

xylem 
essence of life



Xylem's Saajhi Treadle Pump

STEPPING TO PROSPERITY



Solving poverty means solving water

Less than a tenth of the world's population lives on less than \$1.90 a day, close to a quarter of the world's population lives below the \$3.20 line and more than 40% of the world's population – almost 3.3 billion people – live below the \$5.50 line.

Source : World Bank 2020

The smallholder farmer: entrepreneurial, and a true engine of development.

Farmers make up one-third of the world's population; 500 million of them are smallholders who farm for their own food. Yet much of their arable land and entrepreneurial energy are underutilized.






*Smallholder farmers are a **compelling market** for solving water, and an **undertapped catalyst** for growth.*

Rural product expertise starts with customer intimacy. Customer intimacy starts with observing and listening.



We conducted extensive field visits, interviewing more than 750 farmers across India, while also establishing hybrid value chain relationships with key citizen sector and non-governmental organizations across numerous other developing nations.

The Value Proposition

FOR FARMERS			FOR COMMUNITIES AND GOVERNMENT AGENCIES	FOR ALL PARTIES
REVENUE INCREASE  3x or greater yield in revenue through output and cropcycle increases, compared to rain fed	LABOR TIME REDUCTION  25% or greater reduction in labor time from pressurized water delivery (spray or drip), compared with traditional furrow irrigation 80% of farmers surveyed (n = 750) favored a brand or product according to its convenience of use ²	INCREASED FLOW PER STEP ¹  Greater than 15% increase in water output* per step  Over 10 additional liters/minute* for similar exertion 67% of farmers surveyed (n = 750) favored a brand or product based upon its output capability ²	WATER EFFICIENCY  Nearly 40% less water usage from pressurized water delivery (spray or drip), compared with traditional furrow irrigation	Completely field-serviceable, no tools required Manufactured by one of the world's largest pure-play water companies 89% of farmers surveyed (n = 750) selected a brand or product based upon its quality ²

¹ Baseline: similar comparative treadle products over ½ acre or less, relative to our Saajhi

² Survey allowed for the selection of multiple responses for a particular question

*Results based on field trials conducted by Xylem. Individual results may vary.

Xylem's Saajhi pump: Defining rural innovation

"Saajhi" originated from the word "Saajhedaari" or "Partnership" which is commonly used in India to address an ally, shareholder, or partner in business.

SMALL OVERALL DIMENSIONS

With its light weight (43 lbs / 19.5 kgs) and compact size (19.5 x 18.5 x 42 inches, 49.5 x 47 x 106.7 centimeters, handle removed), the Saajhi enables both ease of movement in rugged terrain and easy storage back home



TILT AND TRANSPORT DESIGN

Ergonomic angle-and-wheel combination is optimized for center of gravity, aiding even smaller users in transporting to and from the field

SIMPLIFIED MAINTENANCE

Assembled with minimal parts, all of which are easily replaceable in the field with no special tools



CURVED HANDLE

Facilitates adjustable hand positioning across an arc of 18 inches (45.7 centimeters)

OPTIMIZED HANDLE HEIGHT

At 42 inches (106.7 centimeters) above the treadles, provides maximum comfort for a variety of users while eschewing complicated, failure-prone adjustment mechanisms

DISCRETE MATERIAL SELECTION

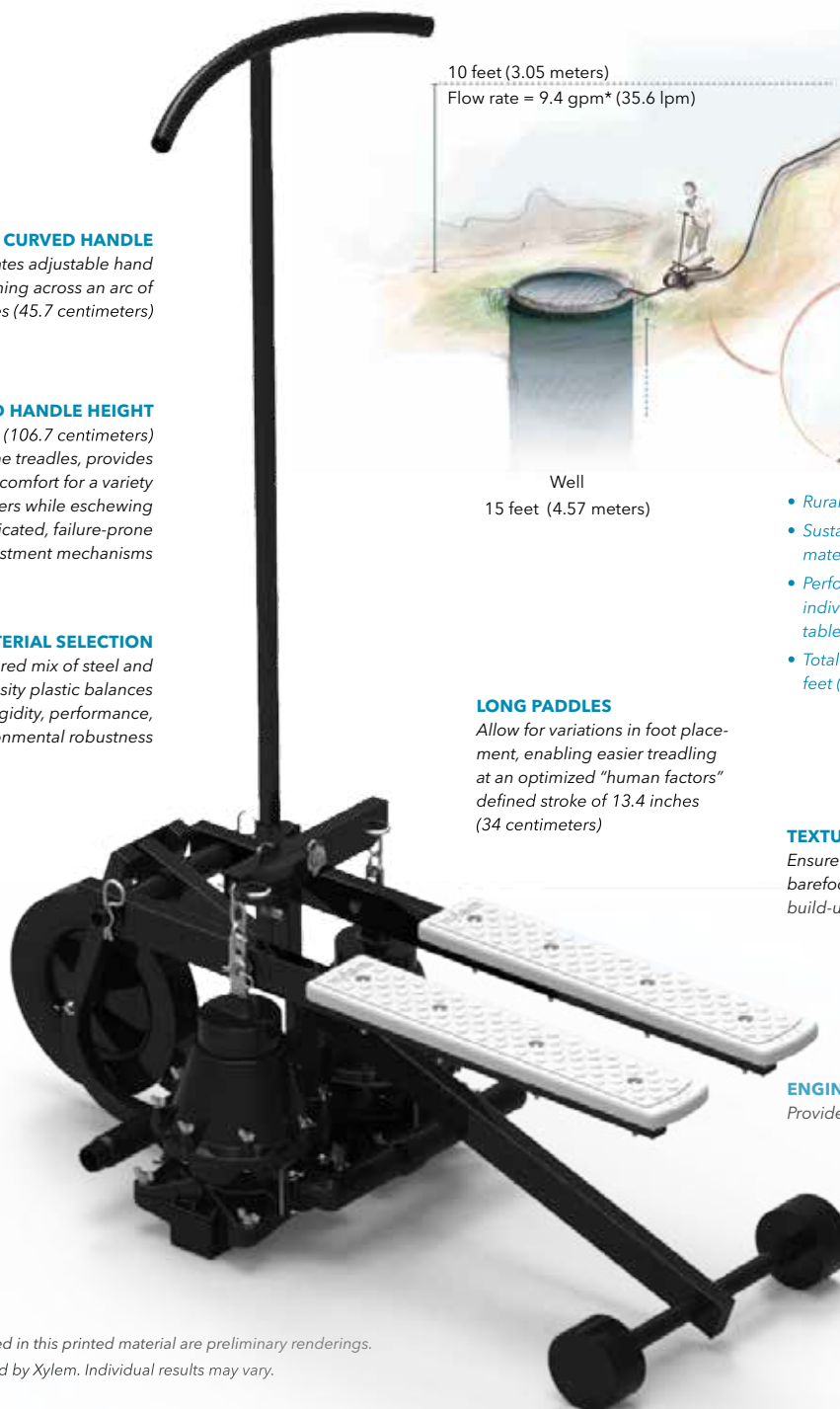
Engineered mix of steel and high-density plastic balances weight, rigidity, performance, and environmental robustness

SELF-PRIMING DIAPHRAGM-BASED SYSTEM

Efficient and easily serviceable, this high-performance pumping technology has been proven by Xylem in hostile marine markets for more than 20 years

INTEGRATED, REMOVABLE AND REPLACEABLE FILTER

Removes large debris that could damage the pump's diaphragms; muddy water or small debris will not harm the Saajhi pump



Hose > 75 feet (22.86 meters)

10 feet (3.05 meters)
Flow rate = 9.4 gpm* (35.6 lpm)

Well
15 feet (4.57 meters)

- Rural farmer of approximately 157 lbs.
- Sustainable treading rate of approximately 46 steps per minute.
- Performance will vary based upon individual, weather conditions, water table, and desired pressure head.
- Total dynamic head will exceed 46 feet (14 meters).

LONG PADDLES

Allow for variations in foot placement, enabling easier treading at an optimized "human factors" defined stroke of 13.4 inches (34 centimeters)

TEXTURED, WHITE TREADLES

Ensure safety when treading barefoot while reducing heat build-up in warm climates

ENGINEERED FOOTPRINT

Provides stability on uneven surfaces

Images of the Saajhi pump as presented in this printed material are preliminary renderings.

*Results based on field trials conducted by Xylem. Individual results may vary.



- 1) The tissue in plants that brings water upward from the roots.
- 2) A leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyse, monitor, and return water to the environment, in public utility, industrial, residential, and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies, and advanced analytics solutions for water, electric, and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

To know more about Xylem, visit us at our website www.xylem.com/india and for any sales, service and maintenance related support call our toll free no. **1800-572-XYLEM (99536)** or write to us at indiasales@xylem.com | indiaservice@xylem.com



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