



# Managing Loss and Damage in African Drylands

UNFCCC regional Experts Meeting on  
Loss and Damage

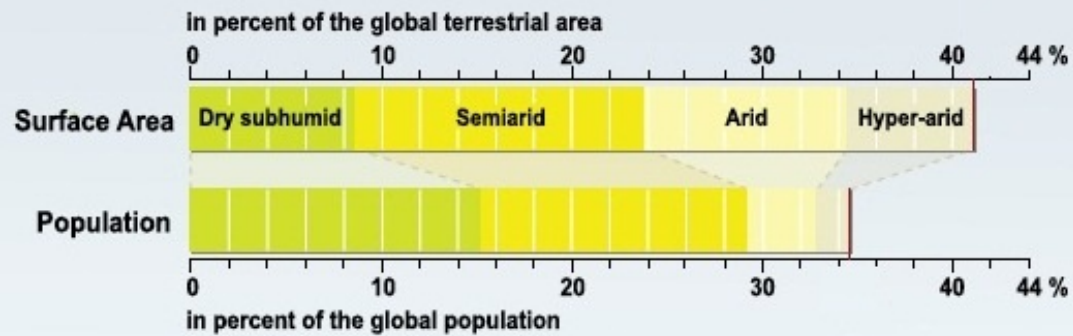
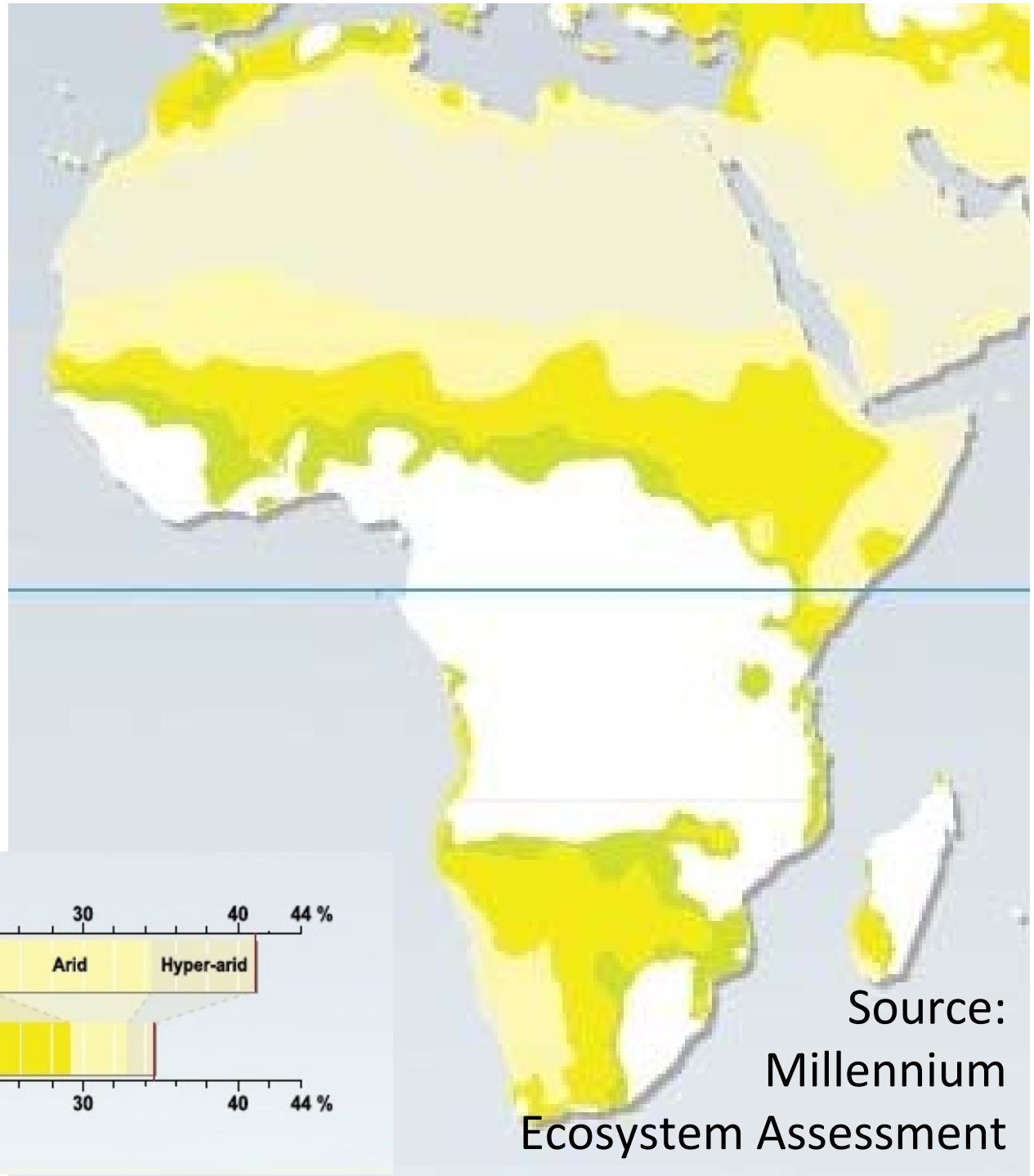
Addis Ababa, June 2012

Dr Jonathan Davies,  
Coordinator Global Drylands Initiative

# African Drylands

## Dryland Systems

- Hyper-arid
- Arid
- Semiarid
- Dry subhumid



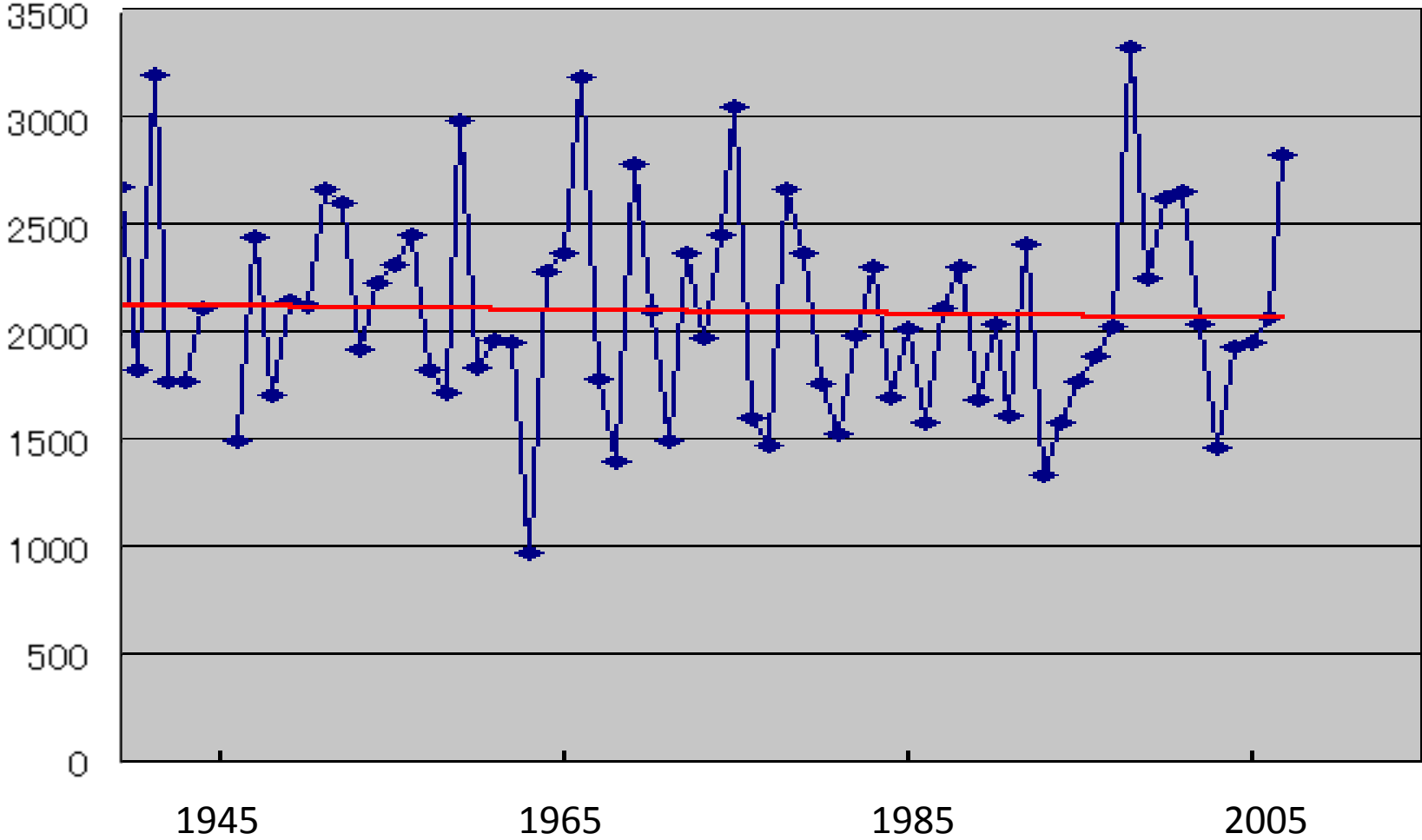
Source:  
Millennium  
Ecosystem Assessment

# Precipitation in humid lands

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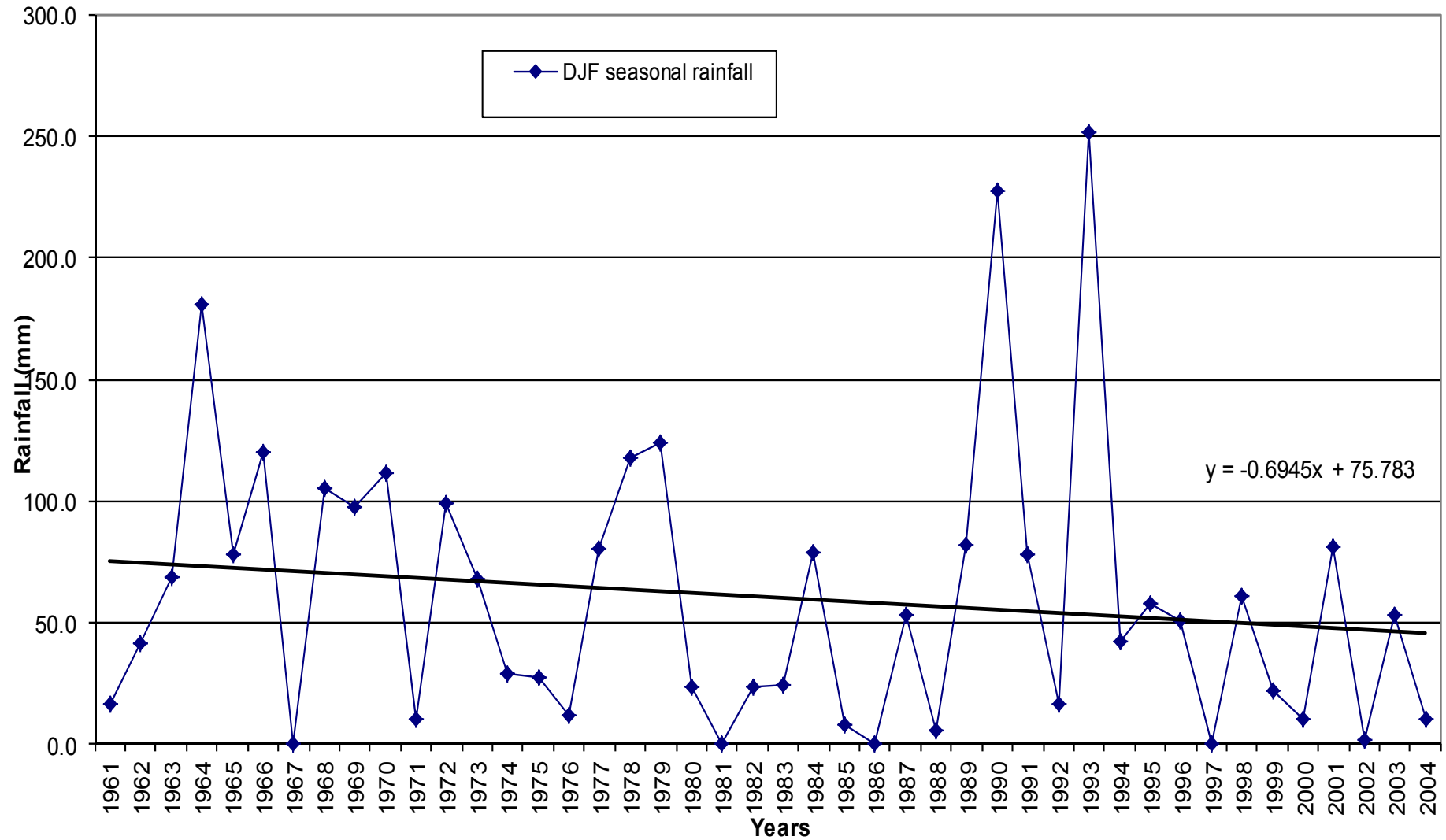
Precipitation (mm)

- ◆ Precipitation (mm)
- Approximation line (Precipitation)

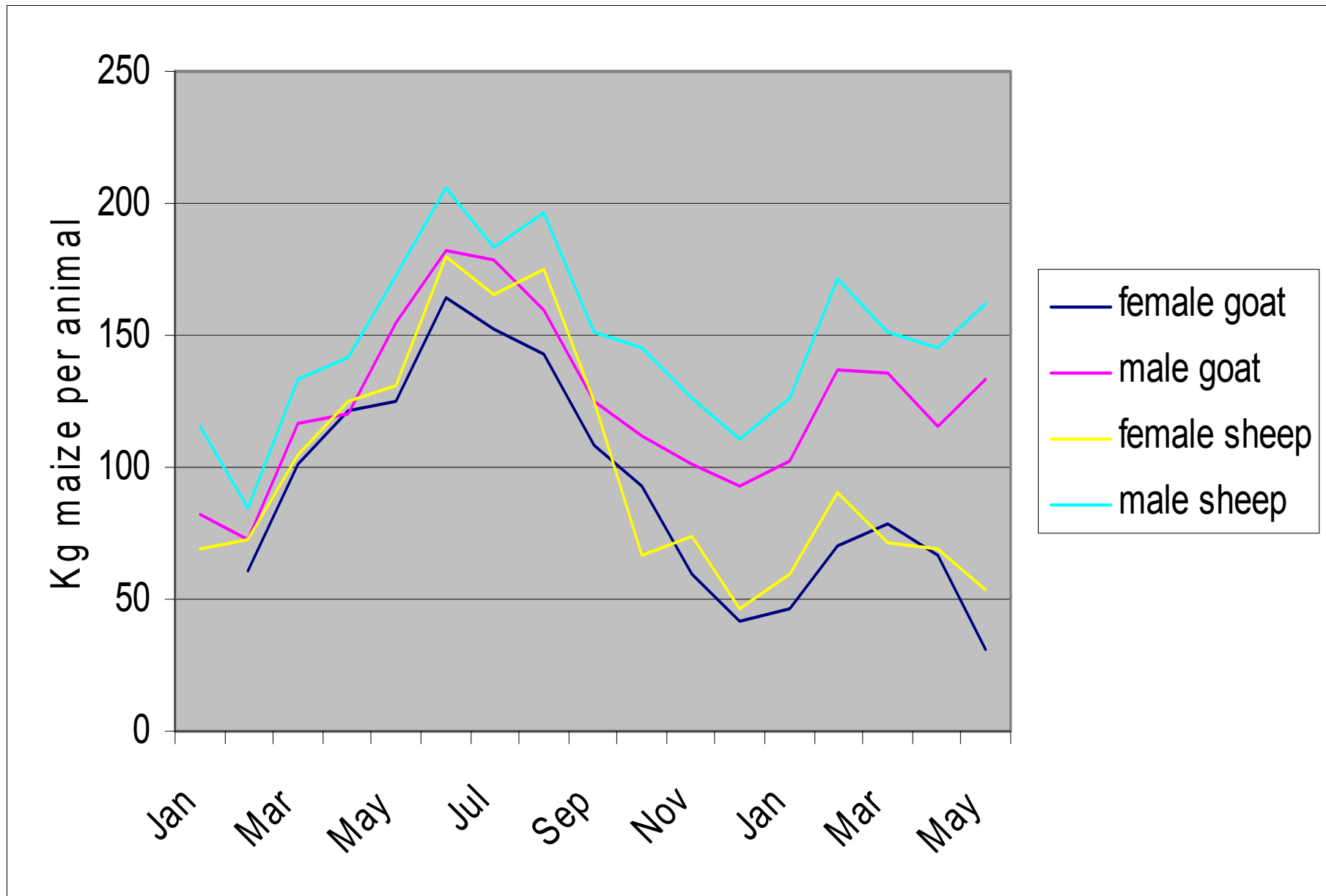


# Precipitation in dry lands

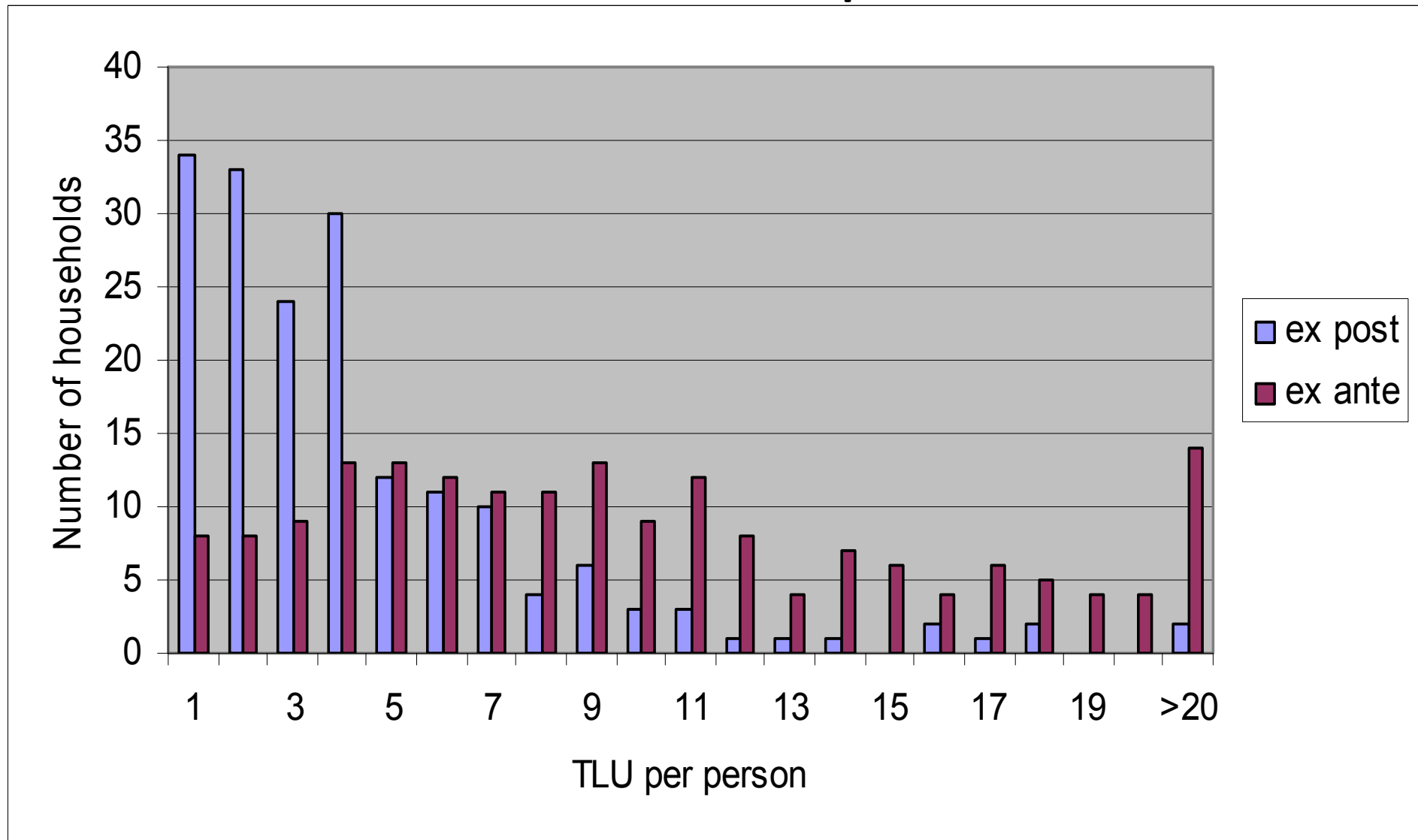
DJF seasonal trends Maralal



# Terms of Trade, Dubti, Ethiopia (2000-01)



# Herd sizes before and after drought: Afar, Ethiopia



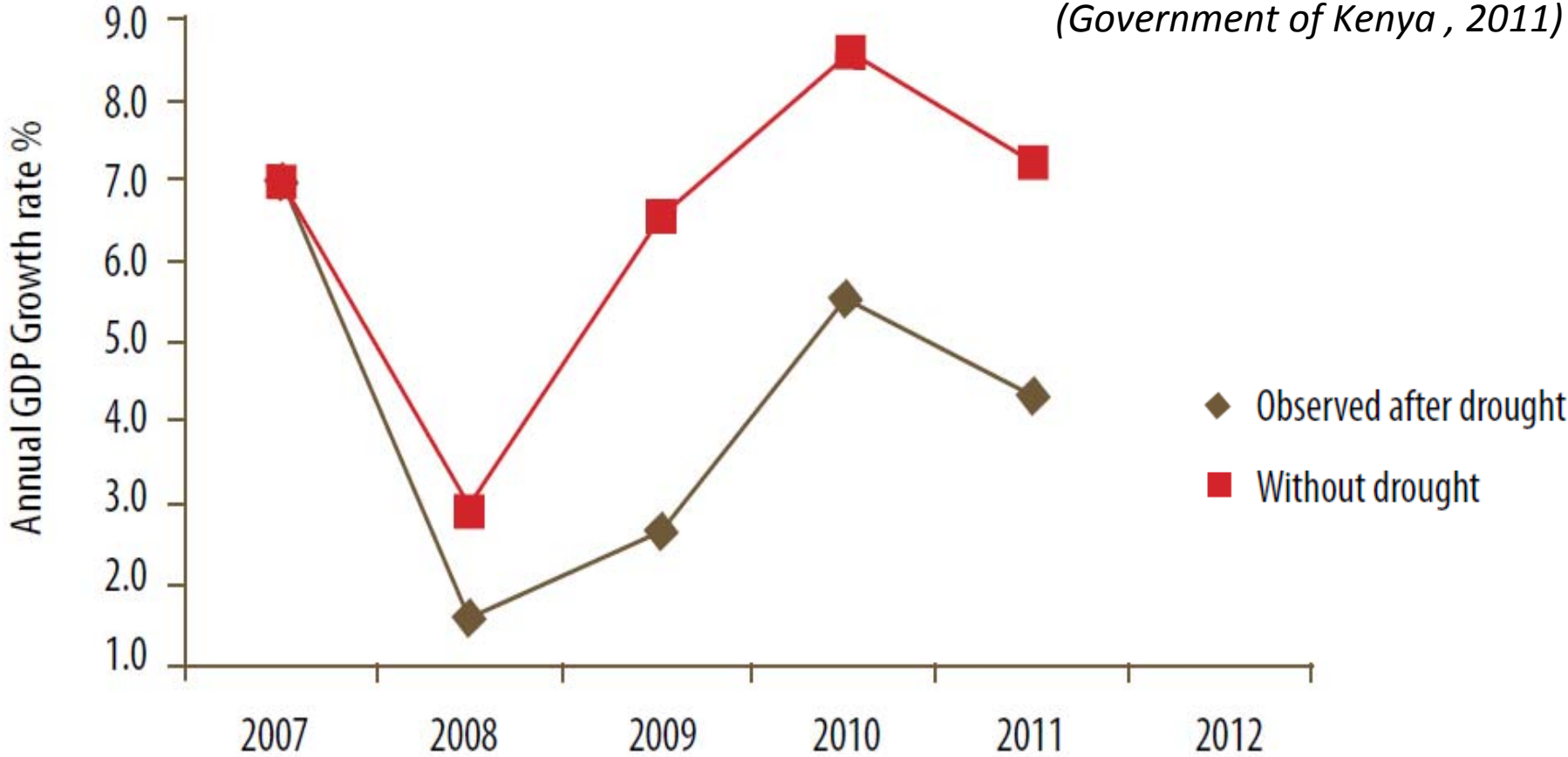
Climate change will amplify these patterns



# GDP Growth in Kenya, with and without drought

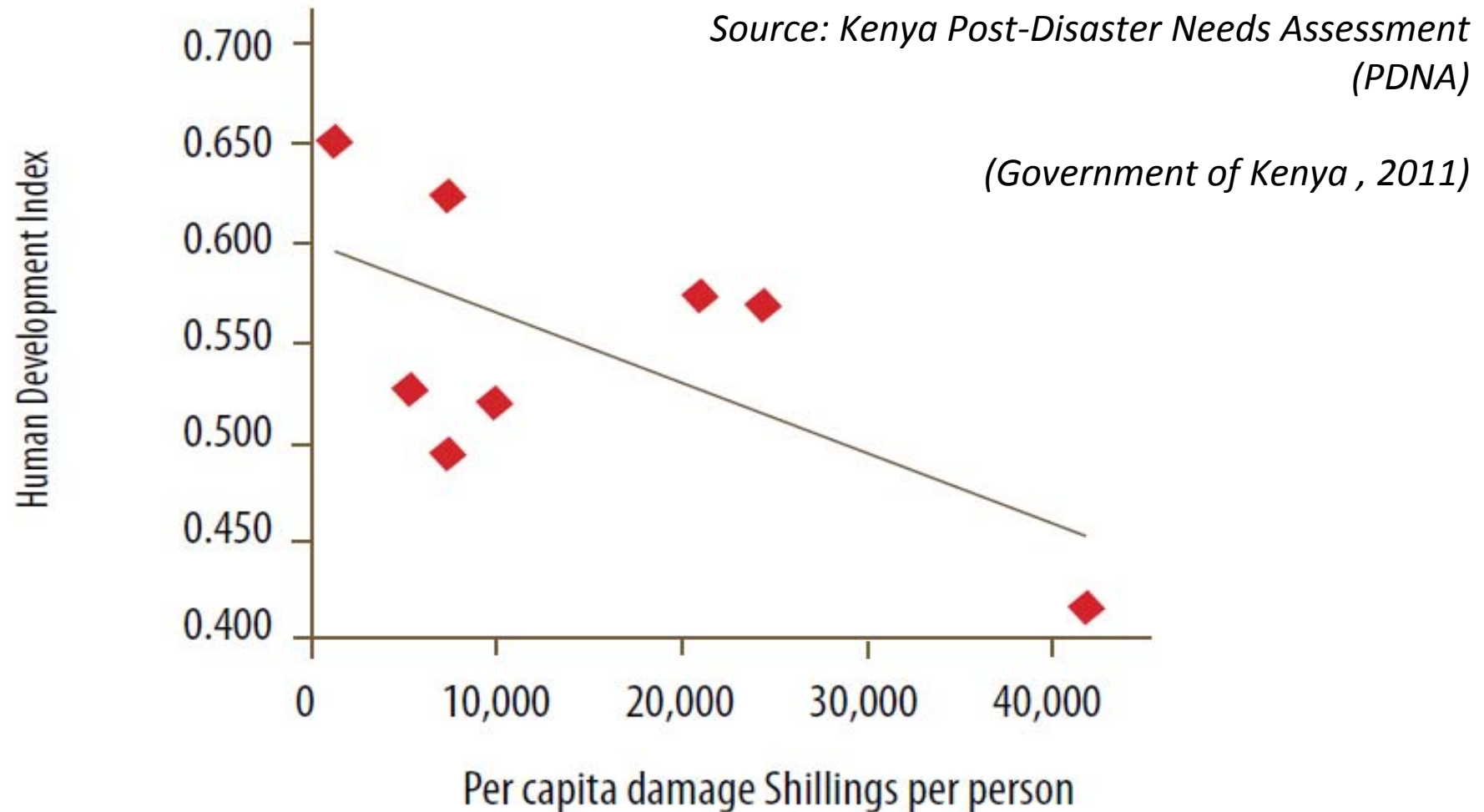
Source: Kenya Post-Disaster Needs Assessment (PDNA)

(Government of Kenya, 2011)





# Value of damage caused by drought in Kenya Provinces versus Human Development Index





**Drought is about how much rain falls and about what happens to the rain after it has fallen**



**Perceptions of drought: influenced by risk management strategies**

# Factors in resilience

- Ecosystem integrity and health
- Governance
- Institutional flexibility
- Capabilities – human and institutional
- Ability to apply knowledge: local and scientific

# Strengthening Governance

Security of natural resource rights

Enforceability of NRM rules, regulations and plans

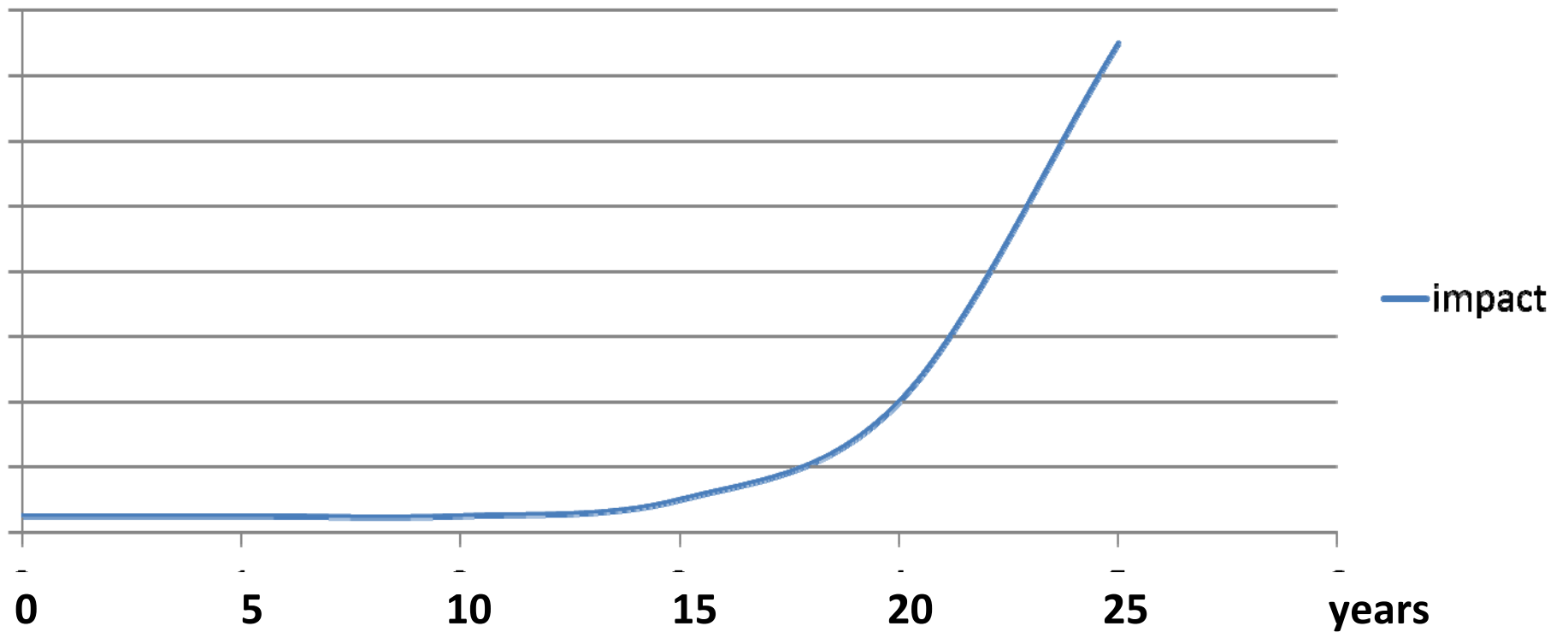
Better application of sustainable land management approaches

Livelihood security and environmental health

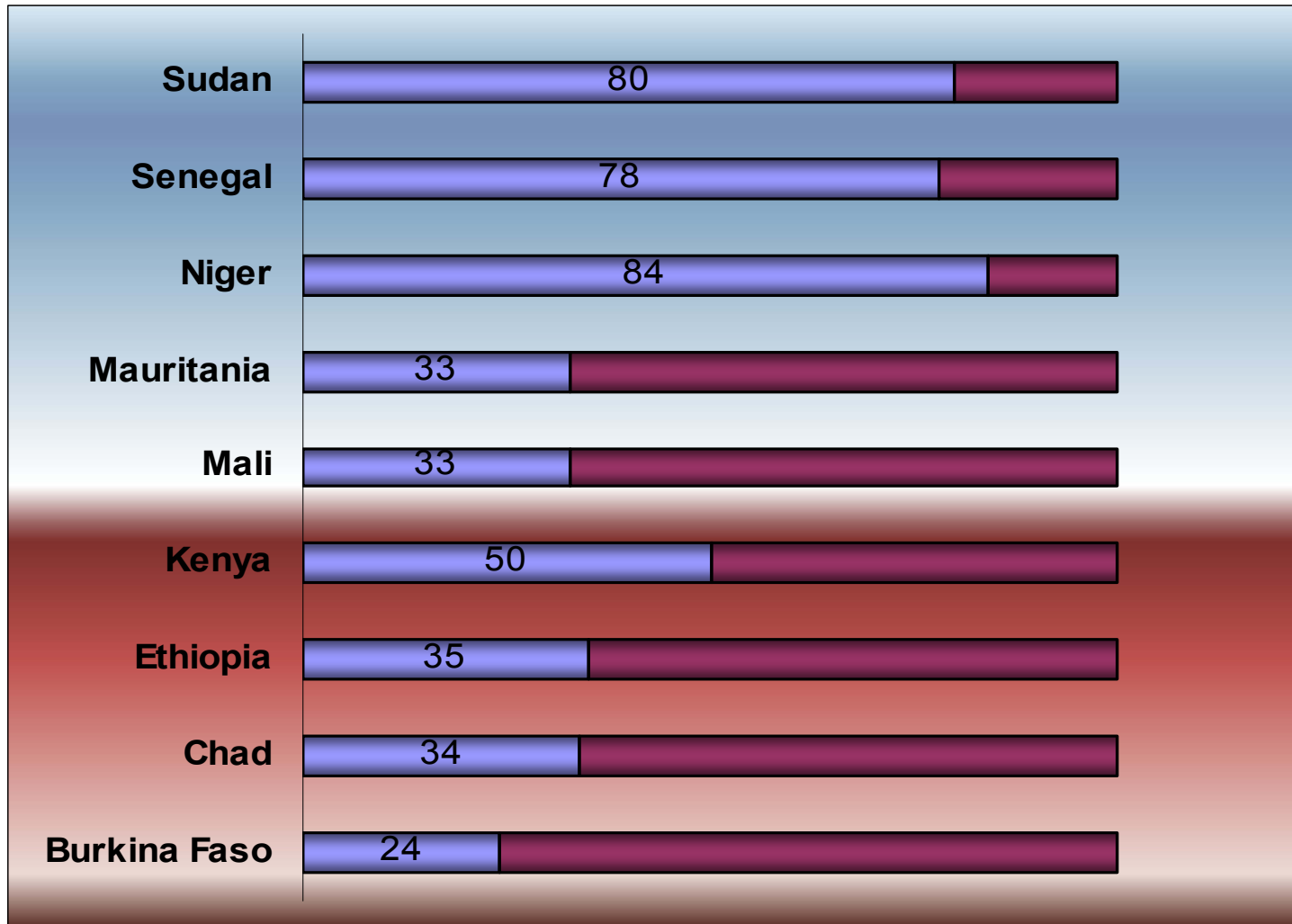


# Measuring benefits

Spontaneous adoption of improved NRM practices with improved governance



# How do you measure your loss when you don't know what you have?



## Values of ecosystem services in Kgalagadi South District, Botswana (in USD)

	Direct Use: Annual profits of enterprise	Direct Use: District total	Asset Value	Indirect use
Plant Use	270	91,874	599,430	-
Livestock Use	1,124	68,216	Nil	-
Trophy Hunting	3,590	7,739	27,030	-
Tourism	8,735	23,427	369,340	-
<b>Total</b>		191,256	985,800	-
Carbon Sequestration	-	-	-	<b>111,300</b>
Erosion Protection	-	-	-	<b>68,400</b>



# Household income from Gums and Resins in Kenya

	Gum Arabic	Myrrh	Hagar	Frankincense
Average per person per day (Kg)	5	5	5	3
Average collected per month (Kg)	100	150	150	90
Sale price Per Kg (\$)	0.35	0.75	0.25	0.35
Monthly income per collector (\$)	34	110	40	30

How do you build  
resilience when  
you don't  
understand how  
people manage  
risk?

