



Socio-economic issues surrounding PPR prevention and control

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Socio-economic issues within PPR control dialogue

- **Justification for PPR control**
 - Why PPR and not other livestock diseases?
 - Impacts of disease-Who is affected & how ? Monetary and non monetary,
 - Perceptions of producers, government and donors on PPR impacts (governments and private sector)
 - » Do they think they should intervene?
 - Costs and benefits of different control strategies?
 - » Which one yields highest returns to investment? Opportunity costs?
 - Feasibility of the different control options vis a vis response capacity
 - Who is going to pay? Public versus private good
 - potential for economies of scale and scope in terms of the costs and benefits of successfully delivering large-scale and integrated interventions (multiple disease approach)
 - the opportunities for synergizing delivery modes



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Socio-economic issues within PPR control dialogue

- Beyond benefit cost analysis
 - Understanding
 - The different roles played by small ruminants-
 - » livelihoods, poverty, asset portfolios, products and services
 - Diversity of farming systems
 - » holding sizes; agro-ecological/environment; goals of production; movement and trade patterns, risk parameters
 - » Diverse systems and roles implies that people have divergent motivations for being involved in shoats,



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Socio-economic issues within PPR control dialogue

- Place of small ruminants within livestock policies/strategies/programmes
 - » How to raise the profile of small ruminants in the livestock development agenda
 - » How to make countries and communities prioritize PPR
 - » Identifying ways in which governments can improve interventions and institutionalize them
 - » Financing strategies are also critical
- Designing people centered approaches- the value chains, incentives, disincentives
 - » Control approaches that integrate people as solvers of problems.
 - » How to engage people in PPR prevention and control: the opportunities and the limitations.



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Socio-economic issues within PPR control dialogue

- A thorough understanding of these SEC issues is important in developing appropriate approaches to PPR control and prevention
- Few socio-economic assessments have been undertaken
- Limited to impacts of disease only
- Control measures impacts and other SEC issues have not been adequately assessed
- Why?
 - Low capacity of livestock Ministry in terms of technical skills in livestock/animal health economics
 - Inadequate epidemiological data (morbidity and mortality and impacts of control on these two parameters).



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Economic justification for PPR prevention and control

- Demonstrating how PPR control fits as an integral component of wider livestock development efforts within the agenda of
 - Reducing poverty.
 - Building resilience (HOA)
 - Reducing the number of food insecure people
 - Improving the livelihoods of small holder livestock keepers

An increased need to protect this asset from PPR fits within these agendas.

Making people, livelihoods, poverty, gender rather than pathogens take centre stage.



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Small ruminants: diverse products and roles

Tangible		Intangible
Products	By products	Benefits
Meat	Manure and Fertilizer	Bank
Milk		Smooth out cash flows
Skins and hides	Fuel and biogas	Risk reduction and diversification
Fiber and wool		Pathway out of poverty
		Shock buffer and resilience
		Horns
	Weed control	

All the products are cornerstones for food , nutritional , income, and livelihood security



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Small ruminant systems & livelihoods

- 27% of the 1.9 billion Goats are in Africa
 - 1/1.9 is at risk of PPR= 53%
- 98% is small holder -household level
- In pastoral systems of the HOA, livestock products produced and consumed at household level, annually account for as high as 63% of the annual kilocalories based on a 2100 kcal daily requirement
- Policy makers focus more on meat and milk magnitudes and values
- Other products/services & roles are difficult to measure and value, not considered in evaluation of impacts and control benefits.
- People with small ruminants have a weak or no existent political voice, limited access to public resources



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Case studies

- Kenya, Pastoral livelihoods (2008)
 - Morbidity rate 73%
 - Mortality rate 57 to 60%.
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- Tanzania, agro-pastoral and mixed farming (2012)
 - Sample 218 households
 - Morbidity rate 54%
 - Mortality rate 39%.



Turkana Pastoral Livelihoods: Prior to PPR



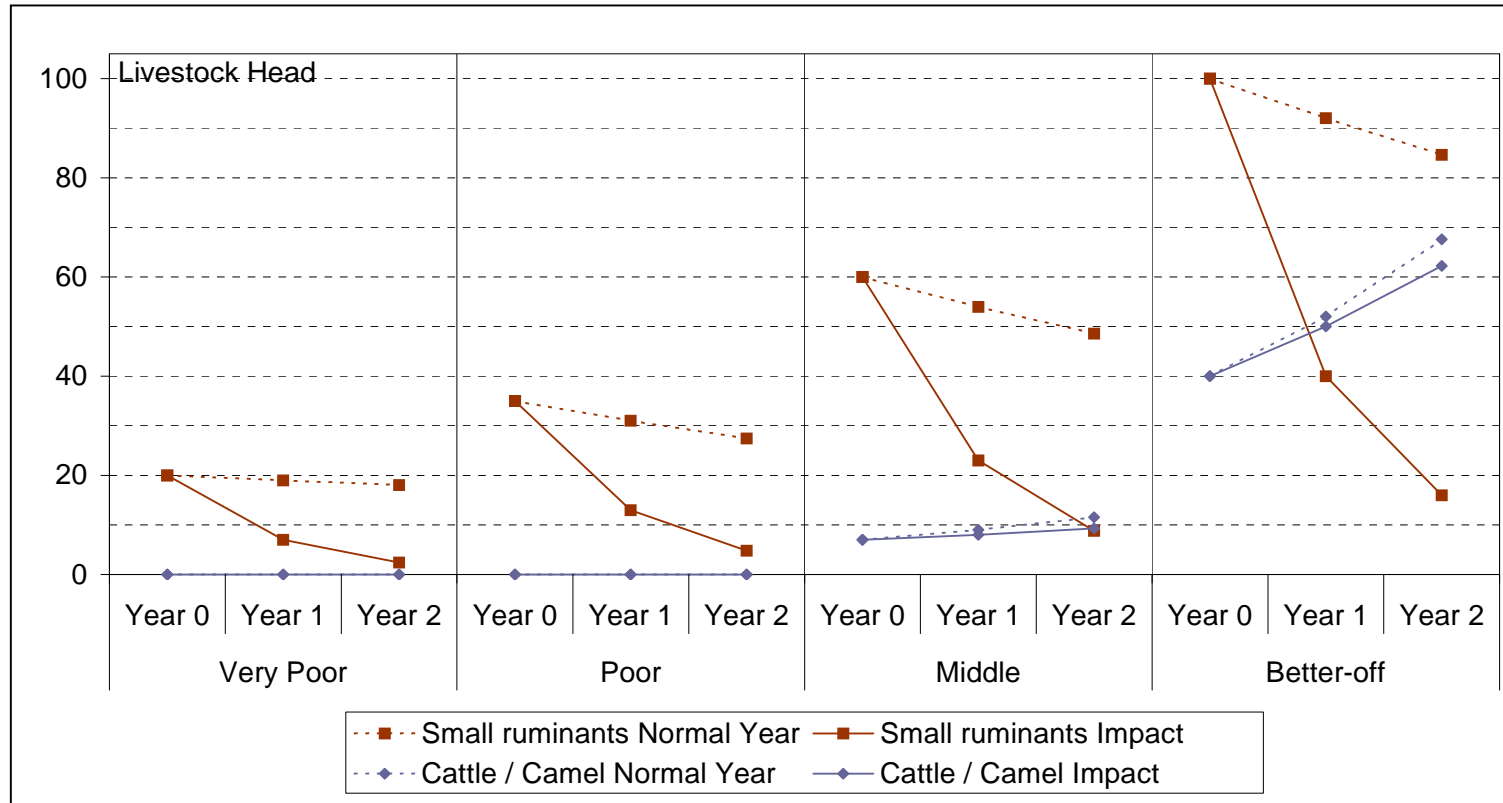
Wealth group*	Very poor	Poor	Middle	Better-off
Percent in population	45–65		20–25	10–20
HH size	5–7	5–7	6–8	6–8
Camels	0	0–1	1–5	10–20
Cattle	0	0	0–7	50–100
Shoats	15–25	25–40	50–80	80–150
TLU**	<2	2–4.5	5.3–16.6	>16.6
Annual HH income (Ksh)	14 050	15 900	17 200	18 000

Percentage of income originating from:

Livestock & products	12	36	48	100
Bush products	25	9	7	0
Social support	6	5	1	0
External (NGO) support	57	50	47	0



Impact of PPR: Depletion of livestock assets



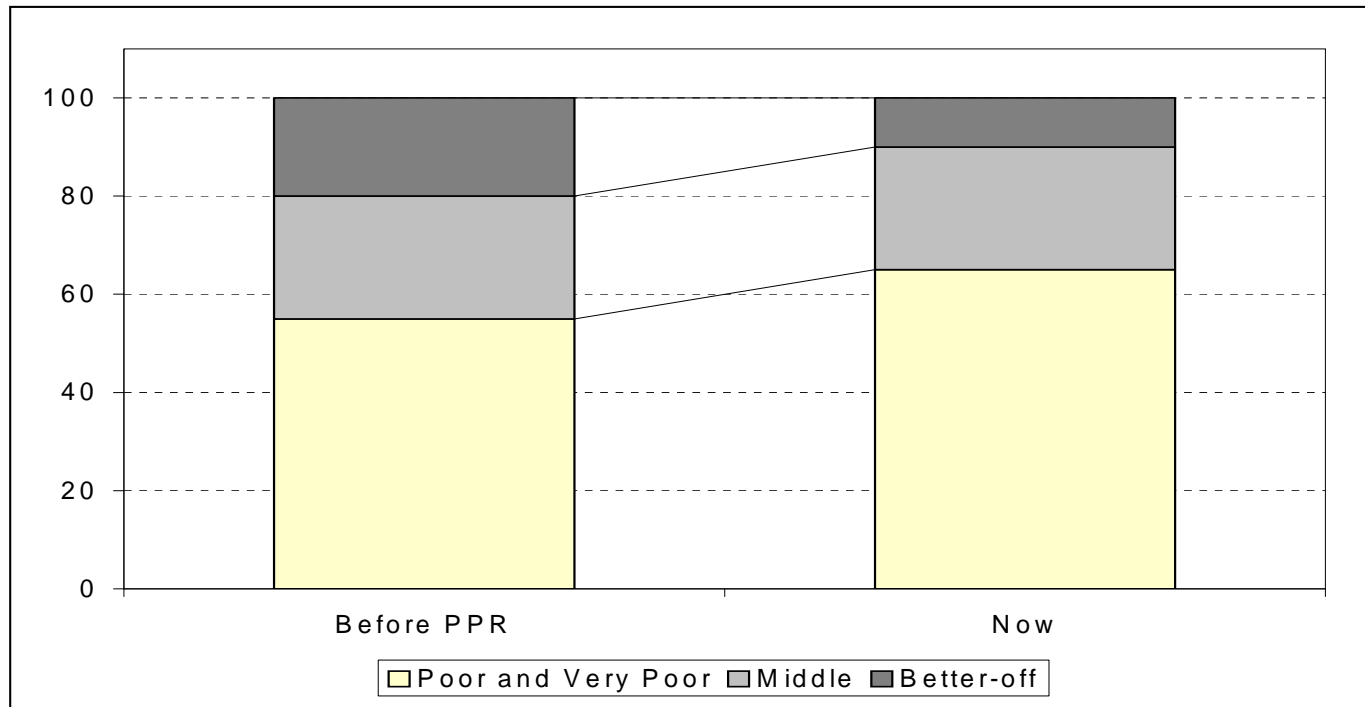
- Poor and very poor lost: 80-100% shoats
- Middle and better off :65-80% shoats
- Cattle holdings were affected due to increased reliance on markets



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PPR increases poverty levels



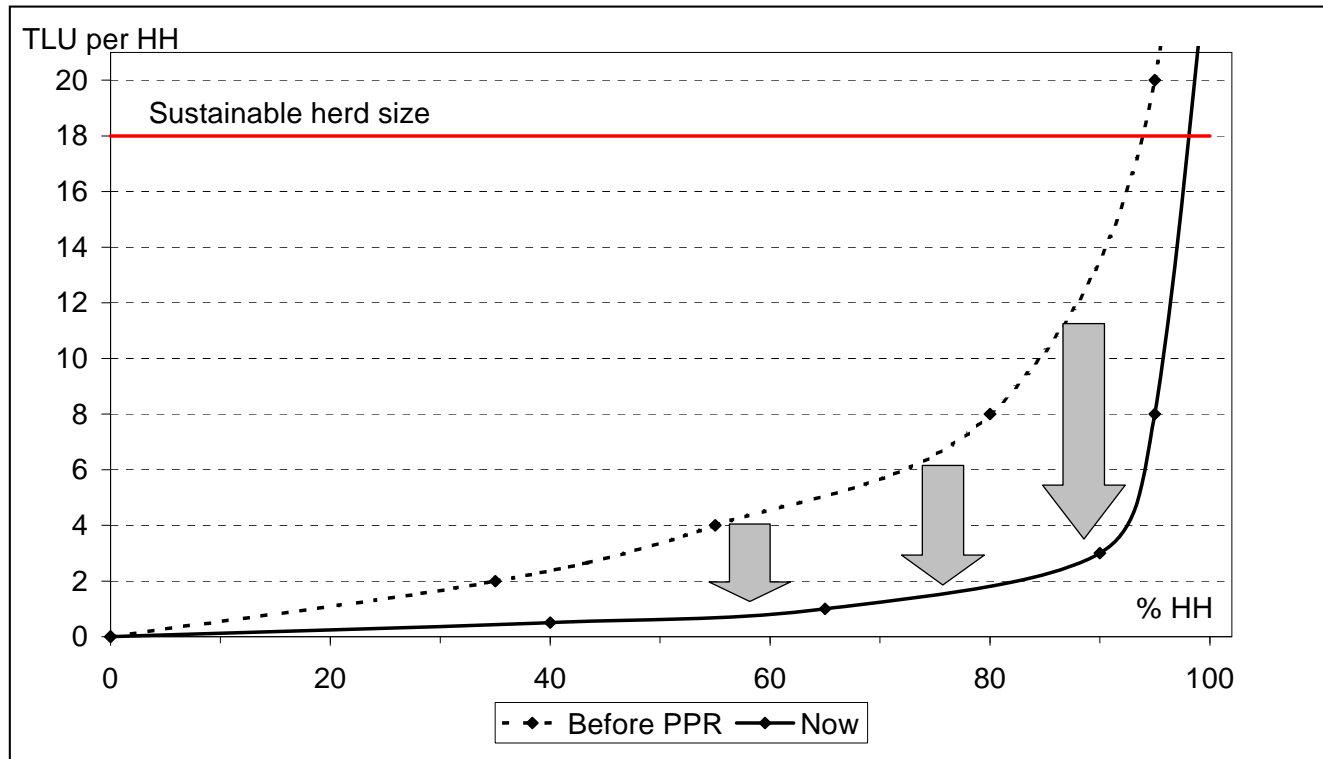
Increased the % of the poor and very poor increased by 10%



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Eroding sustainability of livelihoods



- Sustainable HH herd has
- ~150 shoats,
 - mixed herd of e.g. 10 cattle and 50-75 goats
 - sustainable livelihood

Puts households in a desperate situation with increased reliance on coping mechanisms (+ and -) and decreased ability to meet their basic needs.



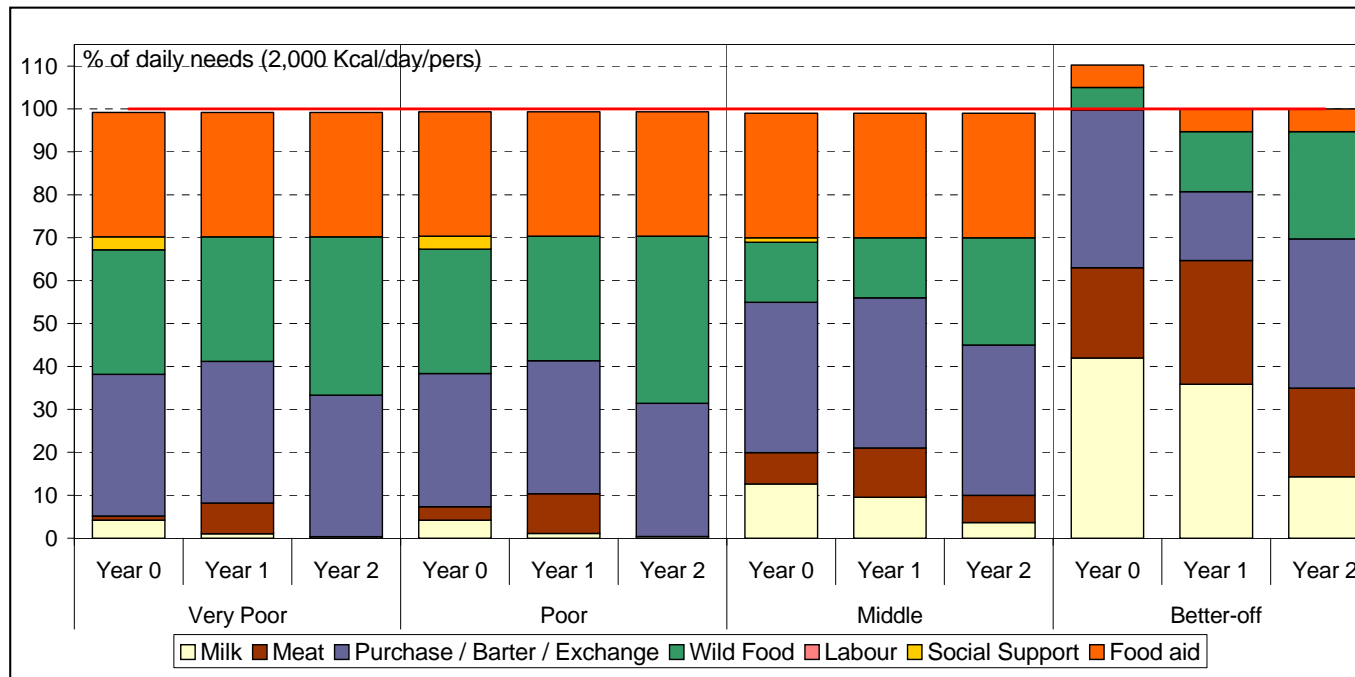
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Impact on food intake and food sources

- ↓ food intake in better-off wealth group
- Shift in the food sources:
 - Year 1 – Eating of PPR-infected carcasses
 - Year 2 – Increased reliance on food markets/wild food

- shoats milk consumed dropped to 0%;
- Increased consumption of dead animals (*sign of acute food crises*)
- Increased reliance on wild fruits and markets for food.

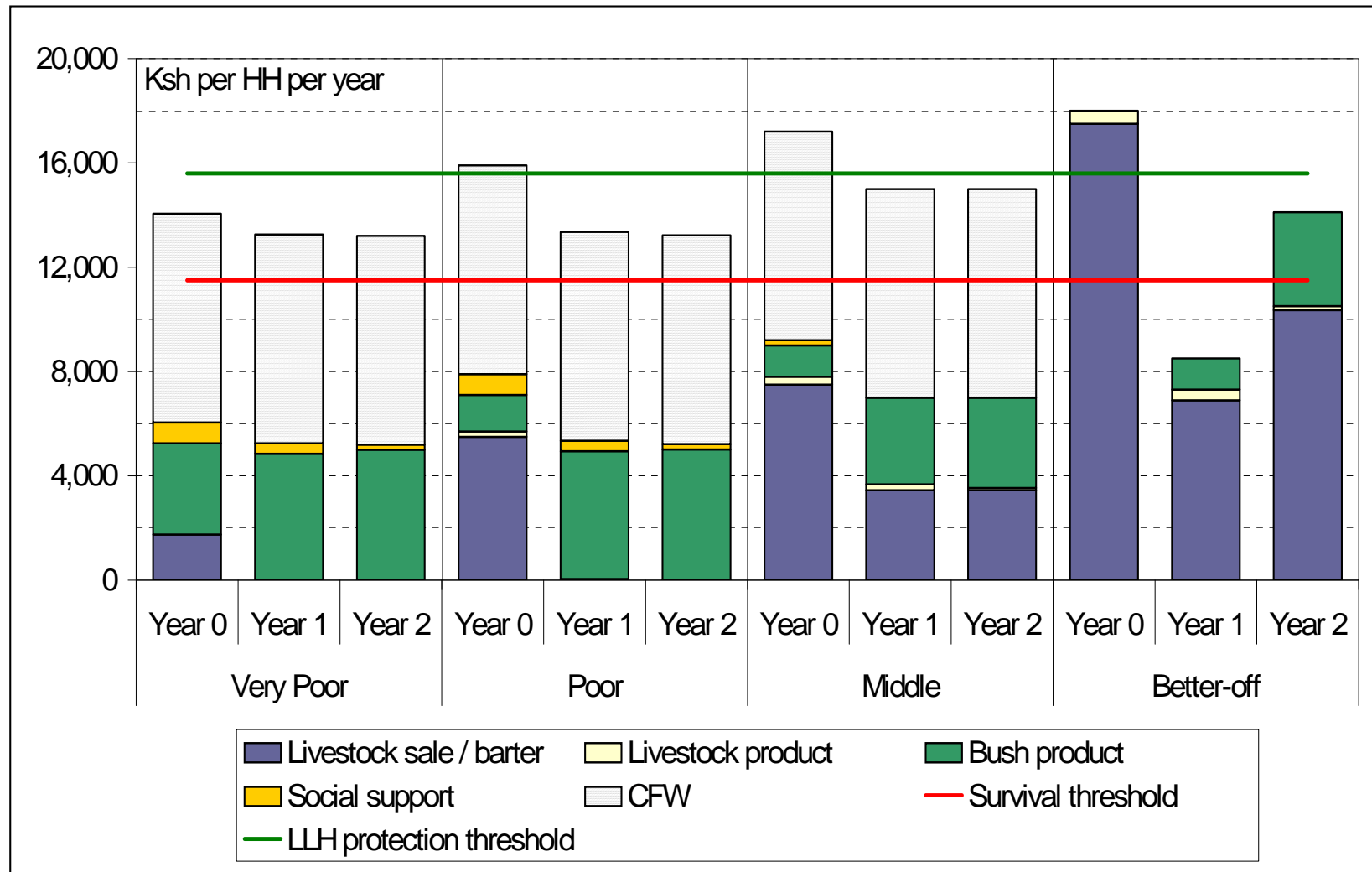




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Impact of PPR on income and sources



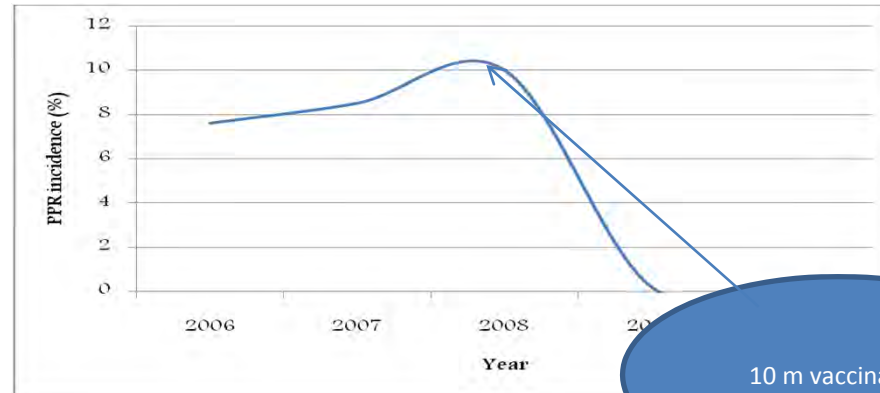
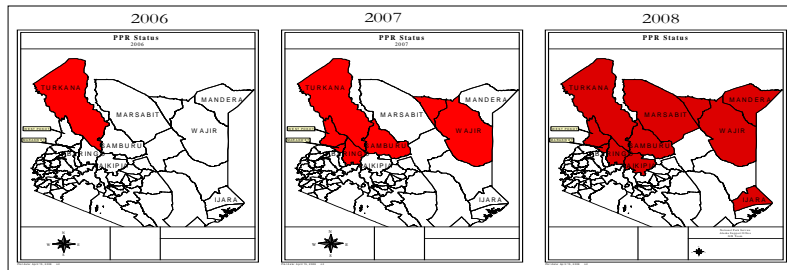


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What if a national PPR prevention system was in place before 2006?

PPR IN KENYA 2006-2008



10 m vaccinated

- A benefit cost analysis of instituting a NPS over five years for PPR, FMD, & HPAI undertaken
- Estimated discounted annual costs = 9.4 USD in year 1 and decreases to US\$ 5.8 million in year 5
- NPV for PPR was USD 14.1 million, BCR was 1.35 and IRR was 0.12.



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Conclusions

- Data available makes a case for PPR control
- However,
- Our understanding of the full economic effect that PPR and its control have on individuals, households, and nations needs to be improved to target interventions more effectively and equitably.
- all SEC issues need to be considered in strategy formulation