

Designing and Evaluating Coherent Policies and Measures for the SDGs

An Input Paper for the GSDR 2023

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Introduction: Policy-relevant Scientific Advice in the 2023 GSDR

Marianne Beisheim¹ and Anne Ellersiek²

At the SDG Summit 2019, heads of state and government adopted a Political Declaration and called for a “decade of action and delivery”. At the same summit, the Independent Group of Scientists officially presented the 2019 Global Sustainable Development Report (GSDR). To speed up implementation, they called for identifying *integrated* transformational pathways and suggested to apply *several “levers”* and to forge action coalitions around those. They pointed out that the systemic interactions between goals and targets (co-benefits and trade-offs) may offer solutions in terms of accelerated action, both in terms of scale and speed. It is necessary that policies take advantage of positive synergies while tackling trade-offs.

In 2021, the High-level Political Forum on Sustainable Development (HLPF) asked participants to present *integrated measures* to bring forward a sustainable and resilient recovery from the COVID-19 pandemic. Yet, in their voluntary national reports (VNRs) to the HLPF, member states provide hardly any substantial insights about multiple-win policies or coherent policy packages to achieve the Sustainable Development Goals (SDGs) and to recover better (Beisheim, Bernstein, et al. 2021).

Many call for synergistic solutions, systemic approaches, integrated policy interventions, multiple-win solutions, or rapid transition alliances. We need convincing examples that could inspire others to follow that path. ***As the GSDR is an assessment of assessments, we would like to see the GSDR 2023 identify and discuss examples of integrated transformative policy interventions!***

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The *academic literature* offers some insights that deserve more attention. While excellent research that assesses interactions among goals and targets is already taken up, research results on integrated policies and coherent policy packages need to become more visible. For example, Barbier and Burgess (2020) identify fossil fuel subsidy swaps (to fund clean energy investments and dissemination of renewable energy in rural areas) and the reallocation of irrigation subsidies (to improve water supply, sanitation, and wastewater infrastructure) as cost-effective policies that could yield immediate progress towards several SDGs together. Moreover, Barbier et al. (2020) call for more countries that have tropical forests to adopt a tropical carbon tax. This tax is a levy on fossil fuels that funds natural climate solutions while reducing the use of oil, gas and coal and mobilizing domestic funds for adaptation and mitigation. They show that countries like Costa Rica and Colombia have successfully done this. They project that, if twelve other countries would roll out a tropical carbon tax, they could raise USD 1.8 billion / year to invest in natural habitats that benefit the climate. In these cases, introducing or changing one policy would have multiple effects. Other studies assess the impact of mixed policy packages. Soegel et al. (2021), for example, model and quantify outcomes of a package of policy interventions that would substantially boost progress towards many SDGs and simultaneously facilitate reaching climate targets. They also include a burden-sharing scheme and international financial transfers with regards to the eradication of extreme poverty. The authors conclude that substantial progress is possible but requires a combination of strong policy interventions across multiple dimensions.

On 26 October 2021 the German Institute for International and Security Affairs (SWP) together with the Science Platform Sustainability 2030 (wpm2030) organized a webinar to gather scientific input for a joint input to the GSDR 2023. In this paper all speakers present their key messages; referenced work is listed at the end.

We would also like to thank all participants for their comments during the webinar, special thanks go to Åsa Persson as a member of the Independent Group of Scientists that drafts the 2023 GSDR.

In our webinar, participants discussed several *tools, measures and policies that deal with climate change and one or multiple SDGs*. Climate change presents one of the biggest threats to sustainable development and its widespread, unprecedented impacts disproportionately burden the poorest and most vulnerable (Steckel et al. 2021). Urgent action to halt climate change and deal with its impacts is integral to successfully achieving the SDGs. Yet again, countries are far behind in achieving the low-carbon and climate-resilient path envisioned by the Paris Agreement. Reporting on the Nationally Determined Contributions of the Paris Agreement (NDCs) shows gaps in ambition, preciseness, and integration (cf. Shawoo et al., 2020).

Moreover, the webinar dealt with *contextual factors* that may hamper or strengthen policy coherence. Scientists as well as policymakers need to look deeper into these underlying factors, such as the *institutional* preconditions for policy design and implementation unique to each national context (Dissanayake, 2021). Across countries then, such factors that may

explain successful integration and implementation need to be analyzed and aggregated to pool knowledge for cross-fertilization and peer-learning from experience.

The preliminary findings we present below represent first steps on an “integrative pathway to transformation”. We recommend that the GSDR 2023 reviews and presents many more insights from research on *how to* achieve the transformation towards sustainable development.

NDC-SDG Connections Tool
Adis Dzebo and Zoha Shawoo³

The *NDC-SDG Connections tool* may be used by policymakers to plan for a more coherent, coordinated implementation of the SDGs and climate action (Brandi et al. 2017; Dzebo et al. 2017; Shawoo et al., 2020). The NDC-SDG Connections tool identifies the most important overlaps and potential synergies between the NDCs and the 2030 Agenda. The tool shows not only which SDGs are most represented in countries’ NDC activities, but also which targets are most important from a climate perspective (Figure 1).

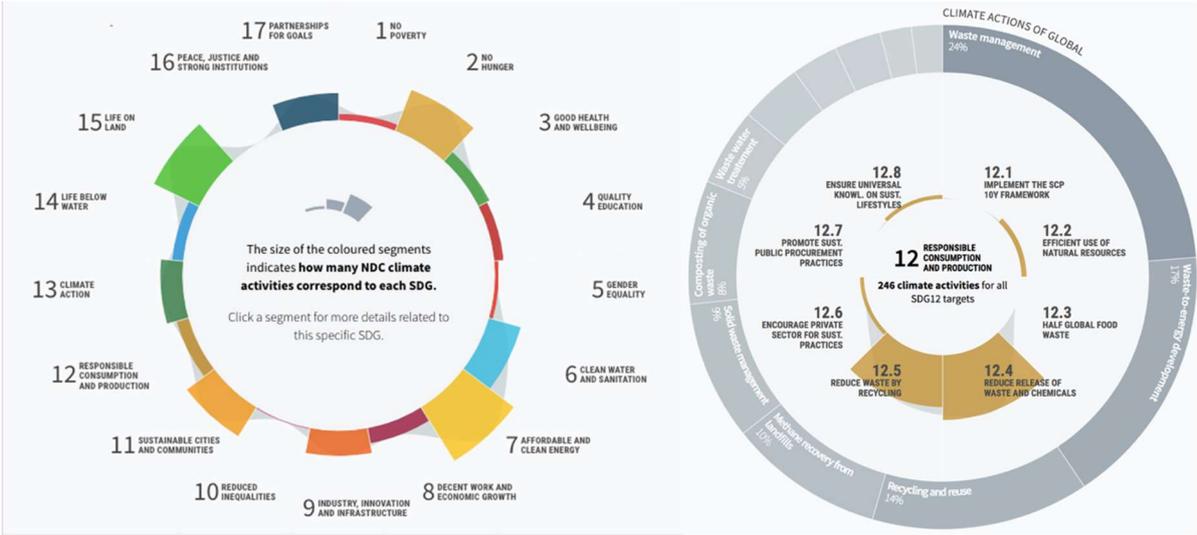


Figure 1 NDC-SDG Connections (Left: Aggregate findings, Right: Distribution of NDC Activities for SDG 12)

Studies have pointed to potential trade-offs between national climate policies, such as the NDCs, and the implementation of the SDGs. In particular, the need to address distributional impacts and inequality emerges as a critical requirement for climate action and vice versa. Distributional consequences of climate action clearly point to the potential for trade-offs between the goals of climate action and reducing inequalities (SDG 10) at both the national and global level. Policy coherence could be a potential solution for mitigating these tradeoffs.

At the national level, an analysis on how countries are implementing the two agendas identifies the synergies and conflicts between climate goals and SDGs in six countries – Germany, Kenya, South Africa, Sri Lanka, Sweden, and the Philippines – and offers insights on

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the key barriers and governance challenges to policy coherence. A particularly important finding of this study is that the goal to reduce inequality, or SDG 10, conflicts with other goals in all six countries, appearing when governments plan for just energy transitions away from fossil fuels, promote economic growth for poverty alleviation, or enact fuel taxes that open up an urban-rural divide.

Institutional measures, such as reducing government fragmentation, can increase policy coherence. But policymakers also must look to the underlying political factors that are at the root of policy incoherence, such as the values, norms, and vested interests unique to each country (Shawoo et al. 2020). At the national level, it is important that both synergies and potential trade-offs and goal conflicts are taken into account. Countries are more likely to meet the goals of the Paris Agreement and the 2030 Agenda if they enhance policy coherence efforts.

At the global level, SDG 10 'Reducing inequality' once again emerges as a key issue for increasing synergies between the two agendas. Applying the SDG Synergies methodology (Weitz et al. 2017), interactions between key SDG targets, as viewed from a climate change perspective, are primarily synergetic with one another at the global level when pursuing efforts to limit temperature increase to 1.5 degrees (Figure 2). Moreover, target 10.2 'achieving inequality reduction' has a positive influence on almost all other targets. At the same time, achieving all other targets generally has a strong positive influence for reducing inequality (Figure 3).

Overall, findings at both the national and global level demonstrate the critical need for policy coherence efforts between climate change and sustainable development to limit goal conflicts, such as increased inequality. There is great potential for policy coherence between the implementation of the 2030 Agenda for Sustainable Development and the Paris Climate Agreement if global synergies are harnessed for coherent implementation at the national level. Insights from the NDC-SDG Connections could guide the follow-up and review process for the SDGs at the High-Level Political Forum and should generate thematic reviews that truly integrate climate change into the 2030 Agenda. Furthermore, Countries should draft their national sustainable development strategies in light of their NDC commitments in order to identify and build on synergies between them. Similarly, future updates of NDCs can take account of existing national sustainable development strategies to further strengthen synergies (Dzebo et al. 2018).

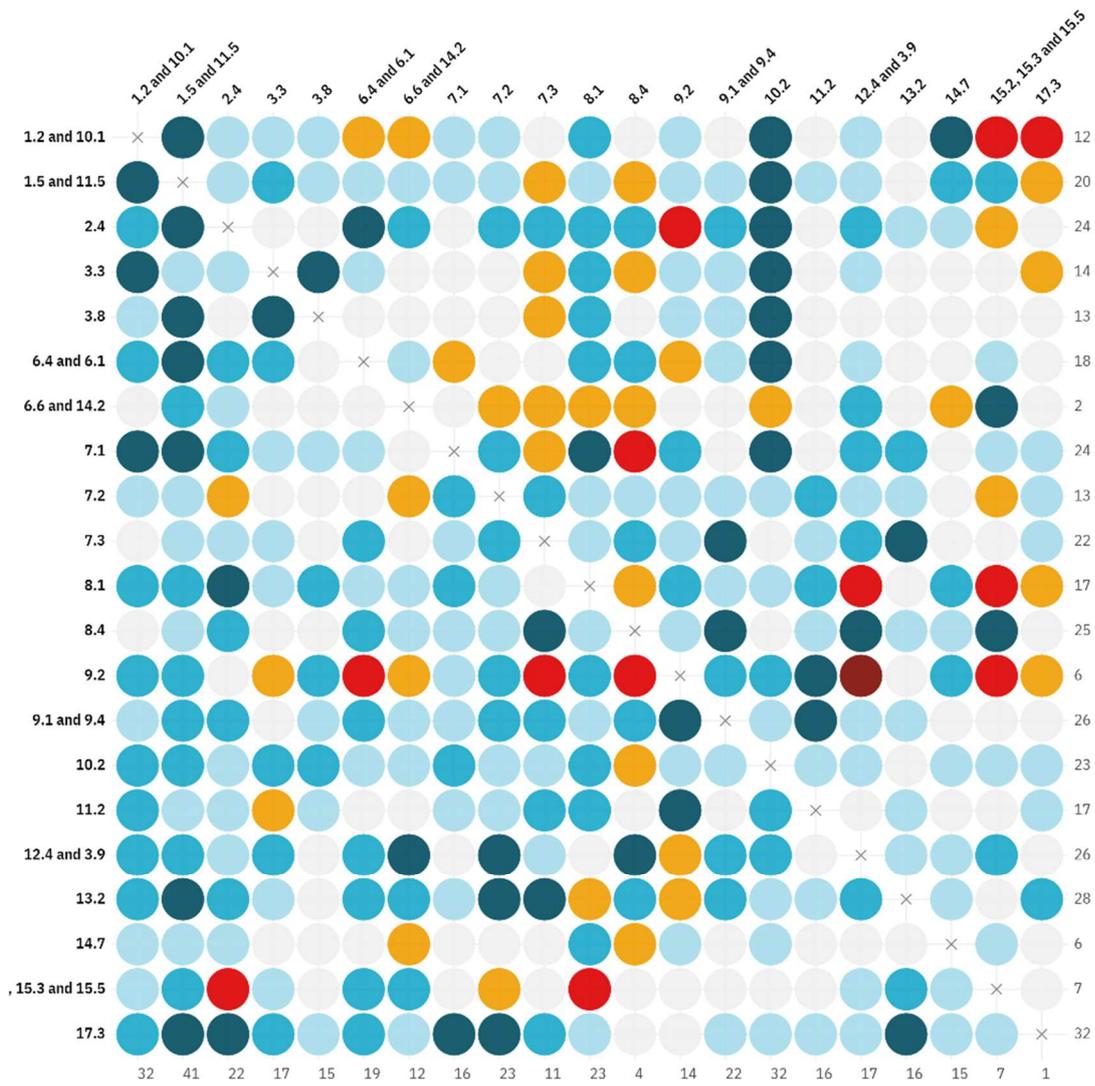


Figure 1 Global SDG interactions from a climate perspective

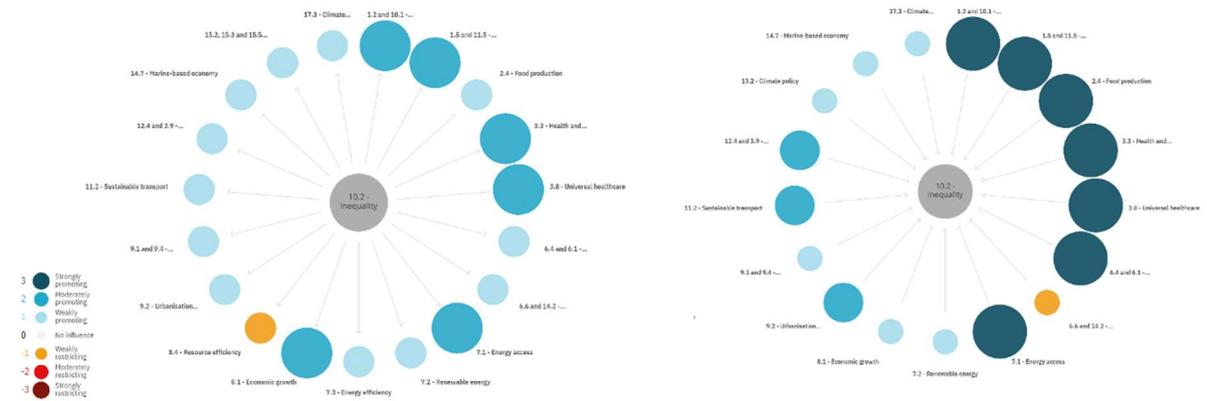


Figure 2 Inequality as a catalyst for coherent climate and SDG implementation

Fossil fuel subsidy reform

*Jonas Kuehl*⁴

Fossil fuel subsidy reform is a smart tool for mitigating climate change but can also help deliver on a host of other SDGs. Rationalizing fossil fuel subsidies are mentioned directly as a target of SDG 12 as a means to decoupling economic growth from natural resource use. Fossil fuel subsidies also encourage a wasteful consumption of fossil fuels which fuels the climate crisis (SDG 13) and local air pollution (SDG 3) and hinder the uptake of the clean energy transition (SDG 7) as they make fossil fuels more competitive than renewable alternatives. Moreover, in many cases most fossil fuel subsidies go to the wealthier parts of the society that generally have higher levels of consumption and also men, which makes fossil fuel subsidies inefficient tools to reduce poverty (SDG 1) and gender inequality (SDG 5). Finally, governments spend several hundred billion dollars every year on fossil fuel subsidies. If they were reformed, this money could be shifted to more productive and socially desirable ends that support achieving other SDGs.

The latest research carried out by the Global Subsidies Initiative (GSI) of the International Institute for Sustainable Development (IISD) found that the total size of emission reductions achieved through the reform of fossil fuel subsidies to consumers could be very significant, but the potential can vary greatly in different countries (Kuehl et al. 2021). Based on a tool to estimate emission reductions, IISD-GSI modelled 32 diverse countries that accounted for 77% of global CO₂ emissions, 72% of global GDP, and 72% of the global population in 2019. The results show that a gradual removal of fossil fuel subsidies until 2025 could reduce global GHG emissions by almost 5.46 billion tons of CO₂ by 2030, equivalent to the annual emissions of about 1,000 coal-fired power plants running on full capacity. Across all countries analyzed, the average annual emission reductions would be 6% by 2030. However, this could be as high as 35% in countries where a large percentage of the government budget goes toward subsidizing fossil fuel consumption, such as for example Venezuela, Iraq, and Algeria. In contrast, countries with comparably larger economies like China, Saudi Arabia, Iran or India show the largest emission reductions in absolute terms.

The analysis also showed that governments can save on average around USD 546 for every ton of CO₂ removed through fossil fuel subsidy reform. These savings would add up to a total of almost USD 3 trillion through to 2030. If only 30% of these subsidy savings were to be invested into energy efficiency (20%) and renewable energy (10%), this would result in further average annual emission reductions of about 3% and additional cumulative emission reductions of 2.5 billion tons of CO₂ by 2030. By 2040, however, the emissions reductions – both in percentage and absolute terms – from this fossil fuel subsidy swap would actually be higher than those from fossil fuel subsidy reform. This is because the percentage reduction of fossil fuel subsidy reform levels off at the time when all fossil fuel subsidies are already

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reformed, whereas the past investments into energy efficiency and renewable energy will also continue to contribute throughout their lifetime.

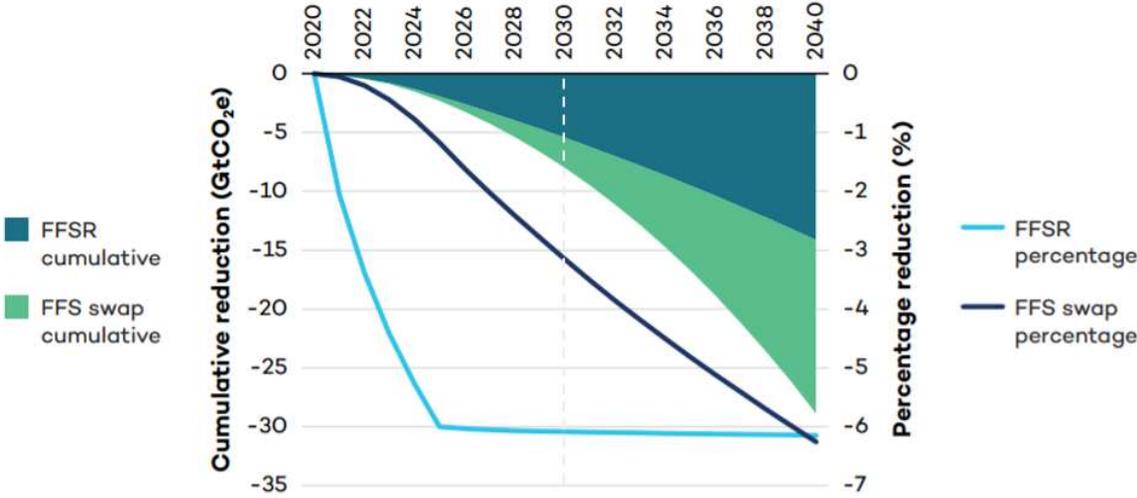


Figure 1

Governments are often hesitant to reform fossil fuel subsidies. One concern is that it could have negative impacts on vulnerable groups and cause public unrest. Research has shown that there are several ways how governments can manage such concerns: sufficient compensation packages that shield vulnerable groups – e.g. through direct cash transfers – identified on the basis of a stakeholder engagement process are meaningful ways to generate support. Similarly, effective communication strategies focusing on the benefits of reform – e.g. fiscal space for more socially desirable investments – can help raise awareness about the need of fossil fuel subsidy reform. Finally, the technicalities of the reform process are also important: The gradual removal of fuel subsidies is often advised instead of a reform that increases prices significantly in one shot, as such a phased approach allows more time for the people to prepare for the impacts of subsidy reform.

Climate-smart Digitalization

Marcel Dickow and Christian Loewe⁵

The 2019 report “Towards our common digital future” by the German Advisory Council on Global Change (WBGU) analyzed the synergies between digitalization - as a wider process of societal transformation - and SDG implementation and highlighted the new systemic “inter-twinned transformative challenge” (WBGU 2019a; WBGU 2019b). This analytical perspective goes far beyond the question of the “technological lever” to accelerate SDG implementation as technological means of implementation: it emphasizes the wider re-configuration of societal, economic, social, institutional, and even ethical and normative formations induced by the ongoing digital transformation, the “digital age of humans”. These new formations of human civilization could be summarized by key characteristics of the “digital age” as followed (WBGU 2019):

- **Interconnectedness:** the all-embracing interconnectedness of things, systems, processes, persons, and organizations.
- **Cognition:** the digital technologies increasing cognitive capabilities.
- **Autonomy:** the growing autonomy of digitalized systems such as robots or vehicles.
- **Virtuality:** the increasing use of virtual spaces and virtualized technical services.
- **Explosion of Knowledge:** the equally revolutionary further development of many scientific disciplines that are leading to a hitherto unknown explosion of knowledge.

Up to now, these overall disruptive forces induced by digitalization are not well anticipated in the 2030 Agenda and its modes of implementation (TWI2050 2019; Future Earth / Sustainability in the Digital Age 2020). The global COVID-19-pandemic and its various implications create clear evidence on the growing emergence of a new “paradigm of digitality” as new normality, modality and rationality in the overall process of societal modernization towards sustainability, including the modernization of the institutional foundations and design of transformative environmental and sustainability policy itself (Ginzky / Löwe / Neßhöver 2020; BMU 2020; German Environment Agency 2021).

Accordingly, the acceleration of the implementation of the 2030 Agenda is relying on new integrated socio-technological system solutions and a new form of a “global digital agenda” for the 2030 Agenda (i.e. not relying on digital technological singularities alone, see also United Nations 2020; CODES 2021). So far, this “digital turn” in the configuration of the implementation of the 2030 Agenda is not yet well recognized in the scientific global assessments (e.g. UNEP GEO-6 2019; GSDR 2019), nor well understood in the actual political debate to re-design the policy implementation (e.g. Debate in UNGA Special Session 2021). Digitality is – in sui generis - a new “game changer” for the sustainability transformations in itself, which calls for a deep re-thinking of the transformation design of policies, including its

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institutional and normative foundations, and new ways of integrative agenda-setting towards reaching digital sustainability, in several policy areas, like for example:

Policy Area: <i>Eco-Design for climate-neutral digitalization</i>
➤ Globalized standards of digital hardware, software, IT / IoT-systems, global supply chains, circularity.
Policy Area: <i>Sustainability of the Data Economy</i>
➤ Green Global Data Infrastructure, Data Sufficiency, Platform Economy & E-Commerce, Smart Infrastructure & Smart Manufacturing.
Policy Area: <i>Digital applications & Enablers for (Cross-)Sectoral transformations & Sustainability Management</i>
➤ Planning & Re-structuring of Energy systems and other life-supporting systems, new sensoric & process automatization, decentralization & user-centric.
Policy Area: <i>Smart Living Environments</i>
➤ Climate neutrality of Smart Cities concepts, Healthy living, resilience & new forms of social inclusions & democratization.
Policy Area: <i>Culture of Digitality & institutional modernization</i>
➤ Digital Mentalities & new cultural practices, digitality as new modus of social innovation, digital technologies & culture of self-optimization, new ethics & normativity, safeguarding societal / public functionality, new understanding of policy governance.

Cross-Case Analyses: A Set-theoretic Approach to Evaluating Coherent Policies and Measures for the SDGs

Johannes Meuer⁶ and Anne Ellersiek²

The success of the decade of action requires new and innovative approaches to *cross-case analyses in the evaluation of coherent policies and measures for the SDGs* to show how they unfold in *different political contexts*. We illustrate the added value of a set-analytic approach to the evaluation of coherent policies and measures for the SDGs using the example of a completed international evaluation project for which we conducted a qualitative comparative cross-case analysis of 32 policy intervention programs (Sheperd et al. 2020), and by establishing linkages to the cases presented at the webinar.

A set-analytic approach allows us to identify distinct pathways to successful policy design and implementation (impact), validate key theoretical concepts and assumptions (theory), and conduct rigorous synthesis and analysis of existing cases (methods). In the following, we draw on our findings of our evaluation study to illustrate how a set-analytic approach works.

Impact: In our evaluation study, we identify four successful pathways. Within these pathways we find two distinctive policy entrepreneur roles involving local and international civil society actors, indicating that effective entrepreneurship is conditional on strengthening civic voice and creating civic space conducive to advocacy; hence, effective entrepreneurs often must

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focus on expanding the civic space to discuss policy problems and the technical and political feasibility of policy solutions. Similarly, Dzebo, Shawoo et al. (2020) identify values, norms, and vested interests unique to each country as underlying political factors that might strengthen policy coherence. Dissanayake (2021) identifies institutional reforms as a key lever for policy coherence, arguing that coherent policy design requires institutions in place with the mandate to investigate the likely net effects of policies. Kuehn et al. (2021) project the largest effects from fossil fuel subsidy reforms on emission reduction for countries in which large percentages of government budgets go towards subsidizing fossil fuel consumption. A set-analytic approach allows us to reveal, examine and identify effective bundles of integrated policy instruments by systematically examining patterns across cases and different (country) contexts and by identifying pathways as configurations of these and other relevant factors that may explain successful policy integration and coherence.

Theory: The call for integrated policies and increased policy coherence inherent to the SDGs and the climate goals requires further evaluation and validation of key theoretical concepts across cases and in different empirical contexts. With our study, for example, we show how central elements of the Multiple Streams Approach (MSA), such as a windows-of-opportunity and the role of policy entrepreneurs, manifest differently in different political contexts.

Method: Evaluating the implementation of global action agendas, such as the SDGs and the goals set by the Paris Agreement, through integrated and concerted policy design and implementation requires a methodological approach that takes into account both case-specific and global data. For example, the SHAPE project⁷ develops new target-seeking scenarios to assess holistic pathways towards sustainable development on a global scale. Its global scenarios have been co-developed with stakeholders and draw upon different scientific disciplines. A focus of the project lies on addressing the scenario relevance for decision-makers across scales. As part of this ongoing project, a stakeholder workshop will be conducted in spring 2022 to elaborate on the different regional implications of the new scenarios from the perspective of decision-makers in the SDG and climate community. Shape's cross-scale participatory process to co-design the scenarios and reflect on the uptake-side is oriented on the original branching-points approach by Aguiar et al. (2020).

A set-analytic approach treats cases holistically (case-based), identifies necessary and sufficient conditions for policy outcomes (set-analytic), explores how conditions combine to create outcomes (conjunctural causation), and recognizes that multiple combinations of conditions can produce the same outcome (equifinality). As a result, a set-analytic approach promises to contribute by reporting both the results of our analysis of new cases and implications for future studies seeking to use key theoretical concepts from different disciplines and different data to synthesize and accumulate insights across diverse contexts.

⁷ See project website: Sustainable development pathways achieving Human well-being while safeguarding the climate And Planet Earth (SHAPE), <http://shape-project.org/>

List of References

Aguiar, A. P. D., Collste, D., Harmáčková, Z.V., Pereira, L., Selomane, S., Galafassi, D.; Van Vuuren, D.V., Van Der Leeuw, S. (2020). 'Co-Designing Global Target-Seeking Scenarios: A Cross-Scale Participatory Process for Capturing Multiple Perspectives on Pathways to Sustainability'. *Global Environmental Change* 65 (November): 102198. <https://doi.org/10.1016/j.gloenvcha.2020.102198>.

Barbier, E.B. and Burgess, J.C. (2020). "Sustainability and development after COVID-19", *World Development*, 135 (2020). <https://doi.org/10.1016/j.worlddev.2020.105082>.

Barbier, E.B., Lozano, R., Rodríguez, C.M., Troëng, S. (2020). "Adopt a carbon tax to protect natural forests." *Nature* 578:213-216. <https://www.nature.com/articles/d41586-020-00324-w>

Brandi, C., Dzebo, A., Janetschek, H., Lambert, C., Savvidou, G. (2017). *NDC-SDG Connections*. Deutsches Institut für Entwicklungspolitik (DIE), German Development Institute, and Stockholm Environment Institute. DOI: 10.23661/ndc-sdg_2017_1.0

Beisheim, M., Bernstein, S. et al. 2021: Global Governance and Sustainable Development Goals, in: Frank Biermann, Thomas Hickmann, Carole-Anne Sénit (Eds.), *The Sustainable Development Goals as a Transformative Force? The 2022 SDG Impact Assessment* (in preparation for Cambridge University Press).

BMU (2020). *Digital Policy Agenda for the Environment*. BMU, https://www.bmu.de/en/publication?tx_bmubpublications_publications%5Bpublication%5D=616&cHash=00f6b34ff2eaa4d1491591bb668f899c

CODES – Coalition for Digital Environmental Sustainability (2021). *Launch of Co-Champions Global Initiative for Digital Environmental Sustainability*. Press release by UNEP, UNDP, ISC, Future Earth / SDA, German Environment Agency, and Kenya Environment Ministry. <https://www.umweltbundesamt.de/en/press/pressinformation/german-environment-agency-co-champions-global>

Dissanayake, R. (2021). The Roots of Policy Incoherence: Domestic Policy, Global Public Goods, and International Development, Center for Global Development, CGD Note: <https://www.cgdev.org/sites/default/files/Roots-of-policy-incoherence.pdf>

Dzebo, A., Janetschek, H., Brandi, C. & Iacobuta, G. (2019). *Connections between the Paris Agreement and the 2030 Agenda: the case for policy coherence*. SEI Working Paper. Stockholm Environment Institute, Stockholm. <https://www.sei.org/publications/connectionsbetween-the-paris-agreement-and-the2030-agenda/>

Future Earth, Sustainability in the Digital Age (2020). *Digital Disruptions for Sustainability*. Report. Sustainability in the Digital Age, <https://sustainabilitydigitalage.org/d2s-agenda/>

German Environment Agency (2021). *Widening the European's Green Deal perspective towards a sustainable Europe. Aiming higher – with the right levers of change*. Text 20/2021. <https://www.umweltbundesamt.de/publikationen/widening-the-european-green-deals-perspective>

Ginzky, H., Löwe, C., Neßhöver, C. (2020). *Lessons from the Corona Crisis: new guiding principles required for environmental and sustainability policy? – a discussion paper*. Series Position. German Environment Agency, <https://www.umweltbundesamt.de/publikationen/lessons-from-the-corona-crisis-new-guiding>

Kuehl, J., Bassi, A.M., Gass, P., Pallaske, G. (2021). *Cutting Emissions Through Fossil Fuel Subsidy Reform and Taxation*, Report, International Institute for Sustainable Development (IISD), <https://www.iisd.org/system/files/2021-07/cutting-emissions-fossil-fuel-subsidies-taxation.pdf>

Shawoo, Z., Dzebo, A., Hägeleb, R., Iacobuta, G., Chan, S., Muhozaa, C., Osanoa, P., Franciscoc, M., Persson, Å., Linner, B.A. & Vijged, M.J. (2020). *Increasing policy coherence between NDCs and SDGs: a national perspective, SEI discussion brief*, Stockholm Environment Institute.

Shephard, D. D., Ellersiek, A., Meuer, J., Rupietta, C., Mayne, R., & Cairney, P. (2020). *Kingdon's multiple streams approach in new political contexts: Consolidation, configuration, and new findings. Governance*. doi:10.1111/gove.12521.

Soergel, B., Kriegler, E., Weindl, I., Rauner, S., Dirnaichner, A., Ruhe, C., Hofmann, M., Bauer, N., Bertram, C., Bodirsky, B.L., Leimbach, M., Leininger, J., Levesque, A., Luderer, G., Pehl, M., Wogenschlager, C., Baumstark, L., Beier, F., Dietrich, J.P., Humpenöder, F., von Jeetze, P., Klein, D., Koch, J., Pietzcker, R., Strefler, J., Lotze-Campen, H. & Popp, A. (2021). *A sustainable development pathway for climate action within the UN 2030 Agenda*. *Nature Climate Change*, 11, 656–664 (2021). <https://doi.org/10.1038/s41558-021-01098-3>

Steckel, J.C., Dorband, I.I., Montrone, L., Ward, H., Missbach, L., Hafner, F., Jakob, M. & Renner, S. (2021). *Distributional impacts of carbon pricing in developing Asia*. *Nature Sustainability*, <https://doi.org/10.1038/s41893-021-00758-8>

TWI2050 – The World in 2050 (2019). *The Digital Revolution and Sustainable Development: Opportunities and Challenges*. Report. International Institute for Applied Systems Analysis, <https://iiasa.ac.at/web/home/research/twi/Report2019.html>

United Nations (2020). *Roadmap for Digital Cooperation*. Office of the Secretary's Envoy of Technology. United Nations, <https://www.un.org/techenvoy/content/roadmap-digital-cooperation>

WBGU – German Advisory Council of Global Change (2019a). *Towards Our Common Digital Future*. WBGU Report. <https://www.wbgu.de/en/publications/publication/towards-our-common-digital-future>

WBGU – German Advisory Council of Global Change (2019b). *Digital Momentum for the UN Sustainability Agenda in the 21st Century*. WBGU Policy Paper no. 10, https://issuu.com/wbgu/docs/wbgu_pp10_en?fr=sMmRkNTEyNzMy

wissenschaftsplattform nachhaltigkeit 2030

About the Plattform

The Science Platform Sustainability 2030 provides a central forum for science to engage with representatives from politics, business, and society on urgent issues pertaining to sustainability policy. The Science Platform Sustainability 2030 was established as an independent organisation and is integrated within the official steering, dialogue, and implementation processes for the 2030 Agenda for Sustainable Development, ensuring its ability to act effectively. The platform is open to all actors wishing to strengthen sustainability policy through science. Research Coordinators are SDSN Germany, DKN Future Earth and IASS Potsdam.

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