Climate Smart Agriculture

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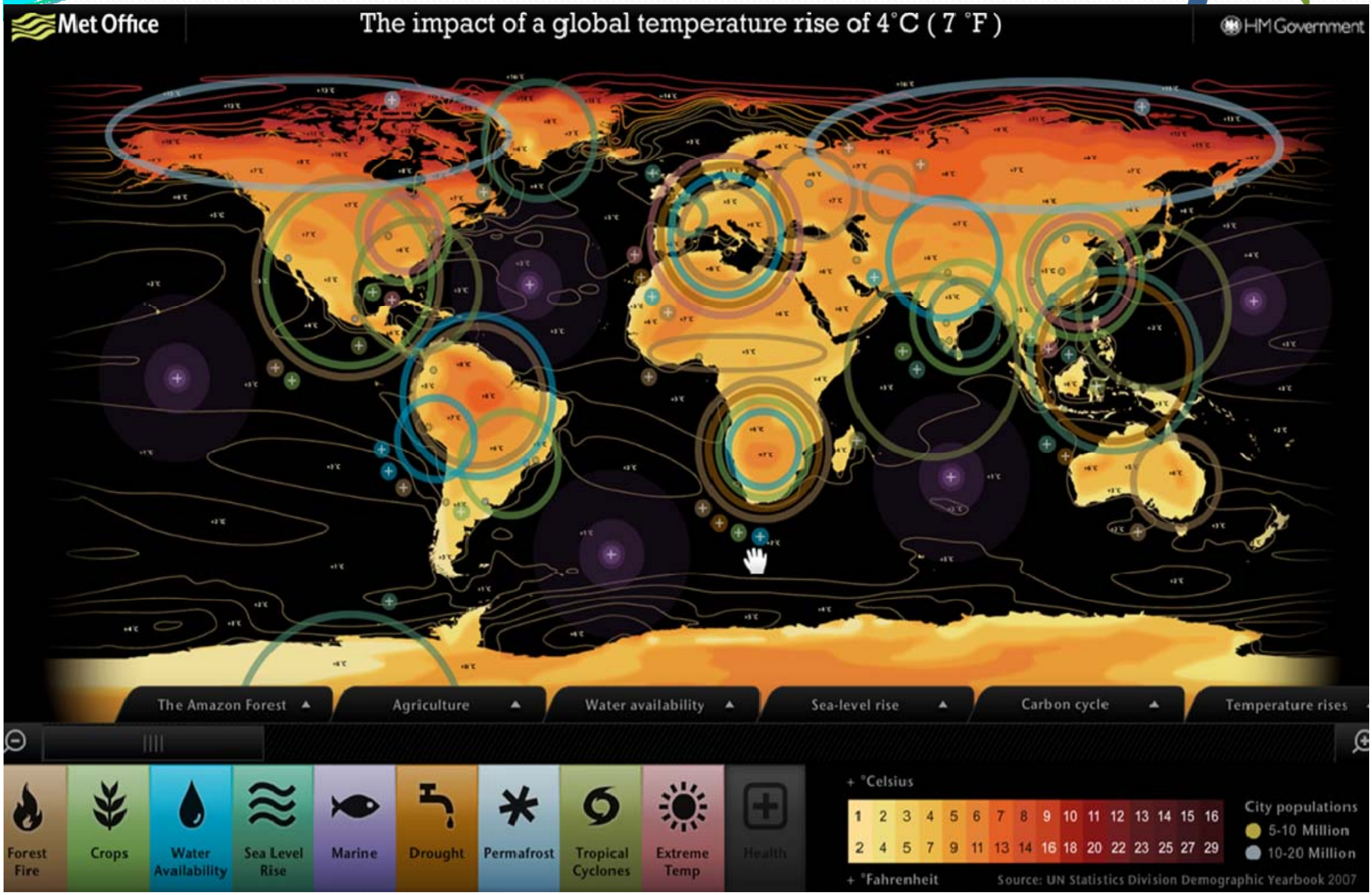
Introduction

- Agriculture not only suffers from the impacts of Climate Change, it is also responsible for 14% of global greenhouse gas emissions.

Climate change threatens food security



- Agriculture has the potential to be an important part of the solution, through mitigation
- Agriculture in must undergo a significant transformation in order to meet the related challenges of food security and climate change

Sustainable intensification of production can ensure food security and contribute to mitigating climate change by reducing deforestation and the encroachment of agriculture into natural ecosystems

What is Climate-Smart Agriculture?

Agriculture that sustainably increases productivity, resilience (adaptation), reduces/removes GHGs (mitigation), and enhances achievement of national food security and development goals

Climate Smart Practices

- Soil and nutrient management
  - composting manure and crop residues,
  - more precise matching of nutrients with plant needs
  - controlled release and deep placement technologies
  - using legumes for natural nitrogen fixation.

Climate Smart Practices

- Water harvesting and use efficiency
  - Rainwater harvesting, pools, microdams, etc.
  - Irrigation systems

Climate Smart Practices

- Pest and disease control
- Resilient ecosystems
- Genetic resources (e.g.drought resistent plants)
- Harvesting, processing and supply chain

Existing Climate Smart Practices

- Agroforestry
- Rice production systems
- Conservation Agriculture
  - minimal mechanical soil disturbance
  - mulching
  - rotations or sequences and associations of crops
- Urban – Peri-urban agriculture
- Diversified Integrated Food-Energy systems
- Fisheries and aquaculture
- Livestock production efficiency and resilience

Other Considerations

- Institutional and financial support to enable smallholders to make the transition to climate-smart agriculture.
- Strengthened institutional capacity to improve dissemination of climate-smart information and coordinate over large areas and numbers of farmers.
- Research and Development

Conclusions

- Effective climate-smart practices already exist and could be implemented in agriculture systems.
- The overall efficiency, resilience, adaptive capacity and mitigation potential of the production systems can be enhanced through improving its various components
- Considerable investment is required in filling data and knowledge gaps and in research and development of technologies, methodologies, as well as the conservation and production of suitable varieties and breeds.

Thank you