

# **2021 Business Plan**

**START International, Inc.**

## **START VISION**

A world in which developing countries strengthen their capacities to use science to advance sustainability

## **START MISSION**

To increase opportunities for research, education and training that strengthen scientific capacities in developing countries to understand, communicate and motivate action on critical global environmental change challenges.

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## **List of abbreviations**

AAS — African Academy of Sciences
AGU — American Geophysical Union
APN — Asia-Pacific Network for Global Change Research
ASSAR — Adaptation at Scale in Semi-Arid Regions
CASCADE — Cascading Climate and Health Risks in Cities
DBAR — Digital Belt and Road
EPIC-N — Educational Partnerships for Innovation in Communities Network
FRACTAL — Future Resilience for African Cities and Lands
GenderInSITE — Gender in science, innovation, technology and engineering
GEWEX — Global Energy and Water Exchanges project
GOFC-GOLD — Global Observation of Forest Cover and Land Change Dynamics
IGES — Institute for Global Environmental Strategies
NASA — National Aeronautics and Space Administration
ProGREEN — Promoting Gains in Renewable Energy
START — global change SysTem for Analysis, Research and Training
TEX — Thriving Earth Exchange
TEA-START — Temperate East Asia regional office for START
USGCRP — United States Global Change Research Program
WCRP — World Climate Research Program

## Overview

This business plan describes priorities and actions for START in 2021 centered around the three focus areas of START's 5-year strategy, which encompasses the 2019-2024 period. Accordingly, this plan describes actions that START will undertake with Asian and African partners, and with global initiatives, to advance START's mission. It also describes START's financial status and operational priorities, and provides a summary of both progress and setbacks with respect to achieving the 2020 business plan. Reductions in START's core funding, described in the *Strategy to mitigate financial challenges* document, underscores the need to further intensify resource mobilization, efforts of which are described in section three of this business plan.

Coupled with the need to generate new revenue streams, key priorities for the Secretariat in 2021 are to:

- Continue to increase visibility in Asia through the partnership with IGES and renewed engagement with Thammasat University, and efforts by UNEP to initiate an EPIC Asia program.
- Promote stronger links between cities and universities that promote transdisciplinary research and community science through connections with EPIC-N and AGU's Thriving Earth Exchange.
- Build on science leadership efforts, through increased engagement with the AAS and through developing new collaborations with GenderInSITE and Reos partners.
- Strengthen ties with the WCRP and expand START's efforts on Earth observations to include greater support for decision making, through NASA's Global Observation of Forest and Land Cover Dynamics (GOFC-GOLD) partners.

## 1. Summary of progress towards achieving the 2020 Business Plan

Section 1 summarizes progress made in achieving the major priorities contained in the current (2020) business plan with respect to Asia and Africa as well as with global programs and partners. The Covid-19 pandemic obviously forced a major restructuring of programmatic activities. START was able to adjust reasonably well in order to partially achieve programmatic aims, though in some situations programmatic partners did not pursue online activities thus hampering our ability to expand further with online offerings.

1.1 Asia: The two key 2020 priorities were to develop a Southeast and South Asia effort to advance the IGES Regional Circulating and Ecological Sphere framework and to strengthen ties with TEA-START centered around the DBAR initiative. Steady progress has been made with the IGES partnership to develop a virtual engagement strategy with South Asia and Southeast Asia

cities in lieu of in-person engagement. In the case of DBAR, all in-person activities were suspended and no online activities were pursued by the DBAR Secretariat in 2020.

1.2 Africa: The main 2020 programmatic priorities were to initiate legacy projects from two large consortia programs that ended in 2019 (FRACTAL and ASSAR) and to transition from phase 1 country assessments to phase 2 training and other capacity development in the ProGREEN project. These three efforts have progressed reasonably well given that they took place online. Two Africa efforts that were under development in 2020 (a water security initiative and a science leadership training program) have been met with mixed results. The water security effort floundered while the science leadership effort was funded and a first (online) round of the course successfully convened.

1.3 Global: START's one global program (NASA's GOF-C-GOLD) cancelled all activities in 2020. In late 2020, the GOF-C-GOLD leadership determined that they will initiate online network meetings by early 2021, which START will coordinate. In other 2020 global efforts, START initiated collaboration with WCRP (through the GEWEX program) and with UNEP for the EPIC-Asia initiative. These are described further in section three.

## **2. Relevance of the 2021 Business Plan to the 5-year strategy period**

As described in its five-year strategy, START will dedicate itself to the following three focus areas: 1) developing capacities to address critical global change and sustainability challenges; 2) strengthening scientific leadership through experiential learning; and 3) advancing regional priorities in science capacity development. Box 1 provides a list of those focus areas. The bulk of the 2021 work will be in Focus Area 1, as indicated in Figure 1.

**Box 1.** Focus areas in START's 2019-2024 strategy

### **Focus Area 1: Developing capacities to address critical global change and sustainability challenges**

- 1.1 Strengthen capacities for transdisciplinary research
- 1.2 Promote innovation in higher education
- 1.3 Expand opportunities for science communications
- 1.4 Bolster links between global change data and decision making

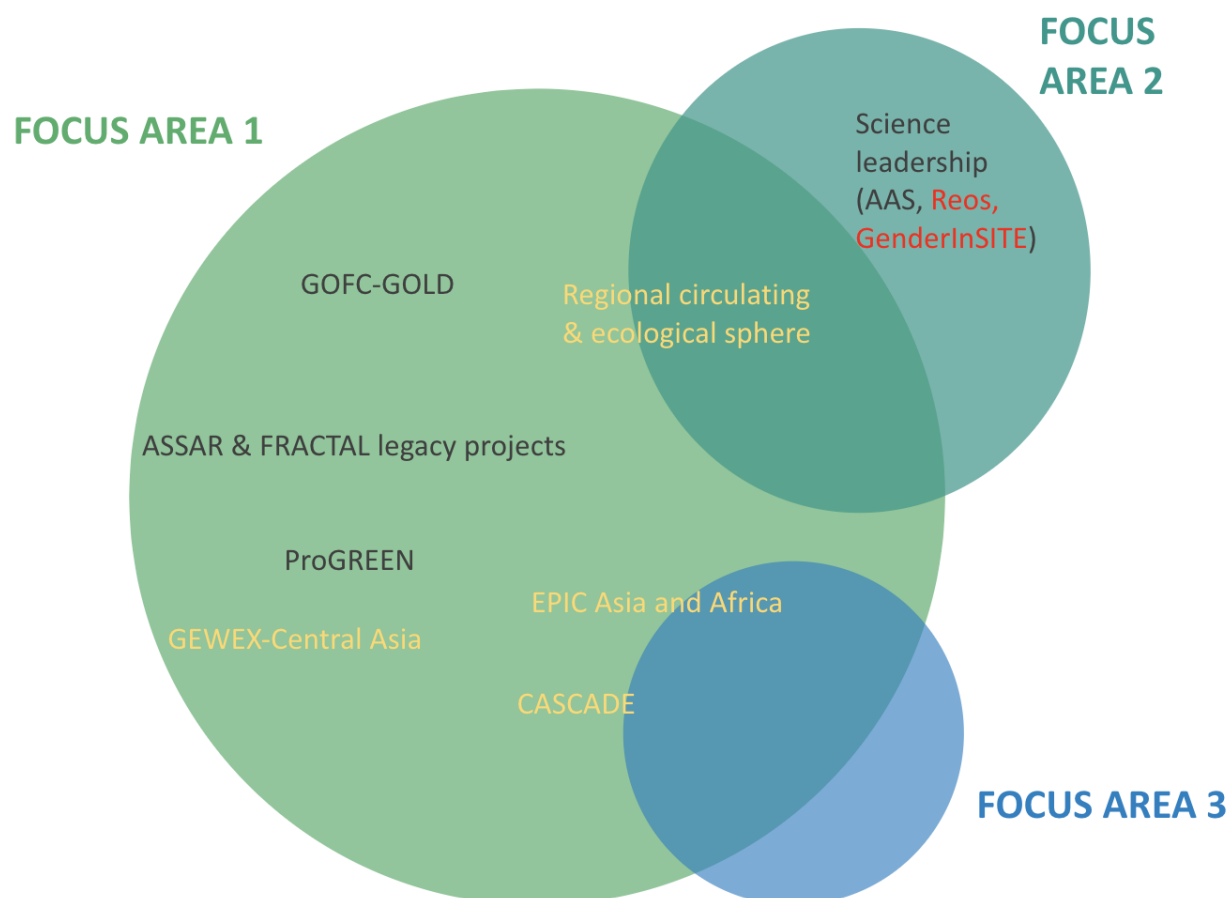
### **Focus Area 2: Strengthening scientific leadership through experiential learning**

- 2.1 Promote cohort-based learning
- 2.2 Develop a leadership program for women in science

### **Focus Area 3: Advancing regional priorities in science capacity development**

- 3.1 Amplify perspectives from the global south for advancing regionally driven science capacity development agendas

**Figure 1.** Distribution of 2021 activities across the three focus areas. Items in black text are funded, items for which proposals are under review are in yellow text, and items in red text are under development.



### 3. Programmatic priorities in 2021

#### 3.1 Asia

*3.1.1. Regional-Circular and Ecological Sphere:* In 2021, START will continue to engage strongly with IGES in developing a collaboration around the R-CES framework in South and Southeast Asia. We have spent the last several months of 2020 developing a virtual consultation effort with cities in these two regions, with an aim towards in-person events in late 2021 if possible. We are also developing a pre-proposal for potential APN funding that would advance this effort.

- One of the secondary benefits of this collaboration has been re-engagement with the Urban Futures Research Unit at Thammasat University in Bangkok. Since 2011, they have been a consistent START partner in Asia and their involvement in the R-CES effort

will further consolidate that partnership. START is in discussions with Thammasat University about their becoming a START affiliate, which would provide a more formal arrangement for potential future collaborations.

*3.1.2. Transdisciplinary/community science:* There are two potential partnerships that START is developing that promote community science (i.e. linking of researchers with communities to co-develop actionable research). One is with the Thriving Earth Exchange, an AGU initiative that would take place in Asia (currently in the concept phase), and one is with EPIC that will take place in Asia and Africa. The EPIC effort is fairly well advanced, with a collaboration already underway in Asia (supported by UNEP) and a proposal before NSF for a 2-year effort in Asia and Africa.

*3.1.3. Climate science in Central Asia:* START is developing a collaboration with WCRP-GEWEX to develop a Central Asian regional climate science initiative that will eventually have a significant capacity development component. (GEWEX regional projects are typically for 5-10 years, depending on funding.) A GEWEX-START proposal is currently under review at NASA for a virtual priority setting by the climate science community, and we are pursuing funds from the Volkswagen Foundation as well.

*3.1.4. Big Earth data:* START will work with the TEA-START regional center to advance science capacity development related to the Digital Belt and Road initiative, a major priority of the TEA-START center and the Chinese Academy of Sciences. TEA-START has requested a collaboration with the START Secretariat to develop a capacity building strategy for DBAR and to identify potential areas for collaboration going forward from the strategy. DBAR was at a standstill in 2020 because of Covid.

<b>Item</b>	<b>Strategic focus areas</b>	<b>Partnerships</b>	<b>Funding picture</b>
3.1.1 R-CES	Focus Areas 1.1 and 2.1	Developing a collaboration with IGES and university partners in South Asia and Southeast Asia.	START and IGES will collaborate on a pre-proposal to APN, and will build on this effort to mobilize additional resources as the program grows.
3.1.2 Transdisciplinary and community science	Focus Areas 1.1 and 1.2	EPIC Thriving Earth Exchange	Modest funding from UNEP and new funding sought (for EPIC) from NSF. Concept under development for TEX
3.1.3 Central Asia	Focus Area 1.4	GEWEX-WCRP	Funding sought but no sources for START, as the initial phase has no capacity development activities.
3.1.4 DBAR	Focus Areas 1.4 and 3.1	TEA-START and CAS, increased visibility with	No funding prospects in 2021, and geopolitical considerations that

		multilateral agencies involved in DBAR	require START to proceed cautiously.
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## 3.2 Africa

3.2.1. *Renewal energy/green development*: In 2021, the ProGREEN project will undertake its second phase in Burkina Faso and Senegal, following the first-phase country assessments. Much of the work will be virtual with a plan for some in-person activities in early 2022.

3.2.2. *Adaptation and resilience*: For this theme, 2021 will feature a mix of existing and sought funding. The first two bullets are existing projects, which have been slowed by Covid and that will be completed in 2021.

- The post-FRACTAL legacy project in Southern Africa (Zimbabwe, Botswana and Malawi) brings in low levels of staff support and maintains START’s visibility within the larger FRACTAL-FCFA program.
- The post-ASSAR legacy projects in Ghana and Mali bring in low levels of staff support and maintain START’s visibility within the larger ASSAR-CARIAA program.
- A proposal (CASCADE) is under review by the African Academy of Sciences, which *if* funded would support a 5-year research and capacity development effort across four countries and five universities spanning West, East and Southern Africa. START is the capacity development lead of the proposed work.
- Also, *if* funded, the Africa portion of the EPIC proposal to NSF (see 3.1.2) would support adaptation and resilience efforts.

3.2.3. *Science leadership*: In 2021, START plans to build on its science leadership training efforts through intact programming (i.e. a second round of a virtual course on science leadership for the African Academy of Sciences), and through developing potential new collaborations, with GenderInSITE for women's leadership in science and through Reos Partners and Witwatersrand University for leadership in sustainability. Also, the CASCADE proposal described in the 3rd bullet above contains a strong science leadership component.

Item	Strategic focus areas	Partnerships	Funding picture
3.2.1 ProGREEN	Focus Areas 1.1& 1.3	Research Fund of Quebec, national partners in Senegal and Burkina Faso	Funding secured
3.2.2 Legacy projects- ASSAR &	Focus Areas 1.1& 1.3	CGIAR, Univ. Cape Town, ICLEI, Red Cross Climate Ctr.	Funding secured

FRACTAL			
3.2.2 AAS/ CASCADE	Focus Areas 1.1, 1.3, & 2.1	Univ. Cape Town, Red Cross Climate Ctr., Univ Ghana, Wits Univ., Makerere Univ., Chinhoyi Univ.	Proposal under review
3.2.3 Science leadership	Focus Areas 1.1, 2.1 & 2.2	GenderInSITE Reos Partners, Wits Univ.	Concepts under development

### 3.3 Global

3.3.1 *GOFC-GOLD*: Given the likelihood that Covid-related travel restrictions will stretch well into 2021, this program has finally begun to move towards virtual events. In 2021, START will work with the GOFC-GOLD regional network leads to convene virtual network meetings, consistent with its role as coordinator for activities across the GOFC-GOLD networks. The long-term sustainability of the GOFC-GOLD program is uncertain because the European Space Agency is no longer contributing to the program, which has shifted more of a funding burden onto NASA.

Item	Strategic focus areas	Partnership building	Funding picture
GOFC-GOLD	Focus Area 1.3 & 1.4	Continuing long-term relationship with NASA and the Earth observation networks under the GOFC program	Funding secured for 2021 and 2022.

#### 3.3.2 *Engagement with global initiatives and multilateral institutions*

In 2021, START will continue its efforts to gain greater visibility in global platforms and initiatives. This will include:

- Continuing to build on a renewed partnership with UNEP that began in 2020.
- Continuing to build on a renewed partnership with WCRP that began in 2020.
- Maintaining strong involvement in the Belmont Forum, particularly as an advocate of Belmont efforts in the global south, as well as continuing to advance transdisciplinary training efforts in support of Belmont Forum Collaborative Research Actions.
- Identifying opportunities for further engagement with Future Earth's science communities through shared priorities with its global research projects and regional centers.



All of the actions align with Focus Area 3, which relates to bringing regional priorities and perspectives to major global change initiatives. This is not an exhaustive list of global initiatives and partners, and START welcomes the opportunity to work with Board members to identify other entry points that align with START's mission and 5-year strategy.

#### **4. START's funding profile, 2021**

##### ***4.1 Overview***

START's funding situation is concerning, given that a reduction in the level of core support and rate of new revenue streams has coincided with the end of two large multi-year projects and a reduction of suitable calls during the Covid pandemic. Minimizing operational expenses has slightly mitigated the underlying financial stress but new funding sources are required to substantially improve the situation. Over the past few years, START has taken measures to reduce its operational and overhead expenses and, with the recently reduced core grant level, we have now cut to the point where future additional cost savings would likely not be possible. START staff are working very diligently to generate new funding sources that will include more salary coverage, travel support, communications support, and fuller indirect rates (where funders allow).

##### ***4.2 Core support***

In October 2020, START was notified of the award level it will receive over the next three years, which amounts to a 26-40% reduction in START's annual core funding relative to the annual level it received prior to 2020. It is important to understand that the annual funding levels requested by START from the USGCRP can no longer cover all of START's core funding needs; when START's annual requests are met with reduced levels, that gap grows and must be met through continued proposal development for activities that generate additional staff support and contribute indirect funds to the organization's G&A (General & Administrative) cost pool. The reduction in core support affects not only staff salary support but also funds for travel, organizational communications, and consumables. Given the reduction of START's core support, there is an urgent need to develop new partnerships that show potential for diversification away from a heavy reliance on the USGCRP.

##### ***4.3 Other income sources***

Besides our core award, new funding sources in 2020 came through grants from AAS and IDRC. These new funding sources provide only modest staff support and indirect cost recovery; however, they are critically important for partnership building, demonstrated impact and visibility. Proposals under submission, and actions underway with key partners to develop concepts and identify potential funding sources in 2021 are outlined in the *Strategy to mitigate financial challenges* document. Moving forward, it will be critical to engage the current Board

members in exploring additional funding prospects that align with the three focus areas of START's 5-year strategy, and to identify prospective future Board members who would be willing to work with START leadership in developing new funding opportunities.

#### ***4.4 Operational expenses***

START was already quite lean before the reduction in core funding thus there are minimal G&A expenses to cut from operations. In 2021, START will be able to reduce costs by transitioning to a different payroll management system and reducing our communications budget. In addition, small cuts that will be implemented include changes to computer software and website design projects. START will review international travel insurance and corporate liability policies during our upcoming renewal period in May 2021 to further reduce costs if possible.

All of these cost reduction measures will generate only modest savings (50K) in G&A expenses in the 2021 budget. In addition, it is anticipated that we will spend an additional 100K in G&A salaries and benefits in 2021 compared to 2020. This increase is the result of having a lack of programmatic salary where staff can charge time in 2021. Thus, our programmatic efficiency to G&A ratio will decline from a 83/17% ratio in 2020 to a 74/26% ratio in 2021. Despite small cuts, START's overall G&A expenditures will increase from a projected \$187,952 in 2020 to \$247,706 in 2021 due to the need to cover salaries while new programmatic funds are secured. As a result, START will be operating in the negative in 2021 by an estimated \$1,056.

## **5. Operational priorities, 2021**

### ***5.1 Staffing priorities***

START is secure for staff funding in 2021 as a result of allocating more salaries to the G&A cost pool. However, procuring new sources of programmatic and staff funding is of *paramount importance* to maintain a small and efficient secretariat to support our science capacity development efforts. We are not considering layoffs or reductions at this juncture but will revisit the option depending on the level of new funding streams that are anticipated to be awarded in 2021 and 2022.

START is committed to maintaining a strong regional presence by placing contracted staff in regionally based institutions. These arrangements significantly elevate START's visibility and improve the effectiveness of program implementation in the regions. Moreover, these staff are helping to identify potential regional partners with whom we can collaborate in developing new project opportunities. START currently has two African staff overseeing projects in West and Southern Africa. Their positions are technical in nature and thus the ability to retain continuity in regional staffing very much depends on new project funding.

## ***5.2 Communications***

In 2020, we made significant strides in producing attractive, informative and compelling products that will play a role in communicating START's core messages. Products include a printed and online [communications kit](#), newsletters, the ProSus magazine, STARTcast podcast, a consistent branded powerpoint presentation, and stories that feature START's impact.

Unfortunately due to financial constraints, START will have to significantly reduce its communications budget in 2021. It is expected that recently produced communications products will have a long shelf life and can easily be updated by internal staff to ensure items stay relevant to communicate START's role and impact within the global environmental change space.

Moving forward, we will seek funds for communications in future proposals to ensure we can maintain our communications footprint. Despite financial setbacks, START is committing substantial time to strengthen our online communications and presence as a result of Covid. For instance, we will continue to accelerate the production of several communications tools to have greater visibility and to provide virtual learning and connections in the digital space. START is also adapting program content and delivery through virtual facilitation and webinars.

## ***5.3 Monitoring Evaluation and Learning***

We strive to demonstrate START's capacities as a learning organization - one that creates space for self-reflection in order to continuously transform. To ensure that our strategic plan is forward looking and impactful, we have put into practice a revised monitoring, evaluation and learning (MEL) framework that was developed in 2020. The framework will be continually updated based on the iterations of data collection.

## ***5.4 Alumni engagement***

START recognizes the importance of staying connected to partners, alumni and broader communities of practice through frequent communications that use multiple types of communication tools (e.g., email, website, social media, print publications) to relay news about START. In developing the 5-year strategic plan with START's regional partners (in 2018-19), there were different perceptions on the strength of START's alumni network, and general agreement as to the potential to reinvigorate it. Based on the ideas that came out of this consultative process, START will redouble its efforts to re-engage alumni and highlight the long-term positive impacts of START's work. 2020 was a particularly productive year for showcasing alumni (for example, the [PROSUS GOFC-GOLD](#) issue and the [10-year retrospective](#) of the ACCFP program). We will continue to build on this through continuing to:

- Conduct alumni interviews to better understand the role START has in increasing the visibility and impact of southern researchers in shaping global responses to sustainability.
- Produce stories of impact showcasing START's efforts in advancing capacities and elevating the role of science in informing national and regional efforts to address vulnerability and risk.
- Engage alumni in current programs and planning for future efforts.