

IPROMO Training
ON
Promoting Sustainable Farming in
Mountain Regions

Introduction presentation

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- Myself:
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Environment Science
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Nepal

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Udayan Mishra, ICIMOD

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Kathmandu

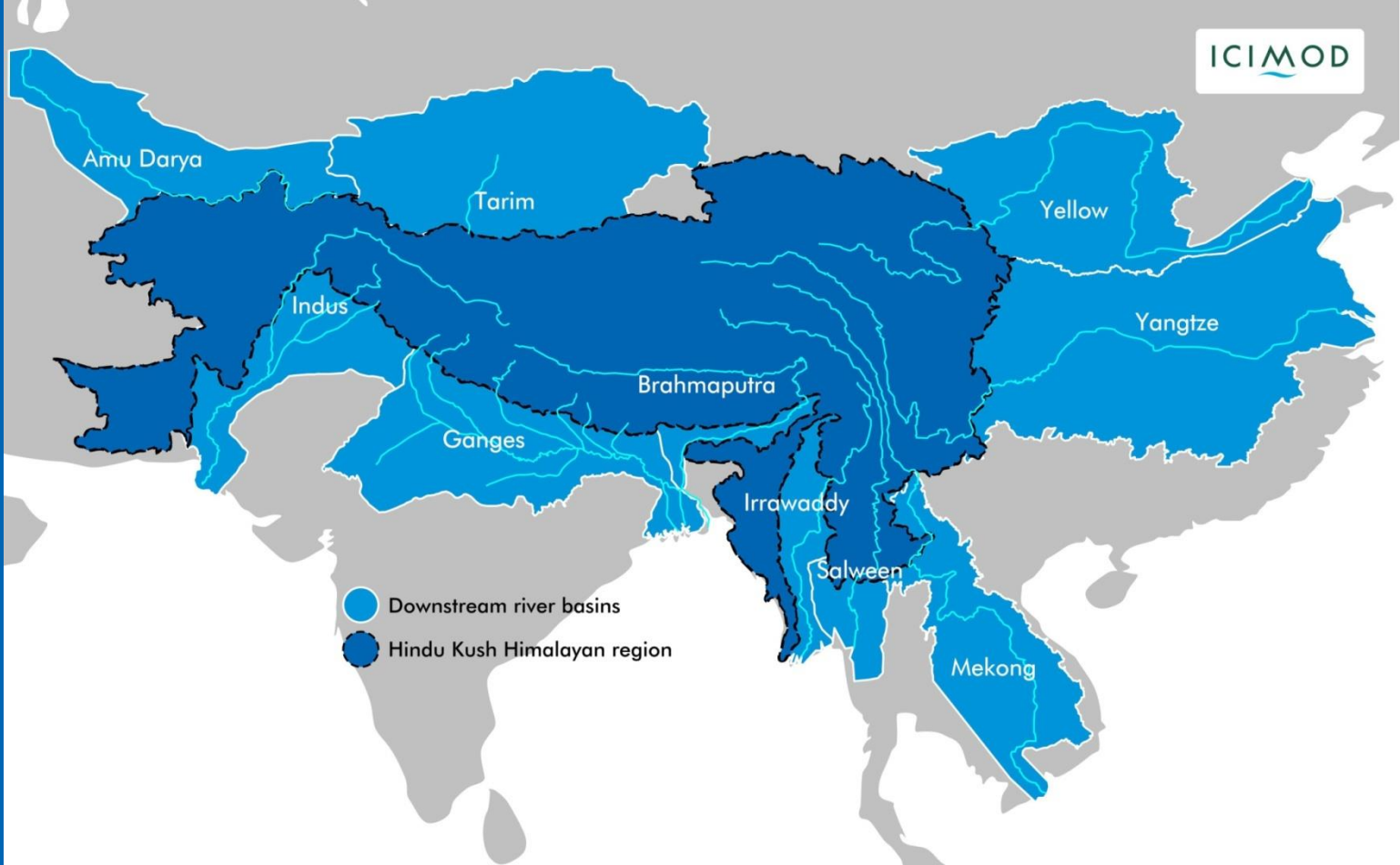
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- Introduction
 - ✓ ICIMOD
 - ✓ Himalica
- Current Work
- Importance of Traditional Farming for Climate Change Adaptation
- Findings: India, Bhutan Nepal
- Rice Fever
- Conclusion

HKH Region with River Basins



ICIMOD Headquarter

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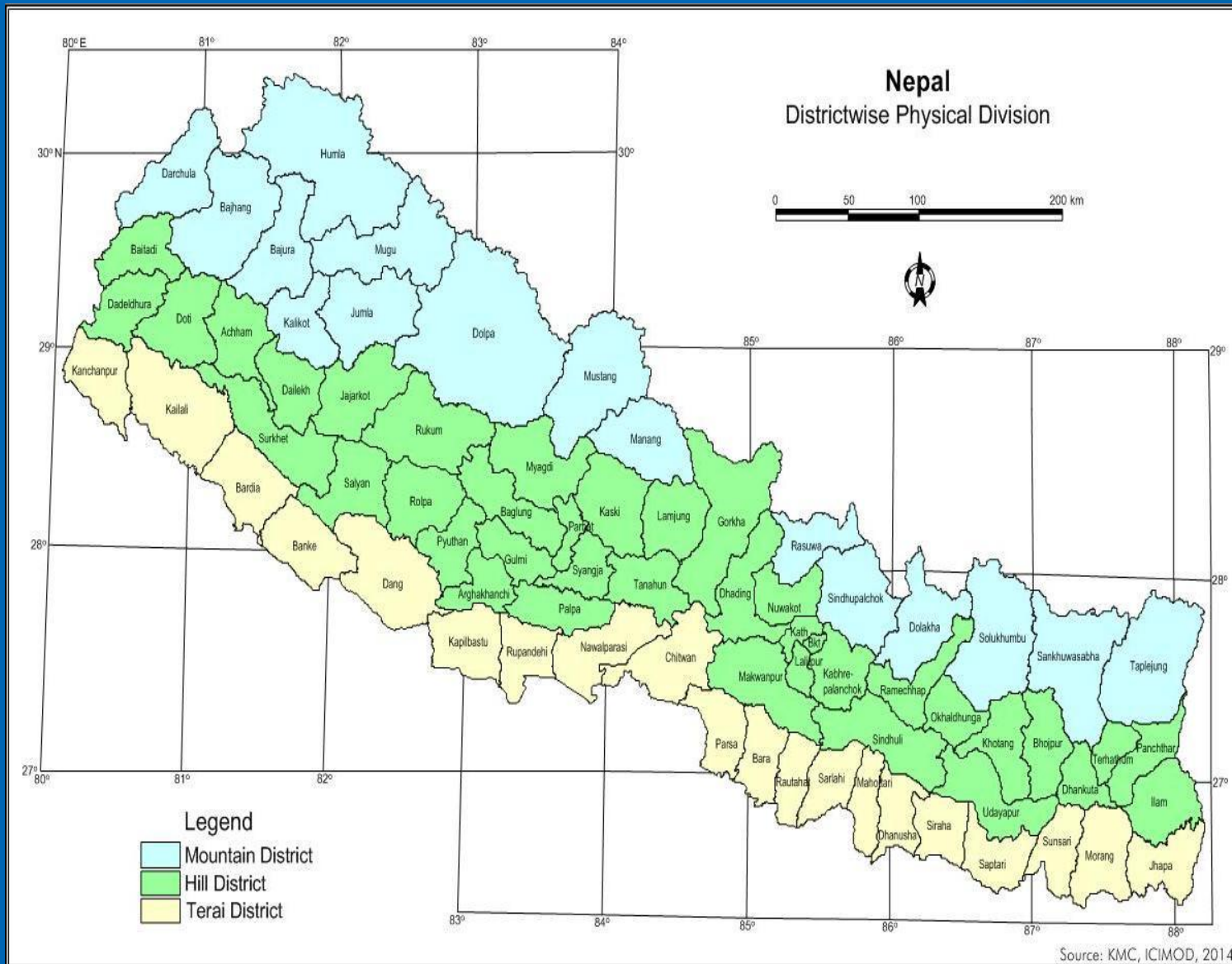
<http://www.icimod.org/>

Jitendra Bajracharya, ICIMOD

Rural Livelihoods and Climate Change Adaptation in the Himalayas (Himalica)

<http://www.icimod.org/?q=11895>

Nepal



1. Policy Component

- GCCA

Myanmar, Bangladesh, Bhutan

2. Manuscript Prepared

Climate Change Impacts on Food Security in the Mountains: A Case Study of Hindu Kush Himalayas

- Food Security -HKH Region
- Climate Change - Food Price
- Climate Change - Declining Traditional Farming
- Declining Traditional Farming -Increasing Food Price - HKH

3. Traditional Farming: Importance for CCA

- Locally Adapted Agriculture System- Community security, Agro-biodiversity
- Indigenous Knowledge
- Minimize Risk, Stabilizes Yield
- Adapt – Potential Threat of CC
- Banjara Farming System

Buckwheat

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Nabin Baral, Nawalparasi

Buckwheat

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Nabin Baral

- ✓ Cultivated: millennia
- ✓ Adaptive- wide range (Dida/ Devos, 2006)
- ✓ Resistant- Pests/Disease(FAO/ ICRISAT, 1996)
- ✓ Nutritious
- ✓ Finger Millet- Rice
- ✓ Anemia

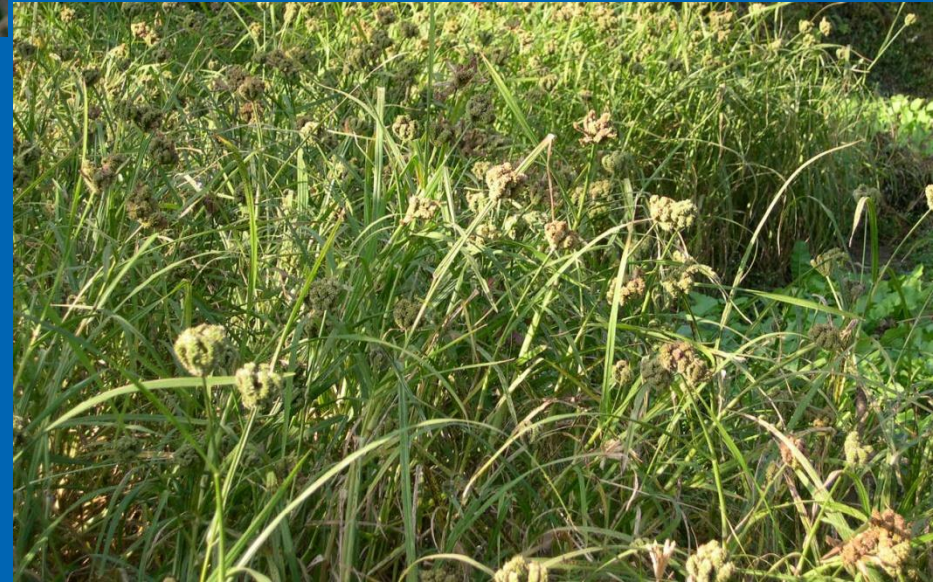
Millets

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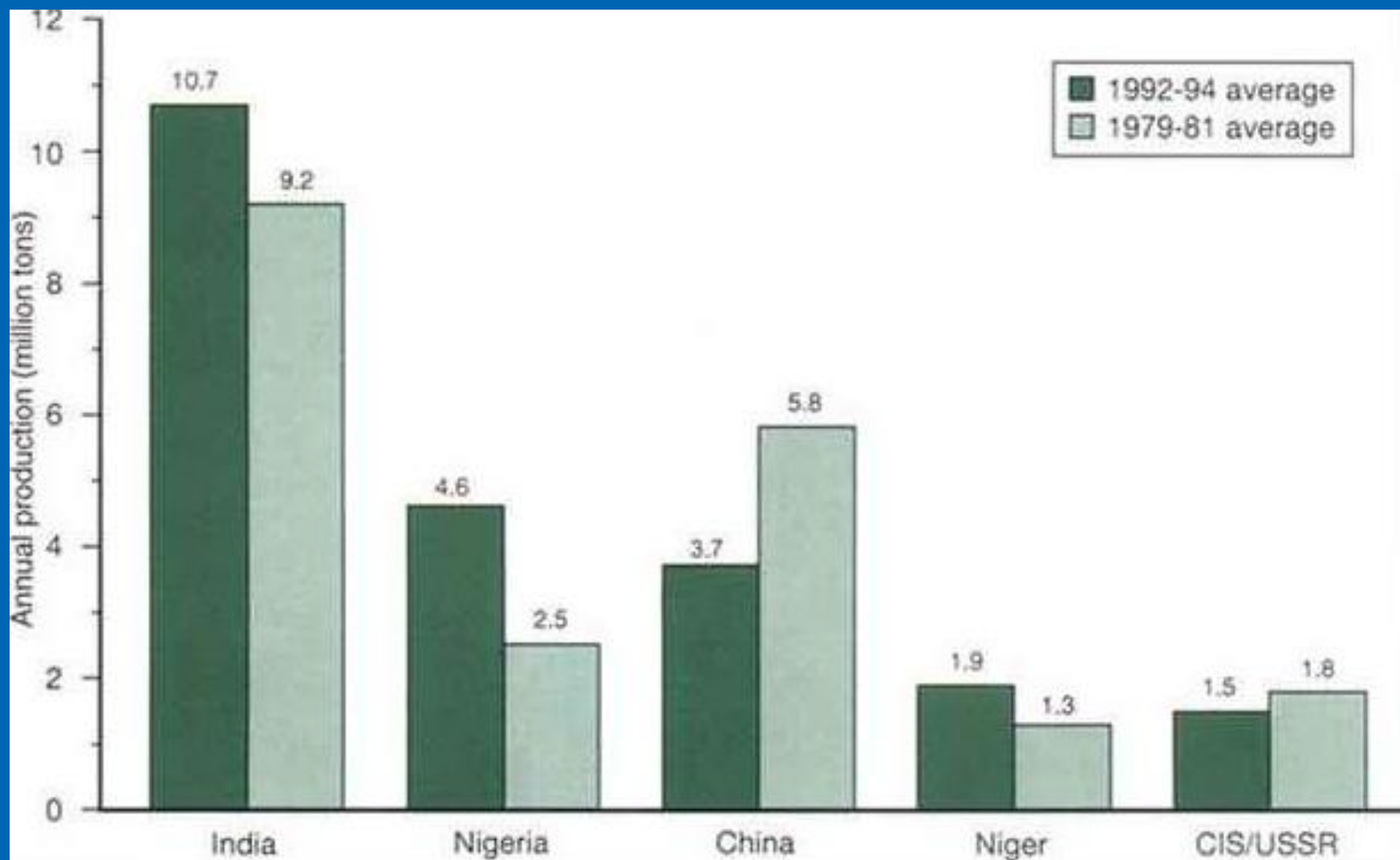
Millet Field, Pokhara

Jitendra Bajracharya, ICIMOD



Traditional Farming: Importance for CCA

Source: FAO and ICRISAT 1996



- ✓ Millets gradually replaced
- ✓ Practical, economic , cultural
- ✓ Wheat , rice, oilseeds (Kumar et.al, 2009)
- ✓ Wheat- Raise Bread
- ✓ Rice-Hard Texture (cook, dehusk) (Dida and Devos, 2006)
- ✓ Cash Crop(Saxena, 2005)
- ✓ Uttarakhand- Declining

Multiple Cropping

- ✓ Rice, wheat, maize, barley, buckwheat and Millets
- ✓ Rice- Most Important (Katwal)
- ✓ Participatory Varietal Selection (PVS), breeding activities- Research Centers in Bhutan
- ✓ Locally adapted rice varieties
- ✓ Resistant to CC

Case Study- Nepal

Udayapur:

Paddy, Maize, Wheat

Wheat- low selling price

Migration- low labor

Less agriculture

Livestock

Increase Rice- staple, taste, income

Udayapur

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Community managed
irrigation system

Bhaskar Singh Karky, 2013
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Udayapur

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- Changed-Consumption Pattern
- Coarse Rice- main food source (WFP, 2008)
- More energy/ protein (Lu and Chang 1980, cited in Cambridge)
- At least 1 meal – Incomplete
- Export / imports compared : 1975/76 -1993/1994
- Total production -upward trend
- Annual growth rate -1.65% in 18 years (Pokhrel).

Rice Fever- Nepal

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- Awareness- Importance of TC
- Farmers- Incentives
- Government Policies
- Government Support
- Increase in diet

THANK YOU

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