Economic Incentives for Adopting SRP in Asia: A Case of Bilateral Crediting Mechanism

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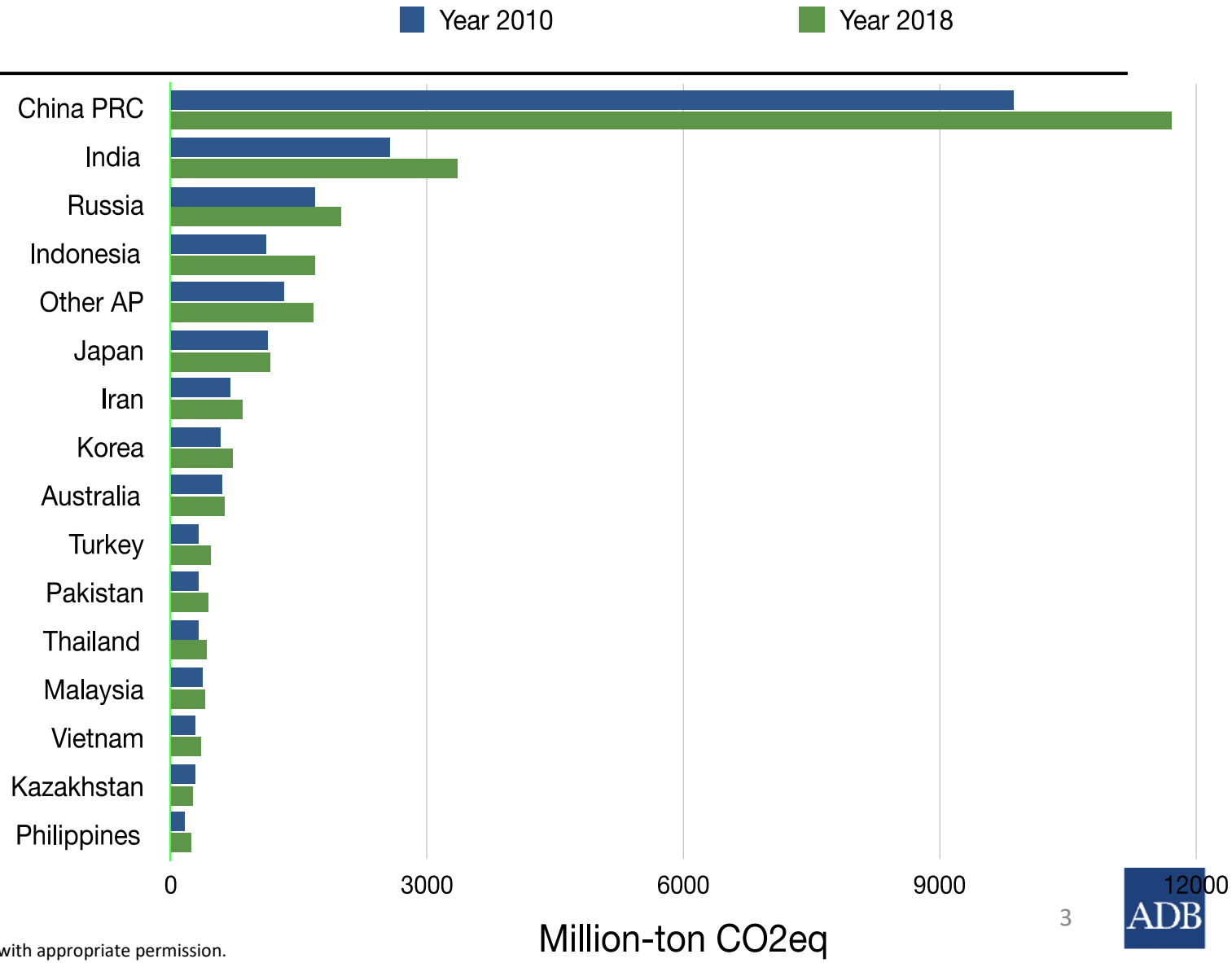
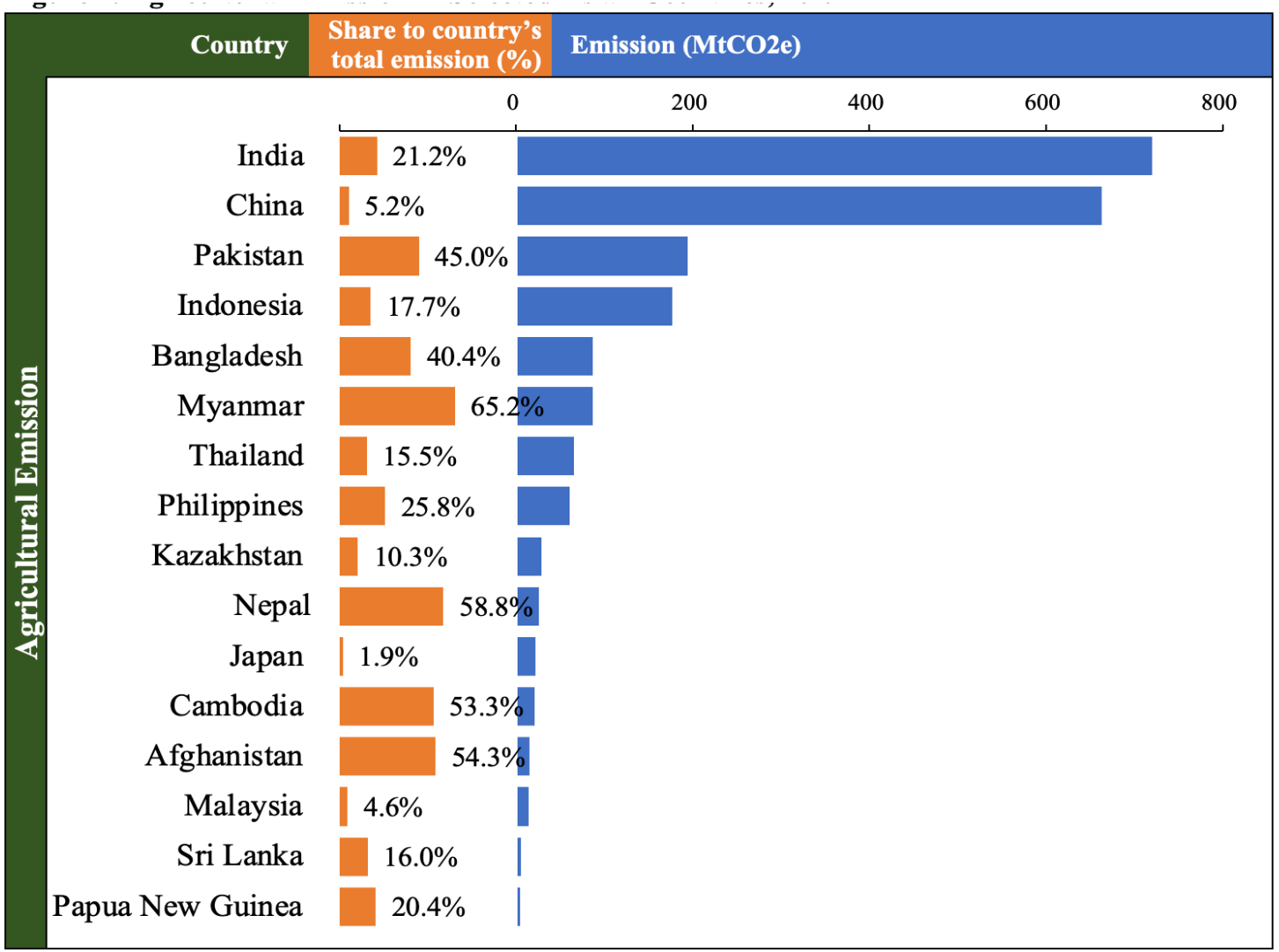
1. Introduction: Rationale for reducing GHG from Agriculture in Asia

- Agriculture is a major source of GHG emission in the Asia and Pacific Region
- Emission from agriculture are increasing in both absolute and relative term (22% Increase)
- Current agricultural practices and policies in Asia are largely insufficient to help in attaining net zero target in agriculture
- Increased population, higher food demand and urbanization, expansion of croplands at the cost of biodiversity, other ecosystems can lead to negative consequences



3-a. Emission from Agriculture in Asia: Skewed Distribution

- For APR there is a collective commitment to reduce an estimated 13.5 GtCO2e GHG emissions or 32 per cent of the total estimated 42.7 GtCO2e regional GHG emissions by 2030, to achieve the 1.5°C goal.
  - 49 member States of the Asia-Pacific region have submitted their Intended INDCs.
- Required GHG emissions levels by 2030 for the Asia-Pacific region and are estimated to be around **9.8 GtCO2e.**
  - Each economy is different and mix of actions might be required to achieve net zero in the Agricultural sector.

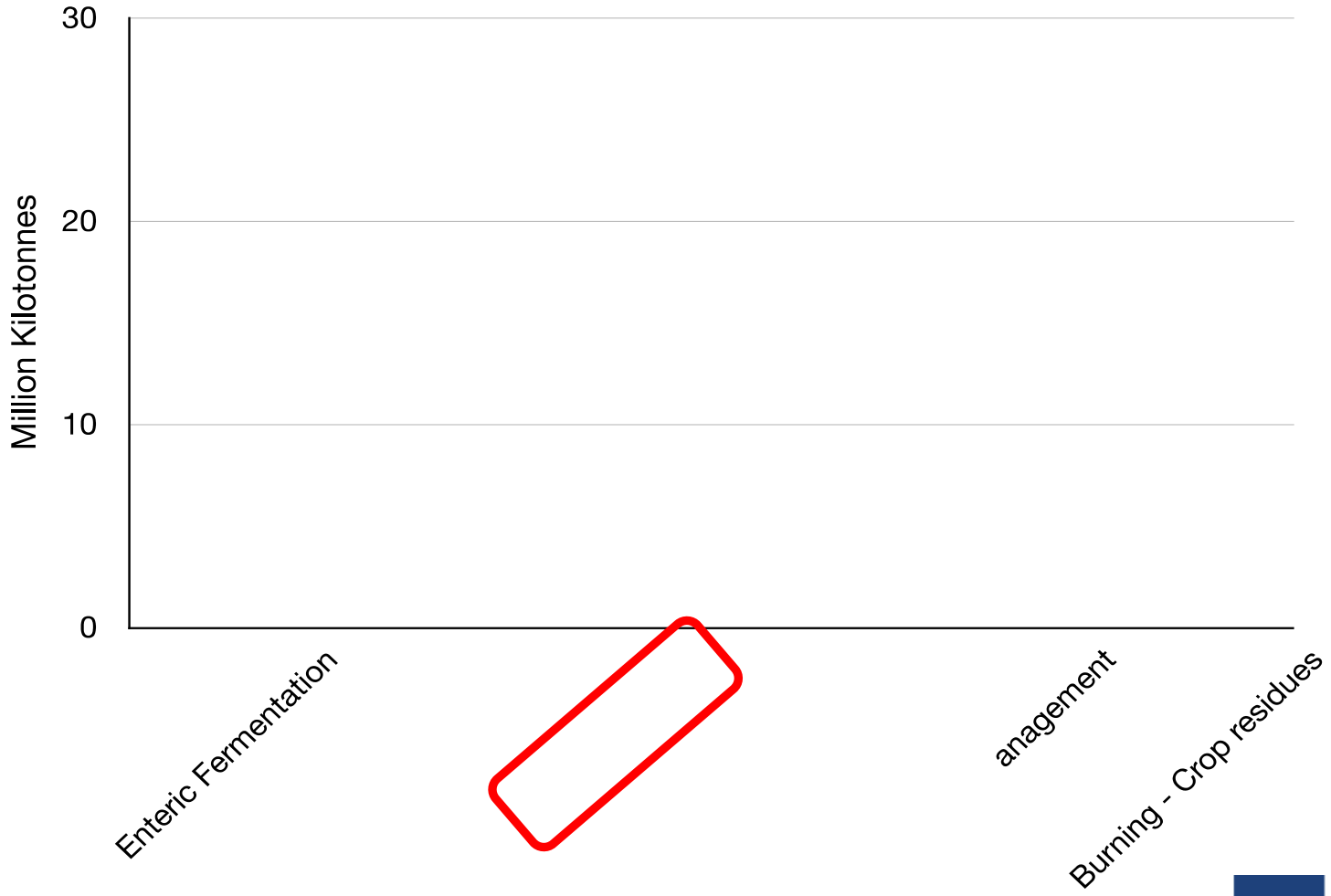


Source: FAO.

2019

3-b. Emission from Agriculture in Asia (1990-2020) by Source

- For most sources of emission, major share of contribution to total emission comes from few countries such as the China, India, Indonesia, Viet Nam, the Philippines, and Pakistan.
- In 2015, total emission from livestock in Asia was 2.64 billion tons CO_2e, with major sources of emission of enteric fermentation, feed, and manure.
- Since 2001, annual forest carbon loss increased significantly and continuously over tropical Asia, accounting for 43% of the increase in pan-tropical carbon loss.



4. Opportunities for low-carbon rice: Premium

Where are economic incentives for low-carbon rice?

(1) Increased values for low-carbon rice: through certifications, low-carbon rice may be able to receive a premium.

(2) In July 2023, the SRP National chapter has been established in Pakistan.

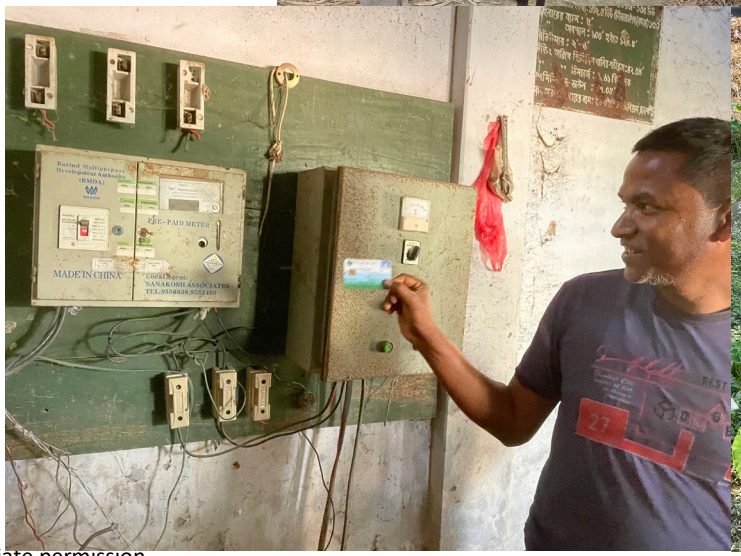
(3) Galaxy Pakistan has been helping farmers to adopt sustainable rice production practices to be certified for the SRP standard.

4. Opportunities for low-carbon rice: Reduced costs

(2) Reduced input costs: water by adopting Alternate Wetting and Drying (AWD) water management. This is effective in areas where farmers need to pay for water costs.

Example: Rajshahi region in Bangladesh where farmers need to pay for deep-tube well during the dry (boro) season, which is the only water source. Farmers pay for irrigation by hour by using pre-paid cards.

An NGO called **DASCOH** has been promoting AWD among rice farmers in this area.



4. Opportunities for low-carbon rice: Carbon markets

(3) Carbon markets

(a) Voluntary markets for carbon credits – but seems challenging to benefit small holder farmers.

(b) Bi-lateral funds for supporting low-carbon projects. **The Japan Fund for Joint Counting Mechanism (JFJCM)** is an example. JFJCM is a single donor trust fund established in 2014 and managed by ADB.

(c) JFJCM provides financial incentives for the adoption of advanced low-carbon technologies in ADB-financed and administered sovereign and nonsovereign projects. It has provided USD 119 million in 2014 – 2023.

(d) We need to establish a reliable certification process of AWD or SRP adoption for JFJCM to support low-carbon projects.

5. Conclusion

- Agriculture sector is a major source of GHG in Asia – because of relatively small GHG emissions from industrial sectors.
- There are several ways to reduce GHG (mainly methane) from paddy rice fields.
- However, economic incentives need to be aligned.
- AWD or SRP certification processes are needed for JFJCM or other funds to support farmers who produce low-carbon rice. \