CROSS-CUTTING SOLUTIONS FOR THE DECADE OF ACTION

United they stand, divided they fail: the WEF nexus for SD capacity building

Maureen Papas, Honorary Research Fellow, The University of Western Australia
maureen.papas@uwa.edu.au
UK (mobile contact) +44 (0)79200 63712
35 Stirling Highway
Perth Western Australia 6009
Australia

Abstract

The year 2021 will mark the tenth anniversary of the WEF concept, launched at the Bonn Conference in 2011. Anniversaries are by definition commemorative and retrospective occasions and serve as an opportunity to *take stock* of lessons learned, remaining challenges and future directions. Although nexus thinking is not a new concept and pre-dates the recent focus on the WEF nexus, the idea triggered a need for research on nexus policy instruments and opened up opportunities for a new way of thinking about these important resources as well as promoting a cross-sectoral approach to resource governance in a bid to achieve effective Sustainable Development (SD). However, the term also raises questions: what methodologies and objectives of capacity building and practical linkages need to be developed to achieve the Sustainable Development Goals (SDGs) and can the WEF-nexus concept offer the mechanisms and solutions necessary to realize it? Such questions highlight the crucially important role of capacity building to facilitate a comprehensive approach to sustainable development (SD); what it means, its key objectives and why the idea is an essential part of 'the operational activities of the United Nations'. Yet, the potential of capacity building for making countries commit to ambitious action, let alone binding them to such commitments, could remain difficult to determine over the coming years and emphasizes the urgent need for an alternative approach to achieve the SDGs. Examining the experience of the climate change regime can provide important insights in relation to improving the modalities to realise capacity building because it is, like in the context of SD and SDGs, a primary means of implementation. This paper explores key challenges and a possible pathway to mobilise a different and more coherent approach to capacity building.

Keywords: SDGs, WEF nexus, capacity building, means of implementation, national circumstances, innovation, governance

Introduction

The WEF nexus, as a concept, burst onto the international scene in 2011. The World Economic Forum brought the issue of risk correlation between these three sectors—water, food, energy—to full political attention at the Davos Summit through the Global Risks 2011 report. The World Economic Forum describes the "water-food-energy" security problem as follows:

> A rapidly rising global population and growing prosperity are putting unsustainable pressures on resources. Demand for water, food and energy is expected to rise by 30-50% in the next two decades, while economic disparities incentivize short-term

> responses in production and consumption that undermine long-term sustainability. Shortages could cause social and political instability, geopolitical conflict and irreparable environmental damage. Any strategy that focuses on one part of the water-food-energy nexus without considering its interconnections risks serious unintended consequences.[1]

The WEF nexus aims to promote a systemic perspective with an emphasis on cross-sectoral approaches to development rather than advocating a sector specific focus.[2] Put simply, the word means to 'connect',[3] and since the Bonn 2011 Conference, the use of the concept has broadened to address interdependencies and integration to achieve the sustainable management of resources.

But, what methodologies and objectives of capacity building and practical linkages need to be developed to achieve the SDGs and can the WEF nexus offer the mechanisms and solutions necessary to realise it? These questions are relevant for a number of reasons. The WEF nexus, as a concept, challenges the effectiveness of conventional planning and decision making but does not provide guidelines to facilitate integrated planning and coordinate decisions, or clarifies the trade-offs that would need to occur with future planning and resource management. A perspective such as the WEF nexus needs a different kind of capacity building, one that breaks down silo thinking and focuses more on actual pathways needed to assist change.

Though the WEF nexus has an important purpose in the plight to achieve SDGs, more generally the process arising from elaborating innovative solutions to interdependent problems of water, energy and food creates challenges. It competes with existing ideas, such as, for example, Integrated Water Resources Management (IWRM) and Integrated Natural Resources Management (INRM) in terms of research funding, capacity-building and cost-optimizing models and also downplays any sense of urgency. Indeed, five years after the adoption of the SDGs and with 10 years until 2030, the rate of progress towards many of the SDGs has been slow and has prompted calls for more global action and cross-cutting solutions for the decade ahead.

To explore these issues in more detail, this article proceeds in four sections. The first section is a brief critical evaluation of the WEF nexus, the study of the connections between three resource sectors, together with the interrelations and trade-offs that arise from managing them. Second, the article briefly evaluates the 2030 Agenda and remaining challenges with a decade to go. The third part assesses the role of capacity building. This section also explores the role of capacity building in the climate change regime and what SD can learn. The fourth examines the role of the WEF nexus for SD capacity building and how to build effective and sustainable capacity systems to implement SD. The article concludes that the WEF nexus may support long-term sustainable practices and effective solutions but unless there is the capacity to support change, progress will be slow.

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[1] World Economic Forum, The Water-Food-Energy-Climate Nexus 2011 http://www3.weforum.org/docs/WEF_WI_WaterSecurity_WaterFoodEnergyClimateNexus_2011.pdf (accessed 1 July 2020).

[2] Hussey, K. & Pittock J. (2012). The energy-water nexus: Managing the links between energy and water for a sustainable future. *Ecology and Society, 17*(1), 31; Leck, H., Conway, D., Bradshaw, M. and Rees, J. (2015). Tracing the water-energy-food nexus: description, theory and practice. *Geography Compass 9*, 445-460. Doi: 10.1111/gec3.12222; Cairns, R. & Krzywoszynska, A. (2016). Anatomy of a buzzword: the emergence of 'the water-energy-food nexus' in UK natural resource debates. *Environmental Science Policy 64*, 164-170. Doi: 10.1016/j.wnvsci.2016.07.007.

[3] De Laurentiis V., Hunt, D. V. L., and Rogers, C. D. F. (2016). Overcoming food security challenges within an energy/water/food nexus (EWFN) approach. *Sustainability 8*, 95. Doi:10.3390/su8010095.

Water, Energy and Food nexus

Since 2011, the WEF nexus has risen to prominence in policy and development discourses. According to Hoff,[4] the nexus concept emerged within the international community in response to population growth, economic growth, urbanisation and climate change. These issues exacerbate pressure on water, energy and food resources, suggesting the need for more trade-offs in response to competition and potential conflicts over dwindling resources.[5] In 2014, United Nations Food and Agriculture Organisation (FAO) stated that:

> Water-energy-food nexus has emerged as a useful concept to describe and address the complex and interrelated nature of our global systems, on which we depend to achieve different social, economic and environmental goals. It is about balancing different resource user goals and interests – while maintaining the integrity of ecosystems.[6]

Yet, as the long history of integrated policy processes shows (i.e., integrated resources water management (IRWM) and SD), established institutional and administrative arrangements can be resistant to change due to the lack of policy coordination prevailing in many countries.[7] Despite these concerns, and the sheer scale of WEF resource extraction and consumption globally,[8] this nexus could create the momentum necessary to promote integrated resource management, as part of a wider repertoire of policy responses to address rapid global environmental changes.

Over the past ten years, the WEF nexus has sought to identify the complex relationship and synergies among key sectors that are core elements to the success of the SD paradigm. Indeed, resources in the WEF nexus are fundamental to the functioning of a society.[9] Water is deeply connected with energy and food, and it is these interconnections that need to be better understood and untangled to balance development and sustainable growth. For example, water and energy are deeply connected as energy is needed to process water treatments and water is an essential component in energy production (e.g. cooling, hydroelectric power, fossil fuel extraction). However, the interaction between both systems is affected by the urgent need to adapt to climate change, while reducing greenhouse gas emissions.[10] Meanwhile, water and agriculture are inextricably linked; water impacts crop

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[4] Hoff, H. (2011). Understanding the nexus. Background Paper for the Bonn 2011 Conference: The Water, Energy and Food Security Nexus. Stockholm Environment Institute. Stockholm; Dupar, M. and Oates, N. (2012). Getting to grips with the water-energy-food 'nexus'. London: Climate and Development Knowledge Network https://cdkn.org/2012/04/getting-to-grips-with-the-water-energy-food-nexus/?loclang=en_gb (accessed 1 July 2020).

[5] Endo, A., Tsurita, I., Burnett, K. and Orencio, P. M. (2015). A review of the current state of research on the water, energy, and food nexus. *Journal of Hydrology: Regional Studies* https://www.sciencedirect.com/science/article/pii/S2214581815001251 (accessed 1 July 2020).

[6] United Nations Food and Agriculture Organization (FAO). (2014). The water-energy-food nexus a new approach in support of food security and sustainable agriculture http://www/fao.org/3/a-bl496e.pdf (accessed 1 July 2020).

[7] Leck, H., Conway, D., Bradshaw, M. and Rees, J. (2015). Tracing the water-energy-food nexus: description, theory and practice. *Geography Compass 9*, 445-460. Doi: 10.1111/gec3.12222, 450.

[8] Agriculture is the largest user of water. Water is critical for agricultural production and plays a key role in food security.

[9] Brazilian, M., Rogner, H., Howells, M., Hermann, S., Arent, D., Gielen, D., Steduto, P., Mueller, A., Komor, P., R. J., and Yumkella, K. K. (2011) Considering the energy, water and food nexus: Towards an integrated modelling approach, *Energy Policy 39* (12), 7896-7906.

[10] Herath, I., Deurer, M., Horne, D., Singh, R., and Clothier, B. (2011) The water footprint of hydroelectricity: a methodological comparison from a case study in New Zealand, *Journal of Cleaner Production 19* (14), 1582-1589 https://doi.org/10.1016/j.jclepro.2011.05.007 (accessed 1 July 2020); Rothausen, S. G. S. A. and Conway, D. (2011) Greenhouse-gas emissions from energy use in the water sector. *Nature Climate Change 1*(4). Doi: 10.1038/nclimate1147.

yield and excess of or water scarcity both impact the quality and quantity of yield.[11] This suggests that each WEF system constitutes a significant security challenge as demand for water, energy and food is predicted to increase in the future.

From a policy and governance perspective, there are multiple advantages in a balanced perspective on the issues linking the water, energy and food sectors. Proponents believe that a nexus approach promotes policy coherence, reduces regulatory gaps and identifies governance arrangements that work across sectors.[12] While this is true, the debate over how to overcome the challenges of nexus governance is divisive. Some observers have argued that this type of structure requires a different regulatory framework and the creation of new institutions to deal with the integration of each sectors.[13] That would entail a new centralised *nexus* agency. Others believe that relying on existing mechanisms would be more realistic.[14] Indeed, existing mechanisms could provide a useful platform to set common agendas and meetings, although the most challenging aspect of this approach would be to set out the role of a centralised authority that could genuinely balance equity and fairness across sectors and promote cross-sectoral coordination.[15] More generally, the nexus approach seems appropriate for assessing and quantifying interactions between SDGs and their implementation.

The 2030 Agenda and the new SDGs

In June 2012, at the Rio+20 conference, held on the 20th anniversary of the Rio Earth Summit of 1992,[16] governments decided to develop global SDGs and set out to craft a strong post-2015 road map that aimed to build on the success of the Millennium Development Goals (MDGs).[17] The report of the Open Working Group on SDGs together with the Intergovernmental Committee of Experts on Sustainable Development Financing formed the package for the 2030 Agenda through a series of intergovernmental negotiations, in partnership with member states and civil society to ensure the broadest possible participation.[18] The Agenda, including the SDGs, were unanimously adopted in September 2015, at the UN headquarters in New York and came into force on 1 January 2016, attesting to national governments' and world leaders' commitment to stimulate action in a broad range of areas and respond to new challenges for the period from 2015 to 2030.

The development of the new set of goals was widely seen as an ambitious challenge.[19] With 17 Goals and 169 targets (the MDGs have eight goals and 21 targets), the SDGs are unprecedented in scale. These goals cover a much broader range of issues, including ending poverty, tackling climate change and ensuring peace and prosperity for all by 2030.

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[11] OECD. Water and agriculture: managing water sustainability is key of the future of food and agriculture https://www.oecd.org/agriculture/topics/water-and-agriculture/ (accessed 1 July 2020).
[12] Koulouri, A. and Mouraviev, N. (2020). Governance and the water-energy-food nexus. In Anastasia Koulouri and Nikolai Mouraviev (eds) Policy and Governance in the water-energy-food nexus: a relational equity approach. Routledge: Oxon, UK.
[13] Brazilian, above n 9.
[14] Paim, M-A., Salas, P., Lindner, S. Pollitt, H., Mercure, J-F., Edwards, N. R. and Vinuales, J. E. (2019). Mainstreaming the Water-Energy-Food Nexus through nationally determined contributions (NCDc): the case of Brazil. *Climate Policy 20*(2). 163-178. Doi: 10.1080/14693062.2019.1696736.
[15] Oliver and Hussey 2015
[16] United Nations, Rio Earth Summit https://sustainabledevelopment.un.org/milestones/unced (accessed 1 July 2020).
[17] United Nations Development Millennium Goals http://www.un.org/millenniumgoals/ (accessed 1 July 2020).
[18] European Commission. The 2030 Agenda for Sustainable Development and the SDGs https://ec.europa.eu/environment/sustainable-development/SDGs/index_en.htm (accessed 1 July 2020).
[19] Le Blanc, D. (2015) Towards integration at last? The sustainable development goals as a network of targets. Department of Economic and Social Affairs. Working Paper No. 141 https://www.un.org/esa/desa/papers/2015/wp141_2015.pdf (accessed 1 July 2020).

They aim to be universal, that is, applicable to all countries both in the developed and developing world. In addition, they provide a more systematic approach to combatting the root cause of global problems. For example, the SDGs acknowledge that ending poverty, a central issue for the SDGs with the first of the 17 Goals aiming to 'Ending poverty in all its forms',[20] must go hand-in-hand with strategies that build economic growth and address a range of social needs such as health, education, and job opportunities while also tackling climate change and environmental degradation.[21] Weitz et al[22] argue that the MDGs aimed to lift people out of poverty but failed to identify cross-sectorial goals. The SDGs, on the other hand, aim to keep people out of poverty in an integrated rather than fragmented manner and, thus, promote interconnections.

A lack of integration across sectors, in terms of strategies, policies and effective implementation, has long been perceived as one of the key pitfalls of previous approaches to SD.[23] While every effort was made to achieve greater integration across SDGs, [24] accounting for trade-offs and synergies across sectors, some observers question the extent to which integration has indeed been achieved. In a recent study, Le Blanc[25] points out that SDGs can be read as a network of targets connecting the different goals areas, with some goals connected to many other goals through multiple targets, while other goals are weakly connected to the system as a whole. Most emphasis is on the links between sustainable consumption and production (SDG 12), reduction of inequality (SDG 10), ending of poverty (SDG 1) and economic growth (SDG 8), which are all critically important areas. However, the explicit links between water, energy and food (SDGs 6, 7 and 2 respectively) and their targets are not strong.

Another challenge for the SDGs is that they are a statement of aspirations, a voluntary agreement, rather than a binding treaty. Meaning that all countries have a shared responsibility to achieve the SDGs and each country is expected to bear the cost of establishing its own plans and policies to drive the actions needed to achieve the goals and targets set out in the document.[26] Yet, the cost of implementation and capacity to translate each relevant SDG into national plans of action could be prohibitive in developing countries.[27] Different countries have different priorities and perspectives. As such, they are likely to focus on goals and targets relevant to their particular needs and national circumstances.[28] Thus, a number of issues need to be clarified, including guidance on long-term plans to help strengthen countries' ambitions and capacity. The SDG Index and Dashboards Report[29] (SDG Report) that aims to monitor progress across all SDGs, together with the *Addis Ababa Agenda*[30] that establishes measures to support the means of

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[20] United Nations, Sustainable Development Goals, Goal 1: Ending poverty in All its Forms Everywhere https://www.un.org/sustainabledevelopment/poverty/ (accessed 1 July 2020).
[21] United Nations, Sustainable Development Goals, the Sustainable Development Agenda https://www.un.org/sustainabledevelopment/development-agenda/ (accessed 1 July 2020).
[22] Weitz, N., Huber-Lee, A., Nilsson, A., Davis, M., and Hoff, H. (2014). Cross-sectoral integration and the Sustainable Development Goals: a nexus approach. Stockholm Environmental Institute (SEI), Discussion Paper, 1.
[23] Le Blanc, above n 19, 1; Allouche J., Middleton, C., Gyawali D. (2015). Technical Veil, Hidden Politics: Interrogating the Power Linkages benind the nexus. *Water Alternatives 8*, 610-626.
[24] United Nations, United Nations Conference on Sustainable Development Outcome Document: The future we want. A/RES/66/288, 11 September 2012.
[25] Le Blanc, above n 19.
[26] European Commission, above n 18.
[27] Jaiyesimi, R. (2016). The Challenge of Implementing the Sustainable Development Goals in Africa: the Way Forward, *African Journal of Reproductive Health (Special Edition on SDGs)*, *20*(3), 13-19. http://www.bioline.org.br/pdf?rh16029 (accessed 1 July 2020).
[28] Jaiyesimi, above n 27; Le Blanc, above n 19, 15.
[29] Sustainable Development Report. Sustainable Development Report 2019: transformations to achieve the sustainable development goals https://www.sdgindex.org/ (accessed 1 July 2020)
[30] United Nations, Department of Economic and Social Affairs. Addis Ababa Action Agenda of the Third Conference on Financing and Development https://www.un.org/esa/ffd/publications/aaaa-outcome.html (accessed 1 July 2020).

implementation of the 2030 Agenda for SD, could be critical for monitoring challenges and identifying the gaps that must be addressed to achieve the SDGs by 2030.

Five years after the adoption of the SDGs and with 10 years until 2030, a number of persistent issues remain. For instance, decision makers tend to ascribe poor performance of the goals to a reported US$2.5 trillion annual financing gap between current expenditure and what is required to achieve the goals.[31] Closing this gap will require a broad range of financing sources. Some estimates suggest that governments are likely to account for 65 percent of the SDG funding gap, leaving the private sector, which includes donor agencies, multilateral banks and private businesses, to make up the difference.[32] Another issue relates to the methodologies of some indicators. The outstanding methodology of so-called tier 3 indicators is preventing some goal targets from being measured,[33] suggesting that without vital timely data for several of the targets, the global effort to communicate progress towards SD may be seriously undermined.

Given the urgency of achieving the goals, the UN Secretary-General, Antonio Guterres, outlined his priorities for 2020, earlier this year and called on all sectors of society to mobilise for a Decade of Action to accelerate sustainable solutions to the world's most prominent challenges (e.g. closing the financial gap, poverty and inequality and climate change).[34] Since then, another unforeseen factor is now at play: the COVID-19 pandemic. COVID-19 is a threat multiplier with long-term cause and effect. Some authors profess that 'each generation faces its own difficulties in making its way in the World'.[35] To be sure, the pandemic will re-shape our view of the world but also will make attempts to engage more fully with SD that much more complex.

Means of Implementation and Capacity building: Risky, complex or practical?

Means of implementation (MOI) have featured prominently in key global agreements on SD, including Agenda 21[36], the Rio+20[37] document and more recently in the 2030 Agenda for SD, with goal 17 and target 17.9 of the 2030 Agenda devoted exclusively to how the SDGs should be achieved (see further below).[38] MOI are traditionally classified in terms of finance, technology, trade, capacity building, data and information and partnerships.[39] By the early

[31] United Nations, Press Release. Citing $2.5 Trillion Annual Financing Gap during SDG Business Forum Event, Deputy Secretary-General says poverty is falling too slowly https://www.un.org/press/en/2019/dsgsm1340.doc.htm (accessed 1 July 2020)
[32] Chrisney, M. (2019). Bridging the $2.5 trillion SDG-financing gap: is the private sector up the task? *International Banker* https://internationalbanker.com/finance/bridging-the-2-5-trillion-sdg-financing-gap-is-the-private-sector-up-to-the-task/ (accessed 1 July 2020).
[33] SDG Centre for Africa and Sustainable Development Solutions Network. (2019). *2019 Africa SDG Index and Dashboards Report* https://s3.amazonaws.com/sustainabledevelopment.report/2019/2019_africa_index_and_dashboards.pdf (accessed 1 July 2020).
[34] Sustainable Development Goals. Decade of Action: Ten years to transform the world https://www.un.org/sustainabledevelopment/decade-of-action/ (accessed 1 July 2020).
[35] Banister, D. (2019). A Future for Sustainable Development? In J, Meadowcroft., E Holden., K Linnerud., D Banister., O Langhelle, O and G Gilpin (Eds), *What Next for Sustainable Development? Our Common future at thirty.* Edward Elgar Publishing. UK.
[36] Sustainable Development Goals. Knowledge Platform. *Agenda 21 UNCED, 1992* https://sustainabledevelopment.un.org/outcomedocuments/agenda21 (accessed 1 July 2020).
[37] UN, above n 21.
[38] Sustainable Development Goals. Knowledge Platform. Sustainable Development Goal 17 https://sustainabledevelopment.un.org/sdg17 (accessed 1 July 2020).
[39] Department of Economic and Social Affairs and the United Nations Development Programme. TST issues brief: means of implementation; Global partnership for achieving sustainable development https://sustainabledevelopment.un.org/content/documents/2079Issues%20Brief%20Means%20of%20Implementation%20Final_TST_141013.pdf (accessed 1 July 2020).

1990s, capacity building became a 'buzzword' and a kind of organizing theme for development cooperation. While the term connotes something practical and the ability to do something, while telling us little about what that ability might be, 'capacity' as a concept remains impervious to any definition and is considered more of a practical and applied issue.[40] In 2006, Morgan[41] warned that those researching this topic, let alone trying to understand what it aims to achieve and by which methods, quickly realizes that there are many understandings of the term. This observation is not new and has been well documented throughout the literature but both a lack of understanding and no common frame of reference about capacity building can have serious implications in practice.

Nevertheless, much of the literature suggests that capacity building covers three levels: individual, organisational/societal[42] and global.[43] Some practitioners continue to see capacity building mainly as a human resource issue to do with skill development and training at the individual level.[44] Capacity in these terms has a long-standing history and is still highly regarded among international development agencies (IDA) and country governments.[45] For the IDA community, the concept of capacity building has symbolic connotations. Morgan explains that:

> Most governments and international funding agencies involved in the programming and management of development cooperation use it as an umbrella term under which most programming initiative, present and future, can be re-packaged, re-labeled and relegitimized.[46]

In other words, the malleability of the term gives practitioners and planners the flexibility to stretch it over a range of needs and circumstances. Despite this range of perspectives, there is an agreement in the literature that the key to capacity building success is ownership and empowerment of the process and products, or the ability of an individual or a group to make a positive contribution to public life.[47]

Meanwhile, defining what 'type' of capacity building is required to address the multidimensional and integrated problems of SDGs is even more challenging. As previously mentioned, capacity building can range from the macro (institutions or country) to the micro (individual). If capacity building is intended to provide some kind of support, we could explore what institutional and organizational infrastructure in a low-income country in Africa might need to meet its development needs. This might include issues around building state

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[40] Khan, M., Mfitumukiza, D and Huq, S. (2019). Capacity building for implementation of nationally determined contributions under the Paris Agreement. *Climate Policy 20*(4), 499-510; Khan, M. R., Roberts, T. J., Huq, S and Hoffmeister, V. (2018). The Paris Framework for climate change capacity building. Routledge: London; World Bank. (2005). *Capacity building in Africa, An independent evaluation.* Washington DC: Wold Bank Publications.
[41] Morgan, G. (2006). *The concept of capacity.* European Centre for Development Policy Management. https://ecdpm.org/wp-content/uploads/2006-The-Concept-of-Capacity.pdf (accessed 1 July 2020).
[42] OECD. (2006). The challenge of capacity development. Working towards good practice. In DAC guidelines and references series, 1-44. Paris: OECD; UNDP. (2009). Capacity development: A UNDP Primer, United Nations Development Programme https://www.undp.org/content/undp/en/home/librarypage/capacity-building/capacity-development-a-undp-primer.html (accessed 1 July 2020); UNDP. (2014). Governance for sustainable development: Integrating governance in Post-2015 development agenda. Geneva: UNDP https://www.undp.org/content/undp/en/home/librarypage/democratic-governance/discussion-paper---governance-for-sustainable-development.html (accessed 1 July 2020); World Bank, above n 44.
[43] Pearson, J. (2011). *Creative capacity development: Learning to adapt in development practice.* New York, Sterling Press.
[44] Alsop, R and Kurey, B. (2005). *Local organizations in decentralized development: their function and performance in India.* Washington, DC: The World bank.
[45] In the PNG study, the role of the churches was central to training. In Parkistan capacity building was predominantly about career development, promotion and training (see Morgan footnote 17 p 4)
[46] Morgan, above n 41, 5.
[47] Morgan, above n 41, 7; Khan, above n 40, 501.

capacity, state-civil society relationships and the role of the private sector.[48] Pearson[49] and others[50] warn that, a country culture, and to some extent its context, must be considered when thinking about capacity building interventions. This is because culture is the means through which people understand the world and how they conceptualize and respond to it, including the learning and change essential to sustainable capacity building. These issues relate to various factors, including political and institutional systems, corruption, the power dynamics between social structures and power, and the relationship between a country and its neighbours within a particular region. Conversely, the micro level refers more to the process of changing attitudes and imparting knowledge as well as developing personal skills.

Given the above, and to ensure that countries make good progress towards achieving the SDGs, what methodologies and objectives of capacity building and practical linkages need to be developed to achieve the goals, and can the WEF nexus concept offer the mechanisms and solutions necessary to realize it?

WEF nexus for SD capacity building

The WEF nexus may help reframe the perspective around water, energy and food. It could promote more balanced negotiations between sectors and stakeholders, even if doing so does not yet provide insights into the means to promote cross-sector coordination and collaboration that it seeks to influence.[51] Meanwhile, SDGs compared to its predecessors, the MDGs, aim to cover a broader and more ambitious agenda. As Le Blanc[52] points out, SDGs aim to cover the entire sustainable development universe which includes all areas of the human enterprise on Earth. Hence, in practice, SDGs will be of some use in providing guidance to address the links that exist between two or more goals but have less influence on others.[53] It will be important to track progress in areas where strong systemic links are known to exist, like the WEF nexus, where the link between each sector has been acknowledged but their targets are not well integrated. To address this problem, some scientists[54] are suggesting linking existing targets under different SDGs through so-called IPAT[55] equations to provide potential cross-checks on the progress of some of the targets for the implementation of SDGs.

Meanwhile, SDG 17 is dedicated to cross-cutting means of implementation for the whole set of SDGs with target 17.9 the devoted target to capacity-building that aims to:

> Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the

[48] Morgan, above n 41, 8; Teskey, G. (2005). *Capacity Development and State Building: Issues, Evidence and some implications for DFID* https://ecdpm.org/wp-content/uploads/2005-Capacity-Development-State-Building-Issues-Evidence-Implications-DFID-Governance-and-Social-Development-Group.pdf (accessed 1 July 2020); Fukuma, F (ed) (2006). *Nation-Building: Beyond Afghanistan and Iraq.* The Johns Hopkins University Press: Baltimore; Chesterman, S., Ignatieff, M., and Thakur, R. (eds) (2005). *Making states Work: State Failure and the Crisis of Governance.* United Nations University Press: New York.
[49] Pearson, above n 43.
[50] James, V. (ed) (2018). *Capacity Building for Sustainable Development.* Boston, MA: CABI.
[51] Pahl-Wostl, C. (2019). Governance of the water-energy-food security nexus: A multi-level coordination challenge. *Environmental Science and Policy 92*, 356-367; Weitz, above n 56, 165.
[52] Le Blanc, above n 19, 11
[53] Ibid.
[54] Griggs, D., Stafford Smith, M., Rockstrom, J., Ohman, C., Gaffney, O., Glaser, G., Kanie, N., Noble, I., Steffen, W., and Shyamsundar, P. (2014). An integrated framework for sustainable development goals. *Ecology and Society 19*(4), 49 https://www.ecologyandsociety.org/vol19/iss4/art49/ (accessed 1 July 2020).
[55] IPAT is an equation that expresses the idea that environmental impact (I) is the product of three factors: population (P), affluence (A) and technology (T) or I = P x A x T

sustainable development goals, including through North-South, South-South and triangular cooperation.[56]

We know that capacity building is a prominent *means of implementation* in the SD regime and a fundamental precondition of achieving SDGs. In the context of target 17.9, there is a clear sense that developing countries do not have the same capability to measure, report progress, or increase resilience against various threats, including climate change, poverty and hunger. To make matters worse, these same countries are often the ones that suffer the most and are least capable of making changes. To breach this gap, the UN called on the international community to help protect the most vulnerable, with the mandate to increase knowledge exchange between the Global Nord and South and oversee progress. Logically, it will require participation from all but it remains unclear what this will mean in practice.

The way forward

2020 marks the start of the Decade of Action to deliver the SDGs by 2030. It is a critical period to advance the aspiration shared by the international community to end poverty and create more peaceful, prosperous and sustainable conditions for everyone to share. In the last ten years, the WEF nexus has also become a popular concept in policy debates about the merits of integrated solutions across sectors; an idea that is viewed as critical to address the pressure on the ecosystems that supply these vital resources. However, the nexus does not add conceptual or operational value to SDGs. Nor does it provide an action plan or time-bound targets with which to measure progress. The instrument that drives action is Agenda 2030 and SDGs, albeit subject to more concrete guidelines and vital data for several of the targets. Yet, their future progress could be seriously curtailed due to the impact that COVID-19 is having across the globe and will have in the future.

In this light, the following points should be considered. First, the WEF nexus can reinforce collaboration on issues linking water, energy and food sectors but ultimately, progress in implementing SDGs and their targets will contribute to the achievement of Agenda 2030 and by implication the WEF nexus. Although not perfect, the SDGs are an interconnected system with goals and targets that are a common benchmark against which the course of human enterprise can be assessed and provide the basis for increased cooperation among nations to achieve SD. Because of these connections, the structure of the SDGs, as compiled by the Open Working Group, can promote greater policy integration across goals,[57] so long as leaders are committed to supporting integrated policy across sectors. Secondly, improving capacity building on the ground has been highlighted for decades. In fact, capacity building has been identified under several environmental regime but as some authors[58] have suggested, they have not succeeded in establishing institution-based capacity in developing countries. Meaning, most developing countries continue to face significant capacity challenges undermining their ability to effectively carry out the SD actions they intend to pursue.

The demand for more capacity building identified in target 17.9 suggests that the capacity required to strengthen national plans and promote dialogue is still not properly addressed.

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[56] Sustainable Development Goals, Knowledge Platform, Capacity-Building Goal 17 https://sustainabledevelopment.un.org/topics/capacity-building (accessed 1 July 2020).
[57] Le Blanc, above n 19, 9.
[58] Huq, S. (2016). Why universities, not consultants, should benefit from climate funds https://www.climatechangenews.com/2016/05/17/why-universities-not-consultants-should-benefit-from-climate-funds/ (accessed 1 July 2020); Khan, M. R., Roberts, J. T., Huq, S., and Hoffmeister, V. (2018). *The Paris framework for climate change capacity building.* London: Routledge.

This theme is highlighted by lessons from the climate change regime under the United Nations Framework Convention for Climate Change (UNFCCC)[59] and the Paris Committee on Capacity Building (PCCB).[60] The PCCB was established in 2015, by the Parties to the UNFCCC, with the mandate to oversee and coordinate the implementation of the capacity building work plan for the period 2016-2020. The decision to create a new entity dedicated to capacity building was prompted by developing countries expressing the need for more support from the UN, as there was no centralised institution to ensure coherence and coordination among the various agencies and funding entities pursuing the capacity building agenda.[61] At the 2018 New York Climate Week, the UNFCCC Executive Secretary Patricia Espinosa stated that there is a high demand for capacity building among developing countries.[62] Despite the request, the climate change regime is obviously still struggling to fulfil their demand.

The PCCB could potentially play a key role in ensuring coherence and coordination in capacity building activities under the UNFCCC and Agenda 2030. However, as Khan[63] points out, the PCCB budget, authority and remit, in short, its own capacity, is uncertain. Thus, the issue of capacity building in the context of the climate change regime and the SD regime is proving illusive thus far. In fact, the best indicator to evaluate capacity building exclusively devoted to SDGs should be whether national capacity systems and capacity suppliers are able to fulfil each goal. As James[64] and others[65] have shown, capacity-building needs vary across groups of developing countries; the needs of least developed countries (LDCs) are different from those of middle-income countries, which calls for differential capacity building responses. With Africa, James suggests, capacity building will only be possible when the governments of African countries move away from dictatorships and corrupt regimes towards peaceful and freer market-based economies.[66] Capacity building is complex and treacherous business, especially in fragile or unstable political contexts. It will take time, a new perspective and a new set of institutional frameworks to build real capacity.

Conclusion

Exploring SD capacity building through the lens of the WEF nexus highlights the role of system thinking. At the core of the idea is a nexus approach that can promote efficient resources management across sectors to achieve more sustainable outcomes, such as those emphasised in the SDGs. Yet, nexus methods often fall short of capturing interactions among the three sectors (water, energy, and food) they purport to address. This was clearly demonstrated in Le Blanc's network techniques analysis. Nevertheless, in the last ten years, the WEF nexus has become a novel conceptual tool and central to discussions regarding SDGs despite the fact that the nexus fails to explicitly or adequately provide action plans or time-bound targets to measure progress. The instrument that drives action is Agenda 2030 and SDGs but progress to date has been slow and is predicted to be further hindered by the spread of the novel coronavirus that turned a public health emergency into one of the worst international crises of our lifetimes.

[59] UNFCCC (29 May 1992, reprinted in 31 ILM 849, 1992).
[60] United Nations Climate Change, Paris Committee on Capacity Building https://unfccc.int/pccb (accessed 1 July 2020).
[61] Khan, above n 40, 503; Khan, above n 40, 11;
[62] UNFCCC (2018). Year book of climate change action 2018; Marrakech Partnership, United nations Climate Change Secretariat https://unfccc.int/sites/default/files/resource/GCA_Yearbook2018.pdf (accessed 1 July 2020).
[63] Khan, above n 40, 13.
[64] James, above n 50.
[65] Khan, above n 40.
[66] James, above n 50.