

'POOR FOOD CHOICES VS NO FOOD CHOICES': SMALL-SCALE LIVESTOCK KEEPERS KEY TO GLOBAL FOOD AND NUTRITION SECURITY

The world's small-scale farmers and livestock keepers, both relatively neglected in global food security discussions and agenda till now, can be a large part of the solution, rather than a problem, to feeding the world sustainably to 2050.

This was the message of Dr Jimmy Smith, an animal scientist, food security specialist and director general of the International Livestock Research Institute (ILRI), arguably the world's preeminent livestock research body. Dr Smith is in Australia to address the 22nd International Grassland Congress in Sydney 15-19 September 2013 – a global forum being attended by 1000 delegates from over 60 countries.

Dr Smith presented an overview of the global food security challenge and argued that smallholder animal agriculture is key to addressing it.

"Producing sufficient quantity and quality of food for nearly 10 billion people represents a huge challenge", he said. "We need *lots* more food in the next 4 decades and we need to produce it profitably, efficiently, safely, equitably and without destroying the environment."

Specifically, he said, it is estimated that by mid-century, the world will need:

- 1 billion tonnes cereals *each year*
- 1 billion tonnes dairy products *each year*
- 460 million tonnes meat *each year*

The world's sub-optimal diets

"It's a shocking indictment of the global food system", Dr Smith said, "that in the 21st century most of the world's population have sub-optimal diets:

- 870 million going to bed hungry
- 2 billion are vulnerable to food insecurity
- 1 billion have diets that do not meet all their nutritional requirements
- 1 billion suffer the effects of over-consumption."

"However," Dr Smith said, "I believe most of us would agree that there is no moral equivalence between those who make a poor choice of food and those who have no choice of food."

The role of small-scale livestock production

Unknown to most people, Dr Smith said, is just how much food is produced by smallholders. Some 500 million smallholders support more than 2 billion people. In South Asia, for example, more than 80% of farms are less than 2ha in size. In sub-Saharan Africa, smallholders contribute more than 80% of livestock production.

Also unknown to many is how competitive smallholders can be. In India, at least 70% of the milk produced comes from smallholders and India is now the largest dairy producer in the world. In East Africa, Kenya's 1 million smallholders keep the largest dairy herd in Africa (larger than South Africa); Uganda has lowest-cost milk producers globally; small-scale Kenyan dairy producers get above-normal profits of 19–28% in addition to non-market benefits (insurance, manure, traction) of a further 16–21%. And ILRI and partners scientists have shown that Kenya's small- and large-scale poultry and dairy producers have the same levels of efficiencies and profits.

Importance of small-scale livestock production: The 'goods' and the 'bads'

"Livestock are a source of nutrient-dense animal-source foods that can support normal physical and mental development and good health; an income stream that enables the world's billion poorest people to buy staple foods and other household essentials; and a means of underpinning soil health and fertility and increased yields, thereby enabling more sustainable and profitable crop production," said Dr Smith.

"But in doing so, if not managed well, livestock production can harm the environment. The sector is a significant source of greenhouse gases, for example, and can be detrimental to human health with the transmission of diseases from livestock to people."

"There are, however, real opportunities to mitigate such negative impacts now and as livestock systems in the developing world transition in the coming decades," Dr Smith said.

"The many goods and services that livestock provide can and must be produced in ways that are less damaging to the environment and with reduced risk to public health, whilst also supporting sustainable livelihoods for hundreds of millions of the world's poorest citizens, who currently have few other options.

Dr Smith concluded by saying that the developing world's livestock sector is diverse, changing and growing rapidly. 'This will pose considerable risks, to the environment and to animal and human health in particular. However, if managed well, it also offers enormous opportunities simultaneously to contribute to global food and nutritional security and poverty reduction in rural areas.'

Other speakers will address issues - from the internationally significant to the quirky - including:

- the global food security challenge and the role of livestock
- trade-offs between livestock, human health and the environment
- Australia as a drought hot spot in global grazing lands
- one of the most promising opportunities yet to reduce livestock emissions & climate change
- lessons from work underway to control pesky rabbits, squirrels and zokors
- what Mongolia can teach us about control of locusts
- hopes for perennial wheat varieties and the benefits they hold over annual varieties
- new grasses that can deter birds from airfields and sportsgrounds
- the latest technologies like remote sensing, GIS and precision agriculture
- how farms in Asia and Africa could be boosted by garbage bag technology
- what farmers need from grasslands and livestock research
- how to engage more young people in study and careers in agriculture
- how could the market pay farmers to off-set greenhouse emissions – will \$37/tonne do it?
- new reseeded tools for more successful restoration of rangelands that protect wildlife habitat, support local farms and decrease likelihood of severe wildfires

About ILRI

The International Livestock Research Institute (ILRI) works with partners worldwide to enhance the roles that livestock play in food security and poverty alleviation, principally in Africa and Asia. The outcomes of these research partnerships help people in developing countries keep their farm animals alive and productive, increase and sustain their livestock and farm productivity, find profitable markets for their animal products, and reduce the risk of livestock-related diseases. ILRI is a member of the CGIAR Consortium, a global research partnership of 15 centres working with many partners for a food-secure future. ILRI has two main campuses in East Africa and other hubs in East, West and Southern Africa and South, Southeast and East Asia. ilri.org