

POTSDAM INSTITUTE FOR  
CLIMATE IMPACT RESEARCH

# Climate Migration

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**Brazil East Africa Peru India Climate Capacities (B-EPICC) Project Workshop  
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Strengthening Resilience Against Climate Change in Ethiopia**

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- ❖ Introduction
- ❖ Main Factors of Migration
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- ❖ Main Impact of Climate change on peoples
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# Introduction

- Climate is what we expect. Weather is what we get (Quentin *et al.*,2014)
- Climate relates to the distribution of variables such as temperature and rainfall over a period of time, often 30 years at least.
- Climate change is then used to refer to the change in the distribution of rainfall and temperature.
- ***Climate Migrants:*** persons or group of persons who, for progressive changes in the environment due to climate change that adversely affect their lives, are obliged to leave their habitual homes either temporarily or permanently within their country or abroad (IOM ,2019).
- Human migration is influenced by environmental factors, but shaped by social, economic and cultural processes.
- > 20 million people are leave their homes and move to other areas

# MAIN FACTORS OF MIGRATION

- ❖ There are two main factors of migration
  - ❖ Pushing factor
  - ❖ Pulling factor
- Pushing factors
  - -ve things that enforce people to leave their Natural resident
    - Natural disasters (climate change)
    - Conflict
- Pulling factor
  - +ve aspect that attract people to come to new area
    - Urban infrastructures, employment opportunity,

District	Hh(%) influenced by:	
site	Extreme weather	conflict
Itang	43.3	26.7
lare	40	39.9



# TYPES OF CC INDUCED MOVEMENT

- A. Disaster displacement
- B. Migration
- C. Planned relocation

## ○ **Disaster displacement**

- Forced to leave places of habitual residence as a result of a disaster
- Happened when they are too vulnerable and lack the resilience to withstand the impacts of that hazard” (Nansen Initiative, 2015)

## ○ **Planned Relocation**

- planned process in which persons or groups of persons move or assisted to move away from place of habitual residence, are settled in a new location, and provided with the conditions for rebuilding their lives((IOM,2019; UNHCR,2015).

## ○ Migration

- Moving away from their usual residences seasonally /permanently within the state or abroad in any reasons.
- From 2000 to 2015 annual migration growth was 2.4%. This was double the annual population growth of 1.2%.

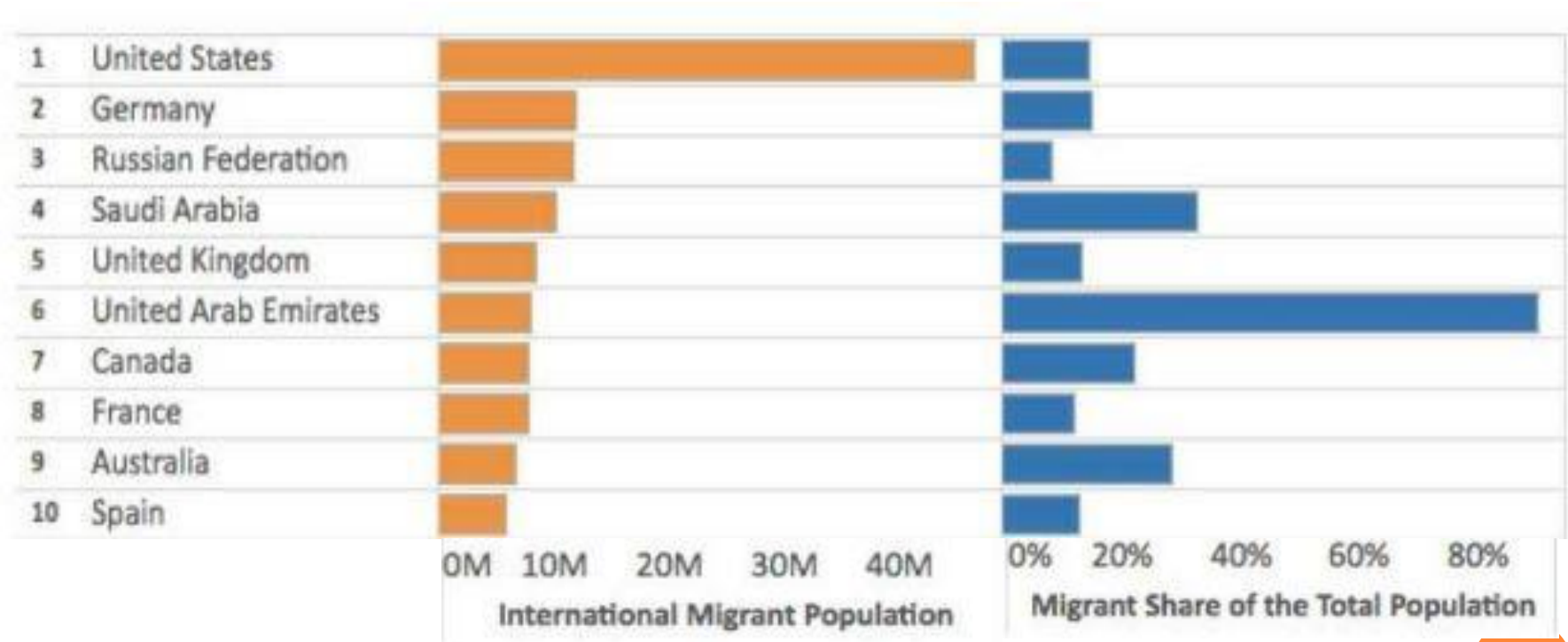
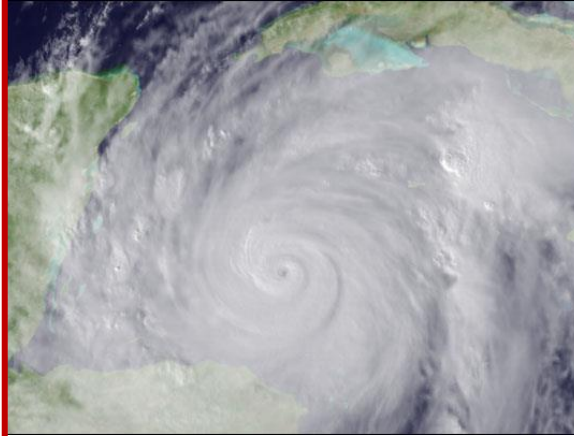


Fig1:Top 10 destination Countries for international migration in 2015

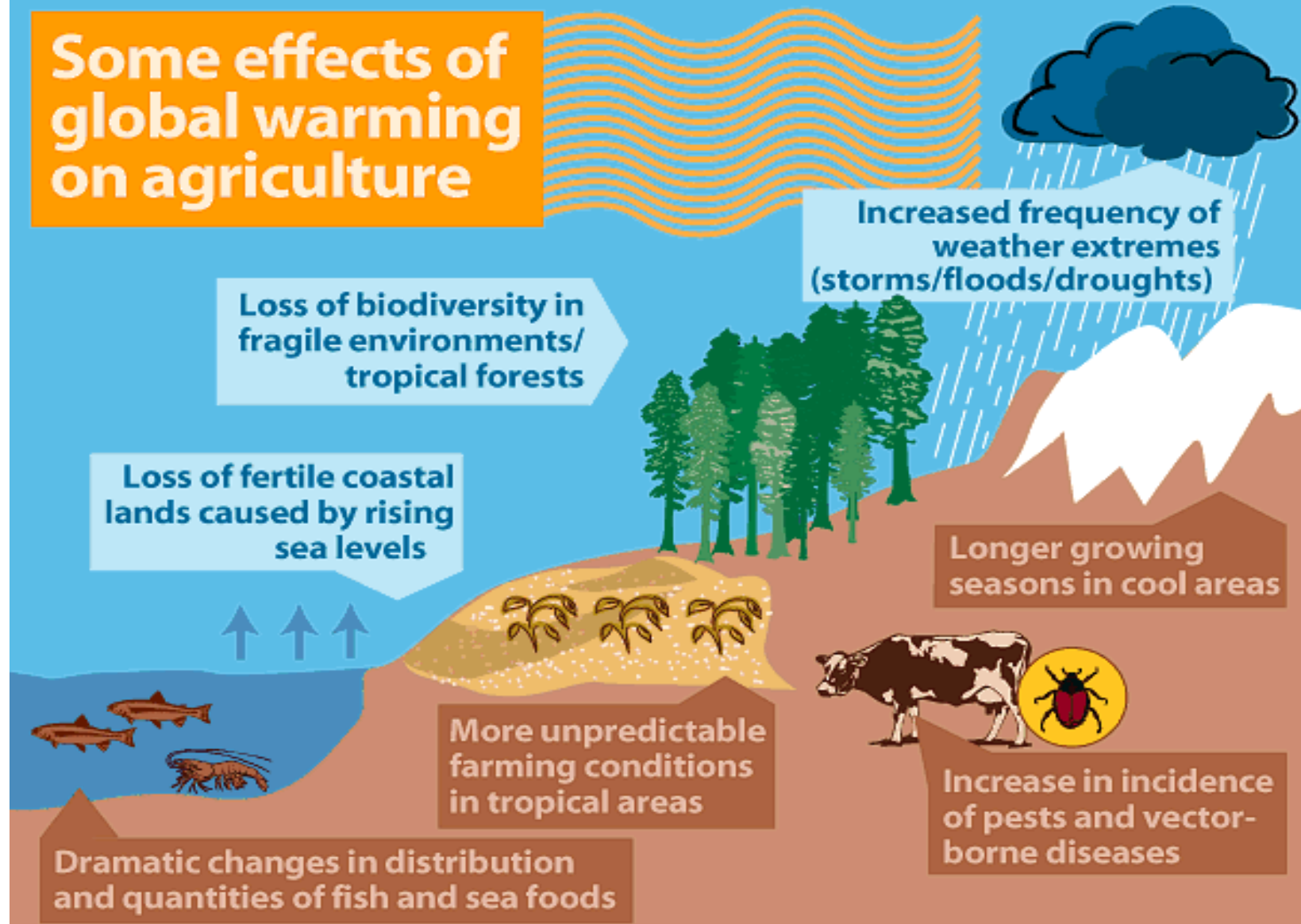
# Main climate change Impacts

- Sea-level rise
- Ecosystem change
  - effect on species
  - effect on farming
- Melting of polar ice
  - effect on shipping
  - effect on wildlife
- Rise in intensity of hurricanes
- Too little or high water availability





# Some effects of global warming on agriculture



*Long-term fluctuations in weather patterns could have extreme impacts on agricultural production, slashing crop yields and forcing farmers to adopt new agricultural practices in response to altered conditions.*

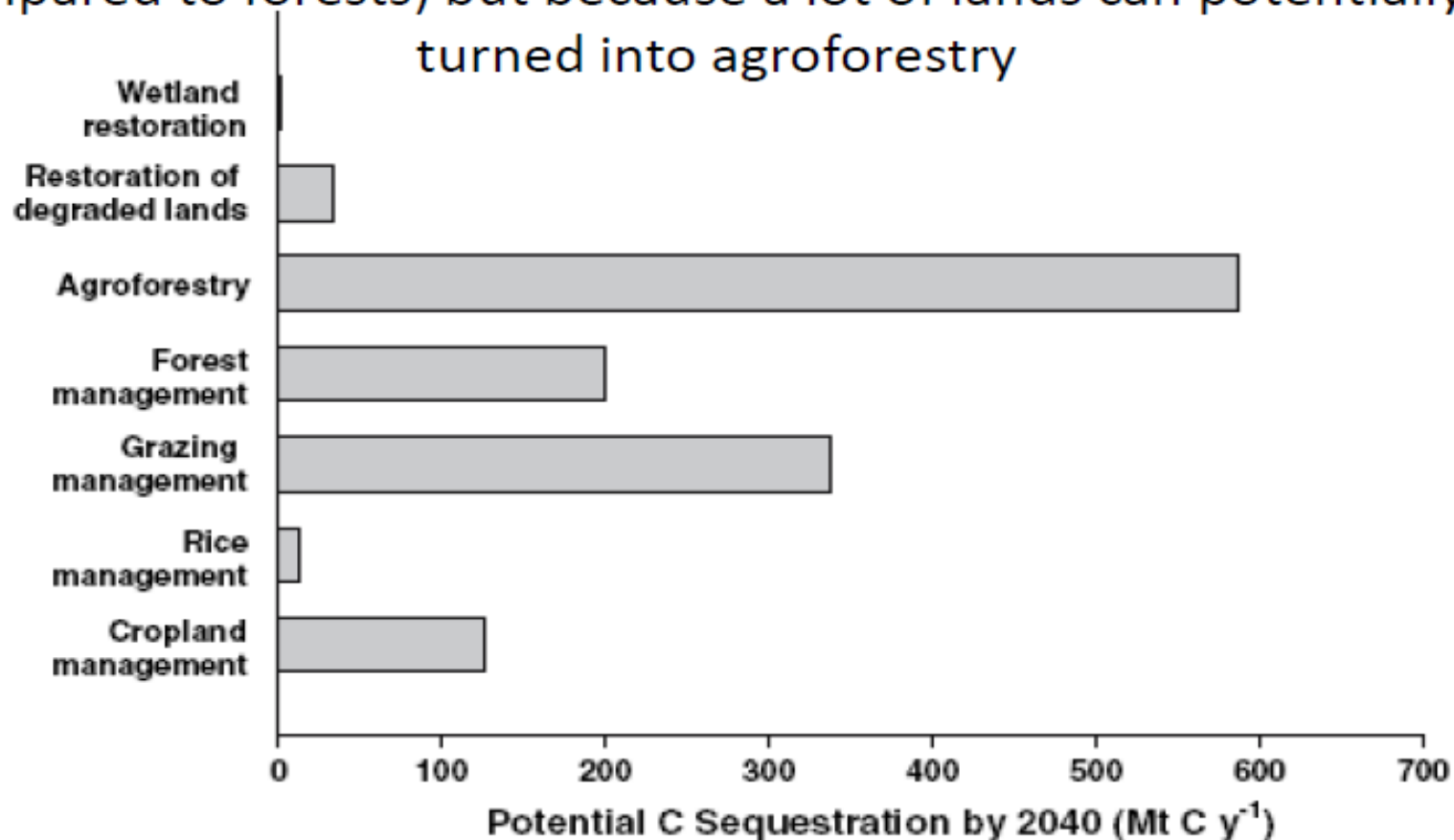
# Challenges of climate change and migrations

- Difficulty in preforming Climate justice system
- Alarming increase of natural disasters
- Population growth and dislocation

# Further suggested solution

- **Climate resilient Green economy**
- **Minimized site disturbance** and the increased diversity of plant species(Agroforestry)
- Reduced greenhouse gas emission, proper utilize carbon tax system and properly implement climate justice
- Urban and river side greening
- Increased efficiency in agricultural production leading to **reductions in use of fertilizer**
- Reduce **soil and wind erosion**

Agroforestry has a high carbon sequestration potential on the long term (e.g. by the year 2040) not because it has a high carbon density (compared to forests) but because a lot of lands can potentially be



**Fig. 1** Carbon sequestration potential of different land use and management options (adapted from IPCC 2000) Verchot et al. *Mitig Adapt Strat Glob Change* (2007) 12:901–918



*Thank you for your attention*