

Recharge Ponds for Protection of Springs in the Mid-Hills of Nepal:

Experience from a pilot study in Kavre

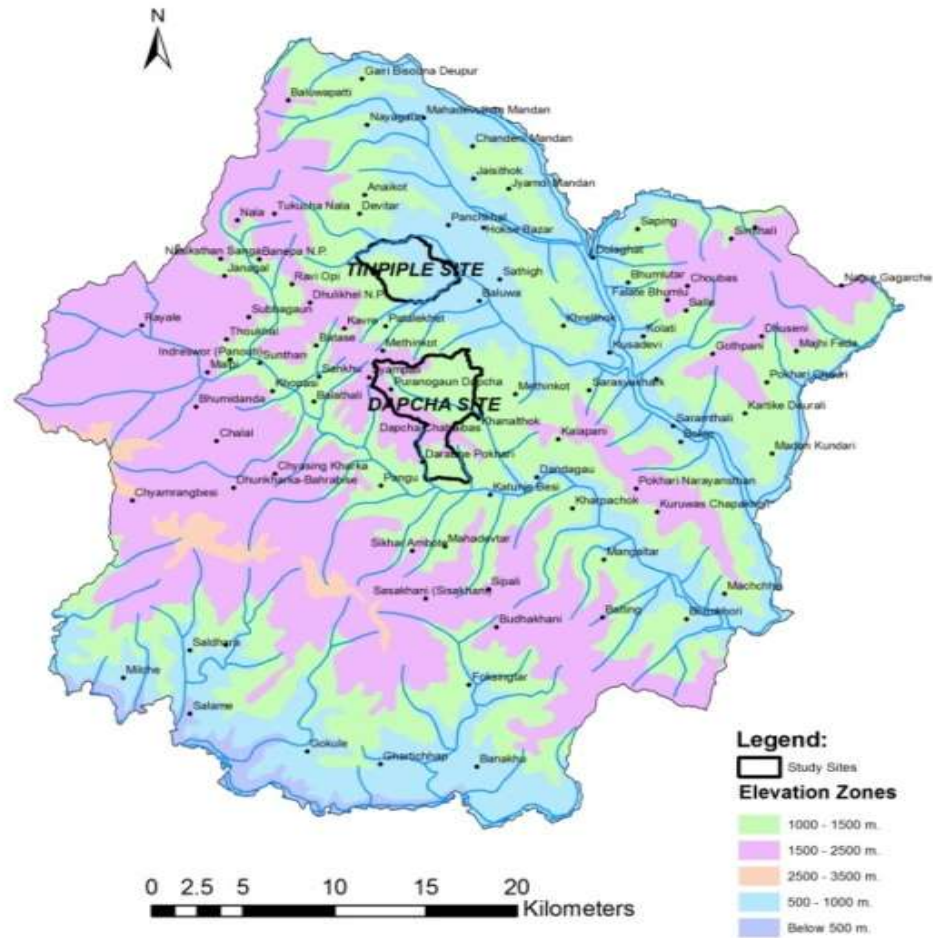
Binod Sharma
Nepal Water Conservation Foundation (NWCF)

ICIMOD

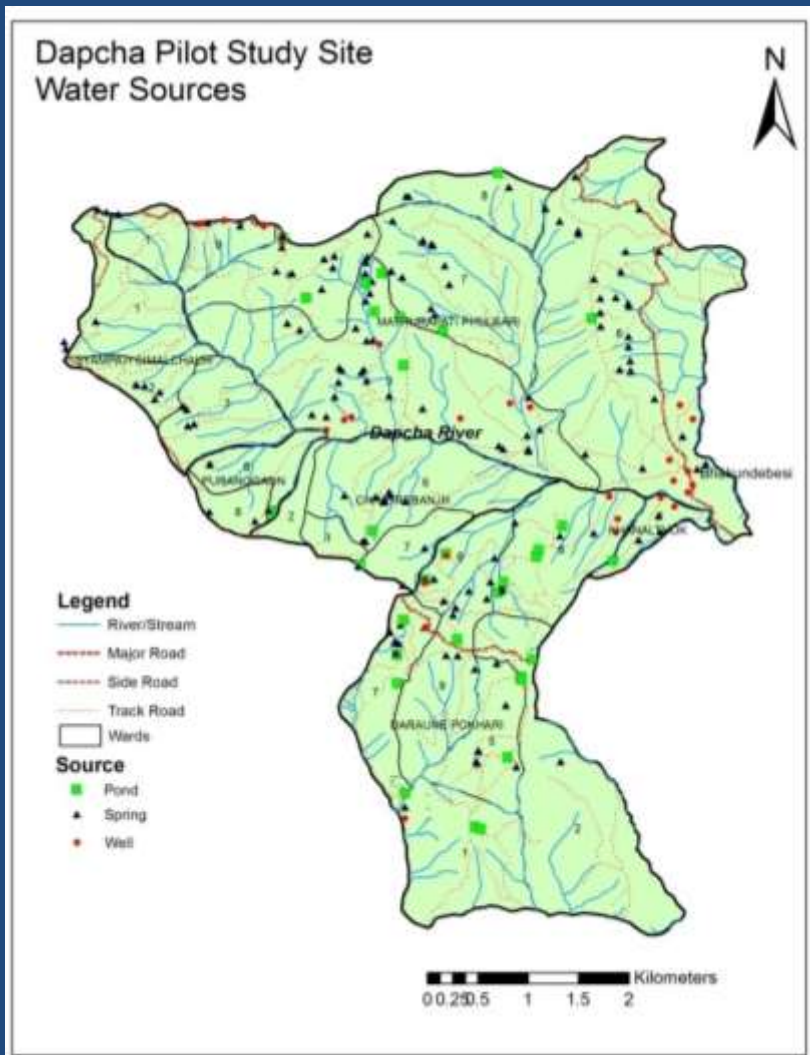
FOR MOUNTAINS AND PEOPLE



Kavrepalanchok District Location of Pilot Study Sites



Water sources: Mapping the springs



Area – 25 Sq. Km.

Total Sources – 246

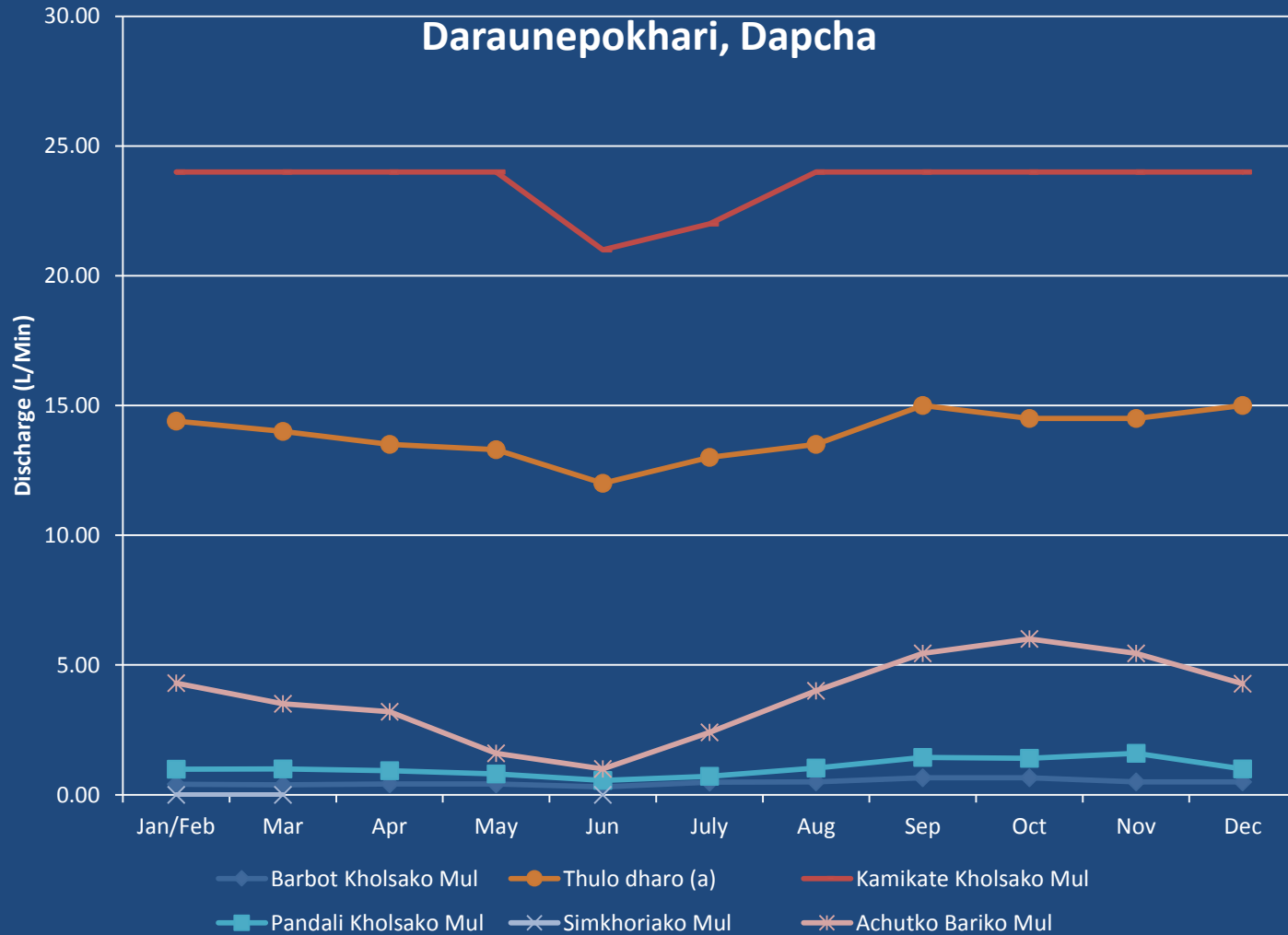
Springs – 174

Spring density – 7 per sq.km.

51 springs out of **174** – dried up
(29%)

19 ponds out of **24** – dried up

Discharge measurements of selected springs



Pond and Spring, Daraune Pokhari, Dapcha



Local participation in recharge pond construction



Recharge Ponds for Survival of Springs



Before

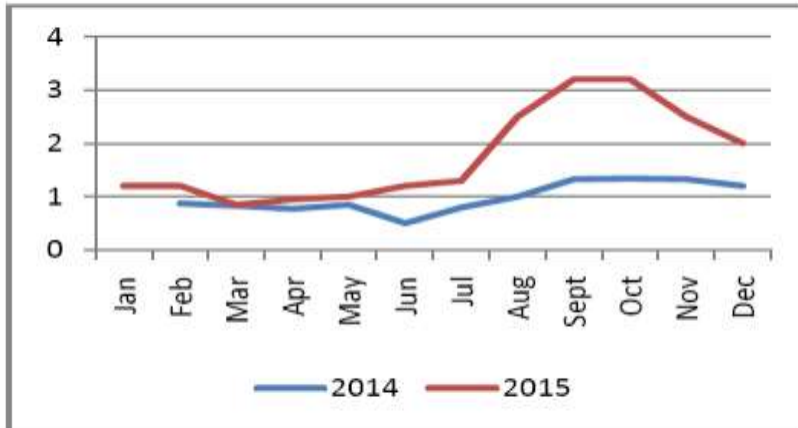


After

Comparison of Spring Discharge Measurements 2014 and 2015

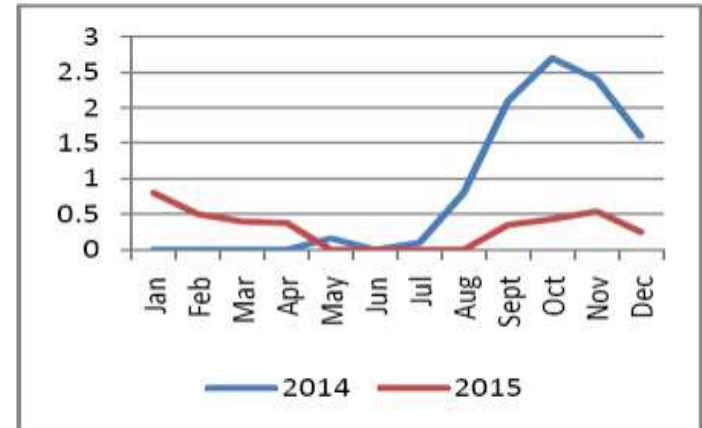
Mandane Kuwa, Tinpiple, Panchkhal

Spring discharge (lit/min)

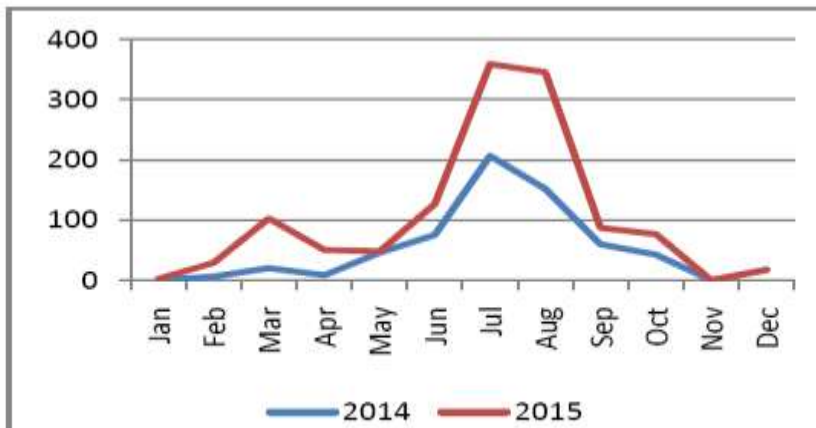


Jogipani Kuwa, Daraune Pokhari, Dapcha

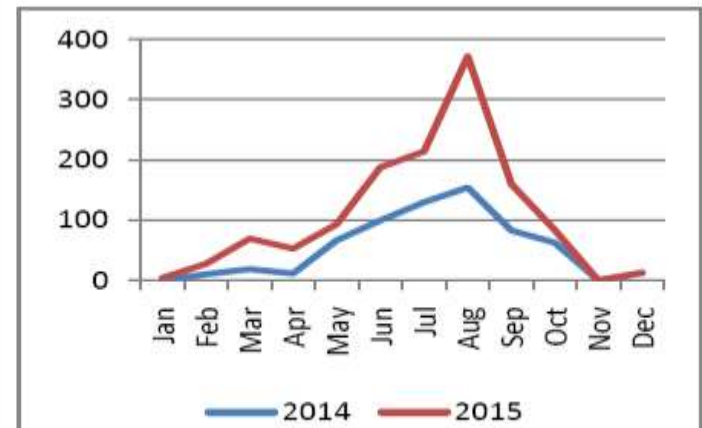
Spring discharge (lit/min)



Rainfall (mm)

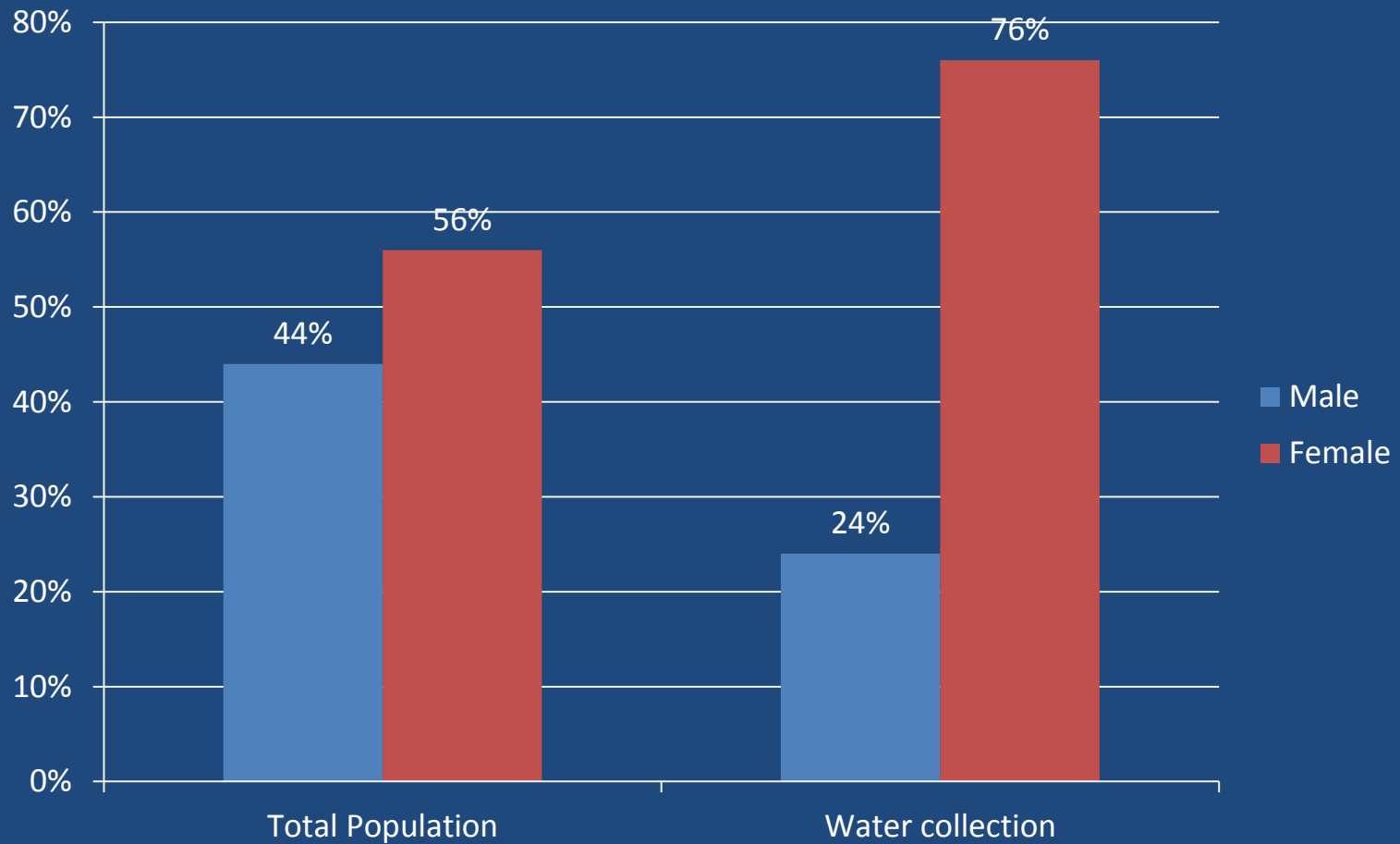


Rainfall (mm)



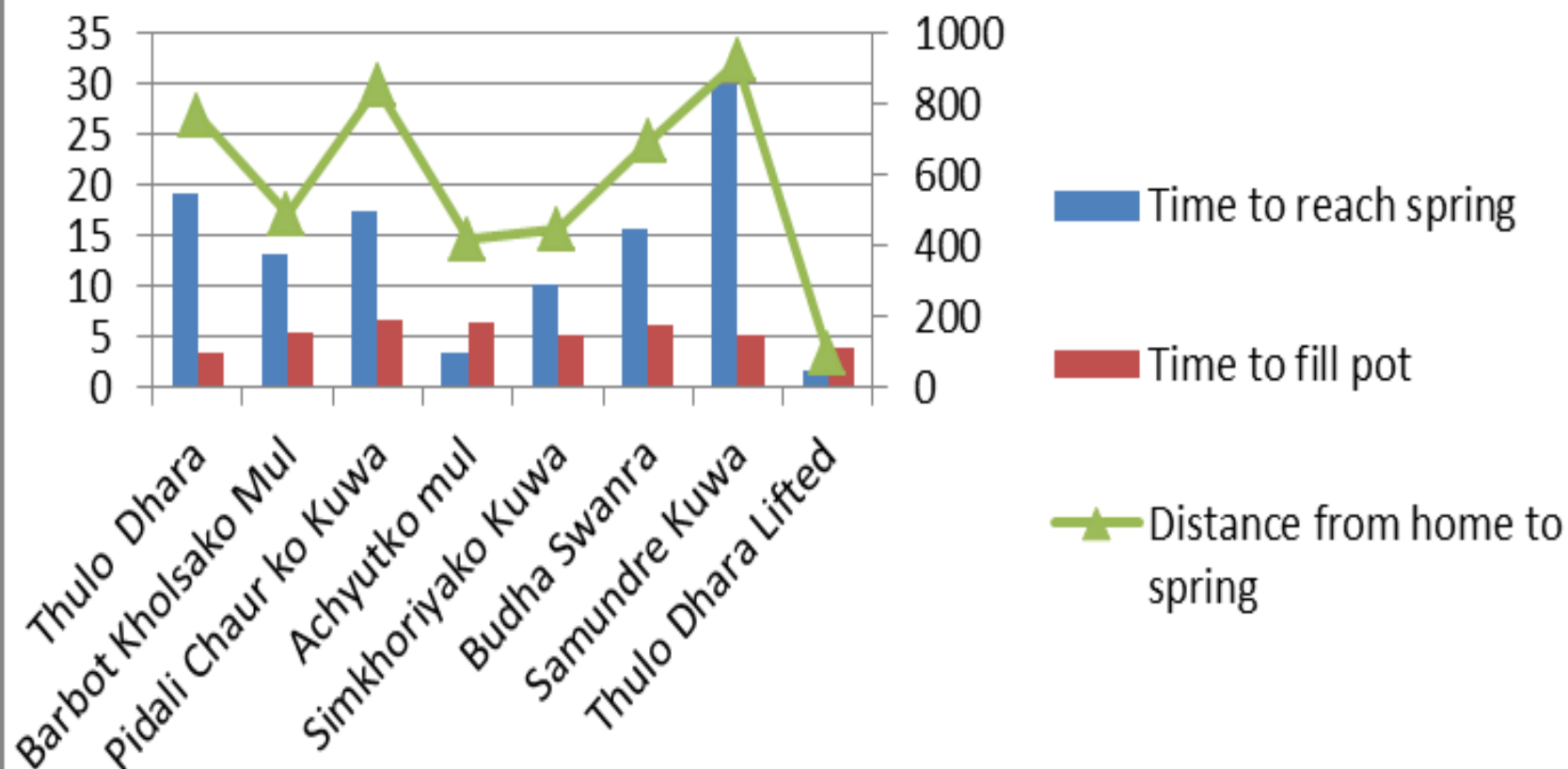
Social Survey and Gender Perspective

Male to Female Demographics in Daraune Pokhari, Dapcha: Total Vs Population engaged in water collection

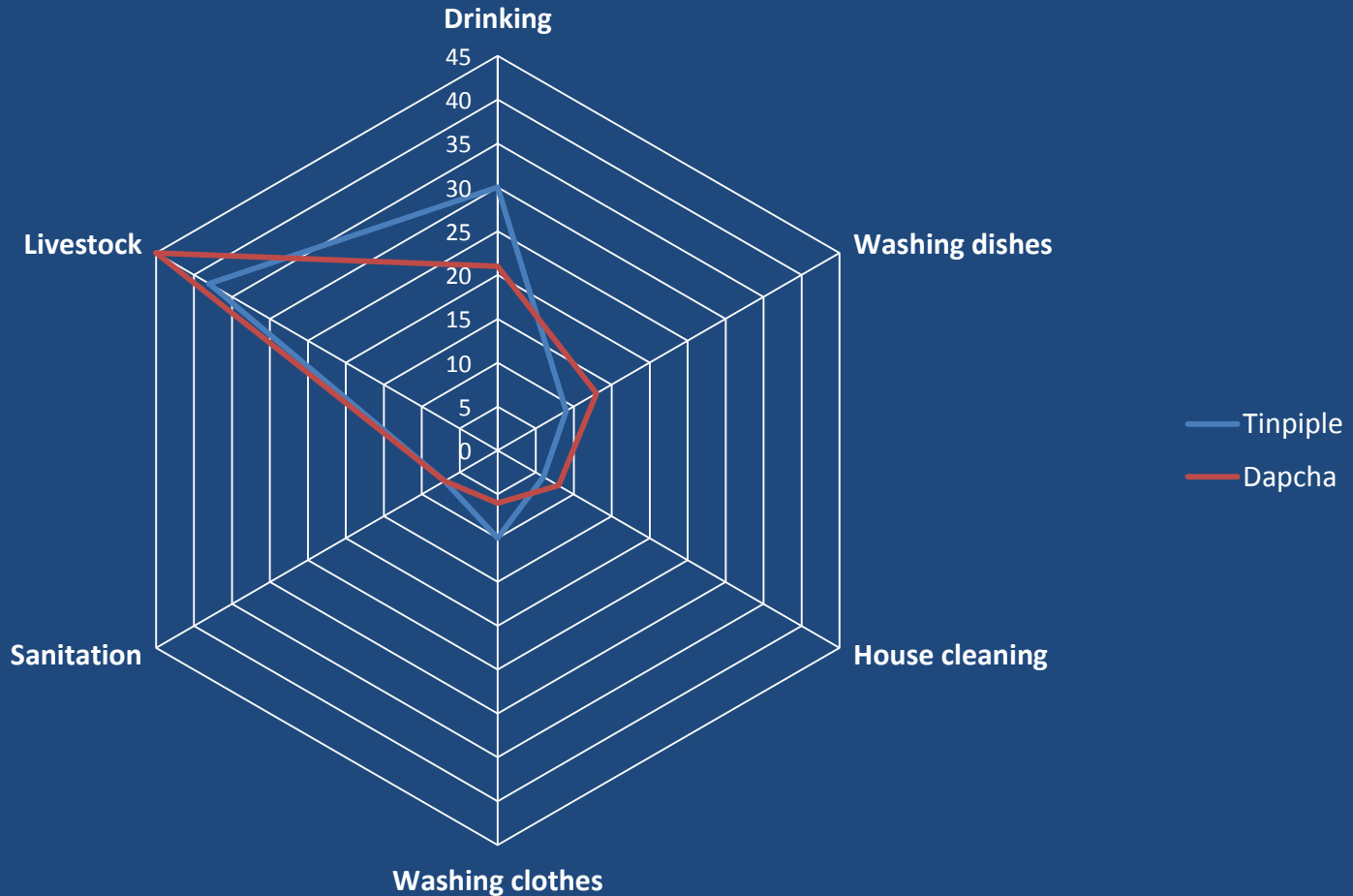


Dapcha

Distance and Time to Collect Water



Purpose for which water is used



What is being done ?

Awareness campaign:

Scaling up and scaling out the findings of the present study in 3 additional VDCs

Issue Brief

February 2015

Reviving the Drying Springs

Reinforcing Social Development and Economic Growth in the Midhills of Nepal

Why are springs important?

Midhill village life in Nepal, an elsewhere in the Hindu Kush Himalayas, is a daily struggle

Drying up

Neglect and leveling of ponds have directly contributed to the drying up of fresh water springs in Nepal's Mid Hills

BINOD SHARMA

Binod Sharma is a senior advisor at ICIMOD. He has worked on water resource management in Nepal for over 20 years. He is currently leading the 'Reviving the Drying Springs' project in the midhills of Nepal. He has a B.Sc. in Agriculture from Tribhuvan University, Nepal, and a M.Sc. in Water Resources from the University of Colorado, USA. He has published several papers on water resource management in Nepal and is a frequent speaker at international conferences.



The dried-up spring in the midhills of Nepal is a common sight. The water table has dropped significantly due to the leveling of ponds and the neglect of traditional water management practices. This has led to a severe water shortage for the local population, particularly during the dry season. The image shows a dry, cracked earth around the spring, with no water visible. The surrounding landscape is hilly and mountainous, with sparse vegetation. The sky is clear and blue, suggesting a sunny day. The overall scene depicts the impact of climate change and human activities on the local water resources.

Highlights

- ICIMOD in partnership with the Nepal Water Conservation Foundation (NWCF) has worked with local communities to level ponds and improve water management practices. This has led to a significant increase in the water table and the revival of many dried-up springs.
- The pilot project proved that traditional water management practices can be scaled up and scaled out to other VDCs.

Dapcha Pilot Study Site: VDCs and Wards



Legend

- Contour
- River/Stream
- Main Road
- Side Road
- Trail
- Ward Boundary

VDCs

- CHHATRESBUN
- DARAU LIE POKHARI
- KHAMALTHOK
- MATHURAPATI PHULBARI
- PURNADGAUN
- SYAMPATI SIMALCHAUR

0 0.250 5 1 1.5 2 Kilometers

What is being done ?

Capacity building



Follow up and future activities

- Further work needed to fully understand the science of the springs
- Capacity building at the local level
- Dissemination of the knowledge through local media like FM station
- Collaboration with other institutions at operational level
- Inclusion of local water management in the local and national policies
- Scaling up and scaling out of the findings

THANK YOU