



Policy landscape of trade in environmental goods and services



 $(\sum_{j=1}^{n} a_{j}u_{j}(x))' = \sum_{j=1}^{n} a_{j}u_{j}(x)$  $F = F(x_{0} + \Delta X_{0}) - F(x_{0}) \quad I_{1} = \int_{0}^{\infty} a_{j}u_{j}(x)$ x -> a {x n ± yn}= {x, ± lim (Vn+

Arun Jacob Anders K. Møller

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ASIA-PACIFIC RESEARCH AND TRAINING NETWORK ON TRADE

# WORKING PAPER

#### Policy landscape of trade in environmental goods and services

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#### Abstract

This paper analyses the trends in trade flows and trade policies in environmental goods (EGs) and related services, with a focus on the Asia-Pacific Economies. The paper finds that the region is a dominant player in both exports and imports of EGs in the world, contributing to 42% and 44%, respectively. Renewable energy related goods dominate both the export and import basket of EGs in the region. The paper warns that even though specific environmental goods in general face very low tariffs, many other goods that are however required for environmental projects still face high tariffs, especially in least developed countries. Hence, the paper calls for a 'holistic approach' for tariff liberalization. The paper highlights the role of services in environmental sectors. The paper estimates an augmented gravity model of trade flows that integrates non-tariff measures (NTMs) and services trade restrictions. The estimations find that while tariffs have had an insignificant impact on environmental goods trade, NTMs have a strong negative impact. The impact of NTMs is more strongly felt by exports from low income countries when compared with middle income and high-income ones. The services trade restrictions also have a significant negative impact on the EG trade. The results point to the need for integrating NTMs and service sector policies within the framework of environmental goods negotiations to expedite the process of liberalizing global trade in EG.

**Key words:** environmental goods, environmental services, non-tariff measures, services restrictiveness; environmental impact of trade, green trade

**JEL codes:** Q56, F18, F13

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#### 1. Introduction

Environmental goods and services (EGS) broadly refer to goods and services that have an environmentally beneficial outcome. Examples of EGS range from solar panels and wind turbines to pollution control and monitoring devices. The 2030 agenda for sustainable development recognizes the environment as one of the three pillars of sustainable development. Trade in environmental goods is considered to be an important enabler of many of the environmental dimension of the 2030 Agenda for Sustainable Development and associated SDGs. For example, in realizing SDG no. 7 on ensuring "access to affordable, reliable, sustainable and modern energy for all," freer flow of renewable energy related goods across borders will be crucial. As greater trade in these goods will promote transfer of renewable energy technologies as well as promote usage of cleaner energy sources.

The OECD/Eurostat working group in 1998 defined EGS as "[consisting] of activities which produce goods and services to measure, prevent, limit, minimise or correct environmental damage to water, air and soil, as well as problems related to waste, noise and eco-systems. This includes cleaner technologies, products and services that reduce environmental risk and minimise pollution and resource use" (Steenblik et al., 2005, p. 5). The ability for economies to adopt green technology innovations is vital to switching to a green-growth strategy and achieving the ambitious targets set by the COP21 Paris agreement in December 2015. Acceleration in the reduction of barriers to EGS trade is necessary to decrease the cost of importing environmental technologies,

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