

# The contributions of women to sustainable transformation of animal-agriculture

“Women tend to reinvest economic gains back into their families and communities more than men do” ...President Bill Clinton.

By C. Devendra

In a previous issue of this journal (Vol.1, No.4, 2015), attention was drawn to the importance and potential of small farm systems in food production. Emphasis was placed on the complexities of farming systems in small farms due to the numerous interactions of the sub-sectors and the need to resolve major constraints. The poor live in a non-ending syndrome of *poverty – adaptation – fragile lives – little hope – low life expectancy*, in which human dignity is at stake (Devendra 2007, 2010) but



Farmers attending a training session in animal husbandry in the hilly areas of Chulidanda in Nepal

to a surprisingly large extent, resource-poor small farmers produce the bulk of the food requirements in Asia. A significant role is played by women in maintaining the three pillars of food security: *food production, food access and food utilization*. There is ample evidence that gender equality can enhance productivity gains, and that the contributions of women in agriculture can be increased if there is wider recognition of their efforts and capacity.

Recent FAO data indicate that the female share of the agricultural labour force ranges from about 20% in Latin America to almost 50% in Sub-Saharan Africa, eastern Asia and southwestern

Asia. Asia has 93 million extremely poor people, surviving on less than US \$1.25/day. The role of women in agriculture and poverty-elimination needs to be recognized and promoted especially in view of predictions that 100 million additional poor people are likely to be pushed back into poverty, exacerbated by exploding food crises and rising cost of production inputs (World Bank 2011).

Over 20 years ago the *Beijing Declaration and Platform for Action* launched an agenda for gender equality as a human right, a condition for social justice, and a “necessary and fundamental prerequisite for equality, development,



Marketing and delivery of milk at the village level in Xian Province, China.

and peace.” The International Food Policy Research Institute IPFRI (2015) has just completed a policy seminar that examines how gender research and its application to policy issues have changed the landscape of food policy and agricultural development programming. Among the key observations are these two:

- *Women`s rights are human rights.*
- *The empowerment and advancement of women, including the right to freedom of thought, conscience, religion and belief, thus contributing to the moral, ethical, spiritual and intellectual needs of women and men, individually or in community with others and thereby guaranteeing them the possibility of realizing their full potential in society and shaping their lives in accordance with their own aspirations.*

This article focuses on women in agriculture with particular attention to:-

- Their multifunctional role and contributions,
- Types of activities women undertake on the farm,
- The increased work load when husbands are away in off-farm employment,
- Factors and strategies that can provide tangible improvements,
- The implications of women`s efforts to enhance food security, nutritional security, good health and family welfare, and
- Their contribution to the stability of their households.

Agriculture provides jobs for about 60% of the working population in the Asia-Pacific region, but labour productive growth is declining. Recent

FAO data indicate that the female share of the agricultural labour force is highest at almost 50% in Sub-Saharan Africa and eastern and southwestern Asia. In Asia and the Pacific and within the large populations of rural poor, two thirds are women (ADB 1989). The proportion of households headed by women is 20–49%.

Out of a world total of 752 million poor livestock keepers, South Asia (45%) and Sub-Saharan Africa (25%) have the highest numbers (Thornton *et al.* 2002), and women provide a significant contribution in the ownership and husbandry of small animals.

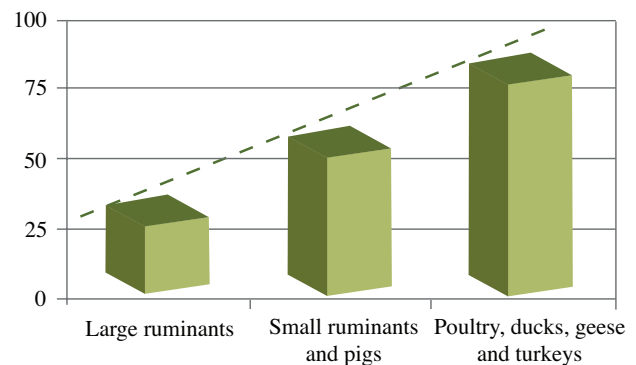
In an essay 'The case for optimism', former President Bill Clinton of the USA suggests that one of the five ideas that are changing the world for the better and supported by measurable progress is 'Women Rule', 'for it's been proven that women tend to reinvest economic gains back into their families and communities more than men do.' (TIME, October 2012)

Women play a significant role in the farm, often making the difference between stagnation and steady progress. The contributions of women in agriculture and farming systems include the following:-

- Control and use of productive assets
- Decision making
- Management and care of small animals
- Management of the farm when the husband is away on off-farm work
- Sale and accounting of farm produce
- Maintaining cash flow records
- Household chores e.g. washing and cooking
- Participation in women's groups, joint activities, projects, marketing, cooperatives, and training.

Women and children are closely associated with the ownership and management of animals. This relationship is greater with small animals: chickens, ducks, goats, sheep, pigs, quails and rabbits for reasons of easier handling and management (Devendra & Chantalakhana 2002). Their contribution to management include taking animals to graze waysides, feeding and watering, housing, addressing animal health problems and also marketing. and utilization.

**Role of women, children and elders (%)**



Relationship between women, children and elders and different types and sizes of animals

Wide experience with implementing development projects across countries indicate that having female farmers in the project is very much an advantage. They bring to the project good farming systems perspectives, conscientious management, and supportive views which can make the difference between successful and failed projects. Also, women in rural areas have been remarkably honest in settling their loans in time. Micro credit schemes have therefore been more liberal with women farmers.

In dairy projects that one sees very clear impacts of the role and contribution of women. In feeding lactating dairy Nili-Ravi buffaloes or lactating

### Types of farm activities that women are engaged in across all production systems

Species	Climatic zone / production system	Type of farm activity	Pathways to potential improvements
Poultry, ducks and quails	Sub-humid / humid	Herding; Housing; Mixing feeds; Feeding; Watering; Incubation; Grading eggs; Marketing	Access to services Access to credits Participation in decision-making Access to new technology Access to education Access to innovation
Goats and sheep	Semi-arid, sub-humid / humid; grazing	Tethering; Grazing; Lopping fodder; Collecting fodder; Milking; Feeding & watering; Mixing concentrates; Deworming; Housing; Herd movement; Marketing Folding	Participation in R&D projects
	Semi-arid, arid; grazing	Search for foddors; Watering; Milking; Search for shade; Marketing	
Buffaloes and cattle	Semi-arid / sub-humid / humid	Housing; Milking; Feeding Watering; Sale of milk	

dairy cows for example, women ponder about the importance of good nutrition on lactation. Additionally, milking these animals promotes decision-making on whether a particular animal is worthy of being retained for breeding and breed-improvement or culled from the herd.

Devendra (2014) has reviewed seven case studies on the nature and extent of the contribution of women to animal-agriculture. The conclusions from these various case studies, as well as from extensive field observations suggest that the distribution of goats to women resembles that of extending rural credit, except that for

women the benefits are direct, and perhaps more permanent. These include increased household income; improved nutrition, food security and reduction in poverty and hunger; better livelihoods, more effective utilization of unpaid family labour; more stable households; and increased self-reliance.

In Bangladesh, goats make a significant contribution to the maintenance of household stability for distressed women in terms of more security and more importantly, additional income of between USD35.5 and 134.0 (Saadullah *et al.* 1996). This is based on monitored returns



Girls homeward bound after walking 2-4 km to harvest tree leaves to feed their ruminants in the mid-hills of Nepal.

from 11 such women, two years after each had been provided with an initial investment of a doe costing about USD11. Also in Bangladesh, monitoring studies over years on 40 women who had received micro credits over 10 years indicated that 40–60% of the first loans are invested in animal enterprises. These women had developed successful enterprises from small animals into larger and more sophisticated schemes such as dairy production.

Similarly in Nepal, 60% of the total rural credit to women was invested in livestock, and the loan repayment rate was close to 100%. Experiences of other non-governmental organizations also suggest that, parallel to the redistribution of goats, the recovery of loan money from women was very much higher than from men, suggesting much commitment and a powerful development opportunity.

Also in Bangladesh, creating opportunities for women in income-generation has given women a significant boost in self-reliance. Making cell-phones available to women vegetable vendors has also resulted in greater price stability.

### **The significance of non-farm income**

Rural non-farm income refers to monies derived from non-farm activities such as manufacturing, commercial activities and other services that are outside of the farm. These are significant sources of income for rural households, and they contribute to the gender division of responsibilities: the men being increasingly involved with non-farm activities, and the women taking over more and more of the farming activities of the household. The extent of the requirement for non-farm income is determined by such factors as size of farm, resource limitations and degree of intensification. Non-



Farmer and her flock of goats in extensive grazing in search of feeds and water in Andhra Pradesh, India. Wayside grazing over 6-10 km is common and includes lopping of tree leaves to meet the feed requirements.

farm income enables diversification of income throughout the year and reduces seasonal risks. Non-farm income as a share of total income averages approximately 32% in Asia, 40% in Latin America, and 42% in Africa (Haggblade *et al.*, 2005). Policy makers view the non-farm economy as an important contributor to poverty reduction.

### **Pathways for increasing gender equity**

Socio-economic discussions often tend to be gender-neutral as if men and women have the same access to land and other productive resources. This we know is simply not true. There is enormous imbalance and increasing evidence that education and empowerment are central to women's control and use of productive assets and increased participation in social and credit programmes. The promotion of gender

equity has to be a continuous ongoing exercise, with focus on the specific needs, constraints and capacities of women. It should include:

- Making gender analysis an ongoing exercise
- Improving women's and girls' access to education and training
- Ensuring that women are participants in any project from formulation to end
- Strengthening local women's organizations
- Promoting gender equality in livestock services and organizations
- Seeking improved understanding of the dynamics of ownership and use of small animals
- Recognizing dynamism and openings for positive change, and the potential capacity of women in transforming sustainable animal-agriculture.

Empowerment should be at the heart of all education and training. This means enabling people to have control and use of their own resources and to set their own agendas. Together with more progressive farmers, education and training should deliver well-rounded graduates who understand farmers and their aspirations and the rationale for technology development and use, and who can share in the success of impact-oriented progress assessments that promote self-reliance (Devendra & Thomas 2001; Devendra 2014).

Non-formal education and training are becoming increasingly important, and are conducted at several levels in colleges, universities and government institutions as well as in rural areas at provincial, district, sub-district and farm levels. The rationale and justification for such efforts are determined by prevailing circumstances and urgent or particular needs and constraints.



Farmers with harvested virus-free sweet potato vines to feed ruminants and pigs in Sichuan Province, China.

#### **Groups responsible for non-formal education and training in various Asian countries**

- China – provincial and district offices
- India – farmer training and knowledge centres (krishi vigyankendras [KVKs])
- Indonesia – district and sub-district centres
- Philippines – local government units (LGUs) and focus groups
- Korea – provincial rural development administration (PRDAs)
- Malaysia – farmers' organisations, and
- Vietnam – provincial, district and hamlet offices.

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