



Asia-Pacific  
Economic Cooperation

# Green Technology and the Harmonized System

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# What can be considered as a 'green' technology?



No commonly-accepted definition or term exists yet  
Green technology is similar to climate-smart, climate-friendly, low-carbon technology, and environmentally sound technologies



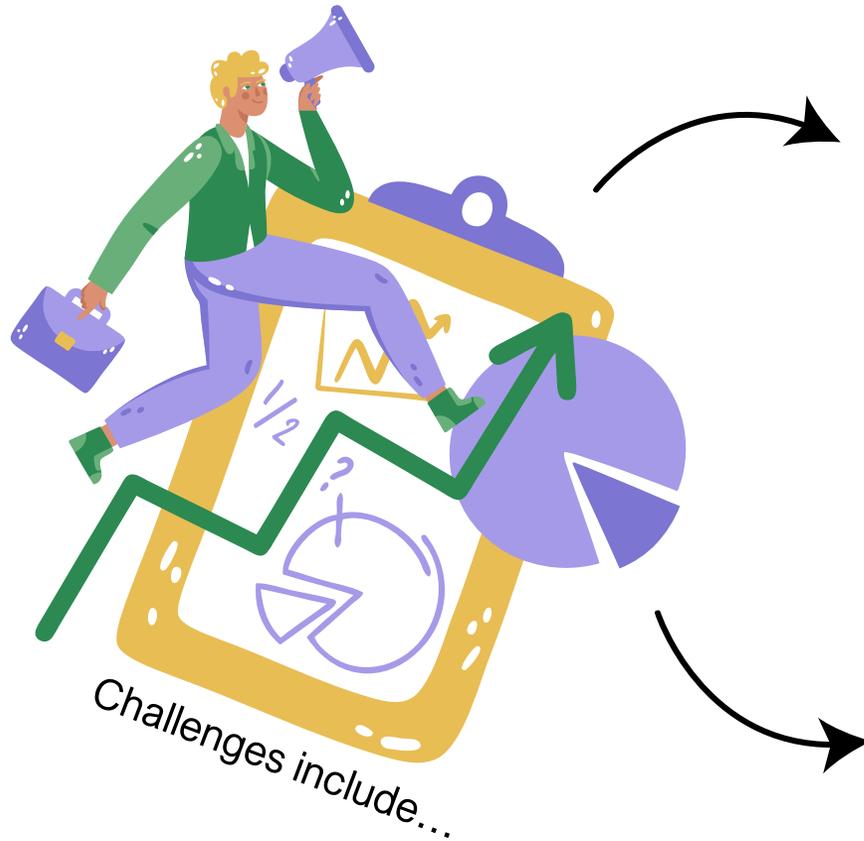
## Selected definitions of a 'green' technology

#	Source	Definition	Examples
1	United Nations (1992)	Technologies that protect the environment, are less polluting, use all resources in a more sustainable manner, recycle more of their wastes and products, and handle residual wastes in a more acceptable manner than the technologies for which they were substitutes.	1. Alternative energy 2. Electric vehicles 3. Sustainable agriculture
2	Kim (2011)	Product, service, or process that delivers value using limited or zero non-renewable resources and/or creates significantly less waste than conventional offerings.	4. Recycling 5. Carbon capture
3	UNESCAP (2012)	Technology that has the potential to significantly improve environmental performance relative to other technology.	

Monitoring the trade of these green technologies is important for meeting certain policy objectives, such as environmental protection and carbon neutrality



# But HS is currently limited in its capacity to identify products that utilize these green technologies



## 1. Specificity

(e.g., harmonization goes only up to a six-digit level)



## 2. Production Externalities

(e.g., externalities, such as 'excessive' water consumption or carbon dioxide emissions, are not taken into account since products are based on functionality)

# What are our options for greening the HS?



1. Publish a reference list  
with ex-outs



2. Categorize goods based  
on production externalities



3. Classify goods based  
on environmental end-use

# Option 1: Publish a reference list using ex-outs

Case Example: Selected products from the APEC list of environmental goods

HS 2012 Classification	HS Code Description	Ex-out/ Additional Product Specification	Remarks/ Environmental Benefit
8404.90	<p>Parts for auxiliary plant for boilers, condensers for steam, vapour power unit. [Ca, J, NZ, K]</p> <p>Auxiliary plant for use with boilers of heading 84.02 or 84.03; condensers for steam or other vapour power units; Parts [US, Au, Ru]</p> <p>Parts for subheading 8404.10.100 [M, BD]</p>	Air pollution control [BD]	<p>These parts are used in the repair and maintenance of the equipment classified under 8404.10 above. This secondary equipment is also used to support waste heat recovery processes, such as boilers mentioned above, in waste treatment, or renewable energy resource recovery applications. [C, J, NZ, US, Au, R, Th, M]</p> <p>Components of industrial air pollution control plant which minimise the release of pollutants into the atmosphere. This equipment is also used to support waste heat recovery processes in waste treatment, or renewable energy resource recovery applications. [BD]</p>
8411.99	Parts of gas turbines	Parts for 8411.81 and 8411.82	Parts for gas turbines described above.

Source: Adapted from APEC (2012).



Negotiating and/or agreeing on ex-outs can be challenging.

# Option 2: Categorize goods based on production externalities

Example: Expanding HS 41.07 based on its carbon footprint during production

Heading	Sub-heading	Product Description
41.07		Leather further prepared after tanning or crusting, including parchment-dressed leather, of bovine (including buffalo) or equine animals, without hair on, whether or not split, other than leather of heading 41.14
		- Whole hides and skins, produced with a carbon footprint of less than ... kg of CO2 emissions per square meter :
	4107.11	-- Full grains, unsplit
	4107.12	-- Grain splits
	4107.19	-- Other
		- Whole hides and skins, produced with a carbon footprint of more than ... kg of CO2 emissions per square meter :
	4107.21	-- Full grains, unsplit
	4107.22	-- Grain splits
	4107.29	-- Other

What criteria should be used?  
What benchmark should be set?



Compliance can be costly since goods will need to be verified against the level of production externalities stated in agreed-upon criteria.

# Option 3: Classify goods based on environmental end-use

Example: Expanding HS 73.01 based on its environmental end-use (e.g., constructing renewable energy power plants and farms)

Heading	Sub-heading	Product Description
73.01		Sheet piling of iron or steel, whether or not drilled, punched or made from assembled elements; welded angles, shapes and sections, of iron or steel
	7301.10	- Sheet piling
		- Other sheet piling, specifically produced for the construction of renewable energy power plants and farms :
	7301.91	-- for wind energy farms
	7301.92	-- for hydroelectric power plants
	7301.93	-- for solar farms



Enforcement can be costly since customs will need to conduct post-importation checks to ensure compliance with declared end-use.

# References

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