

## **International Hydrological Programme**

22<sup>nd</sup> session of the Intergovernmental Council  
(Paris, 13 – 17 June 2016)

### **PROPOSAL FOR THE ESTABLISHMENT OF AN INTERNATIONAL CENTRE ON WATER AND TRANSDISCIPLINARITY (CIRAT) IN THE FEDERATIVE REPUBLIC OF BRAZIL AS A CATEGORY 2 CENTRE**

The enclosed proposal is presented as originally submitted by the Government of the Federative Republic of Brazil through its Permanent Delegation to UNESCO to the Director-General of UNESCO.





## Permanent Delegation of Brazil to UNESCO

N° 27/2016

The Permanent Delegation of Brazil to UNESCO presents its compliments to the International Hydrological Programme (IHP) and, in addition to the Note Verbale 20/2016 dated 12 April 2016, has the honour to submit herewith the complete proposal for the establishment of the International Centre on Water and Transdisciplinarity (CIRAT) as a Category 2 Centre under the auspices of UNESCO. This document has been requested by the IHP Bureau, in its 53<sup>rd</sup> session, to be reviewed in an out-of-session meeting, in order to decide whether it will be presented at the 22<sup>nd</sup> IHP Council session in June 2016.

The Permanent Delegation of Brazil to UNESCO avails itself of this occasion to renew to the International Hydrological Programme the assurances of its high consideration.

Paris, 03 Mai 2016



International Hydrological Programme – IHP  
Secretariat  
UNESCO



## Permanent Delegation of Brazil to UNESCO

N° 31/2016

The Permanent Delegation of Brazil to UNESCO presents its compliments to the International Hydrological Programme (IHP) and, in addition to the Note Verbale 27/2016 dated 3 May 2016, has the honour to submit herewith the revised proposal of designation for the International Centre on Water and Transdisciplinarity (CIRAT) as a Category 2 Centre under the auspices of UNESCO. This document takes into consideration the comments and recommendations made by the IHP Bureau Members on its previous version. As decided by the IHP Bureau, this proposal will be discussed during the 22<sup>nd</sup> IHP Council session in June 2016.

The Permanent Delegation of Brazil to UNESCO avails itself of this occasion to renew to the International Hydrological Programme the assurances of its high consideration.



Paris, 30 May 2016

International Hydrological Programme – IHP  
Secretariat  
UNESCO



PROPOSAL

FOR

ESTABLISHMENT OF AN INTERNATIONAL CENTRE ON WATER AND TRANSDISCIPLINARITY  
(CIRAT) IN THE FEDERATIVE REPUBLIC OF BRAZIL AS A CATEGORY 2 CENTRE UNDER THE  
AUSPICES OF UNESCO.

Submitted to UNESCO- IHP

Brasília, Brazil

## Context

Human activities have disrupted natural hydrological and ecological regimes in such a way that nowadays almost all countries are confronted to water-related challenges. On the other side, the number of fatalities and economic damages caused by water-related disasters is increasing worldwide, mainly as a result of population growth in vulnerable areas.

Although there is enough freshwater on the planet for its entire population of about seven billion people, distribution is uneven in both time and space and much is wasted, polluted and managed in unsustainable manner. Data show that around 1 billion people still lack access to improved water sources, and over 2.6 billion people – nearly all of whom live in cities in developing countries – lack access to basic sanitation.

Challenges to rural areas are likewise monumental. Almost half of world's population still lives in rural areas and is comprised of low income groups, who lack access to basic water supply (about 900 million) and require solutions other than centralized, high-cost standard practices held in urban centres.

Brazil is fortunate as a country to have 12% of all the Earth's surface fresh water, spanning 5.4 trillion cubic metres, in addition to large aquifers. However, its water resources are unequally distributed, with 72% in the Amazon Region, 16% in the Brazilian Midwest, 8% in the South and 4% in the Northeast. Brazil thus faces very serious regional challenges, particularly in its coastal regions, where most of the population is located. Sanitation challenges are huge, considering that only 48.6% of the population has access to sewage collection, of which only 40% is adequately treated. Providing universal access to the 4 sanitation services (water, sewage, waste and drainage) is estimated to cost R\$ 508 billion (US\$ 143,5 billion), till 2033.

The population growth in Brazil and its spatial and temporal dynamics is a key issue to address in the coming years considering water quantity, water quality and climate change. Therefore, developing applied research capable of presenting real alternatives to cities and rural areas is fundamental to our thinking of and coping with the future. This is the field in which the International Centre for Water and Transdisciplinarity (CIRAT) excels and therefore seeks to make its contributions. Since 2009, CIRAT has been conducting research, producing publications and holding events to expand knowledge and practice towards a more sustainable relationship to water. The transdisciplinary approach can help in addressing real solutions to the water challenges, integrating the hydrological perspective of the management with social, economic, environmental and cultural dimensions.

Considering the consistency of the work carried out during this period and the relevance of the topics covered, the Government of the Federative Republic of Brazil, in association with the Government of the Federal District and several academic and civil society institutions, has decided to seek recognition of CIRAT as a Category 02 Centre (C2C) under the auspices of UNESCO. Integrating CIRAT into UNESCO's water family will promote a rich exchange of experiences, technologies and research with other centres around the world, strengthening the knowledge and helping UNESCO IHP to reach its objectives. The process of qualifying CIRAT as a C2C comes moreover at a propitious time, because

Brasília is preparing to host the 8th World Water Forum in March 2018, the first time ever this event will be held in the Southern Hemisphere.

### **Objectives and functions of the proposed institute or centre**

CIRAT has been operating since 2009 as a venue to advance transdisciplinary water-related knowledge. It has been working to promote state-of-the-art water-related projects and research at its facilities located at the Botanical Garden in Brasília. Additionally, it connects researchers from different parts of Brazil and the world, seeking integration of knowledge that is often scattered.

The last seven years of water-related transdisciplinary research and studies have shown that there are many knowledge gaps and a large field for development of a systemic and integrated understanding on the function of water on our planet and on human settlements, so that we can objectively move towards a culture of sustainability. Human settlements of the future, whether urban or rural, will need to adopt a new vision and to use technologies and “game-changing approaches” that foster a more sustainable world.

During the CIRAT’s strategic planning meetings, held in 2015, at the same historical moment when the SDGs were announced, a decision was made to align CIRAT’s goals thematically and in terms of timetables with the UN-defined Sustainable Development Goals (SDGs). CIRAT members understand that it is only through the construction of a new culture of sustainability for water that these goals can be reached.

### **International Centre on Water and Transdisciplinarity (CIRAT) – Building knowledge for human settlements of the future**

This transdisciplinary perspective is capable of reestablishing connections and capturing contributions from diverse disciplines for a broad and in-depth understanding of water, its relations with hidrology, culture, natural environments, human settlements and for the achievement of SDGs.

In line with the eighth phase of Strategic Planning of the International Hydrological Programme (IHP 2014-2021) and its call for “*WATER SECURITY: RESPONSES TO LOCAL, REGIONAL, AND GLOBAL CHALLENGES*”, CIRAT is researching and carrying on projects in several water sustainability-affected areas, having sustainability in human settlements as a chief guideline.

In this sense, IHP’s theme 4 – “Water and human settlements of the future” – is the main focus of contribution of CIRAT to the eighth phase of Strategic Planning of the International Hydrological Programme. Since CIRAT is a transdisciplinary centre that seeks to interconnect fields of knowledge, this focus on human settlements shall certainly be pursued within a broad perspective, including its hydrological, social, economic, ecological, cultural and institutional aspects.



Here we highlight some of CIRAT's foremost purposes:

- Development of good practices for water-related challenges in urban, rural and peri-urban areas;
- Development of studies on the water – energy – food nexus;
- Research on land use, provision of environmental services, hydrology and water supply to cities;
- Academic outreach activities involving communities in watershed areas;
- Advocating the basin approach and fostering local solutions to society, public managers and the academic community, ;
- Promoting the water-health-sustainability nexus in research and projects;
- Providing technical assistance, consulting and advisory services within the local, national and international context;
- promoting partnership and capacity building through cooperation in technical and scientific research projects and training programs;
- Supplying continued technical and higher learning training on subjects related to human settlements of the future, with a transdisciplinary perspective;
- Creating and reinforcing a cooperative network of information for the exchange of scientific and technical data, information and knowledge on watershed and hydrology issues among partners (government, universities, companies and non-governmental organizations);
- Strengthening communities and empowering stakeholders to face water and climate change-related challenges;
- Contributing to the achievement of UNESCO's strategic programs, objectives and priorities;
- Sharing knowledge with other UNESCO water centres and initiatives from the IHP family;
- Joint publications and research with UNESCO - IHP family;

In this view, target audiences for CIRAT are: policy makers, academic community, community leaders, opinion makers, politicians, watershed communities, diplomats, NGOs and civil society, media professionals and women and youth.

**Existing or future legal status (particularly in terms of the legislation of the State in which it will be established)**

Since the onset of its activities in 2009, the CIRAT group has gone through alterations and operated with several different arrangements in many novel projects it has been involved in. Since its beginning, the CIRAT management group has understood that the best format to make projects and research feasible would be through coordination in a "network". It therefore opted to not incorporate as a legal entity and to have instead each project led by one of the signatory institutions for technical cooperation, citing all other CIRAT partners in credits and further communication material regarding each project.

From 2015 onwards, however, due to the success achieved by its projects and research, the need was recognized for CIRAT to formally incorporate, in order to take the next steps in expanding its scope. Support from the Brazilian government and sponsorship from ITAIPU Binational have enabled the hiring of staff to advance on administrative issues, and contracting of a consultancy to hold the second cycle of Strategic Planning and legally incorporate CIRAT. Legal incorporation is underway and will be finalized by August 2016.

CIRAT will then be incorporated as a Social Organization (Federal Law No. 9.637/1998), a classification and title granted to a non-profit entity in order to enable it to receive specific benefits from Public Authorities (budget grants, tax exemptions etc.), so that it can achieve its aims, according to a Brazilian public administration model that seeks efficiency and which must also be in the interest of the community. Once this title is granted, a Management Contract will be executed.

**Governance**

CIRAT's organizational structure is being set up to be agile, efficient, effective and focused to allocate the maximum of institutional resources to achieving its end activities. It is important to highlight that the Consulting Council is planned to be a level of support to decisions of the Steering Committee. The Steering Committee is the highest decision-making level of CIRAT. The Organigram presented below resulted from the 2015 Strategic Planning:



**Method of financing (the origin of its various resources and its legal authority to accept such resources as subventions, gifts and legacies or payments for services rendered)**

The Budget Action called "International Centre on Water and Transdisciplinarity" allocated R\$ 6,150,000.00 (six million, one hundred and fifty thousand reais, or US\$ 1,740,000.00) to develop research, facilities maintenance and construction of new CIRAT head office in the period from 2016 to 2019, within the Multi-Year Planning of the Federal District as part of the Specific Objective, "Capital of Waters".

Additionally, CIRAT has liaised with several national and international partners and has sought funding for institutional strengthening, projects and research. It received funding in 2015 from Itaipu Binational and, starting in June 2016, it will be one of the partners executing the "Brazil Water - Phase 02" project in the Federal District (DF, in the Portuguese acronym). "Brazil Water - Phase 02" is the largest water conservation project in the country. For 2017, CIRAT will be one of the partners of the Global Environment Facility's (GEF) "Sustainable Cities" project, according to the project design run by the GDF and already sent and approved by the GEF's Board.

Another funding source for CIRAT researchers will be calls for bids of research from CAPES, CNPQ and FAP-DF. Due to a change in legislation in the Federal District, FAP-DF will provide a significant increase in research investment, doubling the amount currently available, in order to reach a level of roughly R\$300 million a year in research by 2021.

Raising funds from water-related projects and research and promoting sustainable settlements was also seen as a possibility during the CIRAT strategic planning assembly.

**Type and nature of cooperation sought with UNESCO (e.g. participation in activities, knowledge-sharing, programmatic cooperation, etc.)**

From the beginning, CIRAT has held events and published a book with support from UNESCO. We strongly believe that this relation will deepen as we request qualification as a C2C. CIRAT's objective is to be able to contribute to the Theme 04 and focal areas of the eighth phase of the International Hydrological Programme's Strategic Plan (IHP 2014-2021), following a programme-level cooperation. In light of the transdisciplinary approach of the Centre and program alignment with theme 4 – “Water and human settlements of the future” –, CIRAT will be able to make relevant connections with research led by other Category 02 Centers. Additionally, CIRAT intends to participate in knowledge-sharing events and activities promoted by UNESCO IHP Family.

CIRAT already holds a partnership with the “International Center of Hydroinformatics” from ITAIPU Binational, which has also requested to be qualified as a UNESCO C2C. The Cousteau Society is another institution with which we are in the process of setting up a partnership. Other partnerships have not yet started, but are considered to be strategically important, such as the one with the Center of Culture from Uruguay and the International Centre for Water Cooperation (ICWC) in Stockholm, the Regional Centre on Urban Water Management for Latin American and the Caribbean in Colombia, the approved Korean Category II International Centre for Water Security and Sustainable Management and the International Centre for Integrated Water Resources Management in USA. CIRAT has equally started communication with Center 2 Category on Urban Water Management, in Teheran, Iran.

List of partnerships established or under establishment by CIRAT:

- Brasília University (Brazil)
- Fundação de Ensino e Pesquisa em Ciências da Saúde (Brazil)
- Ararazul Institute (Brazil)
- Institute for integral Health –ISI (Brazil)
- Brasília Botanical Garden (Brazil)
- Calliandra Institute - I-CEIA (Brazil)
- Espinhaço Institute – IE (Brazil)
- World Hydrothermal Organization – OMTh (Italy)
- Oca do Sol Institute (Brazil)
- University of Toronto (Canada)
- Peace University (Brazil)
- Mário Soares Foundation (Portugal)
- European University Centre for Cultural Heritage (Italy)
- Geosciences Centre of Coimbra University (Portugal)
- Chinese University of Hong Kong (Hong Kong)
- Minas Gerais Federal University (Brazil)
- Vale do Jequitinhonha e Mucuri Federal University (Brazil)

- São João Del Rey Federal University (Brazil)
- Lavras Federal University (Brazil)
- Goiás Federal University (Brazil)
- São Paulo State University (Brazil)
- Earth and Memory Institute - ITM (Portugal)
- Polytechnic Institute of Tomar – IPT (Portugal)
- Catholic University of Brasília (Brazil)
- Viçosa Federal University (Brazil)
- Goiás Federal Institute (Brazil)
- Polytechnic Studies Centre of Mação (Portugal)
- Évora University (Portugal)
- Trento University (Italy)
- Ferrara University (Italy)
- Jean Monnet University (France)
- International Association of Mediterranean and Oriental Studies (Italy)
- International Year of Global Understanding (Germany)
- International Council of Philosophy and Human Sciences –CIPSH ((France)
- European Erasmus+ Strategic Partnership “Apheleia”, on Cultural Integrated Landscape Management for Sustainable Development (Portugal)

**Respective responsibilities of the Member State or Member States concerned and of the Organization (obligations incumbent upon each party vis-à-vis the institute/centre and its activities)**

As informed in the field on “Method of Financing”, the government's commitment has been demonstrated by inserting budget allocation in the Multi-Year Plan for operation and strengthening of CIRAT. Moreover, CIRAT appears in the Strategic Planning of the State Departments of the Government of the Federal District (DF), as one of the strategic working fronts associated with the 8th World Water Forum to be held in Brasília in 2018.

Furthermore, it must be highlighted that the institutional format of Social Organization (OS) chosen by CIRAT's legally obligated stakeholders in the government to have a seat on the institution's Steering Committee. This ensures that the Federal Government and the Federal District Government will have permanent decision-making power and will be able to establish the institutional steering of the Centre. Both levels of government have committed themselves to closely monitor this process and to put forth efforts to achieve CIRAT's institutional objectives for the 8th World Water Forum and for the upcoming years.

**Undertaking by the Member State or Member States concerned to take the necessary measures for the establishment of the institute or centre (where it has not yet been set up) or the adaptation of its legal status, if required**

CIRAT is the result of an initiative started in 2009 in Brasília by many institutions belonging to the government, civil society and universities. In that year a Technical Cooperation Agreement was signed by 10 institutions including the National Water Agency, University

in Brasília, World Wildlife Fund and since then 45 projects and research works have been developed in many different areas of knowledge.

In 2014 a second document of cooperation was signed between many national and international institutions from different fields of knowledge, with the aim of carrying on the transdisciplinary investigation of water until 2019. Additionally, in 2015 a Protocol of Intentions was signed between 10 Secretariats and interagency bodies of Brasília's Government for CIRAT's consolidation with a focus on the 8<sup>th</sup> World Water Forum, in 2018.

Another important form of support from the Federal District was the provision of space for CIRAT's temporary headquarters in the Excellence Center for Cerrado – Cerratuses' building, located in Brasília's Botanical Garden.

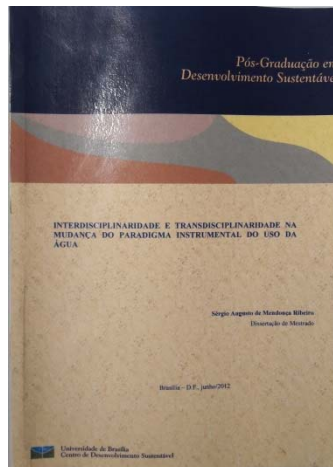
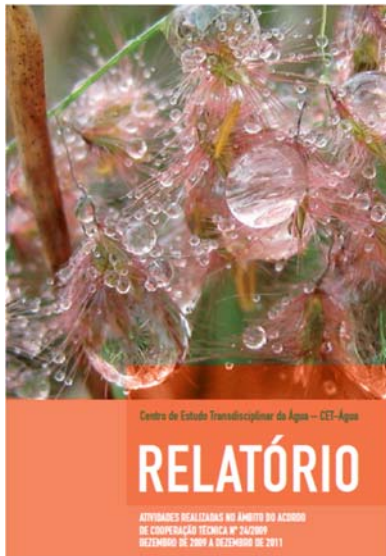
The Articles of Association and Bylaws of CIRAT are currently in the making with support from Federal Government and Federal District employees, academic partners, Itaipu Binational and organized civil society. These should be formalized by August, 2016.



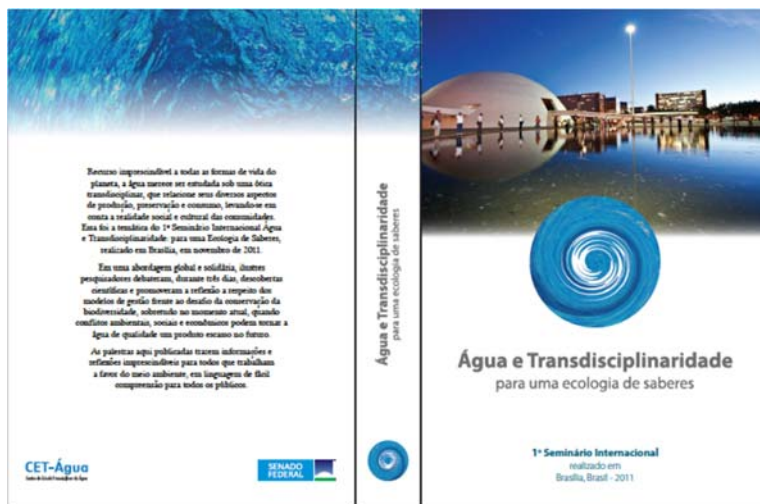
Building where CIRAT operates at the Centro Cerradenses in the Botanical Garden, Brasília-Brazil



Over 25 events have been held with academia and general society in the past few years. The images above highlight the “International Seminar – Water and Transdisciplinarity” held in November 2011 at the Brazilian Federal Senate. The event was considered as the preparatory event to the 6th World Water Forum in Marseille-France.



Cover of the activities report from the Technical Cooperation Agreement signed with 10 institutions that began the activities of the Centre for Transdisciplinarity of Water. On the right is the cover of a master's degree dissertation from the University of Brasília supervised by the technical staff of CIRAT.



Cover of the book “Water and Transdisciplinarity: toward an ecology of knowledge” published with support from the Federal Senate in 2013.





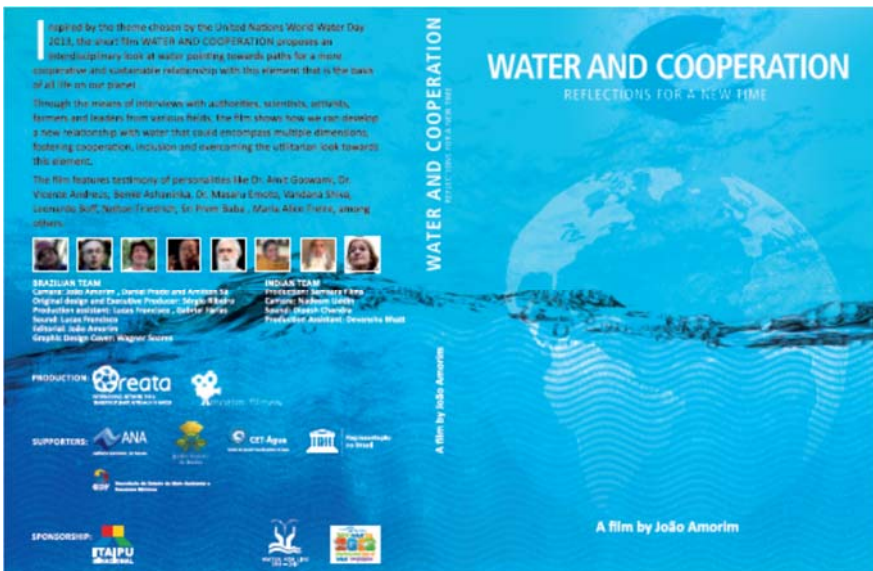
Photo of the extension course offered by the University of Brasília, Foundation for Teaching and Research in Health Sciences and CIRAT in 2015.



Photo of native seedlings in the research campus of the Botanic Garden of Brasília, showing the use of sludge from the Sewage Treatment Plant for recovery of degraded areas.



Front and back covers of the book “Water and Cooperation: pro-life reflections, experiences and alliances” published in commemoration of the International Year of Water and Cooperation (2013). Produced by CIRAT with support from the National Water Agency, the Government of the Federal District and cooperation from UNESCO.



Also in commemoration of the International Year of Water and Cooperation (2013), CIRAT produced a feature film on the topic of the year. The film was turned in Portuguese and in English by one film crew from Brazil and another from India, sponsored by Itaipu Binacional with cooperation from UNESCO.



Photo of the group during the 1<sup>st</sup> Meeting of CIRAT Researchers, held in November 2015 in Brasília.



Photos of a research project supported by CIRAT. This field visit happened in December 2015 in Itirapina-SP, State of São Paulo, where agroforestry mechanization technologies are being developed.

## ANNEX 02 – MESSAGES OF SUPPORT

*The current proposal of CIRAT is also made within the framework of the International Year of Global Understanding, and the Centre will have the collaboration of the IYGU network, namely in the chapter “Eating, Drinking, Dwelling”.*

- *The International Council for Philosophy and Human Sciences (1 rue Miollis, UNESCO, Paris, France) endorsed the present proposal of CIRAT and accepted to collaborate with the Centre, designating a representative for this purpose. CIPSH also invited CIRAT to propose a session on its subject matter to be organised in the World Humanities Conference, in Liège, 2017, as well as in the Regional Conference to be held in Belo Horizonte, in October 2016.*
- *The European Erasmus+ Strategic Partnership “Apheleia”, on Cultural Integrated Landscape Management for Sustainable Development, endorsed the proposal of CIRAT and accepted to collaborate with the Centre, designating a representative for this purpose. Apheleia suggested that CIRAT may become a core element of the Latin American Apheleia network, currently being prepared.*

Yours faithfully,

**Luiz Oosterbeek**

Pro-President of the Polytechnic Institute of Tomar, for International Relations and Co-operation

Secretary-General of the International Council of Philosophy and Human Sciences (CIPSH)

Secretary-General of the International Union of Prehistoric and Protohistoric Sciences (UISPP)

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