GAME REPORT

Village MXSE

4 farmers (1 people, 3 computer) · 3 years · Rocky ground, no rule · 15 November 2026

There is no single winner. Income, water use and income from each unit of water are three different ways to do well, and they often point at different farmers.

HIGHEST INCOME

Arjun (computer) — **$1,475 per hectare**

$14,745 in all over 3 years, after every cost.

LIGHTEST ON THE WATER

Lakshmi (computer) — **4,153 m³ per hectare**

15% of the village's pumping from 25% of its land.

MOST FROM EVERY DROP

Lakshmi (computer) — **$0.31 per 1,000 litres**

Income earned for each 1,000 litres (one cubic metre) pumped.

THE WATER YOU LEAVE BEHIND

50% of the ground's water remains (100,309 m³)



The village ends with less water than it started with.

The monsoons: year 1 average monsoon · year 2 drought · year 3 wet monsoon.

UNDER YOUR FEET

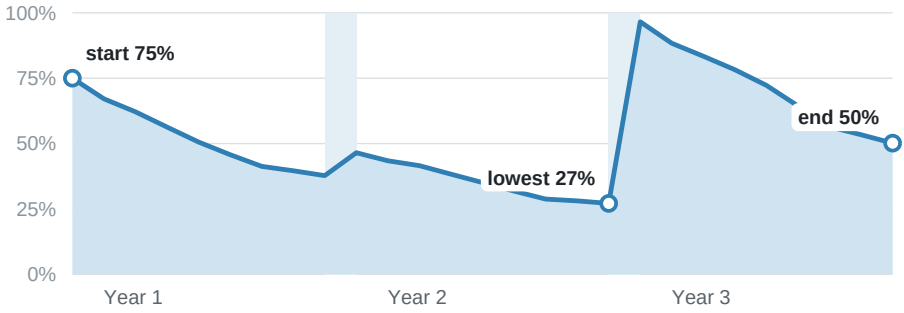
The village's water

Over 3 years the village pumped 270,143 m³. About 64,513 m³ of that drained back under the fields, and the monsoons and recharge structures put in 155,747 m³, of which 20,973 m³ came from structures the farmers built. At its lowest the ground held 27% of what it can hold. 293 m³ spilled away because the ground was already full.

For every 100 litres the rain and the structures put in, the village took out 132. That is more than the rain returns: at this pace the water keeps falling.

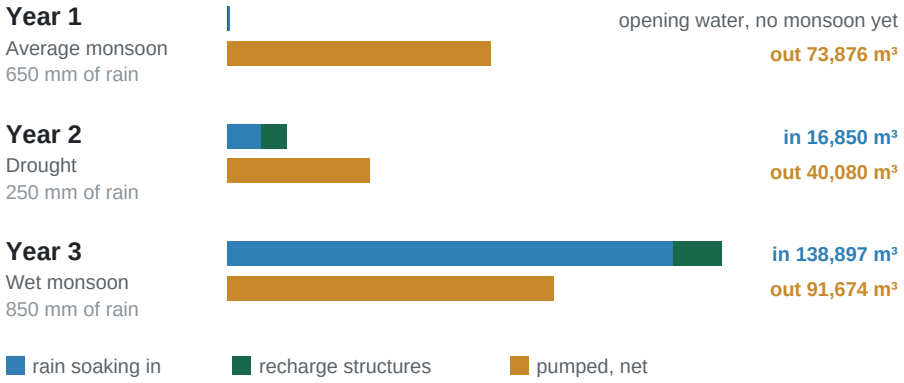
Water in the ground, round by round

Share of what the ground can hold. Blue bands are the monsoons.



In and out, year by year

Pumping is shown after the water that drained back under the fields.



UNDER YOUR FEET

Pictures of the ground

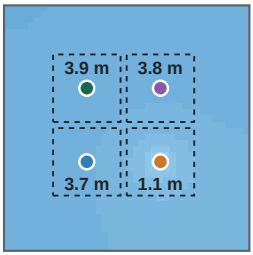
Each row is one year at its driest moment. Left: the water from above (deep blue is full, pale is low, sand is dry), with each farm dashed and its well marked with the metres of water standing in it. Right: a cut through the ground at the wells of Lakshmi and Ravi. The land is about 1,155 m across.

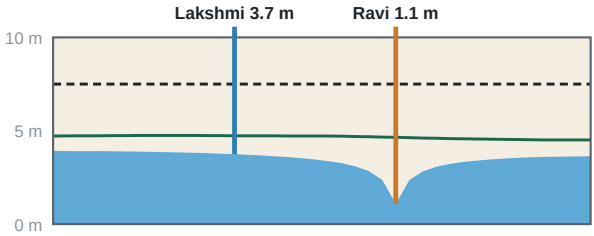
Arjun · Lakshmi · Ravi · You

as the year opened · at the driest moment · after the next monsoon

Year 1

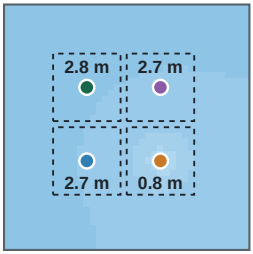
driest at summer, part 2 of 2, 38% of full

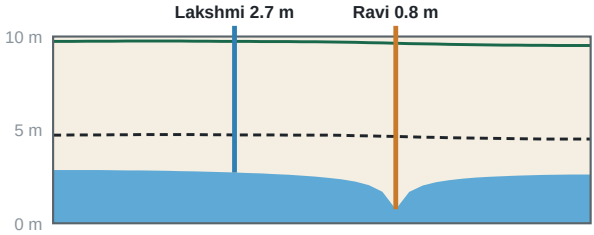




Year 2

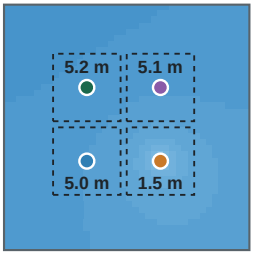
driest at summer, part 2 of 2, 27% of full

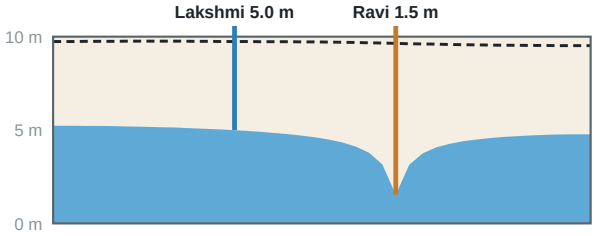




Year 3

driest at summer, part 2 of 2, 50% of full



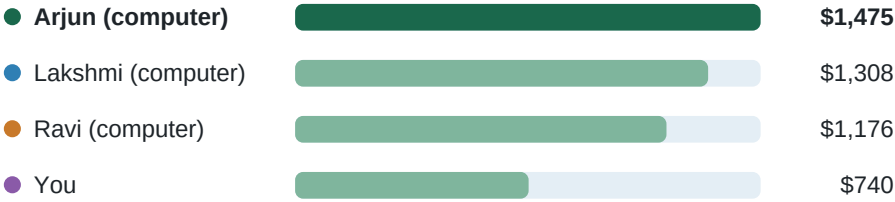


SIDE BY SIDE

The farmers compared

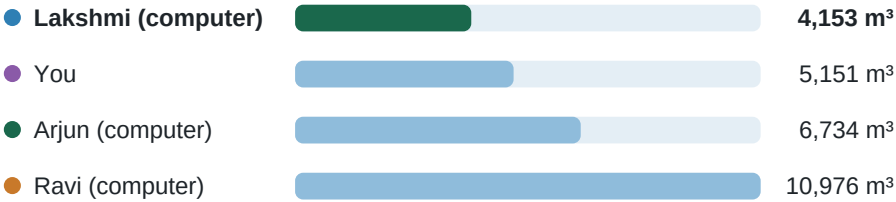
Income

Change in money over the game, per hectare, after every cost



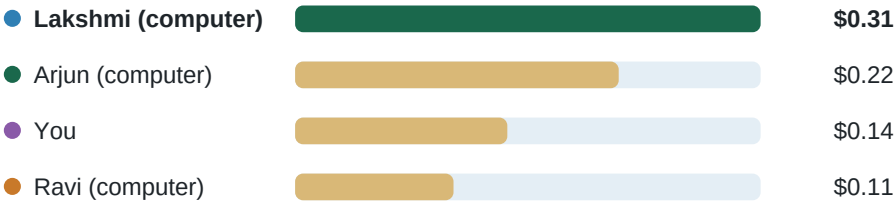
Water use

Water pumped per hectare over the game. Less is better.



Money per drop

Income for each 1,000 litres pumped

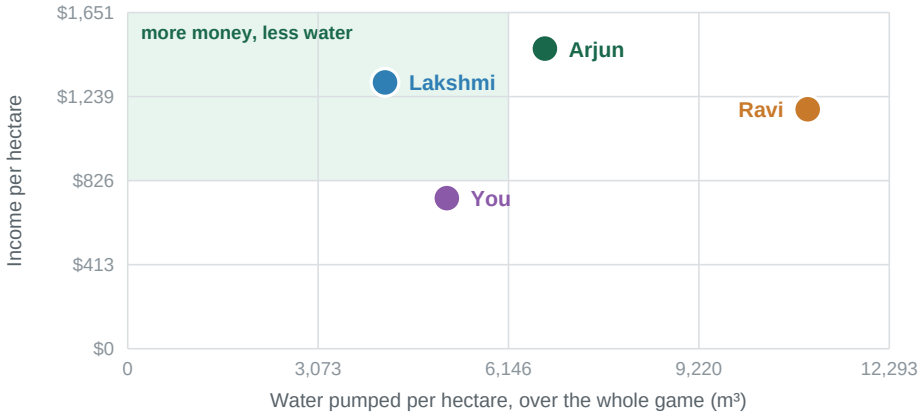


SIDE BY SIDE

More money, or less water?

Money against water

Each dot is a farm. Higher is more income; further left is less water.



A fair share of the water?

Each farm's share of the pumping beside its share of the land

Ravi (computer)	41% of pumping, 25% of land · 16 points more than its land
Arjun (computer)	25% of pumping, 25% of land · about its share
You	19% of pumping, 25% of land · 6 points less than its land
Lakshmi (computer)	15% of pumping, 25% of land · 10 points less than its land

Who borrowed the most?

The most each farm owed at one time. Borrowing is free here; a failed crop leaves the debt.

Lakshmi (computer)	owed up to $3,520 · all repaid
You	owed up to $3,474 · all repaid
Arjun (computer)	owed up to $3,461 · all repaid
Ravi (computer)	owed up to $2,796 · all repaid

ONE BY ONE

Each farm's story

Arjun (computer)

10 ha

Income	Water pumped	Per 1,000 litres	Harvest reached
$14,745	**67,341 m³**	**$0.22**	**82%**

Year	Winter fields	Earned	Year end	Pumped m³	Got
1	 5 wheat, 3 mustard, 2 chickpea	**$4,718**	$7,349	24,153	74%
2	 2 wheat, 3 mustard, 5 chickpea	**$3,704**	$11,053	11,059	46%
3	 5 wheat, 3 mustard, 2 chickpea	**$6,323**	$17,377	32,129	98%

Sold $7,347 less than a perfect harvest. Built 1 recharge structure. The well gave 75% of what was asked.

Lakshmi (computer)

10 ha

Income	Water pumped	Per 1,000 litres	Harvest reached
$13,083	**41,534 m³**	**$0.31**	**83%**

Year	Winter fields	Earned	Year end	Pumped m³	Got
1	 5 mustard, 5 chickpea	**$4,331**	$6,962	14,540	68%
2	 2 mustard, 8 chickpea	**$2,940**	$9,902	6,752	39%
3	 5 mustard, 5 chickpea	**$5,812**	$15,714	20,242	94%

Sold $6,576 less than a perfect harvest. Built 1 recharge structure. The well gave 69% of what was asked.

Ravi (computer)

10 ha

Income	Water pumped	Per 1,000 litres	Harvest reached
$11,763	**109,756 m³**	**$0.11**	**65%**

Year	Winter fields	Earned	Year end	Pumped m³	Got
1	8 wheat, 1 mustard · summer mung sold $3,835	**$3,824**	$6,456	37,896	58%
2	8 wheat, 1 mustard · summer mung sold $3,278	**$1,703**	$8,159	18,226	28%
3	8 wheat, 1 mustard · summer mung sold $4,657	**$6,236**	$14,395	53,634	82%

Sold $22,107 less than a perfect harvest. Built 1 recharge structure. The well gave 56% of what was asked.

You

10 ha

Income	Water pumped	Per 1,000 litres	Harvest reached
$7,396	**51,511 m³**	**$0.14**	**66%**

Year	Winter fields	Earned	Year end	Pumped m³	Got
1	6 chickpea, 4 mustard	**$3,951**	$6,583	20,000	89%
2	4 potato, 4 barley, 2 lentil	**$715**	$7,298	14,369	35%
3	8 chickpea, 2 mustard	**$2,730**	$10,028	17,143	100%

Sold $14,208 less than a perfect harvest. The well gave 64% of what was asked.

thirsty crop · medium-water crop · hardy crop · field left empty

SMALL PRINT

How to read this report

Income

The change in a farm's money from the first day to the last, after growing costs, upkeep and any debt. It is shown per hectare so that large and small farms can be compared.

Water use

All the water a farm pumped, in cubic metres. One cubic metre is 1,000 litres. Some of it drains back under the fields; the village totals show that separately.

Money per drop

Income divided by water pumped: the money earned for each 1,000 litres lifted from the ground. Researchers call this economic water productivity. A farm that did not pump has no figure.

Harvest reached

What a farm sold as a share of a perfect harvest: every crop it planted given all the water it could use. Skipped waterings, a well that fell short and hot weather lower it; even fully watered, potato, onion, mung and sesame reach about 65 to 75%. Empty fields are left out.

Got

The share of the water a farm asked its well for that the well could deliver. Water moves slowly through the ground, so a well can fall short while water remains elsewhere. Under a sharing rule a farm may ask only for its share: once that is spent a crop goes without, and the farm's story says how much the rule held back.

Money

The game works in Indian rupees with Indian market prices. This report shows US dollars at a fixed 95 rupees to the dollar.

A game, not a forecast

The ground, the weather and the crops are a teaching model of a village in a dry part of India. The numbers compare choices made under the same rules. They are not predictions for a real farm.

The village's catchment is 133 hectares, of which 40 are farmed. Full, the ground under it holds 200,000 m³.