to equal economic opportunities and to instances of decisions that affect their lives.

This inequality is not only reflected within the “invisible hand” of the market but to the interior of the “visible hand” of the State. The concentration of the wealth and the political power in few people tends, generally, to generate institutions with greater levels of economic and political inequality.

2.10.3 The Context of the Environmental Institutional Framework

From 2000 to 2001 important outcomes in the management of donations and loans destined to the environmental sector, are obtained. The permanence of the GTZ technical cooperation: National Strategy for Preservation of the Natural Resources with a financing of 3 million Euros; a Technical cooperation for the design and construction of 5 sanitary landfills and 5 environmental management plans with the BGR/KfW. The signature in March of 2001 of the Loan Agreement with the I.A.D.B./PR 0116 for the Strengthening of Environmental National System and by the end of 2,001 is approved Water-Conservation project GEF Guaraní with a financing of US\$ 27.000.000.

“Paraguay has learned how extracting resources, but not how replacing and handling with sustainability. The forest and the water resources are under severe stress. On the other hand the soil has been exposed to the indiscriminate use of pesticides, practices of monocultures by several decades and by burn it. The pesticides had a negative impact in the water resources and health”. UNDP-National Report on Human Development Paraguay 2003.

“The illegal commerce, mainly of wildlife and wood is becoming a serious problem in the country, since the control mechanisms and sanction are not working of suitable way, which is translated in the threat of extinction of numerous species. In the issue of environmental health, the drinkable water coverage in the country is extremely low, which is due in the first place to the governmental incapacity to conduct an aggressive expansion policy”.

“The lack of drinkable water, as well as the inadequate final disposition of the wastes would explain to a great extent the tendency of the rates of illness and mortality”. UNDP-National Report on Human Development Paraguay 2003.

“A lack of knowledge in clean technologies is observed in the industrial sector. The level of recycling is minimum or nonexistent in many industry sectors. The contribution of the public sector in the environmental pollution is very important; the state companies do not have licensed its facilities. That is the reason why these state companies would be causing an equal or greater pollution than the set of the national industries”. UNDP-National Report on Human Development Paraguay 2003.

2.11 Constrains, Challenges and Key issues

The key of the good management of the natural resources and the environment is the availability of a good social capital. This allows to the State and the society to respond to the threats caused by the unsustainable use of the natural resources and to the environmental pollution. The environmental management begins at home and changes of levels of management until arriving at the peak of the Environmental National System which is the Executive along with the organ of environmental planning, the National Council of the Atmosphere, CONAM. The good economic and financial management of the GdPY has allowed the fulfillment in the chronogram of payments of the service of the external debt and with the public investments.

The challenge appears in conjugating this problem. The political speech must offer to the sector the necessary economic resources to consolidate the reforms initiated in 1999, to effectively protect the aquatic ecosystems, the wildlife areas and to provide greater participation to the communities to lead the processes of environmental management at local level.

2.12 Planning Sector. The institutional state in 2003

In December of 2001 the GoPY receives the Study of the Economic Development of the Paraguay (EDEP) that was prepared within the framework in a bilateral agreement between both the governments of Japan and Paraguay. In this study consideration of environmental aspects and reduction of the poverty is absent. Pitifully this program was not implemented by both Governments 1998-2003 and 2003-2008.

For the period 2003-2008, the “Program of Government” identifies four strategic targets for Paraguay. They are:

1. To recover the confidence in the institutions of the State and their representatives.
2. To promote the active participation of the citizenship for the construction of the institutions of the democracy.
3. To reactivate the economy and to create jobs, within a new model of sustainable development.
4. To fight poverty, corruption and insecurity.

In the mentioned Program of Government some particular considerations of sustainable development are present: to promote the conservation and rational management of natural resources; intensification of the direct sowing and the intensive use of organic fertilizers; to promote the conservation of soil and freshwater resources in projects and programs of farming and forest development; and to adopt measures for the territorial management based in natural systems, the river basins, being used as basic units.

2.13 Situation in the Environmental Sector and Third Sector (the NGOs)

2.13.1 Situation in 2003

The Technical Secretary of Planning (STP) had in 1999 a great leadership, and impelled several important projects like: the administrative reform of the state, the reform of the public bank, the Law of the ERSSAN and the reform of the environmental sector. In 2006 it happened to be a very weak Secretariat with the internal realignment suffered. The STP is now an institution without the due leadership to coordinate the preparation of sector policies. In addition there is a lack of capacity of coordination with the international cooperation, in several sectors like environment, poverty, justice, decentralization, etc.

2.13.2 Environmental sector and NGOs

The Secretariat of Environment (SEAM) when it was created, assumed an important role in the reorganization of the environmental sector, offering more transparency in his management, initiating the decentralization process, approaching the third sector, granting more space to the organized civil society in the meetings of the CONAM, and in the implementation of the reform of the SEAM and in the process of debates of great public interest (genetically modified organisms, traffic of wildlife, protection of forests, etc.). In spite of the approach with the civil society the influence power of the SEAM in the decisions of the Executive was limited. With the successive changes of ministers from the 2002 to the 2006 (four ministers), its influence was decaying. In addition to the Diaspora of good human resources to the private sector, another negative point is the decrease of human capacity that resulted from the changes in the high management implemented by different Ministers who integrated the Secretariat.

The lack of leadership during the different stages in both the STP and the SEAM, brings as consequence, the absence of capacity in the management of inter-institutional relations, in the consensus building process of preparing policies of development for the country. As example it is mention:

1. The non-implementation of the EDEP, from part of the STP nor their internalization at all the levels of the government.
2. The strengthening of the CONAM began from February of 2005, constituting itself little by little in an important forum of discussion of environmental policies for the country. The challenge is that not only environmental policies are discussed within him but also policies of economic and social development,
3. The perception that several national projects are led by ONG's and/or foreign agencies of cooperation (JICA, BGR, GEF-PNUD, etc.) and that the counterpart institution of the government (SEAM) in charge to take ahead these strategies is not visible in its work.