



# Economic & Social benefits - following the implementation of sustainable animal fodder production systems in Nepal

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# Partners

- 300 Nepalese farmers
- Nepal Agricultural Research Council
- Department of Livestock Services
- NZ Plant & Food Research
- Quaker International Oat Nursery
- Specialty Seeds NZ Limited
- PGG Wrightson Seeds NZ Limited
- United Nations Food & Agriculture Organisation 2003-05
- NZ Aid Programme (Ministry of Foreign Affairs and Trade) 2008–11



# ***The problem***

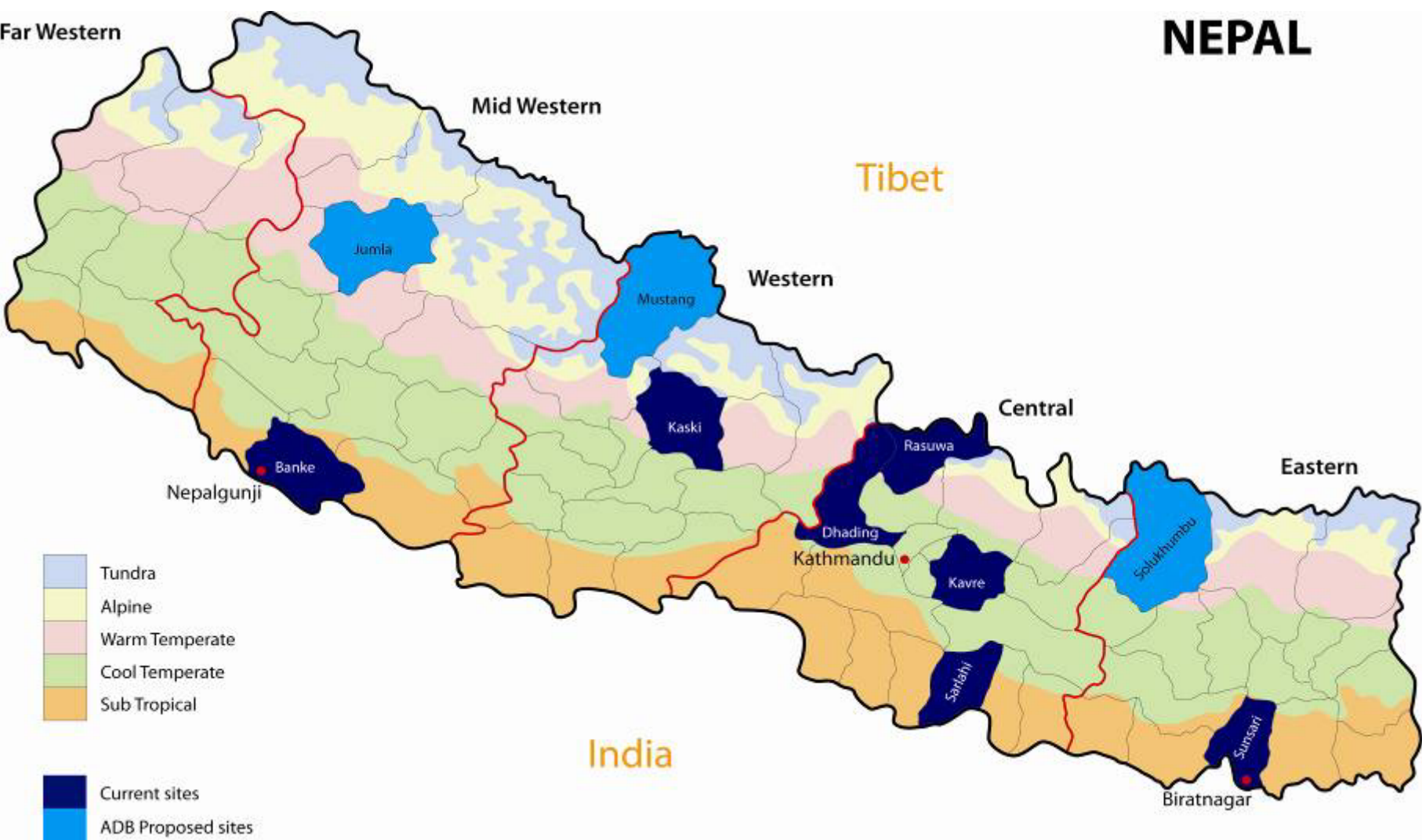
- Scarcity of fodder
- poor animal health, fertility, & productivity
- High daily work loads for rural women gathering fodder

# ***The solution***

- *Implement on-farm fodder production systems to improve milk yields*
- *Improve farm production/supply chain efficiencies*



# Location of Farmer Clusters – 300 households



# *Process* 2003-2005

- introducing **on-farm** winter fodder cropping systems
- Utilising winter fallowed fields
- Participatory testing of *'fit-for-purpose'* winter oat cultivars and legumes
- Coaching farmers to become expert fodder producers



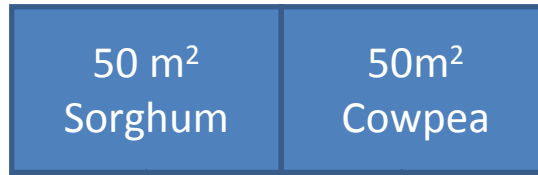
# Process 2008-2011

- Implementing sustainable ***year round fodder*** production
- Training farmers and milk processors in milk quality control systems
- Integrating farm service, and marketing supply chains
- Replicating technologies to neighbours
- ***Measuring impacts***



# On-farm cut & carry

- Summer



- Winter

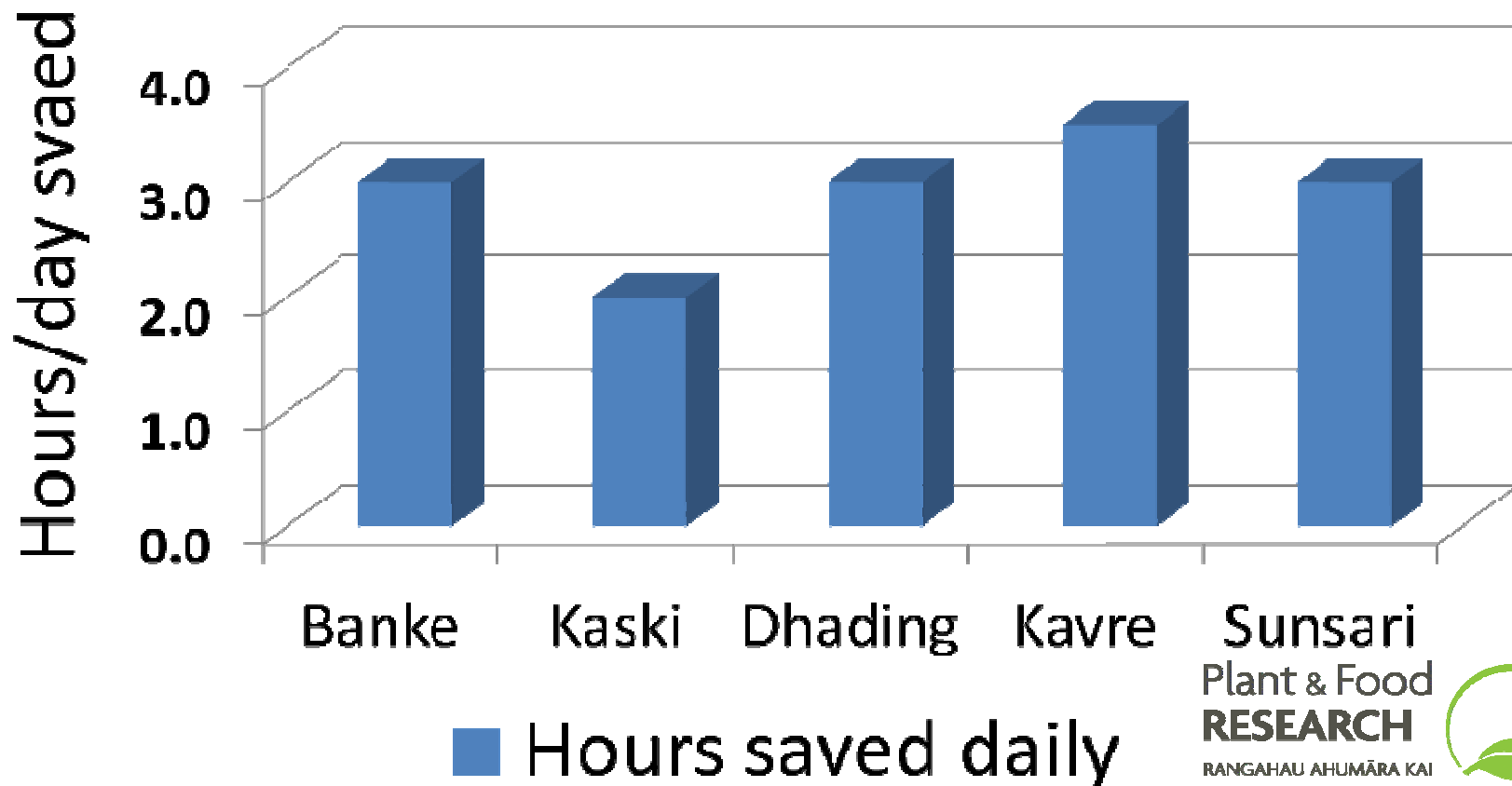


- Winter/Summer crop rotation
- On-farm training and demonstration
- 300 farmers – 6 district clusters (202 women 98 men)

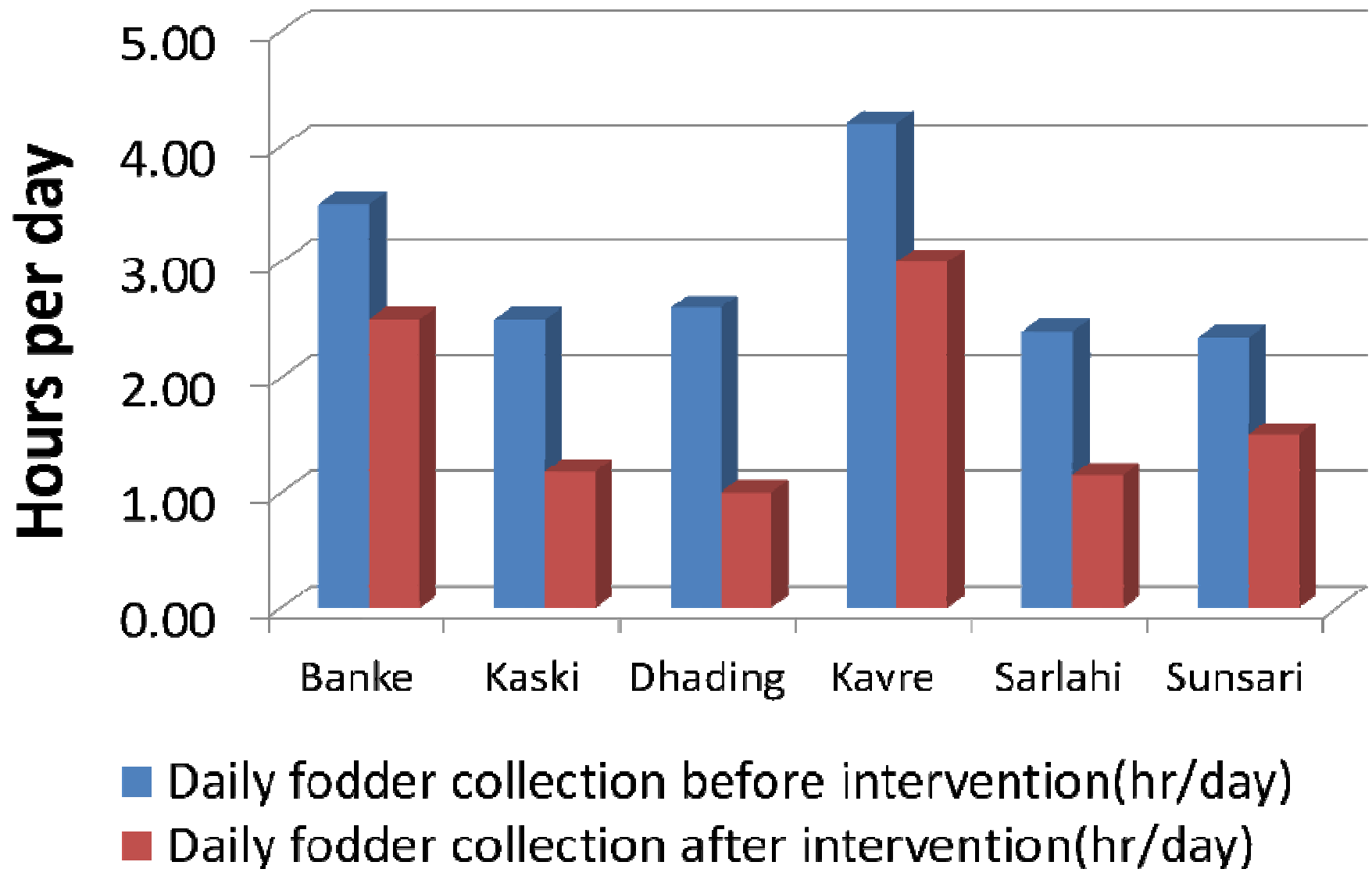


# Reduced daily workloads 2003-05

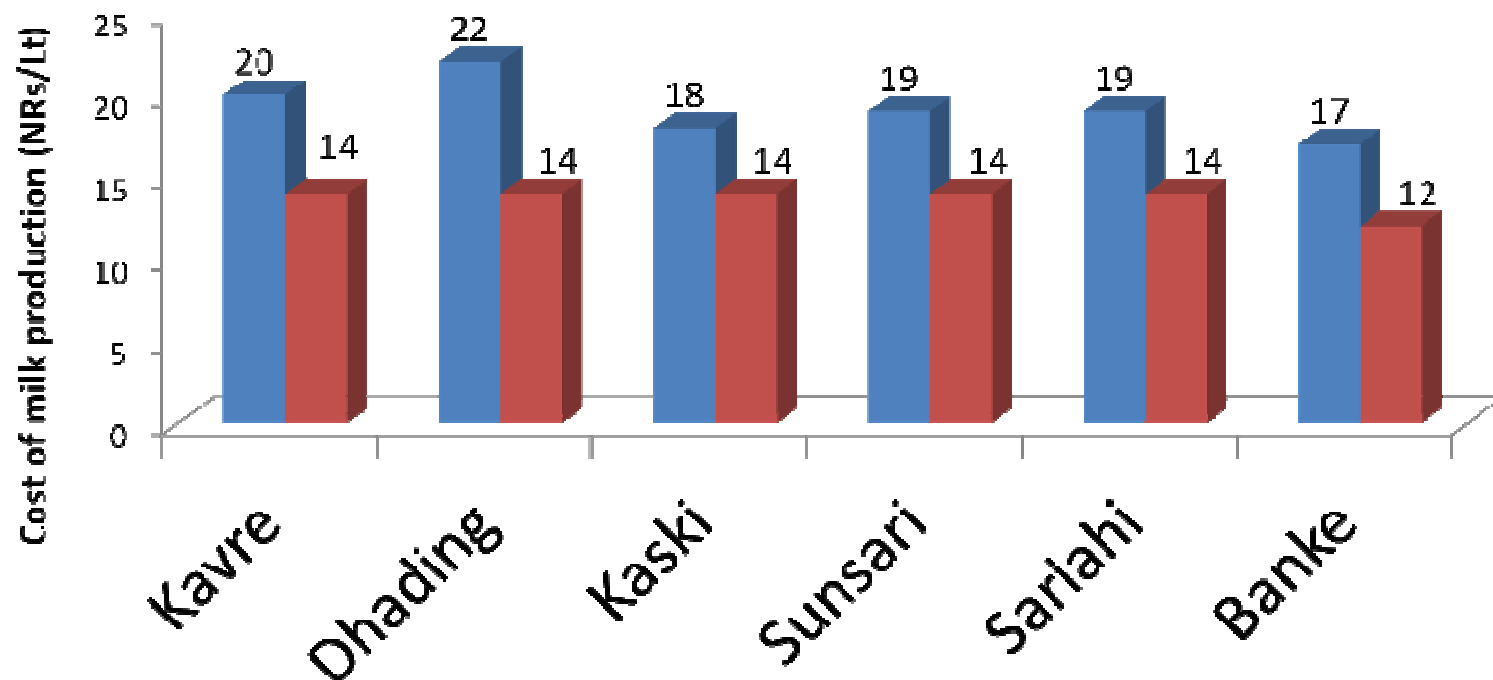
Number of hours gathering winter fodder saved daily before and after intervention 2003-05



# Actual fodder workloads -2008-11



# Reduction in cost of producing each litre of milk 2008 – 2011 per cluster

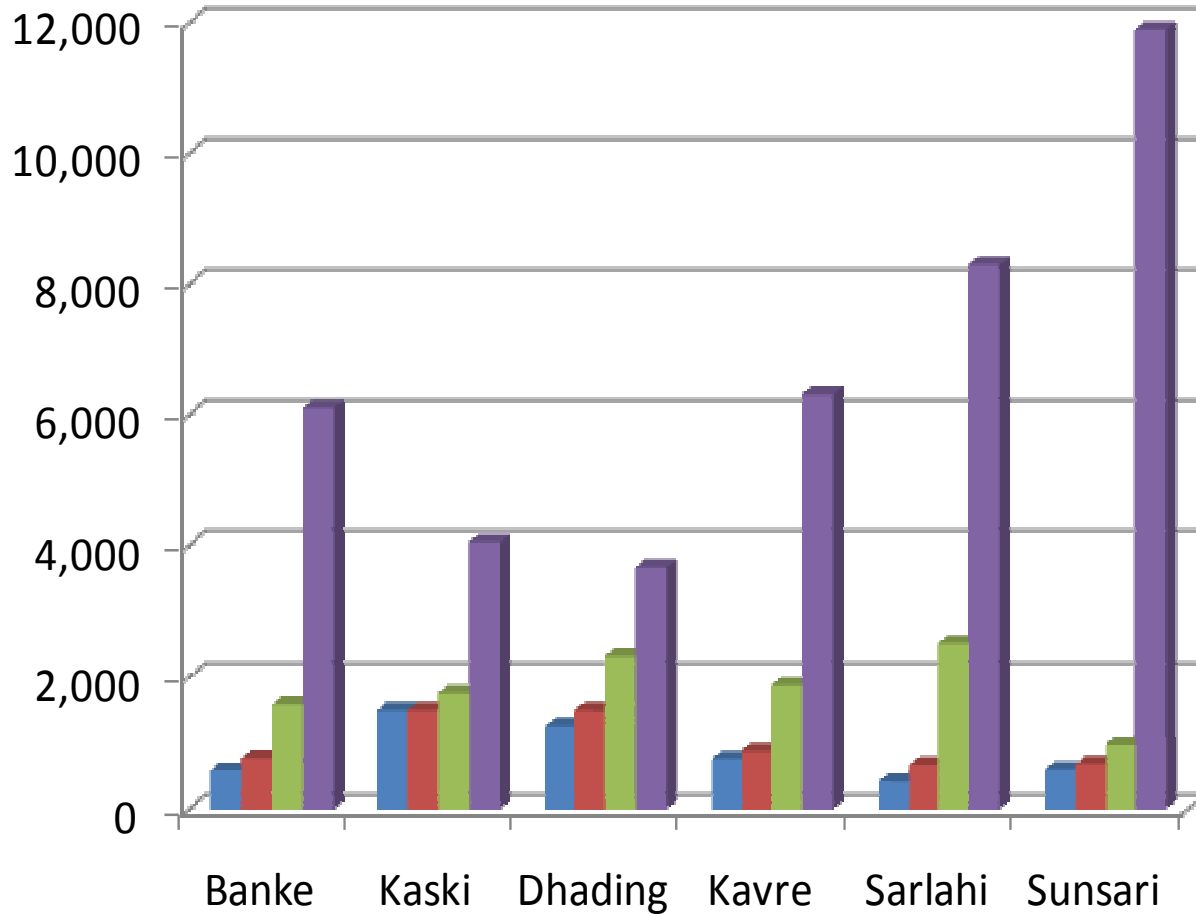


■ Cost of milk production before intervention

■ Cost of milk production after intervention



Household income \$NZ



■ Milk sales before intervention

■ Milk sales after intervention

■ Total household income before intervention

■ Total household income after intervention





# Summary of impacts

1. 10,800 farming households adopted project fodder technologies
2. Fodder supplies secured - efficiency of farm operations improved
3. Community, family, and business relationships have been strengthened
4. The entrepreneurial potential of women has been revealed and a number of innovations are now being pursued across farm sector



# Impacts cont.

- 5 Household incomes have increased and diversified
- 6 Householders have better financial security and confidence
- 7 Vertically integrated farm support structures now exist
- 8 Farmers have capacity to manage risks and emerging issues



# Project Monetary Impacts

- Total cost of project – in-kind and cash inputs = \$NZ1.4million

- Cost per farmer = \$NZ130

- Additional annual cash flow generated - 10,800 farmers = \$NZ45.5 million



# Next steps

Building community based networks for;

- seed refreshment and oat cultivar renewal
- community based cultivar cereal and grass seed production
- **Check out you-tube video title**

*‘From the ground up – sustainable fodder systems for improving incomes in Nepal’*

