

SOMETIMES OUR INTERVENTIONS CAN LEAD TO UNINTENDED CONSEQUENCES.

A WELL DOES NOT ALWAYS LEAD TO WELLBEING.

Our interventions rarely stop to consider the unintended consequences that may result from them, the winners and losers that could emerge, the long-term effects that were not envisaged, the impacts on other systems, or the added pressure that a changing climate could bring. These consequences, which are different for different household members, ideally need to be considered from the outset to minimise maladaptation or reductions in wellbeing.

What questions should we be asking ourselves when planning an intervention?

IN TAMIL NADU, A NUMBER OF SUBSIDIES HAVE BEEN INTRODUCED TO IMPROVE FARMING PRACTICES AND PROMOTE A SHIFT TO CASH CROPS, WITH THE INTENTION OF BETTERING HOUSEHOLD INCOMES. HOWEVER, A NUMBER OF UNINTENDED CONSEQUENCES HAVE RESULTED...



01 The government of Tamil Nadu offers a subsidy for digging wells. Free electricity is made available so that people can pump as much water as they need.

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02 **IN THE SHORT TERM...**

Initially, things improve for the farmers of Tamil Nadu. For one, there is an abundance of water - a first for a semi-arid region!

What are the short-term benefits versus long-term costs?

Farmers begin to shift from rainfed food and fodder crops to cash crops, which are water intensive. Farming profits start to increase and access to water for domestic needs improves.

The cultivation of dryland food and fodder crops falls.

Households become increasingly dependent on the Public Distribution System (PDS) for household rations because of the earlier shift to cash crops.

As competition over water increases, so too does men's control over the resource, further marginalising women. Fodder shortages, tied to the shift in crops, cause livestock - a woman's resource - to be sold off.

03 **IN THE MEDIUM TERM...**

As more farmers dig borewells, groundwater levels start falling. This leads to competitive boring, and unsustainable loan-taking practices. This attracts more and more lending sources, at increasing interest rates, and exacerbates farmers' debts.

04 **IN THE LONG-TERM...**

Who might win, and who might lose?

As groundwater becomes more elusive, borewells must be made deeper, and more of them fail.

Unable to compete with large farmers who can afford to dig deeper wells, small farmers get further trapped into indebtedness. They keep hoping for bumper crops that will help to repay loans, but market and climate variability make these hard to come by.

Soon, women's dowries and household assets like livestock are sold, leaving women further marginalised and with less agency. Household tensions rise.

WHAT BEGAN AS A BOREWELL, AND A PROMISE OF IMPROVED LIVELIHOODS, NOW FEELS MORE LIKE A TRAP.

Often, children leave education to start work in garment factories, and women are forced to take off-farm jobs, leading to more burdens and drudgery.

<p>What are the short-term benefits versus long-term losses?</p> <p>Wellbeing rises initially, with increased household incomes tied to the shift to water-intensive cash crops and easier access to water in the domestic sphere. Women don't need to walk as far to get water for their livestock. But as groundwater levels diminish, households become trapped in unsustainable water use patterns, and long-term resilience is impacted.</p>	<p>Who might win, and who might lose?</p> <p>Small- and medium-scale farmers lose as they have fewer household assets than large-scale farmers.</p> <p>Scheduled Caste/Tribe members lose as they have less education, fewer assets and fewer job opportunities than higher castes.</p> <p>Household members are affected differently, based on gender, age, class and caste.</p> <p>Agricultural labourers (usually the landless) gain from higher salaries due to the increased cultivation of labour-intensive cash crops.</p>	<p>What added dimensions does climate change bring?</p> <p>Climate change is already exacerbating stress on water. Climate is increasingly variable and the amount of rain received during the north-east monsoon is declining. If monsoons are delayed or provide less rain, farmers shift from rainfed shallow wells to borewell irrigation which requires intensive pumping. Overall, less water is available.</p>	<p>How might household wellbeing be affected?</p> <p>While husbands and wives initially take joint decisions, conflicts arise when more borewells are needed to reach the diminishing groundwater. Men, who associate farming success with cash crops, take loans and sell household assets to grow these. The resulting indebtedness disproportionately affects women (who must now work in addition to their domestic responsibilities) and children (who may have to leave school). Household wellbeing also suffers as diets shift from traditional grains and pulses to refined PDS food. Future adaptive capacity reduces overall.</p>	<p>What are the system level impacts? Is the intervention appropriate for the socio-ecological system in question?</p> <p>Overall, an unsustainable agricultural model is being promoted in a water-scarce semi-arid region, as subsidies incentivise a shift to water-hungry cash crops. As people respond to failing crops by shifting away from agrarian livelihoods, national-level food security concerns arise as food exports fall. The area itself can gradually become unlivable, as water becomes increasingly scarce. As the system is pushed beyond sustainable thresholds, the socio-ecological system's resilience and people's long-term adaptive capacity and wellbeing are eroded.</p>
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BASED ON: Solomon, D. S. and Rao, N. 2018. Wells and well-being in South India. *Economic & Political Weekly*, 53(17). Available at: <https://tinyurl.com/yawfjgu7>



This work was carried out under the Collaborative Adaptation Research Initiative in Africa and Asia (CARIAS), with financial support from the UK Government's Department for International Development (DfID) and the International Development Research Centre (IDRC), Canada. The views expressed in this work are those of the creators and do not necessarily represent those of DfID and IDRC or its Board of Governors.



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