

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:

Submission from: IPBES member:

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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:

**“Policy support tools and mechanism for climate change
adaptation and mitigation”**

Requesting the platform to consider establishing a work stream on the development of policy support tools and mechanisms for sustainable and resilient mitigation and adaptation to climate change and climate change impacts in its future work programme.

- 1) Noting that climate change and climate change impacts are acknowledged as major pressures on biodiversity, ecosystem services and human wellbeing in many deliverables released by IPBES.
- 2) Proposing to identify, promote and further develop (“to develop”) appropriate policy support tools and mechanisms to improve concerted action on sustainable, resilient mitigation and adaptation, as well as ecological adaptation, to climate change.
 - a) Noting that the development of policy support tools and mechanisms that minimise adverse impacts on biodiversity, ecosystem services and human wellbeing are of paramount importance for sustainable development.
 - b) Noting that the development of policy support tools and mechanisms may benefit from improved understanding of pathways to influence social change through policy.
- 3) Proposing to partner and collaborate widely on this work programme for gathering available expertise, realise efficiencies and implementation, e.g. with the IPCC, Ramsar, and other relevant bodies in science and policy areas.
 - a) Noting that the work can and should be based on previously generated knowledge and information on climate change and climate change impacts (procured by IPBES and other platforms and conventions) and be informed by relevant experts.
The request does not seek for replication, nor duplication of work of other platforms and conventions.
- 4) Proposing the development of policy support tools and mechanisms takes into account the interlinkages between climate change and its impacts on the following areas:
 - a) biodiversity (especially in biodiversity hot spots and geographic edge cases);
 - b) ecosystem services and their contribution to human wellbeing and mental health;
 - c) global patterns of pressures on environments (especially ecosystem types with significantly reduced areas and those with large ecosystem service benefits; e.g. wetlands, coastal environments, floodplains, mountains).
- 5) Proposing the development of policy support tools and mechanisms formulates a range of approaches (including but not limited to co-design of policy with holders of ILK) for climate change mitigation and for adaptation to climate change impacts to ensure suitability for diverse social contexts (metropolitan, urban and rural communities, traditional livelihoods, countries in transition and western societies, continental and island nation states).
- 6) Noting that the development of policy support tools and mechanisms as described under Point 2 may benefit from improved understanding into:
 - a) pathways to achieving ecological adaptation of different ecosystem types;
 - b) sustainable solutions and utility of “green” infrastructure to maintain ecosystem services in environments under increased pressure;

- c) the nexus of “ecological economics” and psycho-social wellbeing with increased pressure from a changing climate; especially with a focus on:
 - i) the impacts of (eco-)tourism (especially on small communities);
 - ii) traditional livelihoods (aggravated by pressures from large-scale extraction of resources; e.g. mining, forestry, fishing);
 - iii) the impacts of invasive alien species;
 - iv) opportunities for public-private partnerships to deliver positive biodiversity outcomes.

Requesting to take above points into account in the development of policy support tools and decision-making mechanisms which initiate social change for increased resilience of biodiversity and societies in the light of climate change.

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.	<p><u>Relevance to the objective, functions and work programme of IPBES:</u></p> <p>The request to develop “Policy support tools and mechanism for climate change adaptation and mitigation” is aligned with the agreed functions of the platform.</p> <p>It is especially relevant for achieving non-adverse outcomes from science-based environmental policy and therefore is a direct contributor for fostering an improved science-policy interface.</p> <p>IPBES is unique in that its conceptual framework facilitates work that explores diverse interlinkages between biodiversity and patterns of increased pressure on environments, ecosystem services and benefits of nature on human wellbeing, as well as diverse social contexts.</p> <p>Climate change impacts are affecting all of these areas at a global scale and will continue to increase over time.</p> <p>Giving the development of tools an ‘environmental-process’ structure – rather than a methodological one – and linking it directly to the mitigation of climate change and adaptation to climate change impacts, helps build a broad portfolio of applicable and adaptable policy instruments to influence beneficial change for biodiversity and local communities.</p>
2.	<p><u>Urgency of action by IPBES in the light of the imminence of the risks caused by the issues to be addressed by such action:</u></p> <p>Climate change is already impacting on ecosystems and biodiversity, ecosystem services, livelihoods and human wellbeing at a global scale and its impacts are expected to accelerate.</p> <p>Taking action now (with results produced and implementation underway within the next decade) is urgent to aid policy and decision makers to prevent worst case scenarios of >2°C warming.</p> <p>To curb global warming, social change needs to be initiated as soon as possible. The impacts of climate change are already felt by biodiversity and societies living in climatic and geographic edge case regions and adaptation is vital for the ecological system as well as human wellbeing.</p> <p>Now is the time to equip policy and decision makers with the tools and mechanisms they need to design effective, locally adapted, best-practice policies for climate change mitigation and appropriate adaptation actions.</p> <p>It is noted that timing of this work stream is of importance due to the broad and collaborative nature of the proposed request.</p> <p>It is understood that the IPCC will release potentially relevant reports for this work stream from now until 2022:</p>

	<ul style="list-style-type: none"> ○ a special report on climate change and the oceans is due in 2019; ○ a special report on climate change and land will be released in 2019; ○ the Sixth Assessment Report is planned for publication in 2022. <p>Staging the work of the proposed request such that relevant planned publications can fertilise discussions and authors/experts from international conventions and platforms can contribute meaningfully needs to be considered.</p>
3.	<p><u>Relevance of the requested action in addressing specific policies or processes:</u></p> <p>The requested action aims to address a gap in translating global climate change policies to the local scale for improved concerted action on sustainable, resilient mitigation and adaptation, as well as ecological adaptation.</p> <p>The proposal seeks the development of policy support tools and mechanisms which maintain biodiversity and ecosystem services, foster implementation of sustainable solutions and increase resilience to climate change and its impacts under a range of local conditions (e.g. geographic, ecological and socio-economic).</p> <p>At a global scale, some climate change mitigation and adaptation policies are well-accepted and implementation is underway at the local level in many locations. But there are circumstances, where the ‘usual’ approach is not suitable. For example, the well-known approach for climate change mitigation of ‘plant more trees to sequester CO₂’ is not a suitable policy tool for extensive grassland ecosystems.</p> <p>Local level adaptation of this global policy will have to look at different policy support tools and mechanisms to achieve implementation without adverse consequences in a range of different localities (under different scenarios).</p> <p>In addition, local adaptation efforts are often fuelled by local resource inputs. This approach may generate creative solutions and supports their implementation, but it does not foster learning from approaches underway elsewhere to become more effective and efficient and it brings about a risk if adverse impacts have not been considered adequately.</p> <p>Hence, this request seeks to bundle possible policy options for achieving implementation of sustainable and resilient mitigation and adaptation to climate change.</p>
4.	<p><u>Geographic scope of the requested action, as well as issues to be covered by such action:</u></p> <p>Climate change is expected to affect societies and biodiversity worldwide, any work dedicated to this topic would need to consider impacts and (reciprocal) effects from the local to the global scale.</p> <p>Some global policies for climate change mitigation exist (e.g. reforestation to sequester CO₂), are valid and proven, and implementation at the national level has been successful many times.</p> <p>Yet, they are not a “one-size-fits-all” solution to the problem. Adaptation at the local level of any global policy is necessary to prevent adverse consequences.</p> <p>There is a need to develop more diverse approaches and to suggest alternatives that are suitable at the local scale – considering different local social contexts, ecology, geography and climate.</p>

	<p>Development of a suite of actions, each customised to a different local scenario, but connected to a global aspirational aim, are required for decision makers to effectively influence mitigation as well as social and ecological adaptations to climate change.</p> <p>Climate change is already affecting biodiversity (especially within geographic edge case regions) and human traditions alike; e.g.:</p> <ul style="list-style-type: none"> ○ sea-level rise is threatening low-lying (atoll) islands, island nations and coastal areas of continents; ○ species cannot escape their warming habitats in arctic/antarctic zones, but also insular ecosystems such as wetlands or alpine regions; ○ changing weather patterns (more drought and conversely also more rain) are disrupting traditional agriculture practices. <p>Even though climate change impacts can be clustered at the global scale, the local response must be well adapted to the local environment – its biodiversity, climate, local traditions and livelihoods.</p> <p>Considering local needs in the development of tools that support policy and decision makers to achieve non-adverse mitigation and adaptation to climate change and its impacts is required.</p>
5.	<p><u>Anticipated level of complexity of the issues to be addressed by the requested action:</u></p> <p>Acting on this request will be highly complex. While it is certain that societies globally are already dealing with a changing climate, there is variation in the extent of climate change impacts at the local scale.</p> <p>In addition to IPBES’ expertise, existing knowledge on climate change and its impacts, and relevant expertise (from holders of ILK and scientists with a ‘western worldview’) should form the basis of and inform the requested development.</p> <p>It is suggested that IPBES partners and seeks collaborations (for example with IPCC) on this topic to facilitate robust policy tool development based on science and evidence. As noted under point 2, a staged timing of this work stream may benefit a collaboration with IPCC such that workload of climate change experts/authors and publications/deliverables agreed by IPCC can inform this work.</p> <p>Adaptation planning processes undertaken in accordance with the Paris Agreement [article 7(9)], may also be one pathway for such policy development and decision-making and developments underway towards adaptation planning processes may also inform the requested work.</p> <p>Similarly, other international conventions and platforms may be well-positioned to provide additional expertise on biodiversity and ecological functions and expected pressures from climate change; e.g. Ramsar.</p>
6.	<p><u>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:</u></p> <p>There is a plethora of knowledge on climate change, its current and future impacts on biodiversity, ecosystems and ecosystem functions, ecosystem services, western and traditional societies.</p>

Some global policies, especially those focussed on mitigating climate change (e.g. revegetation to sequester CO₂), have been promoted for a long time and are successful in some local contexts – but may not be beneficial solutions in other localities. Some high-impact actions (cp. IPCC Fifth Assessment Report, 2014) with benefits beyond climate change mitigation are not (yet) acceptable to societies or are slow in gaining traction in policy-making at the global scale. Adaptation strategies to climate change impacts are often designed at the local level, making these efforts effective but also resource-intensive. Tools and mechanisms to support policy for more sustainable, concerted action to increase resilience towards global impacts of climate change with suitable approaches for diverse local scenarios are needed.

As the impacts of climate change are expected to dramatically change local biodiversity, climate change will have a large impact on humans, their traditions, livelihoods and wellbeing, which cannot yet be quantified in all its facets and to its fullest extent. But it is certain that climate change will bring about a massive change to local ecosystems and communities. Adaptive reactions of communities may be ad-hoc and spontaneous - with sub-optimal results.

There is scope to develop proactive mitigation and adaptation policy. And, where appropriate, enable co-design of local policies with holders of indigenous and local knowledge, to increase communities' and ecological resilience in the light of climate change impacts.

IPBES is in the unique position of providing “[...] policymakers with objective scientific assessments about the state of knowledge regarding the planet’s biodiversity, ecosystems and the benefits they provide to people, as well as the tools and methods to protect and sustainably use these vital natural assets”.

IPBES has acknowledged that climate change and its impacts pose a risk to biodiversity, and ecosystem services (cp. Keynote at opening of the 5th IPBES plenary; Ref M/17/01).

The pressure from climate change on biodiversity is acknowledged in the IPBES Regional Assessment Reports (e.g. Europe and Central Asia), the land degradation report and the assessment report on pollinators, pollination and food production.

IPBES is committed to engage effectively with holders of indigenous and local knowledge; has approved the undertaking of a methodological assessment regarding the diverse conceptualization of multiple values of nature and its benefits, as well as the thematic assessment on sustainable use.

The proposed request for “Policy support tools and mechanisms for climate change adaptation and mitigation” builds on, establishes links between, draws on expertise from and consolidates all these aspects of the IPBES work programme, the platform’s functions and objective.

The proposed request is a logical continuation of the platform’s work to date in that it utilises and applies knowledge from the comprehensive assessments co-ordinated and enabled by the platform in its first work programme to an existing policy gap and fills the need for development of applied evidence-based policy support tools at the nexus of biodiversity, ecosystem services and human wellbeing.

7.	<p><u>Availability of scientific literature and expertise for IPBES to undertake the requested action:</u></p> <p>Impacts of climate change, options, risks and opportunities for mitigation and possible actions for adaptation have been researched extensively. This includes impacts on biodiversity and impacts on vulnerable communities and ecosystems.</p> <p>The IPCC has assessed climate change mitigation, as well as impacts, adaptation and vulnerabilities to climate change in its Assessment Reports – the last one (AR5) was released in 2014 and the sixth report is due in 2022. It is understood that the AR6 will contain relevant chapters for this work (e.g. on biodiversity/ natural resources, and on human wellbeing). In addition, the IPCC will release two special reports on <i>climate change and oceans</i> and on <i>climate change and land</i> in 2019.</p> <p>Climate change impacts on biodiversity and ecosystems have been addressed by a range of other international conventions and platforms, for example Ramsar.</p> <p>It is fair to say that knowledge and expertise on climate change and its impacts on biodiversity, humans and ecosystem services is available for this work stream at a global scale.</p> <p>The gap in the current climate change landscape is development of the tools and mechanisms to initiate responsible and sustainable policies for effective and efficient climate change adaptation and mitigation for maintained biodiversity and human wellbeing.</p>
8.	<p><u>Scale of the potential impacts, and potential beneficiaries of the requested action:</u></p> <p>Acting on the proposed request will provide large scale benefits to policy and decision-makers at the global scale. Yet, more importantly, improved and more concerted action to mitigate and adapt to climate change will ultimately benefit biodiversity and human wellbeing at the global scale from now into the future.</p> <p>All nations are affected by climate change and are faced with a need to adapt to its impacts for maintained biodiversity and ecosystem services for sustained human wellbeing, but also will be urged by the global community to mitigate the nation's own contributions to climate change.</p>
9.	<p><u>Requirements for financial and human resources, and potential duration of the requested action:</u></p> <p>It is anticipated that establishing and delivering a stream of work as per this request would require a medium-term project time frame of approximately 5-7 years.</p> <p>When considering a staged, collaborative approach that builds upon the deliverables in development by other platforms and conventions as described previously, developments within this work stream will be fully underway from 2022 onwards.</p>

	Resources for the request will likely be of similar scope as IPBES' recent regional assessments and require access to a Technical Support Unit, > 100 experts and >\$1 million.
10.	<u>An identification of priorities within multiple requests submitted:</u> One request submitted
11.	<u>Any other relevant information (including a list of any attachments provided):</u> No further information included