

Laikipia

Smallholders in rural Kenya and the problems they face

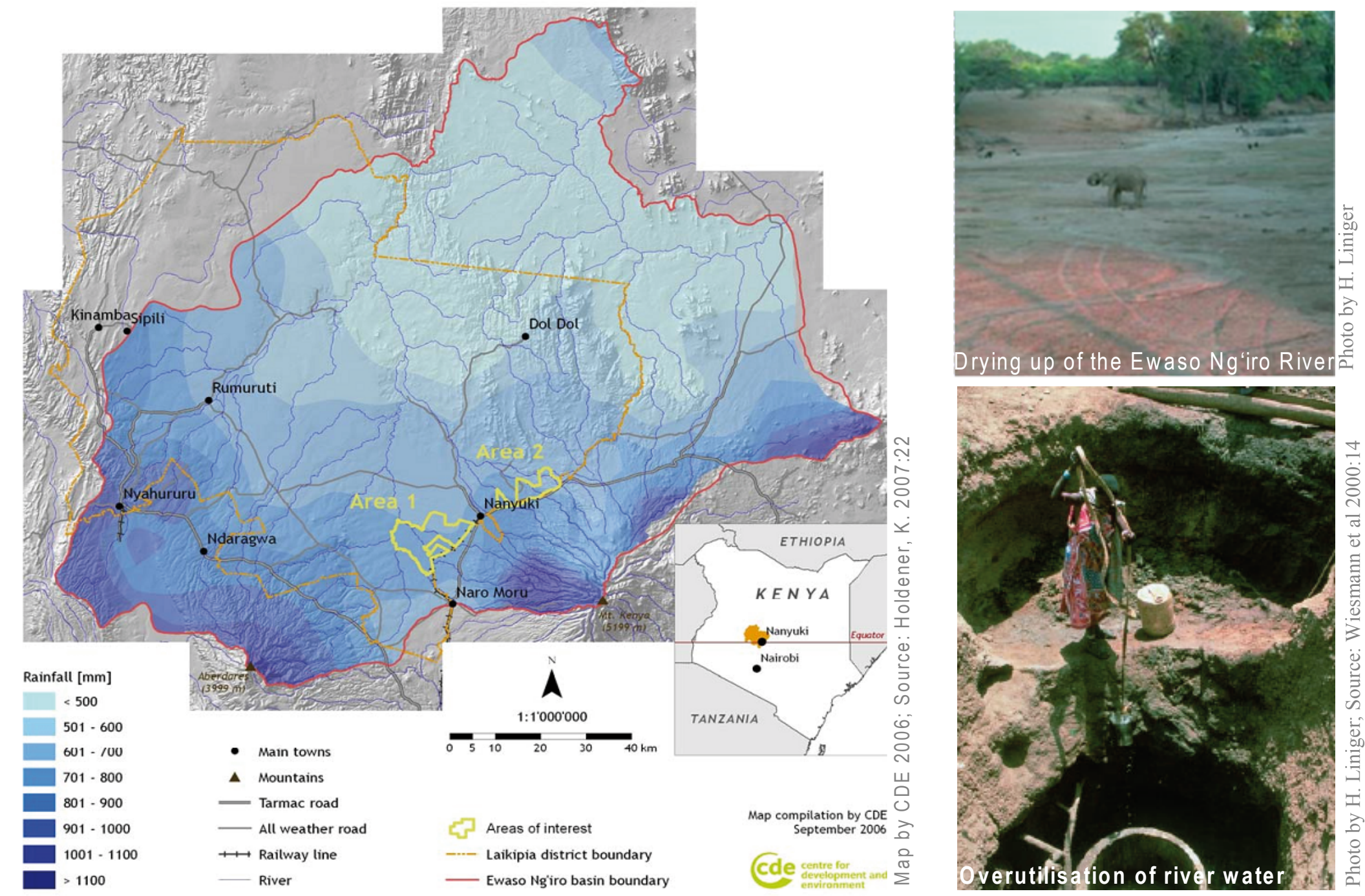


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Like many semi-arid areas in developing countries Laikipia has experienced a rapid socio-economic change increasing the pressure on natural resources. Respective changes in land use systems pose a threat to ecological sustainability and livelihood security of smallholder settlements. New approaches to better understand rural development in terms of the development crisis evolved which put the rural poor at the core of their analyses and frameworks.

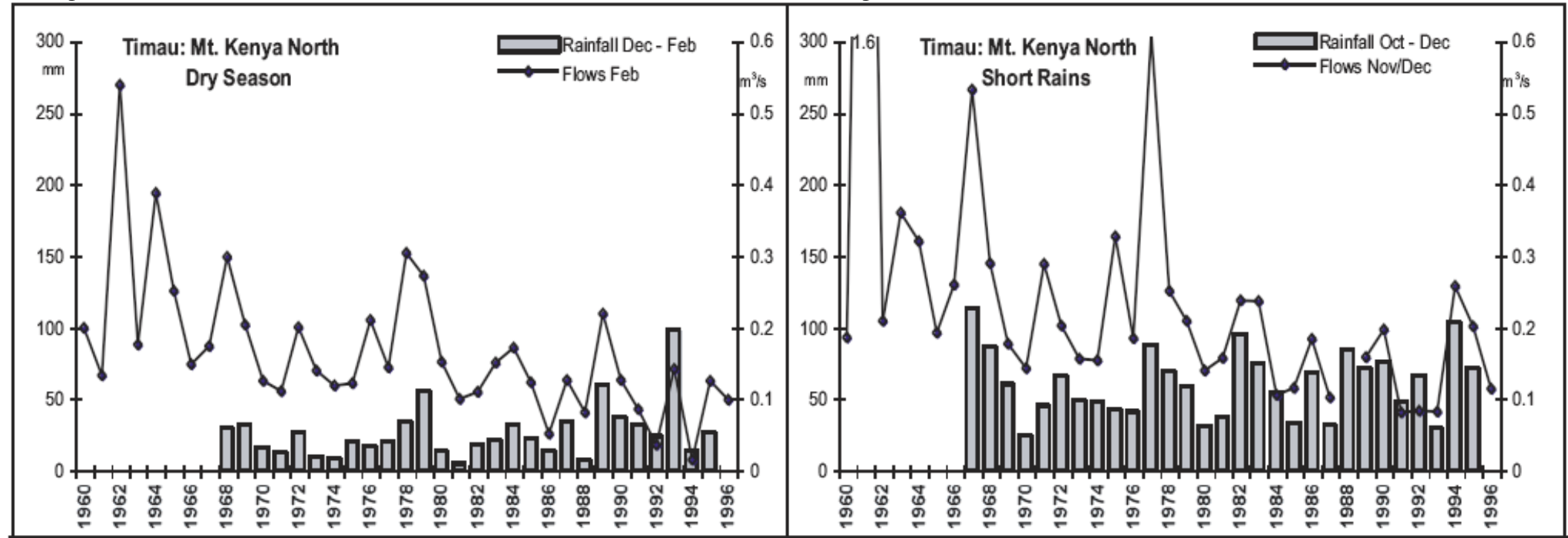
Small-scale farmers are key actors in rural Africa. In semi-arid Laikipia they face serious ecological problems like high variability and unreliability of rainfall, land degradation and high erodibility of soils. Water is considered to be the most limiting factor for smallholders to secure their livelihoods. The pressure on water can be attributed to (1) climate change and (2) changes in land use induced by waves of migration.

Zones with annual means of precipitation in the Mt. Kenya catchment



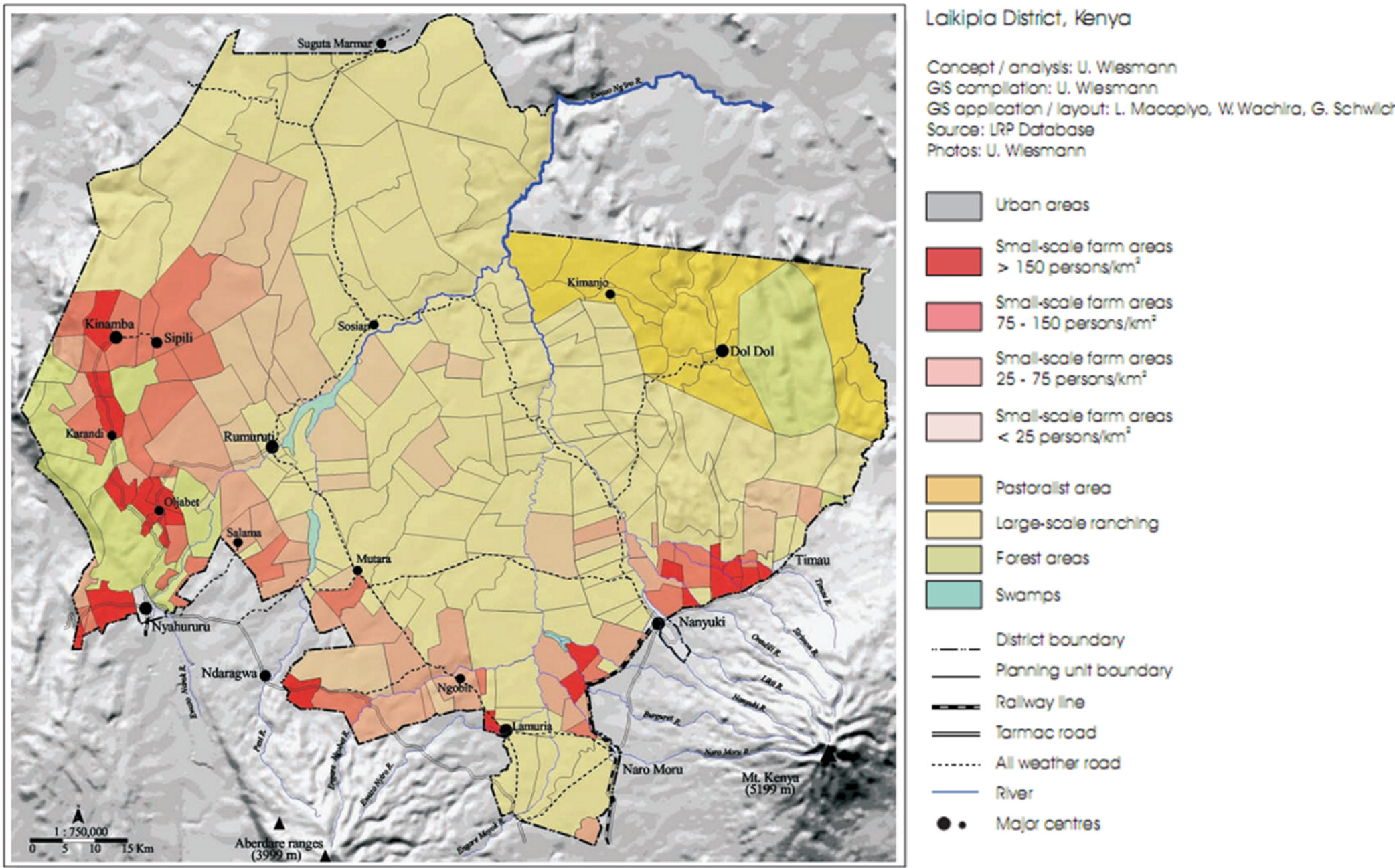
(1) Climate models predict profound changes of freshwater availability due to changes in rainfall patterns. Flood peaks are becoming more extreme and pose a threat to crops, settlement and infrastructure along the river. Opposed to that, dry periods are becoming longer and more severe. The probability of drought is rising. Hence, not the amount but the variability will be crucial. Studies show a decreasing trend in the lowest dry season flows. Dry season flow in the arid lowlands declined from 9 m³/s in the 1960s to less than 1 m³/s in the late 1990s. In recent years, the main rivers have dried up for certain periods causing trans-regional ecological problems.

Dry Season Flow and rainfall, Mt. Kenya North



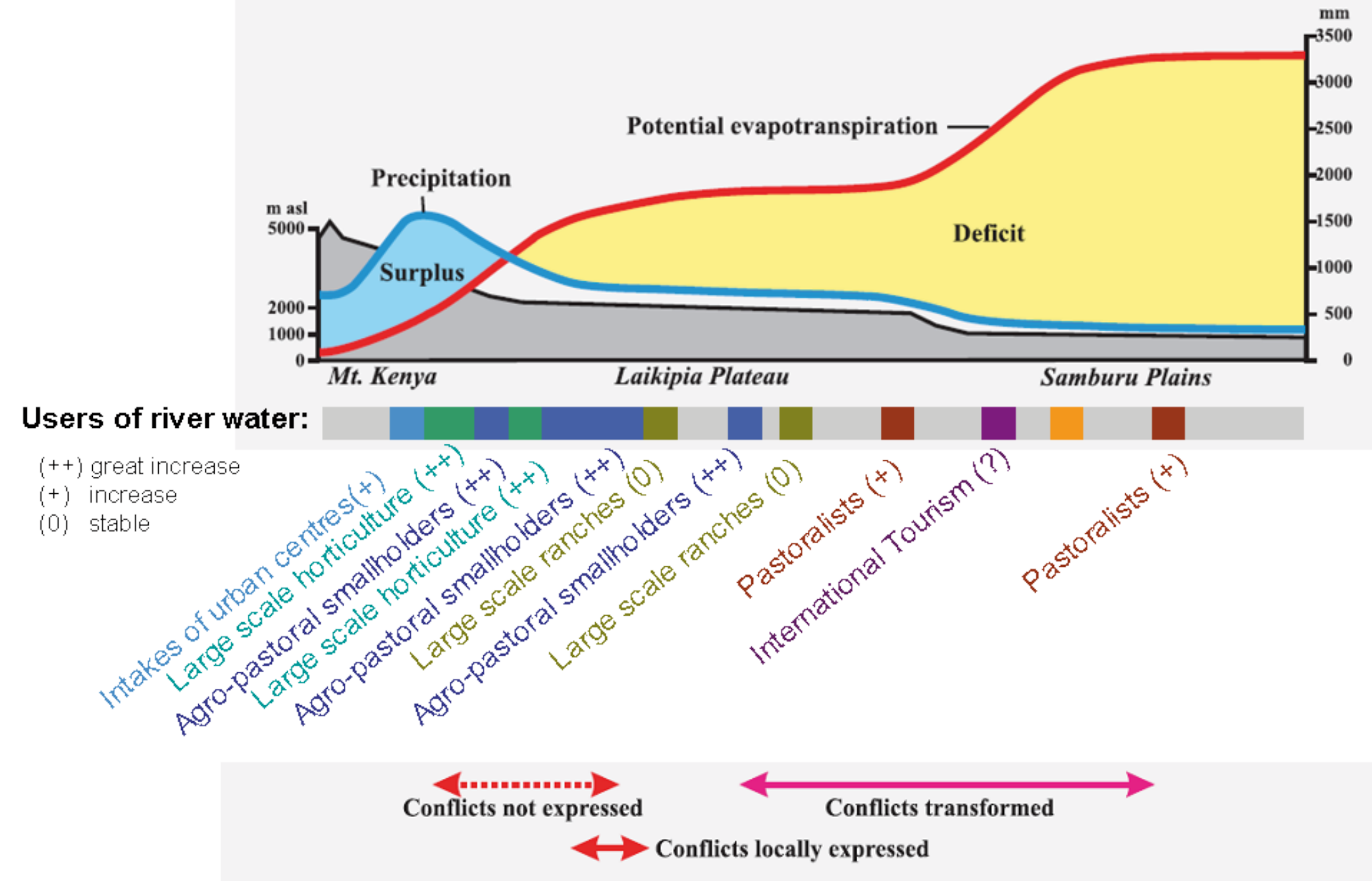
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Population density and land use in Laikipia



(2) Rapid population growth has led to profound changes in land use systems and increased irrigation. This has put growing pressure on already scarce natural resources. In the dry season, the perennial rivers are the only source of surface freshwater in Laikipia and further downstream in the arid lowlands. Studies in the area since the 1980s reveal that water is not used sustainably and that indigenous potential to adapt to the ecological context is limited. Land degradation and water shortage then lead to upstream - downstream conflicts and human - wildlife conflicts.

Ewaso Ng'iro Basin: Annual water balance, water users, conflict zones



The expanding horticulture industry with 24 large firms in Laikipia is offering increasing formal employment opportunities. Studies suggest the industry can help reduce poverty. However, this comes at a cost of increasing strain on water resources. In this context the impacts of the horticulture industry on smallholders in Laikipia merits further attention:

- Considering the expanding horticulture industry whether and how have multi-strategies of smallholders been changing in the last decades (Trend? Meaning in overall household strategy? Implication)?
- Can effects on livelihoods (poverty, sustainability) be measured and interpreted?
 - Do rural poor in Laikipia profit or are they excluded?
 - To what degree do large-scale firms further aggravate the pressure on natural resources?
 - To what extent can large-scale firms in the region be evaluated in terms of their impacts on smallholders (trade-offs)?
- Can networks and impacts be mapped? How should development interventions be designed appropriately?