Urban Resilience Engagement Plan

This document is submitted by the Urban Resilience Subgroup to the Programme Board for decision.

1 INTRODUCTION

At its 18th meeting in September 2020, the Programme Board reviewed and endorsed a proposal from the Urban Resilience Subgroup recommending that Urban Resilience be recognized as a fourth GEO engagement priority. In doing so, the Programme Board also recommended that the engagement priority be inclusive of all human settlements (not only cities) and noted the importance of having a dedicated Secretariat coordinator supporting the engagement priority. These elements were subsequently reflected in the proposal that was forwarded to the Executive Committee.

The proposal presented to the GEO Executive Committee at its 53rd meeting in November 2020 was generally well received, gathering many strong statements of support. However, concerns were expressed by some Executive Committee members regarding the capacity of GEO to support a fourth engagement priority at this time. In the end, the Executive Committee stated their provisional support of urban resilience as a priority, noting the importance of the issue for the GEO community. A final decision on whether to recognize urban resilience as a fourth engagement priority would, however, be deferred until the GEO-17 Plenary, expected to be held in South Africa in November 2021. The Executive Committee also set as an action that the Programme Board, with support from the Urban Resilience Subgroup and the Secretariat, should present an engagement plan on urban resilience to the Executive Committee at its 54th meeting (9-10 March 2021).

This document presents a draft of the requested urban resilience engagement plan for Programme Board review in advance of its presentation to the Executive Committee.

Additional background information regarding the rationale for urban resilience as a fourth GEO engagement priority is provided in Annex A to this document.

2 ENGAGEMENT OBJECTIVES AND EXPECTED IMPACTS

In framing the objectives of GEO’s engagement on urban resilience, it is important to recognize the policy and institutional context in which this topic is addressed. Firstly, the key international organization in the domain is the United Nations Human Settlements Programme (UN-Habitat) and the key policy reference is the New Urban Agenda (NUA), prepared by several UN agencies and which was adopted by the United Nations General Assembly on 23 December 2016. Countries and relevant regional and international organizations will report on the progress of

1 The three existing GEO engagement priorities are: United Nations 2030 Agenda (Sustainable Development Goals); Climate Change; and Disaster Risk Reduction.

2 https://habitat3.org/the-new-urban-agenda/preparatory-process/united-nations-task-team/
the implementation of the New Urban Agenda *every four years*. The NUA thus provides the overarching framework for GEO’s engagement. Although called the ‘New Urban Agenda’, the policy frame is universal in scope and explicitly includes the full spectrum of human settlements from megacities to small rural villages and is particularly concerned with the most vulnerable living in informal settlements.

In addition, there are strong connections between urban resilience and the other three GEO engagement priorities, however urban resilience cannot be tackled from the existing priorities alone due to the complexity of several urban scale aspects. A major challenge for the GEO community is the exploitation of the Earth observation data and products in dealing with the multidimensional problem of urban sustainability, towards increasing urban resilience. Due to the multifaceted nature of urban resilience and to meet this challenge, synergies with the other three GEO engagement priorities, specifically at the local scale, must be drawn upon: cities hold the key to tackling climate change given that they are responsible for more than 75% of global GHG emissions, urban vulnerability and adaptation is central in disaster risk reduction, whereas SDG-11 links urban resilience with the United Nations 2030 Agenda. While governments at all levels must be involved in addressing urban resilience, it is ultimately the cities and other local administrations that are most crucial. Many of these governments and organizations are unfamiliar with using Earth observations in support of policy, planning, and operational decisions. A key aspect of the GEO urban resilience engagement priority, therefore, is to convene opportunities for dialogue involving urban stakeholders and Earth observation experts. The goals are twofold: to translate needs in the urban domain into requirements for Earth observations data, tools, and services – a current crucial gap – while also translating advancements in Earth Observation into novel solutions for human settlements. These goals are closely aligned with the UN SDGs, for example ensuring reliable and affordable access to electricity and ensuring food security in all types of human settlements.

With this as the context, the Urban Resilience Subgroup proposes the following objectives for the engagement priority:

1. Work with UN-Habitat and other competent organizations (including, among others, UN Development Programme, UN Environment Programme, World Bank, and the World Health Organization) to formulate how Earth observations can continue to assist in the implementation of the NUA, to support the assessment every four years of the progress of the NUA implementation, and to foster sustainable urbanization;
2. With the assistance of partner organizations, engage cities and other stakeholders to understand their needs and to identify the highest-value opportunities for application of Earth observations;
3. Exploit existing and develop new Earth observation-based tools and services to support the NUA and sustainable urbanization;
4. Provide greater visibility to ongoing GEO Work Programme activities relevant to urban resilience and encourage the development of new activities to address identified gaps;
5. Collaborate with those working on the other GEO engagement priorities, especially through their dedicated GEO Working Groups; to identify synergies, avoid duplication of efforts, and amplify GEO’s impact;
6. Pursue opportunities with Regional GEOS to develop projects addressing urban resilience in line with their existing agendas; and
7. Develop the appropriate messages, language, and tools to communicate what the GEO community has to offer to cities and other stakeholders.
Ultimately, the aims of the urban resilience engagement priority are that:

- Communities, cities, and countries understand the value and usefulness of Earth observations in the urban context and apply Earth observation-based tools in their normal operations to enhance their resilience; and
- The GEO community supports the application of Earth observations to cities, other human settlements, and sustainable urbanization by continuously adapting, as appropriate, GEO Work Programme activities, developing new activities, and engaging with a wider range of key organizations, for example, national statistical offices, sub-national actors, and specific city stakeholders.

3 ENGAGEMENT PRIORITY STAKEHOLDERS

Urban resilience is of concern to a wide variety of players and there are many stakeholders with interests that could benefit from GEO designating it as an additional engagement priority. The types of key stakeholders targeted by this engagement priority are expected to include the following:

1. Cities, principally through intermediary organizations, such as the Resilient Cities Network (R-Cities), among others;
2. UN agencies with policy responsibilities related to cities, principally UN-Habitat, but also including the UN Office for Disaster Risk Reduction (UNDRR), the UN Education, Scientific and Cultural Organization (UNESCO), UN Framework Convention on Climate Change (UNFCCC), and the UN Statistical Division (UNSD);
3. The GEO community, including GEO Members, Participating Organizations, GEO Associates, and GEO Work Programme activities; and
4. Small, medium, and micro-sized enterprises (SMMEs) in their roles supporting city decision making and providing solutions and services, as well as investors allocating funding to such sectors as transportation, urban and rural planning, water and waste management, infrastructure, health, etc.

4 AN URBAN RESILIENCE WORKING GROUP

A key recommendation of the Programme Board Urban Resilience Subgroup is that its role be assumed by a new Urban Resilience Working Group, similar to those now in place for Climate Change and Disaster Risk Reduction, given the extent and multi-disciplinarity of the activities to be accomplished and the necessity to involve several experts and stakeholders also engaged in the implementation of the NUA.

The high degree of interest in the GEO community in participating in the various Foundational Task Working Groups has been demonstrated by the over 300 nominations received from some 47 GEO Members, 28 Participating Organizations, and 5 GEO Associates. These Working Groups have become the primary means for conceiving, coordinating, and implementing actions to address the GEO engagement priorities, in close cooperation with the relevant GEO Flagships, Initiatives, and Community Activities. Just as the mandate of the previous Paris Agreement and Disaster Risk Reduction subgroups of the Programme Board have been transferred to the Foundational Task Working Groups, it is proposed that a similar transition also occur with regard to urban resilience. A key benefit is that it places the activity within the GEO Work Programme itself, offering a more permanent platform than as a Programme Board subgroup. It also provides the opportunity to engage a wider range of participants that reflect the full scope of issues and expertise needed to address urban challenges.
Draft terms of reference for the proposed Working Group, based on those of the Climate Change and Disaster Risk Reduction Working Groups, is attached to this document as Annex B.

5 KEY MILESTONES, DELIVERABLES AND EVENTS

The following table identifies some of the key milestones, deliverables, and events that have been identified thus far. It should be expected that this list will evolve as the engagement priority matures and in response to opportunities that arise over time.

<table>
<thead>
<tr>
<th>Milestone, Deliverable, or Event</th>
<th>Date</th>
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<tr>
<td>Letter from UN-Habitat requesting GEO assistance</td>
<td>June 2019</td>
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<td>Programme Board Special Session on Urban Resilience</td>
<td>September 2019</td>
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<td>Proposed to ExCom to make urban resilience a fourth engagement priority</td>
<td>November 2020</td>
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<td>Engagement plan on urban resilience presented to ExCom</td>
<td>March 2021</td>
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<td>ICLEI World Congress (Malmo, Sweden)</td>
<td>April 2021</td>
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<td>ICRC 2021: Resilient Cities Conference</td>
<td>June 2021</td>
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<td>World Cities Summit (Singapore)</td>
<td>June 2021</td>
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<td>UN High Level Political Forum (New York City)</td>
<td>July 2021</td>
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<tr>
<td>GEO-17 Plenary – Approval of urban resilience as a fourth engagement priority</td>
<td>November 2021</td>
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<td>Call for nominations to the Urban Resilience Working Group</td>
<td>January 2022</td>
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<td>First meeting of the Urban Resilience Working Group</td>
<td>March 2022</td>
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<td>Recruitment of a GEO Secretariat Urban Resilience Coordinator</td>
<td>June 2022</td>
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<td>11th World Urban Forum (Katowice, Poland)</td>
<td>June 2022</td>
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<tr>
<td>Draft Urban Resilience Working Group action plan presented to Programme Board</td>
<td>June 2022</td>
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<tr>
<td>Involvement in UN Secretary General review of the New Urban Agenda via UN-Habitat</td>
<td>2026</td>
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6 RECOMMENDATION

The Urban Resilience Subgroup recommends that the Programme Board endorse this engagement plan, revised as needed to incorporate comments received from Programme Board members, to be submitted to the Executive Committee for consideration at its 54th meeting (9-10 March 2021).
ANNEX A

Rationale for Urban resilience as a Fourth Engagement Priority

Introduction

The Executive Committee is invited to consider the approval of urban resilience as a fourth engagement priority for GEO. This request reflects the considerable advancement of GEO’s efforts on this topic since 2017, as well as the success achieved in building a strong relationship with the United Nations Human Settlements Programme (UN-Habitat).

In 2016, “urban resilience and human settlements” was one of five proposed candidate engagement priorities for GEO. However, the Executive Committee decided that GEO should initially focus on three engagement priorities, namely, climate change, disaster risk reduction, and the sustainable development goals, in line with the three major international conferences held on those three topics in 2015. The principal concern for urban resilience was that it lacked a clear policy mandate. While the New Urban Agenda (NUA) had been adopted one month earlier, it was not widely known within the GEO community at the time. The GEO leadership was also of the view that the GEO Work Programme was better positioned to support the three priorities that were selected.

This paper summarizes the case for recognizing urban resilience as a fourth GEO engagement priority. In brief, the rationale for doing so is based on six considerations:

1. The status of the NUA as the key policy driver in the area of urban resilience and sustainable urbanisation;
2. Recognition by UN-Habitat of the value of Earth observations and of GEO’s ability to provide valuable tools and services to support UN Member States;
3. Increased attention to urban topics within the GEO Work Programme;
4. Efforts within the Programme Board to increase coordination among urban-related activities;
5. GEO’s growing engagement with international organizations focused on urban issues; and
6. Benefits to the GEO community and to GEO Members through the incorporation of climate change, disaster risk reduction and sustainable development considerations in urban-related activities.

Recognition of urban resilience as a fourth GEO engagement priority is expected to give greater visibility to ongoing GEO Work Programme activities in these areas and thereby, potentially, to attract additional resources. This, in turn, will help GEO Work Programme activities to develop services to support GEO Members and others in their use of Earth observations. It should be noted that the term “urban resilience” is not intended to be restrictive to large urban areas and includes consideration of all human settlements. The term has been chosen as it is in common use within the relevant community and is understood as mutually supportive with the term “sustainable urbanisation”.

3 The text in this Annex was submitted as document ExCom53.09 to the GEO Executive Committee at its 53rd meeting in November 2020. It is provided here as background information.
The New Urban Agenda

The NUA was formally adopted by the 167 countries attending the United Nations Conference on Housing and Sustainable Urban Development (Habitat III) in Quito, Ecuador on 20 October 2016. It was later endorsed by the United Nations General Assembly on 23 December 2016.

The agreement is built around a set of guiding principles and actions intended to transform how cities are planned, constructed, and managed. The NUA takes account of other key global agreements, including the 2030 Agenda for Sustainable Development, the Paris Agreement on Climate Change, and the Sendai Framework for Disaster Risk Reduction, among others.

While cities occupy a small proportion of the Earth’s surface, they are home to more than 50% of the world’s population, consume more than three-quarters of the world’s natural resources, and generate over 80% of the world’s economic production. Further, cities are the sites of the fastest population growth, with more than 2.5 billion new urban residents expected by 2050—twice the population in megacities today—most of them in the global south. Thus, cities are where opportunities lie to serve all existing three engagement priorities. For example, urban activities account for about 70% of greenhouse gas emissions and any change in business as usual in cities would have a great global (positive) impact. Cities also face significant impacts from climate change and other hazards, and at the same time are at the forefront of climate adaptation and disaster resilience efforts.

The NUA sets the frame for essential actions on how national, regional, and local governments, as well as civil society organisations and professional associations—separately and by working together—can make the difference in promoting urban well-being. It lays out standards and principles for the planning, construction, development, management, and improvement of urban areas along five main pillars of implementation: national urban policies, urban legislation and regulations, urban planning and design, local economy and municipal finance, and local implementation. This agenda has been endorsed, referenced, and used by a variety of organizations worldwide.

UN-Habitat and the Role of Earth Observations

The GEO Secretariat has been working with UN-Habitat since 2017 to develop an understanding of the requirements for urban resilience and sustainable urbanisation, and to convey the message that Earth observations can provide vital support. These efforts have built upon a foundation established by several GEO Work Programme activities, notably GEO Human Planet (HPI), Global Urban Observation and Information (GUOI), and Earth Observations for the Sustainable Development Goals (EO4SDG).

UN-Habitat has recognized the growing role that Earth observation and geospatial information can play in urban monitoring, reporting processes on sustainable development goals (SDGs) targets and indicators, as well as other aspects within the NUA. As a result of this recognition, the relationship with GEO Secretariat has been further solidified, substantiated by a number of key events also involving other UN bodies. Examples of such events include:

- May 2017 – Kunming (China) Forum on UN-GGIM Cities of the Future: Smart, Resilient and Sustainable (GEO Secretariat attended and supported the Space-based Earth Observation Applications for Resilient Cities);
- February 2018 – 9th World Urban Forum in Kuala Lumpur, Malaysia (GEO Secretariat supported by the Joint Research Centre of the European Commission (JRC), EO4SDG, and UN-Habitat to introduce urban practitioners to Earth observations-enabled possibilities);
• April 2018 – 9th Global Forum on Urban Resilience and Adaptation (GEO Secretariat and Resilience Brokers set up and moderated a panel session with the United Nations Office for Disaster Risk Reduction (UNDRR), the European Space Agency (ESA), JRC, Rezatec, and the Mozambique office of USAID);
• May 2019 – UN-Habitat Assembly in Nairobi in May (GEO Secretariat participated with GEO members from Colombia, European Commission, Kenya, and USA, for example); and
• February 2020 – 10th World Urban Forum in Abu Dhabi, United Arab Emirates (several sessions on Earth observation and GEO with UN-Habitat, EO4SDG, GUOI and HPI).

Urban Activities in the GEO Work Programme

Resilience provides a strong link between the Sendai Framework, the Paris Agreement, and the New Urban Agenda. Synergies do not only concern the ability to cope with shocks, but also the need to prepare for and adapt to climate change and other hazards. This also links closely to several of the SDGs (urban challenges relate to ~60-70\% of the total 169 SDG targets, while urban resilience constitutes a subset of this). To this end, the work of GEO on SDG 11 (safe and resilient cities and communities), and other SDGs with urban dimensions, is particularly relevant for the New Urban Agenda. The GEO Work Programme also has a strategic focus on climate mitigation and adaptation, using Earth observations to monitor and report on long-term climate change, the resulting implications and how to tackle them through informed decision making.

GEO Human Planet is developing Global Human Settlement Layers for the provision of information that can support all the spatial metrics and indicators related to population and settlements, and thus contributes to several goals and targets under discussion in the post 2015 frameworks.

GUOI has as its goals: (1) Improving the coordination of urban observations, monitoring, forecasting, and assessment initiatives worldwide; (2) Supporting the development of a global urban observation and analysis system; (3) Producing up-to-date information on the status and development of the urban system - from local to global scale; (4) Filling existing gaps in the integration of global urban observation with data that characterize urban ecosystems, environment, air quality and carbon emission, indicators of population density, environmental quality, quality of life, and the patterns of human environmental and infectious diseases; and (5) Developing essential urban variables and indicators for sustainable cities for the SDG 11.

EO4SDG has also been working with UN-Habitat, GEO Human Planet, GUOI and other stakeholders and one of the main outcomes of this collaboration is the ongoing development of an Earth observation toolkit for SDG 11 and the New Urban Agenda, which considers the needs of countries and cities. A joint call between GEO and UN-Habitat attracted about 60 Expressions of Interest and an evaluation was carried out for 49 completed responses. The responses represent government (including national statistical offices, municipalities, and cities), as well as academia, private sector, and non-profit organisations. The responses were highest from Africa (16), Europe (15), Americas (10) and Asia (4), with another group consisting of UN and global organisations (4). Four Working Groups have been established as part of this effort, focusing on key issues related to impact, awareness and capacity building, bench-learning across levels, and FAIR (Findable, Accessible, Interoperable, Reusable) data. The outputs from these Working Groups, including good practice use cases, how-to guides, and related EO data sets, tools, and training material, will be made available through an online, continuously updated resource hosted by UN-Habitat.
There are also three new Community Activities that address urban issues: Global Observation of Deltas and Estuaries; Night-time Light Remote Sensing for Sustainability; and Earth Observations for Climate Change Impacts on World Heritage Cities (CCI-WHC). The latter is the most recent addition to the GEO Work Programme and has attracted significant interest with about 80 partner organisations worldwide (ranging from GEO Members and Participating Organizations to academia and the private sector), under the leadership of the Greek GEO Office and UNESCO’s World Heritage Centre.

Furthermore, there are many other GEO Work Programme activities whose work, while not focused on urban areas, produce information relevant to urban resilience, for example, Global Observation System for Persistent Organic Pollutants (GOS4POPs), GEO Vision for Energy (GEO-VENER), and the Data Integration and Analysis System (DIAS). In addition, AfriGEO also refers to urbanisation in their Implementation Plan.

Finally, there exists a growing pool of projects and programmes, both publicly and privately funded, in support of urban resilience that the GEO community can capitalize on under the frame of this 4th engagement priority. This tremendous investment has and continues to result in and enable novel uses of Earth observation data enhancing operational capacity. The movement in this area continues to aim at closing the awareness gap with city stakeholders, build local capacity, address national priorities, and ultimately support and influence policy by providing readily available and actionable tools.

Coordination of GEO Efforts on Urban Resilience

UN-Habitat sent an official letter to the GEO Secretariat on 5 June 2019 requesting GEO’s assistance in the development of indicators for reporting on SDG 11. This recognition by UN-Habitat of GEO as an important partner and community for further collaboration represented a key milestone for GEO.

As follow-up to the letter, UN-Habitat was invited to be the guest at a special session at the 15th Programme Board meeting held on 3 September 2019 in Ispra, Italy, together with representatives from EO4SDG, GUOI, and GEO Human Planet. At the meeting, the UN-Habitat representatives gave a clear and informative presentation which included a detailed request to the GEO community focusing on five key issues: Coordination among GEO Work Programme activities; Co-design with UN-Habitat and their stakeholders; Comparisons among existing tools and data sets; Tailored support to meet UN-Habitat requirements; and Addressing capacity gaps in supporting sustainable use.

In response, the Programme Board established a dedicated task force to ensure that the issues raised would be addressed. Key players, including the urban GEO Work Programme activities and the GEO Secretariat, continued discussions on coordination at the Human Planet Forum in September–October 2019. This task force was able to deliver a first discussion forum within the Programme Board on the necessity of focusing on urban scales and on the existing maturity of relevant activities within the GEO Work Programme.

At its 16th meeting in February 2020, the Programme Board upgraded the task force to a subgroup on urban resilience, building on the progress achieved by the former. This change recognized the importance and growing maturity of GEO’s work in this area and the need to expand engagement efforts to members outside of the Programme Board. The subgroup’s mandate is to promote coordination between urban activities of the GEO Work Programme and ensure alignment with the engagement priorities. The subgroup also seeks to enrich the urban resilience focus of the GEO Work Programme, potentially via seeding of new activities from an urban resilience perspective; and to identify opportunities for collaboration between GEO
Flagships and Initiatives (and Community Activities when relevant). As well, the subgroup seeks to collaborate with others not yet involved in GEO to achieve the common target of realizing the GEO engagement priorities within the context of urban resilience. The proper coordination and exchange of information between the GEO WP activities and the Regional GEOs with respect to urban matters is also critical and is therefore also considered.

**Engagement with Other International Organizations**

In June 2020, the GEO Secretariat and UNESCO exchanged letters of cooperation, stating that UNESCO, through its World Heritage Centre, are keen to collaborate with GEO Members and investigate how Earth observation can help monitor and assess climate change impacts on World Heritage Cities, which enabled the launch of the CCI-WHC Community Activity mentioned above. Through such collaboration, all three GEO engagement priority areas can be addressed, allowing for an integrated Earth observation-based effort to create a better future by protecting our World Heritage Cities, which could offer lessons for all other cities. Furthermore, this joint effort will support the implementation of the herein proposed fourth engagement priority, by exploiting the focus on World Heritage Cities to promote NUA’s goal to bolster the global commitment to sustainable urbanization.

Local governments and municipal authorities are beginning to meaningfully engage with Earth observation experts in the urban context. Networks of such actors, for example, C40 and ICLEI, have already worked with GEO, and the Resilient Cities Network (R-Cities) has recently joined the Programme Board’s Urban Resilience Subgroup. This interaction presents an opportunity to leverage city-level networks, focusing on raising awareness around Earth observation’s capacity to build urban resilience, attracting funding, and delivering services to individual cities and stakeholders. Bringing forth urban resilience as the fourth engagement priority in GEO would further this ongoing engagement, expanding and enriching the relationship between GEO and urban communities, allowing for exploitation of broad communication channels and dissemination of Earth observation-driven activities that are already in place with proven benefits.

As the resilience of cities continues to be challenged by the widespread impacts of the COVID-19 pandemic, opportunities for Earth observations to contribute in many ways have been recognized. However, mobilization for this purpose has been slow, given the speed, spread, and number of infections in dense urban regions. Beyond the use of Earth observation data for visualizing the impacts of COVID-19 on transportation, air pollution, agriculture, among others, it also provides a means for cities to achieve a sustainable recovery. With this proposed engagement priority established, the GEO community’s readiness and coordination levels would most definitely be enhanced to address analogous circumstances in the future.

**Benefits for the GEO Community**

All GEO Members face challenges, of varying kinds and to varying degrees, in developing urban areas to become more sustainable and resilient. Earth observations have much to offer in this regard and GEO is well positioned to offer knowledge, methods, services, and tools, co-designed with users, to meet these challenges.

There are numerous application areas for Earth observations, which support the monitoring, reporting and development of plans to tackle environmental issues in cities, such as air pollution, heat islands, flood risk monitoring and water resources management. All of these topics and numerous others are key for urban resilience, sustainable urbanisation, and urban
heritage conservation because they provide insights and data for past, present and possible future situations in cities.

Potential benefits for GEO Members and their stakeholders include:

- Sharing and learning good practices for urban Earth observation from other GEO Members and Participating Organizations;
- Understanding the needs and requirements of cities in various regions and how to adapt strategies and products to support them;
- Developing methods to improve national reporting under the New Urban Agenda and also to improve reporting at the city level;
- Leveraging the strengths of private sector organizations in expanding the potential for Earth observation-based solutions;
- Learning about and receiving funding from new resource mobilisation opportunities;
- Integrating nature-based solutions that can directly address and contribute to increased urban resilience;
- Improving urban decisions regarding:
  - Planning, including informal dwellings, greening of cities, transport;
  - Monitoring, such as for air quality;
  - Operational preparedness, including for transport, flooding, or emergency response;
  - Conservation of urban heritage.
- Enhancing readiness and the ability to deliver guidance to urban regions in response to emergency situations, for example COVID-19, both in terms of immediate response and future recovery.
- Informing GEO Member policy priorities and research programmes; and
- Enabling activities that were previously not possible and in a cost-effective manner; generating value particularly in developing countries in conjunction with traditional methods or where those do not exist, also for society and industry.

Consideration by the Programme Board

The Programme Board reviewed a previous version of this paper at its 18th meeting in September 2020. There was general support for the proposal among Board members, although several recommendations were made to strengthen the proposal, principally the following:

- While noting the benefits of connecting the priority to the New Urban Agenda and the critical challenges facing urbanizing regions, Programme Board members requested that the scope of the engagement priority include all types of human settlements and their sustainability, which has been clarified in the document;
- The Programme Board emphasized the importance of having dedicated officers in the Secretariat to support each of the engagement priorities and thus noted that the decision to recognize urban resilience as a fourth engagement priority would therefore require additional resources at the Secretariat; and
- The Board also recommended that the Urban Resilience Subgroup continue to engage GEO Work Programme activities, Regional GEOs, and others in the GEO community to build awareness of the topic and to engage additional activities and contributors.
The outcome of the discussion was that the Programme Board endorsed the proposal for presentation to the Executive Committee.

**Implications for the Secretariat**

The experience of the last several years in implementing the engagement priorities has clearly demonstrated the significant impact that a dedicated Secretariat position has on implementation of the priority. Staffing of this position could be either through use of GEO Trust Fund resources or by secondment from a GEO Member, including a virtual secondment as was used for the previous Disaster Risk Reduction coordinator provided by the United Kingdom. Regardless of the funding mechanism, it will be essential that the person assuming the role has the necessary experience and qualifications. It must be noted, however, that Secretariat positions for two of the existing engagement priorities will only be filled in early 2021 by secondments from France and Japan.

Beyond the need for a Secretariat coordinator, a decision to recognize urban resilience as an engagement priority is not expected to have a significant impact on the Secretariat or create additional demand on the GEO community since much of this work is ongoing anyway. The Programme Board, mainly through its Urban Resilience Subgroup, will continue to engage GEO Work Programme activities, GEO Members, Participating Organizations, and others on this topic, and to coordinate interaction with UN-Habitat and other external bodies. The existence of connections and synergies between urban resilience and the existing engagement priorities mean that issues of human settlements and urban areas will continue to be relevant and addressed whether they are officially recognized as a priority or not. However, not providing such official recognition loses an opportunity to strengthen the relationship with UN-Habitat, UNESCO, the World Bank, and other organizations in the urban domain by demonstrating GEO’s commitment to assisting them and their members in using Earth observations to address these challenging issues.
ANNEX B – Draft Terms of Reference for an Urban Resilience Working Group

Purpose

The Urban Resilience Working Group (UR-WG) is convened to develop and implement a coherent and cross-cutting approach within GEO to advance the use of Earth observations in support of urban resilience and sustainable urbanisation efforts in human settlements, cities and countries. These efforts include those related to the provisions of multilateral agreements, with emphasis and target on the New Urban Agenda which serves as the current frame at the UN level. In this way, the Working Group will support the translation of the Canberra Declaration and the GEO Strategic Plan into concrete actions within the GEO Work Programme.

Duties

- Foster support for urban related activities between the GEO community and national, international, and intergovernmental bodies, including maintaining the relationship with the United Nations Human Settlements Programme (UN-Habitat);
- Enable discussion and communication on urban-related activities within the GEO Work Programme;
- Connect different scales of activities – from local, national, regional to global. Notably working with human settlements and cities;
- Monitor the uptake of GEO’s activities in support of the New Urban Agenda;
- Review the implementation plans of all GEO Work Programme activities relevant to the New Urban Agenda, and to identify potential gaps and synergies;
- Facilitate communication between the leads and participants of these GEO Work Programme activities;
- Act as a focal point, where appropriate, for engagement with external stakeholders and international organizations and processes relevant to EO and the New Urban Agenda;
- Seek coherence and collaboration amongst the post-2015 development agendas and GEO’s engagement priorities, including the identification of common metrics and opportunities for joint reporting;
- Promote to key stakeholders and partners the value of Earth observations and information provided by the GEO community in the urban domain;
- Promote the sharing of data from different platforms, technologies, themes and domains. Advocate the use of open standards and open Application Programming Interfaces (APIs); and
- Stimulate the initiation of projects, case studies or pilots involving participants from multiple GEO Work Programme activities to enhance collaboration across GEO and to address identified gaps.

Membership

- Membership in the Working Group is by nomination from GEO Members, Participating Organizations, and Associates. As appropriate, the Programme Board may also invite other qualified individuals to participate as members in the Working Group.
Participation is encouraged from organizations and bodies relevant to urban resilience, human settlements, and sustainable urbanization, including from:

- GEO Work Programme activities;
- UN and other international organizations;
- National, regional, and city stakeholders;
- Related non-governmental organizations and associations
- Commercial sector organizations, especially small, medium, and micro-sized enterprises, and
- Scientific organizations.

In the interest of ensuring diversity and balance in the Working Group membership, the Programme Board may place limits on the number of members from individual GEO Members, Participating Organizations, or Associates or by specific categories. Participation of commercial entities is welcomed but will be limited to a maximum of two members.

**Working Arrangements**

- There will be at least two co-chairs of the Working Group, who will be selected by and from among the Working Group members.
- The Working Group will meet at such times and places as determined by its members and will work mainly through teleconferences and e-mail.
- The Working Group will provide periodic (at least annual) reports on its activities to the Programme Board as part of GEO Work Programme monitoring. It may also bring specific issues to the Programme Board as needed.
- The Working Group may establish subgroups to assist in fulfilling its duties.
- Administrative support to the Working Group will be provided by the GEO Secretariat.

**Duration**

These Terms of Reference will remain in effect for the period of the 2020-2022 GEO Work Programme. They may be revised with the approval of the Programme Board.