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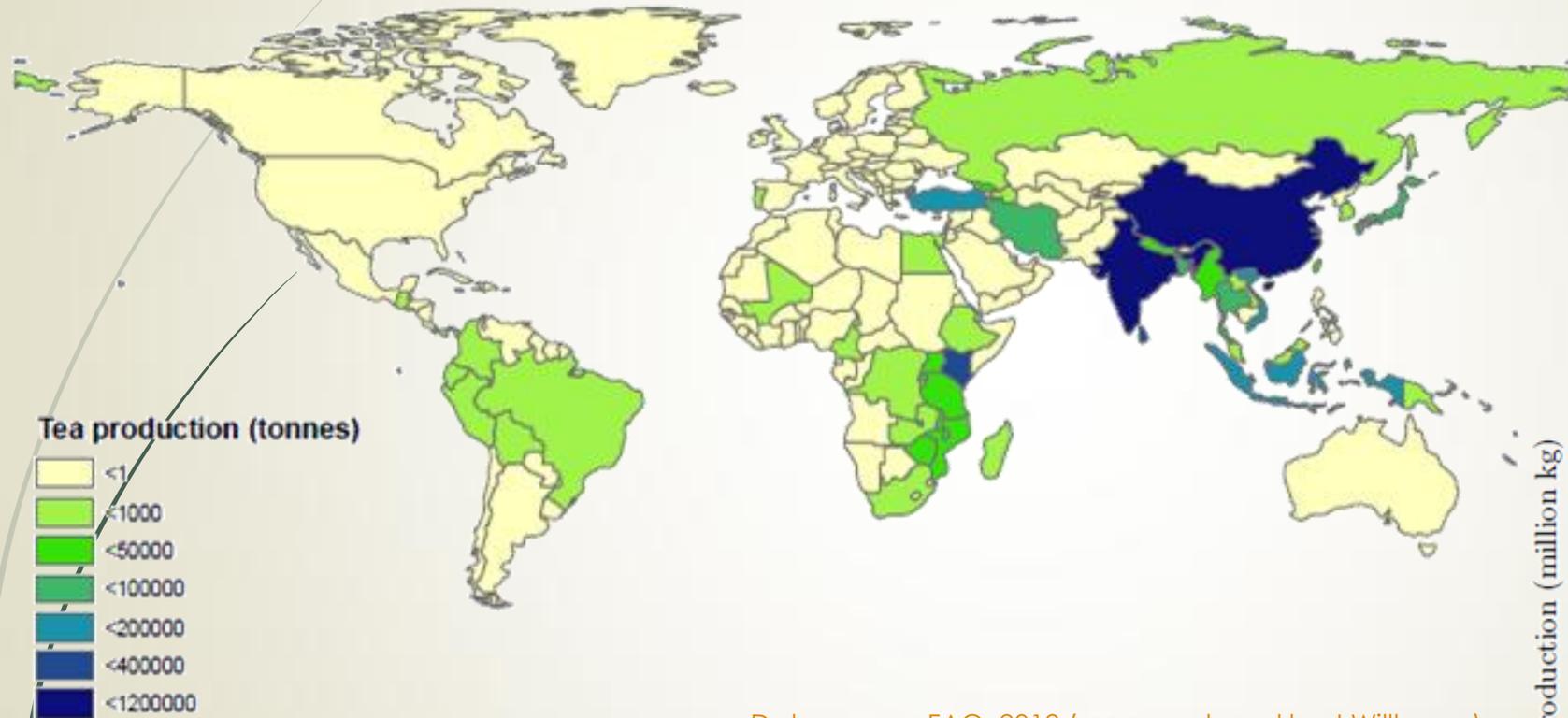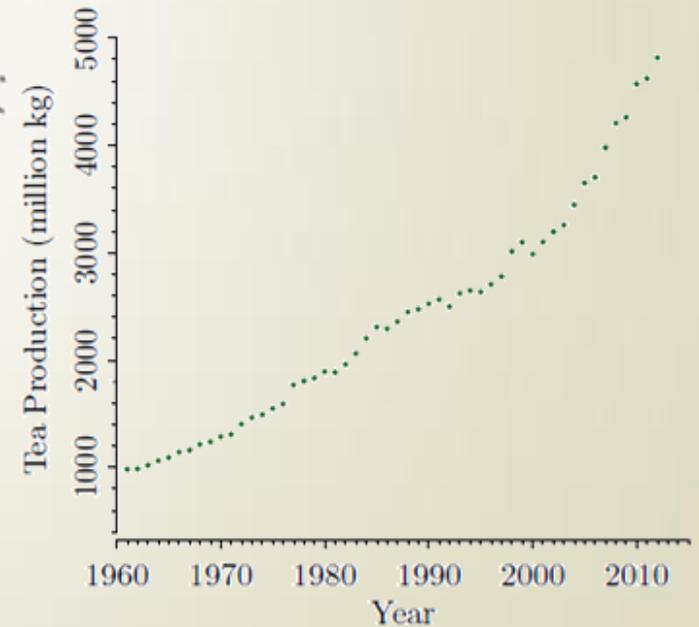and Research Initiative

Tea as a Sustainable Landscape

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International Tea Production

Data source: FAO, 2012 (map produced by J Willbourn)

Tea Export Value

- Tea retail industry worth ~$40 billion
- India produces a quarter of all global tea production
- Assam is single-largest tea growing region in the world
  - 52% of India's tea production
  - 12% of annual global tea yield
- UK is largest tea consumer in Western Europe
- The UK imports around £250 million worth of tea each year

Threats to Tea

- "Life without tea is unthinkable for the billions of people who rely on their cherished cuppas to get them through the day."

- "Tea crops the world over are facing multiple threats, from **climate change and water shortages to rural de-population and low wages**."

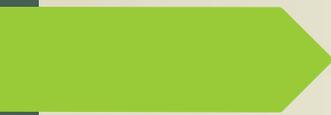- "So serious are these threats, that some of the world's biggest tea companies are joining forces to combat them."

http://www.bbc.co.uk/news/business-26123944

Tea as a Hero Crop

THE FUTURE OF TEA

A HERO CROP FOR 2030

Steps towards a sustainable future for the tea industry

- "Tea2030… [identifies] a real opportunity for tea to become a 'hero' crop. A hero crop delivers more than just a commodity. It also delivers major benefits to the millions of people involved in the tea sector, the planet and the wider economy."

- 29 big challenges to future sustainability of tea landscapes

- Multi-institutional response required

forum for the future
action for a sustainable world

http://www.forumforthefuture.org/sites/default/files/project/downloads/future-tea-report.pdf

Tea Value Chain

Producers	Brands	Certifiers	Retailers
Government	NGOs	Researchers	Consumers

- Need to address sustainability issues throughout entire **value** chain
- Stronger integration and synergy between policy, R&D and tea communities is required

Sustainability

	Estate and factory workers	Small-scale farmers
Social Issues	- High discrimination, gender inequality - Low representation of workers - Poor living conditions on estates	- High reliance on tea for livelihood - Low level of farmer organization - Lack of land title deeds
Economical Issues	- Low wages - High level of casual/temporary labor - Uneven value distribution	- Lack of market information, market access & (technical) training - Low productivity and low prices versus high production costs - Uneven value distribution
Environmental Issues	Small-scale farmers and estate and factory workers - Deforestation / loss of biodiversity due to conversion of forests into tea farms - Soil erosion, low soil fertility - Agrochemical use - Pollution and energy inefficiency in processing tea	

Source: Sustainable Trade Initiative (2011)

Sustainable Landscapes - Assam

- Primary issues as identified by Tea2030 consortium

| Region	Current Challenges	Ongoing Solutions	Opportunities
Assam, India	• Political stability, poverty and governance • Environmental degradation, wildlife conflict and climate challenges • Land competition • Reduction in labour force and tea worker quality of life (social/health issues)	• Social and environmental initiatives to improve quality of life • Advocate reduction in pesticide use and value of acquiring tea certification	• Developing adequate infrastructure • Increase environmental awareness • Industry-researcher collaborations (R&D and advice to producers) • Symbiosis of wildlife-tea landscape

Source: www.teaclimate.com

Climate-Smart Landscapes

- Climate-smart agriculture aims to (sustainably):
  - Increase productivity and income
  - Enhance agro-ecosystem resilience to climatic change
  - Mitigate agriculture's contribution to climate change
- Climate-smartening Assam's tea plantation landscapes will deliver multiple benefits to **livelihoods** and the **environment** whilst developing **resilience** to uncertain and negative climate change impacts
- Tea production needs to be adaptive and focus on moving agricultural system operations towards '**safe spaces**'
  - Where livelihoods are sustained without crossing critical environmental or social limits and the system is resilient to climatic changes
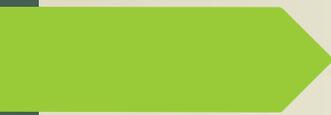
Contributions to Sustainable Landscape Management

- Provide research to ascertain and quantify the value of tea within landscape of Assam

  - Evidence to aid sustainability initiatives throughout the value chain

- Focus on climate impacts, adaptation and mitigation for future landscapes

- Provide evidence-based decision making to ensure future viability and productivity of tea in Assam (under climate change)

  - Develop spatial decision support tools

- Contribute to research component of the value chain with full stakeholder collaboration to ensure successful landscape management practices are promoted and adopted in Assam
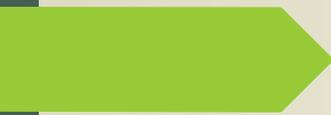
Further Information

- Tea2030
  - www.tea2030.tumblr.com
- Tea & Climate
  - www.teaclimate.com