

IPBES template for the submission of requests, inputs and suggestions on short-term priorities and longer term strategic needs that require attention and action by IPBES as part of its future work programme.

Name and contact details of individual submitting requests/inputs/suggestions:

Date of submission: **September 26th 2018.**

Submission from: IPBES member:

Belgium

Observer allowed enhanced participation in line with decision IPBES-5/4:

MEA(s): _____

United Nations body: _____

Expert on, and holder of, indigenous and local knowledge: _____

Other Stakeholder(s):

Please provide the following information for any request and, where relevant, for any inputs and suggestions (additional attachments can also be submitted):

Request/input/suggestion: Conduct thematic IPBES assessments of nature/biodiversity – human health linkages, taking into account the socio-ecological system, including plant & animal/wildlife health, based on an integrated One Health approach.

Information to accompany requests submitted to the Platform (see also Decision IPBES-1/3 Procedure for receiving and prioritizing requests put to the Platform):	
1.	Relevance to the objective, functions and work programme of IPBES: the <u>Summary for Policy Makers of the Regional Assessment for Europe and Central Asia</u> rightfully includes in its first key message regarding the importance of Nature’s contributions to people, how nature benefits human health through its role in medicines, the provision of food for varied diets and support to mental and physical health through green spaces. This assessment included dedicated work on health issues, mainly reported in a <u>dedicated appendix</u> . Nevertheless, we notice that in IPBES in-depth discussion/assessment regarding health remains often neglected. Also within IPBES, there often is a bias to nature based health benefits, without proper attention for nature related health risks such as infectious diseases, resource competition and injury. For balanced recommendations towards sustainable development there is a need to assess health benefits and risks originating from nature and ecosystem functioning in an integrated manner (i.e. with a systems approach). Furthermore, within IPBES, health experts appear to be underrepresented, especially regarding human and animal/wildlife health.
2.	Urgency of action by IPBES in the light of the imminence of the risks caused by the issues to be addressed by such action: the crucial importance of nature for human & animal/wildlife & plant & ecosystem health cannot be underestimated, nor the political importance of the health argument for conserving nature. There are antagonising forces driving policy and action in relation to ecosystems, blocking the appropriate management of nature. These need to be made apparent rapidly and integrated in the decision making process at global, continental, national and local scale. Furthermore, we need to address this urgently, as the negative consequences of

	<p>a disturbed nature – health interrelation are showing increasingly on a global level. The urgency is further supported by the December 2017 unanimous <u>decision XXI/3</u> of the Subsidiary Body on Scientific, Technical and Technological Advice to the CBD (SBSTTA).</p>
3.	<p>Relevance of the requested action in addressing specific policies or processes: nature – health linkages are complex, developing with often unforeseen consequences, necessitating constant updating and synthesis of the developed knowledge base and guidance for policy makers derived from it. The impressive synthesis work performed in the <u>Biodiversity & Health State of Knowledge Review by WHO & CBD</u> (2015) is a good stepping stone for this effort, but lacked the development of a concrete evidence assessment with confidence terms. Also, as knowledge in this field develops rapidly, and so do related developments on the ground and crises, an update within the IPBES framework is legitimate. Both the update and the evidence assessment are crucial for policy uptake.</p>
4.	<p>Geographic scope of the requested action, as well as issues to be covered by such action: depending on availability of resources, ideally the geographic scope is on a regional level, as context specifics are crucial in relation to health with variations resulting from similar circumstances. The relative importance of biological, social and economic aspects as well as their qualities vary considerably in different contexts and regions. If for pragmatic of budgetary reasons this is not realistic, a global assessment can be considered, preferably taking into account regional perspectives.</p>
5.	<p>Anticipated level of complexity of the issues to be addressed by the requested action: nature – health linkages are by definition hugely important, but also complex, as they not only combine main scientific fields (nature and health) that are themselves already complex, but also the importance and complexity of the socio-economic aspects (e.g. livelihoods based on nature; income generation through sustainable or unsustainable use of nature; spiritual and cultural practices) should not be underestimated. Furthermore, valuation and definition of health priorities is context-dependent adding an additional layer of complexity to the debate.</p>
6.	<p>Previous work and existing initiatives of a similar nature and evidence of remaining gaps, such as the absence or limited availability of information and tools to address the issues, and reasons why IPBES is best suited to take action: IPBES is well suited because of its science – policy interface focus, and its scientific credibility regarding knowledge and evidence assessment. The latter is of essential importance considering the complexity of nature – health linkages and the importance to assess the (confidence in the) evidence, even when there is limited information. The evidence based culture of health science, policy and practice warrants a credible, thorough, minimally biased and in-depth approach. This will help to enhance the awareness of the importance of health in the international policy debate, but also supporting regional and local policy uptake and practices. As mentioned, this can build on previous assessment work like the <u>Biodiversity & Health State of Knowledge Review by WHO & CBD</u> (2015) and the recent IPBES assessment work related to health in the Regional Assessment for Europe and Central Asia: the <u>dedicated appendix</u> pointed at several key knowledge gaps to consider:</p> <ol style="list-style-type: none"> 1. The need for an IPBES health assessment in order more completely outline and define the scope and complexity of biodiversity-health relationships, and more appropriately assess their relevance to human well-being in ECA and other regions. Currently in IPBES it is only dealt with in a fragmented manner with very limited space for in-depth understanding and communication. Further this would help bring to the fore the key importance of related opportunities and challenges for society and the crucial bridge between science, policy and practice. Also, ongoing and rapid environmental and demographic changes affecting biodiversity – health linkages and related scientific developments and challenges warrant a policy oriented update of earlier reviews such as the CBD – WHO State of Knowledge review. 2. The need for integrated approaches to research, policy and practice. We need more integrated approaches to nature & health both in and between science, policy and practice, such as called upon earlier by CBD, WHO, FAO, OIE. The importance of human health interlinkages with nature and the environment in general has gained attention in science, policy and society at

large. The recent (2015) State of Knowledge review of the Convention on Biological Diversity (CBD) and the World Health Organization (WHO) addresses the diversity and complexity of the interlinkage between biodiversity and human health and the opportunities and challenges that go with it. In order to better address all (or subsets of) interrelated aspects in an integrated/holistic manner, several integrative frameworks were developed over time. The CBD-WHO State of Knowledge review refers to several of these, such as One Health (as was earlier also done jointly by WHO, FAO and OIE), EcoHealth, the ecosystem approach and One Medicine. One of the key messages from the review to the scientific and policy community and society at large is promotion of the One Health concept as a common framework under which all these (other) relevant integrative frameworks can be connected.

3. The need for improved monitoring of nature – health linkages. As health is such an important and encompassing angle on nature - human linkages, we advise to invest in data collection & processing work relevant for nature – health linkages. Regarding trends information both for nature – health linkages in general and for medicinal plants, in particular, it is hard to find information relevant across the ECA region, or a significant part of the ECA region, and easily accessible and usable for the RA ECA. When relevant data were found, there was a lot of processing work needed for it to be useful for the RA ECA, for which we do not have the capacity and it would result in new knowledge which is beyond the ambition of IPBES assessments. For specific topical foci we refer to the health section in CH2. Recently CBD parties adopted the CBD-WHO recommendation on the need for integrated One Health approaches was adopted. This means that CBD parties, among which quite some ECA countries, support the One Health concept for the mentioned integration ambitions, and in the near future will have to report to the CBD on state of the art and progress.

4. The need for research on urban NCPs to health. Research setups employing longitudinal prospective methods are necessary to provide more sound evidence for the strengths of causal relationships with specific urban ecosystem aspects. Depression reduction is one of the health benefits most strongly associated with urban ecosystems. The influence of biodiversity, differences in green space composition and water on this association, however, has not been systematically assessed. Though it has to be acknowledged that manipulating environments or people is often more difficult and expensive than applying a more pure observational design, research setups employing longitudinal prospective methods are necessary to provide more sound evidence for the strengths of causal relationships with specific urban ecosystem aspects.

5. The need for research on the human immune system - natural environment linkage. Recently emerging studies suggest that the enforcement of the human immune system through exposure to a natural environment could be a core pathway in which nature affects human health. Quantitative research regarding this relation is almost limited and would be informative for human health measures.

6. The need for research on individual mediators in nature – health linkages. Age, gender and socio-economic status may mediate the association between ecosystem and health behaviours and outcomes. For example, lower socio-economic status groups have less green space access, but studies indicate that this group might perhaps benefit most from greenness exposure. Challenges for future research are therefore to ex-ante identify these mediators, select suitable cohorts and follow subjects prospectively in order to learn more about their strength and perhaps alter the design of urban green infrastructure based on this knowledge.

Additionally, we want to draw attention to the need for critical evaluation on synthetic biology and the limits to be set on interventions in this sector in the nature-health paradigm are contemporary and urgent. Disease interventions can justify synthetic biology actions in some specific and unique circumstances but imbalances created by overuse of technological solutions can result in severe and destructive perturbations. This Udermines the evolutionary process, creating untold dependencies and permanent changes in ecological processes closely linked to nature with potential negative consequences and externalities unforeseen.

Furthermore, there is a need for an assessment of the value of biodiversity-health relationships to inform resource allocation decisions. While progress has been made in economic approaches

	to capture non-market goods, further work is needed to measure effectively the value of these systems to people and present the information in a way that is accessible to decision-makers.
7.	Availability of scientific literature and expertise for IPBES to undertake the requested action: apart from the above mentioned <u>Biodiversity & Health State of Knowledge Review by WHO & CBD (2015)</u> , relevant scientific fields are developing rapidly, producing a vast amount of valuable research. With respect to relevant experts, NEOH represents one of wider existing European expert networks, with European experts with important linkages to other regions in the world. NEOH moreover is in the process of becoming the European chapter of EcoHealth International, and can also contribute from that perspective. Both communities, NEOH and EcoHealth International have vast experience with One Health / EcoHealth assessment processes and tools; in fact, the NEOH focus particularly on the development of such tools. Moreover, these networks are well connected to other relevant expert networks such as the <u>ESP Thematic Working Group on Ecosystem Services and Public Health</u> , and the <u>One Health Commission</u> .
8.	Scale of the potential impacts, and potential beneficiaries of the requested action: By definition, One Health and Ecohealth bring together multiple sectors and through its participatory process it should provide stewardship for health promoting interventions. As the approach integrates health at different scales (individuals, communities, nations) it will, inevitably, also facilitate benefits beyond health in the strictest sense. Considering the crucial importance of health, this will be multi-scale, multi-sector and multi-actor.
9.	Requirements for financial and human resources, and potential duration of the requested action: Depending on availability of resources, ideally regional health assessments similar to the recently completed general regional assessment would be favourable.
10.	An identification of priorities within multiple requests submitted: Depending on availability of resources, regional health assessments.
11.	Any other relevant information (including a list of any attachments provided):