

# U-Tokyo / Center for Global Commons

## For Global Commons Stewardship in the Anthropocene



**Naoko Ishii**  
EVP, the University of Tokyo  
Professor, Institute for Future Initiatives  
Director, Center for Global Commons

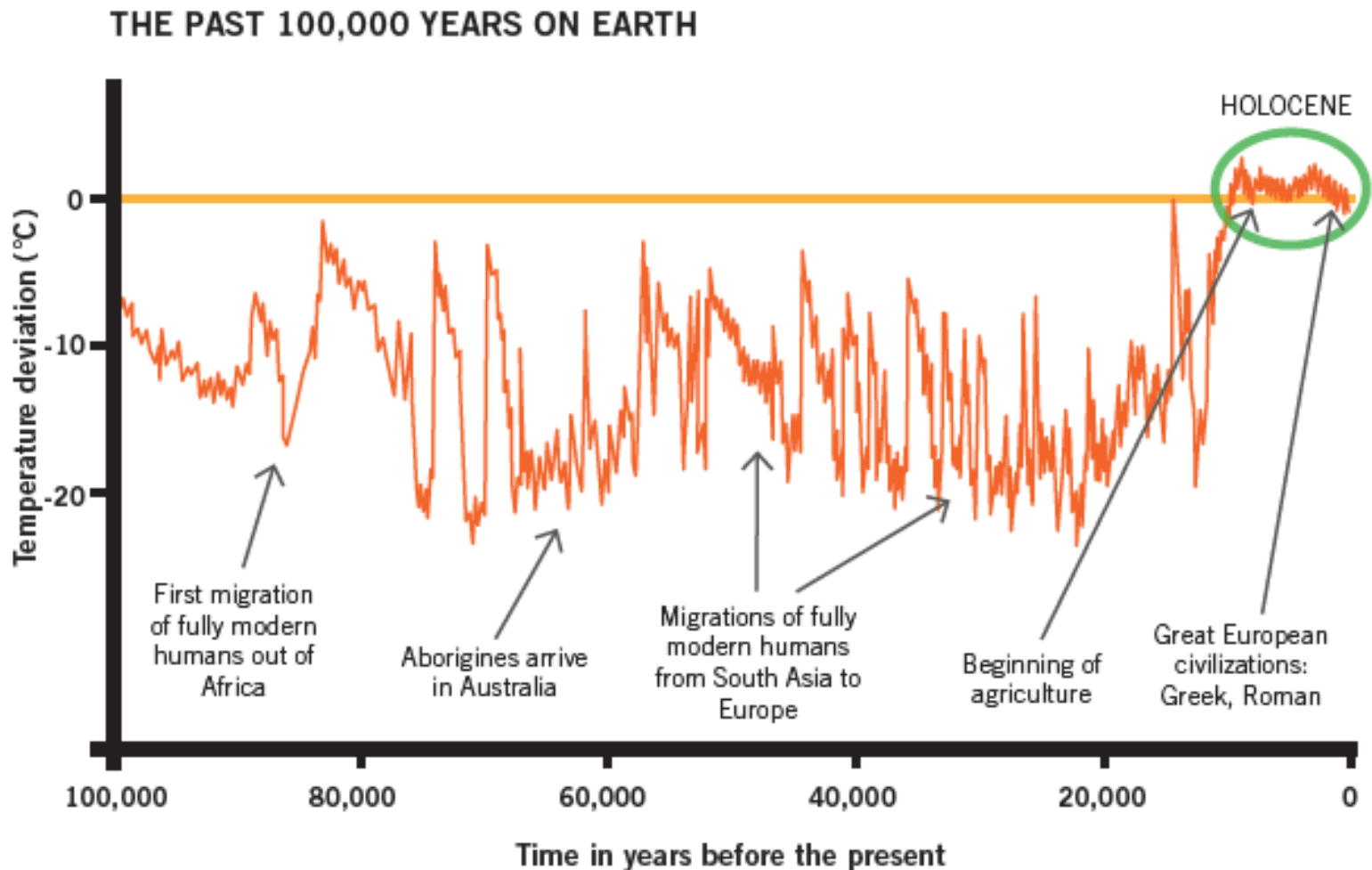
# “Global Environmental Crisis”

The tipping point about to lose stability and resilience of the earth system critical for the human civilization irreversibly

- From Holocene to Anthropocene
- Earth system and planetary boundaries

# From “Holocene” to “Anthropocene”

Human civilization for 10,000 year dependent on stability of the earth system in the Holocene



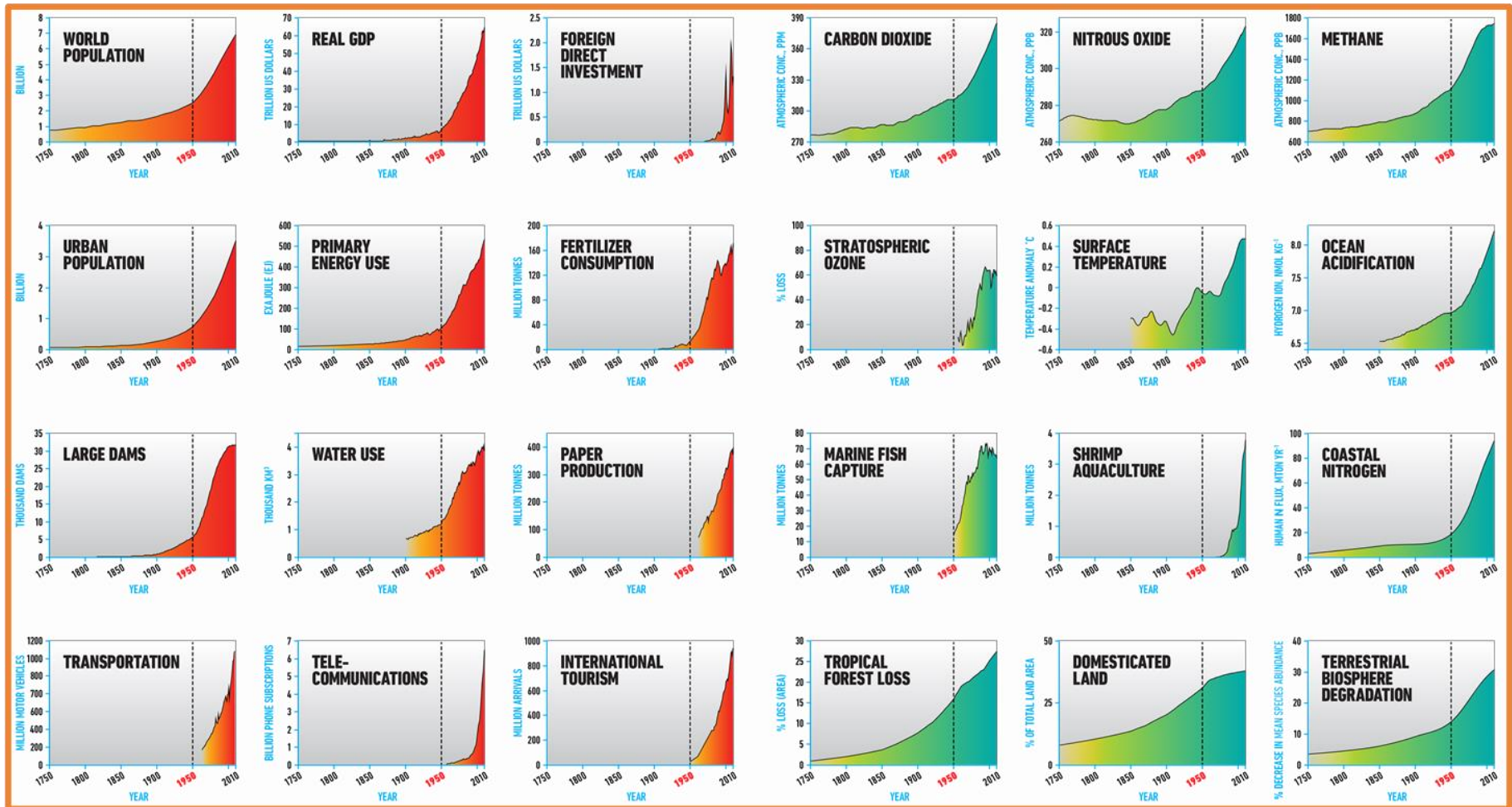
# “The Great Acceleration” in mid 20<sup>th</sup> century

It has ended the Holocene. Now humanity has the decisive power on the earth system.

Accelerated human activities



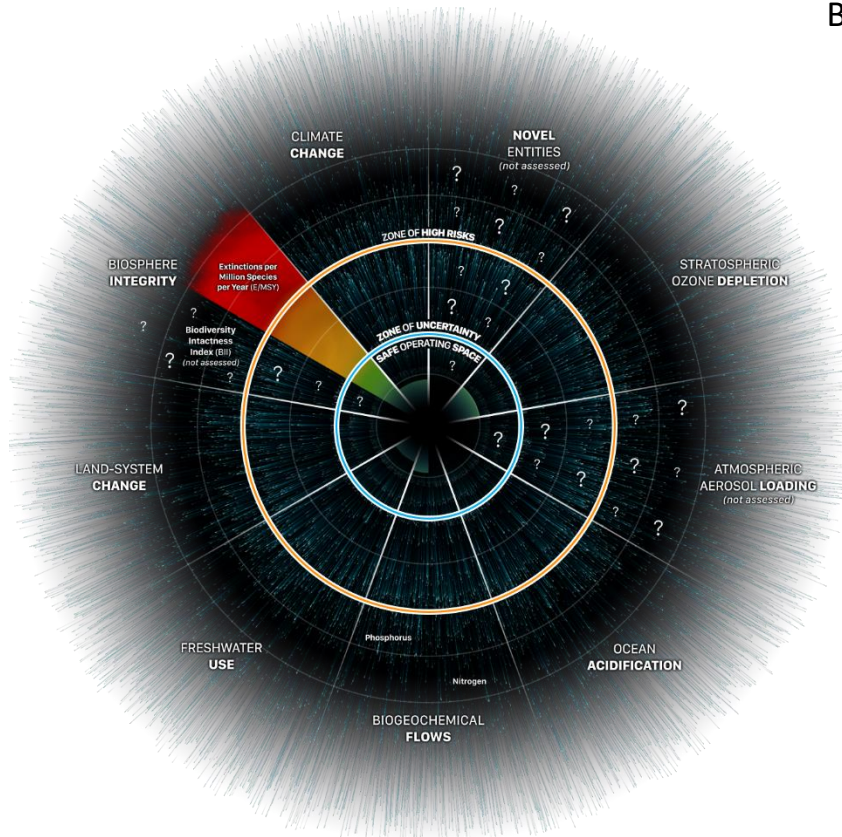
Accelerated burden on the earth



# Planetary Boundaries

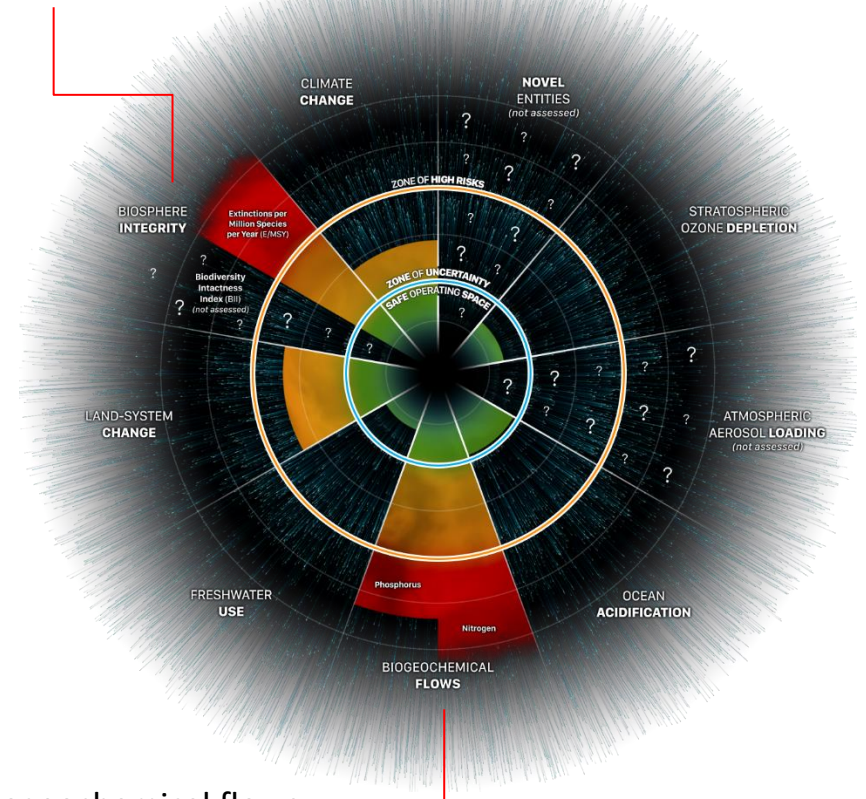
9 sub-systems most critical for the stable and resilient earth  
 Their “Tipping Points” transgressed due to the human activities

1950



Current

Biosphere integrity

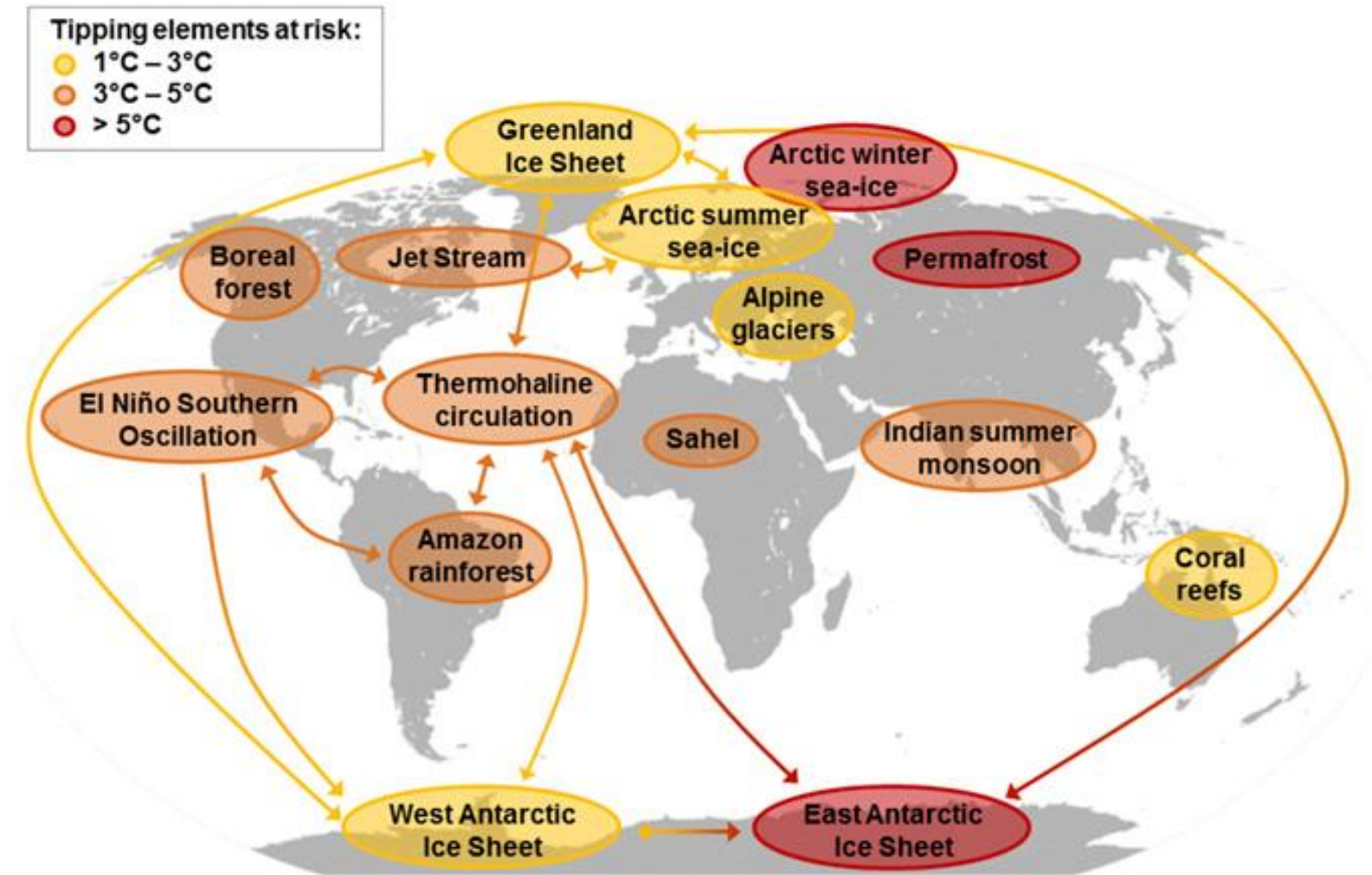


Biogeochemical flows  
(N/P)

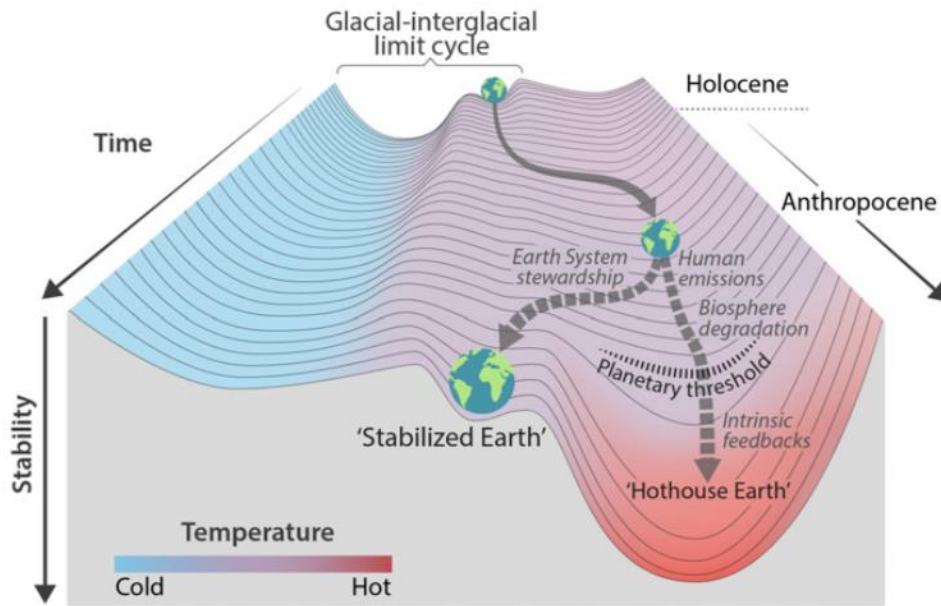
# Tipping cascade: about to be triggered

Positive feedbacks sequence to alter the earth system irreversibly

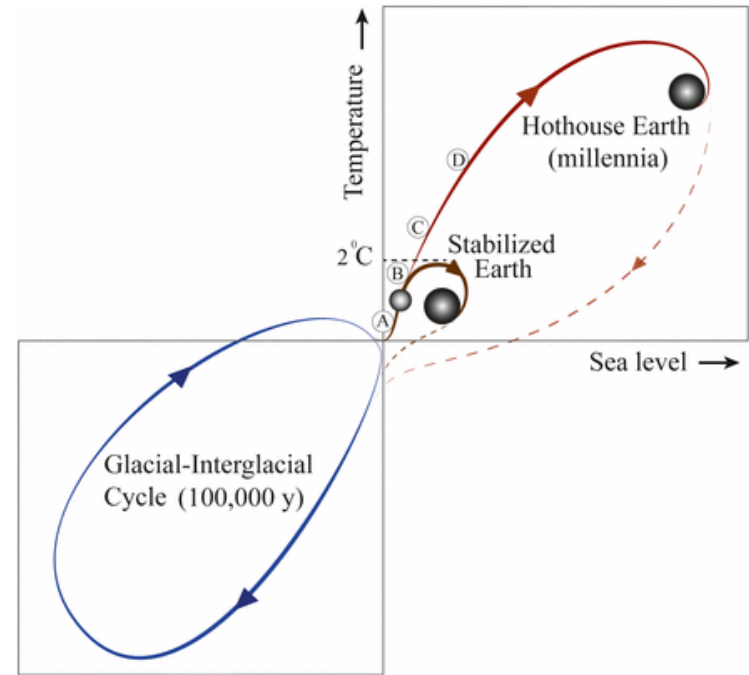
Global map of potential tipping cascades



# Risk of “Hothouse Earth” pathway



Stability landscape showing the pathway of the Earth System out of the Holocene and thus, out of the glacial–interglacial limit cycle to its present position in the hotter Anthropocene.



A schematic illustration of possible future pathways of the climate against the background of the typical glacial–interglacial cycles (Lower Left).

# “Socio-economic system change”

The only way to sustain the earth: the fundamental socio-economic system changes to reduce environmental burden dramatically

- Only 10 years left to set the system changes on track
- Energy, foods, circular economy, cities
- Social transformation to enable them



# Transformation through 2030 to 2050

## Sustainable earth, society, and economy

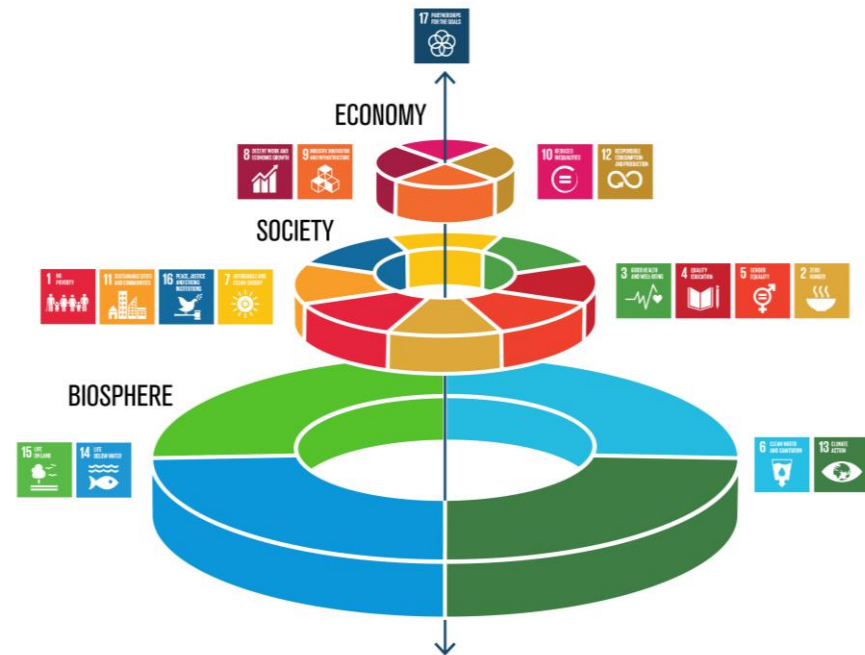
- Earth=Biosphere as the non-negotiable and hard-wired basis for the social and economic prosperity
- Global Commons Stewardship makes SDGs achievable on the basis of the stable and resilient earth system



**Socio-economic system changes**



**Global Commons Stewardship**



SDGs Wedding Cake, Stockholm Resilience Center

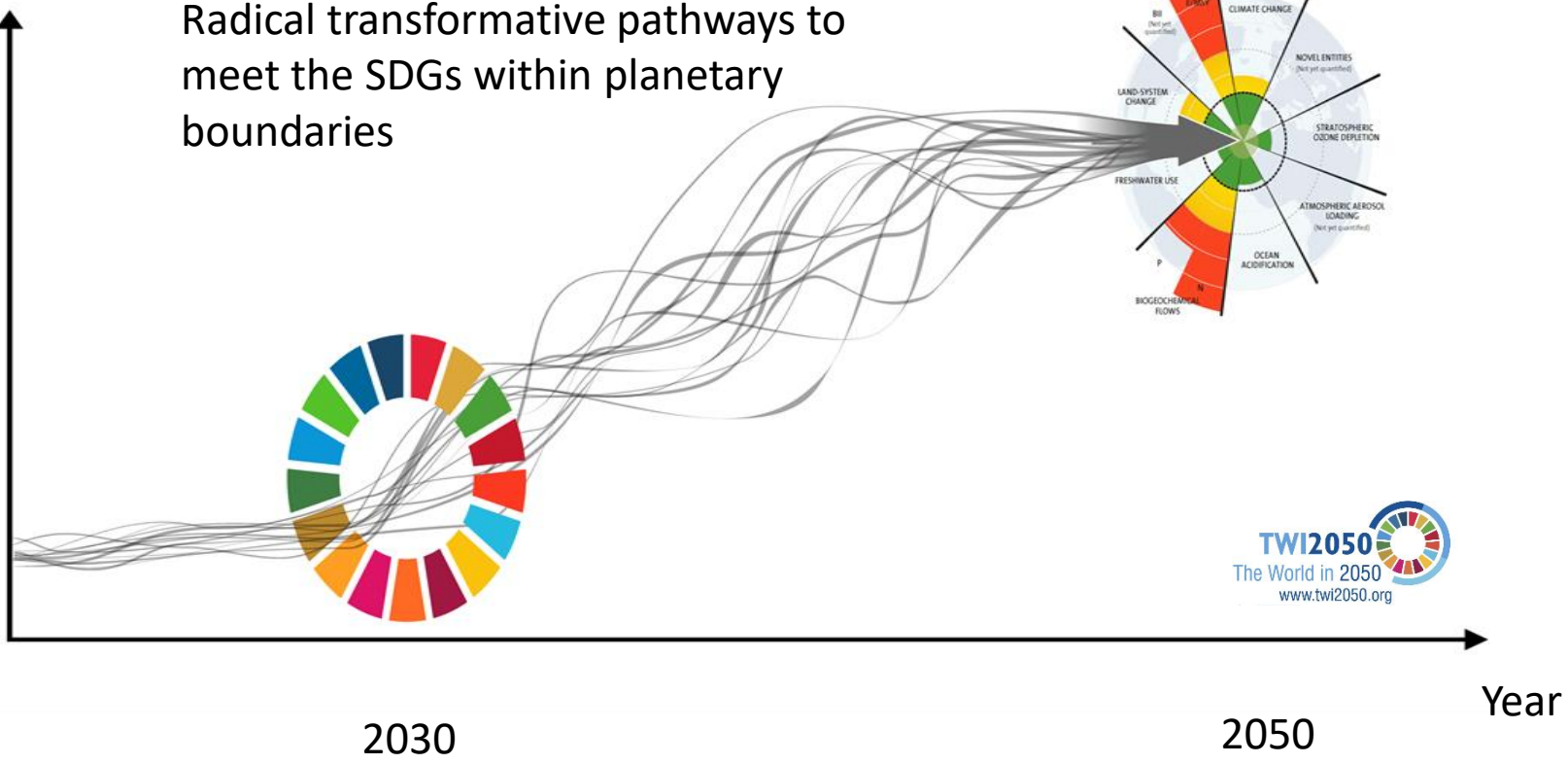
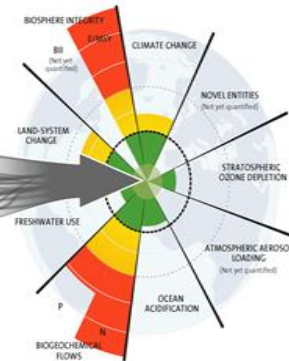
# Through 2030 to 2050

## Transformative pathways towards sustainability

Degree of  
Global  
Sustainable  
Development

Planetary Boundaries

Radical transformative pathways to meet the SDGs within planetary boundaries



# A system change model : The World in 2050



# Safeguarding our Global Commons

Figure 2 | Ingredients of Systems Change

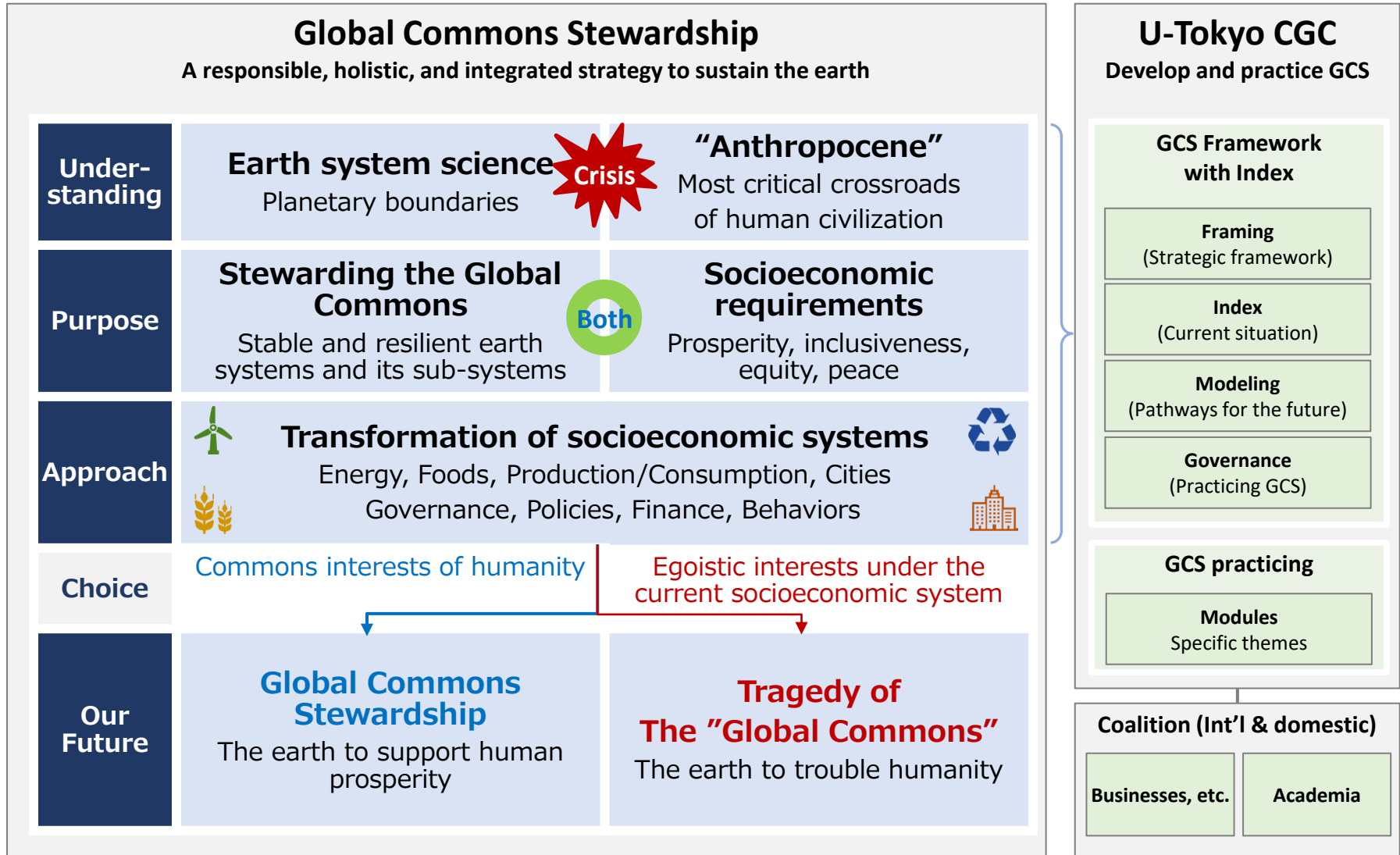


# “Global Commons Stewardship”

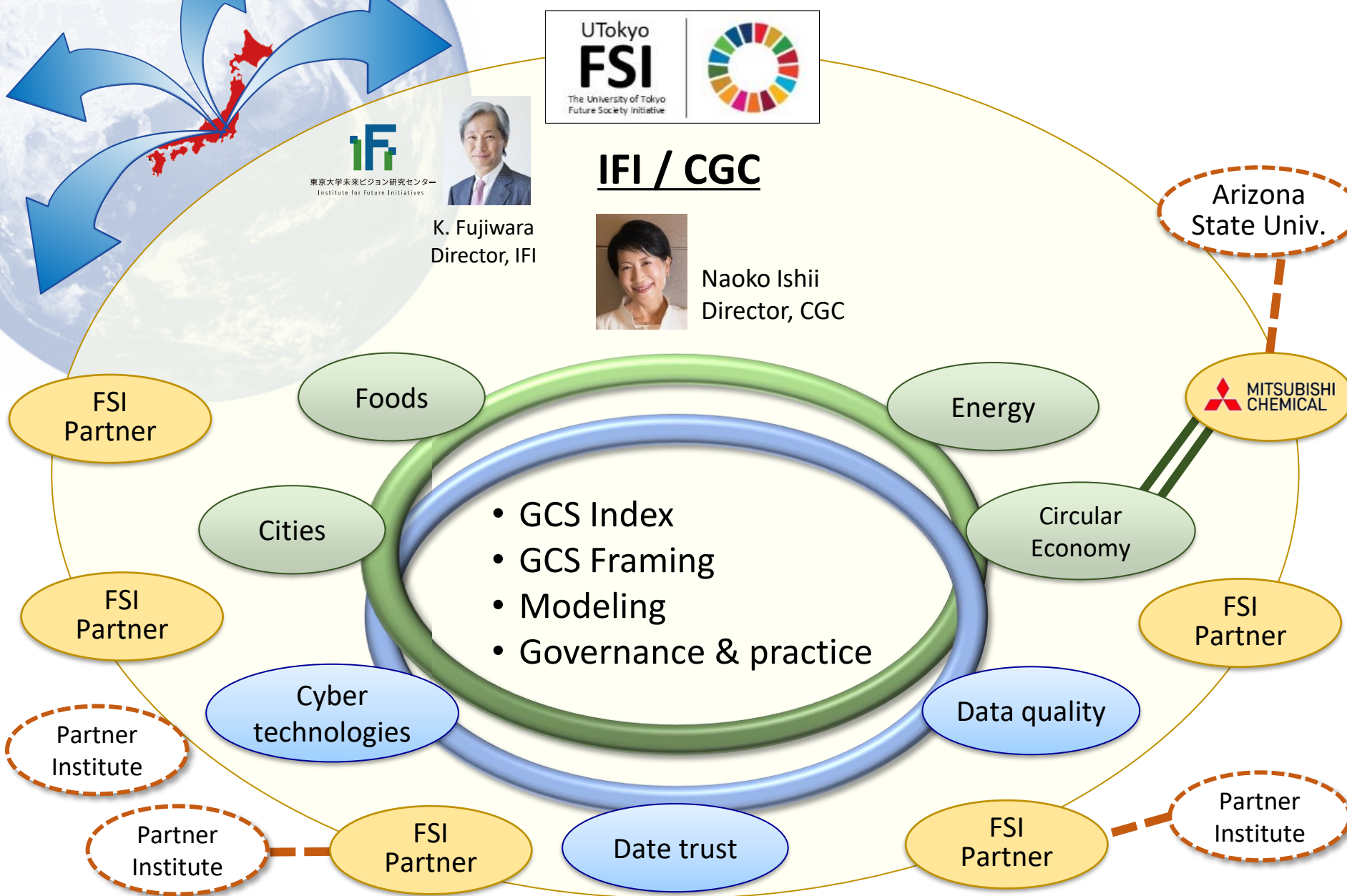
A new integrated strategy is needed to protect the stable and resilient earth system (Global Commons)

- No tragedy of the global commons
- U-Tokyo, Center for Global Commons (CGC)

# Global Commons Stewardship









# U-Tokyo: Center for Global Commons (CGC)



# Global Commons Stewardship Framework with Index

## International team led by CGC, U-Tokyo

<p><b>Overall Coordination</b></p>	 THE UNIVERSITY OF TOKYO <p><b>Naoko Ishii</b> Director of CGC</p>		<ul style="list-style-type: none"> <li>■ To drive development and implementation of the Global Commons Stewardship</li> </ul>
<p><b>Framing + Cyber</b></p>	 <p><b>Jeremy Oppenheim</b></p>		<ul style="list-style-type: none"> <li>■ Framing Global Commons Stewardship</li> <li>■ Governance of cyber commons to promote GCS</li> </ul>
<p><b>Index</b></p>	 <p><b>Guido Schmidt-traub</b></p>		<ul style="list-style-type: none"> <li>■ Indexing and evaluation of contributions to Global Commons (country level)</li> </ul>
<p><b>Modeling</b></p>	 <p><b>Johan Rockstrom</b></p>		<ul style="list-style-type: none"> <li>■ Modeling the system transformation pathways to achieve SDGs with in planetary boundaries</li> </ul>
<p><b>Governance</b></p>	 <p><b>Andrew Steer</b></p>		<ul style="list-style-type: none"> <li>■ Study on the governance and multi-stakeholder coalition to implement Global Commons Stewardship</li> </ul>



# Global Commons Stewardship “Index”



2020

## GLOBAL COMMONS STEWARDSHIP INDEX

PILOT VERSION

Center for Global Commons at the University of Tokyo  
Sustainable Development Solutions Network  
Nate Center for Environmental Law & Policy

Table 2. Country ratings in the overall Pilot GCS Index and by pillar using proportional indicators.

	Overall	Domestic	Spillover		Overall	Domestic	Spillover
Argentina	BB	CCC	A	Japan	B	BB	CCC
Australia	CCC	CCC	CCC	Korea, Rep.	B	B	B
Austria	B	BB	CCC	Latvia	BB	BB	BB
Bangladesh	BBB	BBB	A	Lithuania	BB	BB	B
Belgium	CCC	BB	CCC	Luxembourg	CCC	B	CCC
Brazil	BBB	BB	A	Mexico	BB	B	A
Canada	CCC	CCC	CCC	Netherlands	CCC	BB	CCC
Chile	BBB	BB	A	New Zealand	CCC	CCC	BB
China	BB	B	A	Nigeria	BBB	BBB	A
Colombia	BBB	BB	A	Norway	CCC	BB	CCC
Czechia	BB	BB	BB	Pakistan	BBB	B	A
Denmark	B	BB	CCC	Philippines	BBB	BBB	A
Estonia	BB	BB	BB	Poland	BB	BB	BBB
Ethiopia	BBB	BB	A	Portugal	B	B	CCC
Finland	BB	BBB	B	Russia	BB	B	BBB
France	B	BBB	CCC	Saudi Arabia	CCC	CCC	B
Germany	B	BB	CCC	Slovakia	BB	BB	B
Greece	B	B	B	Slovenia	B	BB	CCC
Hungary	BBB	BB	BBB	South Africa	BB	B	BBB
Iceland	CCC	CCC	CCC	Spain	B	B	B
India	BBB	BB	A	Sweden	B	BBB	CCC
Indonesia	BBB	BB	A	Switzerland	CCC	BBB	CCC
Ireland	B	BB	CCC	Turkey	BB	B	BBB
Israel	CCC	CCC	CCC	United Kingdom	B	BBB	CCC
Italy	B	BB	CCC	United States	B	CCC	B

Pilot version

<https://ifi.u-tokyo.ac.jp/en/news/8188/>

# Tokyo Forum 2020

## “Global Commons Stewardship in the Anthropocene”

Tokyo Forum 2020 Online  Shaping the Future

人新世における人類共有の地球環境

Global Commons Stewardship in the Anthropocene

グローバル・コモンズの管理責任

