

SCP Policy Design for the Post COVID-19 Society: Envisioning-based Policy Making (EnBPM)

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Abstract

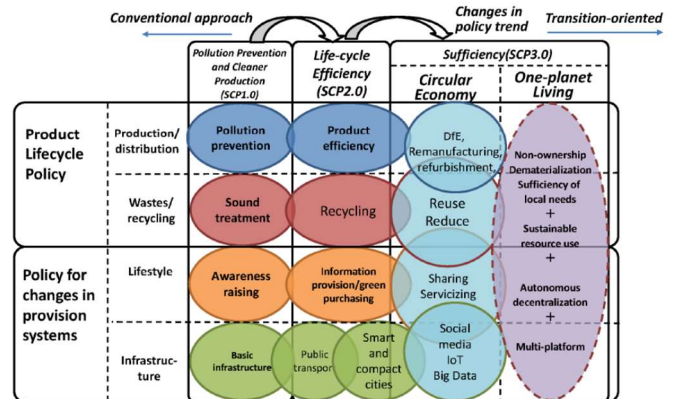
Since 2015, the international policy community has started to agree on international agreements with ambitious middle-term and long-term goals, highly relevant to sustainable consumption and production (SCP) such as those seen in the Paris Agreement, SDGs, and the plastic-related agreements at the G7 and G20 processes. There has been growing attention given to socio-technical system change or “transition”. As for infrastructure and products, there will be an increasing shift toward emphasizing functional value, decentralization, circulation, societal well-being. The influence of COVID-19 is strengthening that tendency. This change in the SCP domain calls for a new approach which can be called envisioning-based policy making (EnBPM).

Emergence of SCP 3.0 in International Policy Discussion on Sustainability

Over the last 30 years, the focus of sustainable consumption and production (SCP) policy has shifted and widened from pollution prevention and cleaner production, through lifecycle-based efficiency, to the systematic change of socio-technical systems. Hotta et al. 2021a emphasized that this shift could be described as the expansion of the SCP-related policy domain in three phases as shown in Figure 1. The 1st phase of SCP (SCP1.0) mainly addressed pollution prevention and cleaner production. The 2nd phase of SCP (SCP 2.0) emphasized increasing efficiency throughout the lifecycle of materials, products and services. Then, in the late 2000s, policy discussions in the SCP-related domain expanded to include systematic transition of socio-technical systems, lifestyles and infrastructure driving consumption and production (SCP 3.0). Under SCP 3.0, the objectives and goals of SCP policy design expanded beyond environmental policy and strategy to include socio-technical system design. For example, the “circular economy” concept emphasizes the transformation of consumption and production systems that depend on natural resources in addition to conventional recycling, and emphasizes technological innovation and the fostering of new businesses. The circular economy, along with decarbonization, has come to be seen as the gateway to conversion to SCP by economies dependent on non-renewable resources. Therefore, the policy domain for SCP 3.0 as a circular economy may include promotion of design for the environment, and repair and refurbishment for production and distribution, promotion of reuse and waste reduction for waste management and recycling, promotion of sharing and servitizing for lifestyle change, and digitalization such as in utilization of social media, IoT, big data and other digital media and

information as part of infrastructure development to minimize transaction costs in realizing a circular economy. Furthermore, the policy domain for SCP 3.0 as socio-technical system change is an emerging area which needs envisioning and social experimentation for designing new lifestyles, infrastructure and business models. Potential key concepts for SCP3.0 may include reconsideration of product ownership, dematerialization, attention to local needs, service provision, sustainable resource use, decentralization and multi-functional online platforms.

Figure 1. Expansion of SCP Policy Domain



Source: Reprint of Fig. 1 of Hotta et al. 2021b

At the same time, since 2015, the international policy community has started to agree on international agreements with ambitious middle-term and long-term goals, highly relevant to sustainable consumption and production (SCP) such as those seen in the Paris Agreement, SDGs, and the plastic-related agreements at the G7 and G20 processes (Hotta et al. 2021). Along with this trend, there has been growing attention given to socio-technical system change or “transition”. Policy

debate is putting more focus on the need to change consumption and production patterns and deal with various ecological consequences within planetary boundaries such as decarbonization, absolute reduction in material throughput, or creation of a plastic-free society. This is corresponding to the expansion and mainstreaming of the SCP policy domain from SCP 2.0 to SCP 3.0. And this mainstreaming of SCP as a socio-technical transition creates challenges and opportunities for effective policy design.

SCP and COVID-19

COVID-19 have changed our lifestyles, infrastructure, way of consumption, and business models. How do these changes remain or not? Tasaki et al 2021 tried to discuss implications of COVID-19 to SCP as follows. One way of thinking is that we can return to the original (old normal). Some of the changed behaviours and infrastructure may move to the new normal state. Based on the rational planned behaviour model (Ajzen, 1991), it can be said that if there is no risk of infection, there is no need to change the behaviour, so it will return to the old normal. On the other hand, when a new preference in behaviour and lifestyles is formed through the COVID-19 pandemic, it will not return to old normal and establish new normal. Or in the case of the "evaluation of feasibility" shifting, we may be able to adopt new way of lifestyles or consumption. For example, the former is a case where the actual experience of telework causes a positive attitude toward the new behaviour. And the latter is a case people started to perceive that teleworking has become more accessible and easier through changes in company rules or better understanding on the equipment and infrastructure necessary for telework.

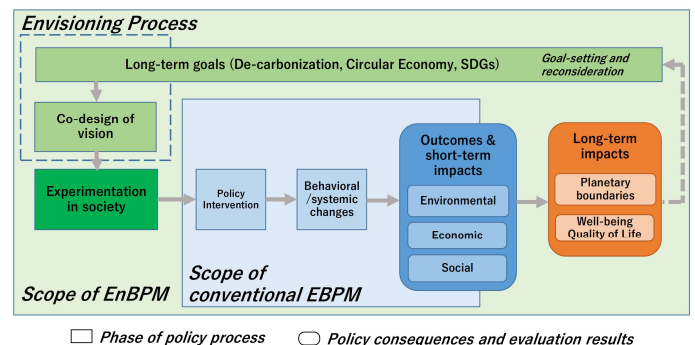
Many factors influencing consumption and production patterns have changed since COVID-19 pandemic started. On the other hand, there is a social needs and opportunity to shift these changes in lifestyles and infrastructure to achieve Goal 12 of the SDGs targeting 2030. As for infrastructure and products, even before COVID-19 pandemic, there has been an increasing shift toward emphasizing functional value, decentralization, and circulation. The influence of COVID-19 is likely to strengthen that tendency. Post COVID-19 recovery plan needs to integrate more resilient SCP element to achieve socio-economic transition to sustainability to avoid going back to old normal but to establish new normal in lifestyles, business models and infrastructure with emphasis in functional value, decentralization, and circulation.

Envisioning-based Policy Making

COVID-19 pandemic has opened up in social awareness of the possibility that socio-technical system change can be rapidly achievable through combined changes in policy and behaviour. Along this trend, the emergence of SCP3.0 poses the following four challenges for policy design: (1) envisioning concrete images of a society that has successfully met its mid-term and long-term goals, (2) policy support for learning from model cases, experimental projects and new businesses to achieve a long-term and mid-term vision, (3) facilitating creative processes among stakeholders and (4) examination of the social implications of innovation towards decarbonization, digitalization and transitioning to sustainable lifestyles and infrastructure. To address these challenges, Hotta et al. 2021a and 2021b proposed envisioning-based policymaking (EnBPM). This new approach is defined as a policy approach for addressing "long-term policy concerns such as future visions of sustainable society, social experimentation with such societal visions before full policy implementation based on long-term goals as well as social sustainability." It will require "a more decentralized and collaborative approach for policy design based on working together to envision and realize future directions of society among stakeholders because it puts importance on the social appropriateness of sustainability," unlike Evidence-based Policy Making (EBPM) (Koide et al. 2020).

Under EnBPM (Hotta et al. 2021b), it is vital to consider ways 1) to envision future directions based on ambitious middle- and long-term goals for socio-technical change, 2) to conduct social experimentation on new SCP patterns to examine their pros and cons, 3) to monitor the progress of sustainability transition, including development of indicators, and 4) to provide incentives to new business and service models to sustain such socio-technical infrastructure. These are intervention points of an updated SCP approach in a SCP value-creation model.

Figure 2. Envisioning-based Policy Making



Source: Reprint of Figure 1 of Hotta et al. 2021a

Policy recommendations / conclusions

To mainstream SCP into post COVID-19 recovery plan and to enable EnBPM for socio-technical transition to sustainability, we propose the following policy recommendations.

- 1) *Envisioning*: The government and research community needs to steer their efforts towards develop visions of a society and business models under circular and decarbonized economy. For example, the direction of long-term changes in urban infrastructure and lifestyles is often difficult to imagine from the form of workshops among stakeholders alone. Thus, envisioning is crucial as a process for developing a concrete image and road-map, and for generating evidence of the social/economic and technological impacts of achieving these long-term goals in specific local/national contexts. This envisioning process can be supported and facilitated by multi-stakeholder dialogues involving science and policy interactions such as scenario development, modeling analysis and stakeholders' dialogues. It is vital to have a process for co-designing sustainable lifestyles through consensus on changes for infrastructure and business for maintaining or increasing the well-being of a society as a whole.
- 2) *Green recovery plan from the COVID-19*: It shall integrate investment in social experiments to promote circular economy and decarbonisation. It is vital to invest and encourage experimental socio-technical system changes in lifestyles, business models, and infrastructure for circularity and decarbonisation along with COVID-19 recovery plans.
- 3) *Social experimentation as a major tool for future international cooperation on sustainability*: Social experimentation can be instrumental in examining the effectiveness of different policy options in different social contexts. Social experimentation can also generate evidence of benefits and challenges to achieving these goals in a real setting. It can also generate a narrative for encouraging different stakeholders to contribute their actions and support for a sustainable transition as a way to transform socio-technical systems. Social experiments can motivate citizens and improve their implementation capacity. In particular, in future international cooperation on sustainability, the perspectives of investing in social experiments and social innovation will become increasingly important. It is also important to evaluate international collaborative projects in

terms of whether they encourage social innovation towards transition to sustainability.

- 4) *Business model development*: Conventional regulations and economic tools must work to introduce a new approach and innovation into business models, lifestyles and infrastructure for circularity and decarbonisation. Investing on a social business model and promoting public and private investment to facilitate model cases can enhance transition to circular and decarbonized economy.
- 5) *Safety net for trial and error*: Combined crises of COVID-19, climate change, and economy dependent on linear models prompted us to reemphasize that equity, safety, welfare, health and education as well as associated public services are fundamental issues for sustainability. At the same time, envisioning for future direction and social experimentation for sustainability requires many trial and error. In a society that avoids failure, accumulation of experiences and models from trial and error of new consumption and production patterns cannot be formed. Therefore, policy making on sustainability will need to combine a social welfare policy and innovation policy to evaluate and encourage SCP-related business challenges and investment.

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