GFCC
Global Federation of Competitiveness Councils

CALL TO ACTION

Achieving a Sustainable Future for All

This document was developed by Roberto Alvarez and Elaine Rodriguez, based on suggestions and contributions provided by GFCC members and fellows. Special thanks to Deborah Wince-Smith and Chad Evans for the insights and reviews. Our deepest appreciation to Spencer Ballus, Jeanne-Marie Buckland, Chad Evans, Hippolyte Fofack, Deborah Gordon, Kwanza Hall, Jerry Hultin, Denys Ilnytskyy, Joan Macnaughton, James Metson, Munyaradzi Muchemwa, Lori Schmidt, Ken Sloan, Marcos Simonetti, Mike Nelson, Tetiana Zhyber for the valuable contributions and suggestions.

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Table of Contents

Introduction

Sustainability and inclusiveness are at the core of competitiveness. Sustainability pertains to the long-term viability of a system, and only socio-economic systems that strive to include all segments of society into the economy can maintain social cohesion and be sustainable over time. Talent matters, and by creating conditions that allow all demographics to participate in productive ways in the innovation economy, nations can maximize their human potential, enhance their capacity to create value, and build a competitive edge.

Sustainability and sustainable development efforts must address three crucial aspects simultaneously: economic performance, social inclusion, and environmental protection. These efforts must balance economic, social, and environmental dimensions with both short- and long-term goals. Connecting these dots and tackling this systemic issue is a complex task.

The 2024 GFCC Call-to-Action, *Achieving a Sustainable Future for All*,offers a strategic framework to guide stakeholders in advancing their economies and societies sustainably. Organized into ten interconnected action areas, the framework emphasizes the interdependence of sustainability dimensions and the systemic nature of effective solutions. Based on the GFCC Global Competitiveness Principles and aligned with the Sustainable Development Goals, these action areas provide a knowledge base to drive practical progress towards achieving these goals. For each area, the Call-to-Action outlines guiding principles and key strategies.

Beyond the ten action areas, this document explores the crucial link between long-term sustainability and social inclusion, examines approaches for measuring progress towards a sustainable future, and discusses the critical interplay between environmental preservation and technological advancement.

This Call-to-Action represents the collective knowledge and insights of the GFCC community, a diverse network spanning over 35 nations and comprising influential leaders from government, industry, and academia. We extend our sincere gratitude to this network for their invaluable contributions.

We hope you find this document insightful and informative, and we urge you to join us in taking action to create a truly sustainable future for all.

From Principles to Action

The Global Federation of Competitiveness Councils (GFCC) has been a leading advocate for the interconnectedness of innovation, sustainability, inclusiveness, and competitiveness. These principles are central to the GFCC's Global Competitiveness Principles, a guide for nations and organizations to develop effective competitiveness strategies.

Building on these principles, the GFCC launched its first Call-to-Action in 2022, *Place-based Innovation - An Imperative for Future Growth*. Recognizing that talent and assets are geographically distributed, it encouraged cities and regions to leverage these assets to drive value creation and economic transformation.

The 2023 Call to Action *Innovate the Sustainable Future* [1] laid out key recommendations to government, industry, academia, and civil society to advance sustainability. Now, recognizing that a truly sustainable future is one where everyone thrives, **the 2024 Call to Action focuses on inclusive and sustainable growth.**

This call to action is organized into ten action areas:

1. Boost the productivity and regeneration of **natural resources.**
2. Accelerate **energy** transformation and seize emerging opportunities.
3. Incorporate sustainability and resiliency as key criteria for **infrastructure** development.
4. Adopt sustainable full life-cycle **production and consumption** models.
5. Nurture the **health and well-being** of communities to unlock sustainable growth.
6. Invest in **skills** to empower people to access high-paying work opportunities.
7 Balance long-term investment in **R&D** with accelerated translation and deployment.
8. Advance standards and metrics for data-based sustainability **governance and management**.
9. Use novel financial architectures to mobilize resources for sustainable **investment**.
10. Leverage education to forge a future innovation and sustainability-oriented **mindset**.

These action areas are mapped to the UN Sustainable Development Goals (SDGs), providing a common framework for implementing sustainable practices and empowering organizations to advance their contribution towards the SDGs.

1 Previous GFCC Call to Action publications can be found at https://www.thegfcc.org/call-to-action.

Sustainability and Inclusiveness: Interconnected Pillars for a Thriving Future

Sustainability relates to the long-term viability of a system. However, when considering human systems and their impact on the planet, it's clear that factors beyond the environment need attention. The United Nations defends that sustainability and sustainable development touch three crucial aspects simultaneously: economic performance, social inclusion, and environmental protection.[2] Additionally, it involves balancing these three dimensions with short and long-term goals.

Inclusiveness refers to practices and policies that empower all segments of society to access high-paying economic opportunities. It involves proactive measures to accommodate diverse individuals, groups, and demographics, and promote their full participation in local communities, economy, and society at large. More than a reactive response to social issues, it is about maximizing the use of human potential at the societal level and accelerating value creation. Most of the world's population does not participate in the innovation economy. Too many individuals still lack education, skills, connections, and tools to be productive in such an economy. While inclusiveness can first be associated with the social dimension of sustainability, it is truly an essential engine for growth, economic performance, and a must-needed enabler for environmental sustainability. Without incorporating people into the economy and distributing prosperity across social groups and demographics, no economy or social system can be sustainable in the long run, nor can natural assets be preserved.

Therefore, sustainability and inclusiveness are inherently linked. This connection becomes clearer through examples of environmental degradation and social disruption. In regions like the Amazon and other tropical forests in the emerging world, the absence of alternative economic opportunities and sources of income can compel communities to engage in low-productivity activities that deplete natural resources, such as logging and deforestation. These activities provide the immediate income necessary for survival but ultimately damage the long-term future of local communities. Similarly, as history has shown, economic models that exclude large segments of society can fuel social tensions and lead to outbursts, disrupting institutions, social structures, and the economy itself. Environmental sustainability can only be achieved when sustainable economic models are in place and communities are included in high-productivity economic activities.

Recognizing the vital link between sustainability and inclusiveness, and acknowledging the challenge of achieving both simultaneously, we aim to provide a framework that empowers nations, regions, and organizations to view sustainability through the lens of opportunity and inclusion. This framework seeks to provide the foundation to accelerate innovation and guide supportive regulation and investment toward a more resilient world and a sustainable future for all.

2 Section "The Complex Balance of Sustainability Frameworks" in this document explores the concept of sustainability and explores the issue of balancing these dimensions.

Recommendations from the GFCC Community

This section introduces the ten action areas that form the core of our Call to Action, providing guiding principles and key strategies for their implementation. We encourage you to explore these recommendations and join us on the path toward a more sustainable and inclusive future.

Guiding principles set the overarching vision for each action area. They are high-level statements that summarize the core philosophy or approach underlying each action area.

Key strategies outline the general approaches to achieving that vision. They state recommended broad strategic approaches and types of initiatives that can be used to achieve the guiding principle.

1. Boost the productivity and regeneration of natural resources.

Guiding Principle

The productive use of natural resources is at the core of a sustainable and inclusive future. Investment and innovation that increase productivity and promote the sustainable use and regeneration of natural resources should be prioritized. All stakeholders should systematically monitor the impacts of any initiatives on ecosystems and communities. Policy-making and innovation processes related to the development and use of natural resources should engage the communities they affect and ensure that their voices are always heard. The benefits obtained from the development of natural resources need to be shared among all stakeholders, including the communities directly affected.

Key Strategies

Community Engagement: Include local communities in decision-making processes of natural resource development and management, respecting traditional knowledge, and incorporating their perspectives into policies and practices.

Responsible Innovation: Foster innovation that combines environmental sustainability with business models that create relevant economic opportunities for the communities involved, developing and deploying solutions that minimize resource depletion, reduce pollution, and positively impact all segments of society.

Technology-Driven Efficiency: Leverage technological advancements, such as the Internet of Things (IoT) and artificial intelligence (AI), to optimize the use, enable intelligent resource monitoring and data-driven decision-making, reduce waste, and enable the regeneration of natural resources.

Transparent Monitoring & Stakeholder Engagement: Establish robust monitoring systems to assess environmental and social impacts of resource use, creating a platform to share data transparently and ensuring stakeholder feedback and participation in resource management decisions.

Equitable Benefit Sharing: Ensure that the benefits derived from natural resources are shared among all stakeholders involved, particularly with communities directly affected by resource extraction or utilization.

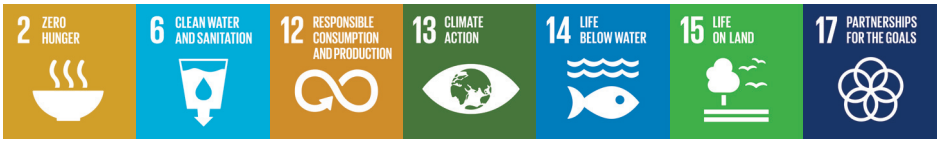
Sustainable Green Technology Transfer: Implement mechanisms to strengthen local capacities, and to fund and facilitate the transfer of cutting-edge green technologies to developing countries, empowering them to combat climate change effectively while advancing techno-economic progress, augmenting innovation capacity, and promoting social inclusion.

Regeneration economy: Foster entrepreneurship and investment in new technologies and businesses that regenerate ecosystems and natural resources in general, providing transparent and clear regulatory frameworks for that.

Global Competitiveness Principles

2, 4, 7, 8

Sustainable Development Goals



2. Accelerate energy transformation and seize emerging opportunities.

Guiding Principle

The transition to low-carbon and renewable energy sources presents a significant opportunity for humanity to address climate change while also creating new economic opportunities and an equitable energy landscape. These efforts should also promote energy efficiency and ensure affordable access to energy for all while unlocking opportunities for workers and communities involved in clean-energy projects.

Key Strategies

Clean Energy as an Economic Engine: Emphasize the job creation potential, economic, health, and wider social benefits, as well as innovation opportunities associated with renewable energy.

Efficiency and Decarbonization: Focus on technologies that improve energy efficiency and accelerate the transition to clean energy in high-demand sectors like manufacturing and construction.

Waste-to-Energy Investment: Prioritize investments in waste-to-energy technologies to reduce industrial waste, generate clean energy, and produce biofuels.

Comprehensive Energy Transition Plans: Create national and regional plans with ambitious targets for renewable energy adoption and emissions reduction, leveraging local advantages and supportive policies.

Electrification Across Sectors: Expand electrification across all sectors and industries, including transportation, construction, and manufacturing, while also aiming to reduce reliance on fossil fuels and increase the use of clean electricity.

Low-Carbon Baseload Security: Invest in and develop reliable low-carbon baseload energy sources, such as advanced nuclear, geothermal, and hydropower, to ensure grid stability and support the integration of variable renewable energy.

Equitable Access to Electrical Power: Ensure that all communities, regardless of income or location, have access to affordable, reliable clean power utilizing innovative approaches such as off-grid and community-owned energy solutions for underserved communities and energy efficiency programs to help households and businesses reduce energy consumption and costs.

Inclusive Energy Transition: Support communities impacted by clean energy infrastructure development to mitigate economic disruption and reduce opposition, thereby accelerating project implementation and reducing costs.

Next-Generation Clean Energy: Implement policies that encourage investment in and accelerate the development of groundbreaking clean energy technologies such as nuclear fusion and modern fission technologies, among others, and facilitate their entry into the market through incentives for adoption by consumers and businesses.

Innovation, Scale Up, and Secure Investment for Clean Energy: Provide support for publicly funded investment, and incentives for private sector investment in research and development (R&D) to drive down costs, improve efficiency, and foster the development of new and transformative clean energy technologies as well as establish demonstration projects and platforms to showcase and test emerging technologies, facilitating their transition from the laboratory to the market.

Digitalization as a Critical Enabler of Energy Efficiency: Invest in the digitalization of power grids, unleashing the potential of decentralized energy production, making it easier to assess sustainability and deliver energy to consumers more efficiently and affordably.

Skills and Training for a Clean Energy Transition: Invest in developing a skilled workforce capable of developing, implementing, and maintaining existing and future advanced infrastructures and technologies, accelerating the shift to clean energy.

Global Competitiveness Principles

1, 2, 4, 6, 7, 8

Sustainable Development Goals

3. Incorporate sustainability and resiliency as key criteria for infrastructure development.

Guiding Principle

Integrating sustainability and resiliency as fundamental criteria in all infrastructure developments will drive sustainability by design and accelerate the market introduction of new and proven technologies. This approach aims to minimize environmental and social impacts while ensuring the long-term viability of infrastructure, even in the face of extreme events, and creating economic opportunities for the communities affected. It involves prioritizing projects that engage communities in planning processes and ensure that infrastructure investments have a net positive impact on the communities directly affected and on all sectors of society. Design and engineering approaches that anticipate vulnerabilities and build physical and digital resiliency by design are essential.

Key Strategies

Stakeholder-Focused Infrastructure Planning: Engage diverse stakeholders, including communities involved and affected, in the planning and decision-making process of infrastructure projects and initiatives to ensure that new investments address their specific needs and priorities, maximizing social benefits and minimizing unforeseen side effects.

Holistic Infrastructure Projects Impact Assessments: Implement comprehensive impact assessments for infrastructure projects that consider environmental, social, and long-term sustainability factors throughout the project lifecycle, prioritizing those with the lowest overall footprint and the greatest potential for long-term benefits.

Open-Access Knowledge Hubs for Sustainable Infrastructure: Create user-friendly and open-access platforms with comprehensive information on clean technologies, performance data, standards, funding, and best practices for sustainable infrastructure projects.

Smart Infrastructure: Prioritize the use of proven clean technologies and leverage smart infrastructure solutions (sensors, data analytics, AI) to accelerate project implementation, optimize energy use, predict maintenance needs, and enhance overall efficiency and resilience.

Climate Resilient Designs: Incorporate climate projections, risk assessments, and circular economy principles into infrastructure design to ensure long-term functionality, minimize environmental impact, and enhance community well-being.

Innovative Financing and Regulation for Sustainable Infrastructure Projects: Develop innovative finance tools alongside traditional funding options to attract diverse capital sources for sustainable infrastructure projects. Ensure transparency by clearly outlining all funding options and eligibility criteria, simplifying the process for project developers.

Streamline Regulatory Processes & Prioritize PPPs: Expedite approvals for sustainable infrastructure projects through simplified and efficient processes. Prioritize Public-Private Partnerships (PPPs) to share risks, leverage expertise, and accelerate project delivery.

Cybersecurity for Digital Infrastructure: With the growing threat of cyberattacks on digital infrastructure associated with the aging of critical digital components and our increased dependency on these resources to manage industrial, financial, and essential service processes, protecting these systems and increasing their reliability is crucial for mitigating risks and ensuring the long-term reliability of digital infrastructure.

Global Competitiveness Principles

1, 2, 4, 6, 7, 8, 9

Sustainable Development Goals

4. Adopt sustainable full life-cycle consumption and production models.

Guiding Principle

Changing consumption and production models includes deploying solutions and disseminating innovative technologies and business models throughout supply chains to improve efficiency and enable reuse, recycling, and upcycling of materials. Producer responsibilities need to be expanded along with standards and regulations that foment the adoption of sustainable products. The focus should be on reducing costs and making sustainable products more affordable. Additionally, empowering consumers with information and allowing them to choose sustainable consumption patterns is crucial for driving systemic change toward a more inclusive and circular economy.

Key Strategies

Circular Economy Capabilities: Implement programs to develop design and engineering capabilities focused on eco-design and the circular economy.

Circular Business Models: Support the development, implementation, and dissemination of circular models and businesses, helping them to cross the valley of death and overcome initial financial and technological barriers.

Sustainable Products Accessibility: Provide consumer rebates and cash-backs to reduce access barriers to innovative sustainable products and technologies, making them more affordable to broader segments of society and stimulating demand when necessary.

Educated and Empowered Consumers: Educate consumers about the environmental and social impacts of their choices and provide clear information on sustainable options. Encourage sustainable consumption through incentives, labels, and awareness campaigns.

Standards and Product Responsibility Frameworks: Collaborate with stakeholders across sectors to develop and implement standards, eco-labeling systems, and extended producer responsibilities.

Digital Technology for Supply Chain Transparency: Use digital technologies to give visibility to the flow of materials across supply chains, increase efficiency, and enable reverse logistics and materials recycling and reuse.

Mid-Size Farmers Support: Develop policies and implement programs to support mid-size farmers to enhance food security, improve rural livelihoods, promote sustainable agriculture practices, and foster regional economic development.

Innovation in Clean Products: Expand funding and investments to bolster the development of circular economy solutions and material recycling and upcycling technologies.

Empowered Communities and Small Businesses: Implement programs that catalyze and fund community initiatives to grow food and manufacture goods locally, reuse and recycle materials, and develop the supply to circular value chains.

Global Competitiveness Principles

2, 4, 7, 8

Sustainable Development Goals

5. Nurture the health and well-being of communities to unlock sustainable growth.

Guiding Principle

Well-being hinges on access to an array of essentials, including nutrition, healthcare, sanitation, water, clean air, safe housing, security, and economic opportunities. It is important to recognize that when individuals and communities are thriving, they become better equipped to contribute to their fullest potential, fostering more innovative, productive, and resilient economies and more prosperous societies.

Key Strategies

Wellness by design: Incorporate health and wellness principles into the design of all communities and urban development projects, ensuring essential services are within short distances and prioritizing walkability, social interaction, and community engagement.

Local Food Production: Expand access to food, minimize emissions, and augment the resilience of communities supporting local food production initiatives.

Infrastructure partnerships: Implement transparent and stable regulations for public-private partnerships and use public sector resources to catalyze private investment in water, sanitation, and urban infrastructure.

Empowered Youth & Communities: Equip young people and communities with digital skills and resources to allow access to work opportunities, remote work, civic engagement, and participation in grassroots initiatives.

Community Engagement and Inclusion: Involve communities in the planning and implementation of sustainability projects. Seek their input, knowledge, and leadership to ensure that initiatives address their specific needs and priorities.

Technology to Address Social Challenges: Leverage technology and partnerships to develop solutions for healthcare, education, and information access challenges.

Equitable Access to Services: Ensure that all community members, regardless of background or socioeconomic status, have equal access to essential services, such as healthcare, education, and transportation. This may involve targeted programs to address disparities and overcome structural barriers to access.

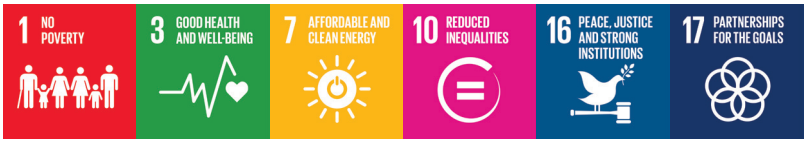
Sustainable Urban Development: Prioritize health and quality of life in urban design, with a focus on housing projects, including affordable housing and green spaces.

"Productive Aging" Programs: With increasing life expectancy and declining birth rates in many countries, it's crucial to recognize the potential of older adults as valuable contributors to the economy and society. A positive narrative of aging can empower senior adults to remain active and engaged, challenge societal perceptions, create a more inclusive environment for all age groups, help address labor shortages, promote social inclusion, and foster economic growth.

Global Competitiveness Principles

2, 4, 6, 7

Sustainable Development Goals



6. Invest in skills to empower people to access high-paying work opportunities.

Guiding Principle

In a rapidly changing global landscape with accelerated technological advancements, it's crucial to continually develop and update workforce skills to support community and economic sustainability. We must ensure a just transition by prioritizing upskilling and reskilling programs, particularly for those at risk of displacement by technological shifts or environmental initiatives. This empowers individuals to remain productive, securing better livelihoods and actively contributing to a sustainable future. By providing accessible opportunities for all, especially marginalized groups, we build a resilient and inclusive workforce that thrives amidst change.

Key Strategies

Inclusive Skills Development: Design and implement training programs that serve and respect the specificities of all demographic groups, tailoring the content and delivery to address the unique needs and challenges of the different communities served. Provide accessible pathways for upskilling and reskilling, offering flexible learning options and financial support where needed.

Flexible Certification and Degree Schemes: Establish schemes that allow learners to obtain various types of badges, micro-credentials, and certificates, which can be used toward higher-level certifications and degrees. This enables continuous educational progression throughout their productive lives as they demonstrate skills and competencies.

Digital Inclusion and Skills: Develop programs that enhance digital literacy and skills for all, recognizing the increasingly important role of technology in the future of work. Eliminate barriers to digital access and participation and ensure that programs are designed to serve those with limited digital experience.

Green Jobs and Training: Invest in innovative businesses in areas such as clean and renewable energy, sustainable agriculture, conservation, and regeneration, creating job opportunities and providing comprehensive training programs that equip workers with the necessary skills.

Upskilling and re-skilling: Invest in equipping workers with the skills needed for emerging industries and technologies, with attention to people displaced in job markets by the transition away from high-carbon industries and/or the phase-out of jobs due to technology change.

Citizen Choice and Empowerment: Provide individuals with information about skills demand and trends, education, training, and career alternatives and opportunities, aligning training with evolving needs. Promote employer recognition of diverse skills and foster a culture of lifelong learning.

Skills Development through Real-World Projects: Combine skills development with practical experience through industry, government, and civil society internships, apprenticeships, mentorship programs, and participation in real-world projects to enhance workforce readiness.

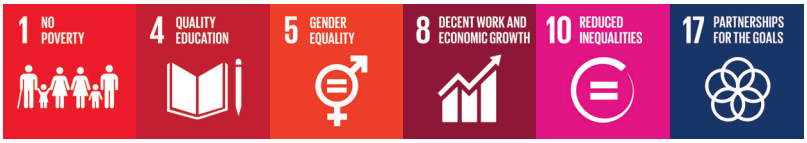
Education and Training Scalability: Explore and experiment with new education and training models, distilling and disseminating lessons about innovative approaches to scale up high-quality and relevant skills development programs.

Talent Development for the Digital Age: Develop a comprehensive workforce transition strategy for the digital age and AI, focusing on identifying vulnerable jobs, providing flexible upskilling and reskilling opportunities, fostering the creation of new digital and AI-related roles, and enabling companies to have the necessary human resources to accelerate digitalization.

Global Competitiveness Principles

2, 3, 4

Sustainable Development Goals



7. Balance long-term investment in R&D with accelerated translation and dissemination.

Guiding Principle

Research and development are pivotal in addressing global challenges such as climate change, resource depletion, food insecurity, poverty, and others. To generate impact, create value at scale, and truly contribute to economic transformation, knowledge creation must be combined with translation and dissemination at speed, to cope with today's fast-paced competitive landscape. Critically, R&D investments must balance long- and short-term priorities and initiatives, feeding into an innovation pipeline that can be consistently sustained over time. Such efforts require novel R&D and innovation policy toolkits, the mobilization of innovative funding sources, and expedited templates for public-private partnerships but should also be coupled with the accelerated dissemination of proven and existing technologies and methods, as a critical way of boosting productivity.

Key Strategies

Commons for Innovation and Entrepreneurship: Create multi-user innovation infrastructures and leverage cloud-based platforms to democratize access to information, computing power, and data analysis tools for entrepreneurs in all demographics and for sustainable development initiatives.

Emerging Technologies: Prioritize research and development in transformational emerging technologies that have the potential to address multiple sustainability challenges and create big economic opportunities.

Impactful Research and Development and Innovation: Focus resources and use moonshot-like, mission-oriented programs in partnership with industry to mobilize capabilities, catalyze investment in research and development, and make an impact on critical societal challenges that affect communities, such as those related to climate change and the access to clean water, healthcare, education, and food.

Translation and Deployment Acceleration: Establish expedited processes and implement platforms such as demonstration facilities in partnership with industry to fast-track the development and deployment of sustainable technologies, significantly reducing the time and cost to bring impactful innovation to the market.

Multi-Stakeholder Collaboration: Encourage and reward collaboration across disciplines, sectors, and institutions, including universities, research centers, industry, civil society, and community organizations.

Global Partnerships for Impact and Development: Create multilateral mechanisms and programs to fund the effective and long-term participation of emerging countries in relevant global research in frontier technology.

Strategy at the Center: Work with stakeholders in all sectors and segments of society to identify opportunities, build consensus on priorities, co-create research investment roadmaps, and develop timelines and resource allocation plans.

Global Competitiveness Principles

1, 2, 4, 5, 7

Sustainable Development Goals

8. Advance standards and metrics for data-based sustainability governance and management.

Guiding Principle

In the pursuit of sustainability and inclusiveness, organizations and governments need a common language and should use widely agreed, clear, and transparent standards to assess performance and manage projects, initiatives, and businesses. Stakeholders in all sectors need normalized, transparent, and reliable data to perform analysis, govern and manage projects and initiatives, and report performance. Regulatory frameworks need to be flexible, welcoming to innovation, and founded on principles and outcomes rather than rigid prescriptions.

Key Strategies

Evidence-Based Advocacy: Use fact-oriented and data-driven approaches that can effectively counter skepticism and drive greater adoption of sustainable and inclusive practices.

Data-Driven Decision Making & Equitable Risk Management: Utilize data and technology to anticipate and mitigate risks, guaranteeing that no community or segment of society is disproportionately exposed to risk or negatively affected.

Transparency, Accountability, and Accessibility: Foster accountability, openness, responsibility, and accessibility in sustainability efforts through clear reporting, diverse stakeholder engagement, and the use of digital tools, ensuring data and information are easily available in multiple formats.

Collaboration, Standards, and Shared Ownership: Establish collaborative partnerships to develop and disseminate standardized sustainability and inclusiveness measurement frameworks and protocols and build shared ownership and trust in them across diverse stakeholders.

Regulation, Incentives, and Equitable Access: Implement effective regulations and incentives that promote sustainable practices, reward high performers, and ensure equitable access to resources and opportunities for all sectors of society and communities.

Community Engagement, Technology, and Empowerment: Leverage digital tools and community engagement to ensure representation, enhance transparency, and drive collective action towards sustainability.

Shared Value Creation: Implement incentive systems that compensate all segments of society and people in the workforce for their contributions to economic development and prosperity, giving them a share based on performance and making them partners in value creation efforts.

Global Competitiveness Principles

2, 4, 7, 9, 10

Sustainable Development Goals

9. Use novel financial architectures to mobilize resources for sustainable investment.

Guiding Principle

Mobilizing finance for sustainable investments requires a multifaceted approach, beginning with comprehensive planning. Public sector investments should serve as catalysts to attract private capital to projects that advance sustainability and inclusiveness. This is particularly needed in those projects that generate positive externalities, benefiting communities and society at large, but in which the investment rationality is not clearly established for project developers – the risks are unclear or too high and/or the expected returns are below market standards. By incorporating sustainability and inclusivity considerations into governmental frameworks, creating standards across sectors, and aligning incentives and initiatives, it is possible to optimize resource allocation and attract private funding.

Key Strategies

Blended Finance: Combine public and private capital to de-risk sustainable investments, with government money serving to make the economics and the risk profiles of green projects attractive to investors in the market when needed.

Impact Investing: Create incentives for investment strategies and vehicles that explicitly seek to generate positive social and environmental impacts alongside financial returns.

Regulatory Framework for Sustainable Finance: Develop and implement a comprehensive and transparent regulatory framework that promotes transparency, accountability, and risk management in sustainable finance products to incentivize private investment in sustainable projects.

Robust Carbon Pricing System: Implement a carbon taxation system and/or carbon market to provide incentives and create new funding mechanisms for decarbonization and natural regeneration technologies, new ventures, and projects, accelerating the transition to a low-carbon future.

Sustainable Projects Origination: Establish national, regional, and global facilities dedicated to designing and modeling fundable investment-ready sustainable projects, making them bankable and attractive for private investors.

Digital Technologies Use for Financing Innovation: Leverage the potential of digital technologies to disseminate best practices, foster connections, catalyze new projects, include people in financial markets, enhance transparency and accountability, lower transaction costs, and create new avenues for funding energy transition and sustainability-focused projects.

Sustainable Finance Capability: Expand sustainable finance training programs within educational institutions to build capacity and meet the growing demand for expertise in this field.

Financial Inclusion: Create a data-oriented regulatory environment that allows consumers, companies, and financial institutions to easily trade data, enabling personalized risk management, and foster digital entrepreneurship in finance to bring to the market new tools and solutions catered to the needs and realities of the different segments of society.

Community Projects: Use government funds to catalyze and seed community projects and to enable access to private finance.

Global Competitiveness Principles

1, 2, 4, 7

Sustainable Development Goals

10. Leverage education to forge a future innovation and sustainability-oriented mindset.

Guiding Principle

Education for sustainability aims to instill the knowledge, values, and attitudes necessary for individuals and communities to understand and actively contribute to a more innovative, sustainable, and inclusive future. The goal is to make innovation and sustainability fundamental ways of thinking. Teach and train individuals on innovation, entrepreneurship, and sustainability throughout their educational journeys. This involves embedding innovation, entrepreneurship, and sustainability content into all curricula and ensuring that people in all demographics have access to it, regardless of socioeconomic status, cultural background, or ability.

Key Strategies and Actionable Recommendations

Curriculum Integration: Embed innovation and sustainability concepts and skills across all disciplines and grade levels, from kindergarten to higher education. The content needed is multidisciplinary by nature and should combine innovation, leadership, environmental science, social sciences, humanities, arts, technology, and more.

Experiential Learning: Prioritize hands-on, real-world experiences that allow students to engage with innovation and sustainability challenges directly, in different contexts and realities, across the various segments of society.

Systems Thinking and Critical Thinking: Develop students' critical thinking and cultivate students' systems' thinking abilities to understand the complex interconnections between social, economic, and environmental issues via their exposure to complex realities and real-world problems.

Equity and Inclusion: Ensure that all learners, regardless of their background or abilities, have access to high-quality education for innovation, entrepreneurship, and sustainability.

Entrepreneurial Mindset: Foster an entrepreneurial mindset by encouraging creativity, innovation, and risk-taking and by promoting entrepreneurial role models and behaviors.

Leverage technology: Use immersive technology like AR/VR and other tools to help students engage with diverse realities, natural environments, communities, and sustainability challenges worldwide.

Global Competitiveness Principles

2, 3, 4, 10

Sustainable Development Goals

The Complex Balance of Sustainability Frameworks

What is sustainability about?

Sustainability pertains to the long-term viability of a system. When we consider human systems and their impact on the planet, it becomes evident that there is more to consider than just the environment. As proposed by the U.N., sustainability and sustainable development entail juggling three crucial aspects simultaneously: economic performance, social inclusion, and environmental protection. Sustainability involves the delicate balance of not only these three dimensions but also short-term and long-term considerations.

The concept of sustainability exists in various forms and is often complex, not widely understood, and poorly defined in many places and domains. Given this complexity, it is crucial to emphasize key elements that help convey its meaning. Sustainability:

1. Operates at the intersection of the environment, society, and the economy.
2. Necessitates a careful balance between short-term and long-term goals.
3. Is fundamentally a systemic issue and should be approached as such.

Environment, society, and economy

Sustainability implies a balance between economic performance, social well-being, and environmental protection. Advancing one or two dimensions at the expense of the other(s) is not sustainable. This can be illustrated with a counterexample.

For instance, if a coal mine is shut down due to its negative environmental impact, and coal burning generates CO2 emissions, the solution will not be sustainable if the social dimension is not addressed. The long-term viability of the community, economy, and social system will be compromised. What will happen to the miners after the mine is closed? How will they earn their livelihoods? What will occur in the local economy? To be sustainable, the initiative needs to also address social and economic issues.

Short and long term

Sustainability is an intertemporal issue and requires dynamic thinking and action, balancing short- and long-term actions and impacts. Typically, short-term issues are related to the social and economic dimensions of sustainability, while long-term issues concern the environmental impact.

For example, from a micro perspective, a product brought to the market can have negative effects on the environment and communities for years to come, emphasizing the need for life-cycle assessment. From a macro perspective, many of today's growth models can be characterized as trading short-term socioeconomic progress for the long-term health of ecosystems and the integrity of natural assets. To advance sustainability, companies, economies, and societies need to balance short and long-term impacts.

A systemic issue

Sustainability involves a complex set of interconnected elements: people and society, the economy, and the natural environment. Anything related to sustainability has multiple dimensions and links entities, stakeholders, and communities in various parts of the globe. Sustainability connects all the dots.

In addressing sustainability, it is crucial to define system boundaries. For example, a community might be deemed sustainable if it efficiently manages and preserves its treated water sources, even if it discharges untreated water downstream to another community. However, when considering the broader region and other communities, this behavior becomes unsustainable. Advancing sustainability is a process of systemic enlargement – a process in which the boundaries of a visualized system steadily expand.

As a systemic issue, sustainability encompasses multiple layers and decisions at more fundamental and basic levels can constrain others. For example, if a city is designed with sprawling communities, it limits the possibilities for implementing mass transit solutions and influences the behaviors and preferences of its residents. In this sense, it is crucial to consider and build sustainability through intentional design. Design efforts must incorporate new concepts, technological solutions, policies, and business models to challenge perceived existing trade-offs within the system.

We Call All Stakeholders to Measure Progress

Measuring progress toward a more sustainable and inclusive future is undeniably essential, yet challenging. Sustainability and inclusiveness are multi-dimensional, and the issues at stake are systemic. While we have a profusion of metrics, we lack those that can synthesize what we want to measure, be easily communicated, be globally comparable, and effectively track progress.

Systemic frameworks

Several frameworks today seek to offer a holistic view of sustainability, integrating environmental, social, and economic aspects. The Sustainable Development Goals (SDGs),[3] Doughnut Economics,[4] and the System of Environmental Economic Accounting (SEEA framework)[5] are among the leading models that aim to lead us towards a sustainable future. Yet, their complexity often hinders consistent measurement and policy translation. Simpler frameworks, such as the Green GDP, provide clarity but risk oversimplifying intricate issues. Achieving true sustainability requires a balance — a comprehensive yet practical approach that leads to meaningful and effective change.

Measuring Environmental Sustainability

The carbon footprint[6] is the most recognized measure of planetary sustainability, focusing on greenhouse gas emissions and driving action towards a low-carbon economy. It's popular due to its direct relevance to climate change, universal applicability, and comprehensive scope. However, metrics such as the Ecological Footprint[7] offer a broader perspective, measuring human demand on ecosystems relative to their capacity. With carbon footprint making up about 60% of it, the Ecological Footprint per capita provides a more holistic sustainability measure by considering a wider range of resource demands. While these indicators don't directly measure factors like renewable energy use, air and water quality, or biodiversity, the carbon footprint remains a key tool in tracking environmental progress. For a more complete understanding of sustainability, the Ecological Footprint serves as a valuable complement.

Measuring Inclusiveness and Well-Being

The Gini coefficient[8] is a key measure of income inequality and the most well-known metric for that purpose, but it is limited in capturing broader aspects such as access to education and healthcare. Well-being, being multidimen-

3 https://www.globalgoals.org/goals/.

4 https://www.kateraworth.com/doughnut/.

5 https://seea.un.org/.

6 https://www.nature.org/en-us/get-involved/how-to-help/carbon-footprint-calculator/.

7 https://www.footprintnetwork.org/.

8 https://www.census.gov/topics/income-poverty/income-inequality/about/metrics/gini-index.html#:~:text=The%20Gini%20coefficient%20ranges%20from,where%20only%20one%20recipient%20or.

sional, is challenging to quantify with any single indicator, as seen in the limitations of the Human Development Index,[9] Happiness Index,[10] and Multidimensional Poverty Index.[11] The OECD Better Life Index[12] offers a more comprehensive view by assessing 11 dimensions of well-being and allowing for customization based on national priorities. Combining the Gini Index with the Better Life Index provides a more nuanced and complete understanding of societal progress.

Measuring Economic Performance for a Sustainable Future

GDP has long been the gold standard for measuring economic performance, but its failure to account for environmental degradation and social well-being has led to the creation of alternative metrics. Green GDP[13] aims to incorporate environmental costs yet struggles with standardization and concerns over oversimplification have limited its use. The UN's Inclusive Wealth Index (IWI)[14] offers a more comprehensive approach by including natural, human, social, produced, and financial capital, but gaps in data. Additionally, criticism of its assumptions has prevented widespread adoption.

Advancing

Navigating the complexities of sustainability measurement requires ongoing refinement and innovation. As we move forward, it's imperative that we develop metrics that are not only comprehensive but also practical, comparable, and actionable. These metrics should guide decision-making at all levels, from individuals to governments, fostering a truly sustainable future where economic prosperity, social well-being, and environmental health are intertwined and mutually reinforced. The need to evolve sustainability and inclusiveness metrics reflects the growing understanding of the interconnectedness of our world, and our collective responsibility to safeguard it for generations to come.

More than ever, we need to measure progress when we think about sustainability, inclusiveness, and competitiveness. To do so, we call all concerned stakeholders to:

- Partner at all levels to advance existing higher-level measurement frameworks.
- Make all projects, initiatives and policies data-based.
- Build consensus with communities on what is being measured and the metrics used.
- Provide visibility with the data collected and the metrics computed.
- Engage globally to build standards and normalize metrics and their understanding.
- Leverage the power of data and computation to advance sustainability measurement.

9 https://hdr.undp.org/data-center/human-development-index#/indicies/HDI.

10 https://worldhappiness.report/.

11 https://hdr.undp.org/content/2023-global-multidimensional-poverty-index-mpi#/indicies/MPI.

12 https://www.oecdbetterlifeindex.org/#/11111111111.

13 How Do You Measure Green Growth? World Bank & Partners Are Working on Indicators.

14 https://www.unep.org/resources/inclusive-wealth-report-2018.

From Challenge to Opportunity

The pursuit of innovation and technological growth, while enabling advancements across industries and sectors and making goods and services more accessible to broader segments of society, must also be analyzed in relation to its externalities and impacts on humanity and the environment. The proliferation of data centers, essential for our digital infrastructure, exemplifies this paradox. While enabling unprecedented connectivity and progress, these infrastructures consume vast amounts of energy and can have substantial environmental footprints.

It's undeniable: economic activities impact the environment. Balancing technological progress with environmental protection and the health and well-being of all communities impacted is a complex challenge that demands a system-thinking approach. This means considering the full life cycle of technologies—from the initial extraction of raw materials, through manufacturing and use, all the way to disposal or recycling.

These challenges, however, can be reframed as opportunities. They offer a chance to reimagine supply chains, products and services, economic models and development and growth strategies by design, incorporating concerns about the natural environment, social inequities, and the preservation of critical resources from the outset. Sustainable innovation requires a deep understanding, modeling and the calculation of the full impact of technologies, considering the entire chain of consequences from inception to end-of-life.

To work at scale in turning challenges to opportunities, we must explore innovative financial models and architectures, support entrepreneurship and shape business environments that are conducive to innovation. For instance, how can communities, regions and nations support the entrepreneurs who are building companies specializing in the recycling of solar panels? As older solar installations reach the end of their lifespan, they generate a significant amount of waste. By nurturing ventures dedicated to extending the productive life of the materials used in these panels through recycling and reuse, we can mitigate environmental harm, foster a circular economy and create new economic opportunities.

Putting Ideas into Action

The sustainability challenge we face today is monumental, requiring the reinvention of systems across all sectors. This Call-to-Action rests on the principle that sustainability, inclusiveness, and competitiveness are interwoven, reinforcing one another. A sustainable future must encompass economic, social, and environmental dimensions, each of which strengthens the others.

To reimagine these systems, innovation is essential—not just in technology, but in the structures that define society. We need to rethink business models, supply chains, institutions, and the very fabric of how public and private sectors collaborate. This effort demands platforms for dialogue and cross-sector collaboration at regional, national, and global levels, as well as governance frameworks to support these connections.

Policymakers must create environments that invite experimentation and risk-taking, while facilitating partnerships between sectors. Legal frameworks must evolve to support new solutions and break down institutional barriers that limit progress.

In industry, the challenge lies in balancing environmental sustainability with economic viability, rethinking entrenched systems and assets without jeopardizing profitability. This transformation requires close cooperation between the public and private sectors, with industry leading the charge and governments providing the necessary support.

Education, too, is a critical pillar for societal sustainability. Accessible, inclusive education empowers all demographics to participate in the innovation economy, preventing social fractures that threaten institutions and political stability. Without it, those left behind will further challenge the structures that underpin society.

Civil society plays a pivotal role in holding all actors accountable—governments, businesses, and educational institutions alike—while fostering cross-sector dialogue and catalyzing new ideas. Civil society organizations must strive to serve as neutral spaces for the co-creation of innovative systemwide solutions.

As we move forward, the path to action requires enhanced platforms for dialogue and governance. Institutions matter, as demonstrated by the 2024 winners of the Nobel Memorial Prize in Economic Sciences; they must be inclusive if countries are to succeed, not extractive. The task ahead is enormous, but by aligning public and private interests and embracing collective resource allocation, we can build a truly sustainable future for all.

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We thank all leaders who contributed to this effort and, particularly, to those who reviewed and provided direct input to this document. We believe this exclusive content can empower nations, regions and cities to foster inclusive growth, sustainably enhance their competitive advantage and build prosperity. **It's time to take action!**

For more information about the GFCC's work and how our organization can support you in translating this Call-to-Action into initiatives on the ground, please contact GFCC Executive Director, Roberto Alvarez (ralvarez@thegfcc.org).

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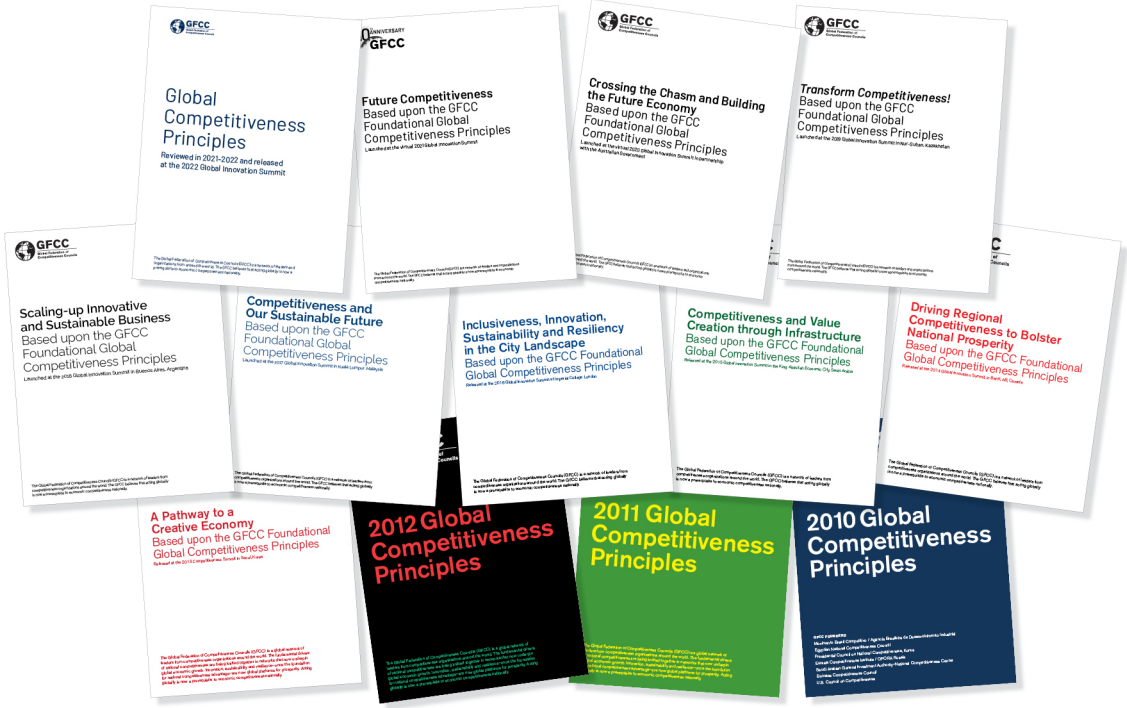
Global Competitiveness Principles and Call to Action



https://www.thegfcc.org/gfcc-principles

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GFCC
Global Federation of Competitiveness Councils

The GFCC is a global multi-stakeholder membership organization founded in 2010 with a footprint spanning more than 35 nations. The GFCC is committed to disseminating best practices to accelerate productivity, growth, and prosperity for countries, regions, and cities. We do that through high-level networking and events, in-depth conversations, analytical tools, advice, and education.

GFCC members include private sector councils on competitiveness and industry organizations, government agencies, global corporations, and leading research universities. All members pay membership dues yearly to secure their placement in the network. Currently, the GFCC hosts 52 members from 23 countries.

Besides its members, the GFCC network also includes experts invited to participate as fellows. Members and fellows have different roles. Fellows contribute by sharing their specialized knowledge and expertise with the community and participating in project development and strategies. Currently, the GFCC hosts 66 fellows from 24 countries.

Learn more about the GFCC at: www.thegfcc.org

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