Potentials and Challenges in Ecological Sanitation in the Northern Areas (Baltistan) Pakistan.

Bahadar Nawab & Cassandra Bergstrøm

Ciit, Pakistan & UMB, Norway

42 % have ’sanitation’

58 % do not

Less then 5% wastewater is treated

Wastewater irrigation

Objectives of the Study

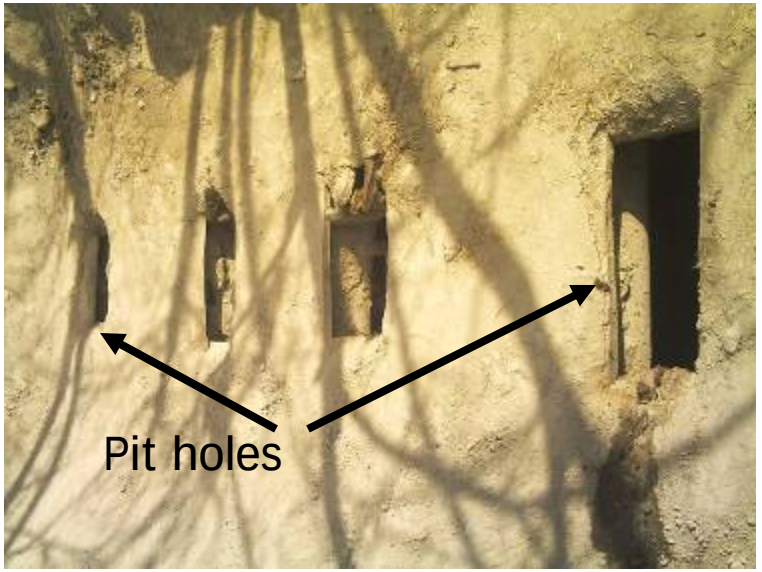
- To know the history, health risk, environmental and economic sustainability of Balti pit and twins pit composting latrine (TPCL) in Baltistan.
- To see the potential of improvement in the design and use habits of traditional dry sanitation in Baltistan and its replication in the rural areas of the down country.

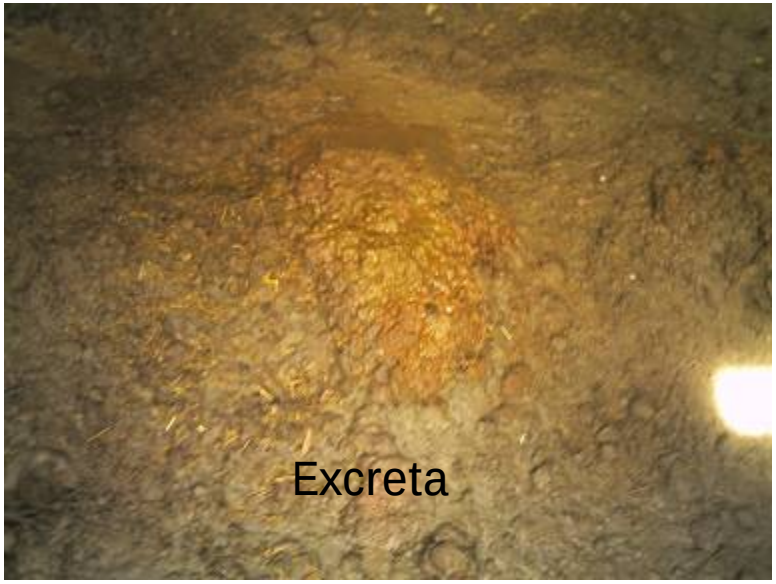
Methodology

- Questionnaire survey (30%) household
- Individual and group interviews, meetings
- Detail design study of the pits and excreta handling processes

Methodology

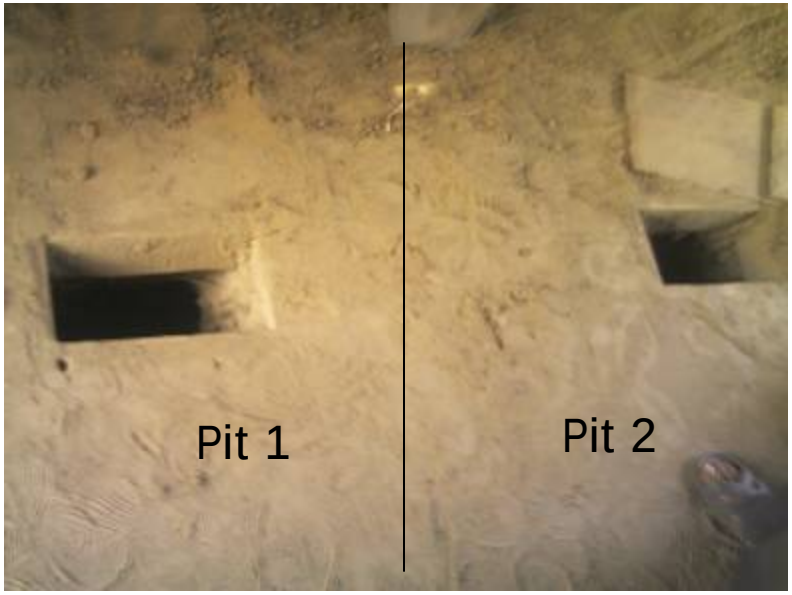
Design of Balti pit





Balti pit (cont)

Design of Twin Pit Compost Latrine

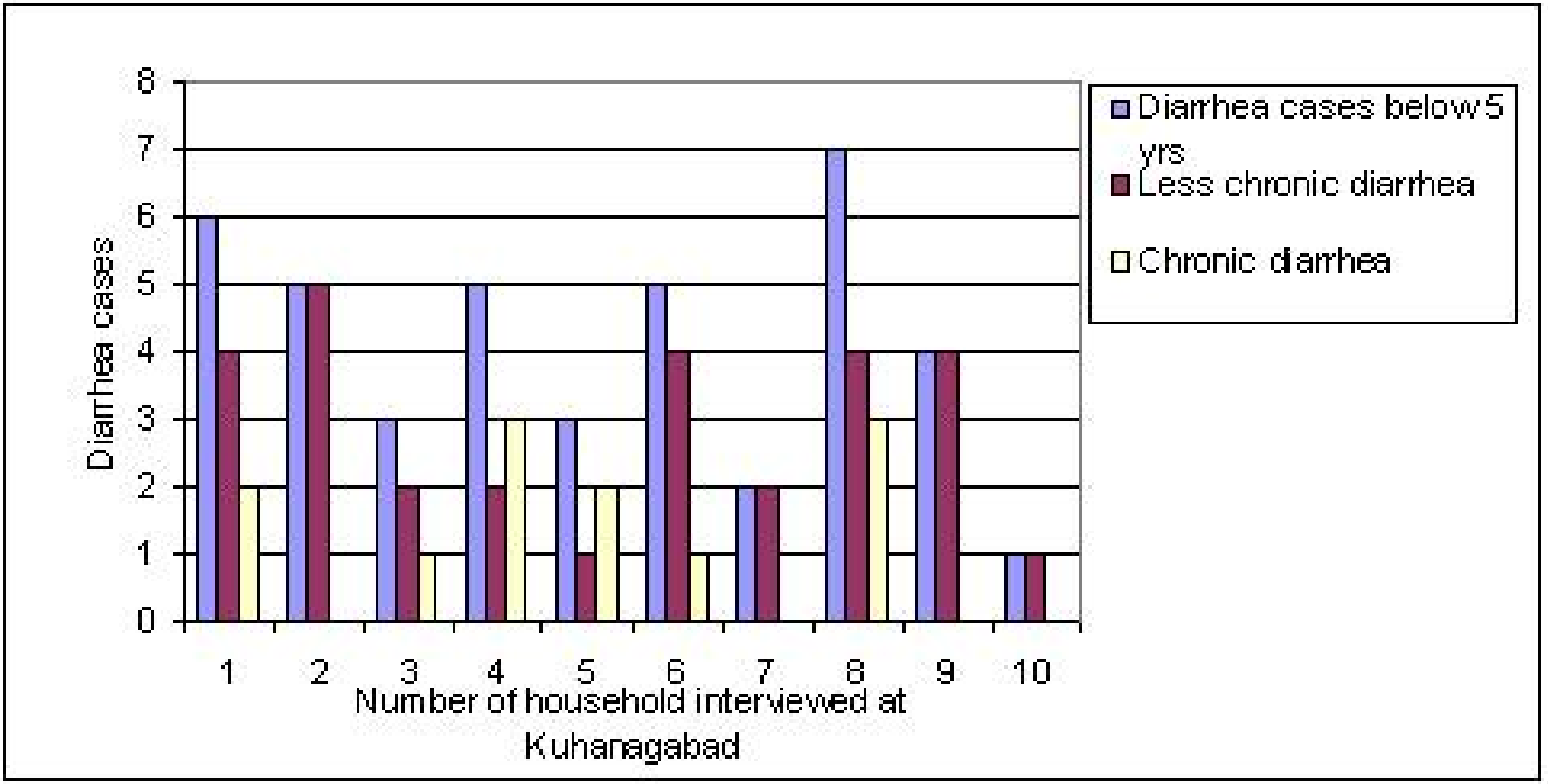


Local Practices

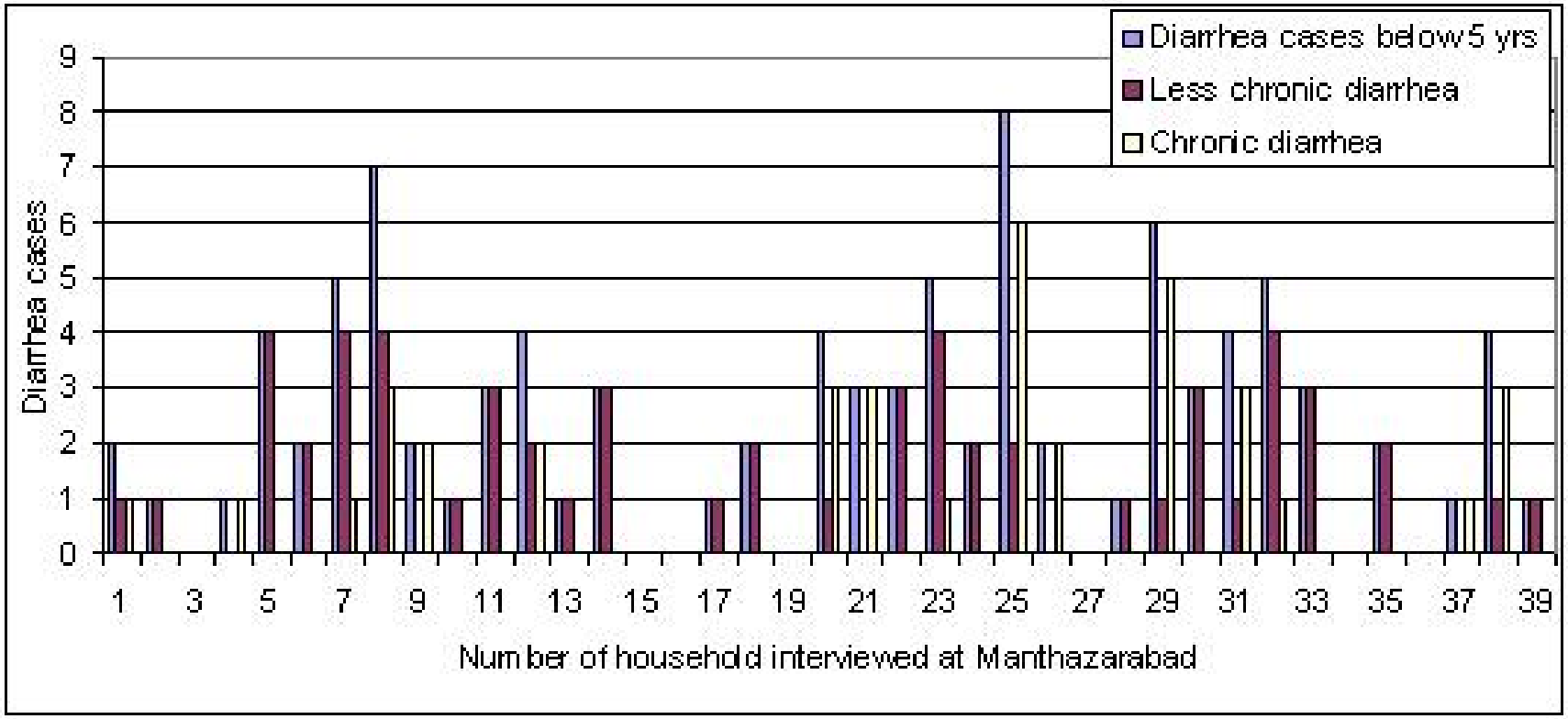
- Open defecation and urination is taboo and culturally not acceptable in Baltistan
- Almost every household has pit latrine
- Variations in the use and composition of compost (Looth) in Balti pit and TPCL
- Variable options in the excreta disposal mechanism

Stone and mud pit without liner facilitate seepage at the bottom and the side walls

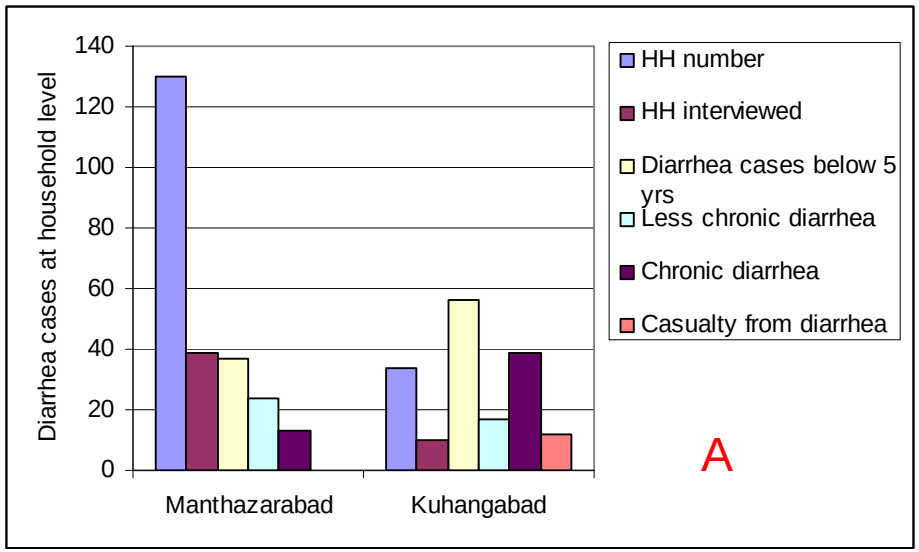
Diarrhea cases in village using Balti pit and spring water

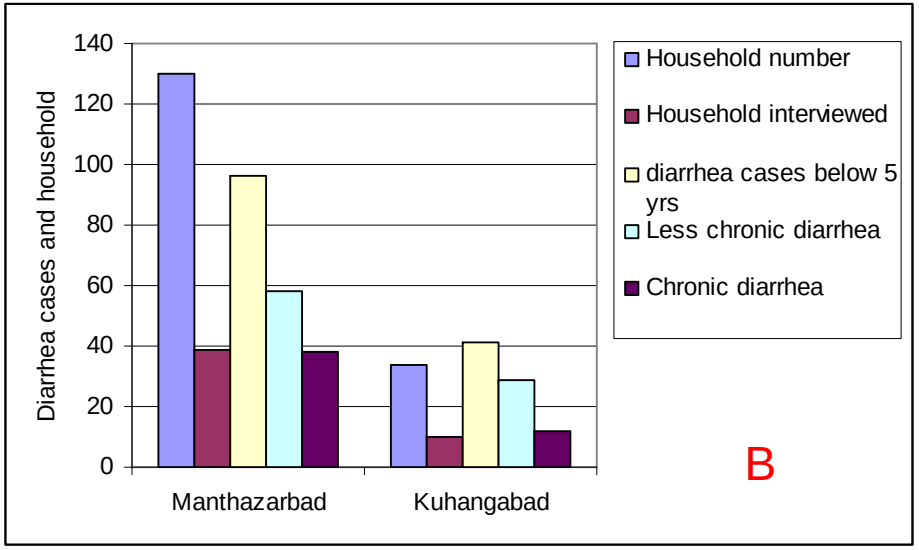


Diarrhea cases in village using TPCL and tap water



Misperceptions about diarrhea and pathogens survival





Diarrhea cases according to local definition during 4 months (A) and sharp increase once local people understand diarrhea after discussion with the researcher during two weeks (B) in 2007.

Conclusion

The study identifies some issues that can be targeted for future intervention:

- Local people's misperceptions about diarrhea
- Relationship of diarrheal cases with the type of latrines
- People's use habits of latrines and excreta handling techniques
- Health risk and sustainability aspect of sanitation in Baltistan in terms of cost, breaking the faecal-oral cycle and recycling of plant nutrients
- Designing strategy and action plan together with local people to make the existing system safe both for local people and the environment

Conclusion

- Balti pit latrines and TPCL are although very close to ecological sanitation in recycling of plant nutrients. However, the manure in the pits is not properly composted and could pose serious health risk as indicated by frequent diarrhea cases in the two villages.

- The study warrants awareness among the local people to understand and follow C/N ratio, moisture content and time needed for proper composting of excreta in the pit.

Conclusion cont.

- The study concludes that improved design of traditional Balti pit latrines and improved practices with respect to storage, collection, transportation and disposal of excreta can lead to improved health and true ecological sanitation in Baltistan, Pakistan.

Acknowledgements

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Thank You for Your Attention