



**Webinar Series: Nature-based Solutions: Design, planning, governance, and economics.**

Fundación Torcuato Di Tella, Delta Alliance Argentinean Wing, Delft University of Technology (TUDelft) and the International Forum on Urbanism (IFOU) have organized a series of webinars on Nature-Based Solutions (NbS), under the auspices of the Embassy of the Netherlands in Buenos Aires. They have been developed during the month of November 2020, in three weekly meetings. The activity also had the participation of the Central Society of Architects (SCA) and the Professional Council of Architecture and Urbanism (CPAU).

The themes of the webinars were the following:

Webinar November 11, Nature-based Solutions.

Webinar November 18, NbS: Design, planning and governance.

Webinar November 25, NbS: Circular economy and financing.

In the first webinar, Dr Emmanuelle Cohen-Shacham (IUCN) presented the definition of NbS and the “Global standards for NbS”, which were launched this year by the IUCN. Dr Niki Frantzeskaki (Swinburne University of Technology, Australia) presented her perspective of NbS in relation to the urban context, showing the position of the European Commission and exploring the concept of “Sustainable Transitions”. Then, Em.prof.dr.ir. Han Meyer and Attila Katona presented cases from the Netherlands (Room for the River) and Singapore-Beijing (Tianjin Eco-Valley) respectively.

In the second webinar, Dr Mark Scott (Univ. Dublin) and Dr Chris Zevenbergen (IHE-TUDelft) presented NbS from the perspective of governance, design and planning. Then the case of Water Funds in Latin America (Ana Beccar Varela and Jaime Camacho, The Nature Conservancy), and an Argentine case of participatory wetland restoration in Cuyo (Heber Sosa, Wetlands International) were presented.

In the third webinar, Dr Helen Toxopeus (Naturvation, NL) delved into the different business models for financing NbS, and Msc. David Alvarez (Ecoacsa, Spain) spoke about circularity and water. Finally, two illustrative cases of the theme were presented: "Resilience by Design Metropolitan Region Amsterdam" (Anne Loes Nillesen, Defacto) and "Cascading Semarang" (Mónica Altamirano, Deltares).

Each webinar had a short introduction given by professionals in the fields of NbS, design, planning, governance and economics: Dr Verónica Zagare, Kim van Nieuwall, Dr Fransje Hooimeijer, Dr Cynthia Goytía and Lic. Hernán Carlino. We also counted with the presence of representatives of the Climate Change Adaptation Coordination team, of the National Direction of Climate Change under the Ministry of Environment and Sustainable Development.



Although each webinar was structured around the presentations of theories and cases, a space for discussion was set up in which the participants met in small groups and shared their views on the topics presented in each meeting. Each discussion table was moderated by professionals on the subject, in various languages (Spanish, English and Chinese). The conclusions were then shared with the entire audience.

Nature-Based Solutions have the potential to address the social, environmental and economic challenges of our cities, towards a sustainable transition. The webinars created a space for internationally renowned experts to share their knowledge and experiences in the field. Likewise, attendees were able to share their views on the lessons learned and future challenges.



## Webinar Series: Nature -based Solutions

### Webinar 1: NbS



### Dr Verónica Zagare

Fundación Torcuato Di Tella - Delta Alliance Arg.  
Delft University of Technology- TUDelft



### Dr Emmanuelle Cohen-Shacham

Thematic Group Lead, IUCN Commission on Ecosystem Management (CEM)



## Nature-based Solutions: from definition to implementation

Emmanuelle Cohen-Shacham, PhD  
IUCN CEM Nature-based Solutions Thematic Group Lead



Webinar series – Nature-based Solutions November 11<sup>th</sup>, 2020





## Dr Nikki Frantzezkaki

Centre for Urban Transitions, Swinburne University of Technology, Melbourne, Australia.

### NATURE-BASED SOLUTIONS



Nature-based solutions are inspired by nature, use nature and/or are supported by nature. Specifically, nature-based solutions have been defined as living solutions underpinned by natural processes and structures that are designed to address various environmental challenges while simultaneously providing multiple benefits to economy, society and ecological systems (European Commission, 2016).

Frantzezkaki, N., McPhearson, T., Collier, M., Kendal, D., Bulkeley, H., Dumitru, A., Walsh, C., Noble, K., van Wyk, E., Pinter, L., Ordonez, C., Oke, C., Elmqvist, T., (2019), Nature-based solutions for urban climate change adaptation: linking the science, policy and practice communities for evidence based decision-making. *Bioscience*, 69, 455-566, doi:10.1093/biosci/biz042



## Em. Prof.dr.ir. V.J. (Han) Meyer

Delft University of Technology (TUDelft), DELTASTAD

### Room for the river

Recovery of the delta as a dynamic and resilient system



The delta of Rhine and Meuse, seen by Alexander Gerst, from ISS dd 6 augustus 2018

[Credit: ESA/A.Gerst, CC BY-SA 3.0 IGO]





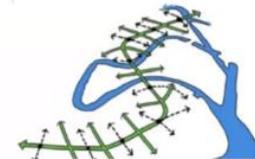
## Attila Katona

Central European University, Researcher  
NATURVATION Project



### „Eco-Valley“ - Sino-Singapore Tianjin Eco-City

- 1 Axis – 3 Centres – 4 Districts” - 1 axis refers to 'Eco-Valley'
- Cuts across the Eco-City as an 'S'-shaped green infrastructure spine with a fishbone structure.
- 50-100 meter wide, 11 km long, now 180.000 m<sup>2</sup>
- Sponge City disciplines & Park Connector Concept
- 22 KPIs (12 m<sup>2</sup> green space per capita, 70% native species, etc.)





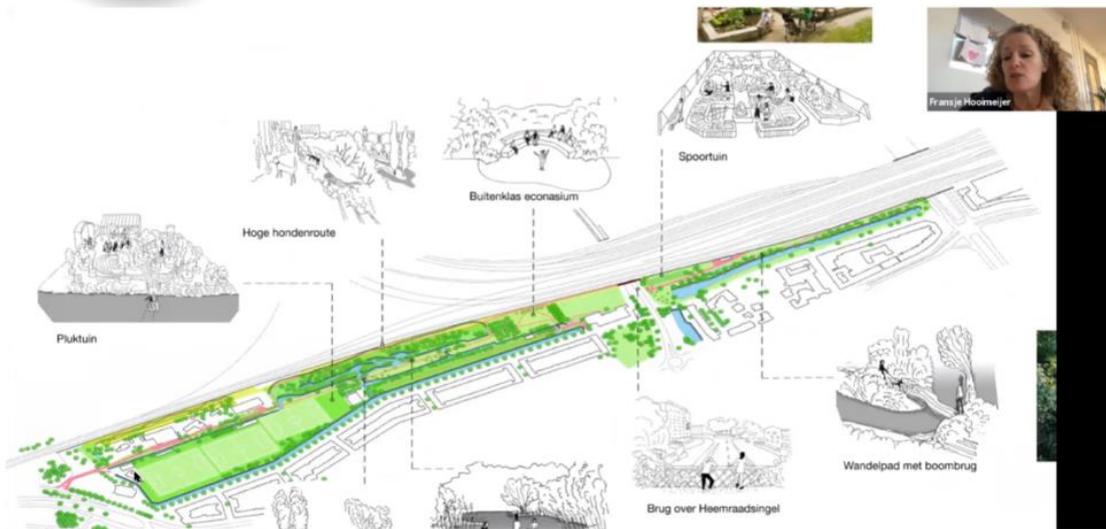
## Webinar Series: Nature -based Solutions

### Webinar 2: Design, Planning and Governance



**Dr Fransje Hooimeijer**

Delta Urbanism / Intelligent SUBsurface  
Delft University of Technology - TUDelft



**Dr Mark Scott**

University College Dublin,

## Delivering NBS through urban planning



- A compelling evidence base
- Translating knowledge to action?





## Dr Chris Zevenbergen

Water Engineering Department of IHE Delft,  
The Netherlands

### Nature Based Solutions require a paradigm shift

Dimension	Traditional approaches	Emergent approaches
Rationale(s)	Economic efficiency (and social equity)	Unlocking economic potential (e.g. multiple benefits)
Focus	Individual infrastructure items (e.g. roads, bridges)	Infrastructure systems, interdependencies (e.g. urban resilience)
Timescale	Short(er) 5-20 years	Long(er) > 30 years
Organisation	Projects	Packages of projects (programs)
Planning process	Robust (risk-based) approach	Adaptive (resilient-based) approach



## Eng. Ana Beccar Varela

The Nature Conservancy



## Jaime Camacho

The Nature Conservancy

### WATER FUNDS IN LATIN AMERICA

**26**

Water Funds created

**9**

Countries of Latin America

Results as of October 2020

99,573 families participating in projects

305,325 ha (natural infrastructure)

+300 public and private partners

USD\$219.7 M pooled resources

Supported by:



**Prof. Heber Sosa Fabre**

Wetlands International, Argentina

*antes*



*después*



Prof. Heber Sosa Fabre: [sosafabre@yahoo.com.ar](mailto:sosafabre@yahoo.com.ar)



## Webinar Series: Nature -based Solutions

### Webinar 3: Business models and circular economy



**Dr Helen Toxopeus**

H2020 NATURVATION  
Utrecht School of Economics and the Sustainable  
Finance Lab at Utrecht University

8 business model types identified

<p> <b>Risk reduction model</b> Ilor plan, Munich Allants Water Fund Pilot, Cape Town</p> <p> <b>Green densification model</b> Parc Marianne, Montpellier Eco-Valley, Tianjin</p> <p> <b>Local stewardship model</b> Roadside tree concept, Leipzig Square meter for butterflies, Edinburgh</p> <p> <b>Urban offsetting model</b> Urban Forest Fund, Melbourne Beekeeping at Audi Hungary, Győr</p>	<p> <b>Vacant space model</b> Pla Bults urban gardens, Barcelona Winter ice at The Forks, Winnipeg</p> <p> <b>Green health model</b> Food for Good, Utrecht Newcastle Park Trust, Newcastle</p> <p> <b>Green education model</b> School gardens, Győr Belvedere college urban farm, Dublin</p> <p> <b>Green heritage model</b> Park museum Viana, Salta Chinampas agriculture, Mexico City</p>
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**MSc David Álvarez García**

CEO of Ecoacsa Reserva de Biodiversidad  
EU Business @ Biodiversity Platform Advisory

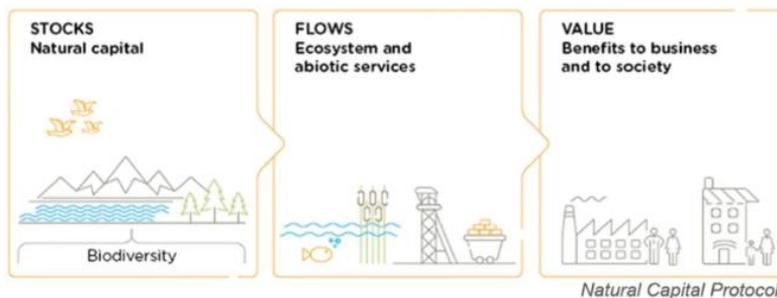
Financing nature

Circular

### An opportunity to finance nature: some back ground



#### Natural capital: Capturing the value





**Dr Mónica Altamirano**

Deltares

**NAIAD**  
 Nature Insurance value: Assessment and Demonstration (H2020)  
 #ClosingtheImplementationGap

**Water for as Resilient Cities Leverage Asia**

**TOWARDS INVESTABLE NBS PROPOSITIONS**  
**Lessons learned Semarang- Water as Leverage**

Mónica A. Altamirano, PhD  
 Specialist in Public-Private Partnerships  
 Water Resources and Delta Management

**Deltares**  
 Enabling Delta Life

NAIAD project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 730497.



**MSc Anne Loes Nillesen**

Defacto and Urbanism, Rotterdam

## Amsterdam Forest

Landmarks should also adapt!

- Enormous capital (ca 150.000 trees value of € 3.000 to € 35.000)
  - Are essential during urban heat
- Important ecological area

