

**Global Green Growth Institute**

Ninth Meeting of the Management and Program Sub-Committee (MPSC)

May 1-2, 2019; Seoul, Republic of Korea

GGGI's Strategy 2030 Development

This document presents the 2 main components of the major stakeholders' consultation for the development of the Strategy 2030.

The first part presents the *Major Trends* that are the most relevant for the organization and will be a key input for our Strategy 2030. They consist of 8 major trends grouped into 3 main categories: the Contextual Trends; the Economic Development Models Trend; and the Enabling or Opportunity Trends.

The second part covers a set of 9 selected *Key Strategic Issues* that all have in common that they have multi-dimensional consequences and will highly affect GGGI's ability to deliver on its vision and missions in the future. Their identification and selection are guided by their resource implications, potential impacts on GGGI's future and the internal and external environment in which the organization operates. They consist of 5 key strategic issues that are external, and 4 internal ones.

The Institute identifies these major trend and key strategic issues to seek the insights and opinions of its members and stakeholders that will help GGGI develop a bold and impactful Strategy 2030.

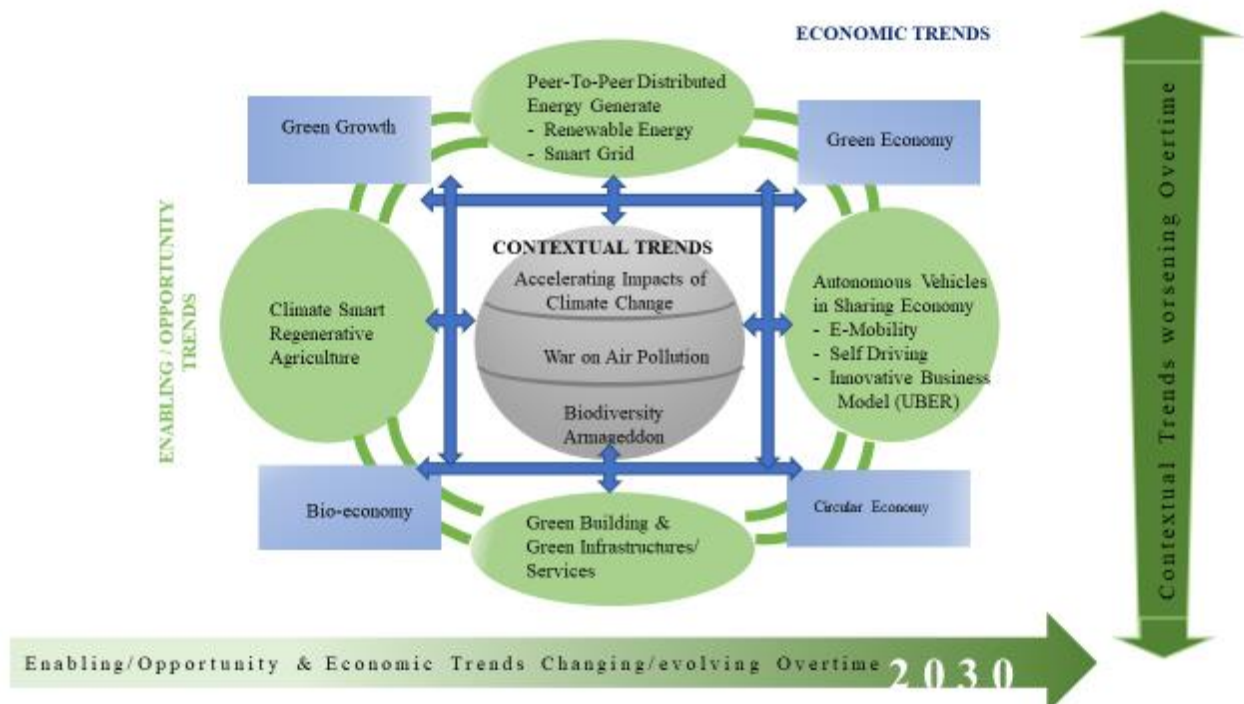
The MPSC is invited to:

1. to take note of the progress made to date in the development of GGGI's Strategy 2030—where we are now, exercises done so far as well as next step.
2. to take stock from the outputs of the of March 2019 staff consultations and the survey with stakeholders to share their insights and opinions on the key components of Strategy 2030 structured around the:
 - i. Major Trends that are important for GGGI to consider
 - ii. Key Strategic Issues that GGGI needs to take care of
3. to share its Future aspirations, in relation to GGGI strategic orientations over the next decade; and
4. to brainstorm strategic actions and solutions GGGI may take as part of Strategy 2030 and agree on recommendations to GGGI management Council.

Background

1. The decade 2010s that has seen the Global Green Growth Institute's (GGGI) establishment and evolution into a global organization, has been characterized by a fast-changing world with major socioeconomic and political changes and key international agreements on the United Nations Agenda 2030, the Sustainable Development Goals, as well as the Paris Climate Agreement. There is increasing public pressure on public and private decision-makers to take climate action, address crisis-level air pollution in cities and halt the destruction of critical ecosystems from forests to coral reefs. These major trends in the external environment require organizations such as GGGI to revisit their strategies and business models to remain relevant. In addition, the growing interest in alternative economic development models and disruptive technical changes related to renewable energy, energy storage, electric mobility, big data, artificial intelligence, and the new business models these technologies enable, create opportunities for organizations like GGGI and its member countries. Developing and emerging economies are presented with many challenges, but also have opportunities to leapfrog and avoid the stranded assets of the developed world.
2. GGGI's ambitions and mandate to respond to the demands of its members to pursue a systemic economic transformation toward a model of green growth has been guided by strategic and thematic choices structured in the GGGI Strategic Plan 2015-2020 approved by the Council in November 2014. This strategy set the direction for the organization to support partner governments in three outcome areas:
 - (i) Outcome 1: Strengthened national, sub-national, local green growth policy planning, financing and institutional frameworks;
 - (ii) Outcome 2: Increased green investment flows; and
 - (iii) Outcome 3: Improved multi-directional knowledge sharing and learning between countries on green growth.
3. One of the major actions from the 2017 mid-term review of the strategy led to the clearer articulation of the green growth model and theory of change translated into the six Strategic Outcomes (SOs) that GGGI's impact are measured against in four Thematic Areas:
 - 1) Sustainable Energy;
 - 2) Green Cities;
 - 3) Sustainable Landscapes; and
 - 4) Water and Sanitation.
4. The development of GGGI's strategy for the next decade 2021-2030 (referred to as **Strategy2030**) provides the strategic orientations for the Organization to stay relevant and impactful in delivering on its mission in a complex and evolving institutional, environmental, technological, socioeconomic and political context.
5. This part of the paper describes the key trends that GGGI and its stakeholders have identified as the most relevant for the organization and will be a key input for its new strategy. This is the result of a series of consultations and analysis, involving internal and external stakeholders, research, reflections, group discussions, and interviews, provide GGGI with the creative thinking and qualitative insights that feeds into the identification of the new and readjusted horizons in the Strategy2030.

6. The three categories of trends identified are linked to the key strategic issues that GGGI plans to address in the next decade, resulting into actionable strategic responses. They form the *three categories of strategic trends in the context in which GGGI operates* illustrated on the graph below.



7. The category of major **Contextual Trends** most affecting our world related to GGGI's work, consist of the following:
- 1) Accelerating impacts of climate change;
 - 2) War on air pollution;
 - 3) Biodiversity Armageddon.
8. The category of major **Economic Development Models Trend** drives the initiatives and interventions around the re-thinking of the economic development model is identified:
- 4) Changing economic models for greater sustainability and inclusiveness (incorporating models referred to as green growth, green economy, circular economy, bioeconomy, low carbon development, etc.)
9. The 3rd category consists of the major **Enabling or Opportunity Trends** that are particularly relevant for GGGI's work. They include:
- 5) Peer to peer distributed energy generation (renewable energy taken a step further, with AI playing a key role);
 - 6) Autonomous vehicles in a sharing economy (e-mobility + "self-driving" + an "Uber" business model);
 - 7) Green buildings and sustainable infrastructure (net zero emission buildings and infrastructure);
 - 8) Climate-smart regenerative agriculture (including sustainable, climate resilient agriculture).
10. Through the creative thinking in the development of the Strategy2030, GGGI is making

long-term strategic orientations/choices that will shape the organization's future. This includes the design of actionable plans to advance the "green growth" economic models, driving systemic change to navigate major contextual trends and take advantage of enabling trends.

Contextual Trends (# 1 to 3)

11. The choice made by GGGI to identify these three major contextual trends in the development of Strategy2030 is guided by ambitions to deliver on its mission and to stay ahead of trends that impact the world we work in, resulting into events that are part of the strategic issues to address in the next decade in the forms of either opportunities for the organization or challenges/problems.

#1 Accelerating Impacts of Climate Change

12. While there has been public debate about the threat of climate change for decades, the climate has already changed more rapidly than science predicted, and the world is confronted with climate change impacts today. The magnitude and frequency of extreme weather events are rising, there are unprecedented heat waves, droughts, floods, cyclones, hurricanes, resulting in massive forest fires, crop losses and destruction of coral reefs. The human and economic costs are already disastrous, with estimates of climate refugees topping 20 million people in 2018. Going forward the 2018 IPCC 1.5-degree report has shown that the world has a less than 15-year window to avoid much more severe climate impacts that risk have disruptive effects on economies and people's lives. The UN Secretary General has declared climate change to be the defining issue of our time.
13. The Paris Agreement commitment to keeping global warming to well below 2°C (targeting 1.5°C) will require radical political and socioeconomic changes at individual and institutional levels to shift to a low carbon economy to cut the emission of greenhouse gases. At the same time action to adapt to unavoidable climate change has to see a radical increase.
14. The key implications for GGGI's future operations are:
 - GGGI's green growth planning work is likely to increasingly focus on climate action such as development of more ambitious NDCs, NDC roadmaps and action plans, 2050 Long Term Strategies or Low Emission Development Strategies.
 - Continued development of GGGI's strategic partnerships and alliances to drive the evidence-based advocacy for increased climate finance to support countries transition to low-carbon economies such as with New Climate Economy; NDC Partnership and Partnership for Green Growth and the Global Goals (P4G).
 - Further development and scaling up of GGGI's climate finance and investment work on business models, investment projects, and financial incentives and structures that address climate action for mitigation and adaptation.
15. The next round of consultations with stakeholders is designed around the key areas of highlighted above.

#2 War on Air Pollution

16. The health effects of air pollution are serious – one third of deaths from stroke, lung cancer

and heart disease are due to air pollution - an equivalent effect to that of smoking tobacco – according to the World Health Organization. Most cities in the rapidly developing Asian economies struggle with air pollution and in some cities air pollution has reached crisis levels. Primary causes of the most dangerous forms of ultra-fine particle pollution (PM2.5) are coal fired power plants and fossil fuel engines, particularly diesel buses and trucks.

17. In addition, in many least developed countries a large share of the population still cooks on open fires, using fuelwood or charcoal, which causes hazardous levels of in-door air pollution, particularly affecting women and children.
18. The key implications for GGGI’s future operations are:
 - GGGI recognizes that air pollution is a powerful driver for investments in, particularly, renewable energy and electric mobility.
 - GGGI and partners should support regional and global initiatives that address cross border air pollution.
 - GGGI should support scalable solutions for sustainable, clean cooking.

#3 Biodiversity Armageddon

19. Economic development has negatively impacted biodiversity, both species extinction and large-scale ecosystem degradation and losses for centuries, but the speed of degradation and loss has accelerated more in the last 50 years than ever before in the history of mankind. Some prominent scientists have postulated that this “biodiversity Armageddon” risks breaching planetary boundaries that may have catastrophic consequences. Climate change is becoming the fastest-growing cause of species loss in the Americas by midcentury, while in Africa, it could cause some animal species to decline by as much as 50 percent by the end of the century, and up to 90 percent of coral reefs in the Pacific Ocean may bleach or degrade by the year 2050 (*IPBES 2019*).
20. Maintaining the “natural capital” on which much of human life and economic production is based, is becoming a critical priority. Radical changes in how we manage natural resources, combined with climate action, will be necessary to navigate through this trend.
21. The implications for GGGI’s future operations are analyzed around the following aspects:
 - GGGI should engage in evidence-based advocacy for its member countries to account for, and conserve or restore, its natural capital base.
 - GGGI should take an integrated and holistic approach to develop inclusive, climate resilient, green business models, investment pipelines and enabling projects to reduce pressures to land and seascapes, recognizing the value of natural capital, a changing climate, and contributes to jurisdictional and various national strategies to support partner countries deliver Green Growth.

Economic Development Models Trend (# 4)

22. While the concept of “sustainable development” has been around since the publication of the Brundtland Commission’s report “Our Common Future” in 1987, its acceptance outside the environmental community was limited. Ministries of finance, economics and planning by and large prioritized economic growth over all other considerations. Particularly in the last decade many governments, facing major sustainability issues, not least climate change, have concluded that “the quality of growth matters”. Alternative

economic development models such as green growth, green economy, circular economy, bio-economy and low-carbon development, that have in common a goal to balance economic growth with environmental sustainability and social inclusiveness are becoming mainstream.

23. GGGI's mission is to support to member governments to transition towards a model of green growth, well aligned with the other alternative development models that GGGI perceives to be consistent with green growth.
24. The key driver for GGGI will be to scale up the new economic development models, to navigate the climate, environmental and contextual trends by transforming the challenges into economic development opportunities for creation of green jobs and green services, through global national and sub-national responses that bring sustainable solutions in the lives of people.
25. The implications for GGGI's future operations are analyzed around the following aspects:
 - GGGI and its strategic partners need to continue evidence-based advocacy demonstrating that green growth (green economy, etc.) is the only viable development opportunity in the 21st century.
 - GGGI and partners need to generate and share convincing evidence to policymakers, decision-makers, institutional investors and private investors that it is possible to scale-up the economic growth model that is low-carbon and climate resilient; prevent/remediate pollution; maintain healthy and productive ecosystems; and create green jobs, reduce poverty and enhance social inclusion.
 - GGGI needs to step up its focus on social inclusiveness along with environmental protection, when it is widely recognized that the poorer sections of society and the poorer countries on the planet that are highly dependent on natural resources and are most vulnerable to climate change, pollution and ecosystem loss are disproportionately impacted by the negative consequences of the three major contextual trends.

Enabling/Opportunity Trends (Trends # 5 to 8)

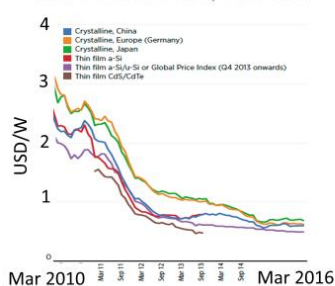
#5 Peer-to-peer distributed energy generation

26. Clean *Disruption* of Energy has become a reality with renewable energy and battery storage rapidly becoming the cheapest form of energy available – beating diesel, oil, gas and even coal (source: IRENA, see graph). Consequently, the renewable energy transformation has become a clear target for many countries GGGI is supporting. Countries are increasingly considering economy-wide Low Emission Development Strategies (LES), including a target of 100% renewable energy in the medium to long term future.

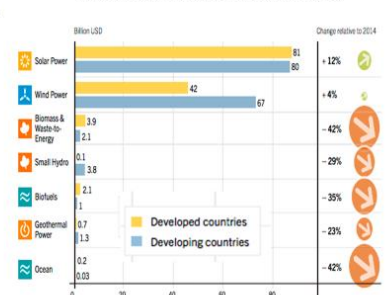
Technology innovation and investment drive down costs of renewables & ESS: solar, wind and batteries

PV LCOE reaching grid parity in many countries. ..with future growth, costs likely fall further.

Solar PV module costs, 2010-2016



Investment in renewables in 2015



Source : IRENA, REEP

27. With the transition to renewable energy the large centralized power plants with highly centralized distribution systems (or power grids) that have characterized fossil and nuclear energy systems are being replaced with decentralized energy production in mini-grids and on rooftops. Combined with distributed battery-based storage systems in residences and businesses and smart grids with high levels of Artificial Intelligence (AI) that can integrate distributed production, energy systems are highly likely to fundamentally change in the near to medium future.
28. Distributed energy systems will change the way energy is produced, traded and consumed and can make conventional power plants obsolete, becoming stranded assets. They can also bring energy to those left behind by the centralized systems, still most of the population in many developing countries, to bring sustainable energy for all.

#6 Autonomous vehicles in a sharing economy

29. Electrification of transportation – cars, buses, motorbikes, outboard engines – is starting to displace the internal combustion engine. Many countries have established targets to ban the sale of conventional cars as early as 2030.
30. Driver-less autonomous vehicles are tested and piloted in hundreds of cities. Ride hailing companies such as Uber, Lyft and Didi Chuxing have disrupted markets around the globe.
31. Combined, electric self-driving vehicles that are shared, challenge private car ownership that has defined urbanization in the last century. Estimates are that shared autonomous vehicles can cut the number of “cars” by two-thirds. This would solve congestion and parking problems and enable a drastic reorganization of urban systems.

#7 Green buildings and infrastructure

32. Passive houses that are built to a rigorous standard that cuts the energy use of the building by 90% or more, are technically feasible and exist. Combined with renewable energy on rooftops buildings can be net-zero energy users. Green building materials can cut the energy needs for construction. Major infrastructure such as airports or industrial parks can technically be zero-emission and zero-waste.
33. While the adoption of green buildings and infrastructure has been low to date, rapidly rising pressure to cut greenhouse gas emissions and transition to a low emission economy is expected to change this.

#8 Climate smart regenerative agriculture

34. Explosive growth in food-related diseases such as diabetes and coronary disease are leading to a rapidly growing interest in a healthier agro-food system. Healthy and sustainable food is largely plant-based, avoids food-processing and cuts the inputs of chemicals (fertilizers, pesticides, herbicides) and fossil fuel energy. As food systems are also highly vulnerable to climate change, floods, droughts, heatwaves, fires. Climate resilient, or climate smart regenerative agriculture is technically feasible. It includes intercropping, agro-forestry, drought resistant varieties, use of renewable energy, sequestering carbon in soils through no-till agriculture and the use of compost and biochar. Modern bioeconomy approaches can cut biomass waste and replace the use of fossil fuels

in a wide range of industrial applications.

35. Moreover, regenerative agriculture is also increasingly interesting to businesses and governments because the practices are holistic, and typically treat farmers, rural communities and indigenous peoples fairly, and seek to ensure a living wage. There are signs of momentum in regenerative agriculture - agricultural practices which aim to put more into the environment and society than they take out.
36. The implications for GGGI's future operations are analyzed around the following aspects:
 - New technologies such as described above offer developing countries the opportunity to leapfrog, and avoid the sustainability problems caused by their predecessors, but the knowledge and skills required to introduce such new technology tends to be scarce in developing country environments, limitations which GGGI may help address.
 - GGGI should explore opportunities for its member countries to take advantage of key enabling green technologies and share such knowledge.
 - GGGI should support its member countries to provide the enabling policy environment, develop investment projects and seek financing for such projects to catalyze their development in member countries.

Background

37. Through the development of national green growth strategies, sectoral green growth strategies, NDC roadmaps, and low-carbon long-term strategies, GGGI member countries have demonstrated that it is possible to chart a development strategy that combines sustainable, inclusive and climate-resilient development with the central ambition of all developing countries growing their economies and graduating to middle-income status ([GGGI G20 Background Paper](#)) This is the essence of GGGI’s mission to support a “green growth transformation” that generates sustainable, inclusive growth and also promotes deep decarbonization and climate resilience.
38. The process used in the development of the Strategy2030 involved a series of analysis, research and reflections that led to a set of issues related to GGGI’s areas of work, with different degree of implications and influence. The choices, decisions and responses that GGGI is formulating in Strategy2030 are guided by the key strategic issues identified below that the Organization needs to take care of, in order to grow and strengthen the organization’s position and ensure relevance and to navigate the eight major trends identified above.
39. The selected strategic issues all have in common that they have multi-dimensional consequences and will highly affect GGGI’s ability to deliver on its vision and missions in the future. Therefore, the level of attention required by GGGI on key factors such as resource implications, potential impacts on its future and the internal and external environment, have all played into the identification of the key strategic issues in the next decade.

Strategic Issue # 1: Governments’ willingness and ability to achieve the Paris Agreement.

40. Achievement of the Paris Agreement, to limit global warming to well less than 2 degrees (and target 1.5 degrees), depends on governments’ willingness and ability to work with stakeholders on green growth ambitions/targets that will be translated into effective and funded strategies and programs supported by smart policies and strong public-private partnership engagement. Progress to date, despite challenging regulatory and legal frameworks in many countries, is a sign that greater achievements are possible with the appropriate enabling environment. The private sector is not yet fully engaged to its full potential to help drive innovation and increase the level of investments. The need for more ambitious NDC targets and the link between green growth and higher productivity and socio-economic benefits are still not understood widely.

Strategic Issue # 2: Adequate investments in sustainable infrastructure.

41. Encouraging progress occur in recent years in the urban development initiatives that integrate the notion of green and smart cities, addressing both the consumptive and the productive sides of the economy (access to services such as energy, water, transportation, waste management; as well as industries, infrastructures, etc.). The increasing demand from the population for better air quality, cleaner cheaper and reliable energy, energy-efficient buildings, green transportation, etc., and the availability of technological innovations are providing the necessary ingredient for many countries to undertake climate

action that will result in major economic benefits, including green jobs.

42. To address climate change and sustainable development targets requires investments in sustainable infrastructure of \$6 Trillion per year (an increase from current investments of \$3.4 Trillion per year) according to the [New Climate Economy \(2016\)](#).

Strategic Issue # 3: Sustaining and restoring natural capital.

43. Capacity to seize the major economic and climate action opportunities of sustainable landscape approach that focuses on the restoration of the natural capital and the adoption of sustainable and climate resilient forms of agriculture supported by technological innovations.
44. In many countries around the world, the supply chains for goods are still heavily dependent on the deforestation. In contrast, very few have been experiencing the benefits of sustainable use of the natural capital, thus understanding the importance of adopting smarter and climate resilient agriculture and adaptation. Harnessing the potential of renewable energy integrated into agriculture and water/waste-2-resources remain limited in most countries GGGI is supporting. However, there is a strong recognition of the need and rational to embrace it. Restoration of man-made and natural degraded lands is known to have major economic returns while helping the countries demonstrate climate actions and meet their international commitments. The coherent and well-planned access to and use of natural capital is crucial for countries to enjoy the economic and socially inclusive benefits of it.

Strategic Issue # 4: Unleashing the power of strategic partnerships.

45. A deep green growth transformation requires GGGI's partnerships with institutions that share the same vision of a sustainable and inclusive green growth model. It also indicates the importance of creating synergies and complementarity to advance the green growth agenda at regional and global stages, building the consistency in the messaging and advocacy to policymakers, financiers, stakeholders, and demonstrating the efficiency in the use of resources in supporting countries and initiatives.
46. Key partnerships for GGGI are: UN-Partnership for the Green Economy (UN-PAGE), New Climate Economy; NDC Partnership; Partnership for Green Growth and the Global Goals (P4G); and Green Growth Knowledge Platform.

Strategic Issue # 5: Catalyzing access to green and climate finance.

47. A key strategic issue identified for the previous GGGI strategy is still valid. Access to green and climate finance is still a high priority for GGGI member countries. GGGI believes there is ample finance available, particularly with banks and institutional investors, and the bottleneck is the development of bankable projects, programs, funds and financial mechanisms.
48. Once Article 6 of the Paris Agreement has been finalized, there will be a new global carbon market, bringing opportunities for climate finance for many GGGI member countries. Taking advantage of such a market is a challenge for many developing countries. A sound system for monitoring, reporting and verifying (MRV) of GHG emissions creates a major

issue of quality of reporting and data to substantiate the progress.

Strategic Issue # 6: Sustainable expansion of GGGI programming

49. A key asset of GGGI is its government-embedded country operations. However, if GGGI membership continues to expand at the current pace (or new membership accelerates), it may not be possible to meet the expectations for all new members to have the same level of in-country programming. GGGI will have to come up with criteria to reprioritize country investments, possibly define when and how to exit, as well as define other benefits to membership than country programming alone.

Strategic Issue #7: Focusing GGGI programming on fewer scalable priority actions

50. While GGGI has some sub-thematic priorities identified in its 2017 thematic strategies, these are still very broad. For GGGI to take a smaller number of high-priority issues to scale, can it focus on a smaller number of “products”, and is it able to say “no” to request for support in additional areas?

Strategic Issue #8: Sustainable financing of GGGI operations

51. Through 2018 GGGI’s internal financing was dominated by core resources. As of the 2019-20 biennium there is a close to equal balance between core and earmarked resources. If the organization grows from its current \$50M per year scale to, say \$100M per year, how can it be financed sustainably? Can it attract more – scarce- core resources? Earmarked resources are available, but will they support GGGI’s vision and mission? Can GGGI access “fee for services”? Or other sources of finance?

Strategic Issue #9: Effective and efficient GGGI organization, tools and processes

52. GGGI has recently invested in on-line business tools to support a decentralized operation – both to country programs and to newly established regional offices for Africa and Latin-America and the Caribbean. Presuming GGGI membership and operations keep growing at the current pace, what will be the most effective form of organization in the coming 10 years, what business tools and processes are required to support this organization?