

Position paper on the implementation of the Ha Noi 3R Declaration Sustainable 3R goals for 2013–2023

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ECOSYSTEM SCIENCES DIVISION/CLIMATE ADAPTATION FLAGSHIP
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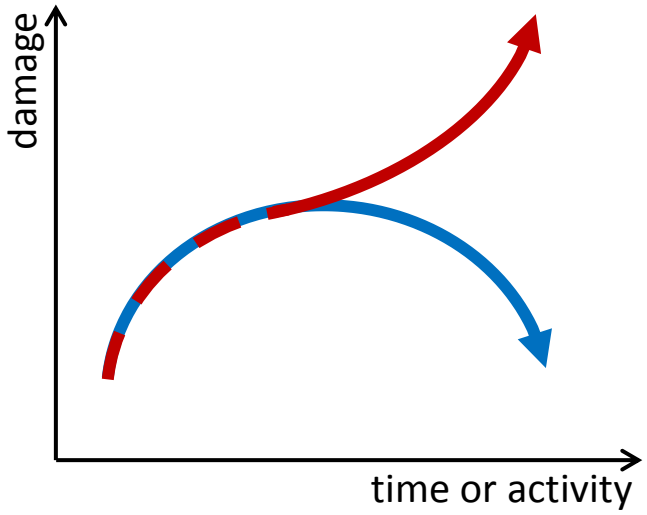
When do institutions ‘naturally’ respond to environmental threats?



- local impacts
- visible and understood
- reversible

- distant impacts
  - ~ time
  - ~ location
  - ~ communities
- complex, poorly understood
- irreversible

When do institutions 'naturally' respond to environmental threats?

we understand causes and consequences:

major determinants of system or resource condition, resilience, and impacts of different trajectories are well known

we can do something about it:

resources or assets are subject to human influence, including damage is reversible

we want to do something:

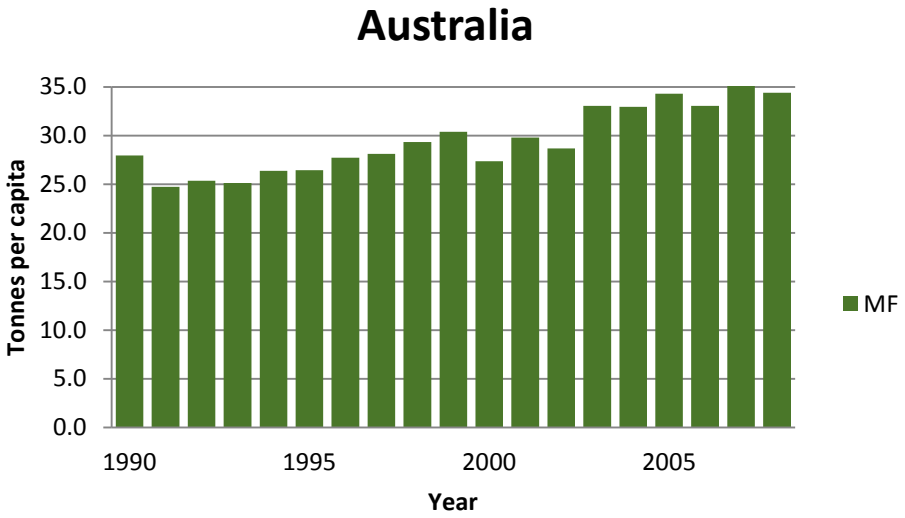
formal or informal arrangements can be crafted that result in perceived net benefits to key constituencies

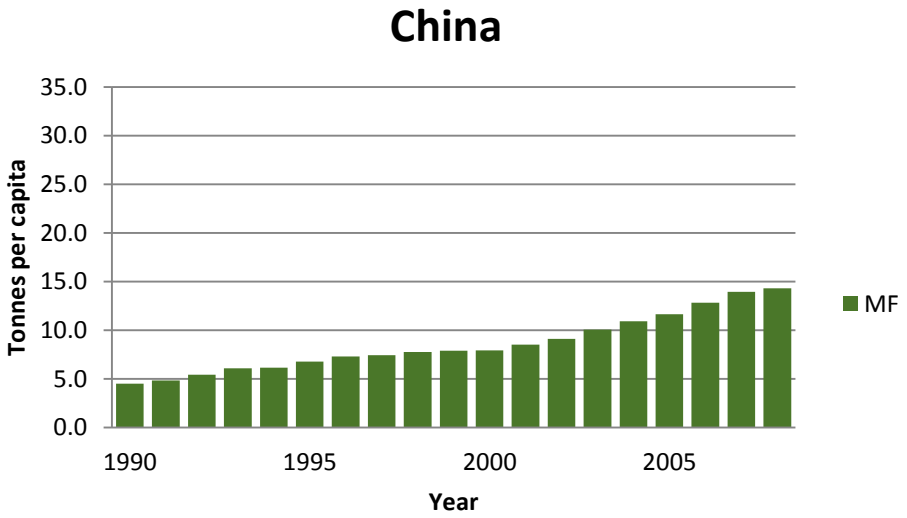
Source: Arrow et al 1995, Dietz et al 2003, Hatfield-Dodds et al 2007

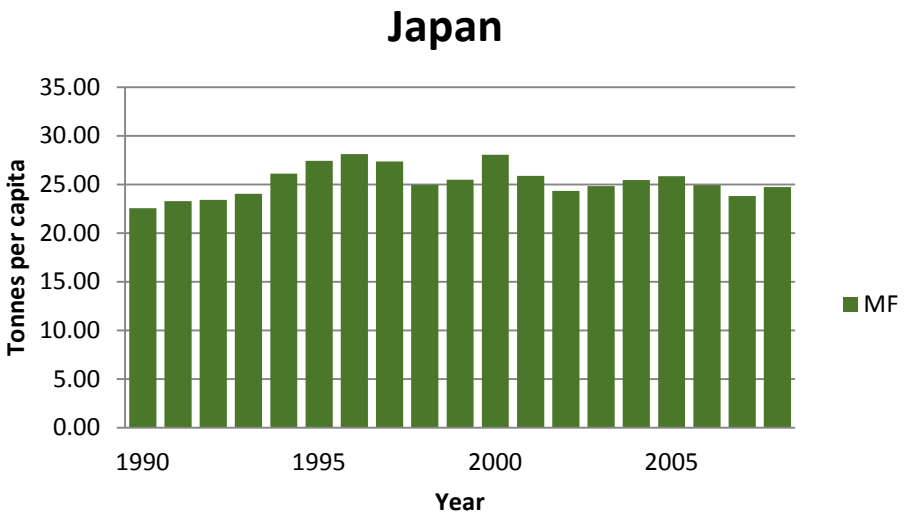
Environmental Impacts of Economic Activities

Problem	Mechanism	Pressures
Climate Change	**CO_2, N_2O and CH_4**	**Energy consumption, land use, material flows**
Acidification	SO_2, NH_4 and NO_x	Energy consumption, land use
Eutrophication	Bio-accessible phosphorus and nitrogen	Land use
Biodiversity loss	Intensive agriculture and forestry	Land use, material flows, global trade
Soil erosion	Agricultural and forestry practices	Land use
Water protection	Industrial effluents and municipal waste water	Land use, energy consumption
Waste problems	**Manufacturing and households**	**Material flows**
Depletion of natural resources	**Non-renewable and renewable**	**Material flows, energy use and land use**
Health risks	Toxic substances	Biological activity

Material Footprint







Landing point
25-35 tonnes per capita

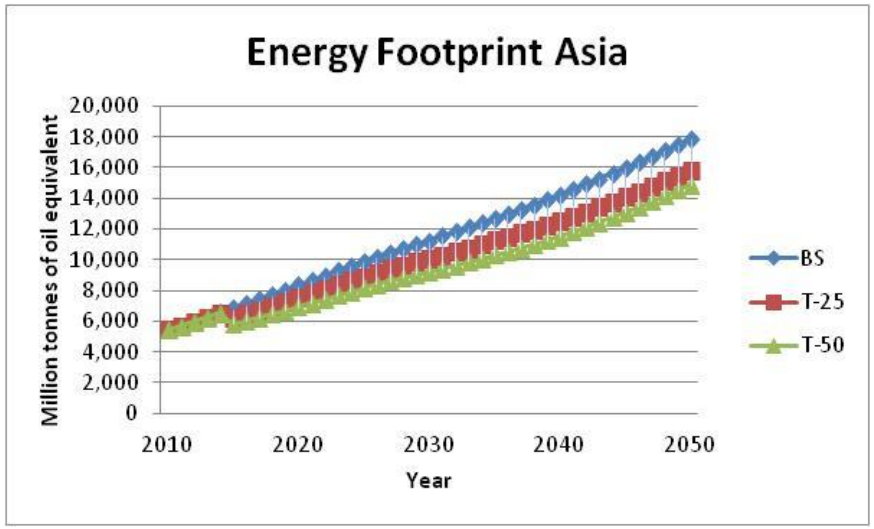
2050
9 billion people
270 billion tonnes of natural resource use
4 times of today

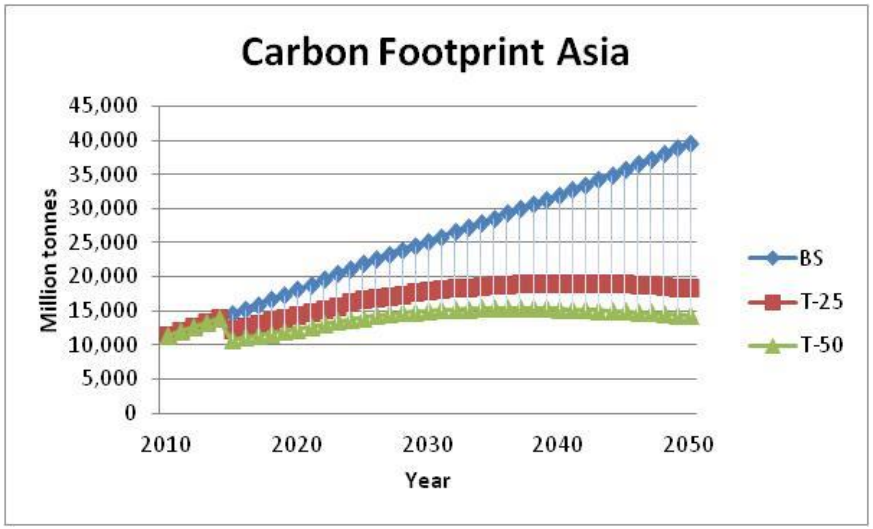
Source: Wiedmann, Schandl et al. 2013

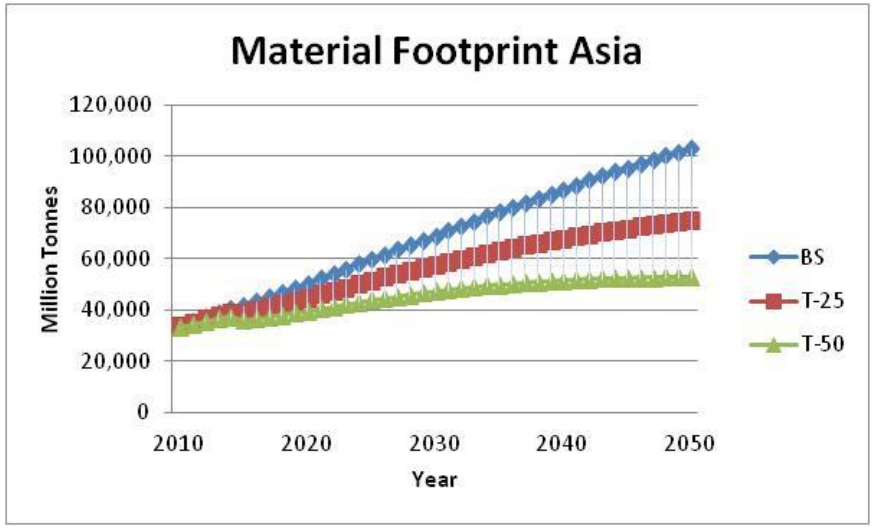
Economics and Outlook: Scenarios for growth, employment and resource use in Asia

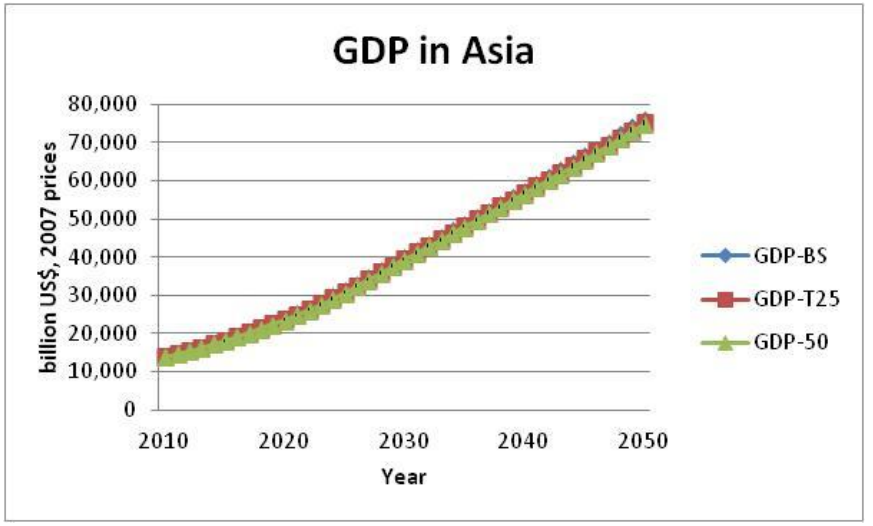
Three main scenarios	Scenario settings
Base Case	No carbon price No investment in resource efficiency and waste minimization above business as usual
Step Change in resource efficiency	25$ global carbon price Investment in resource efficiency and waste minimization to achieve technical potential in major sectors
Step Change in resource efficiency plus change in consumer behaviour	30$ carbon price Investment in resource efficiency, waste minimization and sustainable consumption Systems Innovation

Decoupling in Asia is possible









Source: CSIRO Integrated Economy – Environment Model and Sydney University EORA model 2013

A plethora of policy paradigms

Sustainable development
(economic prosperity, social equity and environmental conservation)

Green economy
A macro-economic approach
Focus on investing in green economic activities, infrastructure and skills

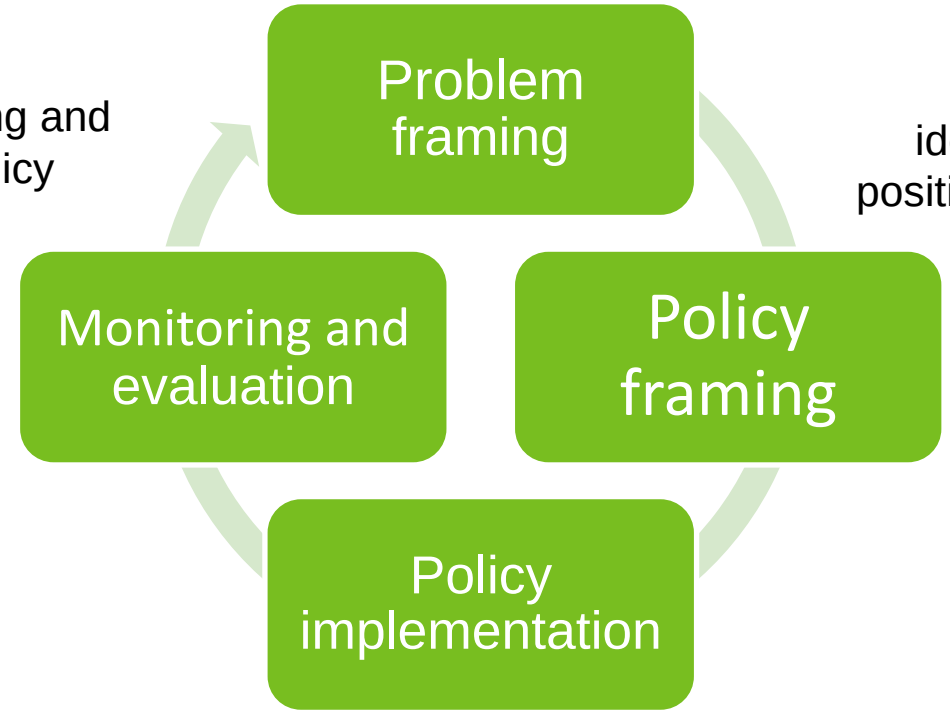
SCP
Policies, tools and practices that support the green economy
Focus on capacity building and mainstreaming of eco-efficient production and responsible consumption behaviours

Resource efficiency
Achieving greater wellbeing whilst reducing resource use and emissions
Focus on systems performance, technologies and lifestyles

3R's – Reduce, reuse, recycle
(across regional scales)

The policy cycle

The policy community and general public debate issues, gather information and agree on the nature of a policy problem



Guiding policy principles are identified, a policy position is developed and policy goals are defined

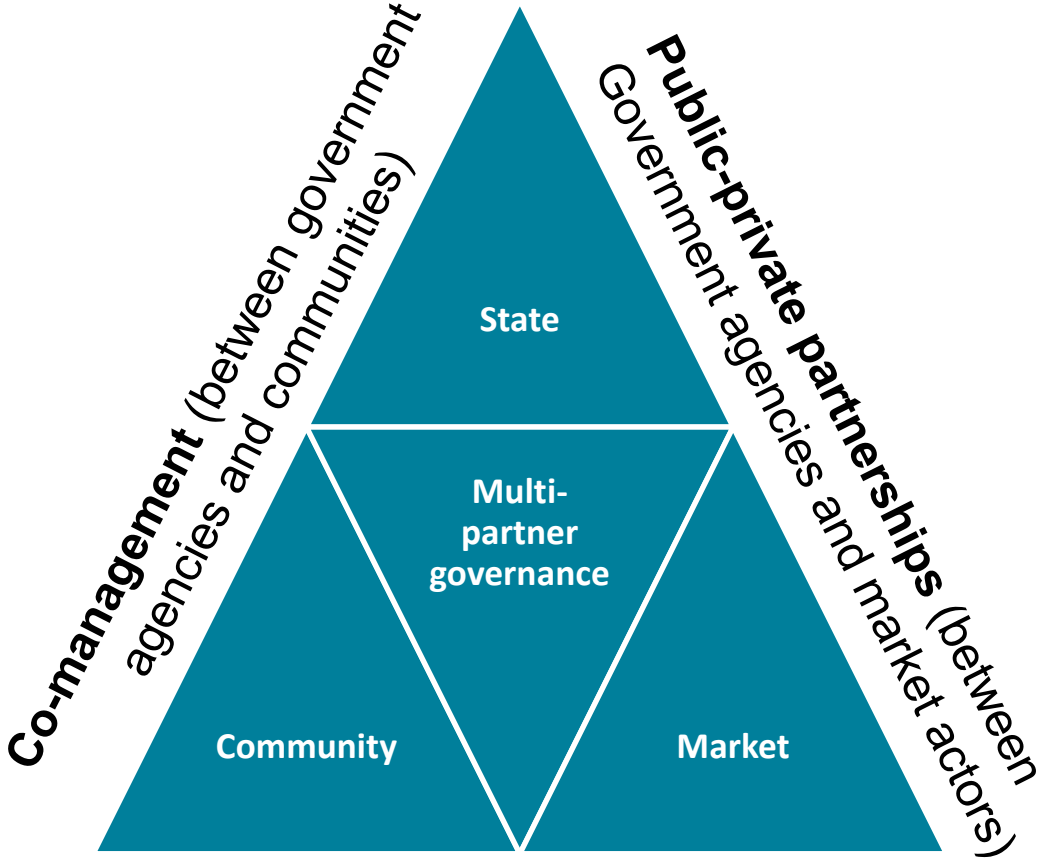
Policy instruments are selected, resources allocated, communication and enforcement activities undertaken and monitoring mechanisms established

Ongoing monitoring and evaluation of a policy are undertaken to enable learning and enhance performance

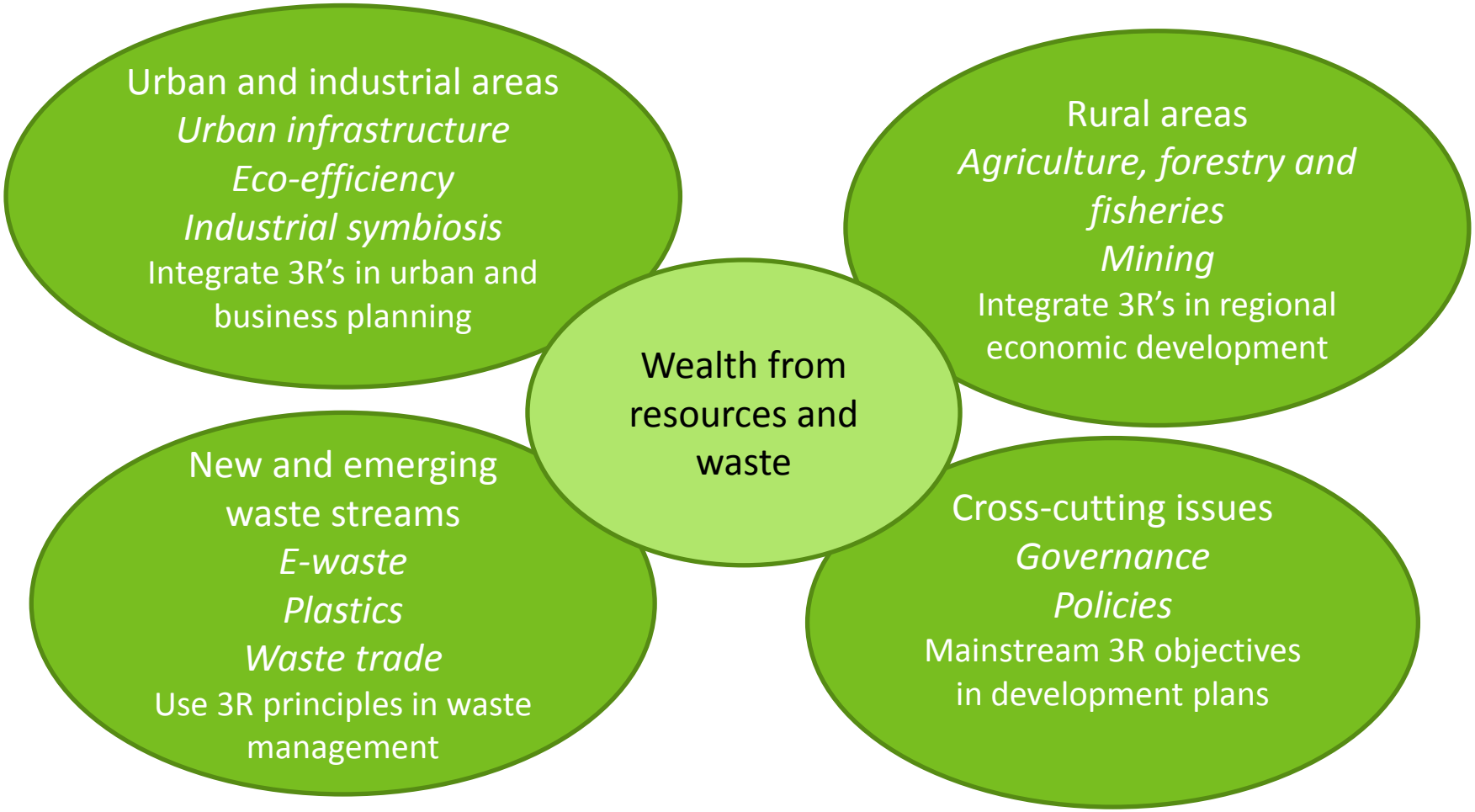
Success factors for 3R policy implementation

- Leadership and co-ownership
- Cross-departmental collaboration
- Improving regional and city implementation capacity
- Harmonization of development and 3R objectives
- Measuring progress of the 3R's
- Finding the right policy mix
- Building an innovation culture
- Identifying win-win situations

Triangular cooperation for viable governance and business models



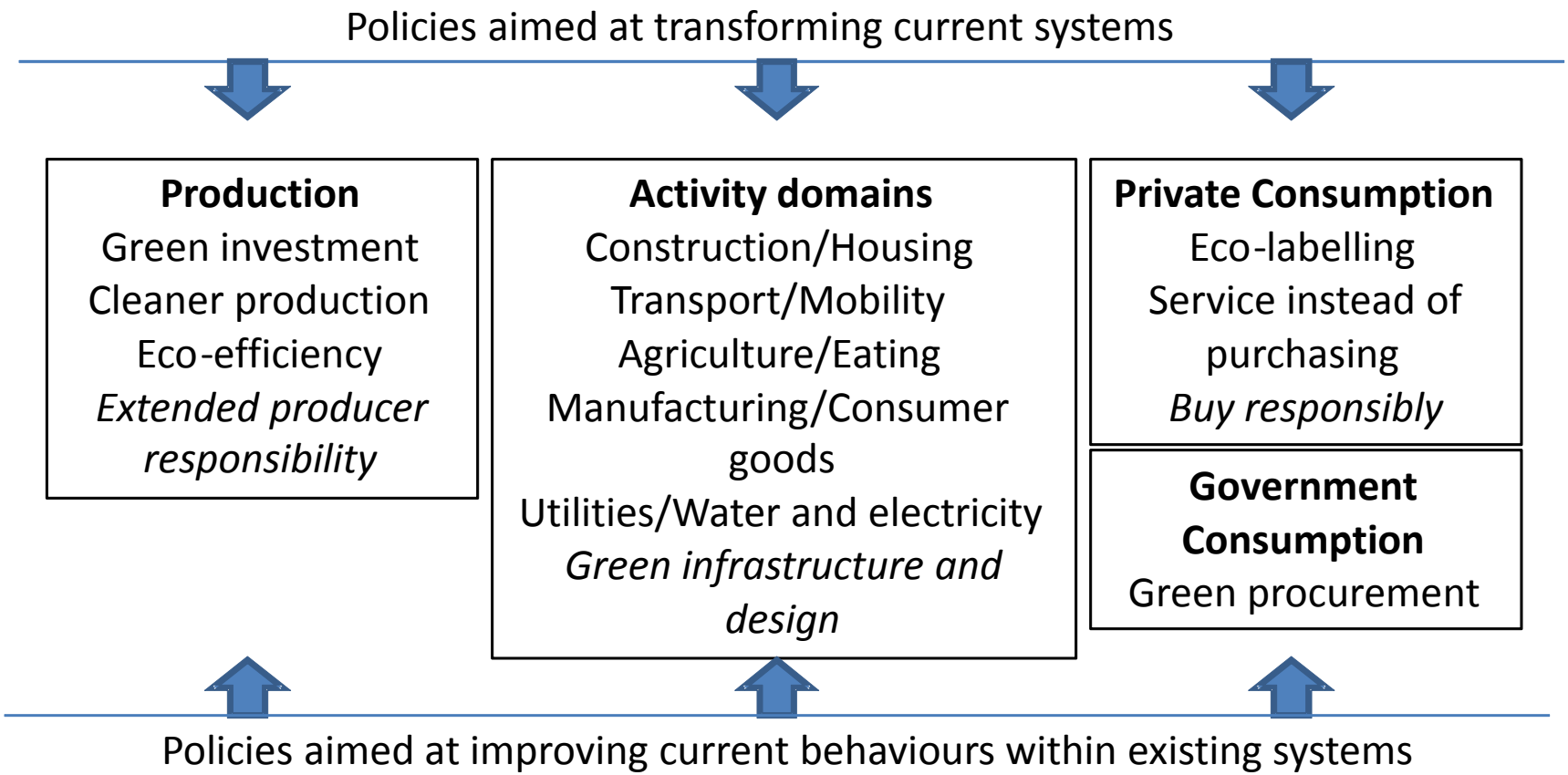
Redesign industrial systems and human settlements for resource efficiency and waste minimization



Policy instruments

- **policy through advocacy** – educating or persuading, using information available to government
- **policy through network** – cultivating and leveraging relationships within and across government and with external partnership bodies to develop and implement desired goals and behaviours
- **policy through money** – using spending and taxing powers to shape activity beyond government
- **policy through direct government action** – delivering services through public agencies
- **policy through law** – legislation, regulation and official authority

Incremental and transformative policies



Criteria for policy choice

- **Appropriateness** – is this a reasonable way of proceeding in this policy area?
- **Efficiency** – will the instrument be cost-effective?
- **Effectiveness** – can the instrument achieve the desired outcome?
- **Equity** – are the likely consequences fair?
- **Suitability** – will there be conflicts with existing processes or policies?
- **Workability** – is the instrument simple and robust and can it be easily implemented?

Thank you

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