



ITAIPU BINACIONAL

Overview

*The Itaipu Binacional
Social-Environmental Program*



February 2010

Editorial

A quintessential program

The national and international recognition of the Cultivating Good Water Program is proof of the joint efforts made by Itaipu, its partners and the communities, besides concretely showing that it is possible to bring development and social-environmental balance together. Nature is what drives us. Nature allows us to generate power. Without water there is no hydroelectricity, least of all life. And Itaipu spares no effort to protect the natural wealth that surrounds us.

Today, a new concept of social-environmental responsibility is found not only at Itaipu but also on the entire Basin of the Paraná River 3, the area where the Cultivating Good Water Program operates.

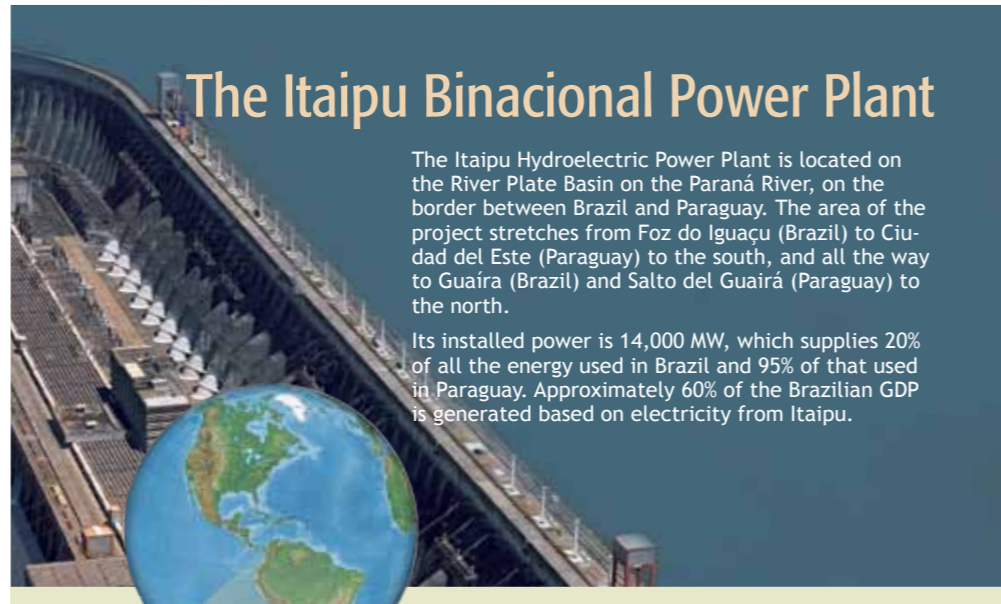
The basin covers an area of 8,000 km², home to 29 cities with a population of approximately 1 million. There is much to be done. Nevertheless, we, meaning all of us, Itaipu and the community, can already celebrate the results we have achieved together so far.



Jorge Miguel Samek,
Brazilian General Director
Itaipu Binacional



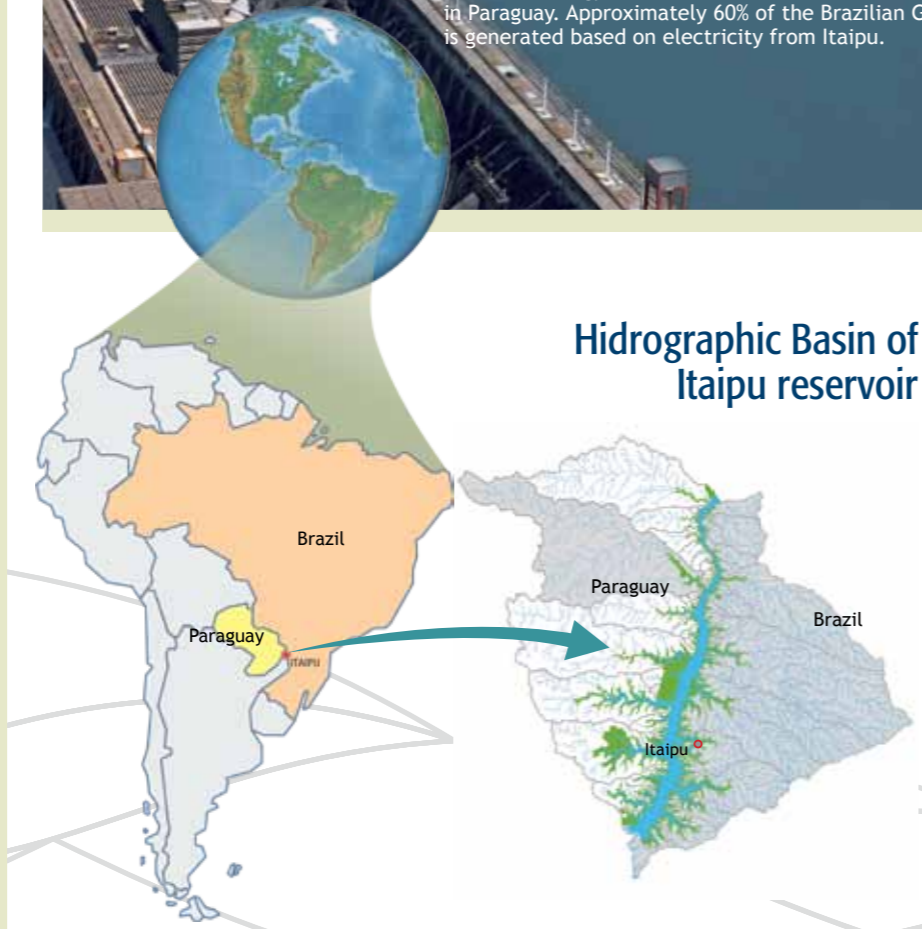
Nelton Miguel Friedrich,
Coordination and
Environmental Director



The Itaipu Binacional Power Plant

The Itaipu Hydroelectric Power Plant is located on the River Plate Basin on the Paraná River, on the border between Brazil and Paraguay. The area of the project stretches from Foz do Iguaçu (Brazil) to Ciudad del Este (Paraguay) to the south, and all the way to Guaíra (Brazil) and Salto del Guairá (Paraguay) to the north.

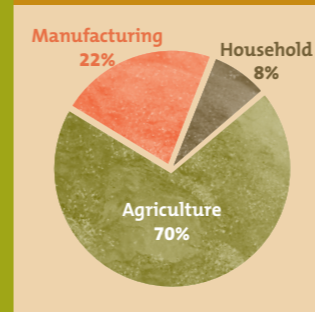
Its installed power is 14,000 MW, which supplies 20% of all the energy used in Brazil and 95% of that used in Paraguay. Approximately 60% of the Brazilian GDP is generated based on electricity from Itaipu.



Hydrographic Basin of
Itaipu reservoir

Global challenges and problems

Destination of the water used by mankind



- Destruction of the ozone layer
- Global warming
- Depletion of drinking water reserves
- Increase of water, atmospheric and soil pollution
- Increase of solid residues (waste)
- Deforestation
- Erosion / desertification / exhaustion and degradation of farming soil
- Extinction of plant and animal species
- Prevailing production and consumption patterns cause environmental devastation, decrease in natural resources, and mass-extinction of species
- Injustice, poverty, ignorance, and violent conflicts are on the rise, causing great suffering

Itaipu has instigated environmental awareness

1973 — Signature of the Binational Treaty by the Brazilian and Paraguayan governments; there already were environmental studies and correction and conservation measures regarding Itaipu.

1975 — The Basic Environmental Conservation Plan was drawn up, whose purpose was to mitigate the impact caused by the creation of the hydroelectric power plant reservoir.

1982 — In compliance with the Brazilian National Environmental Policy and Paraguayan legal requirements, Itaipu set up the Reservoir Area Master Plan to regulate its multiple uses. The reservoir was created that year, after the environmental operation called Mymba Kuera (“Animal Catching” in the

native Tupi-Guarani language) had been carried out, involving over 200 people who rescued approximately 29,000 animals of several local species.

1983 a 2002 — To protect the local plants and animals and decrease erosion, silting and pollution in the lake, Itaipu created the Reservoir Protection Strip, an area covered by forests 217 meters wide on average and 2,900 kilometers long, besides nine biological sanctuaries and reserves covering 40,031 hectares in area. On the protection strip 40 million trees were planted.

After construction of the power plant had finished, the Environmental Management Master Plan was drawn up and approved; besides environmental

issues, the plan encompassed social-economic development factors. When electricity generation started in 1985, the plant also started paying royalties to the cities affected by the creation of the reservoir.

2003 — The Cultivating Good Water Program was created, adding social-environmental responsibility concepts to the mission of Itaipu, and implementing the management of the Paraná River 3 micro-basins (Brazilian side) and the Carapá y Poti River Basin (Paraguayan side). A local response to global problems.



Mymba Kuera environmental operation.



Reforested area.



Tati Yupi Sanctuary.



Beta Vista Sanctuary.



Reservoir Basin.

The Cultivating Good Water initiatives were based on national and planetary documents and values:

- Earth Charter
- Agenda 21
- Millennium Goals
- Global Pact, Eco Rio 92
- Kyoto Protocol
- Movement for Life
- Treaty on Environmental Education for Sustainable Societies and Global Responsibility
- Water for All, Water for Life (UNESCO)
- Guidelines of the Brazilian Conference on the Environment
- Brazilian Water Resources Plan
- Ethics of Care

Movement for sustainability



The program seeks to provide people with quality of life via environmental conservation, and proposes a change in values in the way we are, live, produce, and consume.

Therefore, it operates locally and helps solve the global problems affecting mankind: global warming, biodiversity decrease, soil deterioration, and water contamination and supply decline.

Management Model

To manage the social-environmental projects and initiatives a management model was set up containing the following elements:



Environmental Management

Based on the ISO 14001 standard (Environmental Management System) and the PDCA (Plan, Do, Check, Action) concept.

Territorial Information Management

Development of a data bank containing multi-purpose technical records that provide information on the Paraná River 3 Basin.

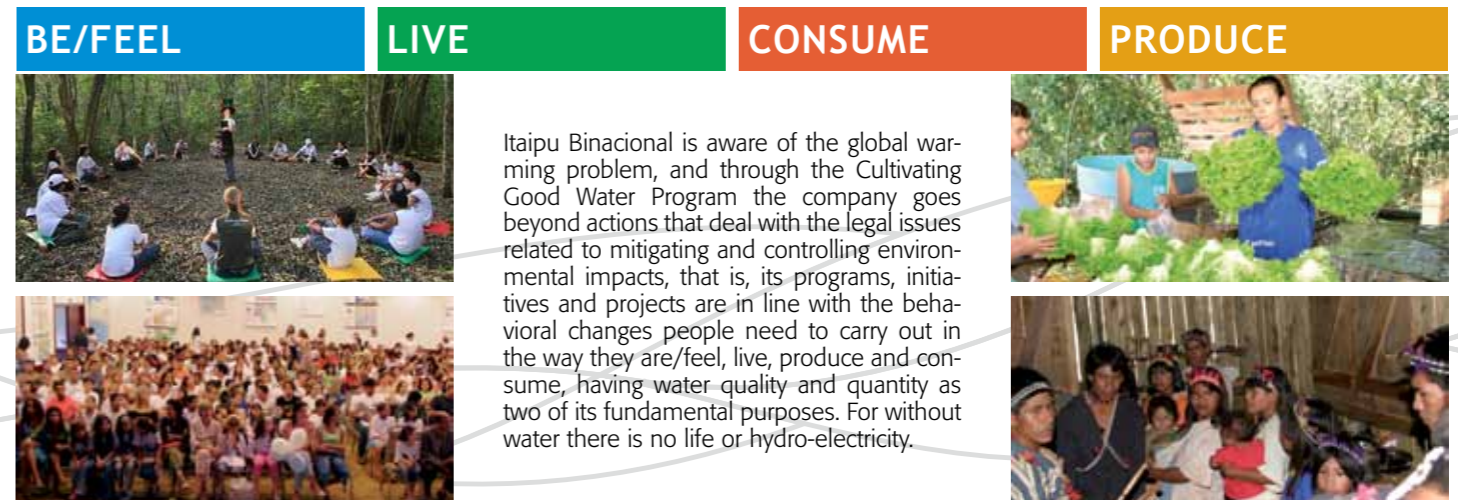
Participatory Management

Organized and operated by management committees that jointly run programs and projects in a participatory way. Today, the Cultivating Good Water Program is carried out by 2,146 partners (city administrations, universities, schools, cooperatives, trade associations, farmers, NGOs, governmental agencies, and the organized civil society, among others).

Program-Based Management

A matrix-like management process developing 20 programs and 63 initiatives evaluated every six months and planned or reviewed every year.

Changing human beings towards sustainability



Itaipu Binacional is aware of the global warming problem, and through the Cultivating Good Water Program the company goes beyond actions that deal with the legal issues related to mitigating and controlling environmental impacts, that is, its programs, initiatives and projects are in line with the behavioral changes people need to carry out in the way they are/feel, live, produce and consume, having water quality and quantity as two of its fundamental purposes. For without water there is no life or hydro-electricity.

Ways of BEING



It is a comprehensive process of awareness raising, information, training, concept and value changes, the ethics of care, reflection and action etc., all of them issues addressed by the Environmental Education Program.



Operating in 318 schools on the Basin, it has handed out 137,000 booklets on organic agriculture and put on 483 theater plays about organic produce. Also standing out is the training of 255 environmental educators that make up a Teaching Group that today reaches over 10,000 people being trained.

Ways of LIVING

BASIN MANAGEMENT

People's relationship with nature, whose essence is water. The following programs and projects help further this purpose:

- Basin Management
- Country Tourism Support
- Young Gardener
- Outreaching Trash Collection
- Native Communities
- Biodiversity
- Environmental Monitoring and Assessment
- Alternative Renewable Energy Sources

The program focuses on correcting group and individual environmental liabilities affecting the water and soil, based on the management of conservation practices whose main results are:

	Putting up fences to protect the water-bordering vegetation 531 kilometers	
	Water-bordering vegetation - seedlings planted in protected areas 2,562,416 units	
	Suitability of roads 338 kilometers	
	Soil and water conservation 4,650 hectares	
	Supply of terrace-making equipment 5 units	
	Installation of community water supply facilities 117 units	
	Supply of organic fertilizer distributors 101 units	
	Proper disposal of pesticide packaging 446 tons	
	Environmental Control Projects (ECPs) on farms 5,213 projects	

Basin Management implementation stages

- ### 1 Micro Basin Selection

Authorities, local leaders and Itaipu technicians decide together on the micro basin to be worked on in each city, always prioritizing those of the springs supplying the city.
127 micro basins involved.



- ### 2 Raising Community Awareness

Making people aware and convinced of the need and importance of the initiatives proposed in meetings between the Itaipu team and authorities, leaders and communities on the micro basin.
67 meetings.



- ### 3 Creation of the Management Committee

In each micro watershed selected a Management Committee is set up and staffed by representatives from Itaipu and the various city, state, and federal agencies operating in the area, besides cooperatives, companies, unions, charities, universities, schools, and farmers.
29 committees.



- ### 4 Workshop on the Future

The micro watershed community (men, women, senior citizens, young people, and kids) is invited to think and action via work carried out by the method called "Workshops on the Future", which comprise the three steps described on the side in an effort to ensure compliance with the Local Agenda 21.
232 workshops.

The Walling Wall



The community identifies their social-environmental situation, acknowledges and lists the problems they need to solve.

The Tree of Hope



The community finds out they have dreams of a better environment and future, for them selves and the generations to come.

The Way Ahead



The community defines what is necessary for the sustainability of their surroundings and takes co-responsibility for the initiatives to be carried out.
- ### 5 The Water Pact

It is a festive event in which the community celebrates the official launch of the Water Pact Charter which, besides providing the Workshop on the Future results, commits the community to the initiatives agreed upon.
43 water pacts signed.



- ### 6 Signature of Agreements

At the Water Pact event an agreement is signed between Itaipu, the city administration and the other partners committed to investing the funds required to carry out the work.
67 agreements signed.



- ### 7 Adjustments to Partnerships

Before the initiatives start, adjustments are made regarding the participation and contribution of each of the partners committed to the cause.
1.633 partnerships established.



Ways of PRODUCING

Itaipu bets on family farming

Sustainability actions on farms improve the environmental quality on the watershed



Through Cultivating Good Water, the company's social-environmental program, Itaipu Binacional is part of a movement toward sustainability that has been fostering new ways of being / feeling, living, producing and consuming on the Paraná Watershed 3 since 2003. In an effort to foster new ways of producing in harmony with the environment, a series of initiatives dedicated to sustainable rural development have been carried out in the power plant reservoir area of influence.

The BP3 area is characterized by a large number of small farms, 43% of them covering up to 10 hectares and 80% covering up to 50 hectares. It is estimated that 26,000 out of a total of 35,000 local farms are family-based production units. It is only by making such farms sustainable that it will be possible to improve the environmental quality in the area.

The Sustainable Rural Development program was created in 2003 as a branch of the Cultivating Good Water program in an effort to help family farms convert to organic farming. The range of initiatives carried out encompasses crop diversification, industrial farming, fostering organic farming research and development, opening new sales channels for farmers – by introducing organic food in school meals, local markets, holding local organic product farmers' markets – the so called Organic Life markets.

In this program Itaipu works with a host of partners organized into a management committee that meets regularly. Some of those partners also make up the Rural Technical Assistance and Extension Network (Rede de Assistência Técnica e Extensão Rural - Ater). Through that network, 26 technicians provide assistance free of charge to

organic farmers or those in the process of converting to organic farming in the area.

The technical assistance process comprises providing farmers with production-related support, relaying information on practices for green fertilizing, composting, spray mixture preparation, biological control, and plant handling and growing by decreasing the amount of extraneous inputs used on farms.

The Sustainable Rural Development program is also complemented by other Cultivating Good Water initiatives aimed at helping people adopt new sustainable ways of producing such as growing medicinal plants, fish farming in netted-tanks, and quality no-till farming. See some of the program's results on this and following pages.



Today, approximately 1500 family farms are far into the process of adopting green farming techniques in the area of the Paraná Watershed 3.



Seven hundred local farmer families have converted their farms into organic farming, and another 300 are undergoing the conversion process. Besides free technical assistance, the program offers training on green farming techniques.



One of the conservation techniques adopted is no-till farming, which comprises leaving the straw from an intermediate crop (winter crop) on the ground to protect it and prevent erosion-related losses.



Twenty-six technicians make up the Rural Technical Assistance and Extension Network, providing farmers with free assistance and holding training events. In addition to them, about 100 farmers have been trained to work as development agents in their communities.



One of the main channels used to sell organic products is the Organic Life Farmers' Market, held 16 times at various locations across the watershed and visited by more than 20,000 people.



From 2003 to 2009, over 7000 farmer families have taken on some sort of alternative production. Through research and technical support, the program has been helping farmers branch out their production, especially fruit-wise.



By helping farmers add value to their production, Itaipu and its partners have made it possible for 19 agricultural industries to set up in the area, which dedicate themselves to making jams, seasonings, poultry, and other certified organic products.



Taking advantage of the rich local biodiversity, Itaipu has been encouraging people to grow medicinal plants. At the company's nursery, 144 species of medicinal plants are grown and researched. They are distributed free of charge to the population at clinics belonging to the public health system.

In recent years, through the Medicinal Plants project Itaipu has helped train over 1250 health professionals, among them doctors, dentists and health agents, so that they can administer plant-based medicines to their patients.



Itaipu has been supporting fish farming research and development in the reservoir area, benefitting over 700 artisanal fishermen. The company is responsible for setting up the first fish farms in Brazil.



Encouraging country tourism is another line of action aimed at adding value to farming and ranching. Besides organizing hiking tours amidst nature, the program has signed an agreement with the University of Pisa (Italy) intended to create tours and train farmers.



Besides having the entire infrastructure to make plant-based medicines from its herb garden, Itaipu has supported the implementation of the first dry extract lab in the area, located in the city of Pato Bragado.



It is estimated that in the reservoir area alone it is possible to farm 14,000 tons of fish while abiding by the environment's ability to sustain itself, that is, under sustainable criteria.

Other initiatives of the Cultivating Good Water Program

Native Communities



The project fosters infrastructure improvements in native communities, celebrating the ethnicity of the community through quality of life, production of their own food, livestock breeding, planting vegetable gardens, medicinal plants and fruit trees, beekeeping, arts and crafts, and health and sanitation, among other activities that benefit the community.

Among the major benefits are higher produce yield and better living conditions, regarding which 60 houses have been built and another 45 are under construction, in addition to the installation of 40 netted tanks yielding 16 tons of fish every year.

Biodiversity



Seeks to help conserve and improve the genetic variability of local wild animals and plants, aiming at their perpetuation, by means of species research, development and reproduction.

By planting over 24 million trees, protecting species and setting up sanctuaries, it has been possible to implement the Santa Maria Biodiversity Corridor, which connects the Iguacu National Park in the State of Paraná to the Ilha Grande biome in the State of São Paulo.

Young Gardener



Provides gardening training and initiation to work for at-risk youngsters, enabling them to become participatory citizens by means of their integration with the environment.

200 young people trained.

Support for Rural Tourism



The program seeks economic alternatives for the countryside in eco-country tourism by training local agents and farmers, setting up tours, and including local communities in activities like Hiking amidst Nature

24 hikes held, attended by 16,375 people.

Outreaching Trash Collection



The program seeks to make participatory citizens out of socially excluded people that perform an invaluable environmental service by collecting thousands of tons of recyclable materials every day.

The main result of this initiative is the organization of trash pickers into 4 cooperatives and 16 associations, providing them with work sheds and proper working tools.

Environmental Monitoring and Assessment



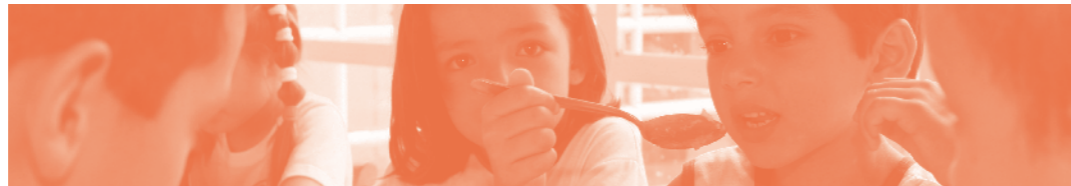
Its role is to report on the quality of the environment by means of parameters and indicators related both to the reservoir and its surrounding area, besides approving and guiding all the initiatives underway regarding their environmental aspects.

One of the main initiatives is the Bioindicator-Based Participatory Monitoring, which enables the 160 water agents trained — watershed residents — to understand, monitor, and assess the quality of their environment.



Ways of CONSUMING

Dedicated to changing the population's consumption profile and keeping it in line with the sustainability concept, which is fostered by several initiatives in terms of environmental education, healthy foods, sensible consumption etc.



One of the tools helping disseminate the consumption of organic foods is the Organic Life Fair, held 15 times up to now; another is the use of organic foods in the meals and snacks served at Itaipu events. Organic foods are also being fast introduced into school meals in cities of the Paraná Basin 3. So far, US\$ 1,500,000 have been invested to purchase these products and for consumption of Itaipu, especially tea and coffee. The use of medicinal plants is being implemented in 29 cities, and fish consumption is being encouraged in school meals, hotels, native communities, and among the general population.

Over 170,000 people have been educated/trained by Cultivating Good Water initiatives:

Environmental Education	10,000
Organic Agriculture	3,900
Medicinal Plants	4,782
Environmental Monitoring	160
Fish Farming	1,000
Outreaching Trash Collection	2,419
Basin Management	5,955
Water Pacts	17,432
Events and lectures	125,000



Other Itaipu initiatives parallel to the Cultivating Good Water Program

Itaipu Renewable Energy Platform

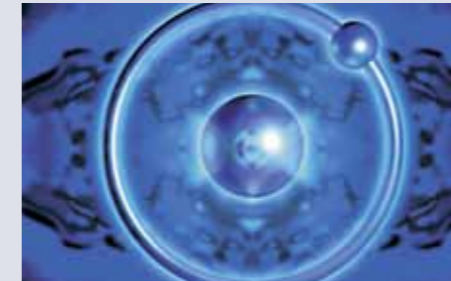
The program focuses on sustainable electricity generating sources, like water, wind, solar, geothermal, and biogas. A system developed for the use of biogas has been efficiently operating on a local farm since January 2008.



Electric Vehicle

Together with Swiss company KWO — Kraftwerk Oberhasli AG, Itaipu is developing the electric vehicle project in collaboration with various partners: auto maker FIAT, Brazilian and Paraguayan power utilities, and research institutions.

So far, 42 vehicles have been manufactured, and the capacity is to build one a week.



Hydrogen

Itaipu is committed to being more than just a hydro power plant. Since 2006, in collaboration with the State University of Campinas, São Paulo, the company has invested in technology so as to also become a hydrogen production center, one of the fuels of the future.



Biomass Power.

For further information on the Itaipu Renewable Energy Platform, please log on to: www.itaipu.gov.br



Itaipu Technological Park - PTI

Created to operate on three fronts: educate and train human resources; provide an environment for business development; and develop advanced technology programs. Today it hosts several strategic projects, such as: Itaipu/Unesco International Hydroinformatics Center, Itaipu Corporate University, Itaipu Renewable Energy Platform and the Social-Environmental Information and Protection Center of the River Plate Basin. (Learn more: www.pti.org.br)

Energy Efficiency Lab

The National Electricity Conservation Program (Procel) of the Brazilian Ministry of Mines and Energy operates an Energy Efficiency Lab at the Itaipu Technological Park to develop technology that fits said purpose. (Learn more: www.itaipu.gov.br)

Social-Environmental Information and Protection Center of the River Plate Basin

Created in 2006, it integrates the River Plate Basin countries (Brazil, Argentina, Paraguay, Uruguay and Bolivia) in joint initiatives mainly in the field of environmental education. It is a place where the diverse cultures of these countries can dialogue and combine scientific, traditional, and folk knowledge. Its guidelines have water as their integrating theme; the River Plate Basin as their operating territory; environmental thinking as the conceptual foundation of their initiatives; environmental education as their means to engage people; and the joint construction of knowledge, organization, and action. (Learn more: www.saberycuidar.org)

International Hydroinformatics Center

Developed in collaboration by Unesco and Itaipu, it seeks to improve information on water resources, reason why they have built the digital tool Sig@livre. (Learn more: www.itaipu.gov.br)

UNILA

The Latin American Integration University will be located in Foz do Iguaçu, on the border between Brazil and Paraguay. It will initially be set up at the Itaipu Technological Park (PTI) until its definitive seat is built on land donated by Itaipu. Its faculty and student body will comprise 50% of Brazilians and 50% of people from other Latin American countries. The goal is to serve 10,000 students in undergraduate and graduate programs delivered by 500 teachers, in four years. The programs will focus on topics related to the use of natural resources and biodiversity on the trans-border area, local social and linguistic studies, and international relations, among others deemed strategic for local development.

Program Monitoring and Co-Validation

In order to evaluate the progress of the Cultivating Good Water Program results in a participatory way, every year city meetings are held in preparation for the major final meeting bringing together program participants and partners together (schools, the organized civil society, governmental and non-governmental agencies, ministers, experts, and environmentalists).

At the end, the commitments and reports prepared at the various workshops of the event are jointly agreed upon.



1st Cultivating Good Water



2nd Cultivating Good Water



3rd Cultivating Good Water



5th Cultivating Good Water



4th Cultivating Good Water



6th Cultivating Good Water

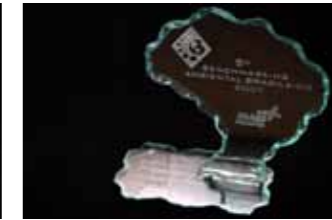
National and international awards granted to the Cultivating Good Water Program, deemed a benchmark in the care for water and the environment:



“Earth Charter + 5” Award Amsterdam, the Netherlands — 2005 One of the four winners among the 30 world practices that disseminate and apply the principles and values of the Earth Charter.



National Social-Environmental Responsibility Honor – 2008, granted by the Biosphere Environmental Institute.



Brazilian Environmental Benchmarking Award, which considered the program “the best social-environmental initiative in Brazil in 2007”



The “Water Lights” Award at the 9th Cannes Water Symposium(France) - 2007



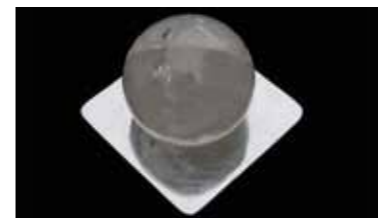
PreABES Award — Brazilian Association of Sanitation and Environmental Engineering — 2006



Zilda Arns Social Responsibility Award — 2005



Brazilian Distinction in the Environment, Sustainable Development and Social Responsibility — 2006



Award from the Business Management Committee Foundation — COGE — 2006, the best environmental initiative developed by power utility companies in Brazil.



Brazil-Germany Chamber of Commerce 2009 Von Martius Award



Ecology Expression An award created by Editora Expressão shortly after Eco-92, acknowledges the project as being part of the history of the Paraná Watershed 3, uniting the efforts of a number of partners to improve the quality of water and life in the region.



2009 ECO Awards Trophy

- OTHERS:**
- 2004 FAE/FIEP Social Responsibility Award (Business and Economics School and Federation of the Industries of the State of Paraná)
 - Ecological Expression
 - ANA (Brazilian Water Agency) Award
 - Outreaching Dignity Award



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