

INTERNATIONAL SEMINAR  
ARGENTINA-THE NETHERLANDS

nature based solutions  
**TERRITORIOS  
DEL AGUA**

Reflection and exchange of Argentinean  
academic projects, plus the perspective and  
experience of The Netherlands

ORGANIZED BY:

**DeltaAlliance**

 **FUNDACION  
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PARTICIPANTS:

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Universidad de Buenos Aires  
Facultad de Arquitectura,  
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Nature Based Solutions

# TERRITORIOS DEL AGUA

On December 3, 2019, the Seminar entitled “Territorios del Agua” was held in Buenos Aires, Argentina, organized by Fundación Torcuato Di Tella and Delta Alliance Argentinean Wing, with the support of the Embassy of the Kingdom of the Netherlands in Buenos Aires. In this meeting, representatives of different Argentine universities presented an array of examples of graduate and postgraduate workshops, addressing issues related to the nexus between water basins and urban spaces to generate a space for discussion and analysis on the problem of the design and implementation of nature-based solutions in the country. Then, international experts from the Netherlands, offered master classes on the main aspects of the topic and presented experiences carried out in different countries.

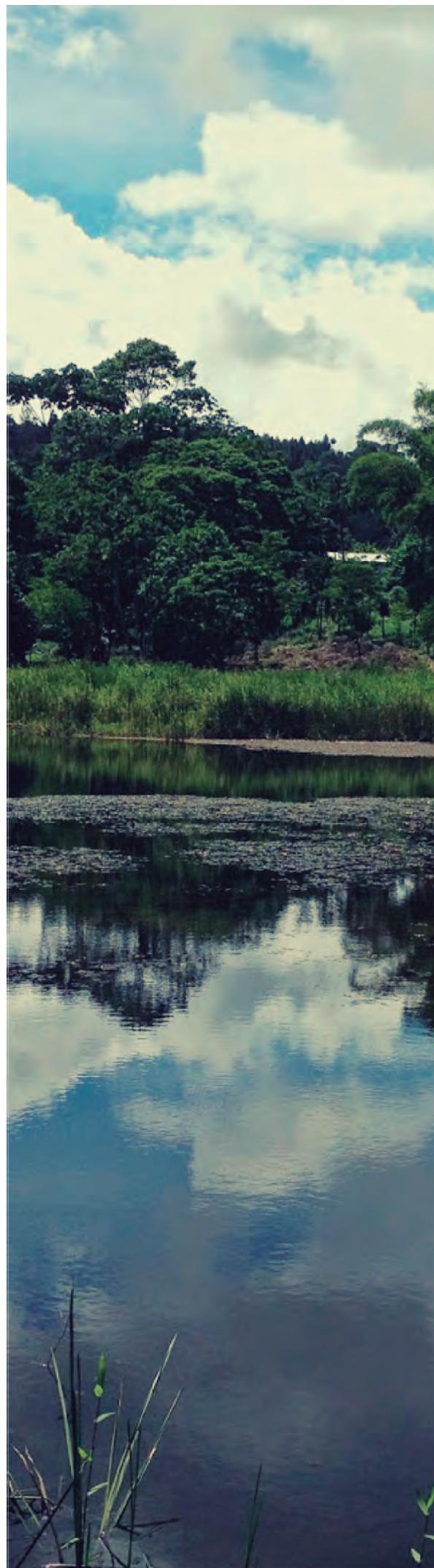
Delft University of Technology (Netherlands), Torcuato Di Tella University, University of Buenos Aires, National University of San Martín and National University of Morón (Argentina), contributed to the organization of the event and participated in the activity.

This initiative was selected in the call “DA Wing activities fund 2019”, promoted by Delta Alliance International and has also been sponsored by the Embassy of the Kingdom of the Netherlands. The “Sociedad Central de Arquitectos” (SCA) and the “Consejo Profesional de Arquitectura y Urbanismo” (CPAU) participated in the dissemination of the event as well.

## Context

In the last decades, new planning approaches have emerged addressing the relationship between cities and nature, challenging mainstream academic approaches. The understanding that large infrastructure works are the unique solution to the problem faced by cities is no longer the first option to address urban conflicts. On the contrary, there is a growing interest in the search for Nature-based Solutions (SbN), which seek to restore ecosystems and improve the link with the environment.

These solutions involve the exploration of the characteristics of urban and environmental systems, and the design of strategies that enhance this relationship. Therefore, among other initiatives, parks are created for water retention, coastal resistance is increased through mangrove plantation and vulnerable coastal areas are protected by the construction of dynamic sand peninsulas.



From the implementation of plans and programs such as “Room for the river” and “Building with nature”, urban planning in the Netherlands has pioneered this paradigm shift.

The exploration of ecosystem restoration, such as wetlands or floodplains of water courses, occupies a central place within this new field. Particularly the studies and the implementation of “deculverting” (also called “daylighting”) projects are part of an area of innovation of great potential and positive results according to experiences in different countries. From relatively small-scale projects, such as the opening of existing pipelines, to the more complex ones that may include the reconstruction of the bed of rivers and streams, and their banks, there is a cluster of projects of different nature and scale. A recent study revealed 180 cases of deculverting in the world, of which 67% are in Europe (Wild, Dempsey & Broadhead, 2019).

Despite the existence of considerable number of initiatives elaborated by academy and civil society in Argentina, to date no actual progress has been made towards the materialization of any of the proposed projects. Notwithstanding that, the interest these innovative approaches raise is increasing and they are already being considered by the technical areas of local governments, among other realms of public management. In this context, it is especially useful to explore the conditions, socio-environmental benefits and potential threats associated with the deculverting projects as a tool to restore nature’s relationship with urban environments.

## Coordination and curatorship

**Verónica Zagare**

Delta Alliance / Fundación Torcuato Di Tella  
Delft University of Technology (TUDelft)

**Mariela Corbellini**

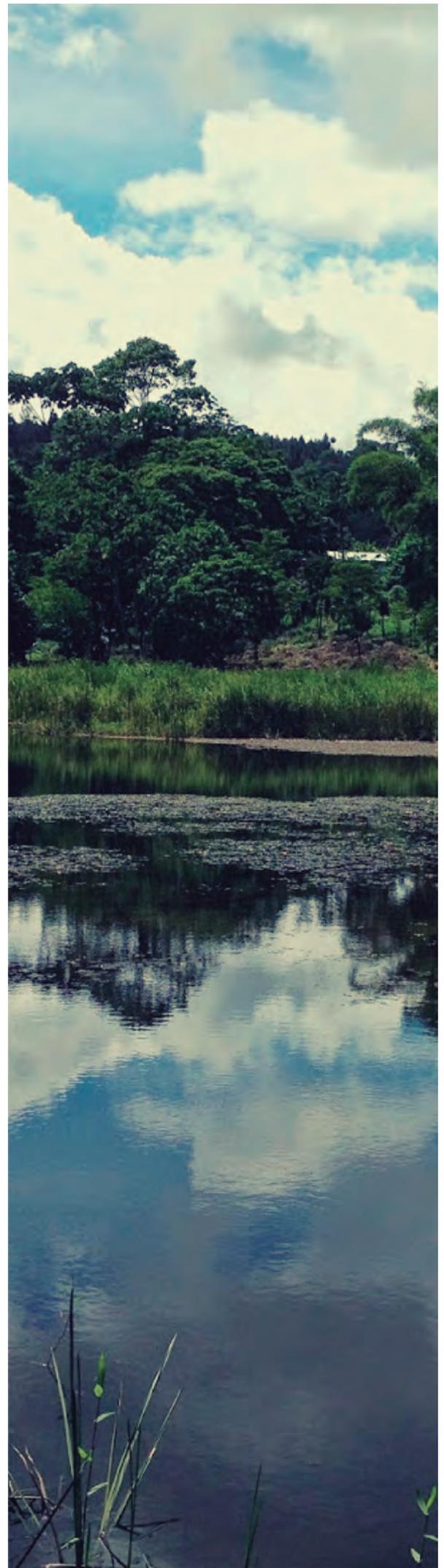
Universidad de Morón/ Universidad de Buenos Aires

**Daniel D’Alessandro**

Universidad de Morón/ Universidad de Buenos Aires

**Daniel Kozak**

Universidad de Buenos Aires/ CEUR-CONICET/ CIHE-FADU



## Introduction: Nature Based Solutions

Fundación Torcuato Di Tella – Delta Alliance / Delft University of Technology (NL)

Dr. Arch. Veronica M.E. Zagare introduced issues related to nature-based solutions, referring to international examples. Within this framework, the problem of urban watercourse pipelines was emphasized and the implications of their opening and the subsequent integration of flood plains into urban territories, in the context of national urban strategies. Further, references were made to the paradigm shift that took place in the Netherlands, on the way to address infrastructure, the relationship with nature and the protection of cities. Such a paradigm shift, which promotes urban development in line with nature, is extremely useful to guide the reflection on this matter in Argentina.



## UBA-FADU (PU-Grinberg): New urban scenarios for Medrano stream.

Dr. Arq. Daniel Kozak made a presentation on the results of a workshop held at the University of Buenos Aires, Faculty of Architecture, Design and Urbanism; Centre for Habitat and Energy Research - Urban Project (Grinberg). In this presentation the theme of deculverting was addressed, highlighting the advantages of its implementation as well as describing the results of the workshop.



## UNSAM-IA (TAU): Project guidelines for the “entreaquas” of the Reconquista Basin (TAU 2019).

Dr. Alejandra Potocko presented the project Guidelines for the “entreaquas” of the Reconquista basin (TAU 2019), as well as three projects that were developed in that framework. The study area focused on the streams Las Catonas, Morón, Arroyo Seco, Tres Horquetas, Canal Fate, among others.



**UM-FADAU- (1M-PULSO URBANO, GeUr, TIA): Amphibious territories. (Barrio Rodrigo Bueno, Reserva Ecológica, Costanera Sur, Puerto Madero). From exploration in the territory to project proposals.**

Archs. Mariela Corbellini and Daniel D'Alessandro presented the results of two academic experiences developed within the framework of the 2019 project of UM-FADA, (1M) URBAN PULSE and GEUR. Those projects were aimed at the understanding of complex territories, focusing on the apparent contradiction between urban habitat and Natural habitat to reach the multidisciplinary, transdisciplinary and multiscale proposals that fall within the paradigm changes of the proposed solutions.



**UTDT (MEU): Alternative infrastructure and nature-based solutions.**

Mg Laura Rocha and Lic. Soledad Luna showcased results of the work “Alternative infrastructure and nature-based solutions”, a research effort undertaken as part of a Master in Urban Economics (Torcuato Di Tella University). In this work, local and regional policies were assessed in order to give proper value to the Cildañez Creek area, located in the City of Buenos Aires, including the deculverting of a section of that water course.



**Nahuel Beccan y Adrián Puentes (NL-MX-AR): Water footprint**

Archs. Nahuel Beccan Davila and Adrián Puentes presented an extensive review of the lessons learned from the Dutch perspective on infrastructure interventions in nature. Next step, they presented cases of application of these intervention criteria in the Latin American context, including examples of projects in Mexico and Argentina.



**Dra. Fransje Hooimeijer- Delft University of Technology.**

**The life and culture of water. Synergy between urban an natural systems for climate resilience.**

This key note speech began with the narrative of Dutch history related to the link with water, to then focus on the relationship between the natural system and the urban system, and how infrastructure plays an important role in that interaction. The narrative included Dutch examples in which both systems could be combined to improve habitat quality, such as the EVA-Lanxmeer project, a neighbourhood of ecological houses located in Culemborg (NL), and a project for a canal near the centre from Rotterdam, which includes a garden and food bank. In relation to the specific issues of addressing water management, the examples of Water Square in Rotterdam and Nijmegen, the last one developed under the Room for the River program, were also described. Expanding the case studies, cases were cited in Thailand and Japan. Finally, emphasis was placed on the need for an interdisciplinary vision on this subject, and on the value that can be added from the academic field through the participation of students in the different projects.



**Dr. Diego Sepúlveda Carmona - Delft University of Technology.**

**Theoretical reflections for the implementation of natural infrastructure as an activator of an evolutionary resilience.**

The second keynote speech examined issues related to the nexus of nature and economy; those issues were approached from a historical perspective, focusing on the paradigm shift that led to the development of nature-based solutions. The topic was approached from a vision that promotes development achieved in a sustainable way including participation mechanisms and an infrastructure system integrated into the landscape. The complexity that exists in the interaction of the natural and urban system was addressed and examples of projects developed within the framework of the Delta Urbanism Research Group of the Delft University of Technology were presented.

