



Better lives through livestock

## Synergies of Animal Welfare and Agroforestry in Ethiopia (SAWA)

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THE UNIVERSITY OF EDINBURGH  
The Royal (Dick) School  
of Veterinary Studies

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Animal Welfare Education



# Traditional and agroforestry system

What is the difference between traditional and agroforestry?

## Traditional system

Primarily based on pasture-only system  
Can be at risk of a heavy consumption of natural resources

a process of consistent degradation



# Why agroforestry/Silvopasture ?

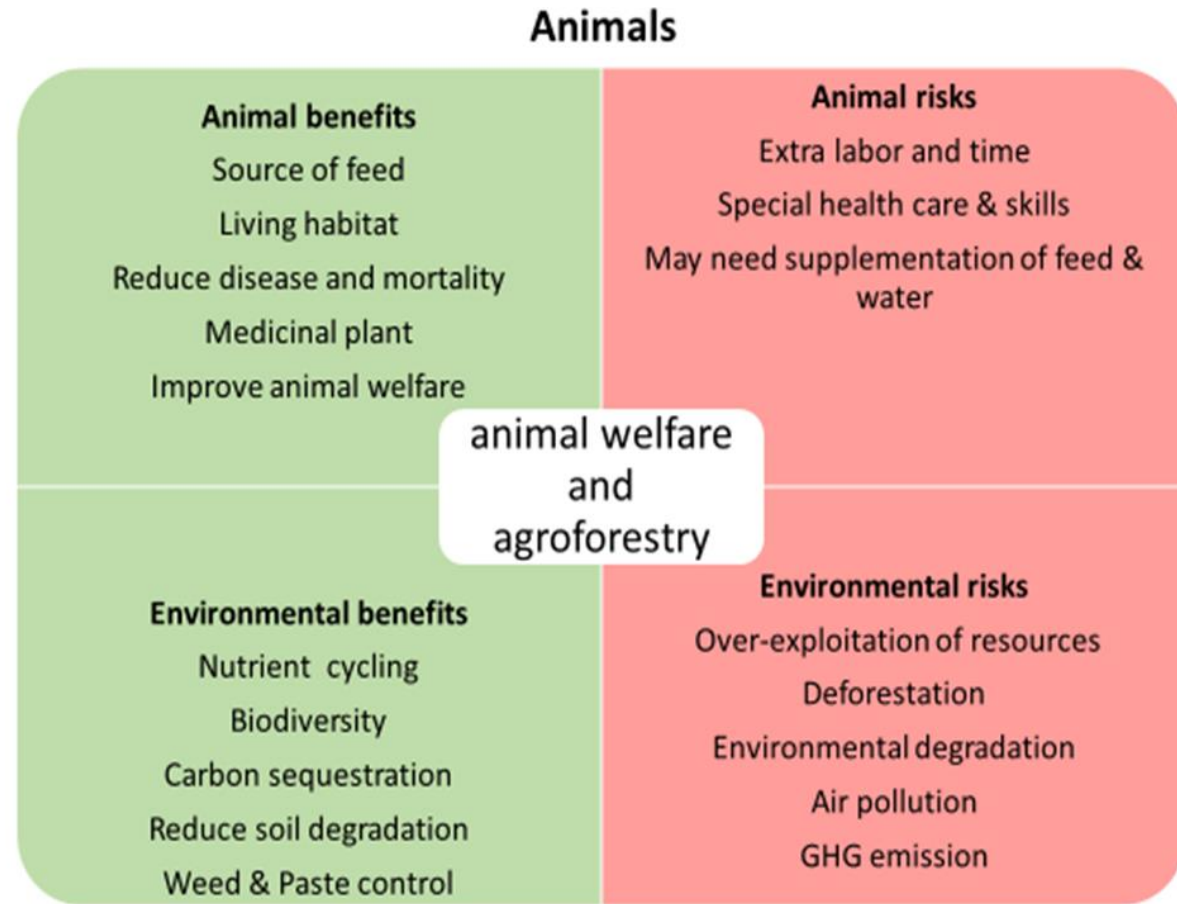
- Farm or pastoral production systems that incorporate trees
- Having benefits for animal welfare, the environment and farmer livelihoods
- Livestock systems that utilise trees to generate benefits => One Welfare



# Agroforestry and livestock integration for both benefits



**Synergies**



**Trade offs**

**Environment**



## Project aim

- To evaluate and demonstrate the benefits of agroforestry-livestock systems in Ethiopia for three domains :-
  - Animal welfare,
  - Livelihoods
  - The environment

# Highlights about the project sites

## Compare

- tree-based production systems
- with traditional mixed crop-livestock systems



# Study area description

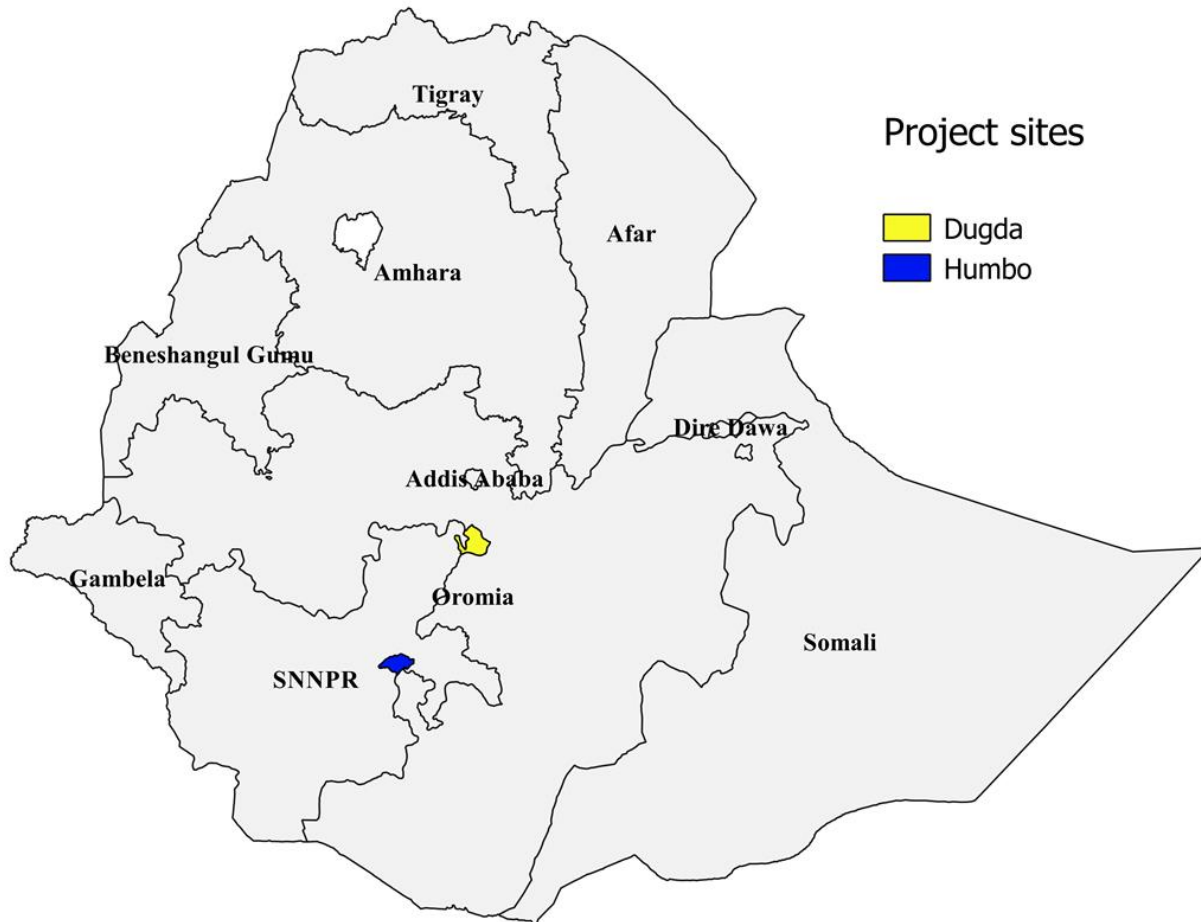


Figure 1. Map of Ethiopia with study sites

## Districts

- Dugda
- Humbo

## Village selection base

- Good tree access (GTA)
- Less tree access (LTA)

## Study population

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### Participants =>

- 40 farmers from good tree access
- 40 farmers from less tree access

### Observed livestock => 358

- 171 cattle
- 55 sheep
- 100 goats and 32 donkeys





**Evidence  
from the  
study result**



**Evidences  
from Shubi  
Gamo village**



**Evidence  
from Bossa  
Wanche  
village**



## A case from good tree access

Farmer from Bossa Wanche village

He produces livestock

He planted different tree species->Mango, Avocado  
Banana, Enset(false banana)

Root crops and some  
vegetables

He commonly gives food  
tree residue to the livestock  
and uses tree as shade





Welfare benefits from the agroforestry system

## Animal based indicators

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- ✓ Improved body condition
- ✓ Create thermal comfort

## Resource based indicators

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- ✓ Source of feed and Water
- ✓ Shade & shelter

# Some evidences from the survey

## Tree-based systems benefits

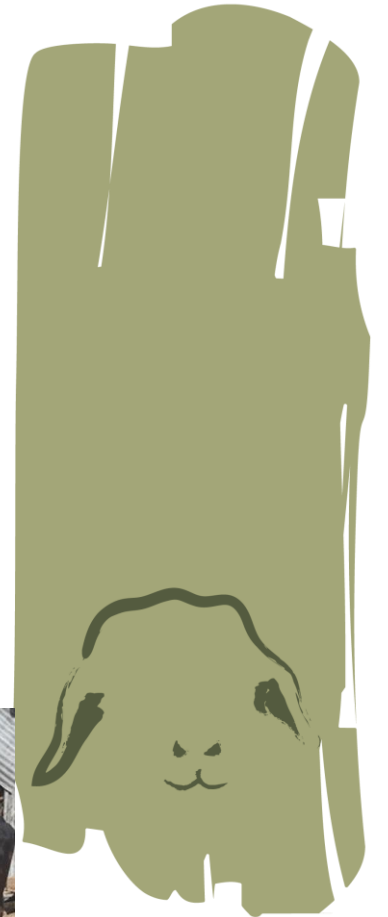
- had fewer skinny livestock compared to traditional farming
- There is better feed and water access for livestock herd



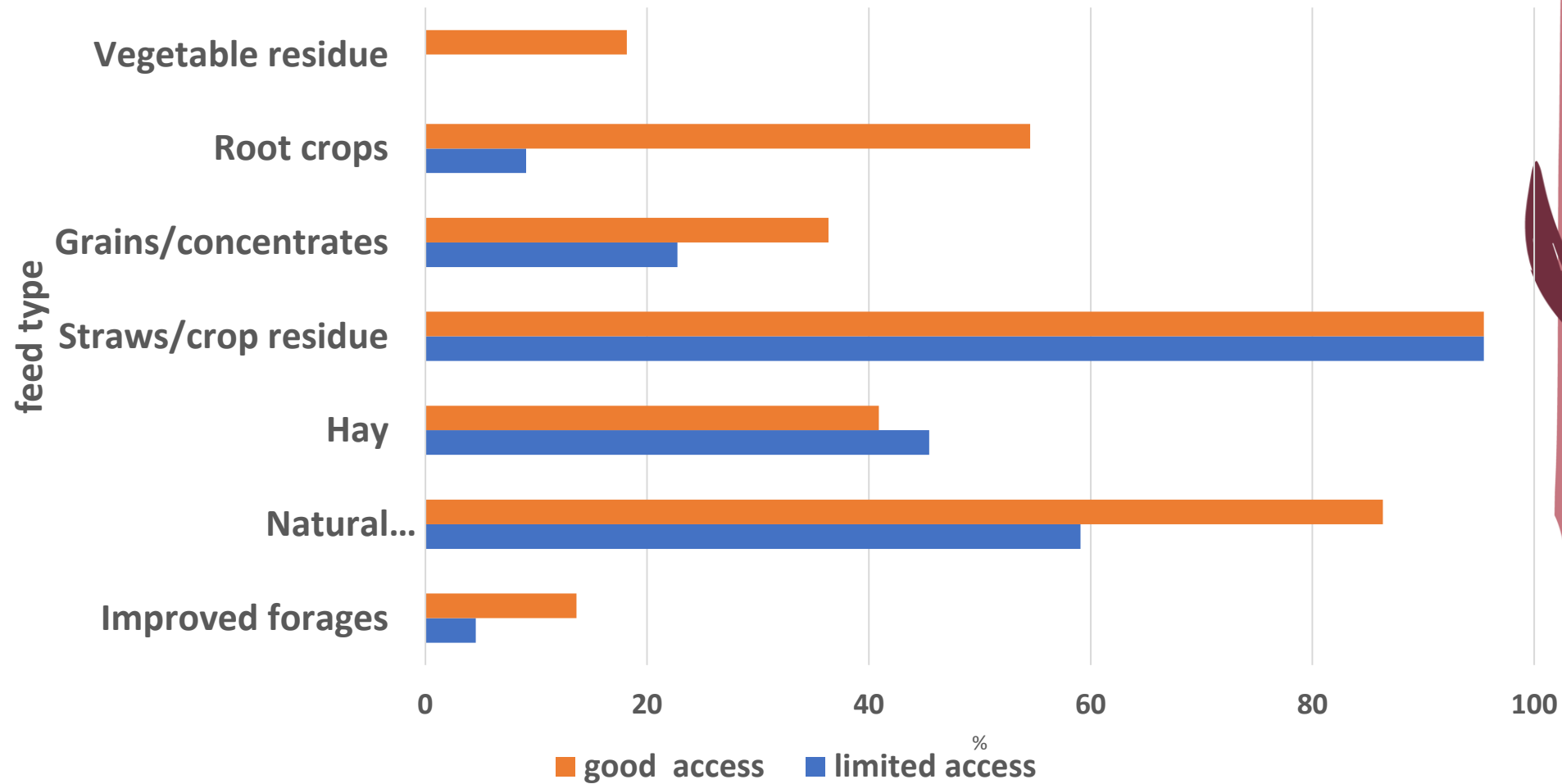
# Farmers' Attitude, Knowledge and Practice

## Farmers in Good tree access


- Averagely better knowledge and practice



# Result summary



# Tree-based systems challenges

-  pesticide/chemical use in areas with vegetables and trees
- **Challenges**
  - ✓ in managing young trees, plants
  - ✓ related infrastructure
  - ✓ Animal grazing;
  - ✓ Veterinary support services



# Survey and observational study showed

## Less tree access

- Disease and mortality
- Housing problem observed
- Poor handling





# Conclusion

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## **The difference is visible**

© Understanding the benefits and the trade-offs  
are actionable steps

© and we planned to extend through participatory  
training

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