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2 **Human Migration and Global Change**
3 **A synthesis of roundtable discussions facilitated by Future Earth**
4 **June 2019**
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6 Each year, Future Earth provides recommendations to the Belmont Forum for funding themes and
7 priorities for Belmont Forum [Collaborative Research Actions](#), which are major funding opportunities for
8 multinational, interdisciplinary research teams to address the world's greatest sustainability challenges.
9 Future Earth's recommendations have recently resulted in funding calls related to biodiversity,
10 transformations, sustainable urbanization and the food-energy-water nexus, climate and health, and ocean
11 sustainability.

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13 We now welcome your input on research priorities and recommendations on *Human Migration and*
14 *Global Change*.

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16 **Background**
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18 There have been many drivers of migration throughout human history. As we enter the Anthropocene Era,
19 new drivers of migration emerge such as climate change, unprecedented inequality, and modern forms of
20 conflict. These drivers are leading to new patterns and scales of human migration across the globe.
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22 The topic of migration provides a strong anchor for social and natural sciences and gives the opportunity
23 to connect to a number of stakeholder groups. As such, excellent potential exists for transdisciplinary
24 teams to address research questions related to human migration and global change.
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26 Future Earth recently convened a series of roundtable discussions on human migration and global change
27 with faculty and research staff from Future Earth's host institutions in the United States: the University of
28 Colorado Boulder, Colorado State University, and George Mason University (Fairfax, Virginia). This
29 seed document summarizes and synthesizes the key discussion points from those meetings. This
30 document should be seen as a starting point for input into the Belmont Forum process. We have
31 developed this document so that we can seek additional perspectives on this topic, to inform our input
32 into the Belmont Forum Plenary meeting.
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34 The following recommendations were generated through the three scoping workshops, and are broken
35 into research content suggestions, and approaches to be encouraged and discouraged.
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38 **Key transdisciplinary research areas in need of support**
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40 **Appropriate Scale:** To increase policy relevance, research should be conducted, as much as possible, at
41 the scale of migration and policy-making, rather than the global scale. Migration is variable over space
42 and time, and context dependent. It is therefore difficult (and perhaps counter-productive) to search for
43 global patterns of migration and their links to global change. Within specific regions, situations,

44 ecosystems, and within specific livelihood categories, however, there are likely to be many important,
45 unanswered, policy relevant transdisciplinary research questions that link various data sources, from earth
46 observation to demography, at appropriate scales. There is also important research assessing the factors
47 that set the appropriate scale, allowing robust links between cause and effects. Finally, research with a
48 focus on the issue of internal and rural migration, which is more widespread globally than long distance,
49 international migration, but often receives less attention, would be exceptionally beneficial.

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51 **A Systems Perspective:** A stronger focus on the integrated impacts, and causal links between multiple
52 environmental and social pressures will make an important contribution. While climate-linked migration
53 is important, it is often not acting in isolation. Research advancing our capacities to tease apart the
54 multiple drivers of migration - climate, famine, plague, pest, plant disease, conflict, and economic
55 security – and the pathway that link these factors, is needed. In many cases, significant acute events
56 (conflict, famine, pest outbreaks, etc.) are at the beginning of causal chains that lead to migration, but
57 these events are often linked to longer term trends, and our predictive capacity in this area is limited.
58 Finally, our understanding of thresholds with regard to global change factors and migration response, is
59 extremely limited. Additionally, work that examines both the push and pull of migration - the reasons
60 why people are leaving one area (e.g. famine, drought, conflict, poverty), and the features that attract
61 them to another area (e.g. safety and security, economic opportunity, education opportunities), as well as
62 work exploring thresholds, intersectionality, and consequences, will also support a broader systems
63 perspective.

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65 **A Human-centered Approach:** Too often, work linking migration and global change fails to
66 appropriately disaggregate the links between global change and migration. More research is needed to
67 understand how global change impacts differ across social class, race, ethnicity, gender, and sexuality,
68 and how the different responses affect patterns of migration. A greater focus on the integration of
69 intersectionality into transdisciplinary research on human migration and global change would therefore
70 benefit the field, and there is a need to better understand how group status, including marginalized group
71 status (LGBT status, ethnicity, economic condition) impact access, rights, integration, and attainment of
72 needs such as health, education, access to livelihood/economic, upward mobility, and political voice,
73 before, during, and after migration in relation to global change. Additional topic areas of importance
74 within this need for a more human-centered approach include

- 75 • A focus on how migration decision-making processes are situated within other adaptation
76 possibilities available for households and individuals.
- 77 • A stronger focus on vulnerable people within migrant communities – children, and the elderly in
78 particular.
- 79 • Research supporting a greater understanding of the political impact and response of migration
80 processes initiated through global change processes. In particular, research supporting greater
81 predictive capacities surrounding the political impacts of migration on receiving countries both
82 near and far from the sources of global-change induced migration, and the social contexts that
83 change these outcomes.
- 84 • Research that pushes against the access-bias would be particularly valuable. There is a tendency
85 to focus research on populations that are easily accessible, English-speaking (or common
86 language speaking e.g. Spanish, French), and in locations that are safe and secure for researchers
87 to travel to. This is understandable, but it leaves large knowledge gaps about certain populations
88 (e.g., Syrian refugees)

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Additional sub-topics of interest within the broad category of work on global change and migration include:

- Research that includes a focus on “biocultural loss” and “biocultural gain”, including research examining changes in generational knowledge of what has been tried in the past, what has worked, what had failed, when it comes to responding to global change, and how migration affects this knowledge base in both migration sources and destination areas.
- Research on how best to measure and understand the vulnerabilities to global change that make migration a matter of injustice.
- Research on health both before and subsequent to migration. Health in refugee camps may require particular attention.
- Research exploring the impacts of migration on global change
- Research on how digital life affects the experience of immigration, and the influence of digital connectivity on migration and/or evacuation choices. Given that many migrant communities organize themselves and maintain digital connectivity through the use of mobile devices, such research could yield important policy-relevant results.
- Research projects may include efforts to more clearly define migration, perhaps through comparative work about different populations. Currently, there is substantial scholarly debate about how to define a project given the differing definitions for migration, forced migration, immigrant, refugee, expatriate, etc.

Approaches to be encouraged and to be avoided in the development of a funding call

Strong transdisciplinary research focus: There is a strong need to engage the implementing bodies (e.g. international development agencies, human rights organizations, refugees and migration organizations) in the design and execution of the research, including the involvement of migrant communities to inform, drive, and execute research efforts.

Use Existing Data: The call should encourage creative and appropriate use of existing climate data and other global change data sources, and should encourage research making use of existing data sources, particularly data within which migration information has not been substantially engaged by the research community. Original data collection should be undertaken only in cases where no sufficient source exists to respond to the central research questions.

Keep the call broad: The call should be broad enough to encompass research on stresses (ongoing, chronic problems) and shocks (extreme and acute events), and it should be written to include contributions from communities often not engaged in Belmont Forum Calls - environmental ethics and human rights research communities, and other communities in the humanities. Inclusion of these disciplines will encompass those research communities that focus on definitions and conceptions surrounding migration.

132 **Go Big:** Avoid funding small pilot projects in the absence of consideration of continuity. It may be
133 preferable to fund large and ambitious initiatives that can access funds to scale up the project in the
134 future.

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136 **Watch the Frame:** Avoid framing migration as a problem to be controlled. The question of whether
137 migration is either an adaptation or a failure to adapt is not appropriate to ask in a general sense or on a
138 large scale. The answer will vary case-by-case.

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140 **Key references for consultation**

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152 Anthropocene and Its Victims: Migration as Failure or Adaptive Strategy?
153 <https://blogs.ei.columbia.edu/2015/06/17/anthropocene-and-its-victims-migration-as-failure-or-adaptive-strategy/>

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161 <https://www.ipcc.ch/report/ar5/wg2/>

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163 Atlas of Environmental Migration. International Organization of Migration, Geneva 2017
164 <https://environmentalmigration.iom.int/atlas-environmental-migration>

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166 Workshop on Forced Migration Research: From Theory to Practice in Promoting Migrant Well-Being
167 <https://sites.nationalacademies.org/DBASSE/CPOP/Demography-of-Forced-Migration-and-Refugee-Movements/index.htm>

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177 **Roundtable participants**

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216 **Disclaimer**

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218 This document only presents the points of view of roundtable participants, and does indicate any
219 commitment or inclination to funding priorities at this time.