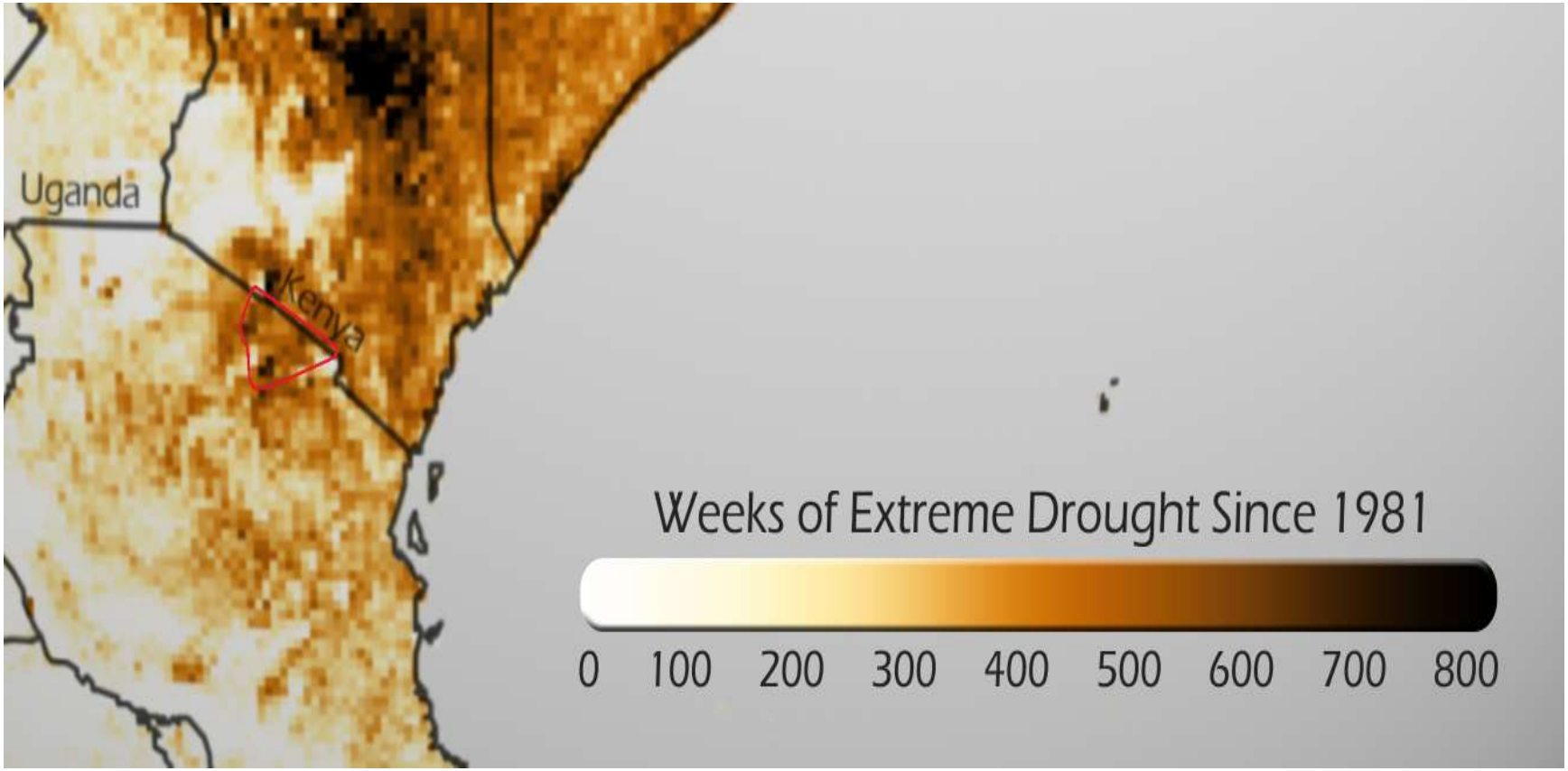
SERVANTS OF THE POOR

ECHO Agricultural Conference

In East Africa food insecurity highly correlated to rainfall and water availability, worst among pastoralists



Vulnerable households are the majority in pastoralist villages

- The pastoralist areas of East Africa have suffered between 400 and 800 weeks of extreme drought since 1981, and much of that in the last decade.
- Drought is normal in the area, but there have been two periods of intense drought within the last decade (2005 – 2006, and in 2009).
- In 2009, 80% of cattle were lost.

What level of hunger do you know?

48% of female-headed households went to sleep hungry in the previous month, while only 30% of male-headed households did.

53% of female-headed households had no food at one point, compared to only 35% of male-headed households.

41% of female-headed households went a day and night with no food, while only 30% of male-headed households did.

72% of female-headed households ate smaller meals or fewer meals in the previous month, compared to only 51% of male-headed households.

71% of female-headed households worried they would not have enough food in the coming week, compared to only 53% of male-headed households.

The lower the education of the household heads the higher the level of food insecurity.

In agricultural villages, mean food insecurity index was 2.8 out of 8; in pastoralist villages it was 6.8 out of 8.

- Those HH in greatest need have least capacity to adopt innovations. Single women-headed households were most vulnerable.
- If decades of agricultural development work in Africa have shown us anything, it is that there are no easy answers, nor any single panacea.
- Need for simple but multi-faceted solutions replicable by the poor.
- Perhaps a basket of options? New skills set?
- Community-wide solutions vs HH solutions

Mobilizing Community Natural Resource Management Planning

Community animal health workers mobilized to address common ailments & treatments

Mobilizing for ECF immunization to reduce calf losses from >50% to <10%

Rural poultry vaccination against Newcastle Disease; 70%→10% losses

Sand dams:

a means to harvest water for improved access for irrigation, livestock, trees, gardens and human domestic use, and stimulating environmental regeneration

Hafirs:

a low-cost household water harvesting technology that can store up to 10,500 liters, enabling households to maintain small gardens through the dry season.

Why hafirs?

Large Plastic Tank

$125

per 1,000 liter capacity

Tank of Cement and Bricks/ Ferro-cement Tank

$65

per 1,000 liter capacity

Hafir

$9 per 1,000 liter capacity

A 10,000 liter hafir can be constructed for the cost of 3 local goats.

This will provide 100 litres per day for 100 days or 200 litres for 50 days, or 50 litres for 200 days.

Hafirs are designed to harvest water from the fields or from the rooftops.

Place the hafir in a low area away from easy access of children and small animals.

How to Construct a Hafir

Step 1: Identify the location of the hafir.

Step 2: Measure/mark out the area.

Step 3: Dig a trench with slanting walls: 1m wide at base, 1.5m wide at top, 1m deep, 7m long.

Step 4: Dig a small outer trench to bury the plastic sheeting.

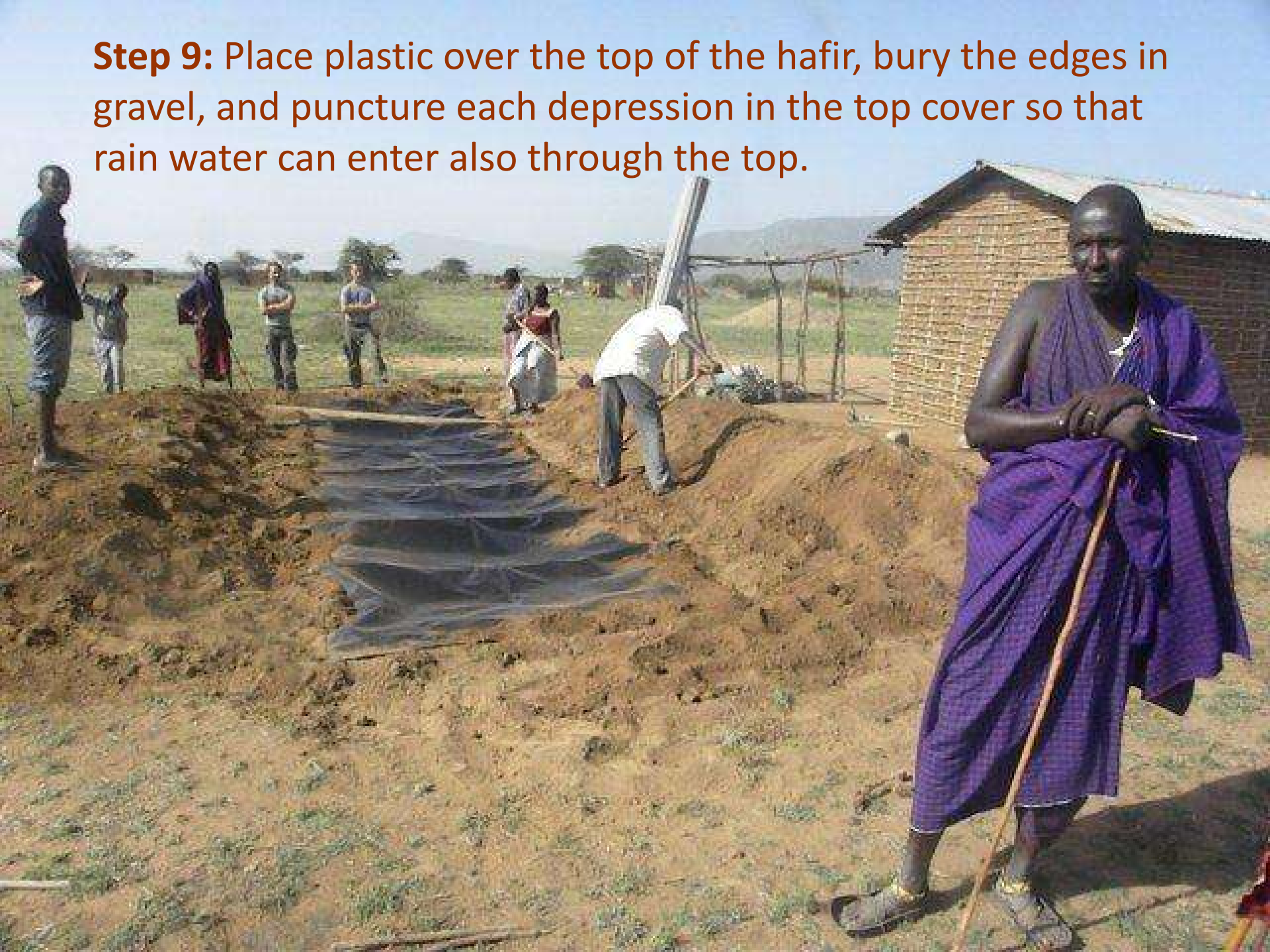
Step 5: Dig the inlet basin (sump) with small ditches leading field or roof water to the basin, and dig an overflow trench.

Step 6: Place the 0.5mm LDPE plastic dam liner into the trench.

Step 7: Fold corners and place the edges in the side trenches, bury them with soil & rocks; the plastic should be loose below.

Step 8: Place poles across the top in preparation for the cover to prevent evaporation

Step 9: Place plastic over the top of the hafir, bury the edges in gravel, and puncture each depression in the top cover so that rain water can enter also through the top.



Step 10: Cover the top with thorns and surround with a hedge; protect children & animals from drowning!

Kitchen gardens

Sack gardens

Sack gardens fit well for those who have insufficient land or water; for HIV+ groups or for those lacking labor & resources

Deep dug beds to maximize production on small plots of land

Drying of indigenous greens and fruits provides an alternative to gardening in dry areas

The fruit dryers need to be low cost, easily stored away, hung or placed away from insects and vermin and in the shade

Dried fruits & vegetables can be stored in plastic buckets or packed in plastic & sold

Household grain stores reduce 40% post-harvest losses and encourage exchange of livestock for grain

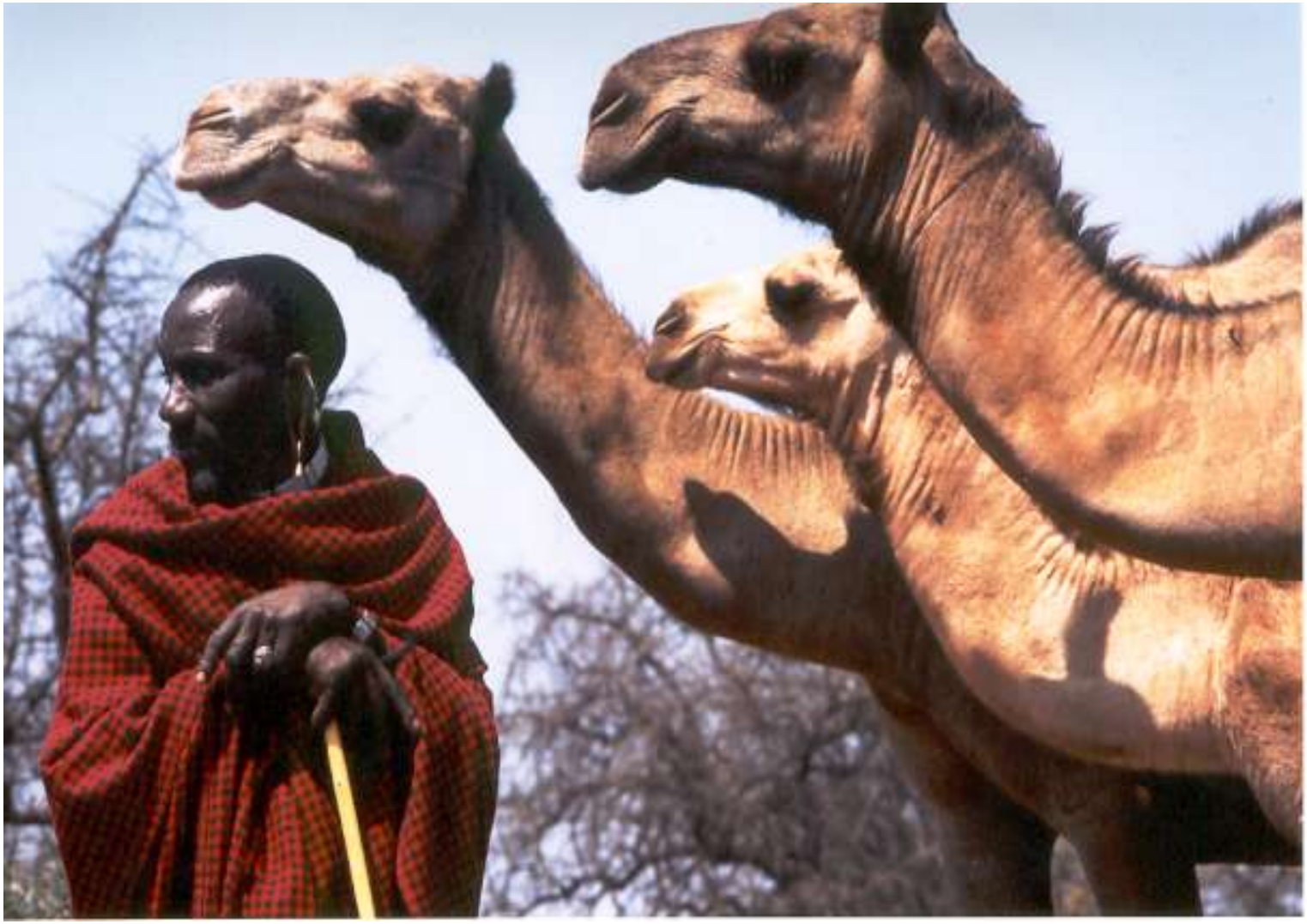
Conservation agriculture with FFS

Foundations for Farming/ Farming God's Way

Composting, integrated pest management, low-external input agriculture, indigenous vegetables

Agroforestry & soil conservation

Camel introductions



Intensive livestock keeping

Processing: milk & honey & ….