



# How Services Can Contribute to Addressing Environmental Challenges

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# Main points



- Meeting environmental sustainability goals requires specific **goods** – e.g., technologies for generating electricity cleanly, for treating effluents, and for monitoring the environment.
- But it also requires **services**. Services are to goods as computer software is to computer hardware.
- Sales, and therefore **trade**, in environmental goods is often bundled with services, such as the repair or maintenance of equipment.
- **Barriers to trade** raise the **cost** of attaining environmental sustainability goals.
- Lowering barriers to trade in environmental goods only addresses half of the equation: barriers to services trade may also inhibit the rapid **deployment** of those goods.

# Categories of environmental goods & services



## Environmental goods (EGA)

1. Air pollution control
2. Cleaner and renewable energy
3. Energy efficiency
4. Environmental monitoring analysis and assessment
5. Environmental remediation and clean-up
6. Environmentally preferable products
7. Noise and vibration abatement
8. Resource efficiency
9. Solid and hazardous waste management
10. Wastewater management and water treatment

## Environmental services (W/120)

- 6.A. Sewage services
- 6.B. Refuse-disposal services
- 6.C. Sanitation and similar services
- 6.D. Other environmental services
  - Cleaning of exhaust gases
  - Noise-abatement
  - Nature and landscape protection
  - Other environmental services not elsewhere specified

## Related services

- Engineering services
- Architectural services
- Construction services
- Other business services



# Mode 1: Cross-border trade



- With the advent of the internet, it has become possible to monitor and even control the operation of facilities – such as wind turbines (right-hand photo) and bio-gas units (left-hand photo) – from abroad.
- Many types of services today are offered independently of the company that built the environmental facility.
- *Example:* TaKaDu analyses data on municipal water systems remotely, identifying likely water leaks, saving clients millions of \$s.



# Mode 2: Consumption abroad



- In the context of environmental services, “consumption abroad” pertains mainly to persons of one country travelling to another to receive training.
- Many employees of environmental service providers – e.g., repairers and maintainers of wind turbines (left photo) and workers who clean up hazardous wastes (right-hand photo) – require initial training and periodic refresher courses to perform their jobs safely and competently.
- Often this training is provided by the original equipment manufacturers, but also by specialised companies, or educational institutions.



# Mode 3: Commercial presence



- Some environmental services – e.g., refuse-disposal services (left-hand photo) or the cleaning of exhaust gases (right-hand photo) – are labour intensive, or require equipment that is not easily transported, or both. These types of services often require a commercial presence – i.e., local investment.
- Often, initially, foreign managers and experts are involved, but afterwards the share of local employees grows over time.



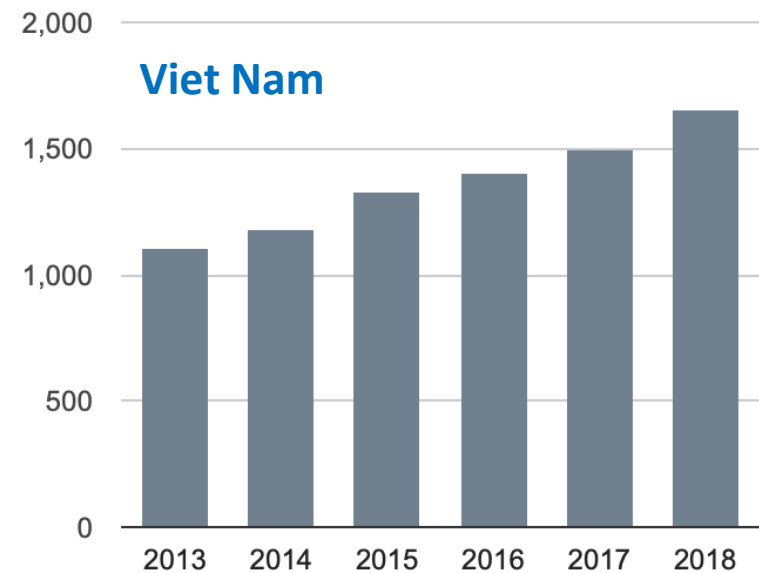
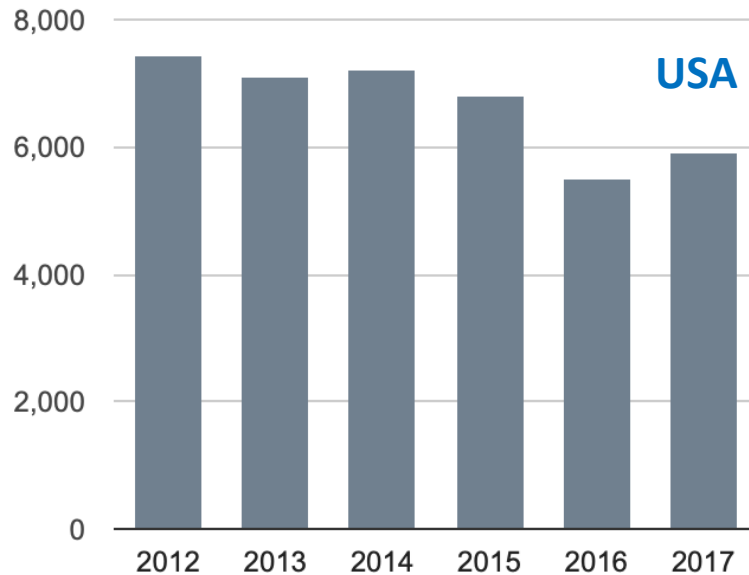
# Mode 4: Temporary movement of natural persons



- The installation of many types of environmental equipment may require only a few days' work by specialists. Many types of equipment may also require specialists to service or repair the equipment once in operation.
- When a technology is new to a country, these specialist workers will often have to travel from abroad for short periods.
- For some providers – e.g., noise-abatement specialists – both their equipment and their people enter the importing economy only temporarily.



# Total exports of trade in “Environmental services”, United States and Viet Nam (USD millions)



- Source: WTO (<http://i-tip.wto.org/services/Search.aspx>).
- United States data refer to trade in “Waste treatment and de-pollution, agricultural and mining” services.
- Viet Nam data refer to trade in “Other commercial services”.



# Common potential barriers to environmental services trade

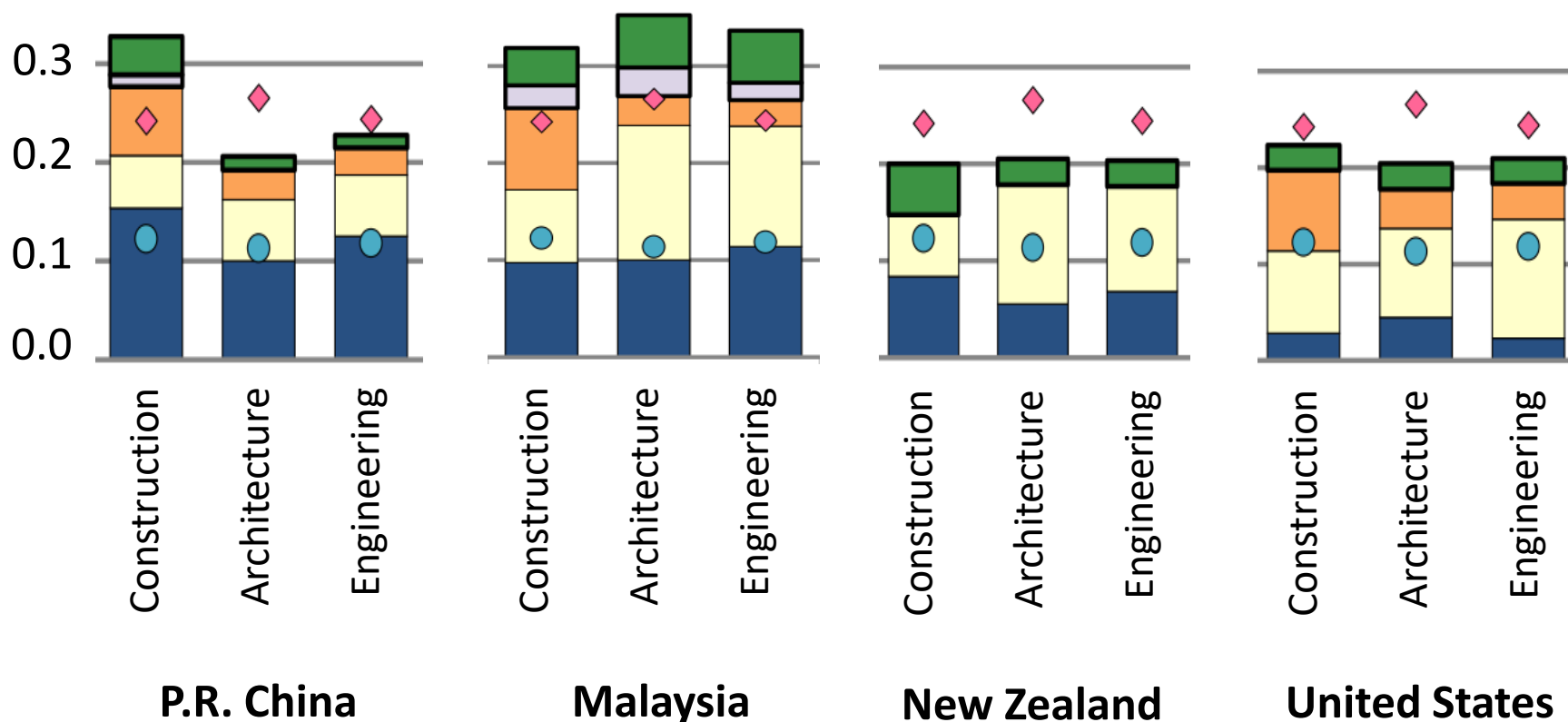


- Local-content requirements, including in government procurement (all modes)
- Conditions on eligibility for subsidies (all modes)
- Differences among countries in regulating the same service (several modes)
- Governmental rights or prerogatives – e.g., relating to government ownership (Mode 3)
- Foreign-equity limits (Mode 3)
- Restrictions on movement of people (Mode 4)
- Conditions on credentials for natural persons (Mode 4)

# Services Trade Restrictiveness Index (STRI) for physical infrastructure services in selected economies, 2019



■ Restrictions on foreign entry    
 ■ Restrictions to movement of people    
 ■ Other discriminatory measures    
 ■ Barriers to competition  
■ Regulatory transparency    
 ◆ Average    
 ● Minimum



Source: OECD, 2020 (<https://www.oecd.org/trade/topics/services-trade/>).

## Some key findings of the recent report, *The OECD Services Trade Restrictiveness Index: Policy Trends up to 2020*



- The **trade cost equivalent** of services trade barriers largely exceeds the average tariff on traded goods. These barriers have as strong an impact on services exports as on services imports.
- In some segments of **transport and logistics**, as well as in **construction**, the average estimated sales tax equivalent is about 20%.
- For **very small firms** engaging in cross-border exports, an average level of services trade restrictiveness represents an additional 7% in trade costs relative to large firms.
- **Innovation & adoption of technology** relies on access to knowledge and to the networks, people, goods & services that carry the knowledge around the world. In this context, [all economies] could benefit from more open markets for services trade.

# Concluding thoughts



- The world is facing an existential crisis posed by climate change, but is also having to address noxious pollution related to energy production and use, sewage, refuse. It needs quickly also to halt the degradation of the natural resources on which our survival depends.
- There are limited budgets to meet these challenges. Barriers to trade in both the technologies that are needed (for environmental monitoring, pollution control, and environmental remediation), and their associated services, raise domestic costs and translate into reduced improvement.
- In a world increasingly characterised by global value chains, reducing barriers to trade in EG&S can create new opportunities for economies to participate in this growing market.



# THANK YOU

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