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Article

The Urgent Call for Academic Action: Rebooting SDGs to Reset Our Future

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Abstracts

This manuscript, presented at GEEF2024, emphasizes the critical role of academia in revitalizing the Sustainable Development Goals (SDGs) to address current global challenges. The SDGs, adopted in 2015, aim to eradicate poverty and promote sustainable development by 2030. However, progress has stalled due to financial constraints, governance issues, the COVID-19 pandemic, and geopolitical crises such as the Russian-Ukraine war. The COVID-19 pandemic has had multifaceted impacts, reversing poverty reduction trends and disrupting education and energy investments. It has also exacerbated social inequalities, leading to the conceptualization of COVID-19 as a syndemic, an ecodemic, and an econodemic. These terms highlight the pandemic's complex interplay with preexisting health issues, environmental degradation, and economic disparities. Geopolitical crises have further hindered SDG progress by disrupting food and energy supplies and diverting resources from sustainable development initiatives. Climate change, marked by unprecedented heatwaves and natural disasters, poses additional threats to achieving the SDGs. The need for carbon neutrality and effective international cooperation is more urgent than ever before. In this context, universities play a crucial role in advancing the SDGs through research, innovation, and community engagement. Engaged universities align their research agendas with the SDGs, fostering interdisciplinary collaboration and developing solutions to global challenges. Yonsei University's Institute for Global Engagement and Empowerment (IGEE) exemplifies this approach with its Yonsei SDGs Initiative. By analyzing research outputs via natural language processing, the initiative aligns academic activities with SDGs, particularly in health and well-being. The GEEF2024 conference underscored the importance of innovative strategies and international cooperation in achieving the SDGs. Discussions highlighted the need to address mental health crises, low birth rates, and the care economy's undervaluation. The conference also emphasized the necessity of inclusive development strategies that reflect the perspectives and priorities of Africa and Asia. In conclusion, universities must integrate social engagement into their core missions to remain relevant and impactful. By prioritizing research, teaching, and services that contribute to sustainable development, academia can play a pivotal role in overcoming global challenges and achieving the SDGs.

Keywords

Sustainable Development Goals (SDGs), Academia, COVID-19, Syndemic, Econodemic, Geopolitical Crises, Climate Change, Interdisciplinary Collaboration, Yonsei University

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1. Adoption of "the 2030 Agenda for Sustainable Development"

On September 25, 2015, at the United Nations General Assembly, representatives from 193 member states unanimously adopted the agenda for sustainable development titled "Transforming our world: the 2030 Agenda for Sustainable Development." This pivotal moment marked the culmination of a 15-year period of international collaboration that began with the Millennium Development Goals (MDGs) in 2000. The SDGs heralded a new era of global cooperation spanning the subsequent 15 years.

Unlike MDGs, which focus primarily on specific challenges faced by developing countries, sustainable development goals (SDGs) establish a universal framework of 17 goals designed to ensure a sustainable future for all nations. This comprehensive agenda reflects a broader and more inclusive approach, addressing a wide array of development issues pertinent to every country on Earth. Consequently, the SDGs represent a significant evolution in global development policy characterized by their inclusive and expansive scope.

The foremost goal among the 17 SDGs is to eradicate poverty. This objective specifically aims to reduce the proportion of individuals living in extreme poverty to less than 3% of the global population by 2030. Since the inception of the MDGs, the number of people living in poverty worldwide has steadily declined, a trend significantly driven by economic advancements in China and South Asia. Conversely, Sub-Saharan Africa has faced challenges such as slower economic growth and rapid population increases, resulting in a higher concentration of impoverished populations in this region. Despite these regional disparities, the global trend continues to show a decline in poverty rates. Building on this positive trajectory, the SDGs aim to further diminish the absolute number of people living in extreme poverty to less than 3% of the global population by 2030.

Antonio Guterres, who assumed the role of the United Nations Secretary-General in 2016, reported that the progress toward achieving the SDGs during his initial five years in office was less than anticipated. In response, he proclaimed the "Decade of Action" at the UN General Assembly in September 2019. This declaration marked the period from 2020-2030, the final decade of the SDG agenda, as a crucial time for accelerated and more decisive efforts by member states to fulfill the SDGs.

To galvanize this initiative, Guterres emphasized the necessity for actions at multiple levels:

- Global Action: To enhance leadership, secure more resources, and develop smarter solutions for achieving the SDGs.
- Local Action: To implement transformative changes in policies, budgets, institutions, and regulatory frameworks at the government, city, and local authority levels.
- **People Action:** Driving essential transformations through the mobilization of youth, civil society, the media, the private sector, unions, academia, and other stakeholders.

2. Significant Delays in SDG Progress

This multifaceted approach aims to foster comprehensive and cohesive efforts across all sectors of society, ensuring the successful realization of the SDGs by 2030. Unfortunately, progress on the SDGs is stalling. With respect to the delay in achieving the SDGs, UN Secretary-General António Guterres highlighted the urgency of the situation by stating, "We are far off track to achieving the Sustainable Development Goals by 2030." He emphasized that the global funding gap for the SDGs has risen dramatically, exacerbated by the COVID-19 pandemic and geopolitical tensions such as the Russian–Ukraine war (UN, 2023). Guterres has called for a renewed commitment to the SDGs, urging nations to come to key meetings with clear plans and pledges to strengthen action toward these goals.

Several interrelated factors contribute to the delay in SDG progress. Financial constraints are a major hurdle, with the annual funding gap now estimated at \$4.2 trillion, increasing from \$2.5 trillion before the pandemic. Governance issues, including political instability and inadequate institutional capacity, also impede progress. Additionally, environmental challenges such as climate change divert resources and attention away from the SDGs. These issues collectively make it difficult for countries, especially developing nations, to invest adequately in SDG-related initiatives. The COVID-19 pandemic has significantly disrupted the SDG agenda, straining healthcare systems, leading to unprecedented economic shutdowns and increasing inequality. The pandemic has reversed decades of development progress, pushing millions back into poverty. The number of people living in extreme poverty has risen, with hunger levels returning to those reported in 2005. Educational disruptions have affected over 1.6 billion students worldwide, exacerbating existing

disparities. Geopolitical crises, such as the Russian–Ukraine war, further complicate the global effort to achieve the SDGs. These conflicts disrupt global food and energy supplies, leading to significant price increases and exacerbating food insecurity, particularly in vulnerable regions such as Sub-Saharan Africa. They also divert financial resources and undermine multilateral cooperation, which is crucial for tackling global challenges. The war has led to a sharp increase in the cost of food, energy, and finance, disproportionately affecting the most vulnerable countries and communities.

While the delay in SDG progress is multifaceted, the combined effects of financial constraints, governance issues, the COVID-19 pandemic, and ongoing geopolitical crises have significantly impeded global efforts. Addressing these challenges requires renewed commitment, increased funding, and robust international cooperation to steer back on track toward achieving the SDGs by 2030.

To illustrate the complexity, interconnectedness, and urgency of the global crisis and the delay in SDG progress, I will examine the impacts of COVID-19, geopolitical conflicts, and climate change.

COVID-19 as a multifaceted disaster

At the beginning of 2019, the world faced an unprecedented challenge with the emergence of the COVID-19 pandemic. The SARS-CoV-2 virus, first identified in Wuhan, Hubei Province, China, rapidly spread across the globe, resulting in a worldwide health crisis. During the initial stages of the pandemic, in the absence of vaccines or effective treatments, social distancing became the primary preventive measure, leading to a significant halt in social activities. By March and April 2020, 91% of students enrolled in schools worldwide, approximately 1.6 billion individuals, were unable to attend classes (UNESCO, 2020). This event marked an unparalleled disruption in education with no historical precedent for such a widespread and simultaneous school closure or for the real-time collection of data from 191 countries.

The COVID-19 pandemic significantly disrupted investments in energy policies aimed at mitigating climate change, leading to substantial setbacks. According to the International Energy Agency, global energy investment experienced its largest decline in history during the pandemic. Compared with that in the previous year, overall energy investment plumomed by 20%, or approximately \$400 billion, in 2020 (IEA, 2020). This steep decline affected all major sectors, in-

cluding fossil fuels, renewables, and energy efficiency initiatives. Specifically, investment in renewable energy was hit hard, with new renewable power capacity additions projected to be 13% lower than those in 2019 (JHU, 2022). Delays in construction due to supply chain disruptions, lockdown measures, and emerging financing challenges were significant factors contributing to this decline. While utility-scale projects were mostly postponed to 2021, installations of rooftop solar photovoltaic systems for businesses and households faced prolonged setbacks without strong government support. The pandemic also caused a 10-15% drop in spending on energy efficiency projects as economic activities slowed, affecting vehicle sales, construction, and purchases of more efficient appliances and equipment. This reduction in investment in energy efficiency has potential longterm implications for achieving sustainable energy transitions and reducing emissions.

Economically, the repercussions were profound. For the first time since 2000, the steady annual decline in the number of people living in extreme poverty was reversed in 2020. The global economic disruption caused by COVID-19 has affected primarily developing countries, which veered off their economic development trajectories, resulting in an increase in the population living in absolute poverty. This setback has made eradicating absolute poverty more challenging. The World Bank has projected that, owing to the adverse effects of COVID-19, the measure of absolute poverty in 2030 will constitute approximately 7% of the global population (World Bank, 2022). Thus, the pandemic has erected significant obstacles to achieving the SDG of ending poverty, highlighting the need for renewed and intensified efforts to address this critical issue.

In this context, the COVID-19 pandemic has profoundly and diversely impacted the entire globe, the international community, and all facets of our lives. The pandemic's far-reaching effects underscore its characterization as a historical event of significant magnitude within our civilization. The multifaceted impacts of COVID-19 are further reflected in the plethora of terms and expressions that have emerged to describe this unprecedented phenomenon.

1) COVID-19 as a Syndemic

The COVID-19 outbreak, commonly referred to as a pandemic, is also described as a "syndemic." A syndemic can be defined as "a convergence of biosocial forces that interact with one another to produce and exacerbate clinical disease

and prognosis" (Singer M, et al., 2017). In the United States, the death rate of Black workers due to COVID-19 was significantly higher than that of their white counterparts (Gould & Wilson, 2020). These findings indicate that black workers experienced greater health and economic instability due to the pandemic than white workers did.

Several factors contribute to this disparity:

- Disproportionate Employment in Essential Labor Sectors: Black workers are overrepresented in essential labor sectors such as grocery stores, public transportation, warehouses, postal services, healthcare, and social services, which require physical presence and cannot be performed remotely. Approximately 17% of the workforce in these sectors is black, placing them at a higher risk of COVID-19 exposure.
- Economic Instability: Black households faced greater economic instability even before the pandemic, with higher unemployment rates and wage disparities than white households did. As of 2019, the black unemployment rate was 6.1%, double that of whites, and this disparity persisted regardless of education level. Compared with their white counterparts with similar education levels, black workers also experienced wage disparities.
- Health Disparities: Black workers receive fewer benefits, such as health insurance and paid sick leave, than white workers do, making it more difficult for them to access proper treatment after contracting COVID-19. This lack of benefits contributes to higher morbidity and mortality rates among black workers. COVID-19 interacts with and amplifies the effects of existing social and health inequalities, as well as coexisting chronic diseases, which is why it is considered a syndemic. COVID-19 disproportionately affects individuals with preexisting health conditions such as diabetes, hypertension, and cardiovascular diseases. These chronic conditions worsen the outcomes of COVID-19 infections, leading to increased morbidity and mortality rates. The interaction between COVID-19 and these chronic diseases creates a compounded health burden that is greater than the sum of its parts. Vulnerable populations are more likely to experience severe outcomes from COVID-19, demonstrating the interconnectedness of social factors and health outcomes.

COVID-19 as a syndemic is not merely a singular epidemic of an infectious disease but also a complex crisis that intertwines with and exacerbates other health issues and social inequalities, resulting in a more severe and widespread

impact on public health. This conceptual framework helps in understanding the broader implications of the pandemic and emphasizes the need for integrated and holistic approaches to health interventions and policies.

2) COVID-19 as an Ecodemic

In 2020, researchers at Harvard University published a study revealing a significant relationship between fine particulate matter (PM2.5) and COVID-19 mortality. Their findings indicated that a 1 µg/m³ increase in PM2.5 is associated with an 11% increase in the COVID-19 mortality rate (Wu et al, 2022). This correlation between elevated PM2.5 levels and increased COVID-19 mortality rates was also corroborated by studies in the Netherlands (Yu et al, 2021), Mexico (Páez-Osuna et al, 2021), and France (Magazzino, 2020). These studies collectively confirm the link between environmental factors and COVID-19 mortality.

Furthermore, environmental destruction and the reduction in wildlife habitats due to human activities have been linked to an increased risk of zoonotic diseases. Deforestation and habitat destruction drive wildlife closer to human settlements. heightening the frequency of human-wildlife interactions. As forests are cleared for human use, animals lose their natural habitats and come into closer contact with humans, thus increasing the likelihood of zoonotic diseases, such as COVID-19, spreading (Tollefson, 2020). In addition, food insecurity often leads to illegal logging, wildlife overexploitation, and trade, along with increased hunting and consumption of wildlife. These activities further increase the risk of zoonotic disease transmission (Gosalvez, 2020). Socioeconomic pressures, such as poverty, force people into natural habitats, creating conditions conducive to the emergence of new diseases. encroachment on wildlife habitats has global implications due to interconnected ecosystems and human mobility, facilitating the spread of diseases. Thus, the increasing incidence of zoonotic diseases, including COVID-19, can be attributed to biodiversity loss and habitat destruction resulting from human activities.

The term "ecosystem" effectively captures the interplay between environmental factors, such as air pollution and the severity of the COVID-19 pandemic, as well as deforestation and wildlife habitat destruction, and the increase in zoonotic diseases.

3) COVID-19 as an Econodemic

Additionally, COVID-19 is referred to as an "Econodemic"

due to its profound impact on economic inequality and social disparities, causing severe shocks across the global economy. The pandemic has exacerbated economic inequalities, highlighting the stark contrast in recovery speeds between advanced economies and low- and middle-income countries (LMICs). Advanced economies managed to initiate economic recovery relatively swiftly through extensive financial support and stimulus measures. For instance, the United States and European countries implemented large-scale stimulus packages that lowered unemployment rates and fostered economic growth. High vaccination rates in these regions have also facilitated the rapid resumption of economic activities. Conversely, LMICs struggle due to limited financial resources, making it challenging to provide the same level of support as their wealthier counterparts. Consequently, economic recovery in these countries has been slow, with the economic impact of the pandemic being more prolonged. Additionally, lower vaccination rates in LMICs have further hindered the resumption of economic activities (IMF, 2021).

South Korea exemplifies the economic polarization intensified by the COVID-19 pandemic (Park, 2022). During the pandemic, high-income individuals experienced relatively minor economic disruptions because of the feasibility of telecommuting and flexible working arrangements. In contrast, low-income individuals, often employed in face-to-face service industries, face significant unemployment and income reductions. This disparity has widened the income gap. Moreover, high-income individuals in South Korea have benefited from rising real estate prices and a recovering stock market, allowing them to accumulate more assets. Moreover, low-income individuals, with fewer assets to begin with, face increased economic hardships, further widening the asset gap. Although the South Korean government has implemented support measures for small businesses and vulnerable groups, these policies have had limited success in alleviating economic polarization.

The term "Econodemic" aptly captures the economic dimension of the pandemic, emphasizing how COVID-19 has deepened existing economic inequalities and created new challenges for economic recovery, particularly in less affluent nations and among vulnerable populations. This conceptual framework underscores the necessity for targeted and inclusive economic policies to address the disparities exacerbated by the pandemic.

Geo-political crisis disrupts the progress of the SDGs

Geopolitical crises, such as the Russian–Ukraine war, profoundly impact progress toward the SDGs by disrupting global food and energy supplies, diverting financial resources, and undermining multilateral cooperation, all of which are crucial for sustainable development.

1) Food supply disruptions

Sub-Saharan African countries, heavily dependent on agricultural imports from Russia and Ukraine, face significant challenges due to the war. Disruptions in the supply chains of critical commodities such as wheat and fertilizers have led to substantial price increases, exacerbating food insecurity in the region. For example, Nigeria, Cameroon, and Tanzania rely on these imports, and the conflict has caused soaring wheat prices, making basic food items such as bread significantly more expensive. This places a severe burden on households, where food already consumes a significant portion of their budgets, thus hindering progress toward SDG 2 (Zero Hunger) and SDG 1 (No Poverty).

2) Energy supply disruptions:

The conflict has also triggered an energy crisis in Sub-Saharan Africa. Despite the region's substantial oil reserves, many countries lack refining capacity and must import refined fuels. The war has caused global oil prices to rise sharply, leading to fuel shortages and higher costs for goods and services. This has strained government budgets and depleted resources critical for public health and social welfare, thereby affecting SDG 7 (Affordable and Clean Energy) and SDG 3 (Good Health and Well-being).

3) Diversion of Resources:

The European Union and Western nations have directed significant resources and political support toward Ukraine, which has diverted funds and attention away from SDG initiatives. The financial and material support provided to Ukraine in its war efforts has come at the expense of resources that could have been allocated toward sustainable development projects globally. This diversion has hindered progress in various SDGs, particularly in lower-income countries that rely on international aid and cooperation for development efforts.

4) Undermining multilateral cooperation:

The war has intensified geopolitical tensions and polarized international relations, making multilateral cooperation for SDG advancement increasingly challenging. The conflict has strained relations between major powers and created a more fragmented international environment. This fragmentation undermines the collective efforts needed to address global challenges such as climate change, poverty, and inequality. Multilateral cooperation is crucial for SDG 17 (Partnerships for the Goals), and the current geopolitical climate hampers the ability of countries to work together effectively.

Addressing these challenges requires a renewed commitment to multilateralism and targeted support for the most affected regions to mitigate the adverse impacts on sustainable development.

Climate Changes

Climate change has become a critical issue concerning sustainable development for humanity. Recent climatic phenomena such as extreme flooding, droughts, and heatwaves are becoming increasingly common due to climate change. The summer of 2023 was recorded as the hottest on record, and scientists predict even hotter future summers, with 2024 already showing unprecedented heat levels. The primary cause of these extreme weather events is the increase in greenhouse gas emissions, particularly carbon dioxide (CO2), from human activities such as the burning of fossil fuels, deforestation, and industrial processes. These emissions trap heat in the atmosphere, leading to a rise in the global temperature and disrupting weather patterns. UN Secretary-General António Guterres highlighted the severity of the situation by stating, "The era of global warming has ended; the era of global boiling has arrived. "(UN, 2023) This remark underscores the urgency of addressing climate change through immediate and radical action to reduce emissions and mitigate its impacts.

At this juncture, carbon neutrality and deep decarbonization are essential. The Paris Climate Agreement has set the stage for nations to make effective efforts to reduce carbon emissions. However, in practice, many countries continue to emit carbon and opt to pay penalties rather than implementing substantial changes. This situation was exacerbated when former US President Trump withdrew the United States from the Paris Agreement, symbolizing a retreat from multilateralism (Galston et al, 2017).

Recent research by British scientists has indicated that warm seawater seeps under Antarctic glaciers, accelerating their melting and causing a tipping point (Bradley & Hewitt, 2024). This melting contributes to sea level rise, particularly around the equator, altering the Earth's shape and affecting its rotational speed. While specific references for this exact study are not available, these findings align with the broader scientific consensus on the impacts of melting polar ice on global sea levels and climate dynamics.

Addressing these challenges requires a renewed commitment to multilateralism and targeted support for the most affected regions to mitigate the adverse impacts on sustainable development.

The nature of global risk

The nature of global risk is inherently complex and interconnected, as highlighted in the World Economic Forum's Global Risks Report 2024 (WEF, 2024). The report emphasized that the significant short-term risks are misinformation and disinformation, which can lead to widespread confusion, social unrest, and a breakdown in trust among communities and governments. These risks are often exacerbated by the rapid spread of false information through social media and other digital platforms. In contrast, climate-related threats dominate the long-term outlook. These threats include the increasing frequency and severity of natural disasters, such as hurricanes, floods, and wildfires, as well as long-term changes, such as rising sea levels and shifting weather patterns. These environmental changes can have profound impacts on agriculture, infrastructure, and overall human health and well-being.

This interconnectedness of risk makes it imperative for nations and experts to work together to develop comprehensive solutions. Collaboration across borders and disciplines is essential to address these multifaceted challenges effectively. For example, addressing climate change requires coordinated efforts in policy-making, technological innovation, and community engagement to reduce carbon emissions and build resilient societies. Similarly, combating misinformation necessitates joint strategies involving technology companies, media organizations, and educational institutions to promote digital literacy and fact-checking initiatives.

However, a critical issue identified is the increasing trend of decoupling among major powers such as the U.S. and China. This geopolitical fragmentation poses significant chal-

lenges to global cooperation, further compounded by the weakening influence of multilateral institutions such as the UN. This trend toward isolationism is particularly concerning given the global nature of the risks we face. For example, the strategic importance of emerging technologies such as Al and quantum computing is leading to a fragmentation of research and development initiatives, as countries seek to safeguard their advancements.

The Global Risks Report of 2024 suggested that despite the grim outlook, there are opportunities for collective action. The potential for collaborative efforts in areas such as climate change mitigation and cybersecurity is significant. Innovations in policy and technology, as well as grassroots movements, can drive substantial progress if supported by robust international cooperation frameworks. While the interconnected nature of global risk necessitates collaboration, the current geopolitical climate of decoupling and the decline of multilateralism present substantial hurdles. Addressing these challenges will require a renewed commitment to international cooperation and innovative solutions that transcend national boundaries.

3. Why Should Universities Be Engaged?

Considering the challenges of ensuring a sustainable future for humanity, the transformation into an engaged university is essential for the survival and relevance of academia in today's rapidly changing world. Universities must demonstrate their societal relevance by addressing real-world problems through research and community engagement. An engaged university actively collaborates with external stakeholders, including local communities, industries, and governments, to cocreate solutions that have a direct impact on society. This relevance not only enhances the university's reputation but also attracts funding, students, and faculty committed to making a difference.

The global push toward achieving the SDGs necessitates active participation from academia. Universities play a unique role in researching and developing innovative solutions to address global challenges such as climate change, poverty, and health disparities. By becoming engaged universities, institutions can align their research agendas with the SDGs, contributing to global efforts and securing their place as vital players in sustainable development. Engaged universities foster a culture of interdisciplinary collaboration and innova-

tion. By breaking down silos and encouraging partnerships with external entities, these institutions can drive ground-breaking research that addresses complex global issues. This collaborative approach not only enhances research outcomes but also secures diverse funding sources, making the university more resilient and sustainable.

Furthermore, public funding for higher education is becoming increasingly competitive and contingent on demonstrable impact. Engaged universities that show tangible benefits to society are more likely to secure funding from government bodies, private sector partners, and philanthropic organizations. This financial stability is crucial for the survival and growth of academic institutions in an era of budget cuts and financial uncertainty. Maintaining public trust and legitimacy is essential for the long-term survival of academic institutions. Engaged universities that are transparent, accountable, and actively contributing to societal well-being are more likely to enjoy public support. This trust is fundamental in an age where higher education is scrutinized for its value and impact.

Therefore, the transformation into an engaged university is not merely an option but also a necessity for the survival of academia. By aligning research and education with societal needs, fostering interdisciplinary collaboration, and demonstrating tangible impacts, universities can ensure their continued relevance and sustainability in a rapidly evolving world.

The role of academia is crucial in advancing the SDGs for several reasons: research and innovation, education and capacity building, evidence-based policymaking, interdisciplinary collaboration, monitoring and evaluation, and community engagement and social impact. In addition, academia has the potential to produce less biased knowledge than other institutions do. The rigorous peer-review process and the commitment to academic integrity and transparency help ensure that research findings are credible and objective. Unlike industry-funded research, which might have commercial biases, academic research is often funded by public or nonprofit sources aiming to advance knowledge of the public good. This helps mitigate conflicts of interest and promotes impartiality in research outcomes. Moreover, academia tends to be less bureaucratic and less politicized than political and international organizations are. Academic institutions generally operate with greater autonomy and are driven by scholarly inquiry rather than political agendas. This allows for a more objective and focused approach to addressing global challenges. The less politicized nature of academia enables researchers to pursue truth and innovation without the constraints of political pressures, leading to more unbiased and effective solutions.

Global Engagement and Empowerment Forum on Sustainable Development 2024 (GEEF2024)

Yonsei University's Institute for Global Engagement and Empowerment (IGEE) and the Ban Ki-moon Foundation hosted GEEF2024 under the theme "Reboot SDGs Reset Our Future." This conference critically reflected the stagnation in the development and implementation of the SDGs due to the COVID-19 pandemic and geopolitical crises. This study aimed to explore ways to rejuvenate and reinvigorate these global goals.

During the GEEF2024 conference, various aspects of the SDGs were discussed, providing a platform for critical reflection on the progress and challenges in achieving these goals. The speakers at GEEF2024 offered insightful perspectives, encouraging participants to engage in deep critical thinking about the SDGs. The conference underscored the importance of innovative approaches and international cooperation to ensure a sustainable future. It brought together experts from governments, academia, civil society, and the private sector to share experiences and ideas. The discussions focused on the political will, resource allocation, and innovative technologies and policies needed to achieve the SDGs.

GEEF2024 served as a significant occasion to seek new strategies and initiatives for accelerating SDG progress. The participants were committed to leveraging the insights gained to promote sustainable development in their respective fields, reaffirming the importance of global collaboration in this endeavor.

1) We need a confrontation to address hard reality.

First, it provided an opportunity for confrontation to face reality. The former World Bank President Jim Yong Kim engaged in a special dialog with Professor Na Jong-ho of the Department of Psychiatry at Yale University. The discussion focused on depression and suicide among Korean youth. Dr. Jim Yong Kim expressed great concern about the alarming rates of depression and suicide in this demographic. Despite Korea's high suicide and depression rates, the treatment rate remains low, which he described as an unprecedented

mental health disaster worldwide. He highlighted that the current mental health issues facing Korean youth are more severe than the challenges he encountered while addressing AIDS and tuberculosis in Africa.

Dr. Kim emphasized that although there are no easy solutions to these complex and severe problems, confronting them is the first step toward recovery, even if immediate solutions are not apparent. He referenced Korea's history of resilience, recalling how the country rebuilt itself from one of the poorest nations postwar and overcame the national debt crisis during the IMF crisis by collectively gathering gold. He stressed that solutions can be found by facing these serious issues directly without turning away (Kim, 2024).

2) We need not be simply conformed to the preformed paradigm.

In addition to the mental health crisis among the younger generation, South Korea faces severe issues with low birth rates. The complexities surrounding South Korea's low birth rate involve various intertwined factors. South Korea is experiencing the fastest aging population in the world, and as it transitions into a superaged society, new challenges are emerging, such as the sharp increase in medical expenses, which is heightening the financial crisis in South Korea's healthcare system. Despite significant financial investments and numerous efforts to address the low birth rate and aging population issues, the situation remains unresolved. Instead, South Korea has firmly established itself as the country with the lowest birth rate in the world.

Professor Kim Young-mi, former Vice-Chair of the Presidential Committee on Aging Society and Population Policy, reported that South Korea faced a population cliff three times since the 1960s. The first occurred due to the government-led active birth control policy from the 1960s to the early 1980s, which significantly reduced South Korea's birth rate. The second population cliff was triggered by the 1997 Asian financial crisis, which severely impacted the South Korean economy. The economic difficulties led to mass layoffs, unemployment, and an increase in dual-income households, resulting in the collapse of the middle class and family disintegration and, subsequently, a significant decline in the birth rate. The generation that experienced family disintegration during childhood and adolescence in those years is now in their late 20 s to 30 s, the age at which new families start. This generation's desire for marriage and childbirth has significantly declined.

The combined effect of the declining birth rate and aging population has led to a population cliff, with South Korea experiencing a total population decrease for the first time in 2020. Professor Kim identified several major causes for South Korea's low birth rate, including job insecurity, economic instability, housing supply difficulties, economic burdens, childcare responsibilities, and the risk of career interruption. These factors contribute to the reluctance of young people to marry and have children, exacerbating the demographic challenges faced by the country (Kim, 2024).

Professor Folbre, renowned for her systematic analysis of the economic and social value of care provision and its integration into economic analysis, offered a unique perspective on South Korea's low birth rate issue through the lens of the care economy (Folbre, 2024). Folbre's concept of the "Care Economy" encompasses both unpaid caregiving, typically performed by family members, and paid caregiving provided by professionals in the healthcare, childcare, and eldercare sectors. Despite the critical role that caregiving plays in societal well-being and its significant economic benefits, its value is often underrecognized and undervalued.

Folbre highlights that caregiving roles are predominantly undertaken by socially disadvantaged groups, who frequently receive inadequate compensation for their efforts. Women, in particular, are often expected to fulfill these caregiving roles, leading to a lack of economic recognition and compensation commensurate with their contributions. In an economic policy and cultural context where the value of caregiving is overlooked and the burden disproportionately falls on women, many women are discouraged from entering marriage and childbirth. Professor Folbre argues for a redefinition of economic growth to include the value of care. She emphasized that for society to be sustainable, it is essential to support care work properly by recognizing the economic contributions of caregivers and ensuring fair compensation through supportive social policies. This redefinition involves shifting the existing concepts of economic growth and revising the criteria used to evaluate economic value. Folbre's insights suggest that addressing South Korea's low birth rate requires acknowledging and valuing caregiving work, thereby creating an environment where caregiving is supported and fairly compensated. This, in turn, could help mitigate some of the factors contributing to the declining birth rate, as women would not have to choose between caregiving roles and their economic well-being.

3) Whose Agenda is the SDG Agenda?

Professor Folbre's argument indicates that current complex issues cannot be effectively addressed with conventional paradigms and require a fundamental shift in thinking. Similarly, Professor Puleng LenkaBula, the Principal and Vice Chancellor of UNISA University, raises critical questions regarding the perspective from which the UN's SDG Agenda was proposed (LenkaBula, 2024). LenkaBula noted that despite Africa and Asia having a majority in terms of land area and population distribution, they are often treated as minorities in global governance frameworks.

Although the SDGs are designed as a global framework to be applied equally across all countries, they do not sufficiently reflect the unique historical, social, and economic contexts of African countries. This oversight makes it challenging for these countries to formulate and implement strategies to achieve their goals. Achieving the SDGs requires substantial financial resources, yet many African countries struggle to secure these resources because of the instability of their financial systems and the international community's failure to fulfill support commitments. Many African countries prioritize economic growth and poverty eradication, vet the SDGs emphasize environmental sustainability. This situation creates a significant challenge for African nations, as they strive to balance economic development with environmental protection. The influence of developed countries in establishing the SDGs means that the development priorities of African countries are often not adequately reflected, a criticism that must be honestly acknowledged and addressed.

LenkaBula's perspective prompts a critical reflection on the ownership of sustainable development. It is necessary to make decisions and efforts that incorporate the perspectives and priorities of Africa and Asia rather than defining the problems and needs of these regions from a Western perspective and setting development goals accordingly. The achievement of the first practical goal of the Millennium Development Goals, the eradication of extreme poverty and hunger, was largely due to economic revival and progress in Asia, particularly China. Therefore, the active participation of Africa and Asia will be crucial for the successful implementation of the future SDG agenda. This approach underscores the importance of inclusive and context-specific strategies in global development initiatives, ensuring that all regions can effectively contribute to and benefit from sustainable development efforts.

Yonsei SDGs Initiative to Overcome the Challenges

Yonsei University, as a leading research-oriented institution, is deeply entrenched in the "Publish or Perish" culture, where the pressure to produce research outputs is intense. This environment influences how professors and researchers choose their topics, often leading them to focus narrowly on their specific fields of expertise to ensure publication and funding success. In a survey conducted among professors at Yonsei University, I inquired about the connection between their research topics and the SDGs. Unfortunately, the response rate was low, and most respondents did not perceive their research as being related to the SDGs. This indicates a broader issue where research-related matters are highly sensitive and resistant to change. Encouraging professors to align their research with the SDGs can be perceived as interference, potentially causing significant resistance.

Given that research outcomes are a crucial component of academic evaluations, university researchers and their teams prioritize their established research agendas over interdisciplinary or SDG-related projects. This focus often leads to conflicts over securing and managing research funds. Despite various measures proposed to promote interdisciplinary research at the university, the anticipated results have not been realized. The siloed mentality among university researchers and teams, driven by the need for specialized expertise and the pressures of academic publishing, is a significant barrier. Overcoming this entrenched culture is challenging but necessary to foster a more collaborative and SDG-aligned research environment.

The IGEE at Yonsei University was established to support the university's activities related to sustainable development. Its mission includes fostering collaborative engagement, facilitating information networking, and conducting research and education related to the SDGs. The IGEE aims to synthesize these results to create transformative messaging that encourages societal participation in the SDGs. For Yonsei University to transition into an engaged university, active participation from professors is crucial. However, owing to the siloed mentality mentioned earlier, it has been challenging to garner such involvement. To address this, the IGEE launched the Yonsei SDGs Initiative. The Yonsei SDGs Initiative, spearheaded by IGEE, aims to overcome these challenges. By providing strong institutional support, creating collaborative platforms for interdisciplinary research, raising

awareness through targeted training, and implementing policy changes to incentivize SDG-related research, the initiative seeks to break down the existing silos and foster a culture of collaboration and engagement with the SDGs.

As the first step, the research team of the initiative decided to adopt an inductive approach on the basis of the following premises: first, all academic activities at the university contribute to the sustainable development of society; second, these activities can be classified on the basis of the SDGs: and third, this analysis should be evidence-based. To this end. 84.823 papers published in SCOPUS-indexed journals by Yonsei University professors from 2010--2023 were analyzed via natural language processing (Lee et al. 2023). The procedure involved assigning one or more labels to each document from a predetermined set of SDG-related labels. The analysis utilized the bidirectional encoder representations from transformers (BERT) model, specifically a finetuned RoBERTa model on SDG indicator text descriptions. This model employs extensive pretraining via diverse datasets, including English Wikipedia, BookCorpus, OpenWeb-Text, and CC-News. By applying this analysis method, the papers were classified according to the 17 SDGs. Notably. 46% of Yonsei University's research outputs were related to SDG Goal 3: good health and well-being. This finding is intriquing, as it reflects the university's historical identity, given that Yonsei University was formed by merging Yonhee College (established in 1915) and Severance Medical College (established in 1885).

The analysis technique can create networks of authors working on specific SDG areas and organize research around subtopics. On the basis of this analysis, IGEE aims to form researcher networks on specific topics to promote closer communication and form solution groups to address unresolved issues. The implication of this approach is that researchers can continue to focus on their current interests while their research outputs are used to scientifically and strategically connect them to the SDGs. This data-driven analysis can achieve new linkages that were not possible under the existing paradigm, fostering creative and innovative alternatives. This method can be applied to other universities via publicly available data such as the SCOPUS Index. Different universities will have different areas of strength, and universities can strategically collaborate on the basis of these strengths identified through data analysis. This approach can lead to more effective and synergistic partnerships in achieving SDGs globally.

As one of the key players in addressing the current global challenges, the response of academia remains delayed, mirroring the sluggish progress in the Sustainable Development Goals (SDGs). The prevailing culture often treats social engagement as an ancillary activity that is distinct and separate from academic research and education. The crucial importance and urgency of integrating social engagement into the core mission of universities is not yet fully recognized despite its essential role in the very existence and relevance of these institutions.

Universities must adopt a more proactive, strategic, and systematic approach to social engagement, acknowledging that all aspects of their operation have inherent social dimensions. This involves redesigning and supporting research, revising the content of teaching, and reforming evaluation policies for professors to prioritize and encourage social engagement. Such integration will not only enhance the impact of academic work on society but also ensure the continued relevance and survival of academic institutions in a rapidly evolving world. By embracing the idea that their primary functions—research, teaching, and service—are intrinsically social, universities can better contribute to solving the pressing issues of our time and make significant strides toward achieving the SDGs.

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