Policy brief

INVOLVING HIGHER EDUCATION (SDG4) IN ACHIEVING SUSTAINABLE CITIES AND COMMUNITIES (SDG11) THROUGH PROBLEM-SOLVING AND LEARNING-BY-DOING PRACTICES TOWARDS THE 2030 AGENDA

SEPTEMBER 2021

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ABSTRACT

Global goals are inherently interrelated and therefore effective, comprehensive action taken towards one goal can support the achievement of others. Identifying and addressing these interconnections will help communities and their active institutions to build holistic and systemic solutions, amplifying progress and minimising negative impacts (un.org). The relevance of this policy brief to the G20 is embedded in its target of contributing to "People, Planet and Prosperity" as components of an integrated system. Engaging local human resources in the environmental pre-figuration and decision-making process can enable self-generated prosperity within developing countries.

The G20 is the most global platform for policy briefing and decision-making. As urban settlements already involve half of the world's population and are rapidly increasing, a moderation mechanism must be put in place to accelerate the achievement of the SDGs, starting with SDG11 and SDG4.

Because global goals are inherently intertwined, effective global action taken towards one goal can support or hinder the achievement of others.

CHALLENGE

SDGs 4 and 11 are both crucial for a long-lasting impact and sustainable development. However, there are missing opportunities for reciprocal beneficial support in terms of cooperation, capacity building, population empowerment and operational logic of circular economy.

THE CHALLENGE OF SDG4

The UN has given extensive support in guaranteeing access to public education for millions of children worldwide, ensuring a fair childhood and the possibility of accessing the educational process. Globally we now see 88 per cent of children completing primary school, 72 per cent of adolescents finishing lower secondary school and 53 per cent of youth finishing their upper secondary education.

At the same time, little attention has been given to higher education and access to the world of work for the group of young people who, in developing countries, have completed or are completing their education cycle – providing learning activities in specialised fields of education. The goal here is learning at a high level of complexity and specialisation.

SDG4 is working to ensure inclusive and equitable quality education; however, it falls short of promoting lifelong learning opportunities for all. Also, as per the most recent UN and UNESCO reports, this SDG requires more investments from governments for complete achievement.

THE CHALLENGE OF SDG11

As is well known, two-thirds of humanity will be urban by 2050, making SDG11 highly significant for long-term global sustainable development. Rapid urban growth leads to mega-cities, especially in the developing world, peaking between the upscale and slum neighbourhoods and missing the opportunity for a significant improvement in quality of life. United Nations programmes offer guidelines to governments and local institutions.

However, progress requires external consultants due to the lack of local trained professionals/thinkers when it comes to actual implementation. Low-, middle- and high-income countries miss out on the opportunity for capacity building and effective community involvement, especially of skilled young people, in the transformation process.

The requirements generally reside elsewhere, and it is elsewhere that the capital of governments or agencies and development is channelled, without an adequate return to the territory in terms of capacity building.

The global challenge: Cross-fertilising initiative for a global achievement of SDGs

This is visible in the indicators applied to SDG4; just a few of them mention tertiary education and these relate to gender equity. In developing countries, the problem is general and not necessarily gender-related.

SDG8 and SDG13 can activate further contact points between the two SDGs regarding access to professional life and lifelong capacity building, social participation in decision-making, education on sustainable development, and achievement of the 2030 Agenda. However, these are not enough to fill the existing gap in terms of indicators and integrated actions.

PROPOSAL

1. *EXTENDING THE FOCUS OF SDG4 TO INTERLINKED OPPORTUNITIES FOR PROFESSIONAL FIELDS SUCH AS HIGHER EDUCATION DIPLOMAS*

Rationale

The interlinking among SDG4, SDG8 and SDG13, and their applicability to SDG11, is emerging as a growing topic within the UN debates, and confirmed by the High Level Political Forum (HLPF) 2019–2020 on SDG Learning and Training, which addressed the following questions: How to promote an integrative and systemic approach to give SDGs the highest probability of success in the years to come? How to provide life-long learning opportunities that have a heavy emphasis on Environmental and Sustainable Literacy? How to strengthen the collective resilience in a river basin by taking into consideration social, environmental and economic aspects under co-occurring risks?

Implementation and monitoring of the SDGs require access to knowledge, not only for policy makers and leaders but also committed and engaged individuals around the world to ensure nobody is left behind. SDG Learning, Training and Practice is a series of capacity-building and knowledge workshops held at the HLPF featuring speakers and experts from academia and other sectors on crucial topics for implementation of the SDGs. SDG Learning, Training and Practice is organised by the Division of Sustainable Development Goals of the UN Department of Economic and Social Affairs and the United Nations Institute for Training and Research. The 2019 edition of SDG Learning, Training and Practice was held from 9–15 July 2019 at the United Nations Headquarters in New York.

The 2019 edition of the SDG Learning, Training and Practice aimed at advancing knowledge and skills acquisition; networking; sharing experiences and peer-to-peer collaboration; learning about practical actions, best practices and capacity building; and sharing functional policy integration and coherence approaches. The sessions provided a space for HLPF participants to acquire practical knowledge while exchanging views on challenges faced and lessons learned.

Suggestions to implement on a local and national level

National and local agencies can enforce the SDG4 objectives and indicators by:

1.a Explicitly extending the scope of work of SDG4 to higher education and empowering of young resources in a process of high-end continuous training.

1.b Directly linking SDG4 to SDG8 and targeting more effective transition from higher education to professional fields.

1.c Developing new inter-goal indicators to measure the effectiveness of the transition mentioned above in terms of qualified jobs, training and mentoring process, long-term professional opportunities for locals, and a focus on young adults.

2. *EXTENDING THE FOCUS OF SDG11 TO THE DIRECT INVOLVEMENT OF HIGHER EDUCATION AND CONTINUOUS LEARNING AS A TOOL FOR LOCAL URBAN PROJECTS*

Rationale

Implement the SDGs by building on both the consulting experience and the local perspective

Aim for effective implementation of SDG11 through SDG4 by putting in place a system where the experience of foreign consultants and professionals merges into the learning-by-doing process and capacity building with local universities. Universities educate the generation of future professionals and citizens and usually have a vast knowledge and research background on urban planning and culture.

The beneficial effects will be:

·   Extensive training on SDGs to a large number of local students and young professionals (achievement of SDG13)

·   A long-term benefit to the local community from external counselling experience in terms of capacity building (achievement of SDGs 4+13)

·   A local perspective and participation of highly educated students and professors engaging in research-based problem solving, generating innovative urban visions.

·   A tool as a product of applied research that facilitates decision making and policy briefing on a diverse range of urban scenarios.

Suggestions to implement on a local and national level

National and local agencies can enforce the SDG11 objectives and indicators by:

1.a   Explicitly extending the scope of work of SDG11 to involve higher education and empowering of young resources in the process of high-end continuous training.

1.b   Directly linking SDG11 to a process of learning-by-doing in relation to SDG4, and indirectly to SDG8 and SDG13 targeting urban development as the kick starter for an effective transition from higher education to professional fields.

1.c   Developing new inter-goal indicators to measure the effectiveness of the transition mentioned above in terms of qualified jobs, training and mentoring process, long-term professional opportunities for locals and a focus on young adults.

1.d   Promoting the commitment to learning-by-doing practices as recognised research and academic activities in terms of accreditation and personal development.

3. ACTIVATING INTEGRATED SYSTEMS FOR THE APPLICATION OF SDGS INTO PRACTICAL PROJECTS FOR THE BENEFIT OF PEOPLE AND PLANET PROSPERITY. "PRIORITISE, ACT, LEARN" TO IMPROVE THE QUALITY OF LIFE AND EDUCATION

Rationale

Making cities sustainable means creating career and business opportunities, safe and affordable housing, and building resilient societies and economies. It involves investments in public transport, green public spaces and the improvement of urban planning and management in participatory and inclusive modes. Cities shape the future life of their inhabitants (un.org).

Collaborating with Objective 4 means partnership and commitment between governments, civil society, industry colleagues, universities and other educational institutions to support an inclusive and quality educational offer of direct placement in the community. Practices can be monitored and reported on the job and thoroughly engaging educational institutions, government, students and others to understand areas of need.

Considering the public benefit in approaching urban settlement as an industry dedicated to SDGs, we identify the main steps for an effective process in achieving the Sustainable Development Goals by:

- PRIORITISING actions based on their potential contribution to the SDGs, limiting the risks of negative impact during end-to-end operations and adopting practices that will maximise the positive impact for the SDGs and achievement of the 2030 Agenda.

- ACTING by enabling leading institutions to take context-specific actions that embody the five expected leadership qualities: purposefulness, ambition, consistency, collaboration and accountability.

- LEARNING from a positive impact on the SDGs to improve through continuous monitoring and evaluation, both internally and externally. Making the urban community resilient in capacity building and staff rotation, allowing all actors to benefit from accrued expertise (blueprint.unglobalcompact.org).

Suggestions to implement on a local and national level

National and local agencies can enforce integrated projects across the different SDGs (directly targeting SDGs 4 and 11 and indirectly SDGs 8 and 11) by:

3.1 Considering the urban and construction industry as an "as an industry dedicated to SDGs" requiring virtuous practices and procedures.

3.2 Rewarding municipalities and governments acting by implementing their urban development processes as an "as an industry dedicated to SDGs".

3.3 Monitoring the process through the above mentioned new global indicators.

4. DOING MORE WITH LESS IN A LOGIC OF CIRCULAR ECONOMY BY PRAISING THE INVOLVEMENT OF LOCAL RESOURCES IN DECISION MAKING

Rationale

Traditionally cities are the place where opportunities and business are located and find the best match with the market. With more than 80 per cent of global GDP generated in cities, urbanisation can contribute to sustainable growth if well managed by increasing productivity, allowing innovation and new ideas to emerge. The urban sector always involves a huge investment of capital, and in developing countries that capital goes to external consultancies without generating added value to the country and the population. On the other hand, education needs economic support, and the opportunity to engage in real cases of problem-solving. Shifting part of the investment for urban development to local research centres and universities in managing multi-stakeholder charrettes and learning-by-doing experience not only for students but for local professionals and institutions, the investment will be retained within the country, offering a consistent added value in terms of community engagement. Furthermore, when international experts are called to lead the transformational process through their extensive experience, they could mentor the local professionals and students, activating a process of high quality knowledge exchange and capacity building, preparing the future generation to take the lead.

The speed and scale of urbanisation brings challenges, including meeting accelerated demand for affordable housing, well-connected transport systems and other infrastructure, basic services as well as jobs, going into the risk of unsustainable sprawl with an expected extra 1.2 million km² of new urban built-up area globally within three decades. Such sprawl puts pressure on land and natural resources, resulting in undesirable outcomes; cities account for two-thirds of global energy consumption and more than 70 per cent of greenhouse gas emissions; and exposure to climate and disaster risk increases as they grow. It is advisable for developing countries to create an internally sourced task force to take the lead and orient development in terms of sustainability.

Suggestions to implement

Agencies are recommended to implement research-based policy-making across the different SDGs (directly targeting SDGs 4 and 11, and indirectly SDGs 8 and 11) by:

4.1 Considering themselves as an "as an industry dedicated to SDGs" requiring virtuous practices and procedures in achievement of SDGs.

4.2 Implementing their urban development and decision making by involving research and academia into a process of learning-by-doing and mentoring young adults in a process of long-term education.

4.3 Facilitating the allocation of human resources to mentoring and activating interactive exchanges with research institutions and academia.

4.4 Allocating resources for locally outsourced talents.

4.5 Adding to bids for consultants pro-bono mentoring activities to be spread throughout the local community and intended to bring practical results.

5. HIGHLIGHTING EXISTING BEST PRACTICES IN TERMS OF LEARNING-BY-DOING, OFFERING VISIBILITY AND IMPLEMENTING THE EXISTING PROGRAMMES TAKING THE LEAD IN CREATING THE NEW SYSTEM

Rationale

Examples of meaningful partnerships already exist, as described in the Global Education Monitoring Report 31720

The best known is the Canadian government partnering with provincial and territorial governments, municipalities, Indigenous peoples, businesses, youth and civil society to be at the forefront of addressing climate change. The following text is reported from their website.

The Pan-Canadian Framework on Clean Growth and Climate Change ensures true partnership in transitioning to a lower-carbon economy and building resilience (Canadian Government, 2016).

Building knowledge networks, capacity, and technical skills is essential. The Partnering Initiative offers training courses on fundamental skills and tools for cross-sector partnerships for sustainable development (The Partnership Initiative, 2019). The forest Carbon Partnership facility, a global multi-stakeholder partnership for climate action, includes a US$10 million capacity-building programme for Indigenous peoples and civil society to enhance their understanding of forest carbon stock efforts, commonly known as REDD+, and their engagement in REDD+ readiness and implementation (Forest Carbon Partnership, 2019).

To build capacity it is vital to challenge the status quo and aspire to equitable, meaningful partnerships, which require behavioural change at the top echelons of influence. The association to advance Collegiate Schools of Business, representing some 1,500 business schools in more than 100 countries and territories, advocates for a new vision for business education. It recommends that curricula pay closer attention to ethics, diversity and well-being, and promote non-private-sector careers (aaCSB International, 2016).

The UN Principles for Responsible Management Education initiative that started in 2007 engages with higher education institutions to motivate business students to deliver global challenges. In 2017, 179 universities shared information on their engagement with the SDGs in teaching, research and campus activity (UN PRmE, 2017). Still, business education does not emphasise inclusivity and sustainability. Critical thinking, soft skills, values and ethics were less stressed. Transforming education for sustainability and social responsibility requires significant changes in business education, research and faculty incentives (Dyllick, 2015).

Bottom-up, disruptive participation should be nurtured. As the Australian government developed Closing the Gap to improve Indigenous peoples' outcomes, this programme can be

mentioned here. However, only after ten years of failure to meet its goals, and complaints that it ignored Indigenous voices, did the programme embark on a partnership and joint leadership with Aboriginal and Torres Strait Islander representatives (Council of Australian Governments, 2018).

Furtehr actions can be recalled, showing a comprehensive integration among the different actors, and having significant impact on society and institutions:

- **The International Advanced Master MGPCA, Università La Sapienza Roma/ENSPLAV Paris Val De Seine was** awarded in 2020 and in 2021 as a Master of Excellence by the DTBEAC Lazio Center of Excellence for activating good practice in creating an international network between universities. Institutions and the world of work offer professional internships with a high level of placement among students. The Master, established in 2003 by M. Pazzaglini as a result of a lifelong commitment to approach the complexity of architectural projects, was developed as a first-hand learning process by visiting the best practices in Europe for urban development and management, exposing young professionals to the professional world. The process functioned as a multi-stakeholder information system and through an inductive method of observing good practices.

- **The University of Neighborhood UdN**, directed by J. Knielling, has been a pop-up experience of the HafenCity University's neighbourhood practice in Hamburg within IBA 2013 for bottom-up activities. The low-budget experience started with the rehabilitation of a small residential building in the developing district of Wilhelmsburg. Managed by the department of planning, the projects aimed to activate social engagement between students, who were invited to have their seminars, lectures and exams in the new district, and at the same time volunteer in the activation of events with participation and social involvement. The activity was an excellent catalyst for social activation within the most vulnerable category of the district, and empowering students in service-based design and professions.

- **The Riyadh Museum District Youth Challenge**, coordinated by A. L. Petrucci, was a bottom-up disruptive activity. It involved 120 students and about 20 professors from six Saudi universities. They met and engaged with over 40 professionals and stakeholders from local and international institutions, agencies and research centres. The challenge was the pre-figuration of possible scenarios for the forthcoming Riyadh Museum District as a TOD (transit-oriented development) pedestrian district in Riyadh. The single outputs were moving forward in complementary directions, city to architecture and architecture to city, to be merged into five different proposals of master plans to redevelop the historic centre of Riyadh. The adopted procedure made it possible to generate master plans from a perspective of low-scale architectural and urban design features, activating the concept of the fluid ecosystem instead of a superimposed grid. The outputs were presented to the developing agencies, already actively involved in the process, for further decision making. The project was presented at the **World Urban Forum WUF10** by ICOMOS and UDLG international representatives as a good practice for social engagement and an SDG activator toward the 2030 Agenda.

- **The I.M.R.** (Ignis Mutat Res. Penser l'architecture, la ville et le paysage au prisme de l'énergie) **two-year interdisciplinary research programme** is promoted by a cluster of French ministries and other partners. The workteam was selected through a competitive bid and financed with Euro 100,000. The multidisciplinary team was coordinated by N. Trasi, and included French researchers from the Laboratoire de Recherche Gerphau (ENSA PLV) as well as an Italian multidisciplinary team pulled from research centres such as Laboratorio di Ricerca LACA and further external experts, for a total of 20 people involved. The output of the research has been published by Collana Etudes, éditions du Moniteur, Paris 2019 in a book titled *Réhabilitation énergétique et mobilité urbaine. Etude de la contrainte patrimoniale au regard de celle de l'*énergie. The ministries involved have used the research outputs as guidelines in policy making and further implementation.

Suggestions to implement on a local and national level

National and local agencies can enforce implementation of research-based policy making across the different SDGs (directly targeting SDGs 4 and 11, and indirectly SDGs 8 and 11) by:

5.1   Listing the existing good practices and experiences.

5.2   Incentivising the creation of networking and dissemination of good practices.

5.3   Incentivising the creation of proximity and pop-up educational centres serving neighbourhoods and districts.

5.4   Basing policies on the experience of already existing best practices cases.

SUMMARY

Most of the recommendations mentioned here are already in place worldwide; however, not systematically. Moreover, in developing countries, outsourcing high-qualified jobs to external consultants is very prevalent, at the cost of not bringing enrichment in terms of capacity building or measurable and locally based projects. This policy brief looks towards people–planet–prosperity as interconnected elements for sustainable development. Building resilient and sustainable cities and communities through systematic good practices in terms of social involvement and capacity building would tremendously enhance – both quantitatively and qualitatively – the progress of SDG4 and SDG11, making them the hook to other interrelated SDGs.

This policy brief's recommendations directly aim to generate a more integrated and target-oriented procedural system on the part of central and local governments. The aim is to have a more substantial impact on local communities in optimising resources, ensuring concrete results and immediate application of best practices across the society, generating empowerment and setting higher standards for the young adults of developing countries while embracing and leading the transformation.

Suggestion for implementation by the G20 Italy

As demonstrated here, so far there is no systematic programme and implementation for this approach, as it has mainly depended on individual initiative. Its deployment on a global scale can only be effective under a broad systemic cooperation.

The G20 represents an exceptional opportunity involving higher education (SDG4) in achieving sustainable cities and communities (SDG11). It can play a unique role in leading worldwide problem-solving and learning-by-doing practices towards the 2030 Agenda.

Italy is known worldwide for its architecture and urban schools; both universities and urbanism were born in Italy while moving from the Middle Ages to the Renaissance. Universities had been founded in Italy by the end of the 14th century, while the best art and architecture schools competed in creating the Ideal City. Both models were immersive and strongly site-specific.

The Italian academy still maintains its name and reputation worldwide due to a comprehensive approach to architecture, based on broad spectrum culture and knowledge and evolved within communal times, where buildings merge with public space, and re-inventing the city as a fully human experience. The Italian (and then further European) model has been borrowed again for the newest urban theories of the 21st century, defined as slow-cities, 15-minute-cities, TOD districts, fine-grained mixed-use districts, and so on. These concepts are also all embraced by the UN-Habitat Quality of Life programmes.

We are recommending that Italy, through the G20, takes the lead in a further cross-fertilisation between academia and professional architectural practice by establishing a **Global Forum for Sustainability and Ideal Cities** under the Italian ***Presidenza del Consiglio dei Ministri***.

As a cluster of national and international institutions, universities, professionals and research bodies, the Steering Committee keywords of the Forum will be Sustainability, Ideal City, Human Centred Design, Quality of Life and Design Workshop.

The Forum can be further organised as a multi-author web portal, serving as a global dissemination tool. The policies, alongside the brightest examples of good practice, can be displayed and shared, creating yearly roundtables among experts worldwide.

REFERENCES

Canada Government https://www.canada.ca/en/employment-social-development/programs/agenda-2030.html

Global Indicator Framework, adopted by the General Assembly in A/RES/71/313 (Annex), annual refinements contained in E/CN.3/2018/2 (Annex II), E/CN.3/2019/2 (Annex II), 2020 Comprehensive Review changes (Annex II) and annual refinements (Annex III) contained in E/CN.3/2020/2 and annual refinements (Annex) contained in E/CN.3/2021/2, https://unstats.un.org/sdgs/indicators/Global%20Indicator%20Framework%20after%202021%20refinement_Eng.pdf

HafenCity University Hamburg, https://www.hcu-hamburg.de/

High-Level Political Forum on Sustainable Development, *Co-Designing Solutions to Integrate SDGs into Policies and Practices through Education and Capacity Development*, 9 July 2020, https://sustainabledevelopment.un.org/content/documents/26545HLPF2020_SessionConceptnote_3JulyRev2.pdf

IBA Hamburg Aktuell, https://www.internationale-bauausstellung-hamburg.de/story/iba-hamburg.html

I.M.R.https://www.culture.gouv.fr/Sites-thematiques/Architecture/Formations-recherche-et-metiers/La-recherche-architecturale-urbaine-et-paysagere-en-France/L-organisation-de-la-recherche/La-politique-de-recherche-incitative/Ignis-Mutat-Res-2011-13-2012-14-et-2013-15

La Sapienza Universita di Roma, *Master Internazionale di II Livello in Gestione del Progetto Complesso di Architettura MGPCA*, https://web.uniroma1.it/mgpca/

Scoping Progress in Education, https://www.education-progress.org/en

Scoping Progress in Education, *Access*, https://www.education-progress.org/en/articles/access

SDG Education Steering Committee, *Sustainable Development Goal 4*, https://sdg4education2030.org/the-goal

SDG Education Steering Committee, *Report*, 14 January 2021, https://sdg4education2030.org/sdg-education-2030-steering-committee-resources

SDGs Learning, Training and Practice, *2019 Report*, https://sustainabledevelopment.un.org/content/documents/246062019_SDG_learning_and_training_Report.pdf

UNESCO, *2019 Global Education Monitoring Report*, https://unesdoc.unesco.org/ark:/48223/pf0000265866.page=165

UNESCO, *2020 Global Education Monitoring Report*, https://en.unesco.org/gem-report/

UN Global Compact, https://www.unglobalcompact.org/

World Bank, *Urban Development*, https://www.worldbank.org/en/topic/urbandevelopment/overview

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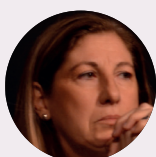
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