



United Nations  
Economic Commission for Europe

# UNECE environmental and OECD green growth indicators what are the matches?

Regional workshop for the countries of Eastern Europe, the Caucasus and  
Central Asia

10-11 March 2015

OECD Headquarters, Paris, France

Lukasz Wyrowski, Manager, UNECE Programme  
on Environmental Monitoring and Assessment

# Should there be matches between EIs and GGIs

- EIs designed to understand the changes to the state of environment
- GGIs to understand how green is the economic growth or what is the transition to green economy

Understanding the green component of the economic growth is related (at least partially) to the understanding of the changes to the state of the environment



# Are there matches?

## EI (UNECE)

Air pollution and ozone depletion

Climate change

Water

Biodiversity

Land and soil

Agriculture

Energy

Transport

Waste

Environmental financing

## GGIs (OECD)

Carbon and energy productivity

Resource productivity

Multifactor productivity

Natural resource stocks

Renewable stocks

Non renewable stocks

Biodiversity and ecosystems

Environmental health and risk

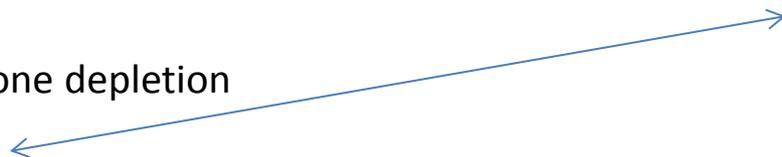
Environmental services and amenities

Technology and innovation

Environmental goods and services

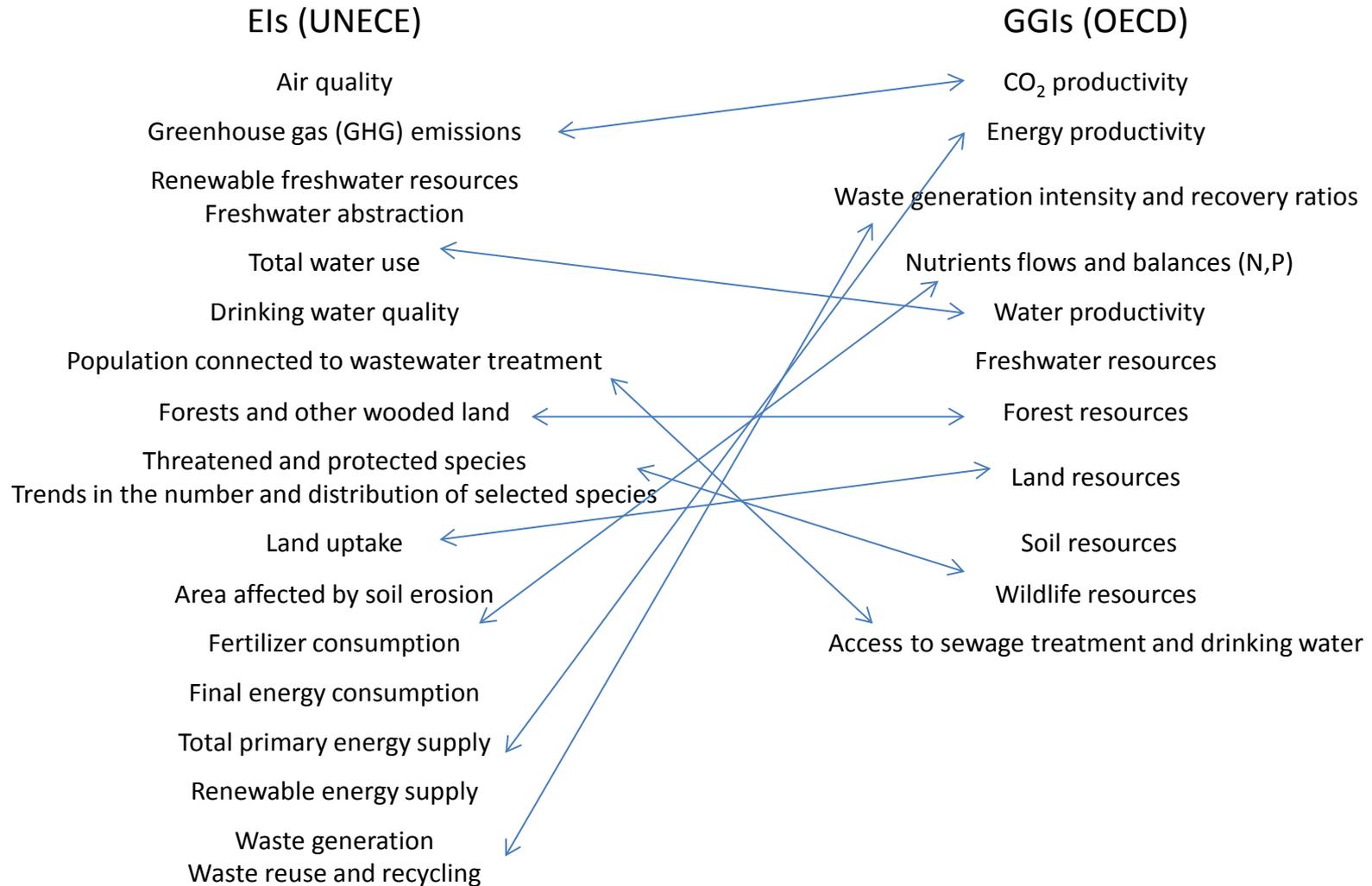
International financial flows

Prices and transfers





# Are there matches?



# Are there matches?

## Issue to understand

What is the impact from air pollution on human health, vegetation and material?

What is anthropogenic impact on the earth's climate due to emissions of GHGs into the atmosphere? Are we on the right track to decrease the impact?

What is the state of the water resources? Do we safeguard or rather overexploit /degrade water resources?

## Indicators

EI: Ambient air quality in urban areas  
GGI: Environmentally induced health problems and related costs

EI: Greenhouse gas emissions  
GGI: Production-based CO2 productivity

EI: Renewable freshwater resources and Freshwater abstraction  
GGI: Freshwater resources

# Are there matches?

## Issue to understand

Do we use efficiently the limited water resources in economic activities?

Do we minimize negative impact on human health from the use of poor quality drinking water?

Do we minimize, prevent negative impact on human health from water pollution caused by human excreta?

## Indicators

EI: Total water use

GGI: Water productivity

EI: Drinking water quality

GGI: Population with sustainable access to safe drinking water

EI: Population connected to wastewater treatment

GGI: Population connected to sewage treatment

# Are there matches?

## Issue to understand

What is the state of forests? Do we safeguard or rather overexploit /degrade forest resources?

Do we safeguard/ maintain the natural asset base/biodiversity? Do we safeguard species from extinction?

Do we control changes in land cover?

## Indicators

EI: Forests and other wooded land

GGI: Forest resources

EI: Threatened and protected species ;  
Trends in the number and distribution of selected species

GGI: Wildlife resources

EI: Land uptake

GGI: Land cover conversions and cover changes from natural state to artificial state



# Are there matches?

## Issue to understand

Do we accelerate the soil erosion by unsustainable use of agricultural land?

Do we understand the effects from fertilizers use on the environment?

Are we using energy efficiently?

## Indicators

EI: Area affected by soil erosion

GGI: Soil resources

EI: Fertilizer consumption

GGI: Nutrients flows and balances (N,P) and Land resources

EI: Final energy consumption, Total primary energy supply

GGI: Energy intensity by sector, Energy productivity



# Are there matches?

## Issue to understand

Do we use renewable sources of energy?

Do we prevent loss of resources in form of material and energy?

## Indicators

EI: Renewable energy supply

GGI: Share of renewable energy sources

EI: Waste generation , Waste reuse and recycling

GGI: Waste generation intensity and recovery ratios



# Differences between sets

- GGI are more broad – measure also economic opportunities and relevant policy response in areas such as:
  - Technology and innovation
  - Environmental goods and services
  - International financial flows
  - Prices and transfers



# Differences between sets

EI set does not cover:

- material productivity (biotic e.g. food, and abiotic material e.g. metallic minerals) as part of resource productivity or multifactor productivity
- index of natural resources nor fish resources (the latter was discussed whether to be included)
- exposure to natural or industrial risks



# Differences between sets

- EI set goes more into detail to investigate:
- drivers, pressures, state, impact, response (DPSIR) especially for media such air and water

# Conclusions

Where there are matches between indicators:

**Dataflows should be shared so that they can be used in calculating the various indicators (producers – users relation)**

Do we have however the same data flows underpinning the indicators?