

SCP Policy Landscape in the Post COVID-19 Pandemic Era

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Expanding SCP

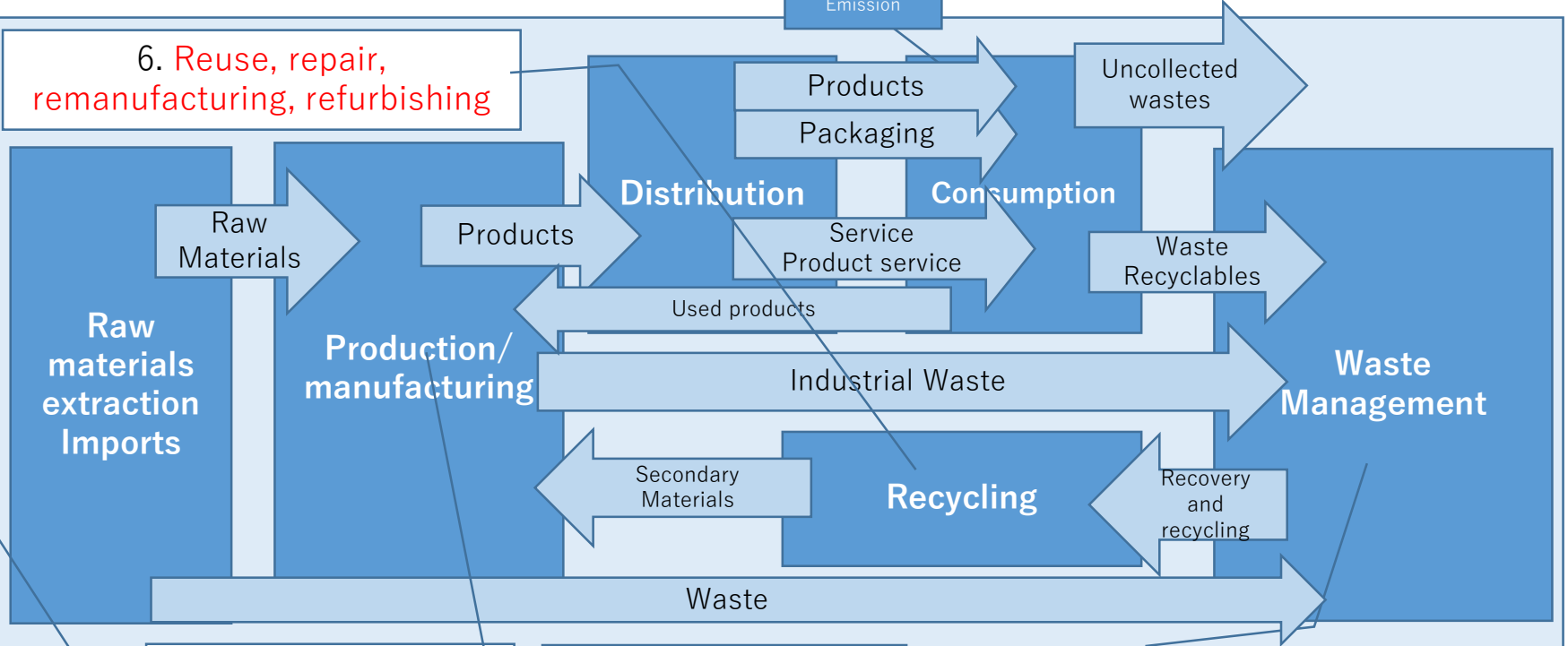
Approaches	SCP 1.0	SCP 2.0	SCP 3.0
Major concepts	Pollution prevention Cleaner Production (as an intermediate between SCP 1.0 and 2.0)	Industrial ecology Resource efficiency Product lifecycles	One planet living, Sufficiency, Decarbonization Transition
Key issues	Industrial pollution	Climate change, waste, environmental issues associated with consumption	Well-being, Life-style Socio-technical system
Environment-economy relationship	Separate, contradictory, confrontational	Compatible, industrialization harmonized with environmental conservation	Inclusion of social consideration, Sustainability as a key for next socio-technical innovation
Approaches	Installation of end of pipe technologies Technology and management for cleaner production	Increasing material and energy efficiency	Consensus building Changes in infrastructure Changes in lifestyles New business models
Major actors and stakeholders	Government vs. industry	Collaboration of government and market agents	Social entrepreneurship Multi-stakeholder Lifestyles of people
Attitude of policies	React and cure	Anticipate and prevent	Long-term goal setting, investment, creating business environment, creation and communication

Life-cycle-based Framework

3: Eco-label, awareness raising, green procurement, deposit and refund, differentiated VAT
New business and service model

5. Pollution Prevention
Monitoring, clean-up

6. **Reuse, repair, remanufacturing, refurbishing**



1: Primary material tax, material stewardship, aggregates levy etc.
Response to resource security/supply chain crisis

2: EMS, promotion of cleaner production, standards for resource efficiency, **eco-design** standards etc.
Ban of single use plastics?

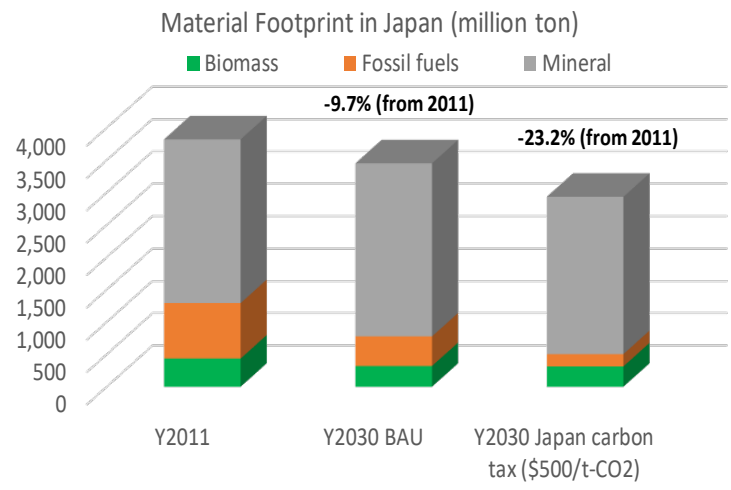
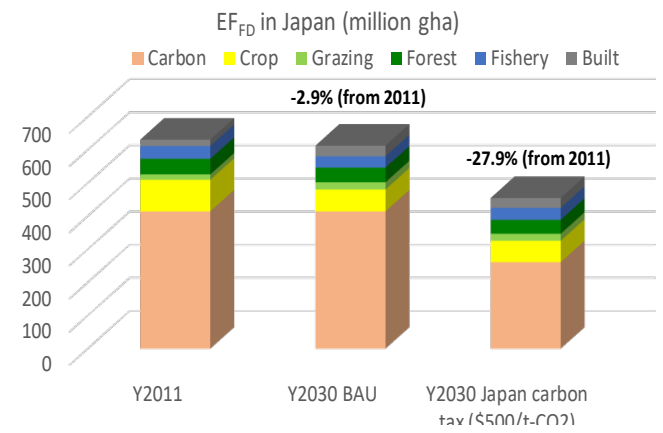
4: EPR, PAYT, municipal waste charge, landfill tax, tax for incineration, support for recycling industry
How to establish proper collection and management scheme in developing countries?



Implications on SCP from a model analysis for reduction of footprints (indirect environmental and resource impacts)

- Policy intervention aiming at reduction of environmental and resource impacts tends to either result in “shift of surplus of energy and resources into other usage (rebound effect)” or “shift into other countries (leakage effect)” .
- Social transition to SCP (changes in behavior, infrastructure, lifestyles and business/service models) and circular economy is crucial (difficult to simulate in macro-economic model).
- How to envision and realize decarbonized and circular economy by incorporating such systematic changes?

Effect of carbon tax on footprint reduction in Japan (500USD/t-CO₂)

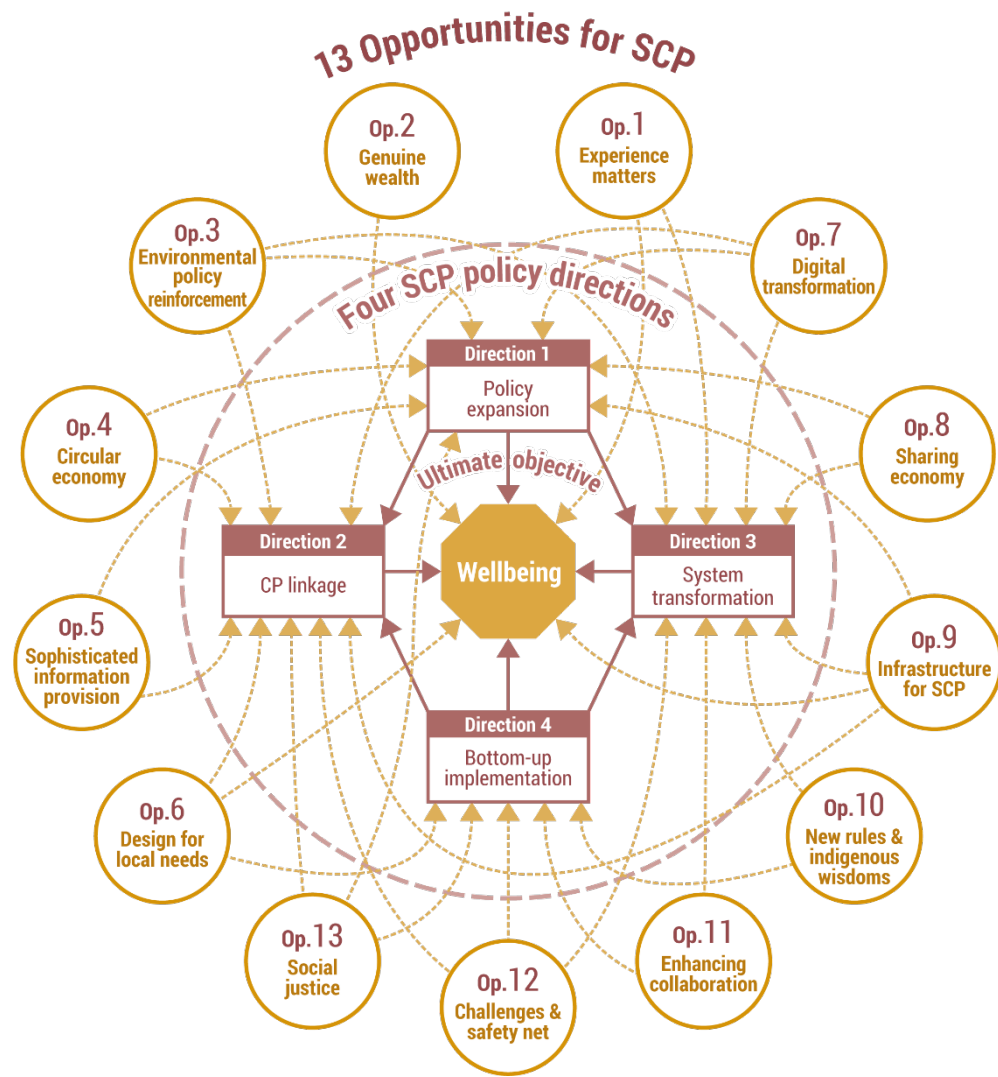


13 opportunities or intervention points to realize SCP (in developing Asia)



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1. Experience matters
2. Genuine wealth
3. Environmental policy reinforcement
4. Circular economy
5. Sophisticated information provision
6. Design for local needs
7. Digital transformation
8. Sharing economy
9. Infrastructure for SCP
10. New rules & indigenous wisdoms
11. Enhancing collaboration
12. Challenges & safety net
13. Social justice



How COVID-19 may have impacted to these opportunities?

Trend

Purchasing/domestic work/mobility/Work

Op.1: Experience matters	→ ↓ ↗ ↘
Op.2: Genuine wealth	↗ → ↗ ↗
Op.6: Design for local needs	↗ ↗ ↘ →
Op.3: Environmental policy reinforcement	→ ↗ ↗ ↗
Op.4: Circular economy	→ → ↗ ↘ ↗
Op.8: Sharing economy	↘ ↘ ↗ ↘ ↘
Op.5: Sophisticated information provision	↘ ↗ ↗ ↗
Op.7: Digital transformation	↗ ↗ ↗ ↗
Op.9: Infrastructure change	↗ ↗ ↗ ↗
Op.10: New rules and	↘ ↘ → ↘
Local wisdoms	↗ ↘ ↗ ↘
Op.11: Enhancing collaboration	↗ ↘ ↗ ↗
Op.12: Challenges and safety net	
Op.13: social justice	

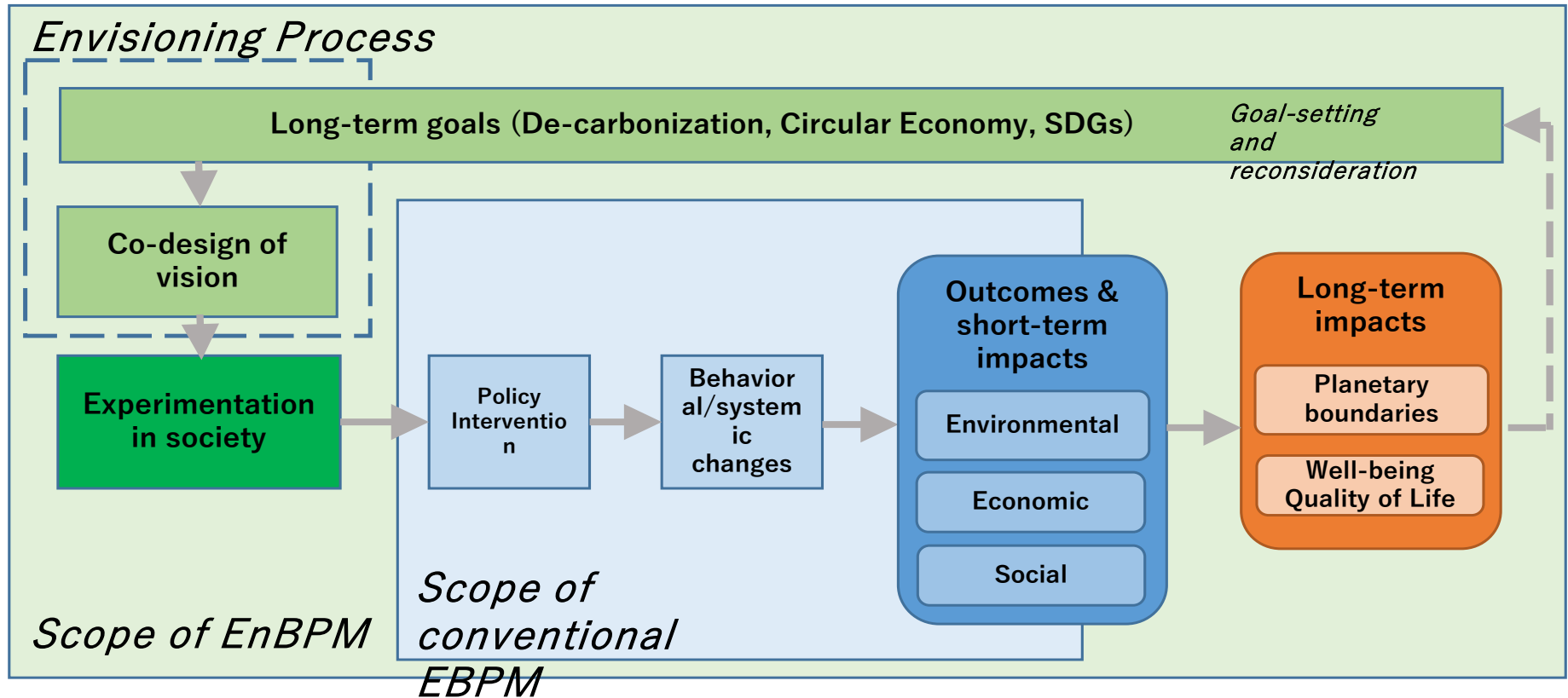
Challenges for socio-economic transition

- 1) Including service and business models into life-cycles of products and materials
- 2) Facilitating sustainable interactions between consumers and service/product systems (nudge?)
- 3) New indicator and goal setting (how to reflect value of experience with less consumption)
- 4) Changes in physical and institutional infrastructure

Towards Envisioning-based Policy Design



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□ *Phase of policy process*

○ *Policy consequences and evaluation results*

Net-Zero World -2050 Japan (A report by IGES in June 2020)



Comparing two scenarios to achieve Net-Zero society in Japan

Lock-in scenario :

Envisions technological progress in a society in which existing systems and institutions are not changed significantly, and the current situation is maintained

A net-zero world with fossil fuels
(Based on centralized systems)

Transition scenario :

Envisions technological development that involves a transformation in various social elements.

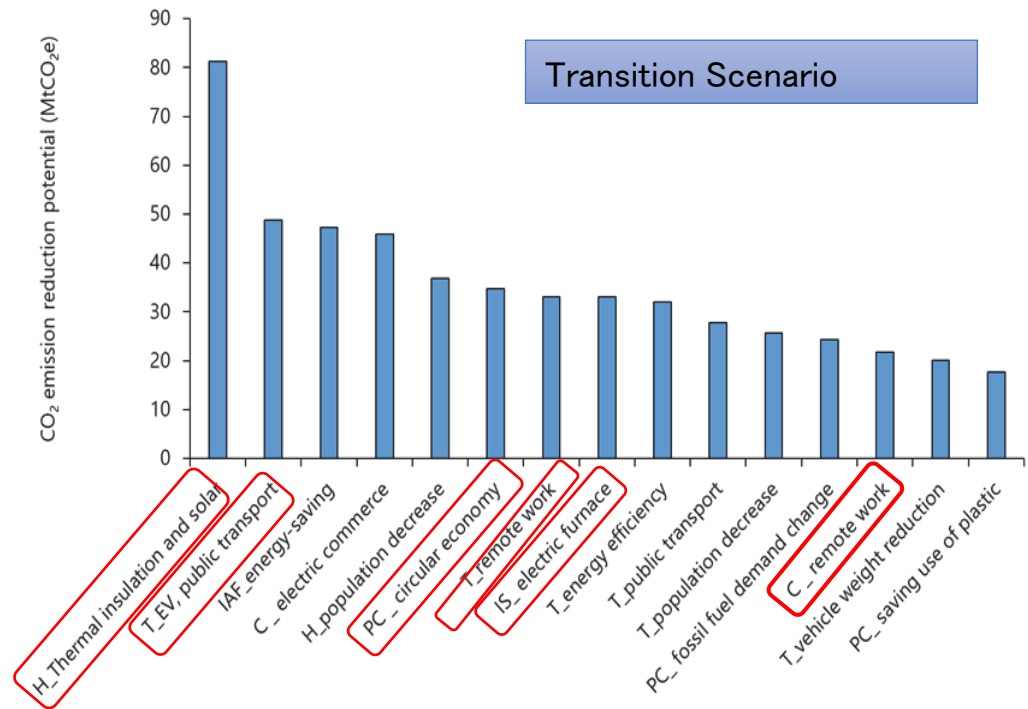
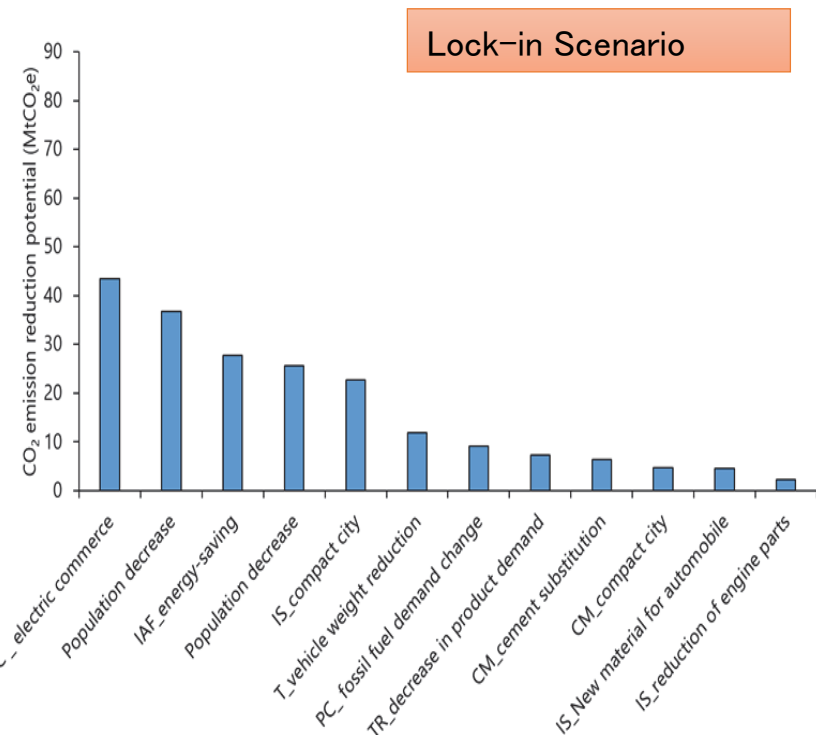
A net zero world with **Digital transformation (+ α)**

+electrification + renewables + consumption of functions and services
(Based on decentralized systems)

High sustainability

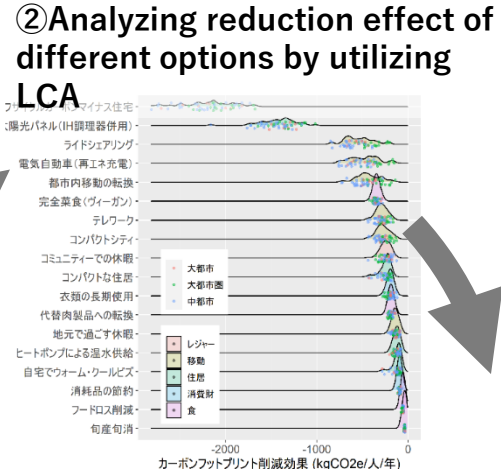
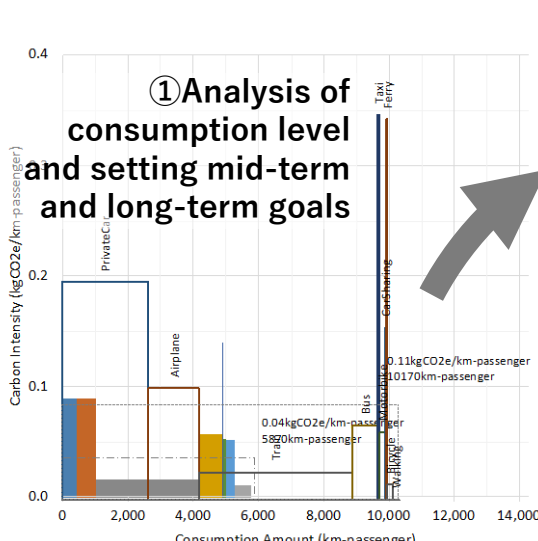
Importance of establishing circular economy and promoting social reform for better working environment

CO2 Reduction based on the different scenarios

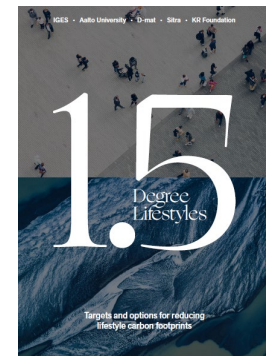


<https://www.iges.or.jp/jp/pub/net-zero-2050/ja>

Quantification of long-term target of sustainability at lifestyle level is necessary. Social experiment to involve each individual and household can be a good approach for social transition.



③ Too kit development And participation by citizens



課題	解決手法 (例)
歩行者と自転車の安全確保	自転車専用道の整備
自転車の利便性向上	シェア自転車の整備
バリアフリーな移動	バスのバリアフリー化 地域交通の充実 電動アシスト付き自転車の普及 (坂道への対応)



④ Vision and scenario development for different cities



Development of textbook for primary and secondary school students

Development of communication tool kits, organizing community WS on 1.5 degree lifestyles (Yokohama, Kyoto, Sanpaolo, Delhi, Cape town, Nonthaburi), identification of opportunities for mode change/shift, social experiment to raise awareness, to share experience and to promote socio-technical innovations.

Policy research needs for social transition to SCP

- (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.
- (5) Collaboration with stakeholders in emerging economies

Acknowledgement

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About IGES and Yasuhiko Hotta

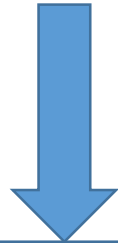
- The Institute for Global Environmental Strategies (IGES), established under an initiative of the Japanese government in 1998. 193 Staffs (About 36% are non Japanese among research staffs) in 2021.
- It is an international research institute conducting practical and innovative research for realizing sustainable development in the Asia-Pacific region.
- Yasuhiko Hotta is Programme Director of Sustainable Consumption and Production at IGES. He oversees IGES research operations on circular economy, resource efficiency, waste management, sustainable consumption and production. He is also coordinating IGES-wide activities on marine plastic issues.
- He is also a Vice President of Asia Pacific Roundtable on SCP.
- He was one of 4 theme leaders of Strategic Research on SCP called S-16 “Policy Design and Evaluation to Ensure Sustainable Consumption and Production Patterns in Asian Region.”
- He is currently mainly involved in policy development and implementation for tackling plastic pollution in developing economies particularly in ASEAN countries.



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Background

- ◆ 2012 10 Years Framework Programme of Sustainable Consumption and Production(10 YFP)
- ◆ 2015 SDGs (Planetary boundaries) , Paris Agreement (Decarbonization) 、SDG12 (SCP)
- ◆ 2019 Osaka Blue Ocean Vision



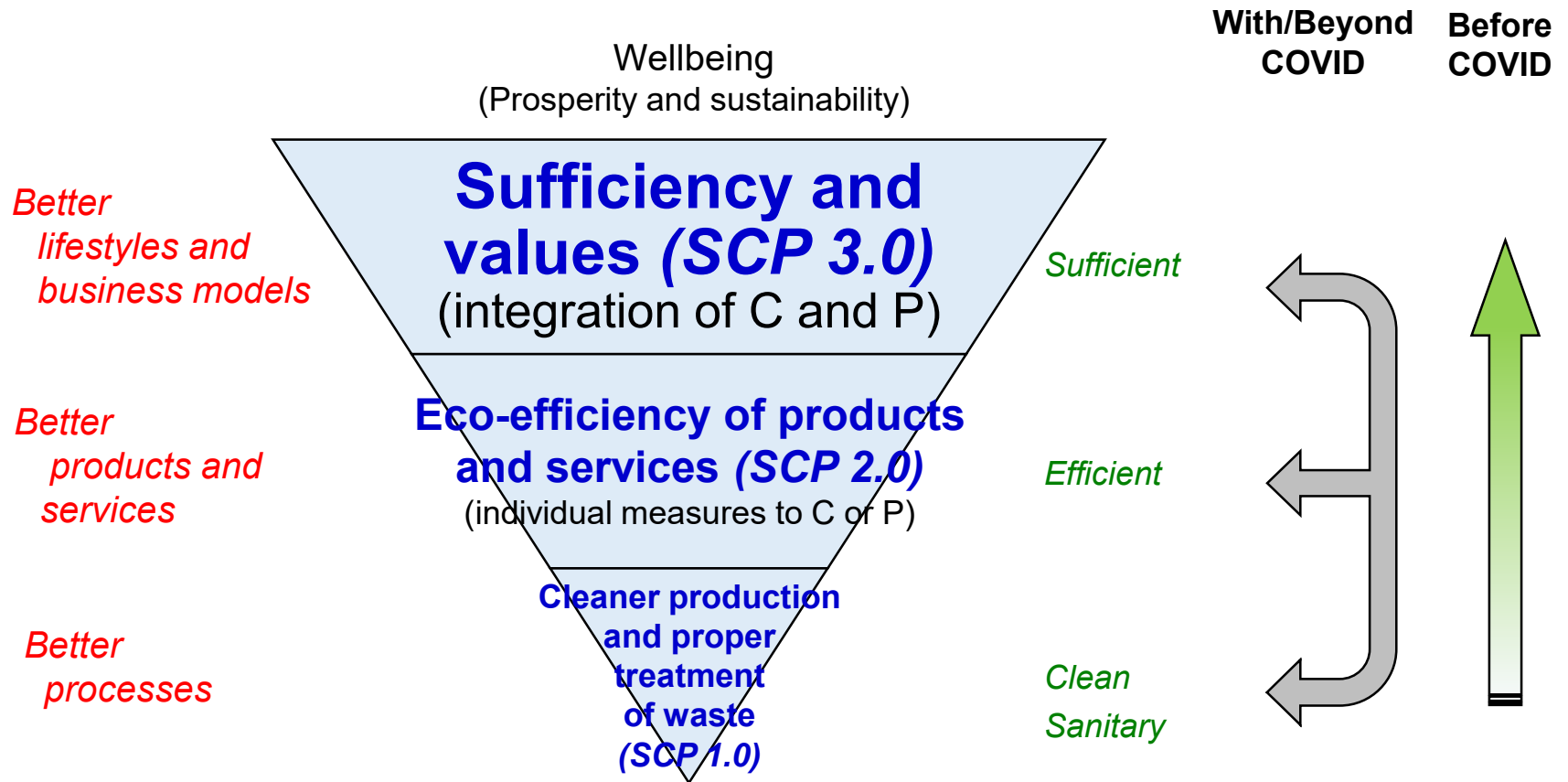
Mainstreaming of mid-term and long-term sustainability goals which requires fundamental shift in lifestyles and infrastructure to reduce unsustainable resource use and environmental impacts associated with production and consumption

Focus of SCP has been shifted from end-of-pipe, product-focused and technical solution into changes in social and physical infrastructure, lifestyles and service provision systems



Hotta and Kanie (2019) International Policy Trend of Sustainable Consumption and Production, Journal of Life Cycle Assessment, Japan, 2019, Volume 15, Issue 2, Pages 136-143, Released on J-STAGE April 25, 2019, Online ISSN 1881-0519, Print ISSN 1880-2761, <https://doi.org/10.3370/lca.15.136>

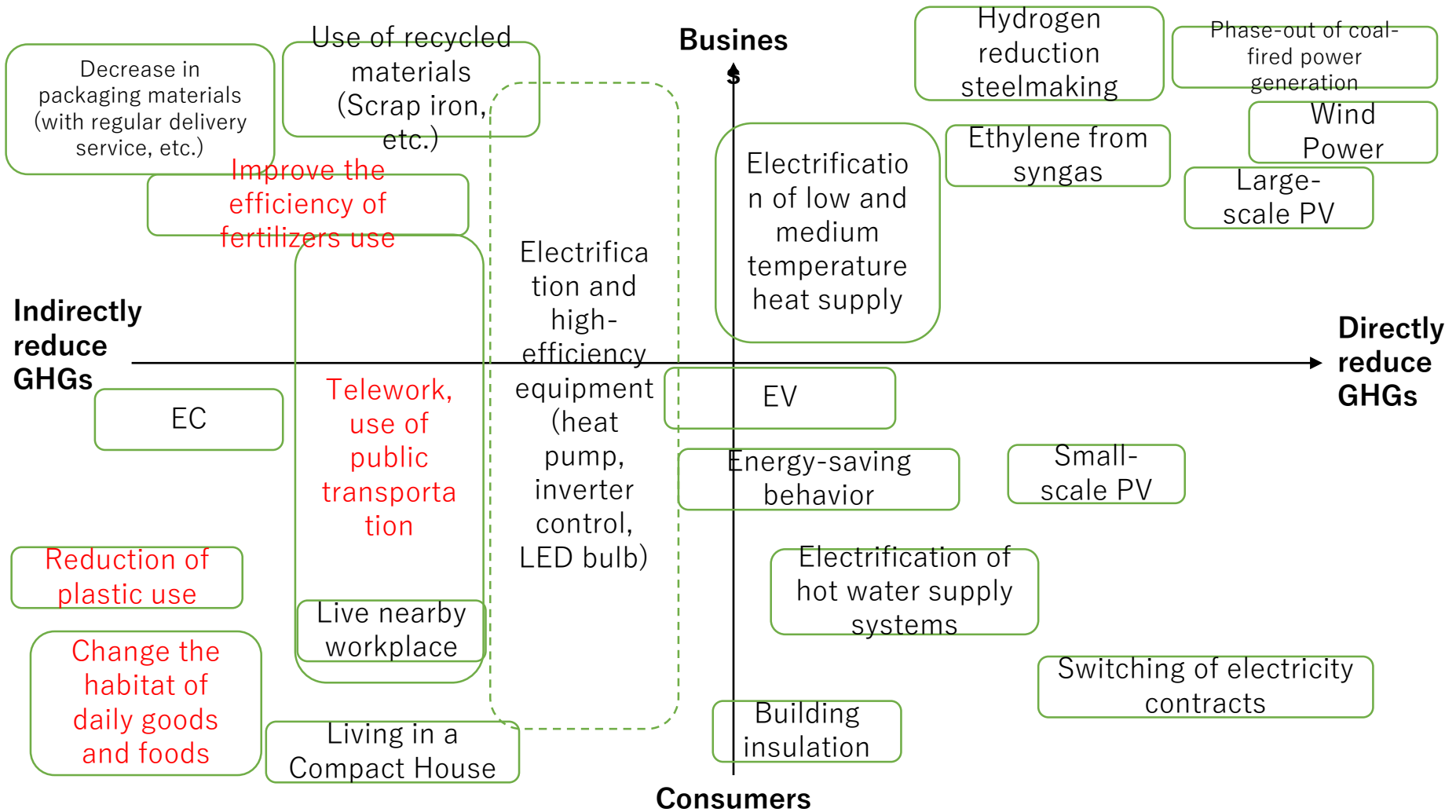
Evolution of SCP policy








13 Opportunities	
1. Experience Matters	In the long term, experiential or intangible consumption is even more important in pursuing people's happiness. CP patterns that contain both tangible and intangible elements create well-being.
2. Genuine Wealth	Measuring society's genuine wealth and its components as needs, including risk avoidance needs, in a form that accords with the present time, is the basis of creating a new CP pattern.
3. Environmental Policy Reinforcement	The trends exemplified by the Paris Agreement and ESG (environment, social and governance) investments reinforce the policies at the government level while promoting environmental measures such as decarbonization and corporate initiatives. The loss from delayed action to initiatives and criticism toward the managerial short-termism is intensifying.
4. Circular Economy	The CE (circular economy) and sustainable value chain concepts upgrade environmental and industrial policies toward integrated measures. The concept also advances cross-border standardization and collaboration, and promotes CP patterns that reduce adverse effects from raw material extraction to the end of life.
5. Sophisticated Information Provision	Knowledge about designing and customizing information provision for a behavioral shift is progressively accumulating.
6. Design for Local Needs	Product and service design that reflects people's needs in a local context and the "new normal" era moves the consumer market.

13 Opportunities	
7. Digital Transformation	Digitization technology is a powerful tool for reforming CP patterns and generating diverse options and values.
8. Sharing Economy	A sharing economy is one pathway to strengthening CP linkages. Take advantage of this opportunity while implementing infection prevention.
9. Infrastructure for SCP	Urban planning, infrastructure development, rules and customs greatly influence the pursuit of lifestyles that align with SCP patterns. It is necessary to balance the development of digital infrastructure supporting online lifestyles and other infrastructure supporting activities that are difficult to perform online.
10. New Rules & Indigenous Wisdom	New rules and customs that envisage a risk society are emerging with the coronavirus pandemic. Together with traditional regional wisdom like “mottainai (wastefulness)” and “sufficiency economy,” they are driving the creation of new CP patterns.
11. Enhancing Collaboration	Cooperation, co-creation and collaborative relationships among stakeholders, both regionally and internationally, are the key to SCP’s success.
12. : Challenges & Safety Nets	Ensuring a social safety net for people with the courage to try new consumption and production patterns will generate diverse SCP patterns.
13. Social Justice	Proper handling of inequality and social conflicts is the fundamental basis for realizing SCP. New inequality and injustice problems caused by digitalization must be resolved promptly.





Conceptual map of GHG mitigation measures



Shift in emphasis in SCP

	Conventional understanding	Near future
<p>Infrastructure</p>	<ul style="list-style-type: none"> • Massive construction • Urbanization and increasing consumption • Supply-side management • Physical infrastructure (road, train, port, dam, water and sewer, waste) 	<ul style="list-style-type: none"> • IT/digital connectivity and online platform • Inclusion of diversifying lifestyles and businesses • Consumer collaboration (demand-oriented) • Specific consumption and production patterns for quality of life (e.g., healthy city structure, seamless connection) 
<p>Technology, Innovation</p>	<ul style="list-style-type: none"> • Technology transfer • Cleaner production • Environmental technology • Efficiency 	<ul style="list-style-type: none"> • Social innovative development • Digitalized society/peers • Connectivity & value-creation • Incorporation of creative sense and well-being into SCP policy 
<p>Industry/Business</p>	<ul style="list-style-type: none"> • Policy for product and heavy industry (strong influence of multi-nationals) • Informal sector • International brand 	<ul style="list-style-type: none"> • Policy for service and new business model • Formalization plus emerging SMEs utilizing digital connectivity • Vibrant local businesses 

Shift in emphasis in SCP

	Conventional understanding	Near future
<p>Local development and SCP</p>	<ul style="list-style-type: none"> • New York, LA or Tokyo or Bangkok! Single vision • Ever rising development 	<ul style="list-style-type: none"> • Impact of COVID-19 • A prime city and convenient and luxury suburb? • Risk of concentration • Congestions or efficient distribution <p>→Needs several future scenarios</p> 
<p>Behavior/lifestyle and SCP</p>	<ul style="list-style-type: none"> • Behavioral change and awareness raising • Consumer's choice informs producer • Policy harmonization for market expansion/removing barriers 	<ul style="list-style-type: none"> • System transition • Attractive or pain-aversion lifestyle (post-COVID) • Rule changes and institutional changes for behavioral change 
<p>Focus of SCP</p>	<ul style="list-style-type: none"> • No-coordination of SCP Ver 1.0 (CP and waste management), Ver 2.0 (efficiency) and Ver 3.0 (Value-oriented/sufficiency) 	<ul style="list-style-type: none"> • More coordination of the three SCP versions