



The Inclusive Development of the Economy Programme

**giz**

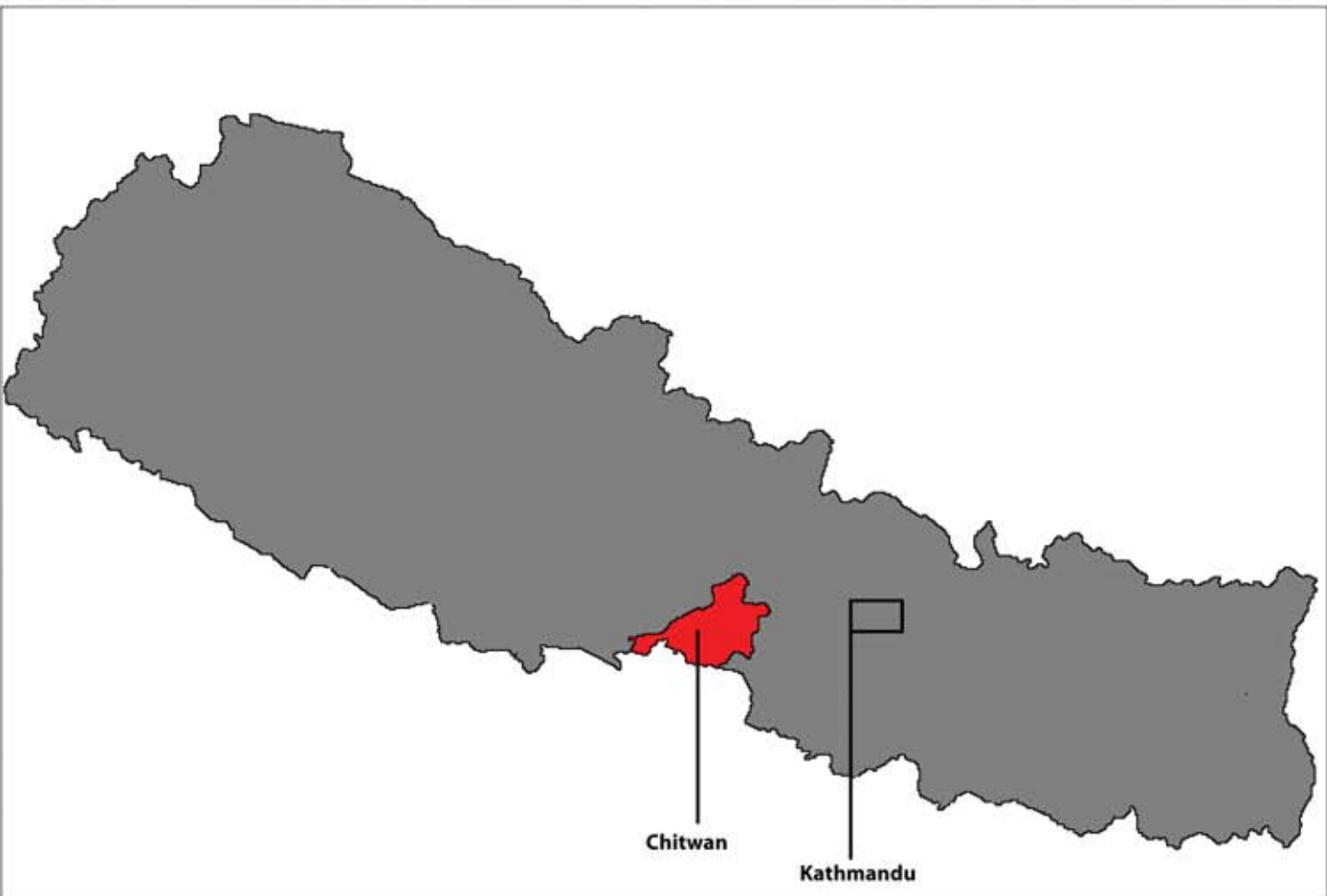
**(INCLUDE)**

Promoting balanced and socially fair economic growth



**Value Chain Development: Dairy**

**Chitwan**



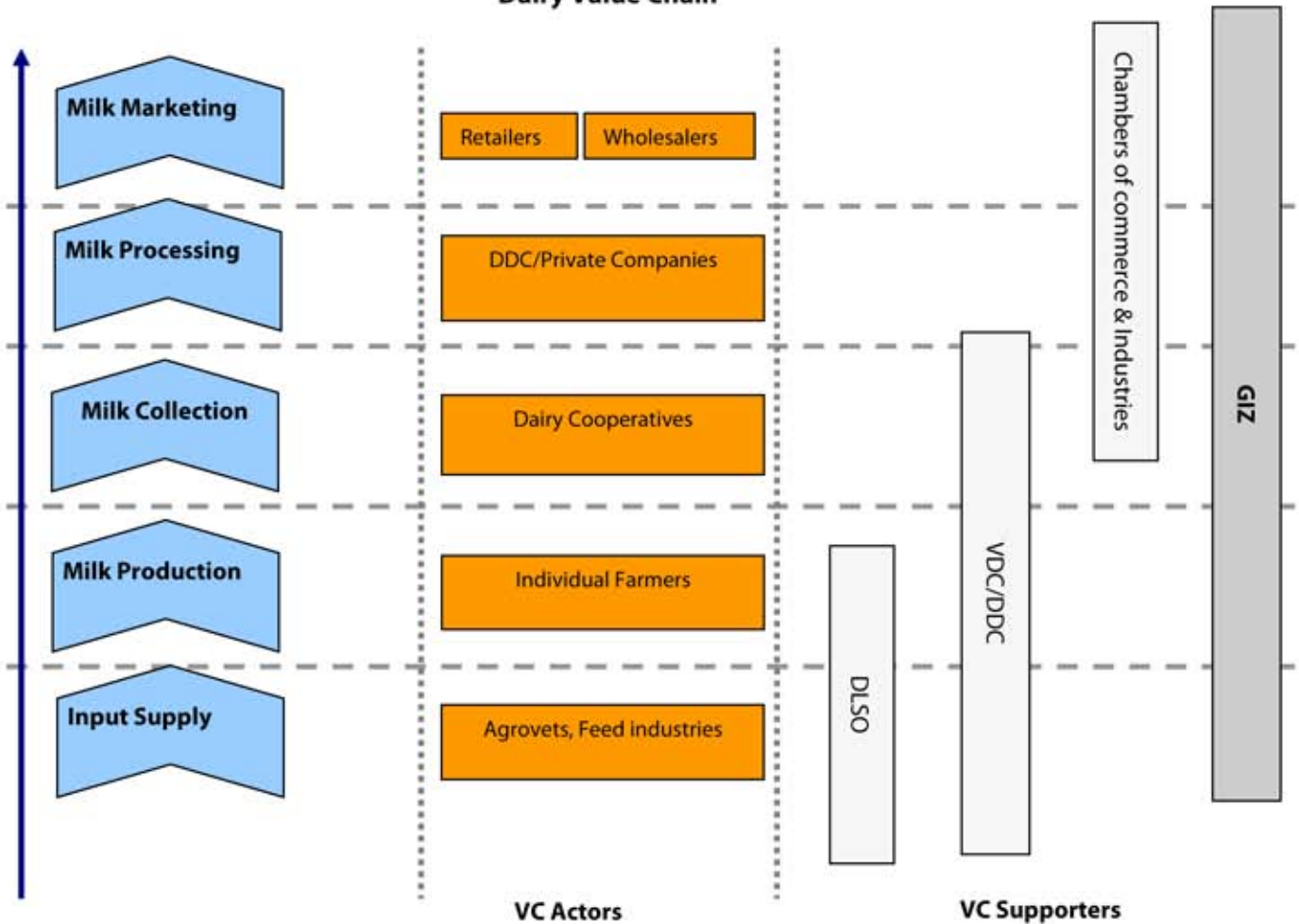
# Dairy



Based on economic potential studies and stakeholder discussions conducted in 2009, INCLUDE has selected the dairy sub-sector in the Chitwan district as an entry point for value chain promotion. The dairy sub-sector has been identified as a major provider of employment in the programme region with a significant potential for income growth.

**Chitwan is currently one of the major producers of milk in Nepal and has a significant potential for growth in this sub-sector. Looking at the potential of inclusive employment creation and income generation through the promotion of milk, this sub-sector has been chosen for the assistance through the Value Chain (VC) approach. According to the District Milk Producer Cooperative Union (DMPCU), Chitwan, 15 percent of the people active in the sector through cooperatives in this district are women and three percent are members of disadvantaged groups, thus there is a significant potential to involve both more women as well as more people from disadvantaged groups.**

## Dairy Value Chain



## Focus of the intervention

An in-depth analysis of the dairy value chain in the Chitwan district has identified a number of bottlenecks, which hamper the full exploitation of the sub-sector's full potential in the district. In particular it was found that:

- The cost of forage is high and farmers are not aware of dairy cattle feeding basics. Furthermore, the practice of silage or hay making is lacking and the process of producing forage is not mechanized ;
- Access to animal health and breeding services is limited: Major health problems are fertility, mastitis, parasites, metabolic diseases (imbalanced feeding) and insufficient preventive measures. Moreover, no quality Artificial Insemination (AI) services are available and cases of repeated breeding are common. The calving intervals are high, particularly in buffaloes. Furthermore, cattle sheds are not improved (i.e. not comfortable, clean and well ventilated) and the environmental sanitation around cattle sheds is usually poor. Moreover, small dairies have too limited skills and insufficient technological capabilities to diversify their product range and they are not well organized ;
- Milk production, collection and processing (by small dairies) are not hygienic and clean (container, handling). Fat testing and recording are not efficient and in most cases not computer-based. The collection of milk is also

expensive due to poor infrastructures (road network) and often there are no chilling vats available in remote villages;

- Shortage of raw milk for large dairy plants;
- District cooperative union is not business oriented;
- No entrepreneurship skills exist in dairy farmers and there is almost no practice of making business plans. Furthermore, access to credit and insurance is lacking .

A series of activities have been implemented by INCLUDE focused on addressing those bottlenecks and aiming at creating employment and income opportunities for women and disadvantaged groups. INCLUDE has supported the District Milk Producer Cooperative Union (DMPCU), Chitwan, organizing different trainings and workshops. In this regard, INCLUDE has supported trainings for the production of milk-based products and village animal health workers. Furthermore, the programme has supported the organization of a cooperative campaign, organized a dairy stakeholder workshop, a workshop on commercial dairy farming as well as a basic livestock management workshop. The programme also supported DMPCU, Chitwan, in organizing an animal health camp, distributing grass seeds, and developing and distributing a pictorial manual for shed management. The programme further supported DMPCU, Chitwan, in human resources capacity building.



## IMPACTS and ACHIEVEMENTS (as of May 2011)

- The average income of farmers active in the milk sub-sector has increased by 33% from annually NPR 108,000 per household in 2009 to NPR 144,000 per household in May 2011.
- The number of people active in Chitwan's milk sector has increased by 8 percent in the period from 2009 to May 2011. The number of people active in the milk sector was 18,424 (Male 15,661, female 2,763 and disadvantaged group 552) in 2009, which increased to 20,000 (Male 17,000, female 3,000 and disadvantaged group 600) by May 2011.
- The strengthened cooperation structure in the sector resulted in an increase of the members of the cooperatives by 6 percent between 2009 and June 2011 and by 1 percent between 2010 and May 2011.
- The production of milk has increased by 21 percent between 2009 and 2010.
- 21 dairy farmers including 14 women and seven men were trained on milk-based product manufacturing. Four primary dairy cooperatives have been producing dairy products such as paneer, ghee, curd, etc., with the help of the newly trained people. This contributed to generate employment for 10 participants out of 21 participants of the training on Milk Based Product Making.
- 23 members (including 19 men, 4 women and 3 from religious minorities) of the dairy primary cooperatives have been trained as village animal health workers (VAHWs). Out of them, seven have been employed by the primary dairy cooperatives in their veterinary shops. They have been providing animal health services to the cattle and buffalos owned by the dairy farmers. Similarly, seven of them have established their own veterinary shops and have been providing animal health services to members of the cooperatives.
- 380 dairy farmers in Chitwan were imparted with technical know-how on commercial dairy farming and health management by supporting the organization of a number of workshops. This motivated farmers to move up from subsistence dairy farming to commercial dairy farming. It is estimated that there were 41 commercial dairy farmers in year 2009, which increased to 60 in year 2010.
- A pictorial manual for scientific shed management was developed and distributed to 1,600 dairy farmers through primary dairy cooperatives.
- 7,730 dairy farmers (including 1,392 from Janjati households, 2,199 from Dalit households and 50 from Madhesi households) of 46 primary dairy cooperatives received grass and plant seeds (Paspalam, Molato, Setariya, Napier and Oat) distributed by DMPCU, Chitwan. They started practicing fodder based milk production.
- Cows and buffalos of 200 farmers (including 38 from Janjati households, 15 from Dalit households and two from Madhesi households) were examined medically and health services were provided accordingly in the health camps organized by the DMPCU, Chitwan.