



Deliverable 2.3

T2.3a Report: Academic paper on NBT within future planning and management of cities



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Cover page illustration: Project meeting at Sao Paulo's Consciencia Negra Park ©GMercado

Contents

Executive Summary	5
Introduction	6
1. Process description.....	6
1.1. Nature Based Thinking Symposium.....	7
1.2. Nature future workshops	7
1.3. Analytical framework for NBT paper	8
2. First version of NBT paper	9

Executive Summary

The report presents the development of Nature Based Thinking (NBT) with an emphasis of future planning within cities through a reflective process that was led by SLU, UdL, USFD and TUM in Task 2.3 and resulted in the joint writing of a paper entitled: “Supporting Nature-based Solutions via Nature-based thinking, across European and Latin American cities” (working title). The paper focuses on developing the problem-solving mindset of ‘nature-based thinking’, which promotes “nature and humanity as being indissolubly connected and working across sectors, disciplines and levels of governance to implement NBS over conventional infrastructure - and to advocate and educate for change that supports this transformation” (Wild et al., 2020; Randrup et al., 2020).

Two main approaches were used to reflect on NBT and its application to future planning in cities:

1. The organization of a truly transdisciplinary symposium held in December 2021 which featured talks on nature-based thinking in relation to (i) informal settlements and transformative change; (ii) nature-futures; (iii) urban design and cosmovision; (iv) true inclusivity; (v) modularity and technocracy; (vi) educational programmes with schools; (vii) governance indicators; and (viii) stakeholder mapping. In total 94 delegates participated in the symposium (split as follows: science/research - 36; city/regional governments - 16; SME/business - 14; NGO/civil society - 10; general public - 0; policy/government - 17; other - 1).
2. The organization of a series of city-level NBS-Futures workshops in 6 of the seven CONEXUS cities which had the objective of jointly explore desires, hopes and possibilities around the idea of nature-based futures for the selected cities in year 2050.

The results of these events were then compared and analysed iteratively to reflect and inform our understandings of NBT and its potential contributions to improving NBS implementation.

Three key-themes resulted from the reflection process, which needs to be addressed when further developing NBS, inspired by NBT: (i) New understandings of the human-nature relations, acknowledging the cultural, structural changes in society, (ii) Other ways of knowing, - and learning as NBS need to connect up with wider agendas to transform urban natures, and (iii) New ways of organising NBS planning and management, as NBS cannot be long term sustainable if developed within the existing organisational silos.

Introduction

This report corresponds to Deliverable 2.3 of Work Package 2 (WP2) of the CONEXUS project. Deliverable 2.3 corresponds to T2.3, which has the objective of “establishing the foundation for Nature-based Thinking (NBT) processes in each CONEXUS city, to strengthen integration of NBS into medium and long-term visioning, planning, design and implementation”.

T2.3 is led by SLU, together with UdL, TUM and USFD. D2.3 is a result of several activities of reflection about what NBT entails as “... a problem-solving mindset that sees nature and humanity as indissolubly connected and [which] is ready to work across sectors, disciplines and levels of governance to implement NBS over conventional infrastructure and to advocate and educate for change that supports this transformation¹” and how it could support the better implementation of Nature Based Solutions (NBS).

The paper is therefore a result of a reflective process and it aims to capture its most salient themes, as well as to enlarge the conversation about how future urban planning and NBS implementation could include a Nature Based Thinking mindset. The process is described next.

1. Process description

An interdisciplinary conversation around NBT was sparked by joining several scientists from different fields into T2.3. To define the procedures from which to start building a reflection process and a publication based on it, we held several meeting in a initial phase where the discussions were mostly around defining methods and approaches as well as the scope of the paper and brainstorming ideas of how to present NBT to the CONEXUS consortium and to capture both the local, citizen-based interpretations of it as well as the academic and practitioners ones.

It was decided that the best way to spark a conversation about NBT within the consortium was to organize a Symposium around NBT, which took place in December 2021. It was also decided that organizing Nature Future Workshops in relation to each of the Life Labs, would be an important part of the contribution. Table 1 presents a timeline about how the process took place.

Table 1 NBT paper timeline

Month	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP										
	2020												2021												2022										
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24										
Tasks	Discussing methods and approaches					Writing NBT paper brief					Organizing symposium																								
																					Futures Workshops														
											Analysing results and writing paper																								

¹ As defined in the CONEXUS project proposal.

Next, we describe the main reflective activities that fed into the NBT paper.

1.1. Nature Based Thinking Symposium

The NBT symposium was organized with the aim of developing understandings of NBT within the CONEXUS consortium and to identify possible synergies, overlaps or challenges for the Life labs. We launched a call for abstracts for all consortium participants to discuss relevant questions about Nature Based Thinking implementation, such as: Which new practices, technologies and governance approaches are needed in order to create long-sighted social-ecological transformations? What conceptions and related value frames exist, and/or are needed in order to strengthen human-nature connectedness in urban planning? What changes do we need to ensure in order for nature-based approaches to become mainstream? How do we acknowledge the value of nature beyond solutions and services (recognizing nature's intrinsic value: 'nature for nature's sake')? How do we introduce transdisciplinary in order to apply a holistic, nature-based approach to governance, planning, design, construction, management and stewardship of urban nature?

The Symposium received contributions which reflected about Nature Based Thinking as a mind-set that needs to be implemented across different NBS implementation strategies. Eight abstracts were presented and discussed, with themes that ranged from conceptual developments towards more practical aspects towards implementation and practice in relation to (i) informal settlements and transformative change; (ii) nature-futures; (iii) urban design and cosmovision; (iv) true inclusivity; (v) modularity and technocracy; (vi) educational programmes with schools; (vii) governance indicators; and (viii) stakeholder mapping.

The consortium participants were from different regions of the consortium with a balanced participation from both South America and Europe as well as participation from the Life labs and from the Work packages. In total 94 delegates participated in the symposium (split as follows: science/research - 36; city/regional governments - 16; SME/business - 14; NGO/civil society - 10; general public - 0; policy/government - 17; other - 1). The papers presented and the corresponding discussions were transcribed, resulting in 17 pages of word transcriptions. They were then summarized and analysed through thematic analysis, with the objective of extracting the major themes that need to be -or are expected to be included in NBT. Four members of T2.3 performed the analysis and the results of this were then re-analysed and summarized by two other T2.3 members. The themes that resulted from these analyses, were included as part of the papers analytical framework.

1.2. Nature future workshops

The Nature future workshops (NFWs) were designed in three steps to jointly explore desires, hopes and possibilities around the idea of nature-based futures for the selected cities in year 2050.

The methodology was based on the three horizons framework, that has been widely used to collaboratively explore futures and the changes people can make to achieve them (Sharpe, 2013; Sharpe et al., 2016; Pereira et al. 2020). The first step (Horizon 1) aimed to build a narrative about the futures participants were making now (the current NBS being implemented), where participants extrapolated current trends, scanned the horizon, and considered where 'business as usual' is taking their city to; the second step (Horizon 3) aimed to explore the futures participants wanted, where participants shared their

visions of desired futures, and were invited to imagine this future world from the perspective of a ‘more than human’ actor: e.g. the river; a bee; a tree; and finally, the third step (Horizon 2) was a ‘back casting’ exercise where participants reflected on how they could create pathways from the present to their desired futures, considering key actions and interventions, and drawing on Nature Based initiatives.

Six out of the seven cities organized a NFW with the exception of Barcelona which had held a very similar workshop quite recently. The number of participants and membership is displayed in table 2.

Table 2 Participants membership and number in each Nature Futures workshop

City	Science/research	City/regional governments	SME/business	NGO/civil society	Social group (e.g. activists)
Bogota	7	3	-	-	-
Buenos Aires	6	2	-	-	-
Lisbon	9	5	3	2	3
Santiago	6	10	1	-	-
Sao Paulo	8	8	-	-	-
Turin	6	4	1	4	-

The results of the NFWs were further analysed in regards to Nature Based Thinking and the symposium results and were included in the paper. The role each of the reflective events had in contributing to the paper is explained further in the next section.

1.3. Analytical framework for NBT paper

Both the Symposium and the NFWs generated inputs and reflections we consider useful to advance the notion of NBT and its applicability to assess and implement NBS interventions that support and accommodate the needed transformations in cities.

However, while the symposium had the explicit objective of discussing the understandings of NBT across CONEXUS scientists and practitioners, the FWS were more focused gathering a plurality of voices in exploring desired futures for nature. Hence to add on the contributions we received through the symposium and to ensure the inclusion of different actors’ voices in the reflective process we crafted an analytical framework where we used the Symposium results to provide feedback to main NBT theoretical premises and apply these as a lens to further analyse the NFWs result. The analytical framework is displayed in Figure 1.

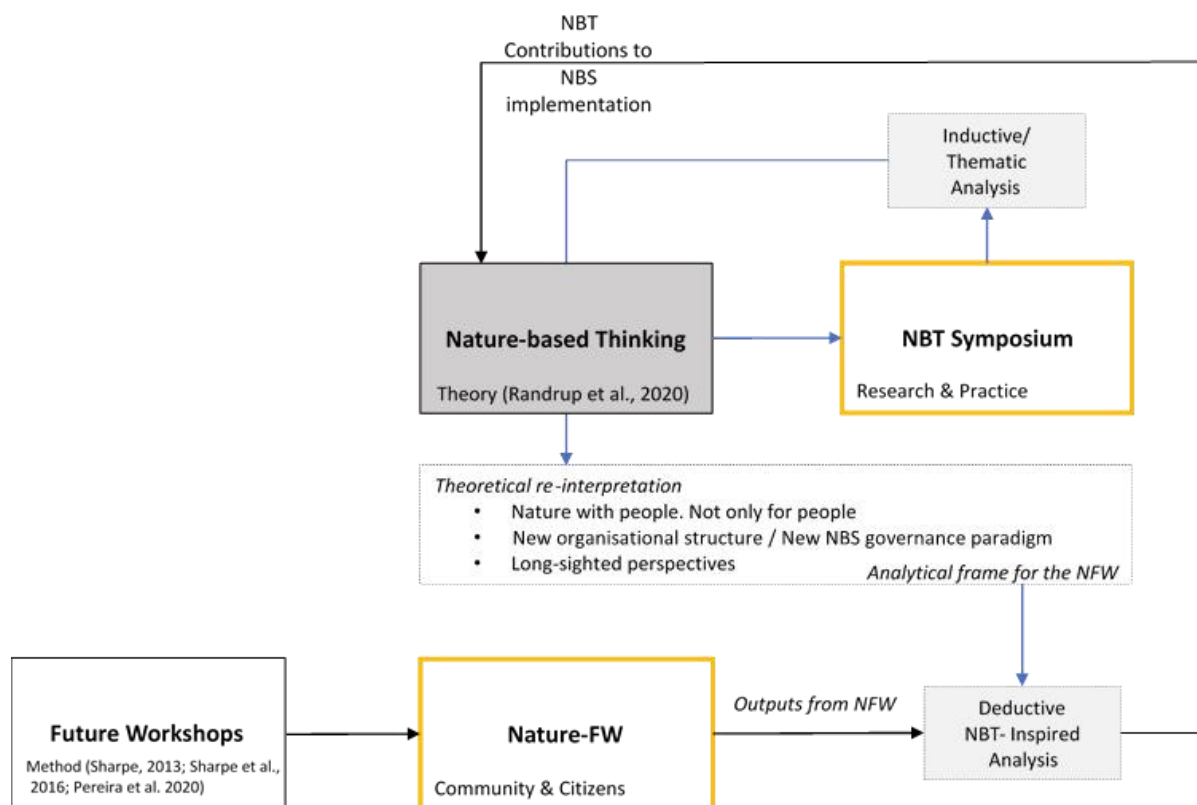


Figure 1 Iterative process for the analysis NBT Symposium and NFW results, the blue lines signal the NBT symposium feedback into NBT and then into the NFWs. The dotted boxes signal the different types of analysis performed on both Symposium and NFW results.

By applying the analytical framework to the analysis of NBT Symposium and NFW results, we were able to extract three key themes that need to be considered for NBS implementation from a Nature Based Thinking perspective:

- (i) New understandings of the human-nature relations, acknowledging the cultural, structural changes in society,
- (ii) Other ways of knowing, - and learning as NBS need to connect up with wider agendas to transform urban natures, and
- (iii) New ways of organising NBS planning and management, as NBS cannot be long term sustainable if developed within the existing organisational silos.

These themes are still being discussed within the task members and co-authors of the paper, hence in the next section we present the preliminary version of the NBT paper, which has the working title: "Supporting Nature-based Solutions via Nature-based thinking, across European and Latin American cities"

2. Preliminary version of NBT paper

Project Partners



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