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**Federative Republic of Brazil
Government of the State of Minas Gerais**

**REQUEST FOR ACTION SUBMITTED TO UNESCO AS A
SPONSORED CENTER
(CATEGORY 2)**

BY

**HIDROEX - INSTITUTE FOR EXCELLENCE IN WATER
FOR SOUTH AMERICA AND AFRICAN PORTUGUESE
SPEAKING COUNTRIES**

Located at Frutal, State of Minas Gerais

2008

Federative Republic of Brazil
Government of the State of Minas Gerais

Request for Action

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English*

**REQUEST FOR ACTION SUBMITTED TO UNESCO ON THE CREATION AND
CONCESSION OF UNESCO SPONSORED INSTITUTE (CATEGORY 2) STATUS
TO HIDROEX – INSTITUTE FOR EXCELLENCE IN WATER FOR SOUTH
AMERICA AND AFRICAN PORTUGUESE SPEAKING COUNTRIES, LOCATED
AT FRUTAL, STATE OF MINAS GERAIS, BRAZIL**

In agreement with Document 171 EX/18, Annex I, which defines the principles and guidelines for the creation of centres and Institutes sponsored by UNESCO (CATEGORY 2), the Federative Republic of Brazil, herein represented by the Government of the State of Minas Gerais, submits to His Excellency Mr. Koïchiro Matsuura, General Director of UNESCO, this REQUEST FOR ACTION on the creation and concession of UNESCO Sponsored (Category 2) status to HidroEx – Institute for Excellence in Water for South America and African Portuguese Speaking Countries. This request was presented, approved and registered at the final report of the 40th session of IHP bureau (Delft, June, 13th -15th 2007)

This is a 4.000 words proposal to be presented to the IHP Intergovernmental Council (Paris, June 2008) directly.

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1. INTRODUCTION

On April 2007, the government of Brazil , through the State of Minas Gerais, according all the rules established with document 171 EX/18, annex I, which defines the principles and guidelines for the creation of centres and Institutes sponsored by UNESCO (category 2) presented the request for action on the creation and concession of UNESCO sponsored Institute (category 2) status to HidroEx – Institute for Excellence in Water for South America and African Portuguese Speaking Countries.

The IHP bureau endorsed this request for action of HidroEx made by the Government of Brazil through the Government of the State of Minas Gerais at the 40th session (Delft, June, 13th -15th , 2007) as indicated in the final report, as follow on chapter 18:

“18. With respect to the Centres proposed for consideration by current session of the bureau, it endorsed the proposal presented by the State Hydraulic Work (DSI) of Turkey to establish a regional centre on sediment, transport, erosion and Isotope Technology in Ankara, as well as the proposal presented by Brazil to establish an Institute for Applied Water Sciences in the State of Minas Gerais.”

This is a requested abridged 4.000 words proposal that will be presented directly to the IHP Intergovernmental Council (Paris, June, 2008)

2. Proposed name of the new centre and focus

2.1. Name

HidroEx – Institute for Excellence in Water for South America and African Portuguese Speaking Countries

2.2. Focus

The HidroEx – Institute for Excellence in Water for South America and African Portuguese Speaking Countries has its focus in the water taken with all the basic and applied sciences according to all its physical-chemical characteristics and knowledge on the various aspects and consequences on the ecosystems taken care its hydrological cycle with priority on surface water and groundwater considering its economic value on all the uses, including ecologic taken the water basins as the unit of management with specific right.

3. Location and host institution

- Location: City of Frutal, State of Minas Gerais, Brazil.
- Built Area: Own Headquarter (3.000m²)
- Academic Linked Institution: UEMG – Universidade Estadual de Minas Gerais (Minas Gerais State University)

4. Terms of reference

HidroEx will act as Centre of Excellence for Education, Research, Training and Capacity Building function through focal projects and programmes. It will share technological and technical information with UNESCO Water Related Centres for Water Education and integrate world-wide networks for water sector institutions and educational and research organizations.

5. HidroEx as a category 2 UNESCO centre

The status of HidroEx as a category 2 centre established under the auspices of UNESCO is an important condition for the international recognition as a centre for education, research

and capacity building for water in tropical environments. The Institute would have access to world-wide water education and research networks, including the others UNESCO Water Centres, allowing permanent cooperation and experience exchanges.

Besides the educational issues, HidroEx will have an important role on the consolidation and implementation of interaction and cooperation with local and international actors, such as governments, business associations, credit institutions, teaching and research institutions that make up the savannah and all other tropical biomes. As a Category 2 Centre, HidroEx would be committed with the Millennium Development Goals.

In terms of cooperation, HidroEx requires all possible support in consonance with its objectives. Nevertheless, on the basis of UNESCO's experience, the Institute will accept suggestions from UNESCO specialists that can help optimise the role of the centre in the preservation of the various biomes and improvement of the quality of life of South America and African Portuguese speaking populations. To that end, later work can provide input for technical feasibility studies focusing on the cooperation between both institutions, as well as enable the exchange of technical information on which to base the cooperation document.

UNESCO Representation

UNESCO would have representation within administrative and scientific boards of HidroEx according to its discretion.

Nature of the Cooperation

The nature of the cooperation between UNESCO and HidroEx would include the following items:

- a) Exchange of researchers involved in projects focusing on similar fields of knowledge.
- b) Joint development of projects that meet the cooperation objectives in accord with HidroEx's mission and UNESCO strategic objectives and priority programmes, as set forth in the C/5 documents of said organization.
- c) Promotion of courses, workshops, conferences, symposia, and seminars.
- d) Joint design and execution of training tools for the communities in the various biomes of South America and African portuguese speaking countries, focusing on the cooperation objectives.
- e) Dissemination and valorisation of the outcomes, methods and techniques developed and obtained jointly.
- f) Encouraging the adoption of training and the dissemination of knowledge already validated by Category 1 UNESCO Centres, as an example the Technical Cooperation between Minas Gerais state and UNESCO-IHE, established in December/2007.

The detailing of the forms of cooperation between HidroEx and UNESCO would be enriched after *in loco* knowledge of the former's reality. The Institute is ready to receive UNESCO representatives for that purpose, at the discretion of the Organization.

6. Proposed program for the centre

The objectives of HidroEx:

- To develop excellence in research and education for water .
- To build capacity for South America and African portuguese speaking countries;
- To contribute to the UN Millennium Development Goals;
- Further developing partnerships and networks;
- To encourage entrepreneurship in an academic setting.

HidroEx activities are oriented to the Applied Water Sciences in the following areas:

- Information Centre;
- Education;
- Training;
- Research;
- Guided Training;
- Partnerships;
- Institutional Networks;
- Participation in National and International Associations and Forums;
- Technical, Scientific and Technological Support to the National Water Resources Management System and the National Water Resources Policy;
- Advisories;
- Consultancies.

The HidroEx will both serve a wide-range target population and meet specific demands, seeking the sustainable development, life quality and biodiversity protection. The following are examples of the target groups to be served:

- Politicians;
- Public and private sector managers/administrators;
- University-level professionals;
- Middle and technical school professionals;
- NGO members;
- Judges and lawyers;

- Civil society at large;
- Teachers and knowledge multipliers;
- Members of state and municipal councils;
- Members of federal and state water basin committees;
- Water users;
- Professional associations and service clubs.

International Professional Status

The status of the HidroEx –Institute for Excellence in Water for south America and African Portuguese Speaking Countries in professional and political circles would result from its membership in the following institutions:

- World Water Council;
- International Water Resources Association (IWRA);
- American Water Resources Association (AWRA);
- International Water Rights Association;
- International Hydraulics Association;
- International Water Sciences Association;
- Other institutions considered of interest as the work progresses.

7. Cooperation with UNESCO centres and other bodies

One of the main activities of HidroEx will be its Integration with UNESCO's category 1 and category 2 water-related centres according the strategy established at the 40th session of the IHP bureau (Delft, June, 13th -15th, 2007).

The connection with the water-related centres will be scheduled according to the opportunities, needs and cost/benefits analysis, considering the various themes and cultures.

One can say at this stage that the following water-related centres will be considered for initial missions and making agreements:

- 1) UNESCO-IHE Institute for Water Education (IHE);
- 2) International Hydro informatics Centre;
- 3) Water Centre for Arid and Semi-Arid Zones of Latin America & the Caribbean (Cazalac);
- 4) Water Centre for Humid Tropics of Latin America & the Caribbean (Cathalac)
- 5) IHE-Help Centre for Water Law, Policy and Science
- 6) International Groundwater Resources Assessment Centre (IGRAC);
- 7) Regional Centre for Training and Water Studies in Arid and Semi-Arid Regions (RCTWS);
- 8) International Centre for Water Hazard and Risk Management (ICHARM).

The main positive aspect of the cooperation with UNESCO will be the International Institutional development and the opportunity of the day experience at the world water scenario.

HidroEx plans to establish networks with all UNESCO water centres and other bodies cooperating in a complementary way. Some actions have already taken place as:

- Technical Cooperation between Minas Gerais State and UNESCO-IHE (December, 2007);
- Tailor-made course for the HidroEx team mission in UNESCO-IHE (March, 2008);

- Technical visits from UNESCO-IHE Director to HidroEx project technical orientation;
- HidroEx/Brazil sponsorship program for master sciences for the brazilian, south american and african portuguese speaking countries by the Brazilian Ministry of Science & Technology (UNESCO-IHE – October 2008);
- Actions to include HidroEx in the Cap-Net network;
- Water Resources Excellence Pole – joint program of HidroEx and Minas Gerais state science & technology policy, improving research and innovation for water management;
- a master program in water resources is being created by UEMG and HidroEX, in process of approval by the ministry of Education;
- MoU between HidroEX and three brazilian federal universities (UFMG, UFU and UFV).

8. Facilities, expertises and human resources

Facilities

The actual area of HidroEx is 3.000 m² and includes: Library; multimedia room; ten classrooms; administrative facilities; five laboratories (biotechnology, microbiology, soil and water; GIS; language); 640 square meters housing; restaurant; two auditorium. It is already planned the improvement of the housing, teaching facilities, and a sports complex and game rooms.

By HidroEx side is being built the regional campus of Minas Gerais State University to be inaugurated at the end of 2008. This space will also be put at disposal of HidroEx activities.

Expertise

HidroEx will have the following expertises within the Institute:

- Hydrology;
- Geology;
- Cartography;
- Biology;
- Chemistry;
- Pedagogy;
- Water and environmental law;
- Water economics.

If necessary, the Institute will seek the different expertises within the outside professionals.

Human Resources

HidroEx since the beginning will have its own staff as follow:

- 1) 6 (six) professors with master or doctor degree under HidroEx contract;
- 2) 10 (ten) professors with doctor degree for the various fields under contract with the Minas Gerais State University at disposal for HidroEx programs under special agreement as associated professors;
- 3) 8 (eight) professionals which participated at the tailor-made course of 3 weeks at the UNESCO-IHE (February-march, 2008)

9. Relationship with the current phase of IHP

The feasibility study of the HidroEx – Institute for Excellence in Water for South America and African Portuguese Speaking Countries as a Category 2 UNESCO sponsored Centre will be duly consolidated on the basis of the identification of the qualitative and quantitative demands set forth in the National Plan for Water Resources Training issued in 1997 and with the observations of the National Water Resources Plan and the Technical Chambers of the National Water Resources Council and UNESCO's support, particularly its Water Sciences Division. The Government of the State of Minas Gerais will provide UNESCO the necessary support to develop this endeavour.

HidroEx will work in agreement to the IHP Strategic Plan for the 7th Phase, as well as specific targets of the Millennium Development Goals. For that, it will work with research, education and capacity building in the following fields:

- Water and governance for sustainability;
- Ecohydrology for sustainability;
- Groundwater integrity.

The following steps of IHP strategic plan for the 7th phase will be the “umbrella” for HidroEx activities, taking part of this permanent UNESCO action:

Theme 1 – Adaptation to the effects of the global changes in the river basins and groundwater systems.

Subtheme 1.3 – Hydrologic risks, extreme hydrologic phenomena and disasters related to water.

Subtheme 1.4 – Management of underground systems related to global changes.

Theme 2 – Improving Management of water resources for sustainability.

Subtheme 2.1 – Cultural, social and scientific responses to the water resources management crises.

Subtheme 2.2 – Increase of the capacity to improve the management, legislation development for a responsible water resources management.

Subtheme 2.5 – Resolution about the interaction between water and energy on the river basin.

Theme 3 – Ecohydrology for sustainability.

Subtheme 3.3 – Management and environmental evaluation on risks analysis.

10. Legal status

HidroEx – Institute for Excellence in Water for South America and African Portuguese Speaking countries would be structured as an institute with financial and administrative autonomy. The Institute will have access to different local and international funds including Minas Gerais State Government subsidies. The activities will be executed directly through projects, programs and correlated actions, donation of material, human or financial resources and supports services from the other organizations and public agencies that work in similar areas.

From strictly academic point of view HidroEx will be linked with the Minas Gerais State University due to negotiations connected to the ministry of Education as the former IHE was linked to the Delft University of Technology for providing diplomas.

11. Responsibilities – Brazil/UNESCO

Brazil will take full responsibilities on the implementation and funding of the team, management and structuring of the HidroEx Institute. It is expected that UNESCO will support HidroEx with institutional advisement and accessing UN Programs.

12. State commitment

Brazil acknowledges the importance of UNESCO's work in showing the world its vision of sustainable development based on mutual respect, human rights and the eradication of poverty. Since its own work focuses on the core issues that UNESCO considers important for the citizens of its member countries, HidroEx hopes to receive the cooperation proposed herein during the maximum period contemplated in the UNESCO Bylaws for the first review by its General-Director (see Document 171 EX/18, page 20, item II/14). At this time, the Brazilian Government understands that the results of the work performed are strong arguments to extend this cooperation for many years to come. Generally speaking, the Federative Republic of Brazil, through its competent agencies, will undertake the following actions:

- a) Supporting any and all mechanisms that can be used to enhance the activities of HidroEx;
- b) Concatenating the various state and federal institutions responsible for funding environmental and preservation projects that can be implemented through the cooperation agreement between UNESCO and HidroEx;
- c) Engaging in permanent efforts at the federal administration level to ensure that the environmental education policies developed at HidroEx are replicated throughout the country;
- d) Helping disseminate the outcomes of UNESCO's and HidroEx's projects and programmes;
- e) Acting as intermediary between public and private partners that wish to adopt the guidelines defined in the cooperation agreement to be signed.

13. Financial sustenance

HydroEx would be entitled to receive financial resources from various sources.

General Resources

- Budget of the Union;
- Budget of the Government of the State of Minas Gerais;
- Municipal Budgets;
- Financial Resources deriving from financial compensation for petroleum or natural gas exploitation schemes, from hydroelectric power generation and mineral rights as defined in Law # 7.990 of 28 December, 1989;
- Funds from the Ministry of Science and Technology, such as:

➤ CT – Green and Yellow

Green and Yellow Fund

Focus: Encouraging the implementation of cooperative, scientific and technological research at universities, research centres and the productive sector; fostering an expansion of R&D expenditures by the companies; supporting actions and programmes that strengthen and consolidate an entrepreneurial and risk investment culture in the country.

➤ CT - Hydro

Water Resources Sector Fund

Focus: Human resources training and development of products, processes and equipment with a view to improving the use of water resources through water

resources management, water conservation in urban settings, sustainability of Brazilian environments, and integrated and efficient water use.

➤ **CT - Infra**

Infrastructure Fund

Focus: Modernization and broadening of the research support infrastructure and services in Brazilian public higher-education and research institutions.

- Global Environmental Fund (GEF)

The GEF is an international cooperation mechanism whose purpose is to fund projects that benefit the global environment.

- Technical Assistance Programme for Equitable and Sustainable Growth (PACE)

The purpose of the programme is to provide technical support to the country with a view to making it more equitable, sustainable and competitive through adequate governance and microeconomic stability.

- National Environmental Fund

As an institution “under the sponsorship” of UNESCO, HidroEx would be able to obtain resources from the following organizations:

- Federal Council of Engineering, Architecture and Agronomics (CONFEA);
- National Economic and Social Development Bank;
- Federation of Industries of Minas Gerais;
- National Confederation of Industries (CNI);
- National Confederation of Agriculture (CNA);
- Programme for the Modernization of the Sanitation Sector;
- Brazilian Sustainable Development Foundation;

Corporations could also contribute through the Rouanet Tax Incentives Law.

State Resources from Minas Gerais State at permanent level (subsidies)

The Government of the State of Minas Gerais would make available part of the required financial resources from the financial compensation for the use of water resources to generate electric power stipulated in Law # 7990 of 28 December 1989. A specific state law would earmark the funds to HidroEx in conformity with a feasibility study to be produced by UNESCO with the support of the Government of the State of Minas Gerais.

International Funds

HidroEx could receive financial resources from international donors such as the World Bank and IDB.

Services

For the private market, HidroEx intends to offer the following services, as an extra resources funds:

- Laboratorial analysis;
- Water monitoring services;
- Tailor-made training courses;
- Event Promotion;
- Environmental and Water Information and Services;
- Management and technical-professional services to Federal and State Basin Committees.

14. Preliminary budget

The initial HidroEx budget of 2008 consists of R\$ 11,768,600.00 (\cong U\$ 6,922,706.00) which R\$ 4,430,352.00 are directed for facilities projects and the rest for the improvement of the laboratories and equipments acquisition. There are other R\$ 3,000,000.00 for sports complex and game rooms. The salary and maintenance of the superior technicians is R\$ 756,000.00 per year. These numbers will increase along the years.

15. HidroEx organization

The HidroEx organizational structure shall have an administrative and scientific board, where UNESCO has a seat in both. The administrative board is responsible for the HidroEx strategies and defines the director of the Institute. There are four departments: finance, administrative, academic central services and logistic. The Institute also have three coordinations: material acquisition, human resources, marketing and sales.

16. Activation timetable

The first phase of the HidroEx – Institute for Excellence in Water for South America and African Portuguese Speaking Countries is estimated to last six (6) years. During that period, the Institute would lease the existing facilities at Frutal, State of Minas Gerais, which it would provisionally share with Minas Gerais State University (UEMG). HidroEx would also use the facilities of the Frutal Campus of the Minas Gerais State University to be concluded by December 2008. The landmarks planned for the first years:

- March 2008: Brazilian mission tailor-made course at UNESCO-IHE, Delft, The Netherlands;

- April 2008: HidroEx business plan;
- August 2008: implementation of HidroEx;
- October 2008: first MSc. Brazil/HidroEx group at UNESCO-IHE;
- October 2008: First short-course of HidroEx (see below);
- November 2008: official presentation to international community at the meeting “Encontro para as Águas das Américas” (Foz do Iguaçu, Brazil);
- December 2008: HidroEx website;
- December 2008: presentation of HidroEx at the meeting “Earth Dialogues” (Belo Horizonte, Brazil);

During the first phase, HidroEx would also acquire a large technical collection covering the water and environment fields of knowledge.

16.1. Other actions already made:

- Support of Dom Cabral Foundation in management;
- Agreement on the Water Excellence Pole in Frutal, joint Federal University of Viçosa, EMBRAPA, Federal University of Uberlândia and Federal University of Minas Gerais.

17. Current Legislation

17.1 Federal Legislation on Water Resources

Federal Law # 9.433 of 8 January 1997 instituted the National Water Resources Policy, created the National Water Resources Management System, regulates Item XIX of Article 21 of the Federal Constitution, and makes other stipulations.

18. Main Reference Documents

The HidroEx – Institute for Excellence in Water for South America and African Portuguese Speaking Countries is oriented by the following basic reference documents:

- Federal Constitution;
- Constitution of the State of Minas Gerais;
- Federal Law # 9.433 of 8 January 1997;
- State Law # 13.199 of 29 November 1999;
- National Water Resources Plan;
- Sectoral Books on Water Resources;
- GEOBRAZIL – Water Resources;
- National Water Resources Training Plan;
- State Water Resources Plan;
- Collection of the UNESCO International Hydrological Programme (IHP);
- Collection of the Participation of Brazil in IHP;
- Collection of the WMO Operational Hydrology Programme.

19. Scenario on Current Federal Institutional Organization of Brazil

The Institutional Structure for the water resources management area comprises the following entities as scenario:

- Ministry of Environment (MMA);
- National Water Resources Council;
- National Water Agency;
- State Water Resources Councils;
- State Secretariats;
- State Water Resources Agencies;
- COBRAPHI.

20. Alumni Association

The HidroEx will be the centre for attracting the alumni from UNESCO-IHE from Brazil (about 200) restoring the former Brazilian Alumni Association of IHE/Delft (1993-2000). HidroEx can use this network for improvement of projects and actions. HidroEx can be a focal point for alumni of South America.

22. Feasibility Study

On the occasion of UNESCO mission for the feasibility study adjustment will be possible from HidroEx project.