Regulations and certification for sustainable bamboo forestry

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The Global growing importance of bamboo forestry



General Context:

- Nowadays, the growing global awareness is that, if we want to grapple with the impacts of climate change, improve water quality, enhance livelihoods of people and curb loss of tropical forest biodiversity, taking good care of our forests is of fundamental importance.

- As the World population is projected to surpass nine billion by 2050, the global pressure on the world's tropical forests will continue to grow higher.

- Likewise, the Living Forests Report by the World Wildlife Fund (WWF) projects that annual harvesting of wood from forests could be tripled by the middle of the century to meet increased demand for timber products, paper and bioenergy.

Source: United Nations (2019). https://www.un.org/development/desa/en/news/population/world-population-prospects-2019.html

The Global growing importance of bamboo forestry



General Context:

- The concerns mentioned on the previous slide, regarding the sustainable production and consumption of forest resources have provided opportunities for the development of substitute forest resources such as bamboo.

- Bamboo forests/plantations have the potential to be a promising part of the solution to climate change, increase forest biodiversity, supplement the requirements for timber, paper and bioenergy.

- Bamboo also has the potential to supply high yields of fibre in a relatively small area, provide ecosystem services like carbon sequestration and erosion control, and support rural development and livelihoods. The market for bamboo looks set to grow as rapidly as the plant itself.

Sustainable bamboo forestry



Justifying the need for certification and regulations:

- Therefore, as there is a growing forest resource scarcity and advances in technology, increase in the production and consumption of bamboo products should be an increasing importance in the global forest products marketplace:
  - Globally, domestic trade and subsistence use of bamboo are estimated to be worth US$4.5 billion per year, and export of bamboo generates another US$2.7 billion (INBAR 1999).
  - Nationally, the annual bamboo trade was estimated at a value of USD 60 billion in 2017, half of which was conducted in China .
  - The European Union (EU) is one of the largest importers of commodities linked to deforestation. But that could change because, an EU Draft Regulation would prevent products that cause deforestation or forest degradation from entering the EU market.
- Hence, trading of illegally sourced bamboo raw materials would have detrimental effects on the forestry sector including undermining legal international trade and posing severe environmental, economic and social threats.

Source: INBAR (2019); European Commission (2022); and "How a New EU Regulation Can Reduce Deforestation Globally" (WRI (2022).

Bamboo and contemporary forest definitional considerations:



- Bamboo is a grass
  - From a biological and functional point of view, bamboo does not belong to the category of wood. Bamboos are biologically giant species.
  - Therefore, bamboo is widely considered in most countries as a non-wood forest product.
  - Concern: A keyword in this presentation is 'bamboo forestry'.
    How possible is the use of the term 'bamboo forest' when bamboo is botanically, a grass?
- At this juncture therefore, it is imperative to conceptualize and situate the term 'bamboo forest' within some 'basic forestry definitions', 'international certification' and 'national regulations' contexts.

Bamboo and contemporary forest definitional considerations:



- More than 1600 species of bamboo are recorded
  - Some are woody and other bamboo species are non-woody.
  - Woody bamboos are most relevant to what the global community is seeking on avoided tropical deforestation and sustainable construction and products manufacturing and international trade.
  - However, again, bamboo is widely considered in most countries as a non-wood forest product.
  - Meanwhile, woody bamboos are similar in morphology to trees.
- According to FAO 2020 report on FRA, a group of trees occupying at least, 0.5 hectare of land is regarded as a forest.
- FAO, 2018 likens the 0.5 ha of a forest to a size of a typical football pitch.

Source: Guillermo Ramo Fernández, Trinh Thang Long, Li Yanxia (2021); FAO (2018) on World's Forests edition of the Natural Inquirer.

Bamboo and contemporary forest definitional considerations:



- FAO (2014) defines tree as any tall plant with a long woody stem, called a trunk, which has leaves and branches growing from it.

- Furthermore, FAO (2014) further states that a forest tree can be defined by the length of its trunk.
  - Meanwhile, the separate forest definition posited by the (IPCC) and the Food and Agriculture Organisation (FAO, 2020) each, defined a forest to include any "area with bamboo and palms provided that height and canopy cover criteria are met".

  - Both forest definitions prescribed that, the forest trees should be able to reach a minimum height threshold of five (5) meters in situ.
- Accordingly, African savannah bamboo (i.e. Oxytenanthera abyssinica) can attain the height range of 8 to 16 metre at maturity.

Source: FAO (2014). The Youth Guide to Forests. https://www.fao.org/3/i3856e/i3856e.pdf

Bamboo and contemporary forest definitional considerations:

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- Based on foregoing this premise, bamboo forestry is an appropriate concept to apply.

Source: FAO (2014). The Youth Guide to Forests. https://www.fao.org/3/i3856e/i3856e.pdf

Regulations vs. Certifications

Regulations

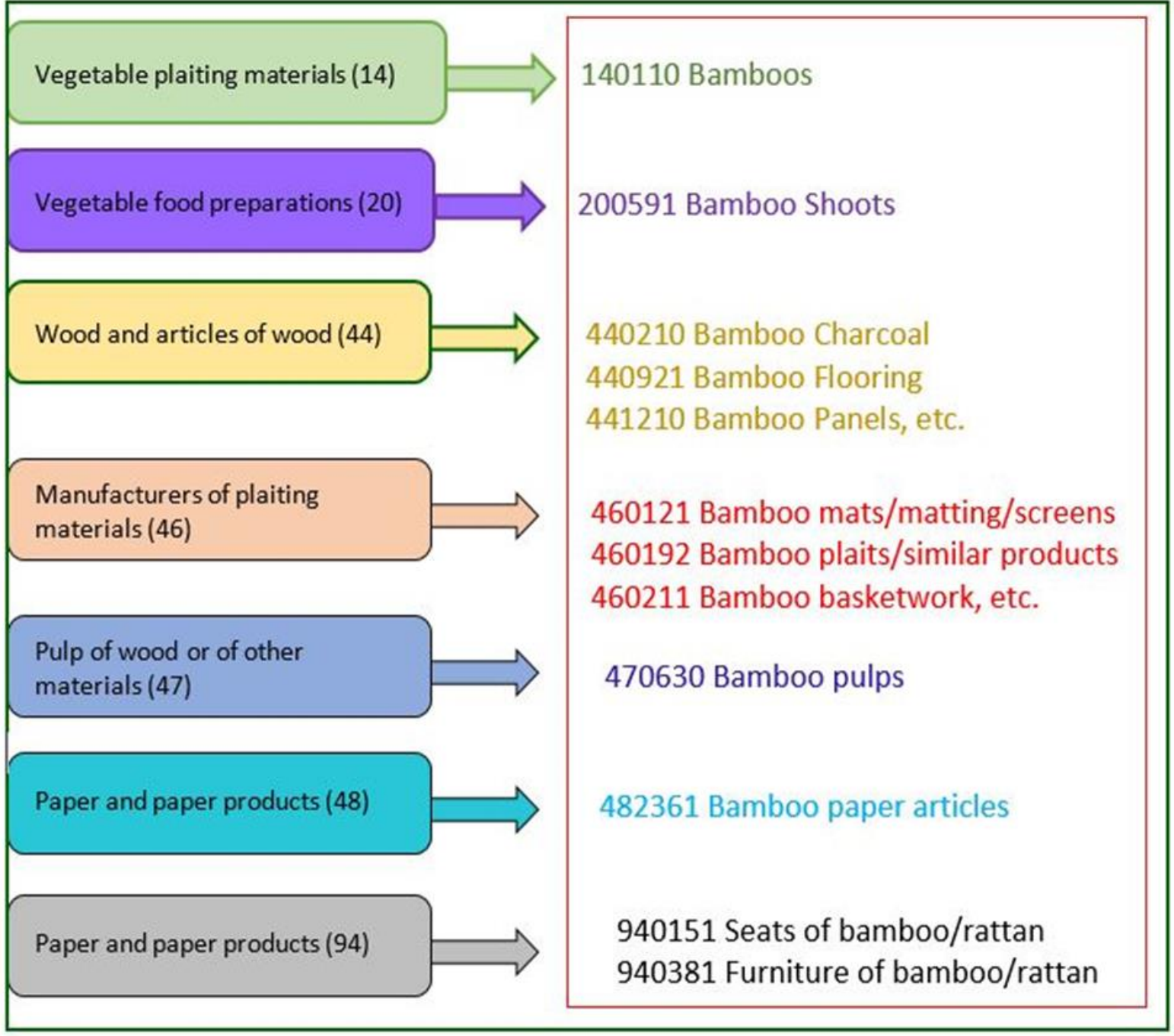
- Forest regulations are rules enacted by government that are aimed at establishment and management of forest. Certain prohibition can include: indiscriminate felling of trees is prohibited. Only liscence timber dealers have to manadate to fell only matured trees. Regulations also include the transport and importation of logged woods.

Certifications

- Forest certification is a market-based instrument and a voluntary process whereby an independent third party (known as the “certifier”) assesses the quality of forest management and production against a set of requirements (“standards”) predetermined by a public or private certification organization. Bamboo is one of the forestry value chains.

Bamboo Certifications

12 6-digit Bamboo Harmonized System (HS) bamboo trade codes HS Codes (Since 2007)



Inventory of Bamboo national regulations

- ASIA
- China's National Plan for Bamboo Industry. https://www.inbar.int/wp-content/uploads/2020/05/1529475037.pdf
- Government of India Operational National Guidelines. Link: https://nbm.nic.in/Documents/pdf/NBM_Guidelines_New.pdf
- Philippines. Filipino's Rules and Regulations Governing the Establishment, Harvesting and Transport of Bamboo https://apidb.denr.gov.ph/infores/uploads/MEMO-2020-694.pdf
- Malaysia, the National Forest Policy 1987 (Revised 1992) has underlined the need for sustainable management of non-timber forest resources, including bamboo, to be implement in order to ensure the interests of resource-based industries.

- AMERICA
- USA: In 2015, Worthington City Council enacted legislation to regulate the growth of running bamboo within the City. Link: https://www.worthington.org/634/Bamboo-Legislation
- FSC National Forest Stewardship Standard of Colombia National Standard (NS). Link: https://fsc.org/en/document-centre/documents/resource/347

Inventory of Bamboo national regulations

- AFRICA
- Forest Certification In Uganda: regulates the production and supply of bamboo products. https://www.academia.edu/50160945/Forest_Certification_in_Uganda
- Ethiopia – guidelines for cultivating Ethiopian lowland bamboo. https://open.unido.org/api/documents/4745831/download/BAMBOO%20CULTIVATION%20MANUAL%20-%20GUIDELINES%20FOR%20CULTIVATING%20ETHIPIAN%20LOWLAND%20BAMBOO
- Kenyan National Bamboo Policy, (2019). https://www.kefri.org/assets/publications/strategy/DRAFT_BAMBOOPOLICY.pdf
- Democratic Republic of Congo, National Bamboo Policy.

  https://www.inbar.int/democratic-republic-of-congo-now-has-a-national-bamboo-policy/
- Ghana. Ghanaian policies for bamboo – https://www.inbar.int/wp-content/uploads/2020/05/1585104509.pdf AND Exportation of Raw Rattan Canes and Bamboo (Prohibition) Regulation, 1989 (L.I.1494). https://www.bcp.gov.gh/new/related_pro.php?id=ODE=~Exportation%20of%20Raw%20Rattan%20Canes%20and%20Bamboo%20(Prohibition)%20Regulation,%201989%20(L.I.%201494)~85~27
- Though, there is no bamboo policy in Cameroon , several regulatory instruments governing the use of bamboo as a Non-Timber Forest Product exist. https://www.inbar.int/wp-content/uploads/2020/10/Oct-2020_WARO_Bamboo-Policy-Integration-Analysis_Cameroon.pdf

Concluding remarks

- Nigeria which is a second leading bamboo producing country is missing from the list of African countries having bamboo regulations. And so are many other countries across the Globe.

- Recommendation: In this era where many foreign investors want to offset carbon by investing in bamboo forests/plantation establishments, there is an urgent needs for countries to enact national regulations and voluntary certifications.