



Workshop Report

Safety of animal source foods with an emphasis on the informal sectors

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Background

Animal source foods, such as milk, dairy products, eggs, fish and meat, are important sources of nutrition and their production and processing supports the livelihoods of millions of poor farmers, traders, retailers and other value chain actors (many of them women) while providing cheap and nutritious food to large numbers of poor consumers. In India as many other countries, the informal sector predominates: for example, the informal share of the dairy sector (the largest in the world) is 80%.

While most studies of food sold in the informal sector find hazards are present that could harm human health there is little information on the actual risk posed to humans or the best way of managing this. Given the extent of the informal sector, its persistence in the face of policy neglect, its importance to the health and nutrition of poor people, and its potential for poverty alleviation, there is an urgent need to understand safety issues around informally marketed food.

Agricultural research has an important role to play in understanding the present importance and possible evolution of the informal sector as well as in developing and testing interventions to maximize the benefits while reducing the risk so that food systems can work better for poor people and the planet.

International Livestock Research Institute

The International Livestock Research Institute (ILRI) works at the crossroads of livestock and poverty, bringing high-quality livestock science, communications and capacity building to bear on poverty reduction and sustainable development. ILRI is one of 15 centres supported by the Consultative Group on International Agricultural Research (CGIAR). ILRI has campuses in Kenya (headquarters) and Ethiopia, with other offices located in other regions of Africa (Mali, Mozambique, Nigeria) as well as in South Asia (India, Sri Lanka), Southeast Asia (Laos, Thailand, Vietnam) and East Asia (China).

The CGIAR is planning major new global research programmes (called CGIAR Research Programmes; CRPs), including:

- Sustainable staple food productivity increase for global food security: Livestock and fish
- Agriculture for Improved Nutrition and Health

The CRP on Agriculture Nutrition and Health has a significant component of research on food safety including food safety of animal source foods, building on research currently being conducted by ILRI.

Objective of the meeting

- To introduce ILRI and the new Collaborative Research Programmes, especially components on animal associated disease, and get feed-back on this from important stakeholders of food safety in India
- To present ongoing food safety research by ILRI with an emphasis on India
- To understand interests and opinions of key Indian food safety stakeholders
- To explore mutual interests and potential collaborations in context of emerging CRPs

Welcome

Dr Iain Wright, ILRI's Regional Representative, Asia welcomed the participants. A list of participants is given in Annex 1.

Dr John McDermott, Deputy Director General – Research summarized the objectives of the workshop.

Each participant introduced themselves and their organization.

Presentations

The following presentations were made:

The importance of the informal milk sector in India	Dr A K Joseph
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Risk-based approaches to food safety in developing countries	Dr Delia Grace
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A joint initiative for the improvement of the quality of milk marketed by milk vendors in Guwahati city.	Dr Arun Sarma
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Food safety and standards act, 2006 & Quality control on Meat & Meat products under MFPO-1973	Dr A K Singla
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New CGIAR Research Programmes	Dr John McDermott
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A short question and answer session was held after each presentation. The presentations are given in Annex 2.

Discussion and conclusions

After the presentation a facilitated discussion was held on the key issues for food safety in India. Some points from this are summarized below.

Evidence generation

- It was agreed that there was not enough evidence on the impact of food borne disease, not only in terms of human health but also in impacts on other sectors. Diarrhoea is a major cause of illness and the second most common cause of death in children under five. We don't know how much of this is attributed directly or indirectly to food-borne disease. And while animal source food is the most commonly implicated category of food in many countries, there is no evidence on its importance in India.
- A situational analysis would be a way to quickly compile available evidence and major gaps; this could include a systematic review of grey and published literature
- Risk-based or health-based approaches are the best way to manage food safety. However, most policy and regulation is still based on the presence of pathogens and not their actual risk to human health. Risk analysis can generate evidence on the impact of food borne disease on human health in terms of severity and likelihood, where risk is generated, and the most effective ways of reducing risk.

Joined up approaches

- As in many countries, there is little linkage between human and animal health in India and even less integration with other disciplines and sectors. However, the One Health/EcoHealth approaches offer an opportunity to achieve more by multi-disciplinarity. There is a need to identify the areas where linking up is easiest and most fruitful – one possible area being the use of common laboratories by public health and veterinary authorities and research organisations
- Evidence should also be generated on costs, benefits and added values of multi-disciplinary approaches
- Policy development has moved ahead of practice and of ability to oversee – India has over one billion food consumers but only around 2000 food inspectors. Recently, food safety laws have been updated and integrated. The challenge is to ensure that they are implemented and that they are meeting their objectives.
- Value chains analysis could be useful in promoting integrated and multi-disciplinary approaches to food safety.

Building capacity

- Building capacity is a standard recommendation and is needed for all food-safety stakeholders. To be effective, capacity-building needs to go beyond just training. If training is linked to innovations (technological, organizational or social) and to incentives then it is more likely to result in behavior change. (For example the training and certification of milk vendors). Capacity-building should not be one-off but accompanied by support. Like all interventions capacity-building should be evaluated in terms of costs and benefits

Innovation and technology

- Several areas were identified where innovations could help close the gap between food safety goals and current attainment. Low cost 'tableside' food safety tests would allow consumers and other value chain actors to check the safety of food allowing them to reject unsafe food but also exert pressure on suppliers to improve standards. Understanding consumer preference is important for this demand driven food safety. Training and testing a 'paravet' cadre of food safety promoters could expand the reach of food safety regulation. While new technologies are needed there are some 'bottom drawer' technologies which could be tested and promoted.

Risk based approaches

- While risk-based approaches are acknowledged to be the best way of managing food safety, in practice hazard-based approaches are still dominant. Evidence is needed on how risk-based approaches are more effective, efficient and equitable than conventional approaches.
- Risk based approaches can be used to prioritise food-safety problems. Risk tends to be heterogeneously distributed with a minority of the actors, food matrices and pathogens generating a majority of the risk. Identifying these will allow resources to be directed to where they are most useful.

Incentives work with regulations

- In many countries, policing all food is an impossibility and incentives may be more useful in improving food safety. One common way is by grading food according to quality and safety - however, the agency must be trusted and credible. While consumers may not always pay a premium for assured-products, accreditation may lead to more stable markets. An easy win would be to require government to buy from quality assured sources

- Quality assurance should be ‘farm to fork’ and include producers
- A majority of food sellers and processors are small-scale. Appropriate inspection and support needs to be developed for small scale operators

Way forward

- The group discussed the key areas for early activities. Milk was obviously an important area because of the predominance of small scale actors, widespread consumer concerns about adulteration (to a lesser extent safety), and the many diseases potentially transmissible by milk.
- Small ruminants and poultry were considered also important because of increasing production and changes in consumption and an analysis of this sector was recommended.
- The implications of smallholder involvement in food value chains both for food safety and market access is another priority area. An opportunity is provided by the ongoing finalization of livestock policy and development of an approach paper for the Twelfth Five Year Plan.
- Two final areas for special attention were technology validation and value addition

Annex 1 - Participants

Name	Designation	Organisation
Dr. Vivek Sharma	Sr.Scientist Dairy Microbiology Division	NDRI
Dr A Manimaran	Scientist	NDRI
Dr Subhadra Menon	Head - Health Communication & Advocacy	PHFI
Dr A K Singla	Marketing Officer	Food Safety and Standards Authority of India
Dr HK Pradhan		WHO
Tinni Sawhney	Regional Team Leader	SAPPLPP
Dr Vineet Bhasin	Principal Scientist (AG&B)	ICAR
Resource Persons		
Dr A K Joseph	Consultant	
Dr. Arun Sarma	Senior Veterinary Officer	Guwahati Municipal Corporation
Dr John McDermott	DDG	ILRI
Dr Delia Grace	Vet Epidemiologist	ILRI
Dr Iain Wright	Regional Rep Asia	ILRI