

# Improving Scientific Input to Global Policymaking

with a focus on the  
UN Sustainable Development Goals

Summary

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The shaded countries in the cover image indicate where IAP member academies exist.

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## FOREWORD

The InterAcademy Partnership (IAP) is a global network of over 140 science, engineering and medical academies that work together to promote the development of science and to support its role of science in seeking solutions to the world's most challenging problems. In 2016, IAP for Policy (IAP-Policy), hosted by the US National Academies of Sciences, Engineering and Medicine, and a component of the Partnership, launched a three-year project on Improving Scientific Input to Global Policymaking with a Focus on the UN Sustainable Development Goals (SDGs). Funded by Carnegie Corporation of New York and undertaken in partnership with the Institute for Advanced Study (IAS) in Princeton, New Jersey, US, this three-year project was governed by an international working group and supported by a professional secretariat.

The primary objective of the project was to strengthen the global science community's capacity to support the implementation of actions to achieve the SDGs, with a particular focus on the role of science academies. The working group has drawn evidence from a survey of national science academies (senior and young); gained insights and perspectives from global, regional and national practitioners; engaged with different parts of the UN system; and convened regional workshops. An important outcome of these activities has been a better understanding of the structures, mechanisms and processes the UN has established for incorporating science, technology and innovation (STI) input into implementation of the SDGs at all levels, which has made it possible to mobilise the academies to support this implementation more effectively.

Rigorous peer review is a hallmark of IAP studies. We would like to thank the following reviewers for their constructive comments:

- **Dr William Colglazier**, Past Co-chair of the 10-Member Group of the UN Technology Facilitation Mechanism (TFM), and Editor-in-chief, Science & Diplomacy, AAAS Center for Science Diplomacy
- **Professor Roseanne Diab**, Former Executive Director, Academy of Science of South Africa and Director, GenderInSITE
- **Dr Aysha Fleming**, member, Global Young Academy and social scientist at CSIRO, Australia
- **Dr Paulo Gadelha**, member of the 10-Member Group of the UN TFM and Coordinator, Fiocruz Strategy for Agenda 2030
- **Dr Shantanu Mukherjee**, Chief of Policy and Analysis, Division of Sustainable Development, UN-ECOSOC

The full report is at <http://www.interacademies.org/36061/SDGsreport>.

On behalf of the IAP-Policy, we would like to thank the Project Co-Chairs, members of the Working Group, the Project Secretariat, all contributing academies and practitioners, and our funder, Carnegie Corporation of New York.

*Richard Catlow and Daya Reddy, IAP-Policy Co-Chairs*

## Improving Scientific Input to Global Policymaking with a focus on the UN Sustainable Development Goals

### SUMMARY REPORT



*“Narrow the gaps. Bridge the divides.  
Rebuild trust by bringing people together  
around common goals. Unity is our path.  
Our future depends on it”.*

UN Secretary-General António Guterres  
UN SDGs Report 2018



The year 2019 is a critical time for the UN’s Agenda 2030, the global blueprint for the economic, social and environmental development of our planet. Four years into this 15-year framework, the UN Members’ Heads of State will review progress on the implementation of the 17 [Sustainable Development Goals \(SDGs\)](#)<sup>1</sup> underpinning [Agenda 2030](#).<sup>2</sup> The world’s academies and the scientific community at large have an opportunity to act, and effect positive change, within this critical timeframe.

Agenda 2030 is potentially transformative, but its implementation will require profound change in the world’s socio-economic, political, cultural and research systems, and the unsustainable practices and behaviours, attitudes and values that underpin them. The best minds, resources, business models and innovations from all sectors and disciplines and across generations must be mobilised to effect this transformation.

#### **The opportunity and imperative for scientists to support the SDGs**

Agenda 2030 is a 15-year global plan of action for planet, people, peace, prosperity and partnership. It strives to leave no-one behind and to reach the furthest behind first. Building on the Millennium Development Goals (MDGs), Agenda 2030 comprises 17 SDGs underpinned by [169 targets](#)<sup>3</sup> and [232 indicators](#).<sup>4</sup> The SDGs place a strong emphasis on human rights and the inclusion of all, and endeavour to integrate the three dimensions of sustainable development: economic, social and environmental.

All UN Member States have committed to the realisation of the SDGs and have undertaken to reorientate and integrate national development priorities and funding to mainstream the SDGs within their countries. National research agendas, policies and funding priorities are beginning to shift to reflect these global goals. Where they exist, regional research and policy agendas are undergoing similar realignment.

Effective implementation of the SDGs requires access to, and the application of, the best available evidence from the global community of knowledge providers. Independent expert advice is a vital part of evidence-informed policymaking at national, regional and global levels of decision-making: strengthening the evidence-policy interface at each of these levels is crucial.

Four particular challenges are increasingly urgent and must be addressed by the global science community: (1) to ensure research and research support systems, including assessment and reward structures, better align with shared global goals; (2) to improve understanding of the [interactions between SDGs](#)<sup>5</sup> (synergies and trade-offs) to multiply the positive impact of specific policy interventions; (3) to prioritise the development of improved [indicators](#),<sup>6</sup> especially for weak or non-existent ones, to monitor progress on implementation more accurately; and (4) to account for the implications of [complex systems science](#),<sup>7</sup> including how the SDGs can be delivered within the Earth's finite capacity and [planetary boundaries](#).<sup>8</sup>

### Scientists can support the SDGs in numerous critical ways:

- identifying challenges, advising on policy interventions, and devising solutions by understanding enabling conditions, constraints and drivers in their respective geographic contexts;
- exploring the critical interdependencies inherent in the SDGs, as well as the competing tensions;
- designing key indicators and targets for the SDGs;
- breaking down silos and promoting inter/cross/trans/multi-disciplinary and inter-generational cooperation;
- monitoring and evaluating progress, and measuring impact;
- promoting open, accessible data and methodologies;
- framing interventions around the stability and resilience of the Earth's systems (the concept of planetary boundaries and complex systems);
- exploring futures scenarios, including the impact of new and emerging (potentially disruptive and transformational) technologies;
- communicating science to policymakers and non-scientific audiences (including conveying risk and uncertainty);
- engaging (sensitising) the academic community and wider publics on the SDGs and encouraging them to get involved.

## The IAP project “Improving scientific input to global policymaking”

Representing a key constituency of the global science community, the [InterAcademy Partnership \(IAP\)](#)<sup>9</sup> has explored how scientists, and specifically merit-based academies, are helping to implement the SDGs, and where there are challenges to, and opportunities for, further involvement. IAP is the global network of over 130 merit-based science, engineering and medical academies, working together to help address shared global challenges using the best available scientific evidence. Together with its four constituent regional networks in Africa, the Americas, Asia and Europe, IAP has provided numerous in-depth science policy reports and consensus statements with independent advice for national governments and international organisations.

### Project objectives:

- **mobilisation:** to review the current landscape for global scientific advice and input in relation to the SDGs and identify strengths, weaknesses and opportunities for a more effective advisory system;
- **capacity building:** to strengthen the global science community's capacity to contribute to high-quality, evidence-based advice to policymakers, and help build the capacity of science academies to play their part in this system;
- **collaboration:** to foster dialogue, collaboration and coordination among providers of global scientific advice, and in doing so develop a framework for strengthening the global science-policy interface and for improving policies and adopting good practice.

## Project methodology

A survey conducted in 2016-2017 of [IAP member academies](#),<sup>10</sup> the [Global Young Academy](#)<sup>11</sup> (GYA) and [National Young Academies](#)<sup>12</sup> (NYAs) showed that most recognise that academies have an important role to play in supporting the SDGs at global, regional and national levels. But the [survey](#)<sup>13</sup> revealed a variable level of understanding of the SDGs, how the goals are being implemented and, most importantly, how academies and scientists can get involved. It also exposed weaknesses and disconnects within and across the academies, and a gap between knowledge production and its use by policymakers. Further exploration of the UN system uncovered several disconnects between and within the science and policymaking communities and found that, while there is an apparent willingness from both communities to engage with each other, there is also reticence or inertia in some parts of the system, hampering genuine dialogue and action. Thus, a wealth of expertise and knowledge has yet to be applied to the implementation of the SDGs.

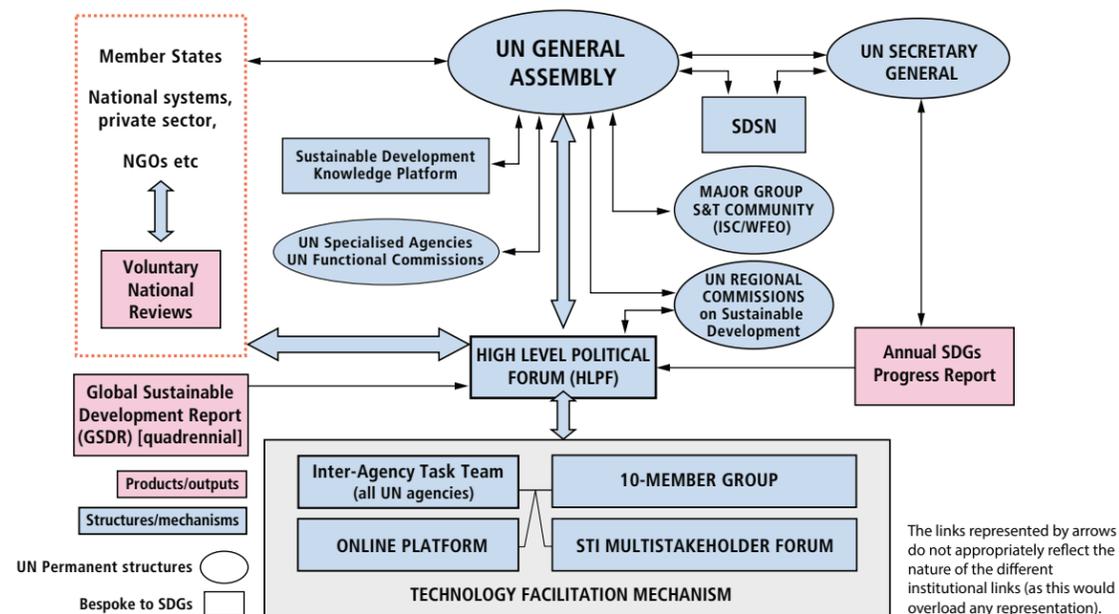
The project has helped to increase awareness and understanding of the SDGs amongst national academies by facilitating an understanding of national, regional and global context and identifying ways to engage. A brief [Guide to the SDGs](#)<sup>14</sup> for IAP members and NYAs has helped them identify entry points and pathways within the UN system for supporting the SDGs. The project has also developed an [online database](#)<sup>15</sup> of academy reports relevant to the SDGs, which is being integrated into knowledge platforms under development by different parts of the UN. Searchable by SDG, country and region, the database provides a real-time indication of in-country expertise and knowledge.

The project has benefited throughout from IAP, the GYA and NYAs working together and drawing on their respective strengths. Four interactive [regional workshops](#)<sup>16</sup> on the SDGs – in Africa, the Americas, Asia and Europe – demonstrated how academies can be supported and mobilised through their regional networks, as platforms for sharing ideas, thinking strategically and working collaboratively. There has been wide recognition that academies – whether senior or young (early-career), big or small, new or established – face similar challenges in their efforts to influence policy: it requires diplomacy, advocacy and tenacity, and being able to exploit opportunities requires investment in skills, money and time that many feel they can ill afford without additional support. The regional workshops have also generated discussion about the role of national science academies in the 21st century and how they could usefully adapt to changing demands and expectations. A think piece prepared by the Project Working Group was shared with all academies to stimulate debate in their respective membership, in preparation for the IAP Triennial Conference in April 2019 and can be found in the annex of the IAP full report.

## Engaging with the UN system for implementing the SDGs

A guide prepared by the project has proven to be a useful resource for academies when navigating their way through the UN system for implementing the SDGs (see schematic below). Academies have been engaging with different pathways for feeding science advice into this system and have observed first-hand the benefits of getting involved and being part of the conversation, as well as the challenges of applying STI to the SDGs through imperfect but continually evolving mechanisms.

Mapping science advice in the UN SDGs process (illustrative)



The UN system provides a range of opportunities through which members of the scientific community can help strengthen and develop pathways for science, including the Scientific and Technological Community (STC) Major Group, High-Level Political Forum (HLPF), Technology Facilitation Mechanism (TFM), Commission on Science and Technology for Development (CSTD), the quadrennial Global Sustainable Development Report (GSDR), and UN Regional Commissions (all described in the IAP full report). There are also important opportunities at the national level, where policy implementation happens, including the Voluntary National Review (VNR) process, national sustainability platforms and equivalent coordination mechanisms. Official regional and national reports on implementation progress are subject to little scrutiny: a more rigorous, evidence-informed approach would improve accountability and assist in the implementation of the SDGs through genuine transformative change rather than retrofitting business-as-usual. This includes supporting the development of context-relevant, evidence-based indicators to help ensure better national response rates.

Academies can also help support the fast-developing **STI-for-SDGs roadmaps** programme being rolled out globally with the support of several UN agencies and the World Bank. These roadmaps will comprise detailed STI action plans to achieve the SDGs that will be regularly reviewed and updated, and ideally involve multiple stakeholder groups. Using their convening power and independence, academies can facilitate the initiation of such roadmaps by national STI stakeholders and other key constituencies. Academies can also provide leadership on effective modes of interdisciplinary collaboration and promote the creation of research systems more conducive to addressing global goals; help socialise STI for the SDGs within their respective governments, academic systems and wider publics; help source national examples as case studies for global actions; and develop their own institutional roadmaps to support national ones. Academies **can help assess their own country's readiness (or suitability) for STI-for-SDGs roadmaps** to help spur investments in countries where roadmaps are more likely to be achievable and to make a significant impact.

### Country “readiness indicators” for producing STI-for-SDGs roadmaps could include:

- Independence of scholars and research institutions
- Systemic peer review of research funding and publishing
- An established national science advisory mechanism or ecosystem
  - A government chief scientific adviser or science advisory board
  - At least one national science academy covering all disciplines
  - A national young academy or other platform for collective action by early-career scientists and other scholars
- At least one ministry or government department dedicated to STI and science advice incorporated in all government ministries
- A national research funding mechanism supporting fundamental basic and applied research that supports research that contributes to societal benefit and aligns with the SDGs
- University and/or school curricula where the SDGs are prominent
- A strong link between the national statistical office, responsible for SDG reporting, and the science community, helping to provide, interpret and review data.

### Entry routes and pathways for engagement of academies and scientists:

- Supporting the [Technology Facilitation Mechanism](#)<sup>17</sup> (TFM), including participating in the annual UN STI Multistakeholder Forum, supporting TFM working groups and Expert Group Meetings (EGMs) organised to focus on specific issues;
- Supporting the quadrennial [Global Sustainable Development Report](#)<sup>18</sup> (GSDR) process;
- Contributing to consultations and calls for experts through the [STC Major Group](#)<sup>19</sup>;
- Providing expertise to the science-based work of the various UN structures, including annual [STI Policy](#)<sup>20</sup> and [thematic reviews](#)<sup>21</sup> conducted by the UN Conference on Trade and Development (UNCTAD) and CSTD;
- Engaging with the [UN Regional Commissions](#)<sup>22</sup> and their annual regional fora on sustainable development, especially through the IAP regional networks;
- Supporting the [Voluntary National Review](#)<sup>23</sup> (VNR) process;
- Participating in national sustainability platforms/equivalent coordination mechanisms;
- Contributing to the development of national [STI-for-SDGs roadmaps](#)<sup>24</sup>/action plans, including helping to assess countries where they may be most effective (e.g. countries with high “readiness” indices);
- Participating in international research collaborations, monitoring and evaluation programmes, e.g. [Future Earth](#)<sup>25</sup>;
- Advocating for a stronger science advisory mechanism for the UN to strengthen global evidence-informed policymaking;
- Reflecting the SDGs in (inter)academy programmes and initiatives.

Note: These entry routes are described in the full report at <http://www.interacademies.org/36061/SDGsreport>

Other useful resources:

- <http://www.oecd.org/sdd/OECD-Measuring-Distance-to-SDG-Targets.pdf>
- <https://sdg-tracker.org>
- <http://datatopics.worldbank.org/sdgatlas/>
- <http://www.sdgindex.org>
- <https://unstats.un.org/sdgs/report/2018>

## Recommendations

The project yielded recommendations to the UN system; IAP, its regional networks and national members; the GYA and NYAs; and the wider science community. These are outlined in the text boxes below, together with a checklist (“how you can support the implementation of the SDGs”) to help interested scientists get started or find out more.

Implicit in the recommendations for each group is the imperative for science and policymaking communities to create more opportunities to come together to support the different elements of the SDGs implementation process. Dialogue and exchange of ideas can help:

- the two communities better understand and appreciate each other’s ways of working and their respective operational constraints;
- bridge the gap between knowledge supply and knowledge demand;
- facilitate the development of better indicators for the SDGs and their targets, as well as monitoring and evaluation frameworks;
- promote a systems-wide perspective, to better understand the interactions between the SDGs – their interdependencies, synergies and trade-offs;
- facilitate the development of national STI-for-SDGs roadmaps/action plans to 2030 and beyond; and
- bring to bear independent assessments of what is working and what is not, in order to advise relevant stakeholders constructively.

The project, which has been as much about process as product, has endeavoured to explore creative ways in which IAP and its members can contribute more effectively to addressing global challenges.

## Table of recommendations

### 1. Recommended actions for the UN system, its agencies and funders

- 1.1 To champion and foster a **culture of evidence-informed policymaking**, standardising rigour and review across its infrastructure, especially with respect to regional and national reviews of SDGs implementation submitted to the High-Level Political Forum (HLPF). This should include revisiting the establishment of a formal, independent, and adequately resourced science advisory mechanism to the UN.
- 1.2 To **work with the global science community** to build in time and space for listening, interacting and learning from each other, and enable a **culture of learning**. For example, by demanding more systemic engagement of key regional science communities from its Regional Commissions and urging its Member States to engage scientists more assiduously, including in their preparation of VNRs and in integrating STI-for-SDGs into the development of national roadmaps to 2030.
- 1.3 To use the global science community at their disposal to better **understand and account for interactions between SDGs**, identifying and prioritising synergies and trade-offs between SDGs to multiply the value of specific actions; **prioritise and strengthen weak indicators and plug data gaps**; and give due consideration to **complex systems science and planetary boundaries**. Properly funded UN STI Multistakeholder Fora could usefully focus more attention on these issues as a necessary requirement for future, more innovation-focused agendas.
- 1.4 To work with the STC Major Group, IAP, GYA and other international networks to develop more **efficient and effective ways of sourcing and utilising expertise**; for example, an SDGs-based database of knowledge-providers/experts, which IAP regional networks and/or ISC Regional Offices could undertake to maintain, if resourced. The UN and its agencies could consider supporting more **fellowships and other opportunities for early career researchers**, keen to learn more about the policymaking process and apply their research to societal challenges.
- 1.5 For the International Science Council (ISC) and the World Federation of Engineering Organisations (WFEO), to help make the STC Major Group role more visible and transparent to their members and the wider scientific community, so that it is more inclusive and democratic in terms of engagement, and ensure that ISC Regional Offices are better supported in this role.
- 1.6 To **fund more initiatives that bring together knowledge providers and knowledge users** through The World Bank, Regional Development Banks and other InterAgency Task Team (IATT) institutions to (a) bridge the gap between knowledge supply and demand and (b) improve mutual understanding. This could include creating opportunities for scientists to be seconded to UN, regional and/or national government agencies or affording opportunities for policymakers/senior civil servants to spend time in research institutions.

### 2. Recommended actions for IAP

- 2.1 To develop **strong working links within the UN system with those organisations/groups that have clear and influential policy mandates**, including the Commission on S&T for Development (CSTD), the 10-Member Group supporting the Technology Facilitation Mechanism (TFM), and the UN Regional Commissions. IAP is encouraged to better **support the STC Major Group in its role** through its calls for evidence and expertise. IAP could also develop better links with **international development agencies**.
- 2.2 To develop a mechanism for **tighter coordination and review of IAP/academy engagement with the UN and its agencies**, most notably for nomination processes for UN expert groups, to improve learning and share good practice.
- 2.3 To consider **aligning its activities with the UN timetable for review of the SDGs** to ensure its interventions, such as major interregional projects, are timely. This includes the review agenda of the High-Level Political Forum (HLPF) and the quadrennial Global Sustainable Development Report (GSDR).
- 2.4 To play a stronger **advocacy role for championing a strong, independent, adequately resourced science advisory mechanism to the UN**.
- 2.5 To lead debate on the **reorientation of research and research support systems** towards shared global goals, open science, inclusion, championing interdisciplinary working and challenging the institutionalised modus operandi of discipline-bound assessment and reward structures.
- 2.6 To support its **regional networks and national members in their efforts** to engage with their respective SDGs implementation processes.
- 2.7 To strengthen its **collaboration with the Global Young Academy (GYA)** and encourage its four regional networks to **systematically engage local GYA members and National Young Academies (NYAs)** in their core activities.
- 2.8 Subject to additional resourcing, to position itself as **an accessible and efficient conduit of knowledge and expertise**, for example by:
  - (a) developing a more navigable website with contact details for its leadership, executive and membership and short, non-technical summaries of its publications with contact details for lead authors as key experts;
  - (b) framing its work around the SDGs and their targets;
  - (c) developing its online database for SDG-relevant academy output with the help of its members and integrating this into UN global and regional knowledge platforms;
  - (d) encouraging academies to develop their own roadmaps for how their institutions can contribute to harnessing STI for addressing SDGs.

## Table of recommendations

### 2. Recommended actions for IAP (cont'd)

- 2.9 To build a **stronger culture of accountability**, focusing on **outcome and tangible impact**. IAP should continue to develop, refine and share good practice guidelines for strong governance and operations; seek evidence of engagement with policymakers and the publics, and of impact, as a pre-condition of funding of regional networks; and draw on existing press office capacity in academies to develop a media training programme for academy leadership and chairs of working groups.
- 2.10 To **revisit and refresh its guidance for new and nascent academies** in light of this project.

### 3. Recommended actions for IAP regional networks and national members

- 3.1 Working with ISC Regional Offices, to **build and strengthen strategic links with their respective UN Regional Commissions** and to participate in Annual Fora on Sustainable Development (AFSD), to bring more evidence to their proceedings and help their members connect with national government representatives, regional agencies and funders. IAP annual funding could be used to help develop these connections.
- 3.2 To familiarise themselves with the **Voluntary National Review (VNR) process** and to lend their support as “critical friends” so that VNRs are more evidence-informed. Academies can play **stronger convening roles**: bringing together academic experts from all disciplines and practitioners from different sectors to bridge disconnects, as independent and trusted brokers.
- 3.3 To **implement the more practicable and impactful ideas generated at the regional workshops** hosted by this project. This could include establishing focal points for engagement with the SDGs who are responsible for liaising, coordinating and maintaining links with key organisations and are accountable to their respective boards or councils; maintaining databases of their members with expertise relevant to each SDG; supporting national delegations to UN policy summits and fora; engaging on national STI-for-SDGs roadmapping exercises; and adopting the imperatives of open science (such as open data, diversity, inclusion and co-design). Regional networks and national academies could also re-orientate their strategies around the SDGs, but should **consider the SDGs holistically**, thinking about policy options for specific SDGs that will have minimal deleterious impact on any of the other SDGs. They can help to **better understand and articulate the interactions between the SDGs**.
- 3.4 To **develop their own roadmaps** and give due consideration to the issues raised in this report, including those discussed in Appendix 2 of the full report concerning the evolution of their own academies.

### 4. Recommended actions for the Global Young Academy (GYA) and National Young Academies (NYAs)

- 4.1 To familiarise themselves with the **Voluntary National Review (VNR) process** and lend their support as “critical friends” so that VNRs are more evidence-informed.
- 4.2 To continue to strengthen their alumni systems and refine local knowledge platforms to share learning. They could also focus on **institutional strengthening** and build progressive strategies to mitigate membership turnover. The GYA could usefully seek additional resources to provide a support role for regional networks of NYAs.
- 4.3 To further develop (i) **communications and media training** for GYA/young academy leadership and chairs of working groups to build a cadre of ambassadors for the academies, and (ii) **science advice to policy training**, supplementing the efforts of INGSA, the Joint Research Centre (JRC), American Association for the Advancement of Science (AAAS) and others, and complementing the efforts of universities focusing their research and teaching on the SDGs.
- 4.4 To **communicate the value of the SDGs to a wider audience** of youth and lay public, through outreach programmes, blogs and social media.
- 4.5 To give due consideration to the **voluntary action plans** prepared under this project and implement the more practicable ideas.

### 5. Recommended actions for the wider science community

- 5.1 Leading organisations of established international science fora are encouraged to consider **more strategic, impactful agendas** that cross-reference with key UN mechanisms and timeframes and engage a more diverse participation, including policymakers. For example, they could support the Technology Facilitation Mechanism and engage UN bodies with clear policy mandates. They can also play **a stronger advocacy role** for resources and incentives for scientific research and problem-solving targeted at the SDGs, and for the imperative of open and inclusive science.
- 5.2 Scholars could **present their own research and teaching in the context of the SDGs and their targets**, mindful of the interactions between them, and thinking about the users of their findings and how they might best reach them.
- 5.3 Scholars can **get involved in SDGs-oriented activities** organised by their own academic networks and societies – their research institutions, universities, senior or young academies, scientific unions – or civil society or local community initiatives. They can conduct interdisciplinary courses relevant to the SDGs and publish their ideas in popular journals and via social media.
- 5.4 Scholars can look to the GYA and to their NYA, if they have one, as a vital part of their own **professional development**. They can join the International Network of Government Science Advice (INGSA), whose open membership attracts a wide spectrum of current and prospective practitioners to share experience, build capacity and develop effective approaches to using science to inform policy.

## How you can support the implementation of the SDGs

Academies and scientists can engage with the SDGs in many ways. Below are some examples drawn from the findings of the IAP project, “Improving scientific input into global policymaking.”<sup>1</sup>

**As a proactive member (or member of staff) of your academy, you can:**

- **Be an SDGs advocate and ambassador for the academies and your personal networks.** Learn about the UN system (take a look at the [IAP’s guide](#)<sup>2</sup> or, for more detail, the [UN SDGs Knowledge Platform](#)<sup>3</sup>). Encourage your academy and its regional network to have SDGs Focal Points.
- **Help frame your regional network’s and/or national academy’s strategies and programmes around the SDGs and their targets**<sup>4</sup>, and give due consideration to the possible [interactions between SDGs](#)<sup>5</sup> and reported [data gaps](#)<sup>6</sup> that continue to perplex policymakers. Can your academy respond directly to these challenges and help advance understanding of them? Partner with your national senior / young (if you have one) academy counterpart to strengthen the intergenerational perspective. Where possible, engage relevant policymakers in the design of your programmes.
- **Stay informed about the state of implementation of the SDGs in your country**,<sup>7</sup> and again think about how your academy can help plug gaps or improve these assessments.
- **Ensure your regional network’s and academy’s SDGs-related publications are uploaded to the IAP online database of academy reports**,<sup>8</sup> as a repository of information for policymakers and other stakeholders. Ensure all future publications include a non-technical executive summary written for policymakers. Help create a central database for all academies (senior and young) with publications, projects and expertise organised by SDG as a resource for policymakers.
- **Be an ambassador for the academies** (global, regional, national; senior, young) and **help effect positive change**. Get involved in your academy’s business: participate and help shape its initiatives, its governance and leadership; and help raise its visibility across all sectors. If you are a National Young Academy (NYA) member, encourage your academy to engage with other NYAs or the [GYA](#), who run a number of SDG-related working groups and often act as coordinator for [SDG-related joint activities with NYAs](#).<sup>9</sup>
- **Be an advocate for evidence-informed policymaking**. Join the [International Network of Government Science Advice \(INGSA\)](#)<sup>10</sup> and draw on its resources for actual and aspiring practitioners.



<sup>1</sup> <http://www.interacademies.org/36061.aspx>

<sup>2</sup> For an overview of the UN system managing the SDGs, including ways to engage, one place to start is the InterAcademy Partnership’s 2017 “Supporting the Sustainable Development Goals: A Guide for Merit-based Academies,” available for free download at:

[http://www.interacademies.org/37864/IAP\\_SDG\\_Guide](http://www.interacademies.org/37864/IAP_SDG_Guide)

<sup>3</sup> <https://sustainabledevelopment.un.org/>

<sup>4</sup> <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

<sup>5</sup> To understand more about how you could assess interactions between SDGs, take a look at ICSU’s report

<https://council.science/publications/a-guide-to-sdg-interactions-from-science-to-implementation>

<sup>6</sup> <https://ourworldindata.org/sdg-tracker>

<sup>7</sup> Country profiles on SDGs implementation progress can be found at <http://www.sdgindex.org/reports/2018/>

<sup>8</sup> <http://www.interacademies.org/SDG.aspx>

<sup>9</sup> <https://globalyoungacademy.net/global-young-academy-co-signs-statement-on-the-role-of-young-academies-in-the-un-sdg-process/>

<sup>10</sup> <https://www.ingsa.org/>

**Engaging with UN processes is not as difficult as you might think. You can:**

- **Familiarise yourself with the UN (High-Level Political Forum) annual review schedule for the SDGs (to 2019 here**<sup>11</sup>). The schedule for the next four-year review period will be decided by Heads of State in September 2019 at the [SDG Summit](#)<sup>12</sup> and will be highlighted on the IAP website. Can your academy initiatives and outreach better complement these timeframes?
- **Familiarise yourself with your country’s most recent Voluntary National Review (VNR)**.<sup>13</sup> Were the appropriate stakeholders involved in its preparation? Is the evidence presented accurate? Are key aspects missing? Share your assessment with the assigned focal point for your country’s VNR and ask how your academy may be able to assist in the next VNR process.
- **Stay informed about the VNR schedule in your region**. Check the [list of countries to report in 2019](#)<sup>14</sup> – are any of them yours? As the list of countries to report each year is announced, check if there are opportunities to be involved in stakeholder consultations if your country will report.
- **Participate in your region’s UN Annual Sustainable Development Fora**.<sup>15</sup> Apply to organize a side-event. Contact your [International Science Council Regional Office](#)<sup>16</sup> to see how you can help them in their formal S&T representation role at these fora. Ensure that science is well-represented and part of the conversation.
- **Offer to help support the scientists in the UN system in your region in their role**. Reach out to the scientists in your region or network appointed to bodies such as the [10-Member Group on the Technology Facilitation Mechanism](#)<sup>17</sup> and 15-member [Independent Group of Scientists](#)<sup>18</sup> responsible for the Global Sustainable Development Report (GSDR) 2019. How can you help? These individuals will change periodically: monitor this.
- **Contribute to UN reports and reviews, as calls for input and nominations for expert working and peer review groups are posted**. Volunteer to review current, or critique past, UN reports. These include the quadrennial GSDR and quinquennial UNESCO Science Report; the Commission on S&T for Development (CSTD) annual country and thematic reviews; and the UN Regional Commission reports on regional implementation of the SDGs. Again, monitor these calls and use your academy focal points if they have them.

These activities take time. Academies should endeavour to find ways to support and encourage their members to mainstream this work for the sake of “planet, people, peace, prosperity and partnership.”



<sup>11</sup> <https://sustainabledevelopment.un.org/hlpf>. The annual review schedule from 2020 onwards will be published c.September 2019

<sup>12</sup> The next review schedule will be published at <https://sustainabledevelopment.un.org/summit2019>

<sup>13</sup> Find your country’s most recent VNR and the focal point individual here: <https://sustainabledevelopment.un.org/vnrs/>

<sup>14</sup> <http://sdg.iisd.org/news/21-countries-to-date-planning-to-present-vnrs-at-hlpf-2019/>

<sup>15</sup> For 2019, these are: UNECE (Europe): 21-22 March, Geneva, Switzerland; ESCAP (Asia-Pacific): 27-29 March, Bangkok, Thailand; ECLAC (Latin America and the Caribbean) 22-26 April, Santiago, Chile; ESCWA (Western Asia): 16-18 April, Beirut; ECA: 16-18 April, Tangiers

<sup>16</sup> ISC regional offices can be found in Africa, Asia-Pacific and Latin America and the Caribbean <https://council.science/about-us/regional-offices>

<sup>17</sup> The 10-Member Group <https://sustainabledevelopment.un.org/tfm>

<sup>18</sup> The 15-member Independent Group of Scientists <https://www.un.org/press/en/2017/envdev1770.doc.htm>

## References

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- <sup>1</sup> Sustainable Development Goals. <https://sustainabledevelopment.un.org/>
- <sup>2</sup> Agenda 2030. <https://sustainabledevelopment.un.org/post2015/transformingourworld>
- <sup>3</sup> 169 targets of the Sustainable Development Goals. <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>
- <sup>4</sup> 232 indicators of the Sustainable Development Goals. <https://unstats.un.org/sdgs/indicators/indicators-list/>
- <sup>5</sup> International Science Council. A guide to SDG interactions: from science to implementation. <https://council.science/publications/a-guide-to-sdg-interactions-from-science-to-implementation>
- <sup>6</sup> Tier classification for global SDG indicators. <https://unstats.un.org/sdgs/iaeg-sdgs/tier-classification/>
- <sup>7</sup> Finnigan, J.J. (2017). Society as a complex system: Can we find a safe and just operating space for humanity? Journal & Proceedings of the Royal Society of New South Wales 150. Retrieved from <https://royalsoc.org.au/images/pdf/journal/150-1-Finnigan.pdf>
- <sup>8</sup> Rockström, et al. (2009). A safe operating space for humanity. Nature 461. Retrieved from <https://www.nature.com/articles/461472a>
- <sup>9</sup> InterAcademy Partnership (IAP). <http://www.interacademies.org/>
- <sup>10</sup> IAP Member Academies. <http://www.interacademies.org/31841/Members>
- <sup>11</sup> Global Young Academy. <https://globalyoungacademy.net/>
- <sup>12</sup> National Young Academies. <https://globalyoungacademy.net/national-young-academies/>
- <sup>13</sup> Results of the survey of the Academies. <http://www.interacademies.org/36188/Results-of-the-Survey-of-the-Academies>
- <sup>14</sup> Supporting the Sustainable Development Goals: A guide for merit-based Academies. [http://www.interacademies.org/37864/IAP\\_SDG\\_Guide](http://www.interacademies.org/37864/IAP_SDG_Guide)
- <sup>15</sup> Online database of Academy reports related to the Sustainable Development Goals. <http://www.interacademies.org/35255/SDG>
- <sup>16</sup> Regional workshops for Academies on the UN's SDGs. <http://www.interacademies.org/47529/Regional-workshops-for-academies-on-the-UNs-SDGs->
- <sup>17</sup> Technology Facilitation Mechanism. <https://sustainabledevelopment.un.org/tfm>
- <sup>18</sup> Global Sustainable Development Report. <https://sustainabledevelopment.un.org/globalsdreport/>
- <sup>19</sup> Scientific and Technological Community (STC) Major Group. <https://sustainabledevelopment.un.org/majorgroups/scitechcommunity>
- <sup>20</sup> Science, Technology and Innovation (STI) Policy Reviews. [https://unctad.org/en/pages/publications/Science,-Technology-and-Innovation-Policy-Reviews-\(STIP-Reviews\).aspx](https://unctad.org/en/pages/publications/Science,-Technology-and-Innovation-Policy-Reviews-(STIP-Reviews).aspx)
- <sup>21</sup> United Nations Commission on Science and Technology for Development (CTSD). <https://unctad.org/en/Pages/CSTD.aspx>
- <sup>22</sup> Directory of United Nations System Organizations. <https://www.unsystem.org/agencies/regional-commissions>
- <sup>23</sup> Voluntary National Reviews Database. <https://sustainabledevelopment.un.org/vnrs/>
- <sup>24</sup> Colglazier, E. W. (2018). The Sustainable Development Goals: Roadmaps to progress. Science & Diplomacy. Retrieved from <http://www.sciencediplomacy.org/editorial/2018/sdg-roadmaps>
- <sup>25</sup> Future Earth. <http://www.futureearth.org/>



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Available for free download at:  
[www.interacademies.org/50429/SDGs\\_Summary](http://www.interacademies.org/50429/SDGs_Summary)

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