

GROUNDSWELL

PREPARING FOR INTERNAL CLIMATE MIGRATION



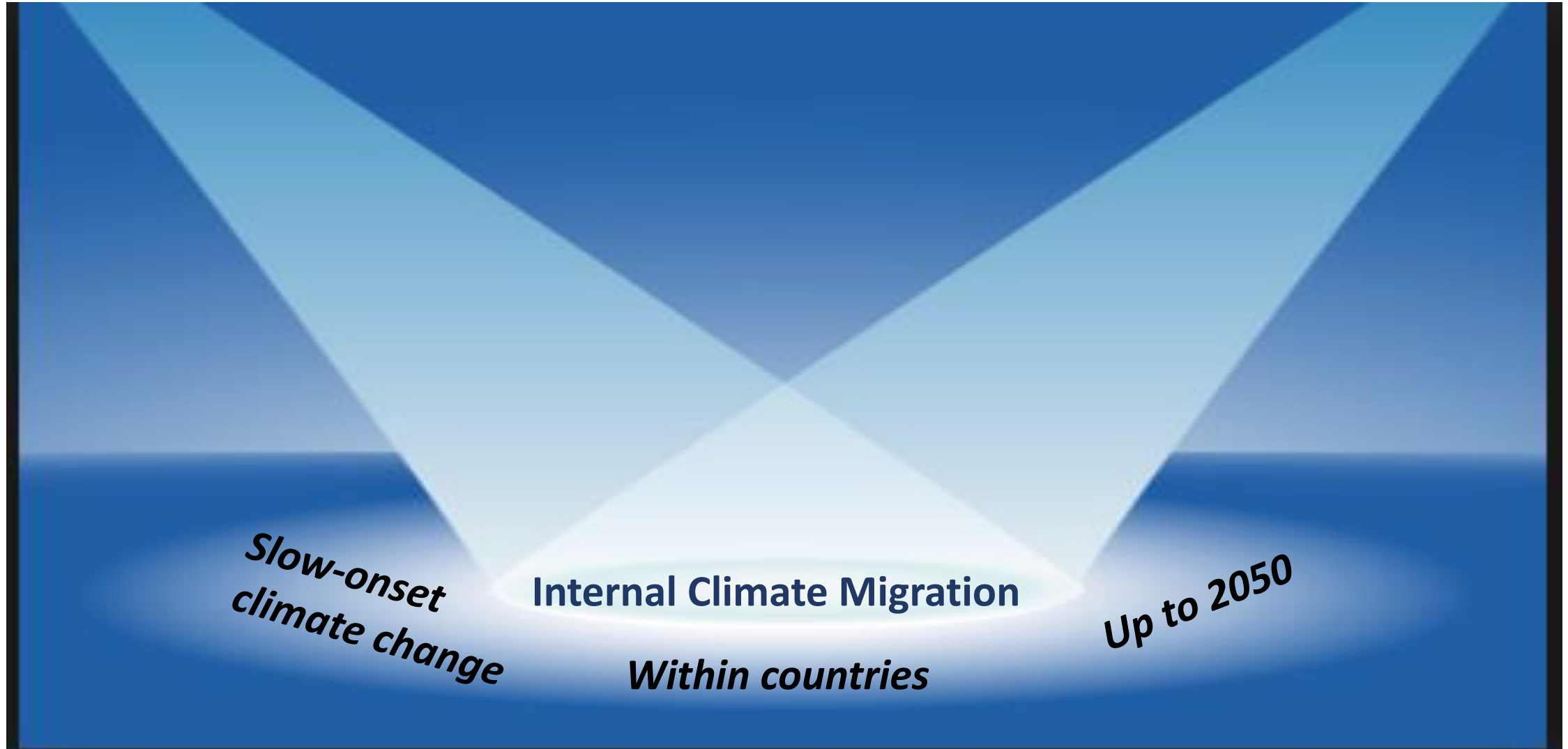
Kanta Kumari Rigaud, Alex de Sherbinin, Bryan Jones,
Jonas Bergmann, Viviane Clement, Karyl Ober, Jacob Schewe,
Susana Adamo, Brent McCusker, Silke Heuser, and Amelia Midgley

Preparing for Internal Climate Migration – Findings from the *Groundswell* Report

ICLEI Resilient Cities Congress
April 28, 2018



SPOTLIGHT ON CLIMATE-MIGRATION-DEVELOPMENT NEXUS

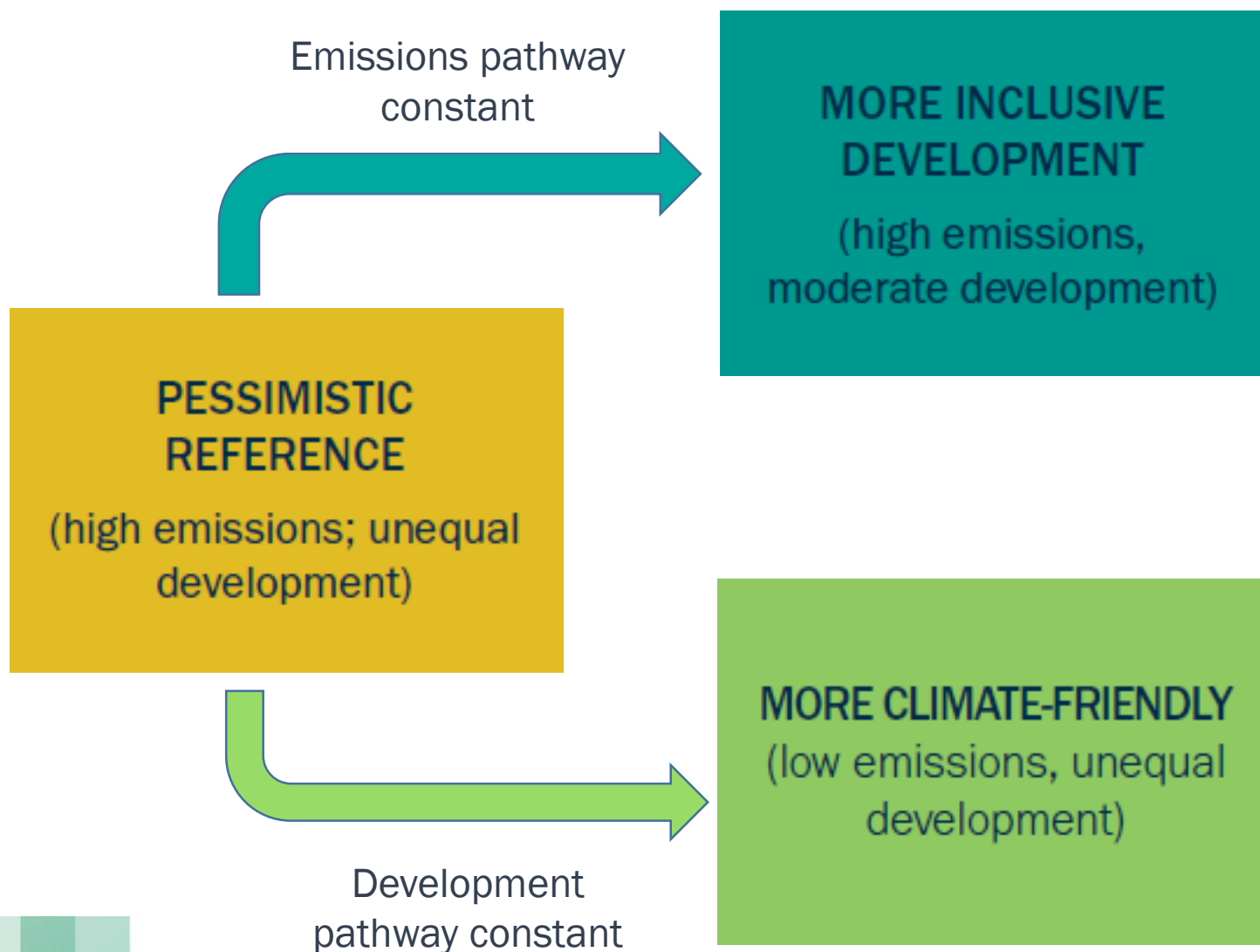


OBJECTIVE OF THE REPORT

- Help policymakers better plan and prepare for the likely movement of people within countries as a consequence of climate change
- Help understand areas of greatest climate vulnerability which are likely to propel people and communities to move within their countries and possible hotspots of climate in-and out migration



PROJECTING CLIMATE MIGRATION 2020-50



Composite climate impacts-development demographic models run for 14km grid cell

(Slow onset climate factors: crop productivity, water availability, sea level rise)

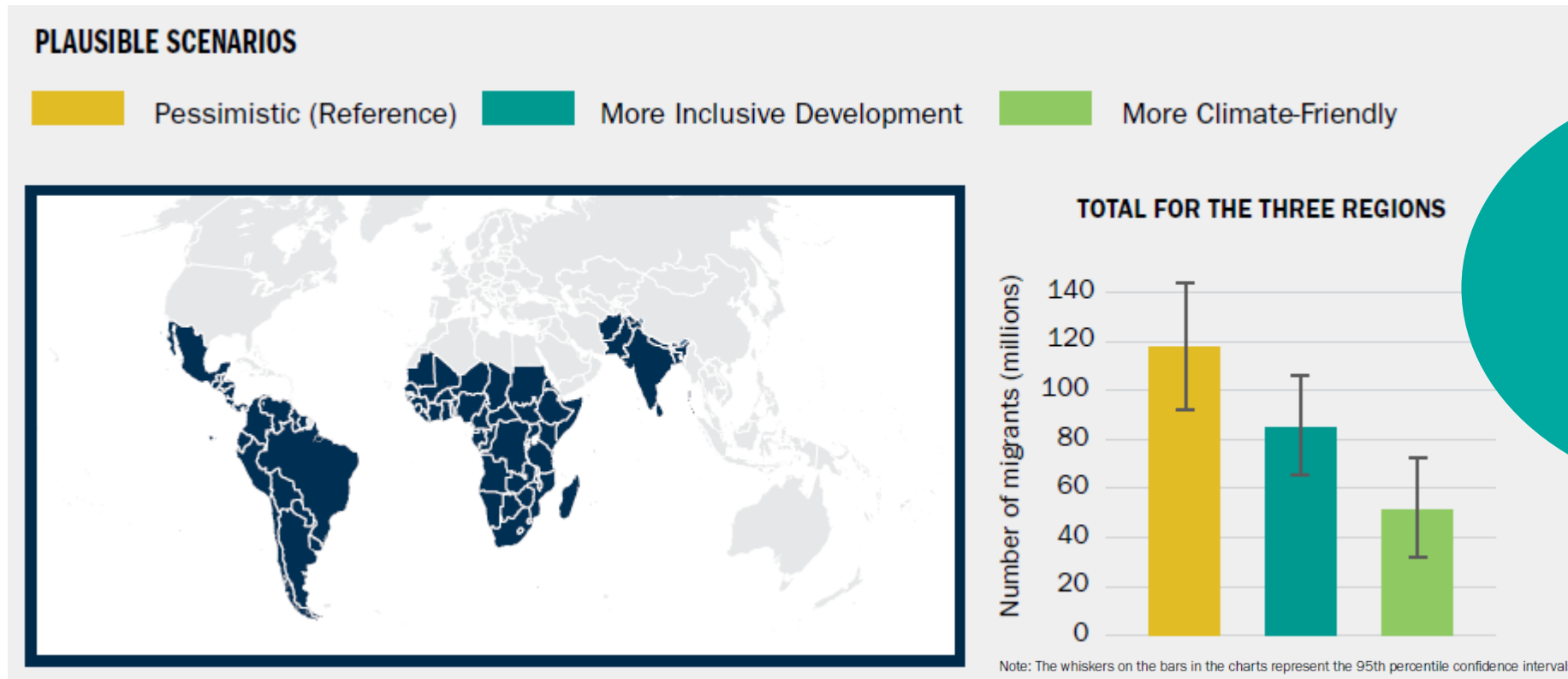


Results aggregated at country level

Aggregated for subregions
& regions of focus

RESULTS – **SCALE** OF CLIMATE MIGRATION BY 2050

- By 2050 over **143 million people** in three regions could be **climate migrants** under the **pessimistic reference scenario**

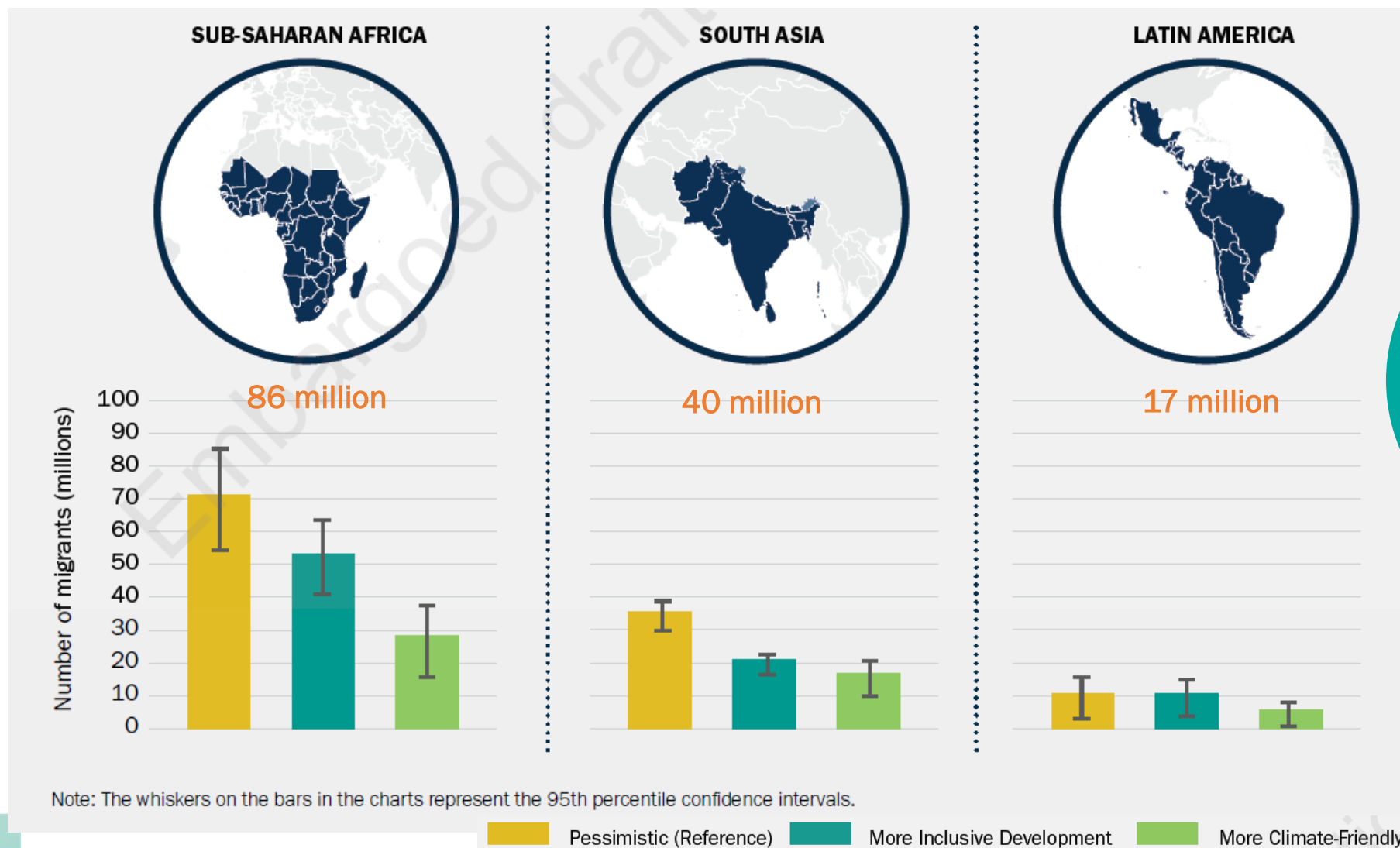


143 million is the combined population of Germany and South Africa

- This could be reduced by more than 80% under a more climate friendly scenario

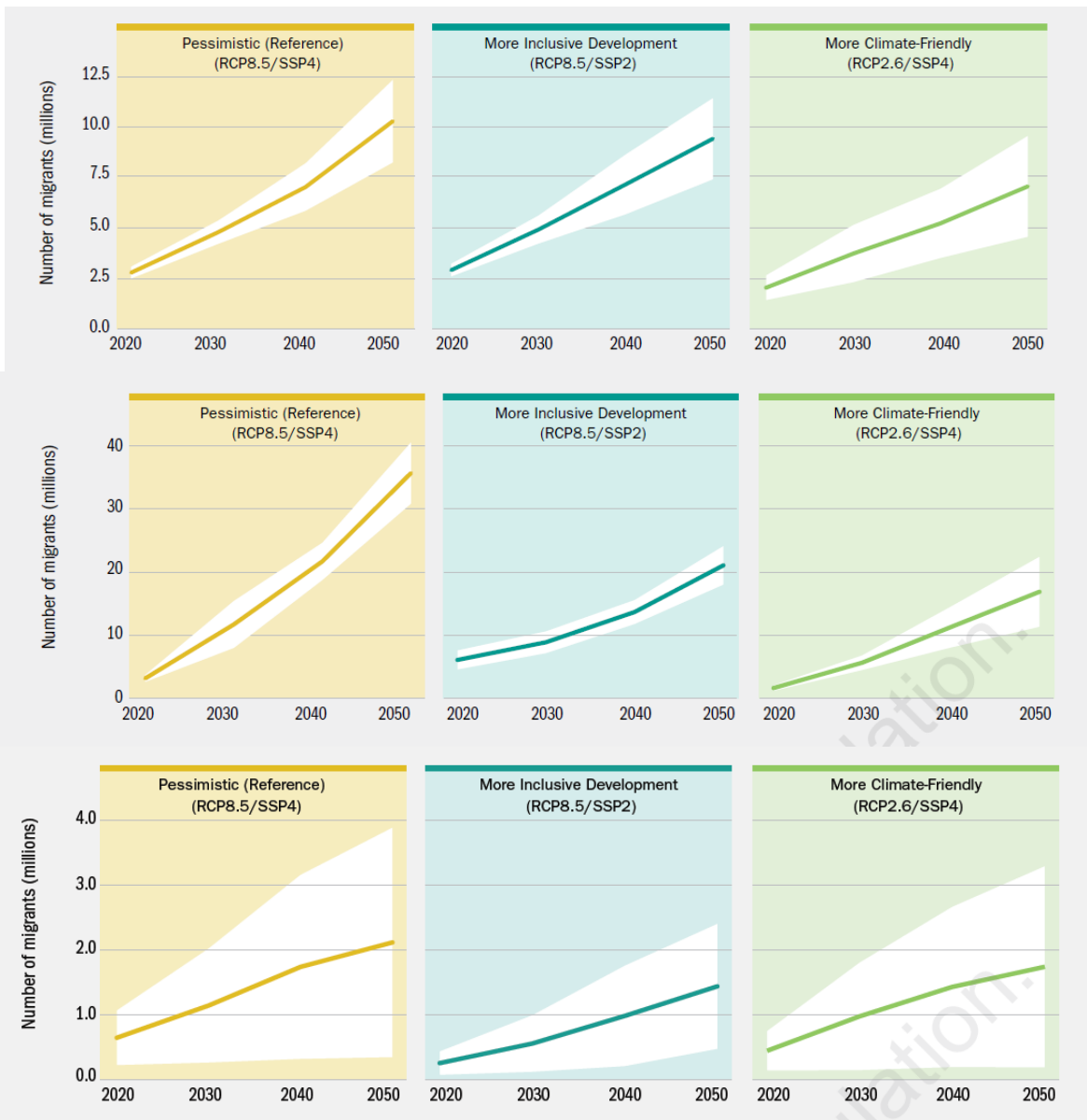
RESULTS – SCALE OF CLIMATE MIGRATION BY REGION

- Climate migrants by 2050: highest in Sub-Saharan Africa followed by South Asia and Latin America



Concrete climate and development action can help reduce distress migration

RESULTS – **TRAJECTORY** OF CLIMATE MIGRATION (2020-50)



East Africa
(3X)

- Number of climate migrants ramp up by 2050
- Window of opportunity for early action

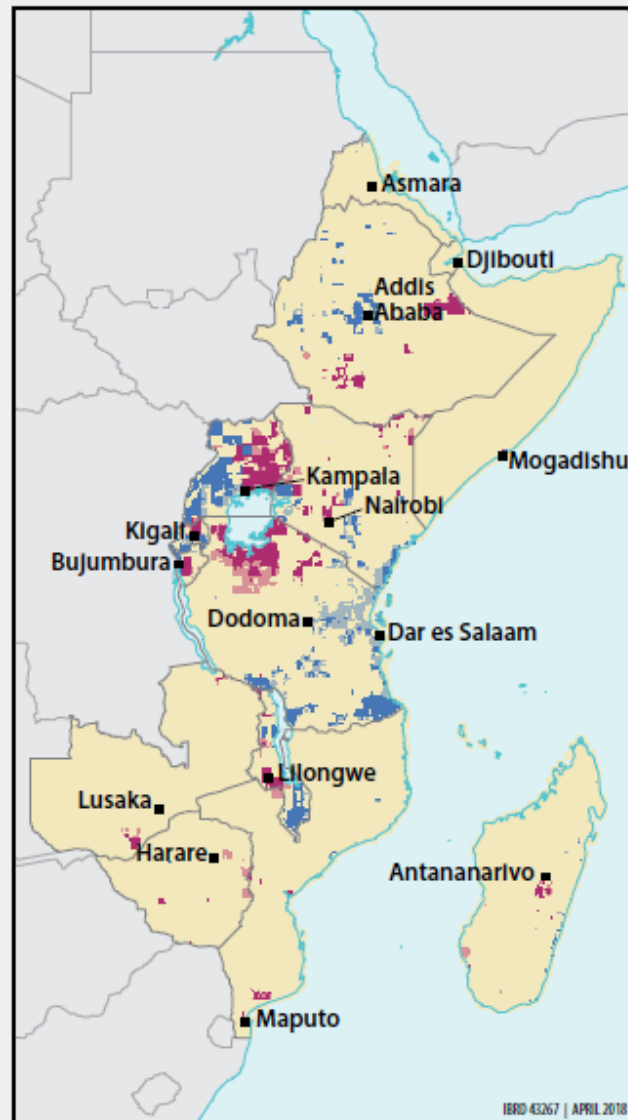
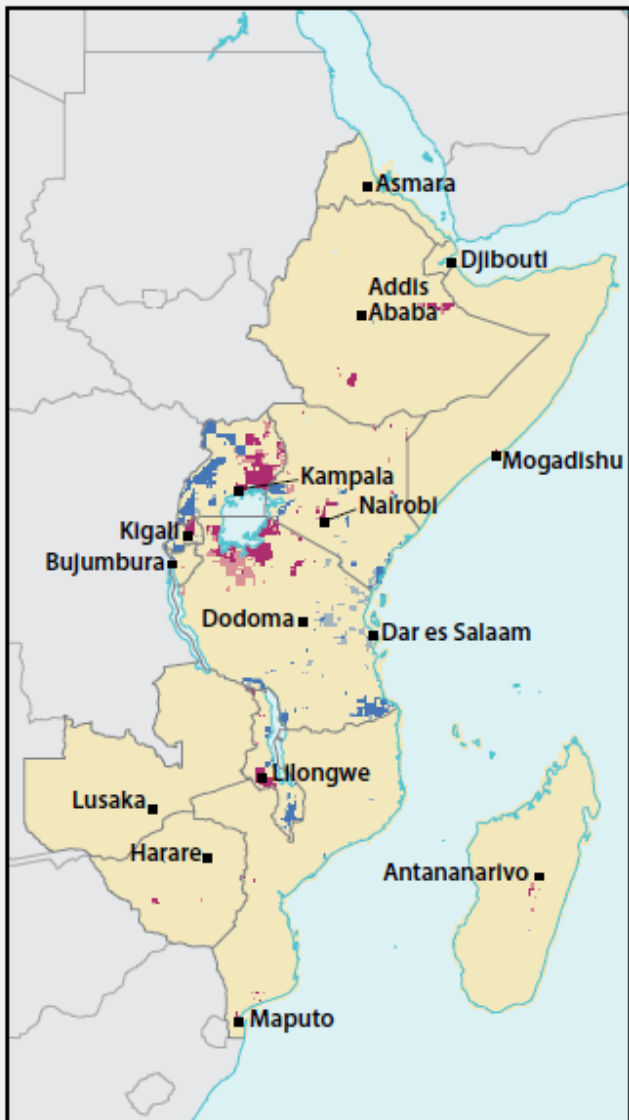
South Asia
(6X)

Mexico & Central America
(2X)

Post 2050: more extensive climate impacts => increase in climate migration

a. 2030

b. 2050



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IN-MIGRATION

- High certainty in high levels of climate in-migration
- Moderate certainty in high levels of climate in-migration

OUT-MIGRATION

- High certainty in high levels of climate out-migration
- Moderate certainty in high levels of climate out-migration

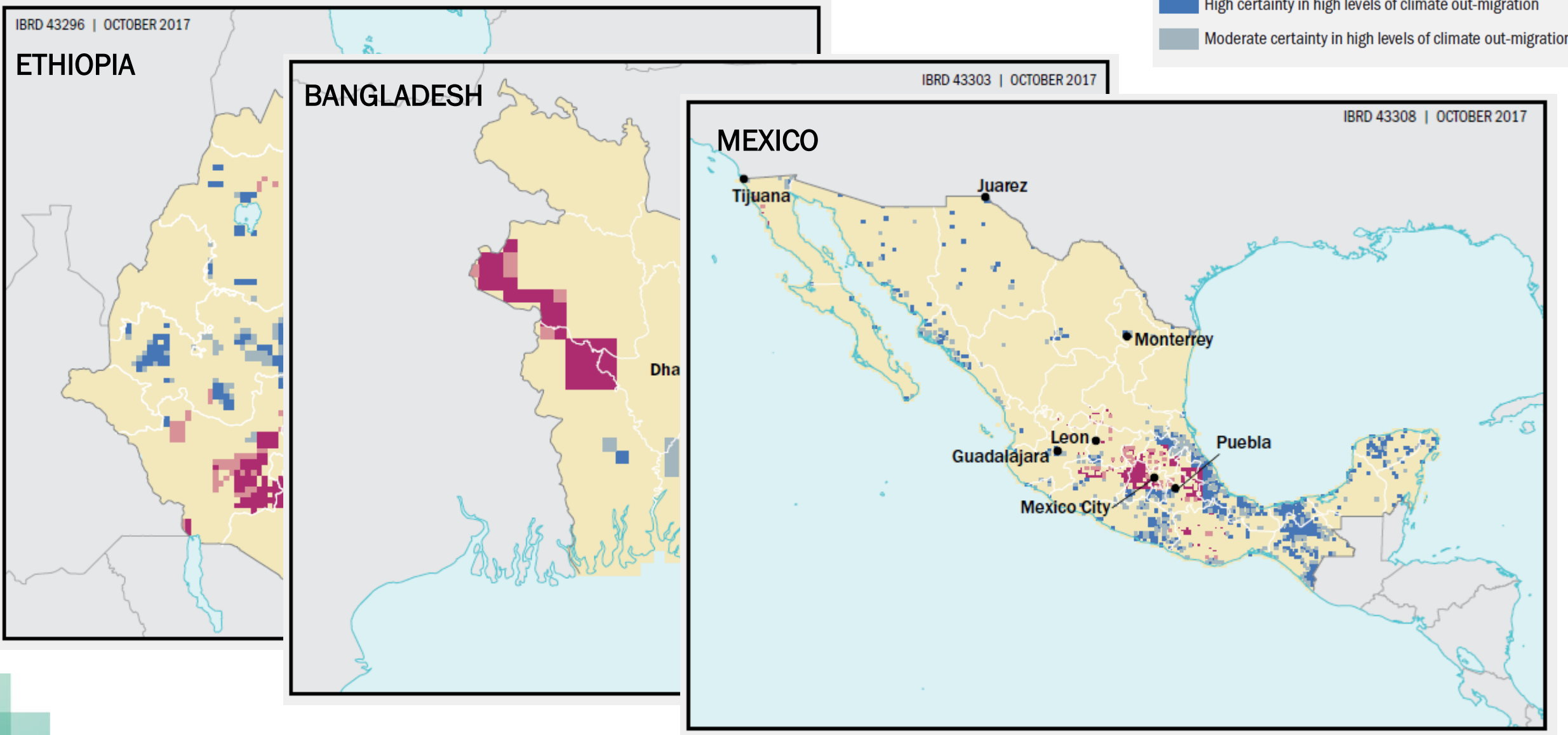
Note: High certainty reflects agreement across all three scenarios modeled, and moderate certainty reflects agreement across two scenarios.

RESULTS – EMERGENCE OF CLIMATE MIGRATION HOTSPOTS

- Spread and intensity of climate in- and out-migration hotspots increases by 2050
- Hotspots reflect ecosystem and livelihood vulnerabilities
- Cities are key climate migration hotspots

Implications for spatial development of cities across landscapes & time scales

2050 CLIMATE HOTSPOTS – COUNTRY PROFILES



WHAT DOES CLIMATE MIGRATION MEAN **FOR CITIES?**

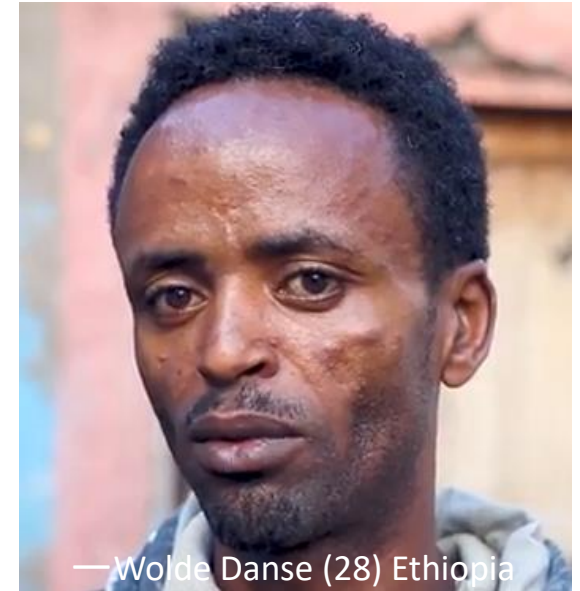
An opportunity to step up and take charge

- **Plan differently** to account for climate in- and out- migration and growing populations– highly contextual
- **Strengthen adaptive capacity** – improved housing, transportation infrastructure, availability and portability of social services, education, training and employment opportunities – **and avoid vulnerabilities**
- **Create positive momentum** – benefitting from agglomeration and economies of scale and ensuring social cohesion
- **Look longer term** towards transformative end points
 - Role of human capital, social capital
 - Role of secondary cities to spread opportunities
 - Nature-based solutions with multiple cobenefits

TOUGH TAKEAWAY MESSAGES

- Climate migration is the human face of climate change – 143 million faces!
- Poorest and vulnerable areas will be hardest hit
- We are locked into a certain level of internal climate migration – even with Paris Agreement
- These are conservative estimates – focusing on select slow onset factors and three regions

=> Challenges the delivery of development targets...and extent to which movement can be positive for migrants and their families



BUT THE WINDOW OF OPPORTUNITY STILL OPEN

Internal climate migration may be a reality, BUT it does not have to become a crisis...

If we pursue concerted action now:

- **Cut greenhouse gases now** to reduce climate pressure on people's livelihoods and the associated scale of climate migration
- **Embed climate migration into resilient development planning** for all phases of migration and **across time scales**
 - Before migration – through adapt in place
 - Enabling mobility – for those who need to move; migration as adaptation
 - After migration – both sending & receiving areas/people adequately addressed
- **Invest now to improve understanding** of internal climate migration



Cities can make all the difference!

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Thank you

For more information contact:
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Useful links:

<https://openknowledge.worldbank.org/handle/10986/29461>

https://youtu.be/d6ijhQn_ww4

