International Hydrological Programme

21st session of the Intergovernmental Council
(Paris, 18-20 June 2014)

PROPOSAL FOR THE ESTABLISHMENT OF
UNESCO-HIDROEX INTERNATIONAL INSTITUTE FOR
EDUCATION, CAPACITY BUILDING AND APPLIED
RESEARCH IN WATER, AS A CATEGORY 1 INSTITUTE

The enclosed proposal is presented as originally submitted by the Government of the Federative Republic of Brazil to the Director-General of UNESCO. It consists of a revised version of an earlier document proposal, addressing initial comments provided by the IHP Bureau in an out-of-session consultation.
This document presents the conceptual and financial framework for transferring the administrative responsibility for UNESCO-HIDROEX to UNESCO as a Category 1 Institute. This process will employ an institutional model that will integrate IHP goals into the education and research program of Hidroex to develop the environmental conscience of all citizens – from young children to the highest level of technical knowledge – within an appropriate cultural context. UNESCO-Hidroex intends to promote education and research for water in areas and regions that currently are not fully served by UNESCO, such as Latin America and the Caribbean and Portuguese speaking countries, complementing the activities developed by IHP and others entities of UNESCO’s water family. The Centre will integrate IHP goals into the education and research programs of Hidroex to develop the environmental conscience. The establishment of this Center will also strengthen the relationship of Hidroex to the network of IHP Category 2 centers and its 34 UNESCO Water Chairs, the result of developing graduate level education and research programs in priority thematic areas. Member States will also directly benefit from this development, as the results of cutting-edge water research undertaken within the context of developing economies will be widely disseminated via a variety of media including a world-class video conferencing facility. The State of Minas Gerais will guarantee the financial resources for the long-term operation and management of the Institute. Letters of institutional support are found in Annexes 5 and 6 to this document.
I. BACKGROUND

1. In June 2007, the International Hydrological Program of UNESCO (IHP) endorsed the request from the Government of the Federal Republic of Brazil, through the State of Minas Gerais, to establish a UNESCO-sponsored Category 2 center named the International Centre for Education, Capacity Building and Applied Water Research - Hidroex. The broad nature of the cooperation between UNESCO and Hidroex, as stated in the Hidroex proposal to the IHP, is to:

1.1 Exchange water-related research within the UNESCO IHP and UNESCO Centers and Institutes.

1.2 Promote and develop joint projects, courses, workshops and seminars related to improving the management of water resources.

1.3 Jointly design and implement training tools, with special emphasis in Latin America and the Caribbean, and Portuguese-speaking African countries.

1.4 Disseminate obtained results to encourage the adoption of training and research knowledge through the development of formal and informal education programs locally, nationally, regionally and internationally.

2. The Category 2 center proposal was approved by the 35th General Conference of UNESCO in October 2009. This was an essential step in the 'internationalization' of the Hidroex Foundation, a legal requirement in Brazil for the center to be able to function both nationally and internationally as per UNESCO rules for Category 2 centers.

3. By late 2009 the legal documents formally establishing the Hidroex in Brazil were completed and in May of 2010 the legal Decree issued. As a result, Hidroex became a legal entity empowered to “enter into agreements with both national and international bodies and individuals and to make independent financial decisions benefiting its future development.”

4. Immediately after the Decree was issued by the State of Minas Gerais, Hidroex signed a Letter of Intent to utilize the proven experience of UNESCO-IHE to assist in the complex process of planning and developing the education, research and capacity development programs and to implement specific pilot activities to those ends in the 2011-2014 period. This Letter of Intent has been operationalized through the execution of two contracts with UNESCO-IHE - one that proposed a capacity strengthening program for the 2011-2014 period through post-graduate

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1 UNESCO.171/EX18.2005. Report by the Director-General on the revised and completed principles and guidelines regarding the establishment and operation of UNESCO institutes and centers (category 1) and institutes and centers under the auspices of UNESCO (category 2). March. pp. 33.

2 State Law 18.505, 4 November 2009, State of Minas Gerais, Brazil

3 State Decree 45368, 5 May 2010, State of Minas Gerais, Brazil.
training for future UNESCO-HIDROEX staff\(^4\), and a second detailed work plan that outlined the specific timetable, course content and administrative assistance to be provided by UNESCO-IHE to Hidroex in the 2012-2014 period\(^5\).

2. Additionally, Hidroex has signed cooperation agreements with the University of Algarve (Portugal), Helmholtz company (Germany), UNESCO-WCUWM (Iran), the Government of Cape Verde, the University of Münster (Germany), UNESCO-ICHARM (Japan), the Mexican Institute for Water Technology, and the National Autonomous University of Mexico (UNAM), the National Water Institute of Argentina, aimed at strengthening its regional impact in water education and research is contemplating other similar arrangements such as with ICIWaRM in the United States. Since 2011, the development of the programmatic aspects of Hidroex as a Category 2 center has therefore been in collaboration with other national and international partners. Planning and developing the physical infrastructure was the direct responsibility of the State of Minas Gerais with financial support of both the State and Federal Governments.

3. At its 50th meeting in 2014, the IHP Bureau agreed to convene an “out-of-session” meeting to review the concept of reclassifying Hidroex to category 1 status from its current category 2 status. In April 8, 2014, a letter by the Minister of Science, Technology and Innovation of Brazil was sent to Director-General Irina Bokova, communicating his support to Hidroex proposal. The proposal was sent to UNESCO in April 27, 2014 and was examined by the IHP Bureau on April 30, 2014. The Bureau agreed to forward this report to the Intergovernmental Council for consideration at its 21st meeting (18-20 June 2014), after requesting some clarifications as to how this proposal will strengthen the IHP and its network of centers and chairs. Based on the comments made by the Bureau, Brazil is now introducing this revised version of its proposal.

4. It must be clearly stated that Hidroex fully understands the implications of a change in its status to that of a Category 1 center, and is prepared to address any implied risks or obstacles that the proposal contained herein might imply. While these issues will be addressed in greater detail in the feasibility study to be undertaken, background information is provided below to assist the IHP-IGC in its decision to forward a positive recommendation to the UNESCO Executive Board for consideration at its February 2015 meeting.

II. WHY A NEW WATER-RELATED UNESCO CATEGORY 1 CENTER

5. Water is at the core of national, regional and global debates on sustainable development. Water is also a high priority in UNESCO’s agenda. However, there is a serious knowledge gap about water, especially among developing countries, which has a sizable impact


\(^5\) UNESCO-IHE Institute for Water Education, Hidroex Capacity building Activities 1 September 2012 – 10 April 2014. In early 2014, this contract was extended on a “no financial implications” basis through October 2014.
in terms of designing and implementing policies towards sustainable development. In UNESCO’s context, part of this problem is being solved by initiatives and cooperation led by IHP, as well as by IHE, category 2 centers and chairs. But a lot more needs to be done. And international cooperation through UNESCO has an immense potential in this regard.

6. An MSc thesis study undertaken at IHE in 2005 substantiated the oft-cited statistics that there is a near 250-300% shortfall in the numbers of trained water professionals in Africa (Global Priority of UNESCO) and at least a 50% shortfall in Latin America and the Caribbean.

7. Actually, there has been a significant increase in the demand from Latin America and the Caribbean and the members of the Community of Portuguese Speaking Countries (CPLP)\(^6\) for education, training and applied research in water. Currently, UNESCO holds only one category 1 center specializing in water, whose focus (while global) offers courses exclusively in English. In this sense, the creation of UNESCO-HIDROEX would make a major contribution to addressing the needs of water resource management in Latin America and the Caribbean as well as in CPLP countries. This center will have the ability to promote training courses and professional training, and research related to water, with a focus on diversity and water reality of each of these regions. With this adaptation, UNESCO-HIDROEX can bring education to several countries that demand more knowledge about water. Course offerings will include water management, monitoring quality and quantity of water, watershed management, urban drainage, and environmental education, among others. As a result, the population of the Member States in each region will benefit, because the UNESCO Centre will feature a specialized training geared to meet the needs in Latin America and the Caribbean, and the CPLP countries. As an action policy, the Centre will address the issue of water from basic education to formal, specialized education and considering the social and cultural aspects of each community. Therefore, it will be a center aimed at addressing water issues in a cross-disciplinary perspective, combining social, gender and cultural development of water-related issues.

8. This proposal contemplates a center that will in compass and promote a broad, diversified, global perspective on issues related to water, with a focus on Latin America and the Caribbean as well as CPLP countries. To this end, the Center will develop its own courses and activities in education, training and research and in partnership with other centers and universities in order to attract those interested in training and academic education in the field of water resources. Research and education programs that meet the needs of each region, in Portuguese and Spanish languages, will be offered in order to attract professionals not only from focal regions, but worldwide.

9. Consequently, there will be a strong multiplier component. The creation of a new Centre will increase the supply of opportunities for education, training and research in water, especially in

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\(^6\) CPLP Member Countries are: Angola, Brazil, Cape Verde, East-Timor, Guinea-Bissau, Mozambique, Portugal, and São Tomé and Príncipe.
focal regions, and consequently, there will be a greater number of professionals able to work around the issue of water world, solving any problems in their countries.

10. The International Hydrological Program will also benefit directly from the creation of this new center focused on education, training and applied water in Latin America and the Caribbean and the CPLP countries, as UNESCO-HIDROEX will working in close collaboration with the Programme for the delivery of its objectives and a great number of countries, in particular in Africa.

III – HIDROEX QUALIFIES TO BE A CATEGORY 1 CENTER OF UNESCO

11. Brazil is also internationally recognized as having invested in the development of a world-class system of State and Federal research and academic training institutions. This evolution as well as the growth of the National Water Agency (ANA) and its leadership role in the World Water Council (WWC) provides a stable platform from which to take the lead in water education.

12. Since early in 2004 Brazil indicated a desire to assist UNESCO in meeting this increasing demand, but employing a distinct development and delivery model. While it took several years to mesh the bureaucracies of the State, the Federal Government and UNESCO, it finally became a reality, as noted above in late 2009.

13. Hidroex has made a concerted effort to develop its physical infrastructure, governance and administrative capabilities, its education and research staff and academic programs, while recognizing the national and international partnerships required to address research problems on a global scale, as well as guarantee its long-term financial viability and academic integrity.

14. Physical infrastructure and City of Waters: Hidroex is located in an education and research complex, referred to as the “City of Waters.” This facility has an installed infrastructure of approximately 400,000 m2 and is composed of the Hidroex campus, the Water Condominium, private offices, institutional offices, and a satellite campus of the State University of Minas Gerais (UEMG), all of which is available to Hidroex. The modalities of transferring of the properties will be discussed on the basis of findings of the feasibility study. See Annex 1 for further details.

15. Developing a campus to serve the needs of an estimated 1,200 students and staff necessitated a sequencing plan for construction and substantial financial contributions from both the Federal Government and the State of Minas Gerais. To date, in the first phase, USD 42 million was invested to plan and construct administrative offices, conference auditoria, eight wet-laboratories (geo-processing, water and soil physical chemistry, hydrology and meteorology, biology, water effluents, microbiology, information technology, and distance education - video conferencing facility), classrooms, a library and distance learning complex, 576 student dormitories, a cafeteria, a sports complex, as well as a satellite campus for the State University of Minas Gerais. The next phase, which will represent an additional investment of
USD 33 million, will include a visiting faculty housing, roads and parking facilities and the Water Condominium. Without question, the City of Waters is about to become a world-class physical facility. These investments are supported by contributions from both the Federal and State Governments. The future administration of these facilities will be negotiated with UNESCO.

<table>
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<tr>
<th>Cost of construction of the Center and the City of Waters</th>
<th>Resources needed to maintain the center and the city of waters.</th>
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<td>Approximately USD 75 million.</td>
<td>Approximately USD 5 million per year.</td>
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16. Governance: The President of Hidroex was named by the Governor of the State of Minas Gerais in mid-2010, and since that time approximately 35 administrative and support staff members have been added to Hidroex, including a Vice President, Chief of Staff, Senior Financial Officer, Legal Counsel, a Director of Research and a Director of Education. Some of the administrative staff is based in the State Capital of Belo Horizonte, while the majority of the staff is situated at in Frutal, Minas Gerais. The President maintains offices in both venues. The Governing Board (GB) of Hidroex was approved in accordance with IHP policies at its 2011 Intergovernmental Council and since that time has met twice – in 2012 and 2013. The center is proactive in terms of keeping the IHP Secretariat informed – both directly and through the three IHP-elected members of its GB.

17. Hidroex is also integrated by an Advisory Scientific Council, whose 9 members where appointed by the Governor of Minas Gerais in early 2014 after consultations with academic and research institutions. It includes both national and international members, representing high-level knowledge in water. The first meeting of that body was held in May 2014.

18. While the administrative responsibility for Hidroex will pass to UNESCO requiring adjustments to its present organization, Brazil has demonstrated its ability to act within the existing policies governing Category 2 centers and will adjust to the new administrative reality upon designation as a Category 1 center.

19. Education and Research Staff: The center has an academic staff including PhD and MSc levels. The existing contingent of academic staff is reinforced by visiting staff from IHE and Brazilian institutions when needed, to present short courses, plan for the future curriculum of the center, and undertake research projects. This situation is recognized as a short-term solution for the start-up phase of UNESCO-HIDROEX. This is the highest priority in terms of building the staff of the institute. Several post-graduate students have also been contracted through project funding mechanisms to initiate a modest research effort, and a number of agreements have been signed with both national and international agencies and institutions to help establish the
academic brand of Hidroex. It is understood that many additional and senior academic staff will have to be hired in the mid-term in order to coalesce research teams around priority themes and develop a respected teaching and research faculty. This will be done taking in consideration the need of having a diversified range of regional, academic and professional backgrounds.

20. Currently, there are 16 Brazilians studying at UNESCO-IHE; 5 at the MSc level, 4 at the PhD level and 5 undertaking post-doc research. Apart from that, there are 2 PhD students studying at Oregon State University. Most of these students are supported through an agreement with the National Scientific and Technological Development Council (CNPq) through the Science Without Borders program or through the Minas Gerais Research Support Foundation (FAPEMIG). These students are singled-out from the very large numbers of Brazilians studying water resources nationally and abroad, with support from various sources, because they have some affiliation with, and/or mid-term commitment to Hidroex once their studies are completed. When they have completed their studies, they will logically help Hidroex expand its faculty in the near-term. Some, depending on the source of their fellowship funding have a formal commitment to return to Hidroex for a specified period of time. The first group of these students obtained their MSc degree in April of 2014 from UNESCO-IHE. Moreover, the Water Condominium will expand the number of academics and researchers available to the Center. The details of how these staff relate to UNESCO will be negotiated as part of the feasibility study.

21. The current staff contingent of UNESCO-HIDROEX includes: 31 professional functionaries such as the President, Vice President Director of Research, Director of Education and Training, Legal Counsel, Auditor, Technicians and Advisors; 32 Administrative and Support staff, 10 Trainees, and 25 staff associated with the Yara Lins Eco-Citizenship Center in Frutal. The State of Minas Gerais will open a national recruitment process to attract up to 20 researchers, 16 administrators and 40 staff with specialties in science and technology disciplines in 2014, in order to establish a core of qualified personnel at Hidroex. The young scientists returning to Brazil with advanced degrees will also be added to the staff of Hidroex. The status of these staff will be negotiated with UNESCO and approved in compliance with UNESCO human resource standards and requirements.

22. The Center will be equipped with modern laboratories for analysis and investigation of water-related issues. The physical structure is in the final development phase and will enable the Center to undertake research in water, especially in Geo-processing, water and soil physical chemistry, meteorology and hydrology, biology, water effluents, microbiology, information technology, and distance education (video conferencing facility).

UNESCO-Hidroex Vision for Research

UNESCO - HIDROEX International Institute for Education, Capacity Building and Applied Research will have a robust research program in place headed by senior faculty, who together with students will generate new and developmentally-relevant, applied research and thinking that addresses priority issues in the water sector; the results of which will impact water policies and management globally. Research in water will focus on the needs and specialties of Latin America and the Caribbean and the CPLP countries, to generate new products and scientific innovation, able to ensure sound governance of water resources, with a view to regional and global water security.
23. **Academic Programs:** At this point in time the experience of UNESCO-HIDROEX to develop and offer formal education and certified laboratories is being undertaken with UNESCO-IHE or with other academic institutions such as the Federal University of Ouro Preto (UFOP), the Federal University of Lavras (UFLA), the Federal University of Juiz de Fora, and the State University of Minas Gerais (UEMG). The agreement with UFOP, which will be initiated in mid-2014, will offer a joint MSc degree in socio-economic sustainable development. Additionally each year an increasing number and thematic orientations of short courses are being offered and the amount of research being undertaken is also growing incrementally. Additionally, the UEMG initiated in 2014 a new MSc program in environmental sciences in cooperation with Hidroex at the City of Waters.

24. Since 2010, sixty-nine (69) short courses were offered nationally and nine (9) courses offered internationally in: Mozambique, Cape Verde, Argentina, Costa Rica, Uruguay, and Colombia, benefiting a total of 4,768 professionals. These courses addressed the following themes: water quality management, integrated watershed management, risk management, and extreme climatic events. Additionally Hidroex staff participated in specialized training in Cape Verde, Mozambique, Costa Rica, Mexico, and the Netherlands. Annex 2 contains the complete list of educational and training activities led by Hidroex so far.

25. Since 2011, scientific research has been developed by Hidroex in partnership with several other research institutions on the following themes: integrated river basin management; recovery and conservation of soils and water resources; forest inventory; forest recovery in Permanent Preservation Areas; agro-ecological zoning; characterization of river habitats and inventory of aquatic biodiversity; environmental compliance; sustainable urban water management; water-related illness; payment for environmental services; history and culture of water; water education; invasive species; fisheries management; and wetlands management. Eventually, Hidroex, with the advice of its Science Advisory Board, will determine which themes will form the core of their research efforts, which will also help guide development of the research and teaching laboratories. A complete listing of the research activities currently being undertaken at Hidroex is found in Annex 3.

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**UNESCO-HIDROEX Vision for Partnerships**

HIDROEX embraces the value of creating institutional synergies through the development of pro-active partnerships in education, research and capacity development and views the development of such strategic partnerships as fundamental to its future as a post-graduate center in the water sector. The Center will act as a catalyst for enhancing institutional capabilities, developing courses and research in water activities in conjunction with universities, research centers and UNESCO’s Water Family.
26. Brazil has always thought of HIDROEX serving the training needs of neighboring countries in Latin America, Caribbean and countries of CPLP. To this effect, Hidroex has developed several key partnerships with a wide range of national and international education and research institutions and agencies, nearly 25 in total. They include UNESCO Category 2 centers, international NGOs such as the Cousteau Foundation and the International Center for Eco-hydrology (ICCE), several Federal and State universities, and key Federal agencies such as the National Water Agency (ANA), the National Scientific and Technological Development Council (CNPq), and the Minas Gerais Support Foundation (FAPIMEG).

27. The scope, frequency and academic level of the educational offerings of UNESCO-HIDROEX has steadily increased since 2010. Initially an effort was made to raise awareness in the host City - Frutal as to the importance of the development of Hidroex and via these programs gain the support of all sectors of society. This involved an early investment in developing the Yara Lins Ecocidadania (Eco-citizenship) Center in the City of Frutal. By offering courses for all educational levels and featuring the arts and cultural disciplines, the citizens of Frutal learned art skills but also gained an appreciation about Hidroex and its goals in sustainable management of the environment. Apart from this ongoing community education program, Hidroex has also expanded its academic offering in partnership with other academic institutions from Brazil and abroad. This combination of community and cultural education with more formal and technical education represents a model that will make an important contribution in UNESCO context. Examples of this dual approach include: (i) an arts-based environmental fair for children from both Frutal and Cape Verde, (ii) a joint MSc program with the Federal University of Ouro Preto (UFOP) that will be inaugurated in mid-2014, as well as technical courses offered with UNESCO-IHE in Cape Verde and Mozambique.

Hidroex Vision for Capacity/Institutional Development

Hidroex is in the process of establishing itself as an international water education and research center, with a solid basis for developing and offering education services, undertaking research and building institutional partnerships in Brazil, Latin America, Caribbean and Portuguese-speaking Africa and be a sought-after partner in providing demand-driven services in these areas.
IV – VISION FOR THE FUTURE

28. The Center will be based in Frutal, Minas Gerais where is the "City of Water" complex is located. Frutal is a town located in State of Minas Gerais, under the Guarani Aquifer, far away approximately 600km from Belo Horizonte, capital of Minas Gerais State. The Center could maintain offices in Belo Horizonte, in order to facilitate the processing of administrative actions.

29. The Center will identify regional needs in terms of water governance in monitoring the quality and quantity of water, access to water in urban drainage and risk management and will offer training, education and research for solution control and of each event.

30. The Center will seek and stimulate partnerships with other centers of category 1 and 2 centers and chairs of UNESCO, including the Institute in Delft the Netherlands. This will be at the core of the new institutional philosophy, being complementary and independent to expand and improve the network of UNESCO. Hidroex will develop its education and research programs with these centers in order to maintain permanent contact and exchange of regional experiences. Therefore, the Center will reinforce collaboration among UNESCO’s water related entities rather then been a duplication or overlapping structure. Thus, training and research in water will have a global reach, enhancing the goals of IHP and the United Nations.

31. The Centre will aim to promote South-South cooperation, to promote actions and materials in regional languages Portuguese, Spanish (and English). The Center also intends to play a key role, within its mandate, in North-South and triangular cooperation.

32. The Center will allow public policy to be optimized and young people will be better prepared to deal with water resource issues locally and therefore ensuring that water is managed for the good of the region and of all humanity.

33. The center will be transformative in terms of the relationship between water and gender. Specific education actions will be developed with the UNESCO Chair of Ouro Preto, Minas Gerais, to address this theme. The Center will seek to establish cooperation agreements to join with others UNESCO Chairs, taking into account local needs. Also, Africa is a priority to UNESCO. The Centre will leave to African continent knowledge in water resources for its social and economic development.

34. In addition, the Center will be integrated into the Department of Natural Sciences of UNESCO, especially the division of Water Sciences, directly linked to the International Hydrological Programme. The new center will constitute a powerful tool for the IHP in implementing its objectives. Thus, the new center will work in close collaboration with the IHP-LAC and Brazil, as well as UNESCO IHP centers and chairs in developing their institutional responsibilities.

35. Fellowship Support: Without question a large majority of the students who will eventually pursue post-graduate studies at Hidroex will require financial support. Hidroex will
work within the existing national fellowship structure to ensure that all necessary financial support is provided to qualified students who gain acceptance to Hydroex. This includes support from the National Scientific and Technological Development Council (CNPq), Minas Gerais Research Support Foundation (FAPEMIG), and the Ministry of Science, Technology and Innovation (MCTI), and others. This will eliminate any financial risk on the part of UNESCO to support students accepted to the study program.

36. UNESCO-HIDROEX will actively seek the involvement of the network of IHP Category 1 and 2 centers, universities and research centers in Latin America, the Caribbean and CPLP countries, as well as the UNESCO Water Chairs, will benefit directly from the development of the Water Condominium (see box below) through active participation in research endeavors, producing joint publications, and signing agreements with the UNESCO Chairs, related to priority research themes.

37. The Center will define the academic programs required to meet the region’s needs and priorities and will run them in partnership with the institutions of the Water Condominium and the UNESCO Chairs. One possible additional modality for defining research and project priorities will be through dialogue and engagement with IHP National Committees.

38. In addition to the above-noted physical facilities, the development of a ‘Water Condominium’ must be given special note. One of the main objectives of IHP-VIII is to put science into action, by promoting the process of transformation of information and experience into answering local and regional needs for tools to adapt IWRM (Integrated Water Resources Management) to global changes and building competences to meet today’s global water challenges. To this end, it is essential to establish knowledge platforms where stakeholders, researchers, local institutions, policy makers, and education entities can exchange and share the information, communicate each other, and develop new ideas in support of policy making and decision processes.

39. The proposed water condominium will help ensure that the center acts as a regional leader in the global network of education, training and research institutions in water, identifying the strengths and specialties of each academic institution promoting research activities in waters. The Center will function as an institutional catalyst of expertise on the subject of water forming partnerships with each member to develop affirmative action in education and research in water.
THE WATER CONDOMINIUM

The Water Condominium is a unique concept that attracts scientists from around the world interested in addressing complex, priority research problems requiring inputs from social sciences, natural sciences and engineering disciplines. This concept has the institutional support of several universities and research centres in Brazil, Latin America, Caribbean and countries of CPLP. This facility will provide general infrastructure to visiting scientists sharing a research interest in a common theme of importance to the research efforts of UNESCO-HIDROEX. The idea is to offer a synergistic environment in which groups of scientists can work together, exchange ideas and field-test such concepts. Scientists will be resident in Brazil for indeterminate periods and share the results of their research on common themes with colleague-scientists from around the world. Its outputs will aim to expand a holistic approach to water governance and management by balancing competing demands from diverse interests such as agriculture, industry, environment and domestic stakeholders with the context of climate change, population growth, and other realities confronting human progress. The goal is to help Member States adapt new strategies that will make both their ecosystems and socio-economic systems more resilient to such changes and offer decision-makers clear indications of the implications of decisions they are confronting.

Hidroex Vision for Education

The Centre will be an education destination for highly qualified and motivated students from Brazil, Latin America, Caribbean and Portuguese-speaking Africa, offering many courses about water theme, together with established and fully accredited universities and research centers in Brazil and internationally. As part of its eco-citizenship program, Hidroex will continue to expand its formal and informal education and training programs for all citizens in the Triangle region at the Yara Lins Center and for Latin American and CPLP citizens through the facilities at the City of Water campus. The development of water education programs will take into account regional needs, as well as social and cultural aspects.

40. Hidroex will be an integral part of UNESCO. The composition of the Center’s Governing Board, tenure of the directors, requirements for appointment, among other aspects will be further refined, based on the applicable rules, the findings by the feasibility study to be undertaken, as well as on further discussion between the Brazilian authorities, Hidroex and UNESCO Secretariat.
V. NO FINANCIAL RISKS TO UNESCO

41. The Government of the State of Minas Gerais will guarantee the permanent financial viability and predictability of Hidroex as per the requirements of UNESCO by enacting a law to that effect. In this respect, a letter from the Governor of the State of Minas Gerais is being sent to UNESCO, communicating his support for this proposal (see Annex 5). The draft law is currently under preparation to be sent in due course to the Legislative Assembly. The details of the financial arrangement will be discussed on the basis of the feasibility study to be undertaken after the approval by the IHP-IGC. Annex 4 provides an overview of the most salient financial information concerning Hidroex since 2010.

42. Functional Autonomy – a Requirement for Academic Institutions: Hidroex has an academic focus and will address the issue of functional autonomy and academic freedom during the feasibility study phase. Hidroex already has a functioning GB and Scientific Advisory Council and these bodies will be involved in developing policies relating to these issue.
ANNEX 1

CITY OF WATERS AND THE YARA LINS ECO-CITIZENSHIP CENTER

City of Waters: The City of Waters is located in Frutal, Minas Gerais on the banks of the Rio Grande, the headwaters of the Paraná River, and in the Guarani Aquifer, which is one of the largest groundwater reserves in the world.

This facility will serve the interests of both Latin America and the Community of Portuguese-speaking Countries (CPLP) in terms of many water-related priorities identified in IHP-VIII through both its education and research programs and including among other topics: IWRM, waste water treatment, reuse and quality, water security applying advanced technologies to water management, conflict management, and water education at all levels and for all sectors at national, regional and international scales.

Phase 1 development: the first phase of the development of the City of Waters includes 19,000m$^2$ (U.S.$42million investment) serving both the State University of Minas Gerais (UEMG) and Hidroex.

- UEMG (14,000m$^2$): facilities include 29 classrooms, 5 computer labs, 5 analytical wet labs, and a distance education and audio and video complex (with a master room plus 6 labs). Additionally, there is a library, study lounges for students, prep rooms for academic staff, an administration facility and an auditorium with seating for 450 people, and public reception and dining facilities.
- Hidroex (5,000m$^2$): facilities include an administration building, storage room, data processing facility, several classrooms, a research laboratory, meeting rooms, multimedia room and auditorium.

Phase 2 development: The second phase in the development of the City of Waters will include an additional 25,000m$^2$ (U.S. $31 million investment) and will be completed in 2014. This phase will add the following facilities to the campus:

library and documentation center, 576 dormitory rooms, group study areas, 8 wet labs (physics, chemistry, biology, etc.), administrative offices, data center, and a videoconference complex.
Additionally, this phase will include development of an “Olympic Village” sports complex of approximately 27,000 m², including a football field with synthetic grass, gymnasium with indoor sports courts, lap pool, running track with a synthetic rubber floor, showers and toilets.

Phase 3 development: The third phase will require an investment of approximately U.S.$ 25 million and is also scheduled for delivery in late 2014. Facilities include: water supply and treatment facility, solid waste treatment facility, irrigation system, fire protection and visual/aesthetic additions such as a 23,000 m² boulevard (physically tying the campus to the city of Frutal), a cultural center of nearly 10,000 m², a road, parking and walkway/bridge/viaduct system, and open lawns totaling approximately 215,000 m². Additionally a third block of classrooms totally 4,560 m² will be added to the UEMG wing of the campus. There will be three lunch stations along the boulevard plus a restaurant of 1,000 m², a guesthouse for up to six visiting scholars will also be included in phase 3 of the development plan.

Phase 4 development: An estimated U.S.$9 million will be invested in phase 4 of the development plan scheduled to be completed in 2015. This phase will focus on the development of the Water Condominium (23,000 M²) that will be used by scientists sharing a common research interest, and include offices, a restaurant, and multi-purpose rooms.

Yara Lins Eco-citizenship Center: The Yara Lins Eco-citizenship center was established to better tie the goals of Hidroex to the citizens of its host city, Frutal, MG. In many ways it is a direct extension of the City of Waters – both in concept and in practice.

Catalyzing greater understanding of the relationship between quality of life and the natural resource base is a fundamental principal of eco-citizenship. Using art and cultural activities as a platform for attaining this goal, particularly with young people, to communicate the relationships between environment and life quality is the primary objective of this center.
The center’s physical facilities include: classrooms, arts and craft labs, a 750-person ballroom/auditorium, a video conference facility, 2 computer labs, and musical instruments which are available to be used by workshop participants. The space allows the integration of eco-citizenship activities sponsored by Hidroex with the school community and other citizens, promoting awareness of the understanding that "the environmental issue is also a matter of cultural formation", and reinforcing the belief that human life is associated with sustainable development.

The creation of a Center for Environmental Sciences is also contemplated as part of this complex in the near-term future. The main objective of this center will be the presentation of radiography of the Earth, facilitating training courses with an environmental focus. To this end, the Center for Environmental Sciences secured partnerships with IGAM – Minas Institute of Water Management, IEF - State Forestry Institute, Emater-MG, COPASA and Cemig to gather a rich database digital data that will be available on a flat screen.
The scope, frequency and academic level of the educational offerings of Hidroex has steadily increased since 2010. Initially an effort was made to raise awareness in the host City - Frutal as to the importance of the development of Hidroex and via these programs gain the support of all sectors of society. This involved an early investment in developing the Yara Lins Ecocidadania (Eco-citizenship) Center in the City of Frutal. By offering courses for all educational levels and featuring the arts and cultural disciplines, the citizens of Frutal both learned those skills but also gained an appreciation about Hidroex and its goals. Apart from this ongoing community education program, Hidroex has also and expanded its academic offerings, principally in partnership with UNESCO-IHE but involving other academic institutions from Brazil. This combination of community education and more formal and technical education represents a new model for category I centers within the UNESCO context. Examples of this dual approach include: (i) an arts-based environmental fair for children from both Frutal and Cape Verde, (ii) a joint MSc program with the Federal University of Ouro Preto (UFOP) that will be inaugurated in mid-2014, as well as technical courses offered with UNESCO-IHE in Cape Verde and Mozambique.

1. **Education activities that directly contributed to the IHP-VII (Hidroex report to IHP 2010-2012)**

Educational activities undertaken by Hidroex did not really start until 2011. However, in 2010 a lot of effort was invested in making inroads to catalyzing a better understanding of environmental issues with citizens of Frutal. To that end two main activities can be reported.

**Art Workshops** (Yara Lins Ecocidadania Center) Citizens of Frutal participated in art and cultural workshops (music, choral, visual arts, dance) aimed at promoting greater understanding and appreciation of the connections between art/culture and the natural environment of the Rio Grande region. Three courses were offered from September – December 2010 involving 1200 young people. The outcomes were presented in public shows.
Craft Workshops (Yara Lins Ecocidadania Center) Several workshops were offered during the September-December 2010 period involving nearly 600 young people from the City of Frutal. These workshops focused on the use of recycled materials to produce crafts that advanced the understanding between social, economic and environmental aspects of society.

1.1 Implementation of a "WATER EDUCATION" pilot program in Frutal's public school system
   Phase 1 (August/2011 to July/2012):
   - Training course on "Environment/Waters" for all teachers of Frutal's public schools;
   - Implementation of an Environmental Education Program for public schools, with guidance and supervision from Hidroex;
   - Organization of workshops on science and technology products, with the purpose of promoting sustainable development;
   - Establishment of a network of partner schools between Latin American and Portuguese-speaking countries, allowing students and teachers to take part in the international debate on "Water Education";
   - Organization of The International Workshop on Water Education in the pilot municipality for exchange of experiences among national and international partners;
   - Setting up of the program "adopting my neighborhood", through sociocultural/environmental actions promoted by partner schools, with supervision from Hidroex and participation of the local community.

1.2 Foundations in water resources management. The course offered the basic concepts of river basins and why it should be considered as the primary planning and management unit. The role of law and the development of legislation on water management in Brazil was explained and linked with the instruments of management.

   1.2.1 Background (cooperation UNESCO-IHE / Hidroex)
   Hidroex has contracted UNESCO-IHE to assist in the development of capacities of the new UNESCO Category 2 Center to be able to eventually deliver university level and post-graduate level short courses in key areas of water science. Three courses are to be offered at the Hidroex campus in Frutal, Brazil during the period 2011-2012: (1) Water Quality Assessment and Monitoring, (2) Integrated River Basin...
Management (IRBM), and (3) River Flooding. The IRBM course is also to be taught online and via videoconference. A final short course will be organized and taught in Africa, in cooperation with CPLP.

1.2.2 International Course on Water Quality and Monitoring, 1st module (40 hours). November 2011. The course content focused on physical, chemical, and biological characteristics of water bodies including rivers, lakes/reservoirs and groundwater. It also presented the topics on major pollutants and their sources and fates, water quality standards and their establishment, and the current water quality situation in Brazil. The course trained 82 people from different sectors of society, from civil and public organisms, in order to contribute to the effective management of local water. IHP THEME 2, FOCAL AREA 2.4 IHP THEME 5, FOCAL AREA 5.1, 5.2, 5.3, 5.4

1.2.3 International Course on Water Quality and Monitoring 2nd module (40 hours). February 2012. During the one-week course, 27 students received information on different methodologies to get samples in field, which later they were able to perform on the field trip which complemented the course. IHP THEME 2, FOCAL AREA 2.4 IHP THEME 5, FOCAL AREA 5.1, 5.2, 5.3, 5.4

1.2.4 International Course on Extreme Natural Events, Risk Management (16 hours), Araras, Rio de Janeiro. March 2012. This short course was offered to 35 people working or involved with civil protection activities in several municipalities in the state of Rio de Janeiro which allowed the trainees to understand and relate flooding events with their experiences of flooding and landslide catastrophes. IHP THEME 1, FOCAL AREA 1.1, 1.2, 1.3, IHP THEME 2, FOCAL AREA 2.4 IHP THEME 5, FOCAL AREA 5.2

1.2.5 International Course on Extreme Natural Events. Risk Management (40 hours) March, 2012. This course trained 38 civilians and military personnel, offering activities related to Disaster Relief Actions. This course allowed the trainees to understand and relate flooding events with their experiences of flooding and landslide catastrophes. IHP THEME 1, FOCAL AREA 1.1, 1.2, 1.3, IHP THEME 2, FOCAL AREA 2.4 IHP THEME 5, FOCAL AREA 5.2,

1.3 Environmental Education Events
1.3.1 Participation in the 6th Rio Grande River SOS (municipal district of Itapagipe), held in June 5-6, 2010. This event, which included a special cultural and educational agenda, aimed at sensitizing the local population and neighboring towns to the situation of vulnerability and environmental degradation from excessive amount of garbage discarded into regional rivers, especially in the Rio Grande River. IHP THEME 5, FOCAL AREAS 5.3, 5.4

1.3.2 Participation in the 1st Rio Grande River Cleanup (municipal district of Planura), held in June 26-27, 2010. This was an initiative of the Professional Fishermen and Aquaculturists Association of Planura Municipality and professional fishermen from Colômbia Municipality. Sixty-four fishermen collected 7,000kg of garbage within a stretch of 8 km along the river, between the municipalities of Planura and Colômbia. IHP THEME 5, FOCAL AREA 5.4

1.3.3 Rediscovering the River (municipal district of Frutal), March 22, 2011. Outreach activity involving various sectors of the community of Frutal, MG, aiming at improving public awareness concerning the environmental conditions of the Vertente Grande Stream, which crosses the urban area of Frutal. IHP THEME 5, FOCAL AREAS 5.3, 5.4

1.3.4 Participation in the 2nd Release of Fish in the Rio Grande River (municipal district of Frutal), May 15, 2011. The event took place in the margins of the Rio Grande River, with the release of fish provided by AES Tietê Company, distribution of seedlings of fruit plants and other native species, and including lectures (Water Basin Committee and Hidroex. IHP THEME 5, FOCAL AREAS 5.3, 5.4

1.3.5 Environmental Festival (municipal district of Planura), June 3, 2011. Involving about 2,000 children, the Environmental Festival was part of the cultural and environmental event that opened the 2nd Rio Grande River Cleanup, in Planura, MG. There were many activities aimed at educating children about environmental issues, among which: Memory Game, Puzzle, Fishing Game, Garbage Bag Race, Garbage Race, Environmental Movies, Exhibition of Plankton Organisms, an Environmental Play etc. IHP THEME 5, FOCAL AREAS 5.3, 5.4

1.3.6 Participation in the 2nd Rio Grande River Cleanup (municipal district of Planura and Colômbia), June 4-5, 2011. Second edition of the event organized by Planura’s and Colômbia’s fishermen, with the participation of more than 300 fishermen, resulting in the collection of 13,517 kg of garbage. IHP THEME 5, FOCAL AREA 5.4

1.3.7 1st Environmental Movie Fair (municipal district of Frutal), June 5-11, 2011. A free event organized for Frutal’s population, which took place at Hidroex’s Yara Lins Eco-citizenship Center. The Exhibition played 30 short and 10 feature movies for more than 1,600 students from Frutal’s public schools. IHP THEME 5, FOCAL AREAS 5.3, 5.4

1.3.8 Participation in the 3rd Release of Fish in the Grande River (municipal district of Frutal), March 17, 2012. There was release of fish (curimiba)
provided by AES Tietê Company, distribution of seedlings of fruit plants and other native species, lectures (Federal University of Uberlândia and HIDROEX). IHP THEME 5, FOCAL AREA 5.4

1.3.9 Participation in the 5th Week for Preservation and Conservation of Water Resources: Water – the Right and Duty of Everybody, in Uberlândia, March 23, 2012. Hidroex participated by presenting two lectures: “Sustainable Regulation of Fishing and Aquaculture in Minas Gerais’ Reservoirs”, and “Biological Processes in Rivers and Bio-monitoring” for technicians from public institutions of the Triângulo Mineiro region. IHP THEME 5, FOCAL AREA 5.4

1.3.10 Participation in the 1st Seminar on Fish Cage Farming, Full Use of Fish Materials and its Socio-Economic Benefits (municipal district of Fronteira), March 31, 2012. Hidroex participated by presenting the lecture “Sustainable Regulation of Fishing and Aquaculture in Minas Gerais’ Reservoirs”. IHP THEME 5, FOCAL AREA 5.4

1.3.11 2nd Environmental Movie Fair (municipal district of Frutal), March 20 to 23, 2012. A free event organized for Frutal’s population, which took place at the auditorium of the State University of Minas Gerais. Some 2500 students from Frutal’s public schools participated in this event that included 23 short and feature movies. IHP THEME 5, FOCAL AREA 5.4

1.3.12 Participation in the 1st Week for Economic Development - Iturama and its Surroundings (municipal district of Iturama). April 23 to 25, 2012. This event was organized by SEBRAE – Brazilian Service of Support for Micro and Small Enterprises. HIDROEX contributed to the event by presenting three lectures: “Sustainable Regulation of Fishing and Aquaculture in Minas Gerais Reservoirs”; “The Drainage Basin as the Unity of Planning and Management of Water Resources”; and “Rainwater Harvesting Techniques for Recovering Degraded Soils”. IHP THEME 5, FOCAL AREA 5.4

2. Education activities that directly contributed to the IHP-VII IHP-VIII (Hidroex report to IHP June 2012-May 2014)

2.1. Course: Monitoring and Evaluation of Water Quality (as per 1.2.2 above)
2nd module: 6 -10 February 2012, 40 hours. Content and objective as above 1.2.2.

2.2. Course: Extreme Natural Events - Risk Management, 23 - 24 March 2012, 20 hours. This course provide 80 civil defense participants an introduction to hazards / disasters, climate change and natural hazards, risk management (floods,
landsides and floods), and mitigation measures employing state-of-the-art technologies.

2.3. Course: Extreme Natural Events - Risk Management. 26-30 March 2012, 40 hours. As above (2.2) with more intensive training and discussions.

2.4. Course: Interdisciplinary Water Education. 16 hours. Course material covering the topics as noted in 2.2 above and training 230 elementary school teachers from the Frutal area public schools.

2.5. Course: Interdisciplinary Water Education, 16 hours. As above in 1.3.1-1.3.12 involving 170 teachers from 25-29 June 2012 from the City of Uberaba, MG.

2.6. Course: Integrated Watershed Management, (workload of 120 hours divided into three 40-hour modules offered with the support of UNESCO-IHE) 1st module: 25-29 June 2012. The objective of this series was to provide technicians, professionals and researchers in areas related to the environment, throughout Brazil, current practices and approaches for integrated watershed management. Content: water resources I, urban water demand II, water demand, agriculture I, trans boundary water management, water resources II, water demand-agriculture I, water allocation I, Exercise - The IWRM: concepts and definitions I, water demand-urban I, negotiating rules for operating a multipurpose reservoir, transboundary water management II, IWRM: concepts and definitions II, water allocation II.

2.7 Course: Integrated Watershed Management, (workload of 80 hours divided into three 40-hour modules) 2nd module: 2 - 7 July 2012. Content: program monitoring, sampling and field physical-chemical analysis, sampling of surface water, eutrophication, water monitoring, conducting fieldwork laboratory management and data presentation.


2.9 Course: Integrated Flood Risk Management: Concepts, Approaches and Challenges. Valle Del Cauca – Cali, Colombia, 16 - 20 October 2012. This course aimed to update practicing professionals on the latest measures to manage flood risk in an urban setting. Content: introduction to concepts and frameworks in Integrated flood risk, disaster cycle, understanding flood risk in urban areas, analyzing flood hazard and flood vulnerability, dealing with flooding in urban
environments - non-structural/structural measures, impact of change on flood risk in emerging urban centers, concepts of anthropogenic climate change and resilience etc. Total of 25 Colombian technicians were updated and trained in line with the IHP-VII goal of South-South collaboration.

2.10 Field workshop: Organization of Three Hundred Water Users in the Parnaíba River Basin in the City of Centralina, MG. This interactive workshop which was held in October 2012 and included the participation of 300 water users, involved UNESCO-IHE, Emater Farmers Union, and the Rio Paraiba River Basin Committee. Its aim was to promote joint resolution to existing and potential conflicts surrounding access to and use of water resources.

2.11 Course: Monitoring and Evaluation of Water Quality. This is the first Hidroex-sponsored course (28 January – 8 February 2013) to be held in a CPLP country – Cape Verde. The objective was to train technicians and other Cape Verdean professionals in the principles of water resources management, and monitoring and evaluation of water quality. Fifty-two professionals participated in the course.

2.12 Course: Monitoring and Evaluation of Water Quality. This course was held from 29 July – 2 August 2013 with the assistance of IGAM and UNESCO-IHE and was aimed at upgrading the technical levels of 30 IGAM technicians in water quality monitoring techniques.

2.13 Course: Monitoring and Evaluation of Water Quality. This course was held in Mozambique and from 10-20 September 2013 trained 40 government technicians in compliance of international agreements relating to monitoring and evaluation of water quality.

2.14 Course: Monitoring and Evaluation of Water Quality. This course was held from 4-14 November 2013 in Santa Fe, Argentina and Hidroex provided training to 27 professionals in new water quality monitoring techniques together with staff from UNESCO-IHE, IHP-LAC and the Argentine National Water Institute. The course dealt with the chemical characteristics of natural waters, biological processes in water bodies, types of contamination, norms and standards of water quality, designing a water monitoring program, physical-chemical monitoring, biological monitoring, water quality management, water quality standards in Argentina, preparation of a practical program monitoring water quality, and analysis and interpretation of test results.
2.15 Course: Integrated Watershed Management  This was a specially designed UNESCO-IHE and the National University of Brasilia course for 28 staff from ADASA, the regulatory body for water quality, energy and sanitation in Brasilia. It was held from 24-28 June 2013 and focused on governance and management, legislative functions of environmental and water laws, the hydrological system, watershed management, river system and the human interface, biodiversity of wetlands and general ecological management principles.

2.16 Course: Integrated Watershed Management  This course was offered between 8-19 July 2013 to 25 technicians from the National Water Institute of Argentina. The course content is similar to that of course 2.15 above.

2.17 Course: Integrated Watershed Management  This course was offered in Montevideo, Uruguay from 2-6 December 2013 to 29 faculty from the National University of Uruguay and followed the same course outline as course 2.15 above.

2.18 Course: Interdisciplinary Water Education  (workload 16 hours, 29-30 April 2013, 27 participants). The course content included: bioindicators of water quality, physical and chemical water quality, the water cycle, climate change, cultural integration of scientific data, legal basis of an interdisciplinary approach, organization of interdisciplinary planning parameters. The objective was to train elementary school teachers from public schools in Frutal and Uberaba.

2.19 Course: Interdisciplinary Water Education  (workload 16 hours, 6-7 June 2013, 100 participants). The course content included: bioindicators of water quality, physical and chemical water quality, the water cycle, climate change, cultural integration of scientific data, legal basis of an interdisciplinary approach, organization of interdisciplinary planning parameters. The objective was to train elementary school teachers from public schools in Pirapora.

2.20 Course: Interdisciplinary Water Education  (workload 16 hours, 28 participants). The course content included: bioindicators of water quality, physical and chemical water quality, the water cycle, climate change, cultural integration of scientific data, legal basis of an interdisciplinary approach, organization of interdisciplinary planning parameters. The objective was to train an additional group of elementary school teachers from public schools in Pirapora.

2.21 Course: Training for the Management of River Basin Committees. Two courses: one in Centralina, one in Frutal. Some 62 river basin management
leaders were updated on management techniques and strategies to improve the outcomes of negotiations among user groups.

2.22 Course: Technical Training of Hidroex Research Staff at UNESCO-IHE, Delft, the Netherlands, 17 May-1 June 2013. Four research staff from Hidroex were trained in techniques for improving data collection and management as well as lab management.

2.23 Course: Extreme Climate Events and Water Resources Management in Mozambique, 4-8 November 2013. This course was held in Mozambique and provided technical training to 15 professionals with water resource management functions. The course included information on the following topics: climate change and its impacts on water resources, the global context of climate change, the IPCC forecasts for the CPLP region, risk of floods and droughts, hydro-meteorological scenarios and forecasting, mitigation measures, environmental and economic impacts, hydro meteorological networks, design of network monitoring, drought, management of water and soil; recovery of recharge zones and natural springs, flood forecasts.

2.24 Program: Sister-Schools Program (Cape Verde and Frutal, MG, December 2013) This program involved some 160 students from public schools in both Frutal and Cape Verde in better understanding environmental issues in both countries and included email exchanges, video conferencing and the travel of several students from Cape Verde to Frutal, MG. concluding in an environmental fair in Brazil.

2.25 Program: UNESCO-Hidroex Yara Lins Ecocidadania Center: June to December 2013. This program involved nearly 1000 young people from Frutal in an ongoing series of art and crafts workshops to promote the aspects of good citizenship as well as a better understanding of environmental issues and their relationship to quality of life issues.
ANNEX 3
RESEARCH ACTIVITIES
2010-2014

1. Research Activities undertaken in the framework of IHP-VII in the period (Hidroex report to IHP June 2010 – May 2012)

1.1 Research activities that directly contributed to the IHP-VII

1.1.1 Biodiversity of freshwater micro-crustaceans in rocky fields within Cerrado and Caatinga Biomes- Environmental
This is an ongoing 3-year study sponsored by CNPq/FAPESP (MCTI/CNPq/MEC/CAPES/FNDCT – FAPs Nº47/2010 – This research - SISBIOTA BRAZIL) aims to increase knowledge about the Brazilian biodiversity through the study of micro-crustaceans in pristine water bodies within national protected areas in the biome of Rocky fields. Partners: HIDROEX, USP, UEMG, UNB, UCB, UNESP-Araraquara, UFMG, INPA. IHP THEME 3, FOCAL AREA 3.3.

1.1.2 Biodiversity of freshwater micro-crustaceans in rocky fields within Cerrado and Caatinga Biomes- Socio-Ecological aspects
The selected rocky fields are all in areas of intensive agro-industry activities that have been impacted by humans. In each area the social aspects of biodiversity degradation are being studied with the aim of developing an overview of the conservation status of each environment. Partners: HIDROEX, USP, UEMG, UNB, UCB, UNESP-Araraquara, UFMG, INPA. IHP THEME 3, FOCAL AREA 3.3

1.1.3 The São Francisco Revitalization Program’s research and control of water quality – RESEARCH/CAPACITY BUILDING BOAT
The São Francisco is a national river 2.830 km in length, shared by five states and receiving waters from 168 tributaries. This project will develop an assessment tool for monitoring the water quality in the middle section of the São Francisco river. Partners: HIDROEX, CEMIG (Minas Gerais
1.1.4 Water quality control and revitalization of the Rio Grande River
This project aims to develop an assessment tool for monitoring the water quality in the middle section of the Rio Grande river at the reservoir of the Volta Grande (222 km² of area and 23 x 10⁹ m³ of volume). Partners: HIDROEX, CEMIG (Minas Gerais state energy company). IHP THEME 2, FOCAL AREA 2.4, 2.5, IHP THEME 3, FOCAL AREA 3.1, 3.2, 3.3

1.1.5 Sustainable Regulation of Aquaculture Activity in the Reservoir of São Simão (Paranaiba River – Minas Gerais/Goiás)
The project will produce a systematic and sustainable fishery development plan; zoning for the installation of aquaculture systems; assessment of the socioeconomic situation in the region; a detailed description of physical and biotic environments; an environmental and hydrodynamic model of the reservoir; a definition of the carrying capacity for fishery development; delimitation of aquaculture polygons, and a geographic information data base – GIS, geo-referenced charts and maps. Partners: HIDROEX; UFMG; EPAMIG; UEMG. IHP THEME 3, FOCAL AREAS 3.2, 3.3; IHP THEME 4, FOCAL AREAS 4.1, 4.4

1.1.6 Water for Life – a model of sustainable management.
The purpose is to restore the balance between development and the improvement of living standards in the town of Frutal, as well as a conservation strategy for the region’s water resources. IHP THEME 2, FOCAL AREAS 2.1 to 2.5

1.1.7 Scientific-Technical Study of a stretch of San Francisco River for Environmental Revitalization (CETECHidroex/SECTES)
This project aims to develop a simplified methodology of environmental assessment guidelines for proposing interventions for environmental revitalization of the São Francisco River.

1.1.8 Structuring, implementation and consolidation of the Nucleus of Reference and Innovation on Irrigation and Water Resources (NURII) in Frutal, MG, with the National Water Agency (ANA) and The Brazilian Agricultural Research Corporation (EMBRAPA). This project will aggregate and disseminate information on irrigation; develop and disseminate simple techniques that contribute to the optimization of water use; as well as promote research in irrigation and water resources.
Program national partners: Hidroex\textsuperscript{1}, UEMG\textsuperscript{2}, USP-SC\textsuperscript{3}, UFTM\textsuperscript{4}, EMATER-MG\textsuperscript{5}, COPASA\textsuperscript{6}, GDS\textsuperscript{7}, ANA\textsuperscript{8}, EMBRAPA\textsuperscript{9}, IGAM\textsuperscript{10}, CEMIG\textsuperscript{11}, Frutal City Hall.

1 International Centre for Water Education, Training & Applied Research.
2 State University of Minas Gerais.
3 University of São Paulo - São Carlos Campus.
4 Triângulo Mineiro Federal University.
5 Minas Gerais State Rural Technical Assistance and Extension Company.
6 Minas Gerais Sanitation Company.
7 Grande River Basin Committee.
8 National Water Agency.
9 Brazilian Agricultural Research Corporation.
10 Minas Gerais Institute of Water Management.
11 Minas Gerais Energy Company.

2.3 Education activities that directly contributed to the IHP-VII and IHP-VIII objectives (Hidroex report to IHP June 2012 – May 2014)

2 Research Activities undertaken in the framework of IHP-VII and IHP-VIII (Hidroex report to IHP June 2012 – May 2014)

2.1 Research activities that directly contributed to the IHP-VII and/or IHP-VIII activities

2.1.1 Water for Life – a model of Integrated Management of Water Resources. (IHP VII, THEME 1: 1.2 THEME 2: Focal Areas 2.1 to 2.5; THEME 3: Focal area 3.1, 3.2; THEME 4: Focal areas 4.3, 4.4; THEME 5: Focal
areas 5.3, 5.4 – IHP VIII, THEME 1, Focal area 1.1, 1.2, 1.5; THEME 3: Focal areas 3.1, 3.2, 3.3, 3.4, THEME 4: Focal areas 4.1, 4.2, 4.5; THEME 5: Focal areas 5.1, 5.2, 5.4; THEME 6: )

2.1.2 Recovery and long-term conservation of soils and water resources. (IHP VII, THEME 2: Focal areas 2.4, 2.5; THEME 3: Focal area 3.2; THEME 4: Focal area 4.4 – IHP VIII, THEME 3: Focal areas 3.1,3.2; THEME 4: Focal areas 4.5; THEME 5: Focal areas 5.1)

2.1.3 Forest recovery in Permanent Preservation Areas, Legal Reserves and ecological corridors. (IHP VII,THEME 4: Focal area 4.4 – IHP VIII, THEME 3: Focal areas 3.1)

2.1.4 Undertaking of an agro-ecological zoning planning process. (IHP VII THEME 2: Focal Area 2.5; THEME 4: Focal area 4.4 – IHP VIII, THEME 3: Focal areas 3.1,3.3)

2.1.5 Development of a forest inventory of the watershed. (IHP VII, THEME 3: Focal area 3.1, THEME 4: Focal area 4.4 – IHP VIII, THEME 3: Focal areas 3.1; THEME 5: Focal area 5.2)

2.1.6 Quantification and description of forest fragments and establishment of a genetic conservation system. (IHP VII, THEME 3: Focal area 3.1, THEME 4: Focal area 4.4 – IHP VIII, THEME 3: Focal areas 3.1; THEME 5: Focal area 5.2)

2.1.7 Characterization of river environments and inventory of aquatic biodiversity. (IHP VII, THEME 3: Focal area 3.1, THEME 4: Focal area 4.3, 4.4 – IHP VIII, THEME 1: Focal area 1.2; 1.5; THEME 3: Focal areas 3.1, 3.4; THEME 5: Focal area 5.1, 5.2)

2.1.8 Identification of alternatives to incentives and payment for environmental services. (IHP VII THEME 2: Focal Area 2.1, 2.2, 2.3, 2.4; THEME 4: Focal area 4.4 – IHP VIII, THEME 3: Focal areas 3.1, 3.3, 3.4; THEME 4: Focal area 4.5)

2.1.9 Sustainable urban water management. (IHP VII THEME 2: Focal Area 2.1; THEME 4: Focal area 4.3 – IHP VIII,THEME 1: Focal area 1.2; 1.5; THEME 3:
Focal areas 3.1, 3.2, 3.3; THEME 4: Focal area 4.1; THEME 5: Focal area 5.1, 5.4).

2.1.10 Mapping of waterborne diseases. (IHP VII THEME 2: Focal Area 2.1; THEME 3: Focal areas 3.2 – IHP VIII, THEME 1, Focal area 1.1, 1.5; THEME 3: Focal areas 3.1, 3.3, 3.5; THEME 5: Focal area 5.1, 5.4).

2.1.11 The Impact of Education on Water Management. (IHP VII THEME 2: Focal Area 2.1; THEME 5: Focal areas 5.1, 5.4 – IHP VIII, THEME 6: Focal areas 6.3, 6.4).

2.1.12 History and culture of water. (IHP VII THEME 2: Focal Area 2.1– IHP VIII, THEME 1: Focal area 1.2).

2.1.13 Recycling lives: from an environmental problem to a social solution. (IHP VII THEME 4: Focal area 4.3 – IHP VIII, THEME 3: Focal areas 3.5; THEME 4: Focal area 4.1)


2.1.15 Sustainable Regulation of Aquaculture Activity in the Reservoir of São Simão, Paranaíba River – Minas Gerais/Goiás. (IHP VII THEME 3: Focal Area 3.2, 3.3; THEME 4: Focal area 4.1, 4.4; – IHP VIII, THEME 1: Focal area 1.5; THEME 3: Focal Area 3.1; THEME 5: Focal areas 5.1, 5.2).

2.1.16 Sustainable Regulation the Reservoir of Marimbondo – Grande River, Minas Gerais/São Paulo. (IHP VII THEME 3: Focal Area 3.2, 3.3; THEME 4: Focal area 4.1, 4.4; – IHP VIII, THEME 1: Focal area 1.5; THEME 3: Focal Area 3.1; THEME 5: Focal areas 5.1, 5.2).

2.1.17 Invasive species in reservoirs. (IHP VII THEME 1: Focal Areas 1.3; THEME 3: Focal Area 3.1, 3.3; – IHP VIII, THEME 1: Focal areas 1.1, 1.2; THEME 5: Focal areas 5.1, 5.3).

2.1.18 Water Quality Control and Environmental Revitalization of Grande River. (IHP VII, THEME 3: Focal area 3.1, THEME 4: Focal area 4.4 – IHP VIII, THEME 1:
Focal area 1.2; 1.5; THEME 3: Focal areas 3.1, 3.3; THEME 5: Focal area 5.1, 5.2).

2.1.19 Scientific-Technical Study of a stretch of San Francisco River for Environmental Revitalization. (IHP VII, THEME 3: Focal area 3.1, THEME 4: Focal area 4.4 – IHP VIII, THEME 1: Focal area 1.2; 1.5; THEME 3: Focal areas 3.1, 3.3).

2.1.20 The São Francisco Revitalization Program’s research and control of water quality. (IHP VII, THEME 3: Focal area 3.3; THEME 5: Focal area 5.1, 5.2 – IHP VIII, THEME 6: Focal area 6.1 to 6.4).

2.1.21 Biodiversity of freshwater micro-crustaceans in rocky fields within Cerrado and Caatinga Biomes- Environmental. (IHP VII, THEME 3: Focal area 3.3; THEME 5: Focal area 5.3, 5.4 – IHP VIII, THEME 1: Focal area 1.5; THEME 6: Focal area 6.3, 6.4).

2.1.22 Consolidation of the Nucleus of Reference and Innovation on Irrigation and Water Resources (NURII) in Frutal, MG, with the National Water Agency (ANA) and The Brazilian Agricultural Research Corporation (EMBRAPA). (IHP VII, THEME 1: 1.2; THEME 4: Focal area 4.4 – IHP VIII, THEME 1: Focal area 1.2, 1.5; THEME 3: Focal area 3.1, 3.3, 3.3; THEME 4: Focal area 4.1).

4. CECAFE – Environmental Science Center “Forest School” – Water and Biodiversity. Develops 23 scientific activities. (IHP VII, THEME 3: Focal area 3.1, THEME 4: Focal area 4.4, THEME 5: Focal area 5.3, 5.4 – IHP VIII, THEME 5: Focal area 5.1, 5.2; THEME 6: Focal areas 6.3, 6.4, 6.5)
ANNEX 4
HIDROEX ASSETS & CONSOLIDATED BUDGET

1. Hidroex Removable Property (31/12/2013)

R$ - 2013 book values, (±U.S$, US$1.00 = R$2.00)

<table>
<thead>
<tr>
<th>Property Description</th>
<th>Units</th>
<th>Value in R$</th>
<th>Value in US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telephone communication equipment</td>
<td>11</td>
<td>R$1,514,50</td>
<td>US$757,25.00</td>
</tr>
<tr>
<td>Other communication equipment (computers, video conferencing, etc.)</td>
<td>177</td>
<td>R$306,827.32</td>
<td>US$153,413.66</td>
</tr>
<tr>
<td>Video, photographic and cinematography equipment</td>
<td>22</td>
<td>R$37,042.00</td>
<td>US$18,521.00</td>
</tr>
<tr>
<td>Tools, office instruments, medicine and inspection equipment</td>
<td>01</td>
<td>R$159,00</td>
<td>US$79.50</td>
</tr>
<tr>
<td>Administrative equipment</td>
<td>87</td>
<td>R$129,281.15</td>
<td>US$64,640.58</td>
</tr>
<tr>
<td>Furniture</td>
<td>440</td>
<td>R$201,241.35</td>
<td>US$100,620.67</td>
</tr>
<tr>
<td>Vehicles</td>
<td>01</td>
<td>R$22,500.00</td>
<td>US$11,250.00</td>
</tr>
<tr>
<td>Art equipment and music instruments (Yara Lins center)</td>
<td>53</td>
<td>R$8,060.50</td>
<td>US$4,030.25</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>792</td>
<td><strong>R$706,625.97</strong></td>
<td><strong>US$352,312.98</strong></td>
</tr>
</tbody>
</table>
2. Removeable Property (on loan to Hidroex from other entities) as of 31/12/2013

R$ - 2013 book values, (±U.S.$, US$1.00 = R$2.00)

<table>
<thead>
<tr>
<th>Property Description</th>
<th>Units</th>
<th>Value in R$</th>
<th>Value in US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural equipment &amp; implements (tractors, discs, etc.)</td>
<td>9</td>
<td>R$ 301,217,40</td>
<td>US$ 150,603.70</td>
</tr>
<tr>
<td>Communication equipment (computers, printers, notebooks, monitors, cameras, scanners, GPS, radios, etc.)</td>
<td>119</td>
<td>R$ 315,882.05</td>
<td>US$ 157,941.02</td>
</tr>
<tr>
<td>Vehicles (cars, bus, trucks)</td>
<td>6</td>
<td>R$ 541,400.00</td>
<td>US$ 270,700.00</td>
</tr>
<tr>
<td>Laboratory equipment</td>
<td>43</td>
<td>R$ 165,388.23</td>
<td>US$ 82,694.11</td>
</tr>
<tr>
<td>Furniture</td>
<td>46</td>
<td>R$ 21,171.24</td>
<td>US$ 10,856.62</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>222</td>
<td><strong>R$ 1,345,058.92</strong></td>
<td><strong>US$ 672,529.46</strong></td>
</tr>
</tbody>
</table>

3. Fixed Property (31/12/2013)

- City of Water campus: property measuring approximately 420,186.00 m², Total amount: R$ 2,537,923.44 (U.S.$1,269,000.00)
- Fazenda São Bento: property measuring approximately 242,000.00 m², Total amount: R$ 720,407.60 (U.S.$ 360,203.00)
- Fazenda Rio Grande: property measuring approximately 148,243.98 m², Total amount: R$ 434,354.86 (U.S.$ 217,177.00)
- **TOTAL R$ 3,115,303.44 (US$1,557,651.72)**
4. CONSOLIDATED EXECUTED BUDGET - 2010 to 2013

<table>
<thead>
<tr>
<th>Disbursement Category</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>Total by category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>R$983,202.00</td>
<td>R$2,221,627.00</td>
<td>R$2,388,274.00</td>
<td>R$2,392,288.00</td>
<td>R$7,985,391.00</td>
</tr>
<tr>
<td></td>
<td>(US$491,601.00)</td>
<td>(US$1,110,813.00)</td>
<td>(US$1,194,137)</td>
<td>(US$1,196,144.00)</td>
<td>(US$3,992,695.50)</td>
</tr>
<tr>
<td>Recurring Expenses</td>
<td>R$1,397,778</td>
<td>R$1,591,048.00</td>
<td>R$2,384,596.00</td>
<td>R$2,716,981.00</td>
<td>R$8,090,403.00</td>
</tr>
<tr>
<td></td>
<td>(US$698,889.00)</td>
<td>(US$795,524.00)</td>
<td>(US$1,192,298.00)</td>
<td>(US$1,358,490.50)</td>
<td>(US$4,045,201.50)</td>
</tr>
<tr>
<td>Investments</td>
<td>R$196,334.00</td>
<td>R$302,536.00</td>
<td>R$3,712,772.00</td>
<td>R$63,234.00</td>
<td>R$4,274,876.00</td>
</tr>
<tr>
<td></td>
<td>(US$98,167.00)</td>
<td>(US$151,268.00)</td>
<td>(US$1,856,386.00)</td>
<td>(US$31,617.00)</td>
<td>(US$2,137,438.00)</td>
</tr>
<tr>
<td>Total by Year</td>
<td>R$2,577,314.00</td>
<td>R$4,115,210.00</td>
<td>R$5,172,503.00</td>
<td>R$20,350,668.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(US$1,288,657.00)</td>
<td>(US$2,057,605.00)</td>
<td>R$8,485,641.00</td>
<td>(US$4,242,821.00)</td>
<td>(US$2,586,251.00)</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------</td>
<td>-------------------</td>
<td>----------------</td>
<td>-------------------</td>
<td>-------------------</td>
</tr>
</tbody>
</table>

(*) Grand Total
ANNEX 5

LETTER FROM THE GOVERNOR, STATE OF MINAS GERAIS
FEDERAL REPUBLIC OF BRAZIL
GOVERNMENT OF THE STATE OF MINAS GERAIS
Palace of Tiradentes

OFGAB.GOV. n°144/14

Madam Director General,

Belo Horizonte, 24 of April 2014

With my cordial compliments, I hereby reaffirm to Your Excellency, the support of the State of Minas Gerais to the proposal presented by the Ministry of Science, Technology and Innovation for the transformation of the HIDROEX Foundation International Centre for Education, Capacity Building and Applied Researches in Water, presently classified as a Center of Category 2, into a Center of Category 1.

I remark that the objective of HIDROEX is to plan, coordinate, implement, manage and evaluate programs and projects in favour of the defense and the preservation of the environment linked with water management that includes capacity-building and development of human resources, the promotion of educational actions, the creation of databases and services of public interest, in accordance with the provisions of the Law n°180/2011.

With the institutional support of the Federal Government - that is already operating on several fronts of partnerships, especially with the Ministries of Science, Technology and Innovation, of Education and of Environment, as well as with other important bodies such as "Empresa Brasileira de Pesquisa Agropecuária" (EMBRAPA), or the National Water Agency (ANA) - the Government of Minas informs that it has already determined that studies will be undertaken for the presentation of options concerning HIDROEX sustainability.

In addition, some partnerships in the areas of research and development are being envisaged, in particular with bodies that are part of the administrative structure of the State of Minas Gerais, such as the Energy Company of Minas Gerais" (CEMIG), or the Company of Sanitation of Minas Gerais" (COPASA), and the Foundation for Scientific Development of the State of Minas Gerais (FAPEMIG), in order for HIDROEX to become a reference Centre in water security and the culture of peace.

In thanking for the permanent support brought by the International Hydrological Programme and the Direction of UNESCO, I would like, Excellency, hereby to reaffirm our commitment towards the permanent development of HIDROEX.

With the expression of my highest esteem,

Yours sincerely,

(Alberto Pinto Coelho)
Governor of the State of Minas Gerais

To Mrs. Irina Bokova – Director General of United Nations Organization for Education, Science and Culture (UNESCO)
Paris - France

1, rue Miollis 75732 Paris cedex 15
Tel. 01 45 88 28 01 – Fax. 01 47 83 28 40
E-mail: df_brasil@unesco.org
Senhora Diretora-Geral

Com meus cordiais cumprimentos, reafirmo a V. Sa. a posição de apoio do estado de Minas Gerais à proposta apresentada pelo Ministério da Ciência, Tecnologia e Inovação para a transformação da Fundação Centro Internacional de Educação, Capacitação e Pesquisa Aplicada em Águas (HIDROEX), atualmente classificada como de Categoria 2, em um Centro de Categoria 1.

Observo que o HIDROEX tem por finalidade institucional planejar, coordenar, executar, controlar e avaliar programas e projetos de defesa e preservação do meio ambiente relativos à gestão das águas e dos recursos hídricos, compreendendo a capacitação e o desenvolvimento de recursos humanos, a promoção de ações educativas, a construção de bancos de dados e a prestação de serviços de interesse público, conforme o disposto na Lei Delegada nº 180/2011.

Contando com o apoio institucional do governo federal – que já se dá em várias frentes de parcerias, com especial destaque para os Ministérios da Ciência, Tecnologia e Inovação, da Educação e do Meio Ambiente, e de órgãos importantes como a Empresa Brasileira de Pesquisa Agropecuária (EMBRAPA) e Agência Nacional de Águas (ANA) – o governo de Minas Gerais torna claro a matéria de interesse público, conforme o disposto na Lei Delegada nº 180/2011.

Além disso, vislumbram-se parcerias nas áreas de pesquisa e desenvolvimento, especialmente com órgãos que compõem a estrutura administrativa do próprio estado de Minas, a citar Companhia Energética de Minas Gerais (CEMIG), Companhia de Saneamento de Minas Gerais (COPASA) e Fundação de Amparo à Pesquisa do Estado de Minas Gerais (FAPEMIG), objetivando a consolidação do HIDROEX como Centro de referência na busca da segurança hídrica e da cultura da paz.

De tal sorte, agradecendo o apoio permanente do Programa Hidrológico Internacional e da própria direção da UNESCO, reafirmo a V. Sa. nosso compromisso de desenvolvimento permanente do HIDROEX.

Com elevado apreço,

Atenciosamente,

Alberto Pinto Coelho
Governador do Estado de Minas Gerais
ANNEX 6

LETTERS OF INSTITUTIONAL SUPPORT

1. Ministry of Science, Technology and Innovation (MCTI).
2. Ministry of Education (MEC)
3. National Water Agency (ANA)

The letters from the MEC and ANA will be submitted as soon as possible and before the 21st session of the IHP-IGC.
A Senhora
IRINA BOKOVA
Diretora-Geral da Organização das Nações Unidas para a Educação, a Ciência e a Cultura - UNESCO

Assunto: Instituto HIDROEX

Senhora Diretora,

Ao cumprimentá-la, faço referência à apresentação de proposta brasileira de criação de Centro de Categoría I da UNESCO na Fundação Hidroex, no estado de Minas Gerais, e ratifico a Vossa Senhoria o desejo do Brasil de submeter à UNESCO a intenção de ter criado um instituto de categoría I dedicado ao tema água no País.

2. Em 2009, a HIDROEX foi reconhecida pela UNESCO como Centro de Categoría II para implantação do Programa Hidrológico Internacional – PHIL, vinculado ao Setor de Ciências Naturais da UNESCO. Nesse contexto, a Hidroex e fortalecer a excelência em pesquisas aplicadas ao gerenciamento de recursos hídricos, na educação de comunidades para melhorar o entendimento dos valores sociais e econômicos dos recursos hídricos, com um foco especial na América Latina e países da África.

3. Entendo o tema água, uma questão transversal a toda a ciência e de vital importância para a vida e o desenvolvimento sustentável, notadamente para os Países em desenvolvimento.

4. Considero, igualmente, que um Centro de Pesquisa e Capacitação em Recursos Hídricos, no Brasil, para atender, não apenas o País, mas também a América do Sul e a África seria uma iniciativa necessária e meritória. Esta iniciativa viria a preencher uma lacuna existente tanto em nível regional, mas também continental.

5. Finalmente, com vistas ao sucesso do pleito em questão, o País terá de se debruçar sobre os meios atinente ao financiamento de longo prazo de tal Instituto e, tão importante quanto o financiamento, buscar uma efetiva capacitação de quadros técnico-científicos próprios para promover atividades de pesquisa e capacitação de recursos humanos de nível de excelência internacional.

Com os meus melhores cumprimentos.

CLELIO CAMPOLINA DINIZ
Ministro de Estado da Ciência, Tecnologia e Inovação
Subject: Hidroex Institute

Madame Director:

With reference to the Brazilian proposal to create a UNESCO category 1 center at the Hidroex Foundation in the State of Minas Gerais, I can confirm Madame Director the desire of Brazil to submit to UNESCO our support to have a category 1 water center created.

In 2009 Hidroex was recognized as a category 2 center to implement the concept of the International Hydrological Program – IHP related to the natural Science Program of UNESCO. In the UNESCO context, the objective of Hidroex is to strengthen the quality of applied research as part of water resources management as well as to improve community education taking into account the economic and social values related to water resources management with a special focus on Latin America and Portuguese-speaking countries of Africa.

I understand that water is a crosscutting theme related to all of science and of vital importance for life and sustainable development for developing countries.

In addition, I consider that a training and research center in water resources serving Brazil, Latin America and Africa is a worthwhile undertaking. This initiative will fill an important gap at the continental and regional levels.

Finally, expressing the desire for the success of this proposal, Brazil will take the necessary steps to ensure the financial viability for the long-term as well as to seek effective training for the scientific and technical staff of the institute to promote post-graduate training and research activities at an international level of excellence.

With kind regards

Clelio Campolina Diniz

Minister of State for Science, Technology and Innovation