



# SEMINAR ON

## “TOWARDS GREEN AND EQUITABLE LIVESTOCK DEVELOPMENT IN INDIA”



### **Documentation**

LIFE Network Seminar

13th April, 2013 in Hyderabad  
at Aalankrita Resorts, Shameerpet

## ACKNOWLEDGMENTS

We are grateful to the following funding partners for supporting various components of this meeting (travel, content, organization and facilitation) in the context of projects granted to LPP and LPPS.



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## SUMMARY

The purpose of the meeting was to bring together NGOs and representatives of herders' associations from all over India that promote sustainable and equitable livestock development (based on locally adapted indigenous livestock breeds) and to inform and discuss about recently completed projects and on-going international processes that are setting the course for the future of livestock development in India and globally. A major point on the agenda was to share the results of the LPP led project "From Biocultural Protocols to the Ark of Livestock Biodiversity" that was funded by the Foundation d'entreprise Hermès and looked into the nutritional benefits of biodiversity based livestock keeping. Other important points were the sharing of experiences with Dutch livestock development by Dutch veterinarian Katrien van't Hooft and with the participation by five Indian livestock keepers/NGOs in the FAO led Global Agenda of Action towards sustainable livestock sector development (GAA).

## PROGRAMME

9:00	Welcome and Opening of the Seminar	Dayalibai Raika, LPPS
9.15	Setting the Scene: Film “Friends of the Earth”	By Moving Images, LPP, LPPS
9.30	Benefits of Biodiversity Based Livestock Keeping: The results of the “Ark-Project”	Kamal Kishore
10.30	Coffee/ Tea break	
11.00	The Dutch Experience with livestock production: Lessons learnt	Dr. Katrien van’t Hooft
11.30	Livestock keepers and the FAO’s Global Agenda of Action towards sustainable livestock sector development (GAA): An update	Dr. Ilse Köhler-Rollefson
12.00	Comments on GAA experience in Nairobi	Nilkanth Mamma, Kamal Kishore, Karthikeya Sivasenapathy
12.15	Questions and discussion	All
13:00	Lunch	
14.30	Pigs – the Protein Pot of the Poor	Film by Dr. Balaram Sahu
14.45	Experiences with organic livestock production	Prof. Kandasamy
15.00	Introducing India’s National Action Plan on Animal Genetic Resources	Dr. Sadana
15.30	Discussion	All
16.00	Tea Break	
16.30	Summary and Comments	Dr. Rangnekar

# PRESENTATIONS

## OPENING ADDRESS BY MRS. DAYALIBAI RAIKA

Raika leader Dayalibai Raika summarized some of the problems experienced by pastoralists in India, especially with respect to exclusion from forest areas, such as in the Kumbhalgarh Sanctuary in Rajasthan. She emphasized the many positive impacts of livestock on the environment. As an example she described how sheep and other livestock were eating the fallen leaves and thereby holding termites in check.

## KAMAL KISHORE, COORDINATOR OF THE RAINFED LIVESTOCK NETWORK (RLN) ABOUT THE *ARK OF LIVESTOCK BIODIVERSITY* PROJECT

QUESTIONS to be addressed by the project:

- What are the traditional livestock products and processing methods?
- What are the special properties -sensory qualities, nutritional value and medicinal effects?
- How can we communicate the special properties of these products?
- Can pastoralists, NGOs, scientific institutions and the private sector work together to develop value chains for pastoralist specialty products?
- Scope for developing a special brand/ label ?

## ASSUMPTIONS

Local livestock breeds raised on local resources of the eco-system have the potential for specialty and niche products with health enhancing qualities, heritage value and attractive sensory characteristics.

## METHODOLOGY

- Inventory of existing traditional products and processing methods from the selected pastoral communities.
- Analysis of the potential of local breeds owned by livestock keeping communities in three countries for specialty products and analysis of their health, heritage and sensory value.
- Investigation of the technological requirements for producing products tailored to urban consumer preferences.

## INDIAN CONTEXT

Two products were selected from Rajasthan

- Meat of Jaiselmeri goats
- Ghee from milk of Tharparkar cows.

## RESULTS

### GHEE

- Sale price is 70% higher.
- The taste panel found it to be better both as raw and cooked for taste and aroma.
- The laboratory analysis at Shriram Institute of Industrial Research showed significantly higher contents of vitamin A,E and carotenoids.
- In the commercial ghee, the cream is separated and then converted into ghee. On the other hand, the traditional method of making ghee, churning curd to extract butter and then making ghee is far superior to the commercially adopted. It helps in enhancing the nutritional properties of ghee.

### JAISELMERI GOAT MEAT

- The meat sold at 25% higher price than the goat meat imported from adjoining districts.

The taste panel conducted outside the district showed significantly higher aroma, flavour, texture and overall palatability than local goats.

### Comments:

Jagdeesh—wouldn't taking Jaisalmeri ghee (or any other traditional ghee varieties) lead to maximization, which in turn would lead to intensive production practices?

Bhavana—Engaging with the market is important as it has the potential to help in the conservation of commons, the traditional breeds, and so on.

Mona—by talking about the marketable aspects of Jaisalmer ghee or any other products, we are falling into the scalability trap.

Karthik—when people go for homams (?), they go searching for traditional ghee.

Kamal—this production cannot be scaled beyond a point.

Bhavana—people who have the crossbred cows do not drink that milk; they use only milk from local cows.

Ilse—people who can afford it tend to go for produce from local varieties of livestock, even if it is more expensive.

Kamal—Decentralized marketing system needed so that pastoral communities can gain.

Dr.Rangnekar—one should not ignore the importance of the feeding systems; which are unique to each region within the country.

Jagdeesh—If we do not make the point that unless we protect the biodiversity, we will not be able to conserve the local breeds, we will be missing the point. Highlighting only the nutritional aspects and other properties which are marketable would only be making half the point.

## KATRIEN VAN'T HOOFT: DUTCH DAIRY FARMING AND LESSONS LEARNT FOR DEVELOPING COUNTRIES

This presentation described what has happened over the past 60 years in Dutch dairy farming, and what lessons have been learnt that are relevant for other countries. Lessons learnt from (dairy) farming in the Netherlands.

Policies included:

- Market protection - fixed prices
- Easy access to credit for farmers
- Support to education-extension-research
- Rigorous disease control programs
- Subsidies for chemicals

Current situation:

- Social problems – over 90% has stopped since 1960's
- Low income due to low profit rate per kg of milk and high debts
- Income prospects difficult – also due to abolishing milk quota in 2015
- Young people moving out of farming
- Criticism of general public – especially on animal well being and climate change

Way out:

Stop farming

## ILSE KÖHLER-ROLLEFSON: LIVESTOCK KEEPERS AND THE FAO'S GLOBAL AGENDA OF ACTION TOWARDS SUSTAINABLE LIVESTOCK SECTOR DEVELOPMENT (GAA) - AN UPDATE

### **What is the Global Agenda of Action towards sustainable livestock sector development?**

- The GAA is an FAO (and ILRI and Worldbank) initiated multistakeholder platform to address the sustainability of the livestock sector
- From the [www.Livestockdialogue.org](http://www.Livestockdialogue.org) website:
  - The Agenda brings together actors committed to sustainable livestock sector development.
  - The purpose of this partnership is to catalyze and guide the continuous improvement of livestock sector practices towards more efficient use of natural resources.
  - The sector is facing unprecedented challenges. By 2050, the demand for livestock products will grow by 70 percent driven by rising world population, increasing

affluence, and urbanization. This growth in demand is happening at a time when concerns about resource scarcity, climate change and the need for more equitable development are assuming ever greater importance. Realizing that the complexity of the challenges facing the sector can be addressed only through concerted and collective action, stakeholders have formed a partnership to build a Global Agenda of Action in support of Sustainable Livestock Sector Development. The Agenda's focus on improvements in natural resource use efficiency holds great promise for global environmental, social, and economic benefits.

## **Background**

Livestock has been identified as :

- the biggest enemy of the environment
- 18% of total anthropogenic GHG emissions (calculations are being revised)
- responsible for land degradation
- source of pollution (esp. marine and waterways) with nitrogen and phosphorous – green tide
- biodiversity loss

## **From Asset to Liability?**

- Concentration and consolidation
- In India, the most rapid growth in livestock population has been among large landholders, and concerned especially industrial poultry units. The number of stock owned by the poor, including small ruminants, pigs, and poultry, is decreasing dramatically (Chacko in FAO,2010).
- In Brazil (Rio Grande do Sul) the number of pig producers shrunk from 85,000 to 10,000 between 1995 and 2008
- In Romania, pig producers declined by 90% in 4 years

## **Loss of jobs and debts in Europe**

Dairy farmers in Denmark

Debts average € 2.25 million/per farm

€ 19,000/per cow (Mathias, 2012)

Dairy farmers in Germany: 4000 (about 4%) are expected to go out of business this year (website Green Party Germany)

## **Concentration in the feed industries**

Concentration livestock genetics industry

Pharmaceutical industry

Less than 10 companies control more than three-quarters of the animal pharmaceutical market.



### **By contrast....**

- Livestock keepers are dispersed and un-organised
- Their contribution to the livestock economy is underreported (often does not enter national statistics) and undervalued.
- They are almost never consulted when livestock policies are designed
- Are not represented in multi-stakeholder platforms
- Although they are the key stakeholder group!

### **Timeline**

- December 2011 (Thailand meeting): Small-scale livestock keepers were not regarded as either important or being stakeholders
- April 2012: LPP, LIFE Network, CELEP advocated with FAO and Dutch government to include livestock keepers
- May 2012: LPP Statement read at FAO's Commission for Agriculture about need to include livestock keepers
- September 2012: Henning Steinfeld participated in LPP's Livestock Futures Conference
- January 2013: FAO supported participation of 5 „livestock keepers“ in Nairobi – 3rd Multistakeholder Platform
- LIFE Network members Elizabeth Katushabe of Uganda, Nilkanth Kuruba of India and Raziq Kakar of Pakistan shared podium with rep of International Meat Secretariat

### **Latest**

- Policy Brief “Capitalizing on pastoralism to feed people and achieve livestock sector sustainability”
- Elizabeth Katushabe and IKR nominated as members of the guiding group

### **Key challenges**

- We have to prove our legitimacy and show whom we represent
- We have to communicate these rather complex issues in an easy-to-understand way
- We need to come up with different visions and models for sustainable livestock development

### **Two models of livestock production**

- High input, specialised
- Low input, multi-purpose, decentralised

### **Comments**

#### **Kamal Kishore**

1. Two important things came out. Are the real livestock representatives there or not?
2. Agendas identified:
  1. Restoring value to grasslands—Grasslands in countries like Mongolia, Kenya, India, etc. Plan to earn carbon credits. These carbon credits go to the local communities.
  2. The International Meat Secretariat and the Indian International Dairy (??) who fund

- a lot of research on livestock rearing, are worried about buffalo meat from India.
3. Important to make policy makers understand what is happening internationally on livestock rearing policy formulation front.

### **Karthikeya**

- LIFE Network needs to be made a registered body of all small organisations. Livestock keepers are difficult to organize, as they have to be constantly with their livestock
- Important to engage with policy makers. They need to know about LIFE which is working extensively with small livestock holders.
- The meeting in Kenya saw livestock rearers articulating their concerns. This was the good thing about the meeting there.

### **Nilkanth Mama**

- Intensive livestock keeping is slowly usurping spaces of open-range systems.
- The overwhelming focus seems to be on increasing yields—from agriculture and livestock—at all costs. In this milieu, hardly anyone talks about the health of the land and of the ecology surrounding it. This is a big area of concern.
- Over the past decades, there have been tremendous changes in the climate; it is worth exploring why.
- The minister of agriculture says, increase agricultural production. But he does not talk about increasing livestock production. You cannot look at livestock and agriculture in isolation. Livestock is there if agriculture is there; and agriculture is there, livestock thrives. And only if both these are healthy can human existence be vigorous.
- To contrast indigenous and crossbred animals, the latter grows fast but the growth is short-lived; this growth also comes at the cost of a lot of inputs.
- In the past, the farmers would keep some land aside for grazing by livestock. In turn, the animals would contribute to enhancing the fertility of soil; this in turn would help in enhancing the biodiversity found on the land.

### **DR. BALARAM SAHU: VIDEO RELEASE OF *PIG - PROTEIN POT OF THE POOR***

A new video entitled “Pig - Protein Pot of the Poor” created by Dr. Balaram Sahu was officially released by Dr. Katrien van’t Hooft and then shared with the participants. This video complements an earlier book about the same subject that was released during the CBD Cop 11 held in Hyderabad in October 2012. <http://ikrweb.wordpress.com/2013/01/17/pig-the-protein-pot-by-and-for-the-poor-guest-blog-by-dr-balaram-sahu/>

## PROF. KANDASAMY-ORGANIC ANIMAL PRODUCTION: A REVIEW

Organic system of farming developed in Europe 100 years ago

Proponents: Rudolph Steiner, Austria; Albert Howard, U.K.; Hans-Peter Rusch and Hans Muller, Switzerland

First use of term: Lord Northbourne, U.K.

His concept: “the farm as an organism “

Differentiated between “ Chemical farming” and “ Organic farming”

Albert Howard’s concept: Soil fertility centered on building humus and life it contained( fungi, bacteria, mycorrhizae etc)

Supports crops, livestock and humans

Organic farm self-sufficient in terms of fertilisers, seeds, feeds etc.

The farm is treated as a whole entity

Organic farm: more generalised

Conventional farm: more specialised

Nomenclature: Organic, ecological or biological agriculture

### **Organic Livestock**

- Adapted to environment
- Resistant to certain diseases
- Must comply with rules of organic farming throughout life

### **Characteristics of Organic Food**

- Strong brand image(‘Halo effect’)
- Commands better price
- More expensive to produce
- Items Prohibited
  - Fertilisers
  - Pesticides
  - Gene-modification
  - Irradiation
  - Synthetic processing
  - Food additives
  - Amino acids

### **Regulations(USA)**

- “100 per cent organic”: Complete certified organic ingredients
- “Organic”: 95% certified organic ingredients

- “Made with organic” : 70 % organic ingredients
- <70%: Should not label as organic but can indicate organic ingredients
- No universal standard: national standards are there
- Codex Alimentarius Commission

#### FAO/WHO

- Standards setting body
- Protecting the health of consumers
- Ensuring fair trade practices
- ISO Guide 65:1996

#### Meat

- Ear implants with steroids permitted in USA and Canada; not in Europe
- Meat from cloned animals safe
- Gene-modified crops to animals safe
- Beef cattle raised on grass: organic
- Grow slow, reach market weight later, lean but less tender meat
- No difference in organoleptic quality
- Forage alters fatty acid composition
- More PUFA and conjugated linoleic acid

#### Organically raised pigs:

- Slow growth
- Lean meat less
- Intramuscular fat more
- Less tender
- Higher levels of PUFA
- Diet has important role in fatty acid composition
- Not much difference between organic and conventional pork in eating quality

#### Chicken

- Diet not changed much except prohibited items
- Organic feed has less effect on carcass quality
- Less tender and less succulent
- Higher levels of PUFA
- Not much different from conventional cage raised birds in eating quality

#### Milk and Milk Products

- The hormone issue: recombinant bovine somatotropin (rbST), recombinant bovine growth hormone (USA). Banned in Europe
- Normal milk contains traces
- Synthetic and natural hormones functionally indistinguishable
- Protein-digested

- No ill-effect
- Animal welfare concerns in Europe
- Contents: No difference
- Antibiotic residues: No difference
- Pesticide and chemical residues: No difference
- No difference between organic and conventional milk in nutritional and organo-leptic properties
- Higher PUFA content
- Price 25% higher

### **Eggs**

- Organic hens should have access to run: No cages
- Higher mortality due to fights and diseases
- Cholesterol : No difference in cholesterol content between conventional and organic eggs
- Salmonella and food-poisoning incidence high in organic eggs
- Higher dioxin(heterocyclic organochlorine compound)
- Antibiotic and chemical residues :No difference
- Egg quality :Smaller in size and more pigmented yolk and higher protein per cent

### **Is Organic Food More Nutritious and “Tasty”?**

- Taste is subjective
- Freshness in supply chain
- More research needed
- Conclusions and implications
- Not much difference in many characteristics
- Not much relevant to developing countries
- Shortage of organic ingredients and further expansion may not be possible
- Difficult to meet the total food requirements by organic farming
- Extensive system is not organic

### **Comments:**

Ilse - The open range grazing systems in India are far better than the 'organic' systems pursued in Europe and USA. Organic livestock in these regions need soy and corn; which is not biodiverse.

We should not try and fit the biodiverse livestock rearing systems in India into the yardsticks of 'organic' agriculture.

Karthik—We should try and explore zero-budget methods even with respect to animal rearing.

Kandaswamy—we have the habit of indiscriminately using antibiotics and chemical pesticides in bringing up our animals.

Kamal—Pasture-reared animals taste better than stall-fed 'organic' livestock

Lucas—the book reviewed by Dr.Kandasamy is far from unbiased. Objective quality of science is to discover more and more differences. However, no analysis can replace the perceptual reality that I experience when I eat a particular meat/food.

Kandasamy—Taste has cultural and social connotations to it.

Marcella—All analysis is selective, and all aspects are not analysed. As a result, all findings are biased.

Mona—When we look at livelihoods, we are looking at improving the economic standing of the household concerned. From that standpoint, can we look at the importance of the economies of scale; does the promotion of traditional livestock rearing systems look at improving the livelihoods of the pastoral communities. A private dairy that was supplying milk to an MNC had to be bound by a traceability clause. This forced the dairy to look at where the milk is coming from, the health of the animals from whom milk is extracted and so on. This has also forced the dairy to look at scaling up and helping the small farmers enhance the productivity of the animals that they own. However, the flipside is that the introduction of a large number of crossbreds has increased the demands for water and other inputs; but in an arid region like Ahmednagar (where this case study is based), such a system is unsustainable. When you see the system as a whole, there are a host of issues that are not easy to address. Are we being too idealistic? was her question.

Lucas—ecology and economy go together in the long run. In an intensive system, there is a benefit for a few in the short run though. But in the long-run, there is loss for a large number of people. Hence, environment-friendly, agriculture/animal rearing makes sense in the long run. You become very humble with what you regard as progress. You cannot make your way forward in a short timeframe; one has to be willing to invest time and energy in the long run.

Jagdeesh—traditional knowledge is taken from the communities, packaged and then an access and control regime is created so that these very communities are able to access own knowledge. Pastoralism has to join hands with a variety of movements to occupy the space between market, environment and individuals.

Marcella—in the whole move towards watershed development, all the farmers in Ahmednagar district (arid region) moved towards crossbred animals. There were many other changes that took place. Farmers moved from sorghum to wheat, and as a result, there was a shortage of fodder. This led to a crash in the numbers of crossbreds, and the farmers are today struggling in a debt trap.

How can we make an impact on the sustainability front, in the long run?

Karthik—Is there any way in which the government can pay money directly to the livestock keeper? A direct intervention is helpful.

Mona—Why can't communities who have been conserving genetic resources get a recognition?

## DR. D.K. SADANA: ABOUT THE NATIONAL ACTION PLAN ON ANIMAL GENETIC RESOURCES

Dr. Sadana introduced the Draft National Action Plan on Animal Genetic Resources and detailed its history and the international institutional context. Some of the salient milestones are: 1960s

FAO recognizes the importance of animal genetic resources and initiates support to countries.

1992 World Food Summit, Rome. In the Rome Declaration, governments accepted to “promote the conservation and sustainable utilization of Animal Genetic Resources.”

1999 Establishment of the Inter-governmental Technical Working Group on Animal Genetic Resources (ITWG-AnGR) within the Commission on Genetic Resources for Food and Agriculture (CGRFA). Initiation of the preparation of country-driven report to develop the State of the World Report on Animal Genetic Resources (SoW-AnGR).

2002- Preparation of Country Reports

2004 169 Country Reports are compiled into the SoW-AnGR

ITWG-AnGR – reviewed progress & prepared draft GPA & SPAs.

2007 First International Technical Conference on Animal Genetic Resources took place in Interlaken (Switzerland) and resulted in

1. SoW-AnGR

2. Global Plan of Action (GPA), including Strategic Priorities for Action (SPAs), Implementation & Financing Provisions

3. Interlaken Declaration

Dr. Sadana explained the broad structure of the draft NPA and narrated the four Strategic Priorities for Action covering Characterization, Sustainable Use, Conservation and Capacity building.

## DR. D.V. RANGNEKAR: CONCLUDING REMARKS

Dr. Rangnekar summarized some of the pertinent conclusions from the event. He noted that most importantly, solid data are needed about the situation and performance of livestock keepers to provide them to policy makers and make our case.

He also emphasized that organic livestock production in the Western mould is not suitable for India. Instead the country needs to carve out its own path.

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