Drying up

Neglect and levelling of ponds have directly contributed to the drying up of fresh water springs in Nepal’s Mid Hills.

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Investigating springs

Lately, migration of desperate people suffering from a chronic lack of water in their villages has accelerated from the hills and mountains. The springs that once used to flow profusely have now become levelled to the ground, and the amount flowing out of the springs. Neglecting recharge

As bad as these drivers were, another important reason was that villagers had neglected to recharge their water tower. Traditionally, there used to be a proliferation of ponds in or near settlements in the Mid Hills, storing water that is stored as groundwater and feeds the springs. The water that gets stored underground should be thought of as a ‘water tower’ with an average volume of 5-7 springs per square kilometre but as much as thirty percent had dried up completely over the past 15 years. What are the reasons for this alarming state of affairs?

The initial results have been very encouraging. First of all, ponds were filled with water during the rainy season. It seems reasonable to assume that a significant proportion of the captured water found its way into the underground reservoir and contributed to the rise in water level of the water tower and ultimately helped feed the springs downstream. A spring that had been completely dry for at least five years in the influence zone of one of the rehabilitated ponds called Thanti Pokhari yielded water last September. This encouraged the local people so much that some have already started to build recharge ponds on their own land in the hope of reviving other springs or increasing flows in existing ones.

This example demonstrates what can be done with very little external resources to solve problems at the local level using simple, traditional technology and local initiatives. However, one pond in one locality is not enough. A larger national campaign is needed to rehabilitate and construct many small recharge ponds, improving the hills and mountains of Nepal with them. If we can capture and retain uphill even a small percentage of the monsoon and winter rains, that would rejuvenate springs and hill livelihoods as well. Failure to do so might not only mean that hill springs will dry up or the monsoon rains not retained uphill will wash off downhill as flood flows causing landslides, but also lead to the degradation of Nepal’s Mid Hills and hill livelihood as we know it.

Sharma is a senior researcher at Nepal Water Conservation Foundation, currently working on a pilot study of springs and recharge ponds in the Mid Hills.