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**HPP Productive Units
preparing us for
a warmer world by**

**taking better care of
water resources and
wiser water use**

- **Freshwater cannot just be taken for granted and we need to use water-saving systems such as drip irrigation – here from the garden farm at DNS Niassa, Mozambique.**



Or this drip system at Frontline Institute, Zimbabwe, made out of locally harvested bamboo tubes, linked together with rubber from inner tubes and small plastic tubes as drippers. They will soon have 1 acre with this.



Another simple water saving food production system at Frontline Institute – crops grown in bags filled with soil and watered through reused bottles.



- **The Climate Center helps farmers around Frontline Institute to set-up groundwater recharge systems, where drains and vetiver grass contours make the rainwater penetrate into the ground instead of running off.**



- Heavy downpours destroyed Frontline Institute's tree nursery in 2013 and they had to start the production of seedlings all over.



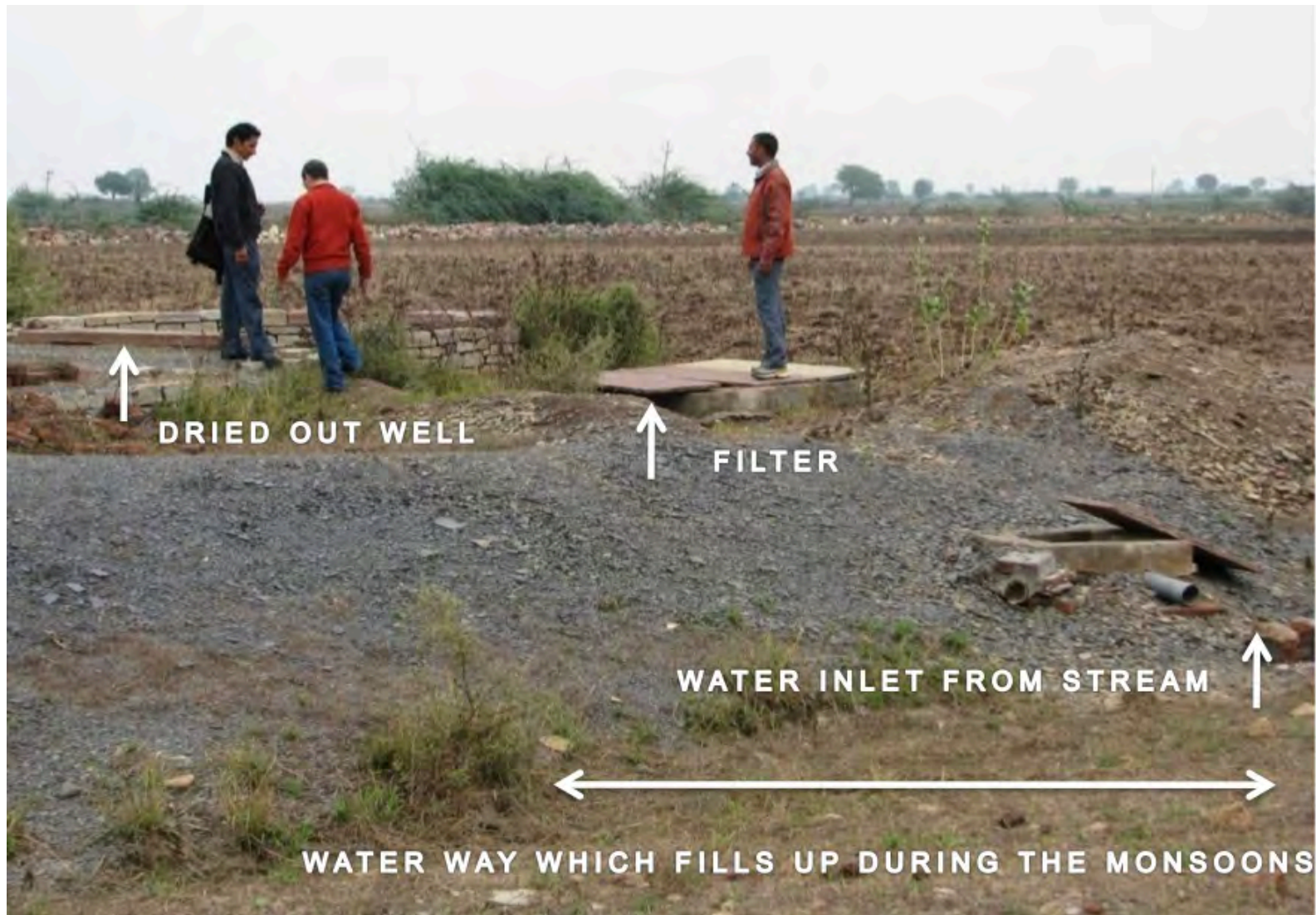
Frontline Institute, with donated machine power from local authorities, has now built a weir dam to reduce the damages from such destructive downpours. This will also help to increase the water levels in their wells.



- **Water recharge structures in village ponds at a HPP project in Behror, India, have resulted in water levels in neighboring wells rising by several meters, where the norm in Rajasthan is falling groundwater levels. After heavy rains, groundwater is recharged through this well.**



HPP India has also promoted systems to recharge the wells farmers use for irrigation. When rainwater flows in the stream in front, more water enters the groundwater.



▫ **Cultivation of rice and wheat at a HPP seed diversity project in India uses a water-saving system whereby half of the irrigation water is saved, while a more living soil is built up at the same time.**



□ In this system of rice intensification (SRI) the small rice seedlings are planted with fixed spacing in between giving them good conditions to develop. The farmers use fewer seedlings and get better harvests.



Water from kitchens and baths – gray water – is reused at Frontline Institute, Zimbabwe. Microorganisms in the covered tank clean the gray water of organic matter, and the reused water is pumped out for irrigation.

