



**Global Coral Reef R&D
Accelerator Platform**
An initiative launched by G20

Version 4.3

As of September 16, 2020



1 The G20 is a major custodian of warm-water and cold-water coral reefs, with
2 about half of the world's tropical reefs located in the Economic Exclusive
3 Zones of G20 members. The G20 considers coral reefs to be amongst the most
4 valuable ecosystems on earth, harbouring incredible biodiversity, supporting
5 livelihoods, and providing economic opportunities for at least 500 million
6 people across the world. However, they are also amongst the ecosystems most
7 vulnerable to unsustainable human activity, which causes coral reef decline
8 through pollution, direct destruction, and ocean warming and acidification.
9 Thanks to their significant economic and scientific capabilities, G20 members
10 can play a vital role in preventing the grim predictions of a catastrophic
11 loss of coral reefs from being realized if the current rate of coral reef
12 loss continues. The G20 therefore proposes the establishment of a voluntary
13 Global Coral Reef R&D Accelerator Platform to accelerate scientific knowledge
14 and technology development in support of coral reef survival, conservation,
15 resilience, adaptation and restoration. The initiative is targeted at
16 addressing the most important knowledge gaps and will be placed in an
17 overarching program design framework.

18
19 This voluntary initiative encompasses both warm-water, tropical coral reefs,
20 as well as those growing in deep, cold waters, which have also experienced
21 losses and are also threatened by multiple human pressures.

22 **1. Overall Objectives of the Initiative**

24 The objective of this voluntary G20 initiative is to increase support for
25 and complement existing national, regional, and international initiatives
26 that are currently working on coral reef conservation, resilience, adaptation,
27 and restoration. To achieve this objective, the G20 proposes the
28 establishment of **a Platform focused on accelerating international research
29 and development** to improve the survival, conservation, resilience, adaptation
30 and restoration of both warm-water and deep, cold-water coral reefs.

32 **2. Platform Scope**

33 The Global Coral Reef R&D Accelerator Platform aims to accelerate global R&D
34 and associated capacity to support efforts to reverse the projected losses
35 of coral reefs by focusing on the following areas:

- 37 a. Establishing a coordinating mechanism to connect existing national,
38 regional, and international R&D programs, as well as international panels
39 and the diverse expertise of G20 members, learn from their efforts and
40 diversity of R&D approaches, realize potential synergies, and identify
41 and pursue R&D priorities to enhance resilience and conservation of coral
42 reefs globally.
- 43 b. Supporting a gender-balanced, transdisciplinary global community of
44 scientists, technologists and innovators to develop scalable end-to-end
45 solutions contributing to the objectives.
- 46 c. Seeking opportunities for engagement of the Platform with the R&D capacity
47 of the private sector to collaborate toward coral reef conservation,
48 resilience and restoration.
- 49 d. Facilitate access to and sharing information from a network of field,
50 research and testing facilities across participating institutions.
- 51 e. Providing advanced R&D training and access to cutting edge research
52 facilities and infrastructure in a gender-balanced way to scientists from
53 developing and least developed countries to complement ongoing capacity-
54 building efforts.
- 55 f. Developing and sharing scientific tools to assess the social and
56 ecological costs and benefits of scalable applications based on proof of
57 concept and pilot projects.
- 58 g. Delivering novel science and technology approaches, tested in pilot scale,
59 to address specific needs and gaps as articulated by relevant stakeholders.

60 Findings will be proactively communicated to ICRI and UNEP and to
61 implementing mechanisms and initiatives, such as those funded by the
62 Global Fund for Coral Reefs.

63

64 **3. Platform Activities**

65 Through its activities, the Platform will contribute to enhance the
66 cooperation among the G20 members as well as non-member countries on coral
67 reef conservation, protection and restoration and thus to the achievement of
68 the relevant goals and targets under the 2030 Agenda for Sustainable
69 Development, thereby also supporting the UN Decade of Ecosystem Restoration
70 (2021-2030), the UN Decade of Ocean Science (2021-2030), and the
71 implementation of the United Nations Environment Assembly resolution 4/13 on
72 sustainable coral reef management.

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74 The Platform's main activity will be the resourcing, management, and
75 execution of a coordinated, collaborative, and targeted global R&D program,
76 guided by scientific needs and supported by voluntary contributions from G20
77 members and non-member countries. The R&D program will focus on achieving
78 specified and agreed goals, drawing together multidisciplinary scientists,
79 engineers, and technologists to collaboratively identify, design, and deliver
80 innovative, practical, and sustainable solutions under a comprehensive
81 systems end-to-end approach to enhance coral reef survival, conservation,
82 resilience, adaptation and restoration. These solutions should then be
83 communicated to initiatives such as ICRI for further utilization and
84 translation into conservation and restoration actions across the world by
85 existing national and international implementation efforts (e.g. UNEP, the
86 Global Fund for Coral Reefs, Reef Resilience Network, the Coral Triangle
87 Initiative on Coral Reefs, Fisheries and Food Security - CTI-CFF and others).

88

89 The Platform will support scientific projects, selected through global,
90 targeted calls for proposals and reviewed by a Scientific and Advisory
91 Committee (see below). The selection process will follow best practice,
92 streamlined procedures for preparation and selection. These projects will
93 include:

94

- 95 a) Research projects delivered through a coordinated, collaborative and
96 targeted global program of research and development activities
- 97 b) Proof-of-concept and Pilot projects to translate research outcomes
98 into scalable applications, ready to be taken up by ICRI, UNEP and
99 others, and funded at scale by the Global Fund for Coral Reefs or
100 other initiatives that support conservation action, including by the
101 private sector.

102 Projects will be open to scientists from all nations of the world. However,
103 the research projects work must be conducted in participating institutions
104 (see below).

105

106 The Platform will also organize a series of workshops and other events,
107 where possible integrated with existing ones to increase participation and
108 cost effectiveness, as well as an annual conference to report on progress
109 where countries and organizations exchange experiences and views.

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111 **4. Membership and operating model**

112 **Participating Institutions:** The Global Coral Reef R&D Accelerator Platform
113 will consist of institutions, private sector actors, foundations, research
114 programs and NGOs with research programs or activities aligned with those of
115 the Platform. Participating institutions are encouraged to contribute to the
116 Platform by facilitating knowledge sharing and collaboration and/or by
117 providing access to their infrastructure (e.g. instrumentation, field

118 stations, advanced facilities) and research results as an in-kind
119 contribution to the Platform.

120
121 **Platform Central Node:** The Platform's Central Node (see below) will be based
122 at King Abdullah University of Science and Technology (KAUST). The proposed
123 location will allow the Platform to leverage KAUST's infrastructure to
124 support R&D globally, while providing access to cutting-edge infrastructure
125 and expertise in coral reefs, sequencing capabilities, advanced sensor
126 technology and benefit from its access to the Red Sea, the Arabian Gulf, and
127 its corals.

128
129 **Financial considerations:** It is envisioned that the Platform will be funded
130 by voluntary contributions by G20 members, non-member countries, and private
131 sector actors. A Scientific and Advisory Committee will advise on the
132 allocation of this budget among programs and projects, which will be approved
133 by an Initiative Governing Committee (details in next section). However, the
134 goal is for at least 90% of the budget to be allocated directly to Research
135 and Proof-of-concept and Pilot projects, with the remainder allocated to
136 organization of workshops and conferences, communication and outreach. To
137 support the launch of the Platform, the Kingdom of Saudi Arabia will provide
138 the amount of USD \$10 million per year for the first 10 years, along with in
139 kind contributions to strengthen the platform. Other G20 members and non-
140 member countries are encouraged to contribute voluntarily as well.

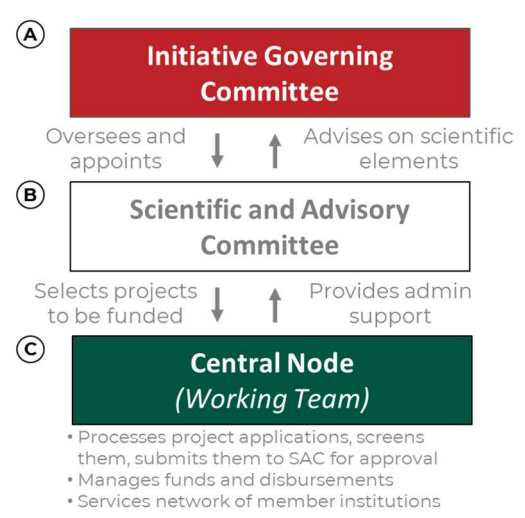
141
142 **Administrative costs:** KAUST is prepared to provide all the administration
143 functions to be executed by the Platform's Central Node at no cost to the
144 Platform on request of the G20 Saudi Presidency, thereby representing an in-
145 kind contribution from the Kingdom of Saudi Arabia to the Platform.

147 5. Initiative Implementation Framework

148 The Saudi Presidency will convene a temporary **Founding Committee** constituted
149 of representatives appointed on a voluntary basis by G20 members to
150 officially establish the Platform and detail its mandate and initial
151 governance. The G20 may also decide to invite other non-member countries and
152 institutions to the Platform establishment discussions as advisors to the
153 **Founding Committee**. After official founding of the Platform, a permanent
154 governance structure will be established, and the Founding Committee will
155 dissolve itself. This permanent governance structure will consist of the
156 following elements:

157
158 1- **An Initiative Governing Committee**
159 composed of participating members who will
160 oversee the Global Coral Reef R&D Accelerator
161 Platform and will approve strategic plans,
162 operating procedures, rules and procedures of
163 the research programs (including project and
164 participating institution eligibility
165 criteria, conflict of interest rules, and
166 review procedures), annual budgets,
167 accreditation of participating institutions,
168 and will approve fund allocations to research
169 projects recommended by the Scientific and
170 Advisory Committee.

171 2- **A Scientific and Advisory Committee**
172 composed of scientists, practitioners and
173 policy experts from leading organizations and
174 representatives from major ongoing research,
175 conservation, restoration and adaptation initiatives, including academic
176 institutions, scientific societies, and relevant international organizations
177 that will assist the Initiative Governing Committee in its functions by



178 developing and updating the strategic direction of research, designing and
179 directing the R&D program, overseeing the scientific peer review of projects,
180 and making recommendations on the research projects to be funded, which would
181 then have to be approved by the Initiative Governing Committee.

182 3- **A Central Node** to administer the overall Platform, supporting the
183 Initiative Governing Committee and the Scientific and Advisory Committee,
184 including calls for projects and submissions, mechanics of the peer-review
185 process, managing funds, grant agreements, collection of project reports and
186 outcomes, and servicing the network of participating institutions.

187
188 Additional details on the governance, including decision-making processes,
189 project funding rules, and eligibility criteria for participating
190 institutions and projects, will be discussed and finalized by members of
191 the **Founding Committee** during the Platform establishment phase (see next
192 section).

193
194 **Project and program evaluation:** Project performance will be monitored, and
195 the results of the overall Platform program will be reviewed by the Scientific
196 and Advisory Committee, which will deliver its evaluation and recommendations
197 to the Initiative Governing Committee. In addition, the Platform and the
198 research program will also be subject to independent evaluation, with results
199 of the assessment being reported to the Initiative Governing Committee.
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201 **6.Options for Participation**

202 G20 members and non-member countries can participate in the Platform
203 programs on a voluntary basis through various avenues such as:

- 204 ▪ Providing voluntary financial contributions to support the Platform R&D
205 programs
- 206 ▪ Providing In-kind non-financial contributions
- 207 ▪ Encouraging their scientific institutions to join the Platform
- 208 ▪ Submitting requests for funding for research projects
- 209 ▪ Participating in the Platform's research, knowledge-sharing or capacity
210 building activities
- 211 ▪ Participating in coordinated calls for project proposals among programs
212 participating in the Platform

213 214 **7.Next Steps**

215 G20 members on a voluntary basis will appoint representatives to join the
216 Founding Committee and begin the Platform establishment phase (Phase I).
217 The preparation work for Phase I will be mainly carried out by the Saudi
218 Presidency and proposed to the Founding Committee, which will meet with the
219 intention to finalizing the establishment of the Platform as soon as
220 possible as depicted in the diagram below.



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