

# Accelerating Adaptation through Building with Nature in Asia

*Convening global leaders & experts around an Asian challenge*



Governments and donors are increasingly applying Building with Nature or nature-based approaches (NBS) to reduce hazards, mitigate and adapt to effects of climate change and to improve water management. Examples from across the globe demonstrate that the approach is viable, yet uptake at scale is still slow. This week of events in the Netherlands will accelerate adaptation in Asia by rallying political support, addressing barriers and creating enablers for implementation of Building with Nature at scale.

## What this week offers:

- ◆ **High level event:** global and national leaders rally around the challenge to accelerate adaptation through Building with Nature in Asia
- ◆ **Expert workshop:** Asian governments and donors bring tangible "Building with Nature Challenges" that follow an implementation exercise guided by global experts in engineering and natural systems.
- ◆ **Writershop** for the elaboration of a Road Map to Accelerate Building with Nature in Asia through a platform that will tackle generic barriers and enablers to implementation (petit comité)
- ◆ **Field visits:** to emblematic Building with Nature projects in the Netherlands
- ◆ Increased knowledge about Building with Nature research, design approaches and practices, experiences sharing with peers and networking

Sandy shores



Photo: VeroDord

Estuaries



Photo: Ceredigion county council

Lakes and rivers



Photo: Deltares

Tropical shelf seas and  
shores



Photo: NOAA

Ports and cities



# Expert Workshop - July 10<sup>th</sup>

- 8:30-9:00: Coffee and registration
- 9.00-9.15: Welcome and official announcements
- 9.15-10.30: Plenary session
- 10:30-12:00: Break-out groups
- 12:00-13:00: Lunch and campus tour
- 13:00-15:00: Break-out groups
- 15:00-16:30: Plenary presentations and feedback
- 16:30-17:00: Follow-up agreements and closing



## Why this workshop?

**Location: Deltares Pavilion in Delft**

Building with Nature or nature-based approaches (NBS) are deemed attractive because of the multiple co-benefits that are derived. Moreover, they tend to meet less local resistance than large conventional or “grey” infrastructural measures and are more sustainable and climate resilient in the long term. With solid design, nature-based solutions can achieve similar safety levels but deliver additional benefits, including tourism, biodiversity and fishery yields, compared to conventional engineering interventions. However, little familiarity with these approaches and lack of design guidelines leads to unprecedented challenges with construction, monitoring and maintenance.

Over the past decade, global support for Building with Nature has increased exponentially, resulting in many initiatives that work with this approach throughout Asia. The need to facilitate and accelerate implementation and to address the challenges, led the Government of Indonesia to initiate a Building with Nature Platform. In this platform, best practices, terms of reference, monitoring plans, construction techniques and training and capacity building programs are being shared. The accelerating adaptation workshop and field visit are organised by the platform to stimulate uptake in the wider Asian region. In addition, a high-level Building with Nature event is organised 11<sup>th</sup> of July, in which selected Challenges and main findings of the workshop will be shared.



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# High Level Event - 11 July at 5 - 9 pm

## *Towards a commitment to accelerate Building with Nature in Asia*

Official reception—upon personal invitation

**Location: Rotterdam t/b/d**

Through the Ecoshape network, the Building with Nature approach has been strongly field-tested and applied in the Netherlands. In Indonesia, the Ministry of Marine Affairs and Fisheries has taken leadership in addressing degradation exacerbated by climate risks through Building with Nature. What started as a small experiment in one village has grown into a large scale initiative along a 20 km eroding coast in Central Java, replicated in 12 districts. These successes have not gone unnoticed.

Through the high level reception, the Government of Indonesia wishes to share its experiences with fellow countries in Asia and explore the ambition to set up a platform to facilitate this learning to accelerate implementation of Building with Nature within Asia.

This high level event, with top government officials, NGO and private sector leaders aims to rally commitment and interest for this platform, while defining a road map for its establishment.

The event will feed into the Action Tracks of the Global Commission on Adaptation, which will be announced at the September 2019 Climate Summit in New York, as well as commitments to be pledged at the Adaptation Summit in 2020.

Programme includes:

- \* Brahmantya Satyamurti Poerwadi—Director General of Marine Area Management, Ministry of Marine Affairs and Fisheries, Republic of Indonesia
- \* Roald Lapperre—Director General International, Ministry of Infrastructure and Water, the Netherlands
- \* Prof. Dr. Patrick Verkooijen - Chief Executive Officer, Global Center on Adaptation
- \* Ms. Jane Madgwick - Chief Executive Officer, Wetlands International
- \* Conclusions and Building with Nature Challenges from Expert Workshop
- \* Road Map towards accelerating adaptation in Asia through Building with Nature



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# Field visits - 9<sup>th</sup> and 11<sup>th</sup> July 2019

## Building with Nature in The Netherlands

In The Netherlands, there is a plethora of examples of Building with Nature projects to be found, some of which are presented in this flyer. These projects are implemented in line the Building with Nature philosophy and could thus serve as examples for Building with Nature projects all over the world.

On 9 and 11 July, Ecoshape will organise site visits to inspiring full scale Building with Nature projects.

The field visits will include a selection of the sites presented below. A more detailed program will be provided.



①

**Markerwadden**

A new island group is constructed in the Lake Marken, a large freshwater lake in the center of The Netherlands. The lake ecosystem was heavily degraded. The islands, called Marker Wadden, consist of fine sediment, sand and clay, all three from the Markermeer. The goal is to create a recreation area where plants, animals, birds and fish feel at home and where people can enjoy nature.



③

**Houtrib Dyke**

To ensure that the Houtrib Dyke meets the safety norms of Dutch Water Law, this dyke is being reinforced with stones and sand by Rijkswaterstaat. After this reinforcement, the dyke is resistant against storms that occur on average once every 10.000 years. Sandy reinforcement of a dyke in such a huge non-tidal inland water is a worldwide first. This novel dyke will offer more chances for nature and recreation than a conventional dyke would have.



⑤

**The Sand Engine**

Every year, the sea takes sand from the Dutch coast. Every five years, Rijkswaterstaat replenishes the shortfall by depositing sand on the beaches and in the offshore area. If they wouldn't, the west of the Netherlands, which is below sea level, would be exposed to the sea. In principle, the sand replenishment every five years is effective, but opportunities to protect the coast in more sustainable and natural ways were sought.



②

**Hondsbossche**

The Hondsbossche and Pettemer sea dike no longer met current safety standards. Therefore the dike was reinforced in 2015 with a soft, natural barrier of 30 million cubic metres of sand on the seaside of the dike. It was renamed 'Hondsbossche Dunes'. The design consists of a soft shallow foreshore (the beach), with various dune habitats. These connected systems make up the primary flood defence and provide opportunities for nature development and recreation stimulating the local economy .



④

**Tidal Parks Rotterdam and Dordrecht**

Tidal parks in Dordrecht and Rotterdam are being created, transforming the traditional "hard" banks of the rivers and ports, into gentle, vegetated slopes allowing reeds, rushes and willows to grow. This creates opportunities for leisure and increases the ecological quality of the rivers flowing through the cities, future-proofing them, as well as a more natural link to the nearby Biesbosch National park.

The Sand Motor is a great example of Building with Nature. By depositing a large amount of sand in one single operation, repeated disruption of the vulnerable seabed can be avoided. Nature is taking the sand to the right place.



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# Invitation to submit Building with Nature Challenges

Asian governments and donors are invited to bring their own “Building with Nature challenge” to the Expert Workshop in Delft at the 10<sup>th</sup> of July. These challenges can cover urban, riverine and coastal environments and can concern site-specific problematics, conceptual or running projects or nation-wide programs to solve water and/or climate impacts, that potentially include nature-based working approaches or interventions.

During the workshop, these “Building with Nature challenges” are assessed and subsequently follow an implementation exercise to address barriers and enablers. In this exercise, representatives of Asian countries, regions or cities engage with the most knowledgeable experts and international financiers. Each challenge groups is led by a professional with a technical engineering background and includes a system experts with relevant country, natural system and case experience.

Please use the below format to submit your “Building with Nature challenge” and send by the 1st of July 2019 to: [Bregje.vanWesenbeeck@deltares.nl](mailto:Bregje.vanWesenbeeck@deltares.nl). Feel free to contact us at any time.

The accepted challenges will be requested to bring presentation and working materials, such as maps and a project description. For this, a template format will be distributed after final acceptance.

Sandy solutions



Photo: carolinadesigns

Muddy solutions



Green-grey solutions



Photo: reefinnovations

# Format for Building with Nature Challenges

Title:.....  
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Description (approx. 200 words including problem description, approach to address the problem, Building with Nature potential, challenges experienced):

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Location (country, district): .....

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Urban/river/coastal/other: .....

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Stakeholders:

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