


Enhancing resilience in African drylands: toward a shared development agenda

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Overall goal: Inform next generation of policies and programs for resilience

Specific objectives

1. Characterize **current** and **future** challenges to reducing vulnerability and increasing resilience in drylands
2. Identify main interventions to enhance resilience, estimate their costs, and assess their effectiveness
3. Provide an evidence-based framework to improve decision making on alternative options to enhance resilience
4. Promote sharing of regional and global knowledge on resilient development in drylands

Complementarity with governments and partners' current engagements especially in in the Sahel and the Horn of Africa

Key message

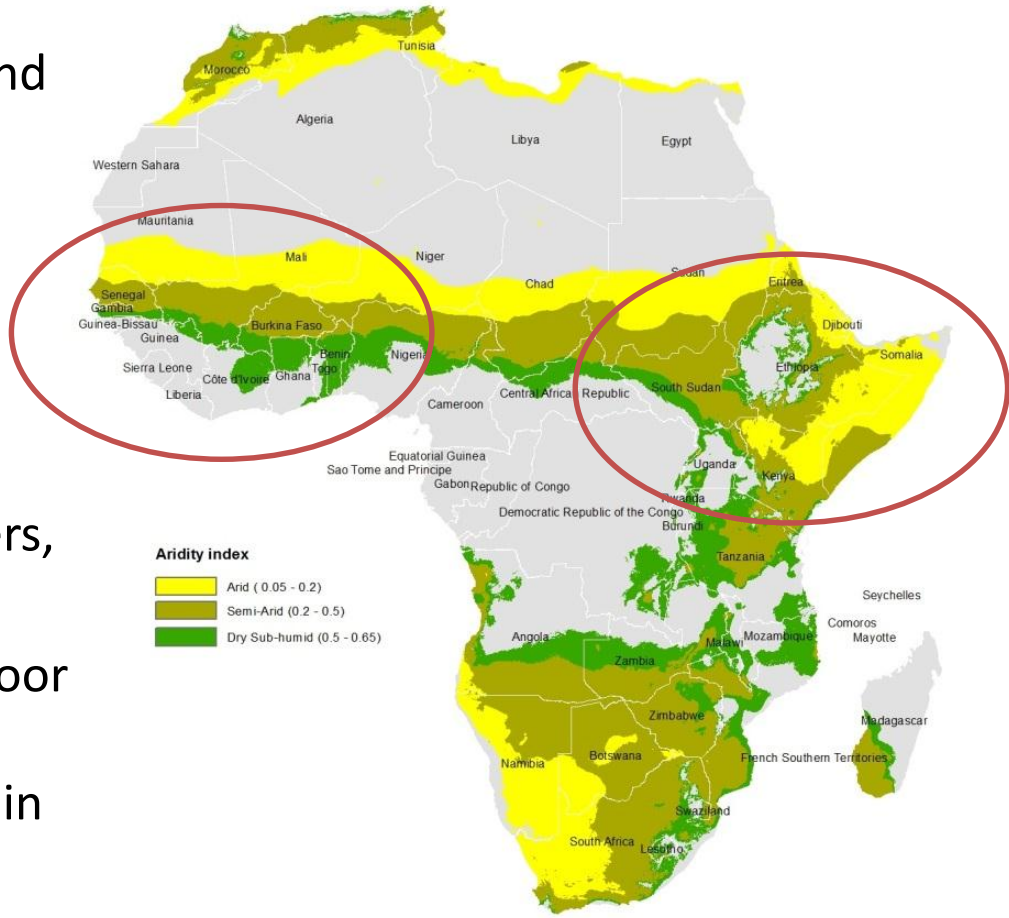
- Make drylands more able to deal with current climate shocks

AND

- Promote new, climate resilient livelihoods, possibly outside of drylands

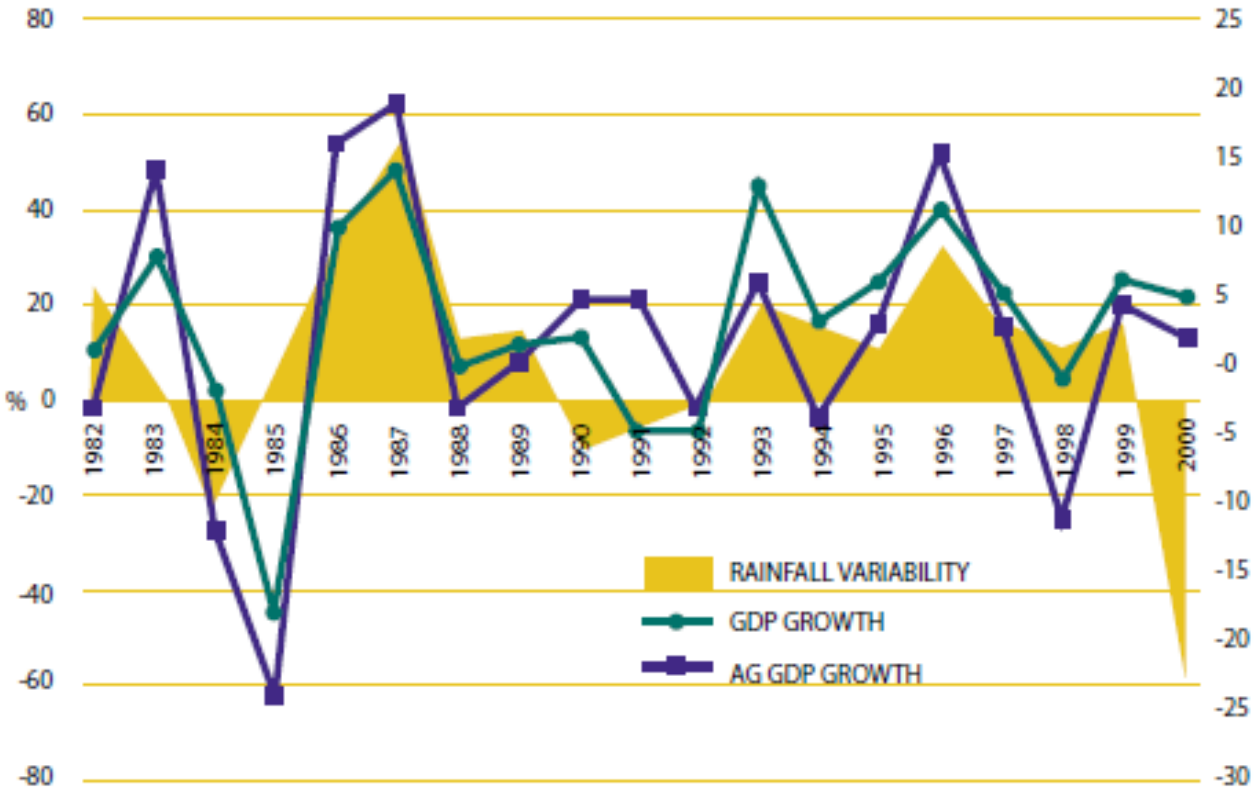
African drylands today

- Drylands (including arid, semi-arid and dry sub-humid areas) account for:
  - 43% of land area
  - 50% of population
  - 70% of cropland
  - 66% of cereal production
  - 80% of livestock holdings
- They are hot-spots of natural disasters, social conflicts, and poverty
- In particular, about 75% of Africa's poor (living on less than $1.25/day) live in countries where people living in drylands make up more than 25% of total population



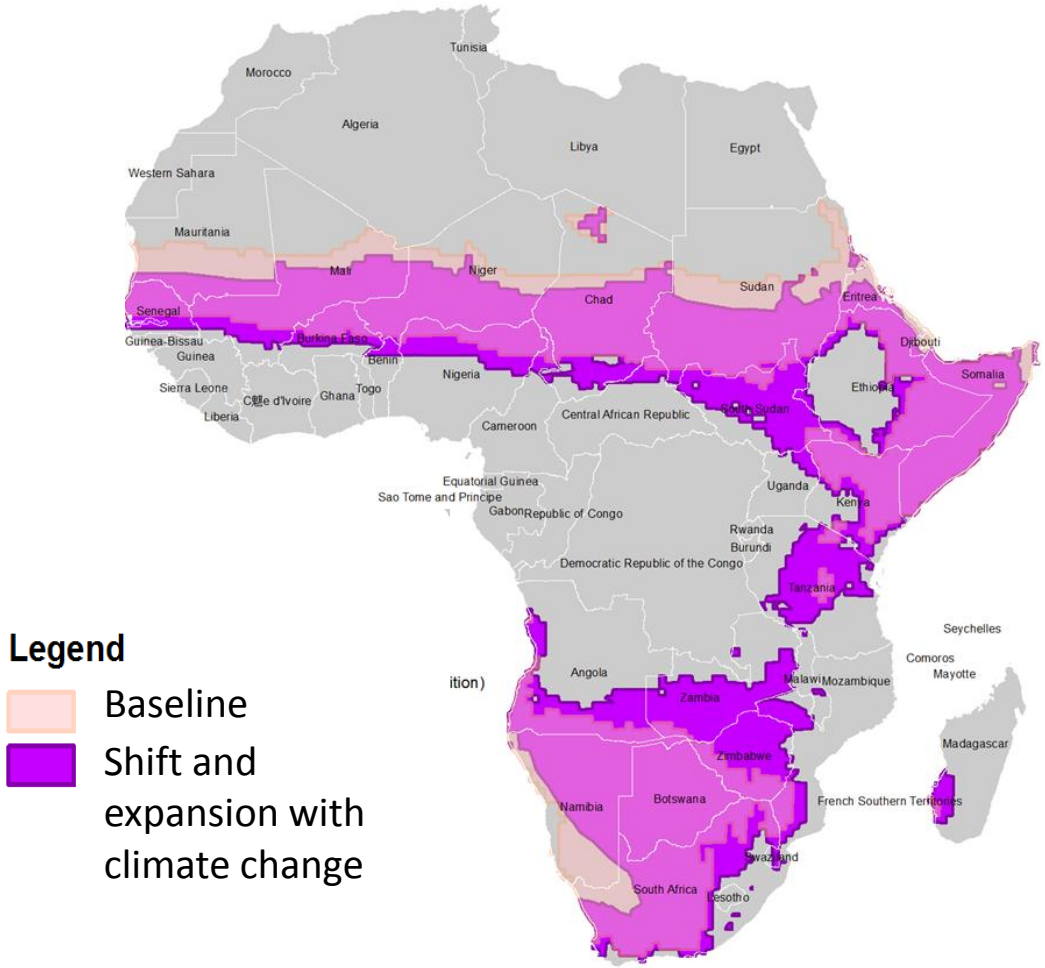
Drylands are defined based on the Aridity Index, which is consistent with UNCCD practice. Particular emphasis is given to the vulnerable areas in West and East Africa

The challenge of climate-related shocks: today…



Ethiopia: GDP growth highly correlated with rainfall variability

..and tomorrow

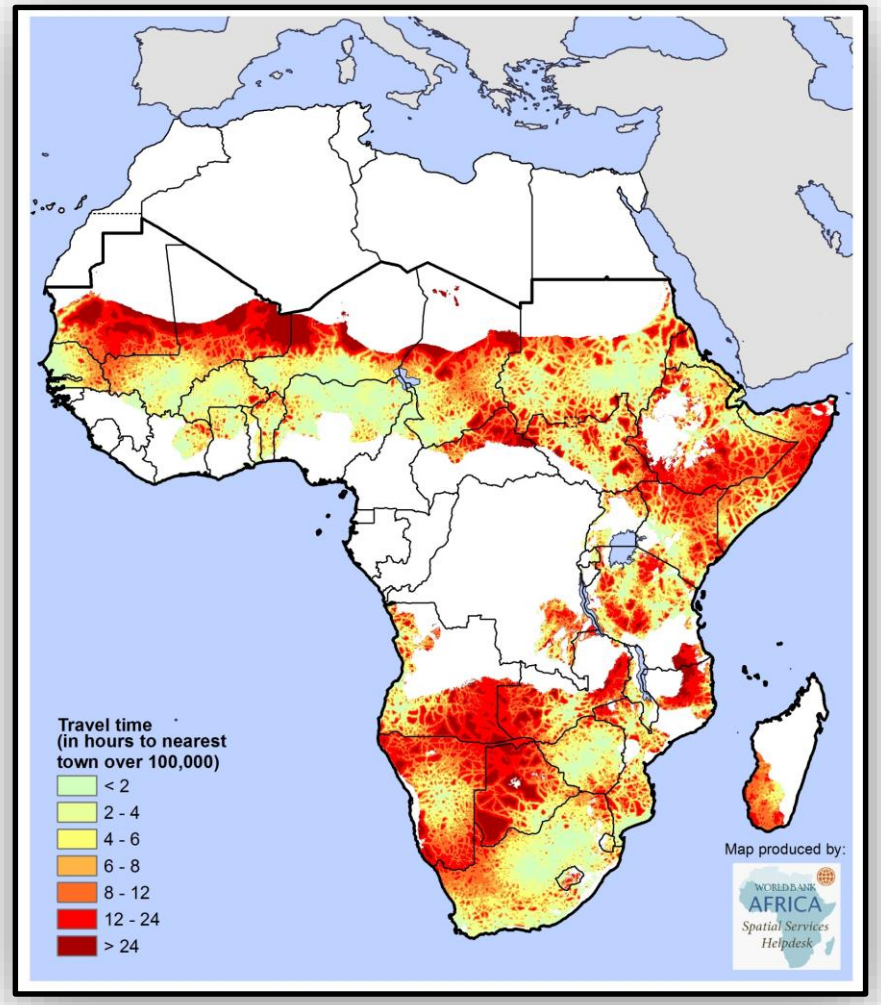


Climate change

- Climate models used to analyze a range of climate change scenarios
- Drylands areas will expand and shift as the result of climate change
- Some zones might become incapable of sustaining livestock production and intensive agriculture
- In the driest scenario, drylands extent can increase up to 20%

Additional challenges: poor infrastructure ..

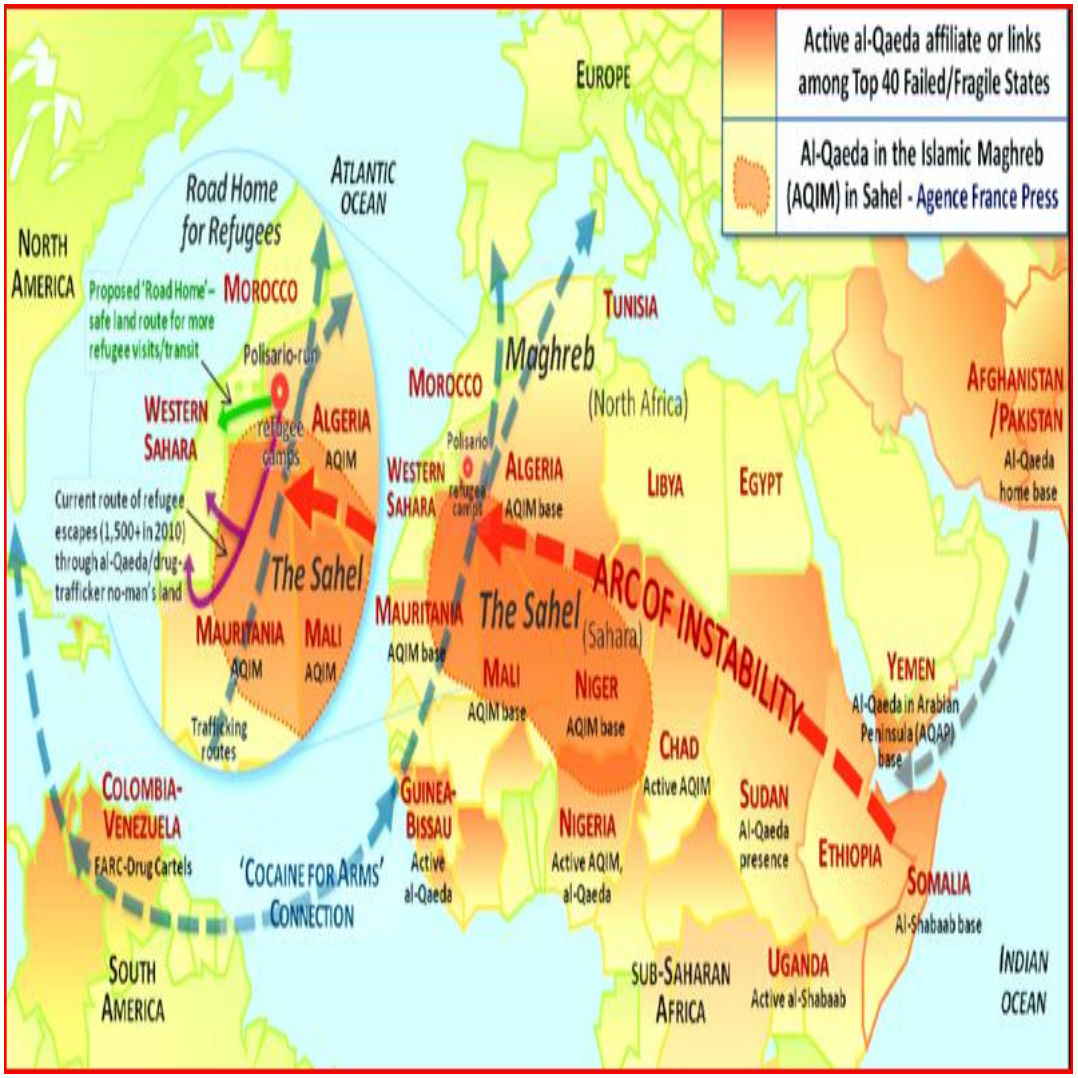
In most of dryland regions of Africa, travel time to the nearest city is four hours or more



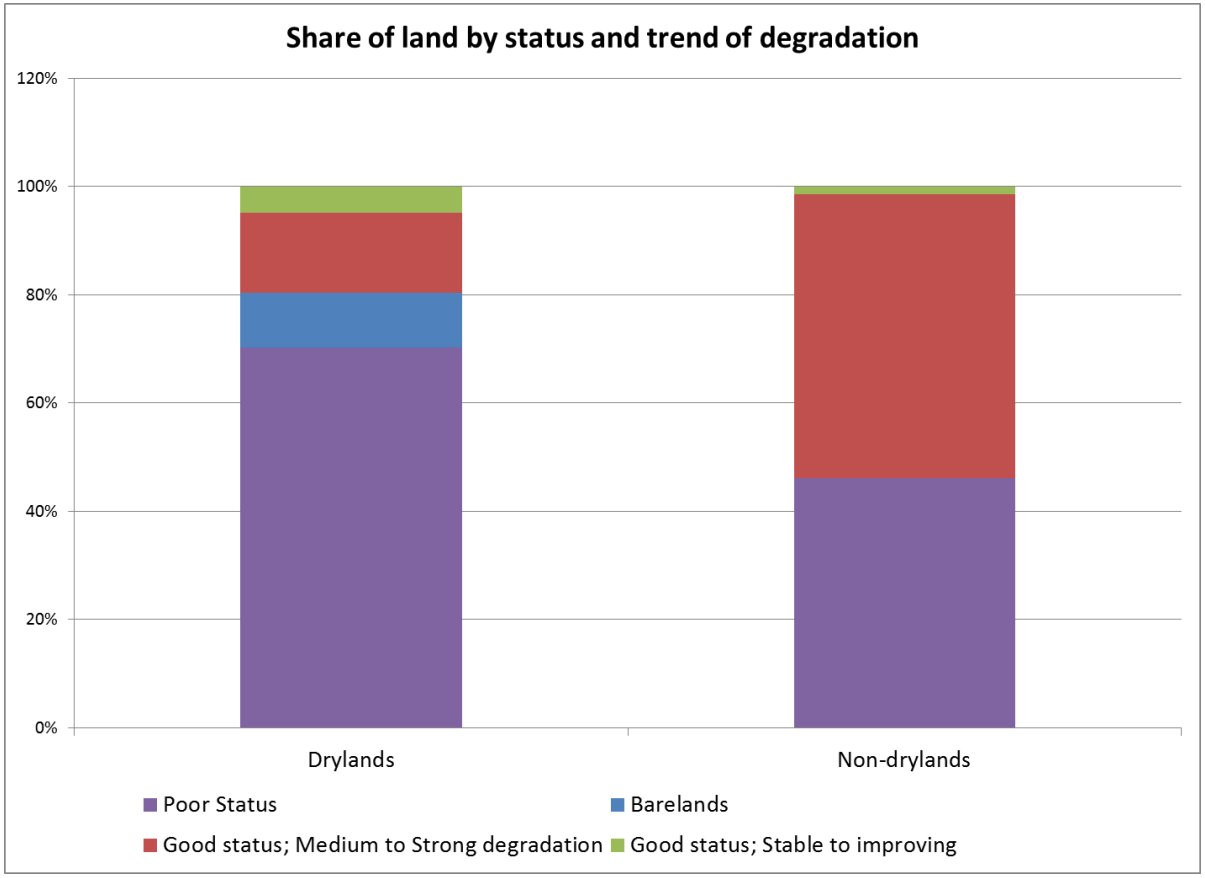
Source: HarvestChoice; International Food Policy Research Institute (IFPRI) , September 2011.

..social instability and conflict..

- Drylands populations increasingly prone to civil conflict, insecurity, and criminal activities
- Arc of instability' reaches across Africa including Somalia, Sudan northern Nigeria and the Sahel



..and degradation of the natural resource base



Proportion of degraded land is much higher in drylands

Source: FAO, GLADIS dataset

The path towards resilience: managing the transition

Vulnerability: 3 dimensions, 3 drivers

Change drivers	Exposure	Sensitivity	Inability to cope
Population growth	↑		
Climate change	↑		
Economic transformation		↓	↓

- Population growth and climate change will increase the number of vulnerable people living in drylands
- Economic transformation will reduce the number of people living in drylands who are sensitive to shocks and unable to cope

The dimensions of vulnerability

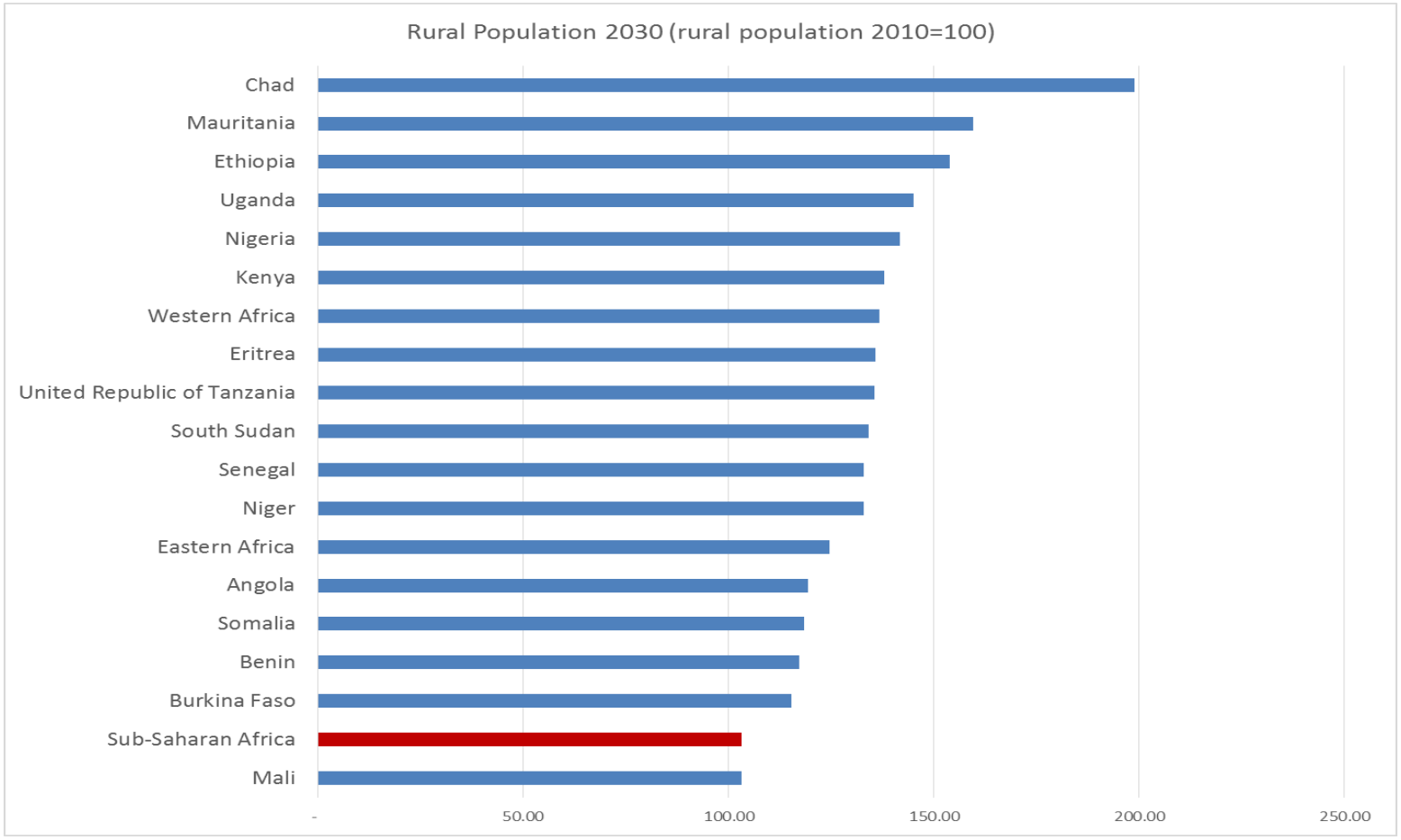
Dimension	Proxy metric
Exposure	Population living in drought-affected areas
Sensitivity	Population dependent on drought affected activities (pastoralism, agro-pastoralism, crop farming)
Coping capacity	Population below the poverty line

Focusing on snapshot poverty is misleading

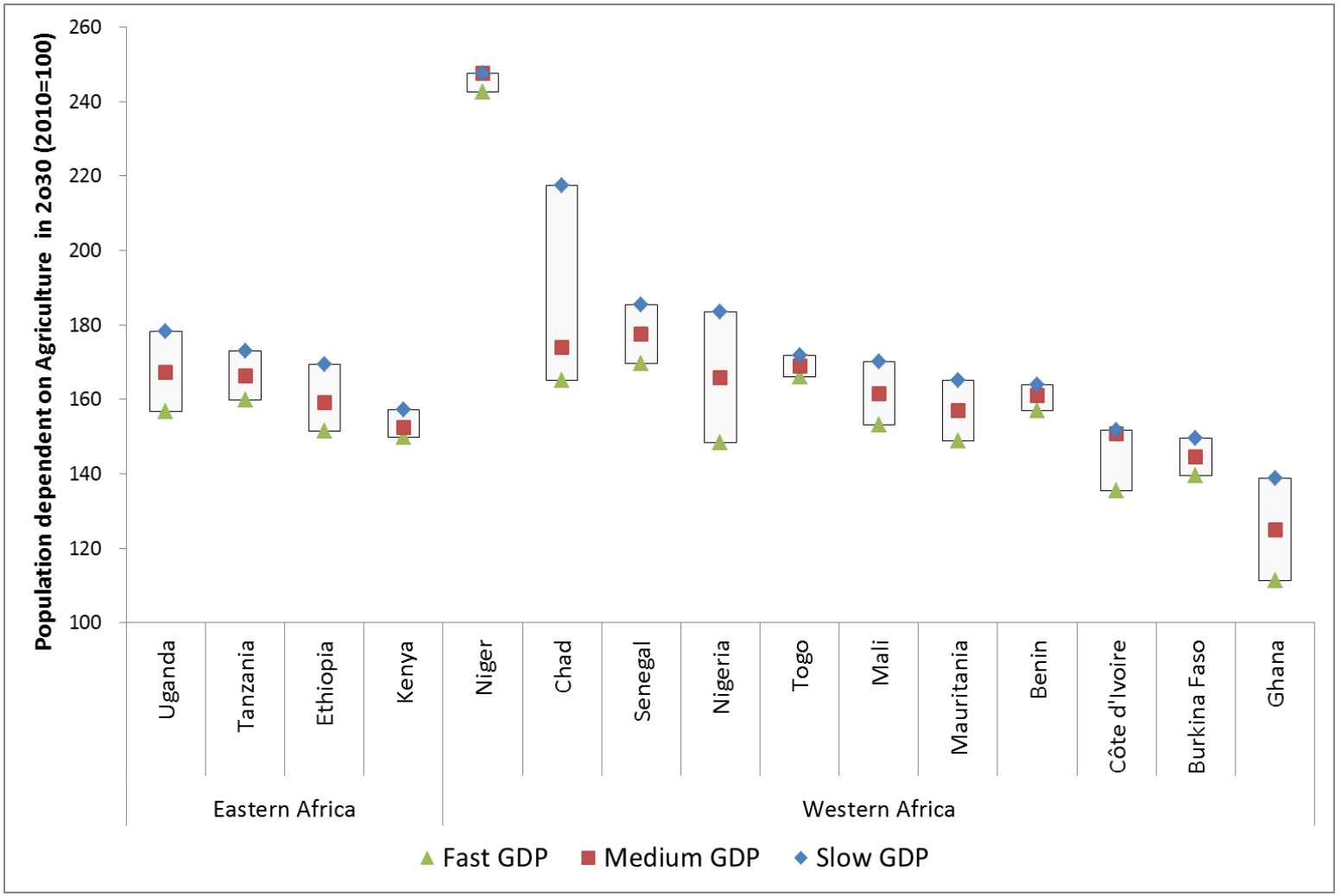
Ethiopia: share of people moving in and out of poverty, 1994-2009

Aggregate Classification	Classification	Share
Non resilient		**45%**
	Persistent negative	6.3%
	Hit, no rebound	15.2%
	Swinging	22.6%
Resilient		**55%**
	Hit, with rebound	14.6%
	Stable exit	14.3%
	Persistent positive	27.0%
Total		100%

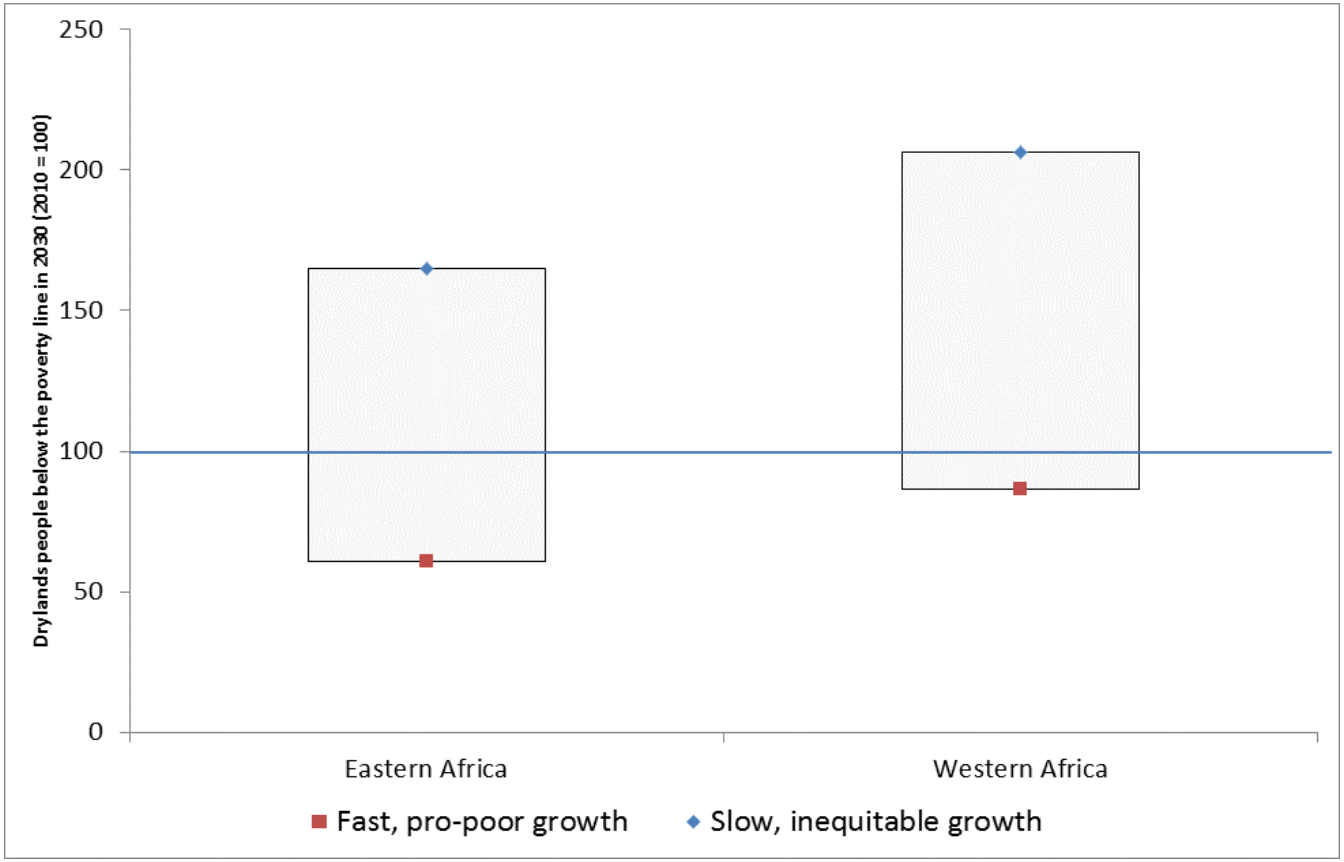
Relatively slower urbanization rates in drylands projected to increase exposure to shocks



Growth will reduce sensitivity to shocks, but not fast enough

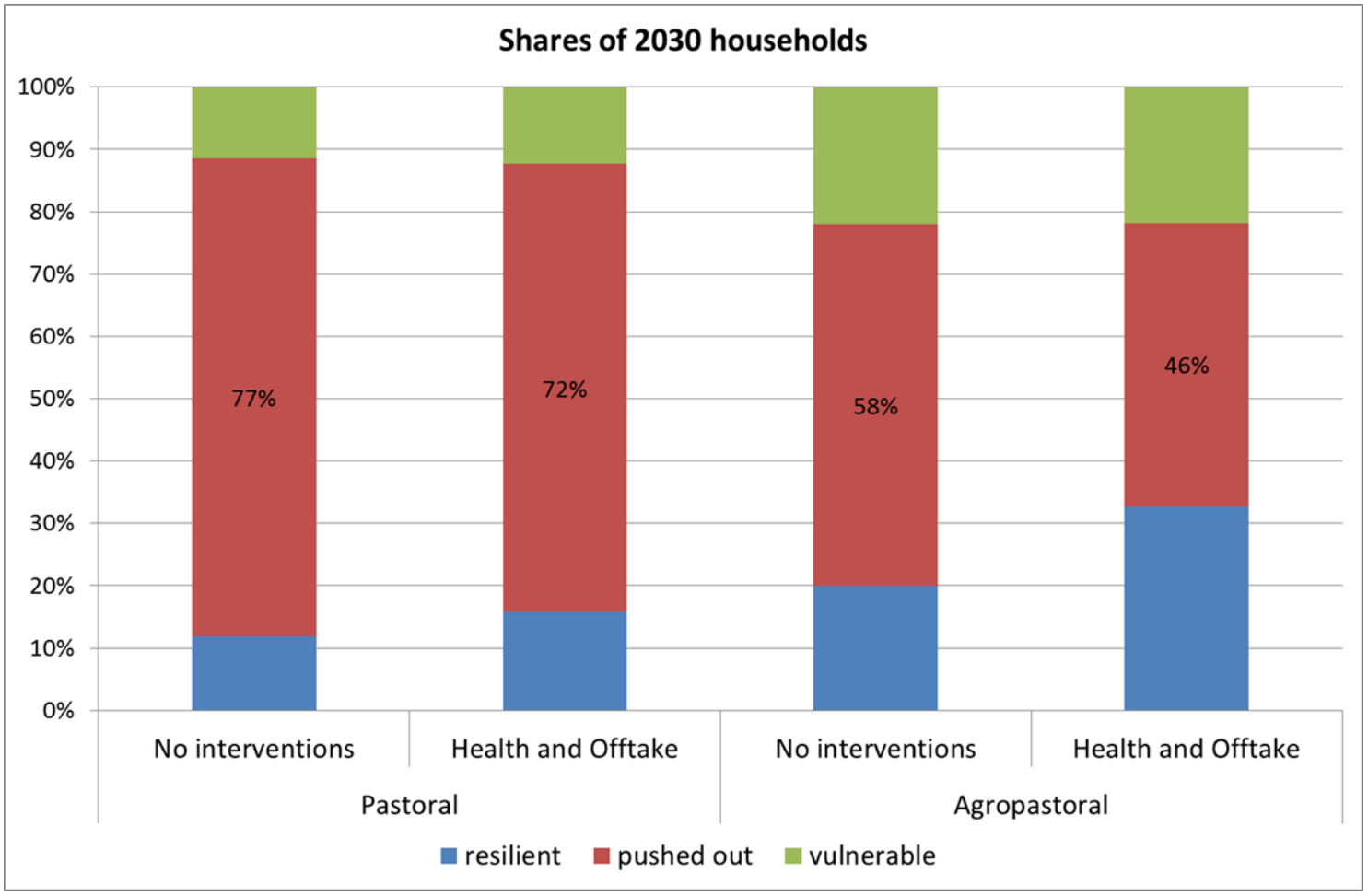


Growth can increase coping capacity, but only if it is fast *and* equitable

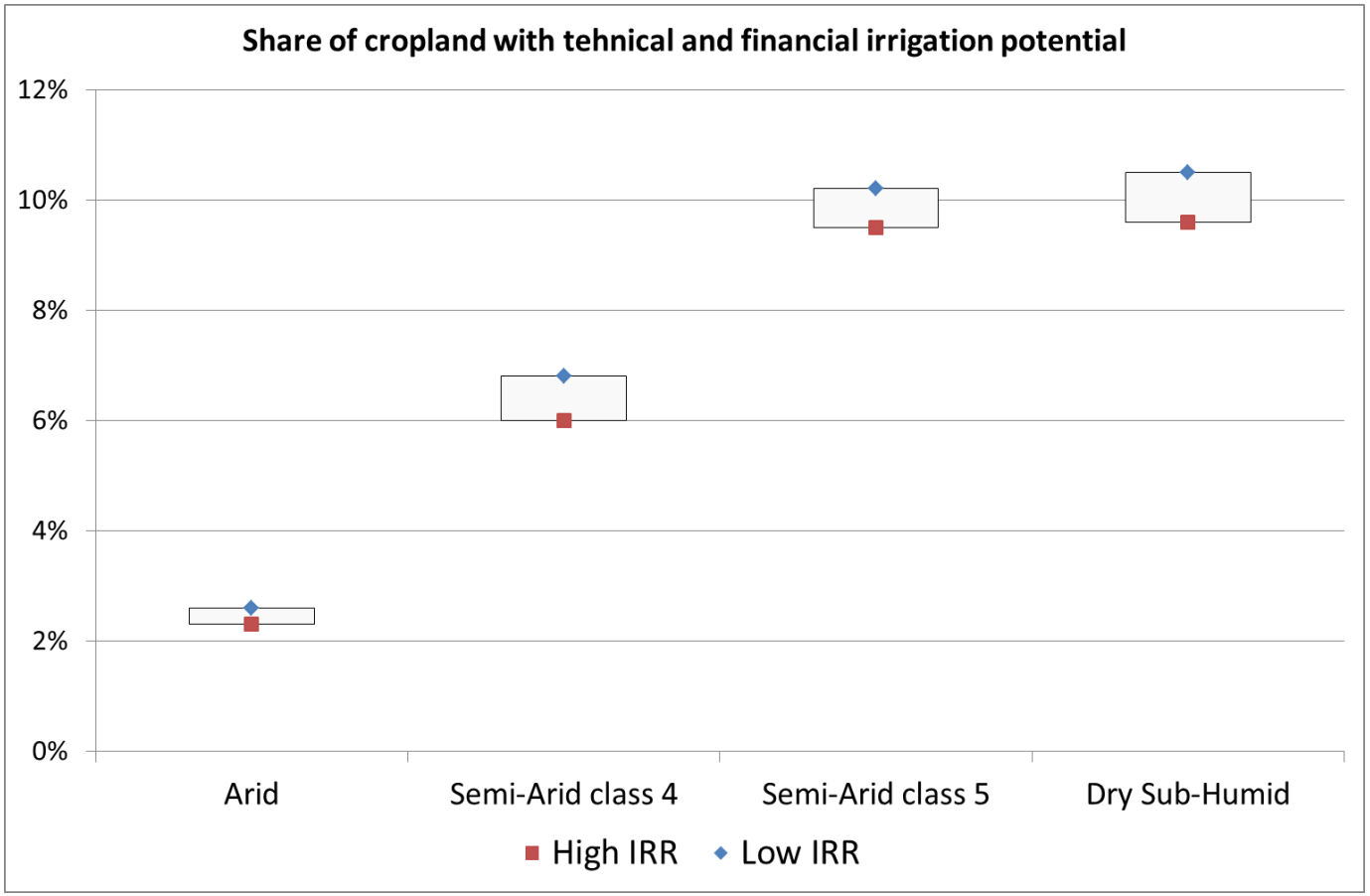


How can existing livelihoods be made more resilient?

Interventions to boost livestock productivity can help, but pressure to exit the system will still be significant

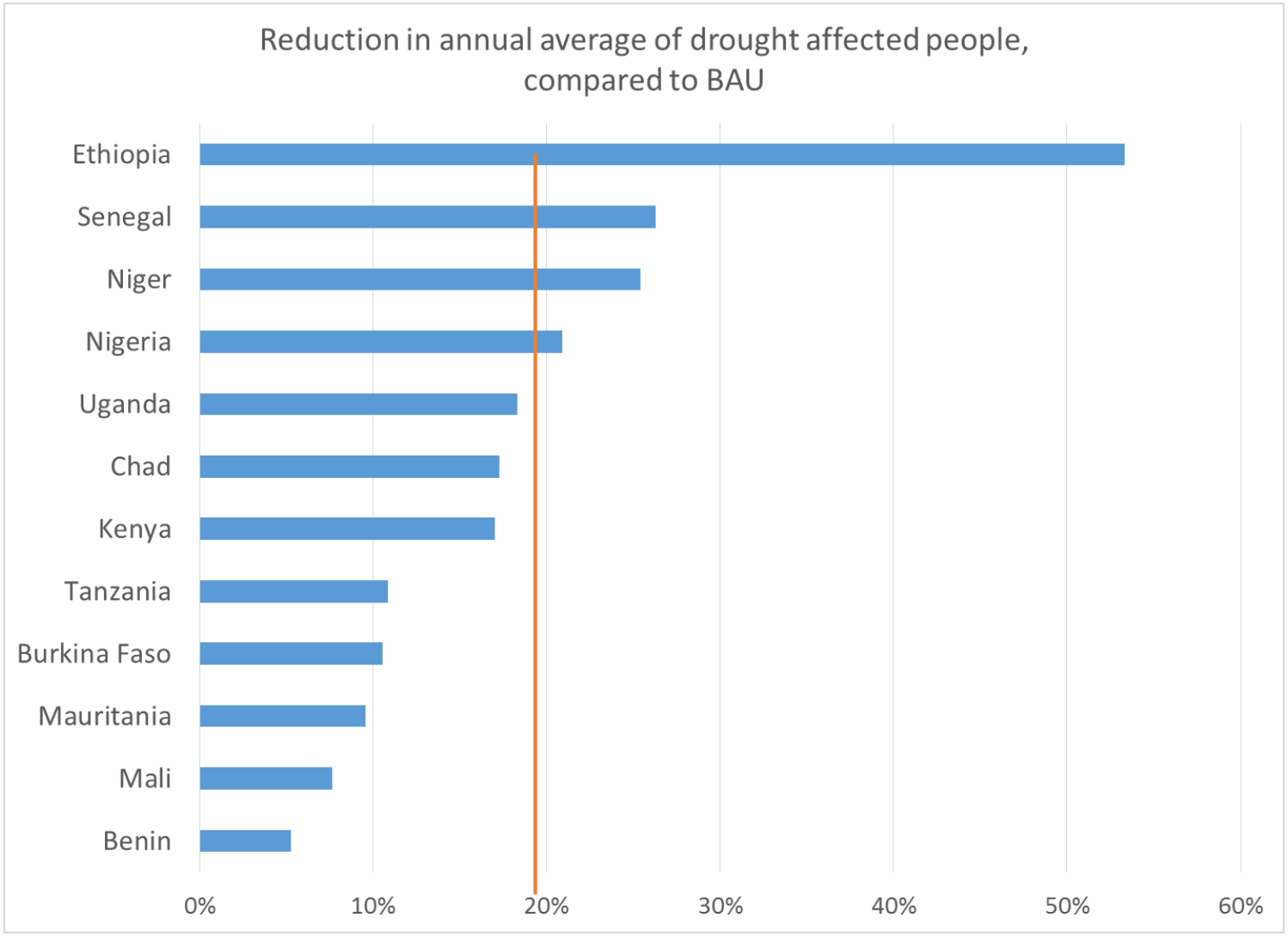


Irrigation: technically and financially viable to quadruple area, but the overall impact will be modest

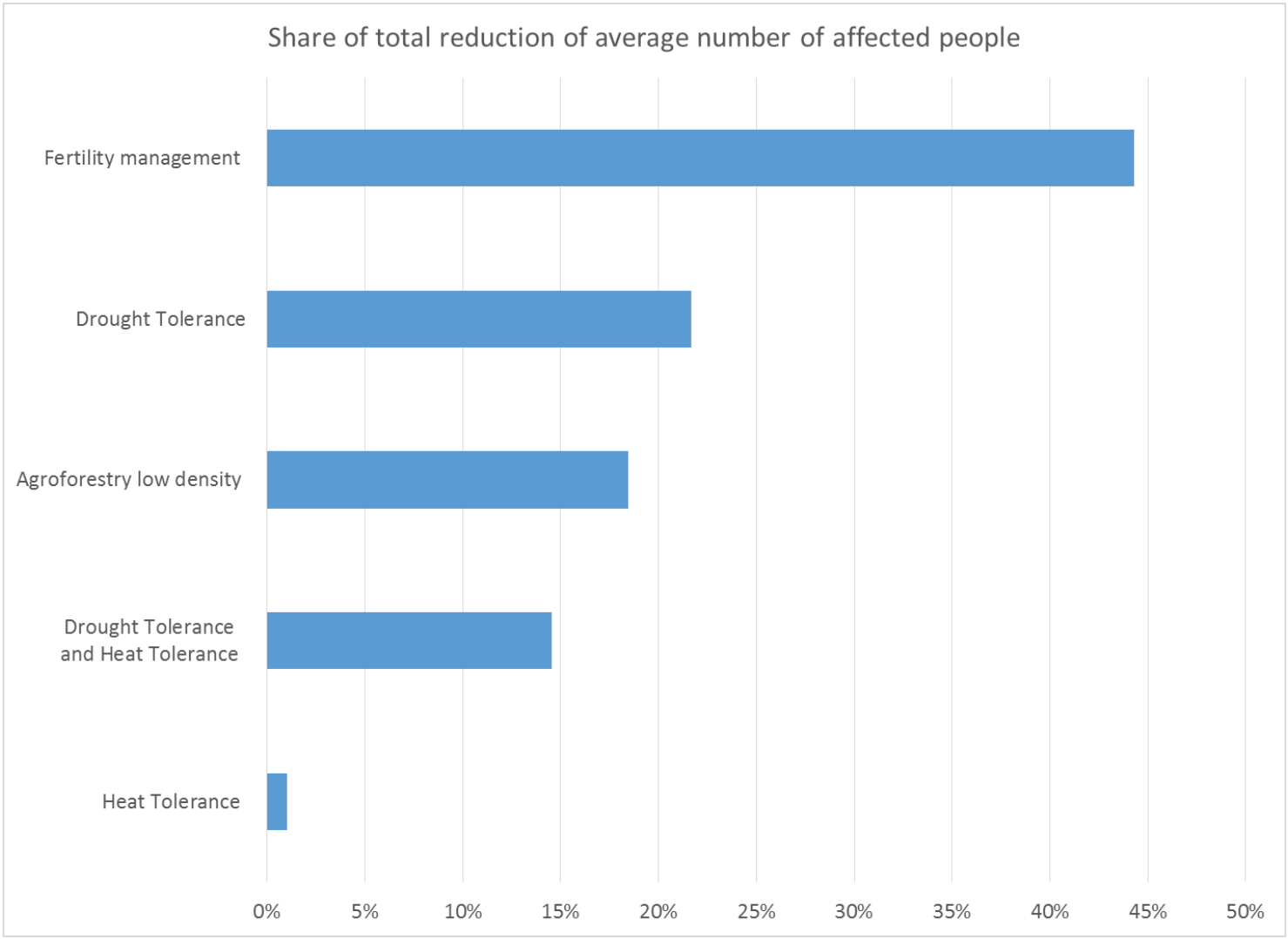


About 60% of the potential for irrigation expansion in East and West Africa is in drylands
About 85% of this area (about 8 million ha) suitable for small scale systems

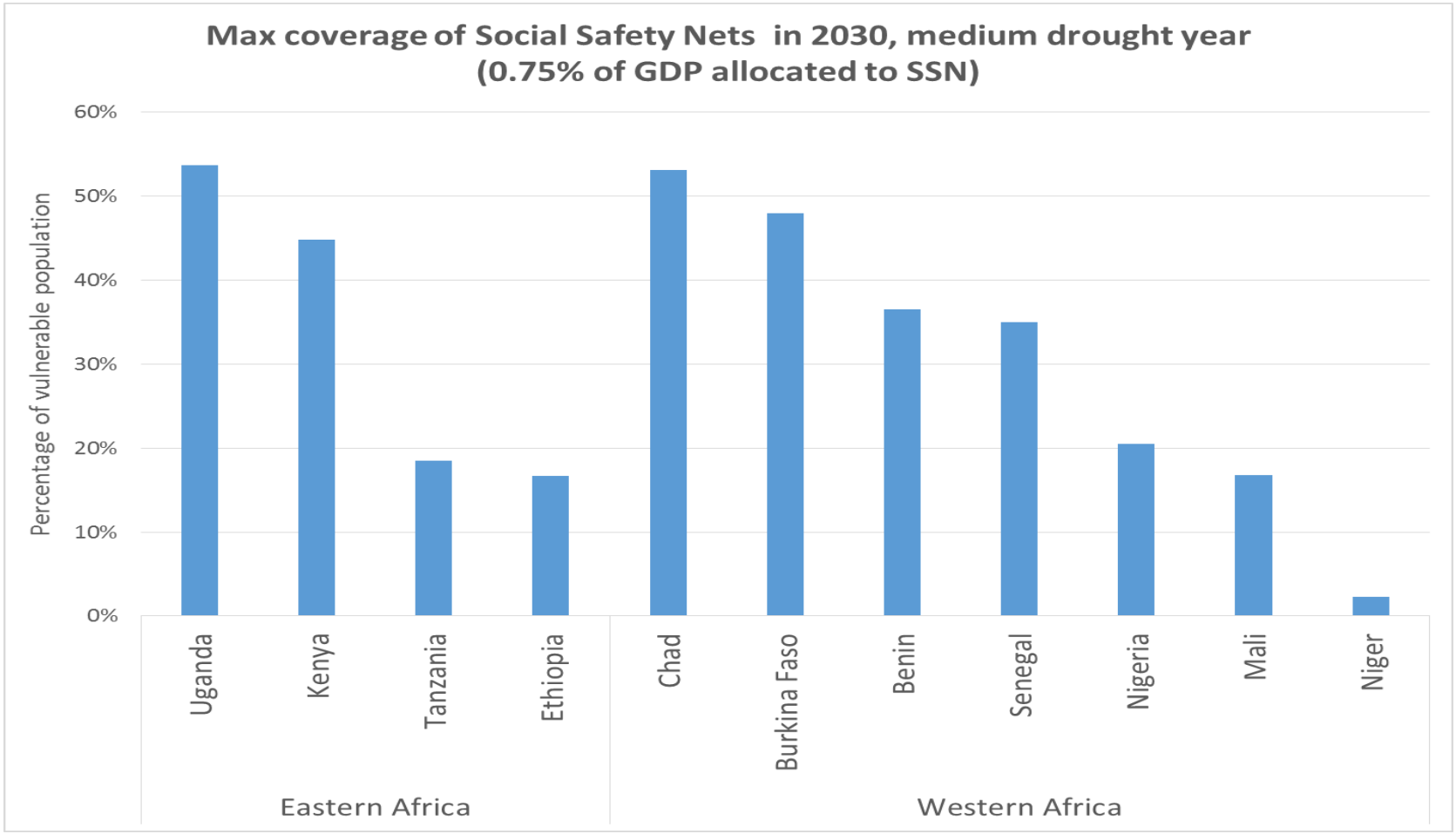
Rain-fed farming: reducing drought impacts by 20-30%...



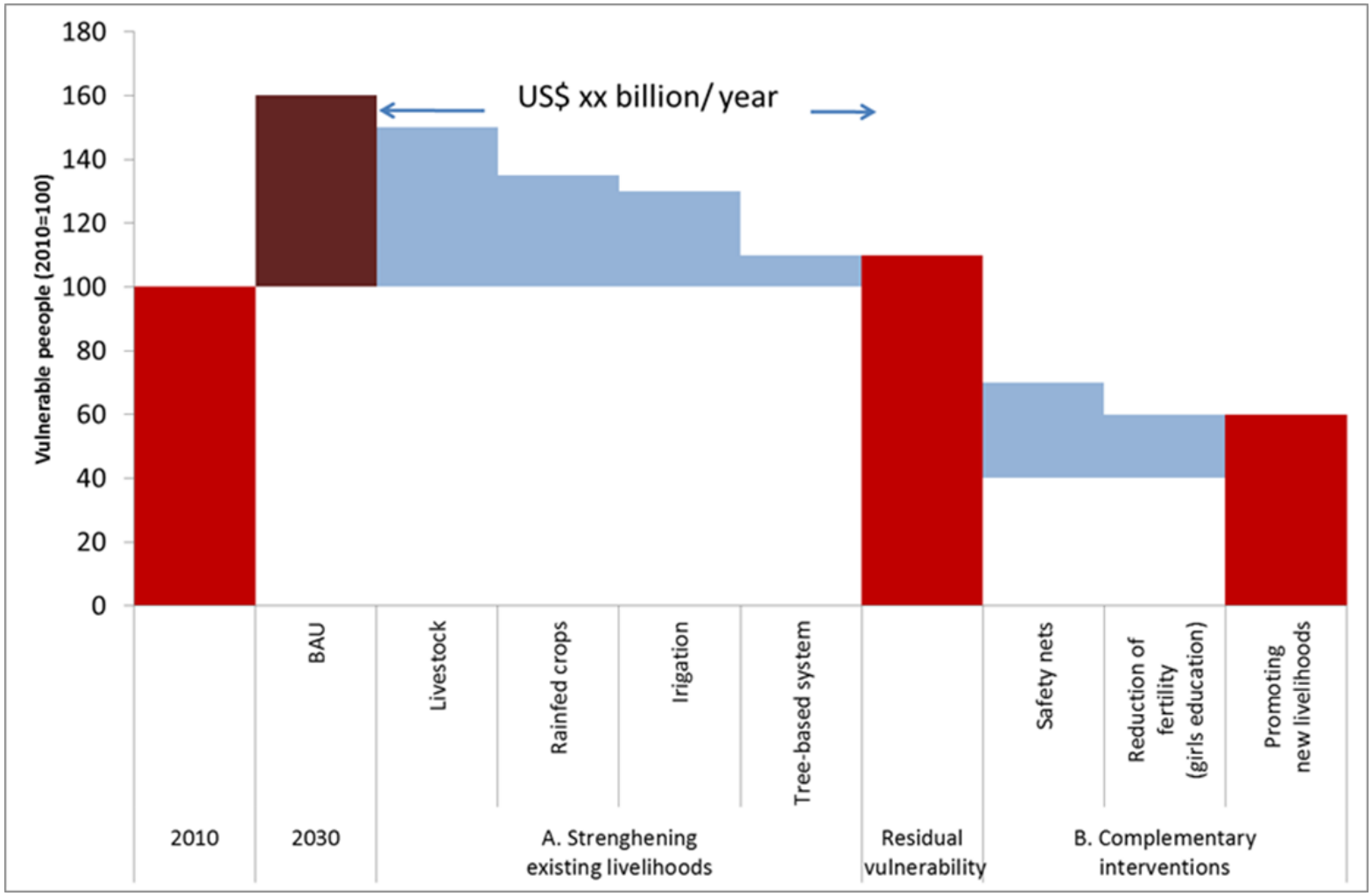
..through improved farming practices including trees..



Social protection: key for resilience, but likely to be strained in the future



Final pending tasks: assessing costs and benefits of different interventions



Figures are purely illustrative

Provisional conclusions

- Growth on its own is unlikely to decrease drylands vulnerability; climate change might make things worse, more so towards mid-century
- Considerable scope to reduce vulnerability with interventions to strengthen existing livelihoods (pastoralists, agro-pastoralists, crop-farmers)
- Failure to mobilize the necessary financing (estimated $xx / year) will increase the need for humanitarian interventions
- Social protection systems will need to be scaled up, to
  - Encourage uptake of technologies by the poorer segments of drylands population
  - Provide safety nets for those who may not be able to benefit from those technologies
- But these will not be sufficient. Additional measures will be needed to generate employment opportunities (and outside of drylands); **these will have to be climate-proofed**
- Countries will need to determine the right mix of support to existing and new livelihoods, using tools such as those developed by this report

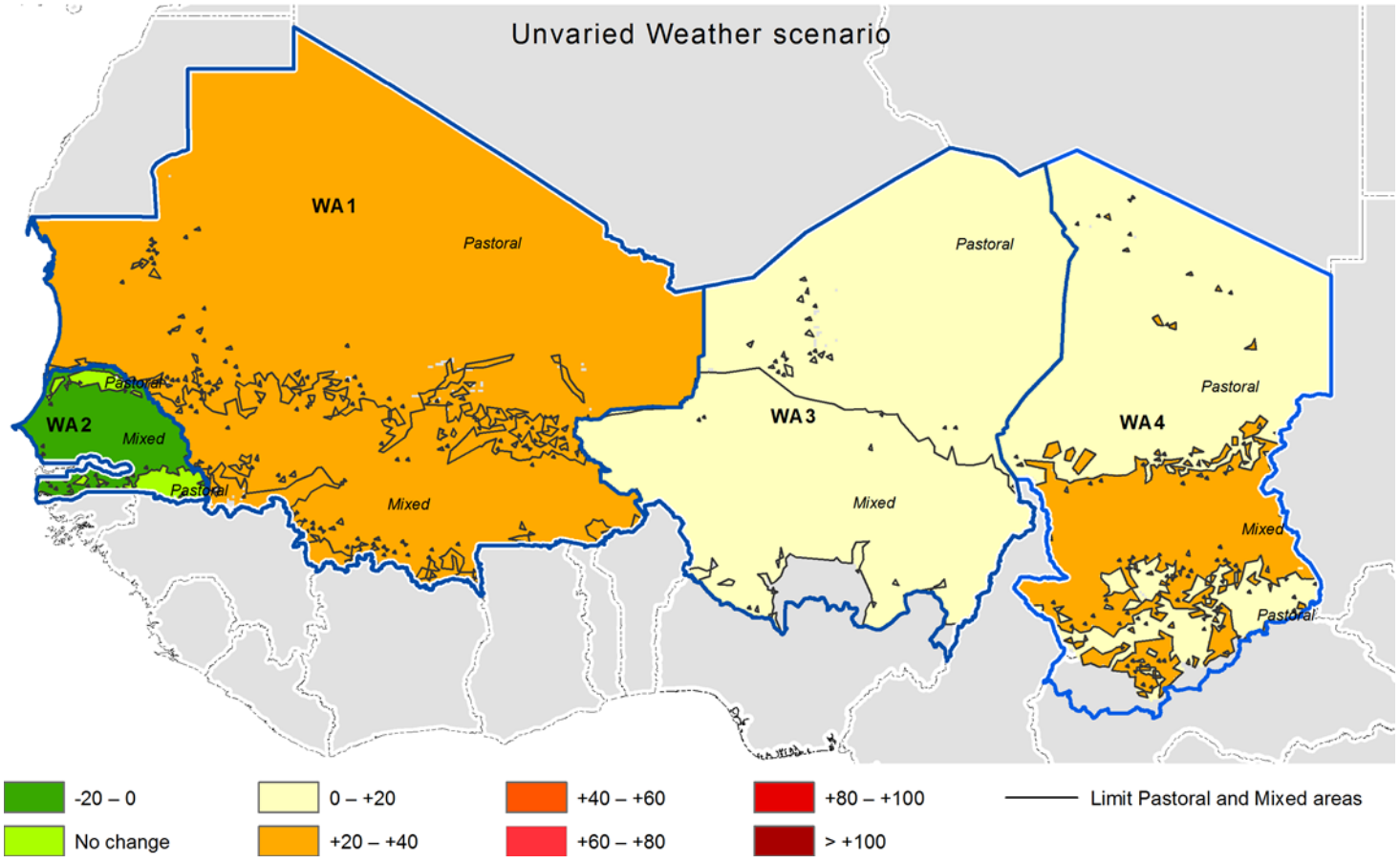
For further information

http://www.terrafrica.org/knowledge-management/african-drylands-report/

Annex slides

Pastoral areas: pressure on feed resources (often leading to conflict) projected to increase…

Index of TLU located in areas where feed resources are insufficient, average 2012-2030
(using the sequence 1998-2011 as baseline = 100)



..leading to unsustainable levels if climate conditions are unfavorable

Index of TLU located in areas where feed resources are insufficient, average 2012-2030
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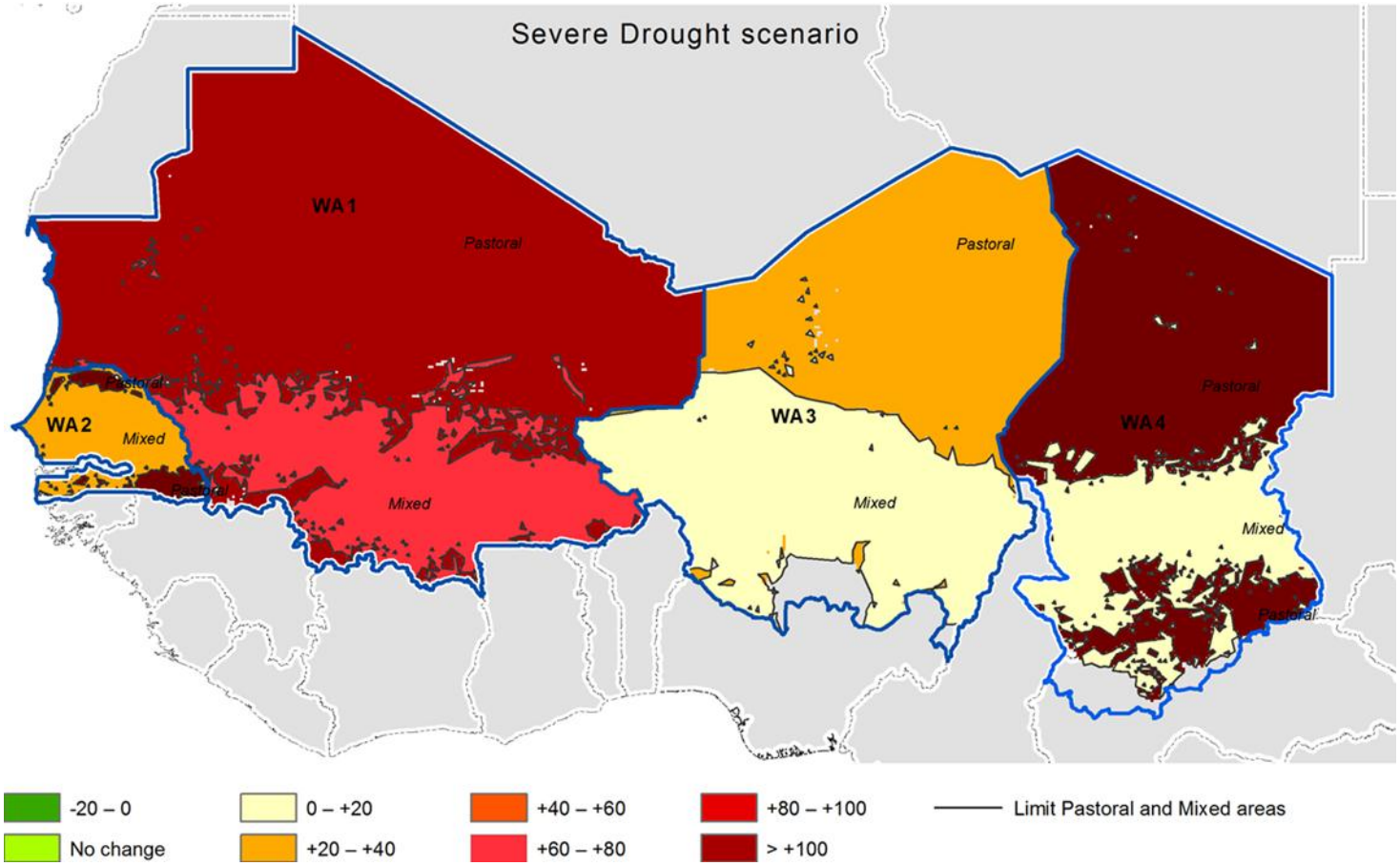

Avoiding maladaptive practices in rainfed farming