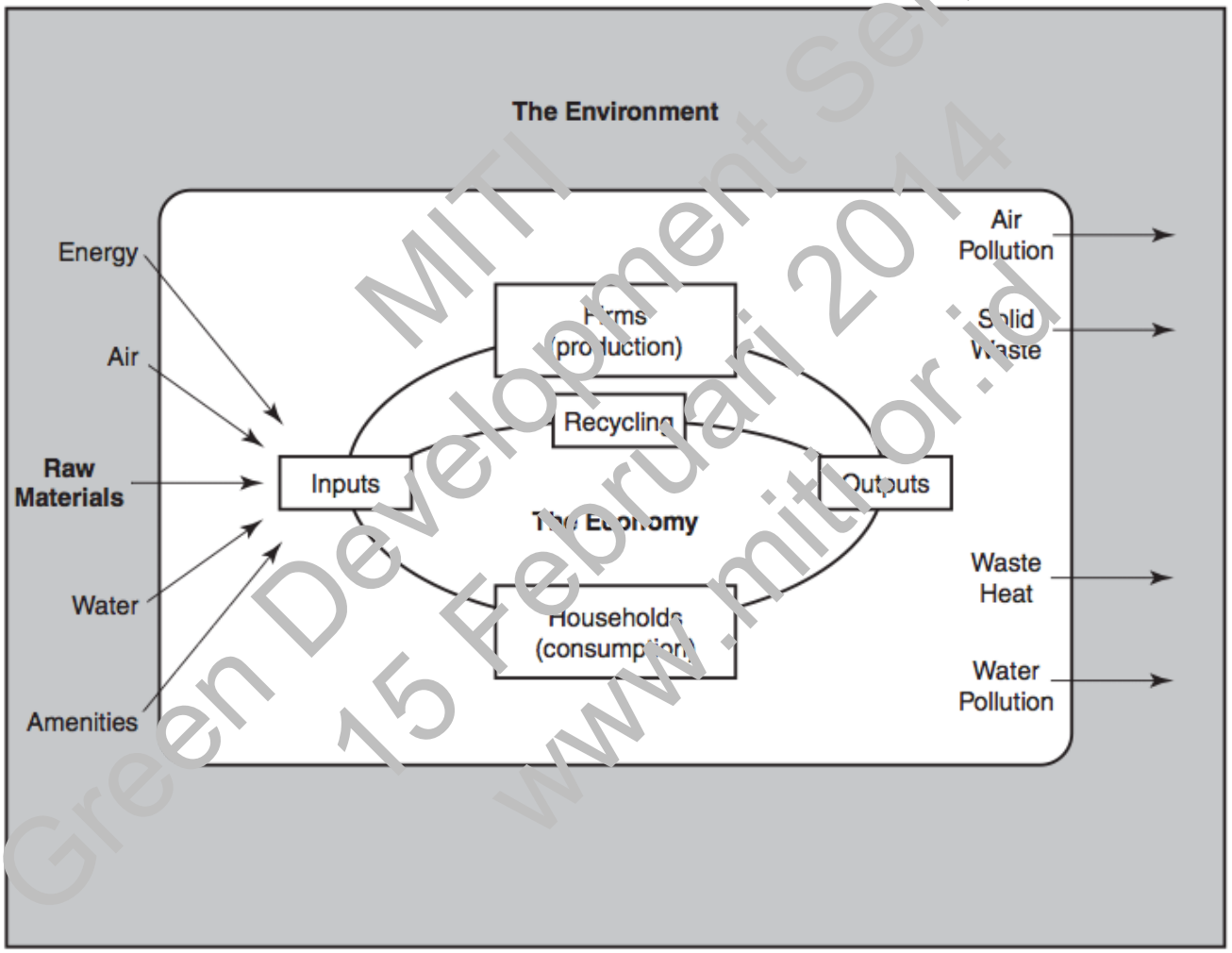
Green Economy: Concept, Agendas and Challenges

Alin Halimatussadiah
Fakultas Ekonomi Universitas Indonesia

Disampaikan pada
Green Development Seminar
"Green Mindset toward Sustainable Development"

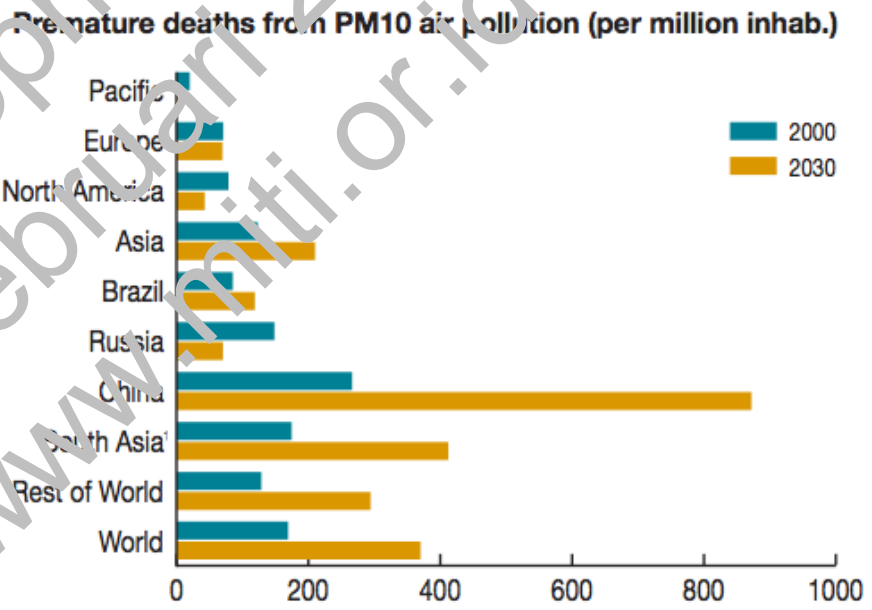
Masyarakat Ilmuwan dan Teknolog Indonesia
Wisma Makara Universitas Indonesia, Depok, 15 Februari 2014

The Economic System and the Environment



Some Problems

- 33% of the world's population could be affected by water scarcity by 2025
- 10%, the amount of biodiversity lost by 2030 without action to stem the tide
- 90% of sewage and 70% of industrial wastes in developing countries are discharged without treatment
- Climate change



Green Economy: Concept

- Sustainable Development
  - Non-declining welfare
  - Not only intra-generational equity, but also inter-generational equity
- Green Economy (UNEP) → economic growth that improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities

Key Aspects of Green Growth

- Energy Efficiency
- Renewables and Nuclear Energy (?)
- Transport, Cities and Fuel Efficiency
- Water and Ecological Infrastructure
- Green Technologies as Future Growth Engines

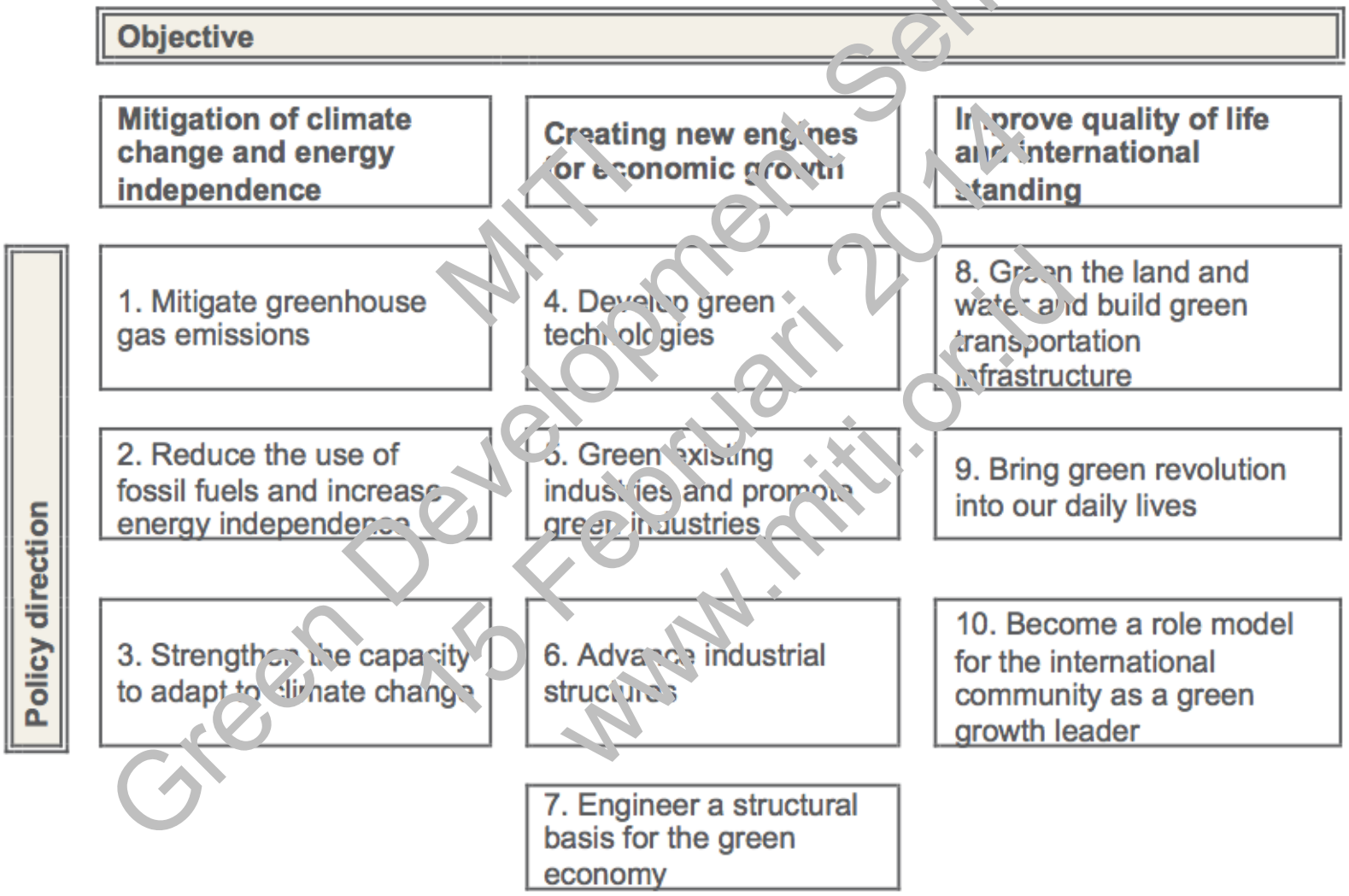
Source of Green Growth

- ***Productivity***. Incentives for greater efficiency in the use of resources and natural assets, including enhancing productivity, reducing waste and energy consumption, and making resources available to their highest value use.
- ***Innovation***. Opportunities for innovation, spurred by policies and framework conditions that allow for new ways of creating value and addressing environmental problems.
- ***New markets***. Creation of new markets by stimulating demand for green technologies, goods, and services; creating new job opportunities.

Best Practice Case: South Korea

- I*n August 2008, the Korean government announced a **"low-carbon, green growth"** strategy as a new vision to guide the nation's long-term development*
  - The Green New Deal
  - Mid to Long term (2009-2050)
  - Five-Year Plan for Green Growth (2009-2013)

National Strategy for Green Growth: Policy Directions



Best Practice Case: South Korea

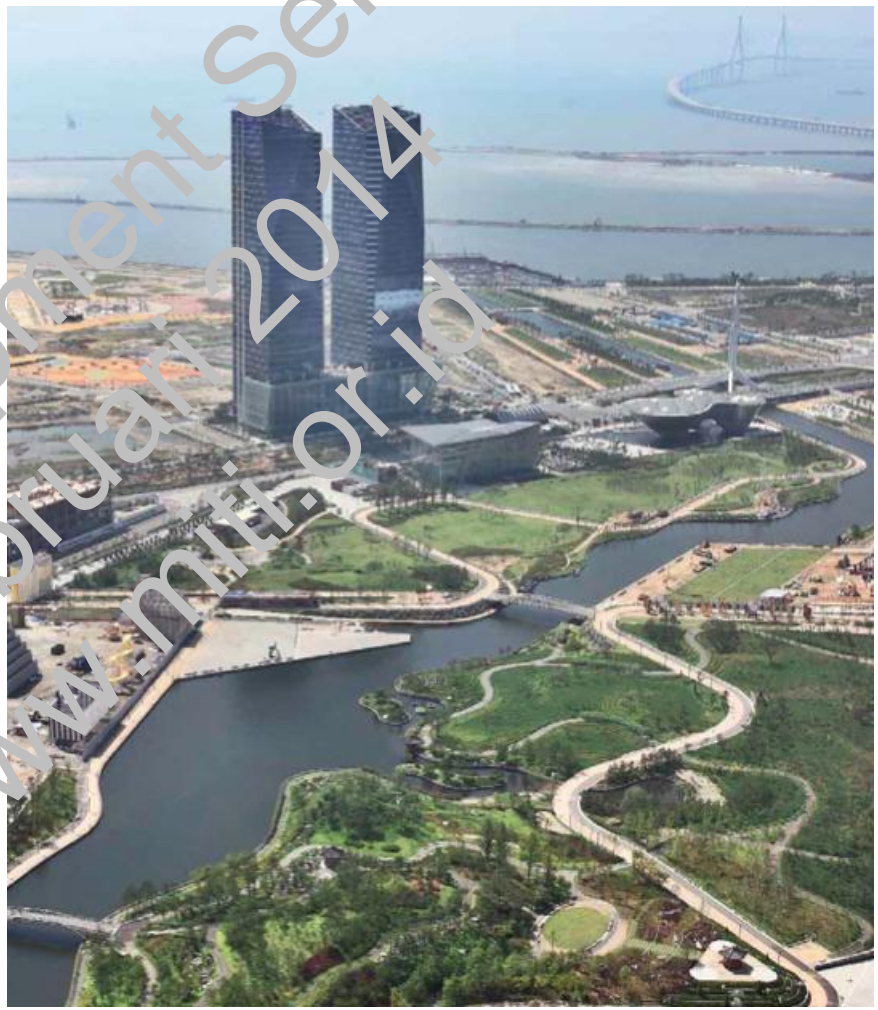
- A fiscal stimulus package (US$ 38.1 billion), 80% was allocated to more efficient use of resources such as fresh-water, waste, energy-efficient buildings, renewable energies, low-carbon vehicles, and the rail network.
- Over 2% of its GDP for government investment expenditure for pollution abatement and control, public water supply and nature protection
- Doubling the generation of energy from renewable sources and enhancing resource and material efficiency
  - stimulate production in the amount of US$ 141-160 billion
  - create 1.56- 1.81 million jobs in green industries
- Promoting an East Asia Climate Partnership
  - the Global Green Growth Institute (GGGI)

Project Examples: Four Rivers

- The Four Major Rivers Restoration Project in the Han, Nakdong, Geum and Yeongsan Rivers
  - improving water quality → 90% increase
  - creating multipurpose spaces for local residents
  - enhancing regional development around rivers.

Project Examples: New Songdo City

Located on a man-made island 40 miles from Seoul, the 1,500-acre city is intended to emit only one-third the greenhouse gases of a similar size city and become the commercial hub of Northeast Asia.



Project Examples: Waste Management

- *Not only to reduce waste generation, but also reusing waste as an energy resource. It increase recycling rate & create thousand of jobs*
  - "Extended Producer Responsibility" (EPR) system → recycle by manufacturers and importers
    - 2003-2007: financial benefit of recycling 6.067 million tons of waste is estimated to be over US $1.6 billion.
    - 2003-2006: 3,200 new jobs are created
    - Reduced CO2 emissions annually by an average of 412,000 tons
  - Recycle of municipal solid waste
    - In 1995, 23.7 per cent of the total waste were recycled, where as in 2007, 81.1 per cent of the total waste was recycled.
  - Korea's Landfill Gas Recovery Project
    - Has capacity of 50 MWh and a production of 363,259 MWh in 2009.
    - It is expected to reduce a total of 7 million tons of CO2 between April 2007 and April 2017.
    - Reduce its oil imports by 530 thousand barrels in 2009.

Green Growth Agendas

- Providing the right incentives.
  - Green market – demand for green products – encouraging behavior change
- Building the needed infrastructures
  - green growth is capital intensive
  - support from rules, systems, institutions and policies
- Focusing on Green R&D and Green Technology
  - partnerships with developed countries
  - green ideas and technologies -- new and better green products

Policy and Fiscal Reform

- Appropriate government intervention
  - Specified budget allocation
  - Research-based policy e.g. behavioral response
- Market-based incentives
  - Emission Trading System or Carbon Taxes?
  - Payment for Ecosystem Services
- Focusing on developing better incentives for R&D and reducing market failure e.g. externalities, open access resources

Institutional Process and Participation

- Institutional set up
  - Inter-agency process that involves all government ministries.
  - National → district level
- Enhancing people and market participation → from the planning phase
  - Private sector, academia, civil society

Challenges in Indonesia

- Green Economy Strategy in the National Development Plan
- Property Rights: assignment, enforcement
  - Open access resources → overexploitation
- Market and people behavior
  - Understanding on the environmental problem
  - Changing behavior: incentive (reward/punishment), education
- Institutional Setting
  - Institutional arrangement, e.g. role and responsibility, coordination among stakeholders
  - Institutional capacity e.g. fiscal capacity, bureaucracy
  - Institutional behavior e.g. political will, making priority, rent-seeking activity
- Research & Development
  - The main agent
  - Coordination between agents

Reference

- Jones, R. S. and B. Yoo (2011), “Korea's Green Growth Strategy: Mitigating Climate Change and Developing New Growth Engines”, *OECD Economics Department Working Papers*, No. 798, OECD Publishing.
- OECD, 2011. Towards A Green Growth: A Summary for Policy Makers.
- Presidential Commission on Green Growth, Republic of Korea. Road to Our Future: Green Growth. National Strategy and the Five-Year Plan (2009 – 2013).
- Republic of Korea, 2009. National Strategy for Green Growth and Five-Year Plan.
- Tietenberg, T., 2012. Environmental and Natural Resource Economics, 9th ed. NJ: Pearson Education, Inc.
- UNEP, 2010. Overview Of The Republic Of Korea’s National Strategy For Green Growth.