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FLOWMORE
Flow for life

A Complete Solar Powered Water Delivery System

FLOWMORE SOLAR PEDALFLO

Providing Drinking Water for Rural Communities

- ☀ No Electricity Required
- ☀ No Engines Required
- ☀ Solar Primary Power
- ☀ Human Secondary Power
- ☀ Improves Health
- ☀ Reduces Infant Mortality
- ☀ Village Level Maintenance
- ☀ Purification through Ultra Fine Filters



A COMPLETE WATER SUPPLY SYSTEM

A Potable Water Supply System in which water is lifted from boreholes, filtered, purified and pressurized for delivery anywhere in your community.

Flowmore, established in 1946, today is a market leader in the area of large and special application pumps & has 20 regional offices all across India. Flowmore works has achieved ISO 9001. ISO 14001. ISO 50001 & OHSAS 18001 accreditation.

Flowmore in collaboration with MWI have launched a revolutionary product, solar Pedalflo. Solar Pedalflo is simple way of creating hygienic drinking water in large quantities.

MWI, Moving water Industries, was established by the Eler Family in Deerfield Florida in 1926. The success of this maverick invention can be seen extensively across Africa.

Product for the Future

The current technology of hand pump has not been able to eradicate the innumerable water problems. The existing system has not been able to rid India of the water borne diseases & poor water hygienic conditions. Flowmore's experience and research, led its engineers to launch a radical product in the form of Solar Pedalflo. The endeavor is to supply clean drinking water to every Indian.

OUR CURRENT SYSTEM ENTAILS

- Great amount of physical effort is required to pump water for large quantities. Human fatigue limits the pump's operation time .
- Studies demonstrate that 30-60 % of all hand pumps are non-functioning at any given time.
- Standard hand pumps can only deliver water in buckets. Water mostly becomes contaminated with bacteria as a result of open container storage without treatment. The entire rural community risks the dangerous health consequences of consuming contaminated water.

SOLAR PEDALFLO IS THE SOLUTION

- Minimal Physical effort is required to operate the pump & distribute water irrespective of any depth levels, the energy remains same.
- Solar Pedalflo pumps water directly into an elevated tank which further is distributed through a piping system to multiple points.
- Solar Pedalflo has a comprehensive closed container, water storage & automatic chemical feeder clean water results in healthy communities, healthy children & reduces infant mortality rate.
- A single Solar Pedalflo eliminates the need of multiple hand pumps.
- Solar Pedalflo has ZERO water wastage unlike RO system.



In some areas, many hours of labour are spent daily collecting water. Now there is a better way!

OUR SOLUTION IS THE **SOLAR PEDALFLO**

FLOWMORE SOLAR PEDALFLO

Complete Solar / Human Powered,
Village Water Delivery System

The Solar Pedalflo Village Water Supply System is able to deliver treated potable water to virtually any location or doorstep in a rural village on a continuous basis.

1. Flowmore Solar Pedalflo Pumps

The Solar Pedalflo lifts water from boreholes using a unique designed Borehole Reciprocating Piston pump. The pump's design also utilizes a flywheel for uniform power conversion.

2. Human Powered

As a secondary power the Solar Pedalflo uses the body's most powerful muscles, the legs, to rotate pedals which are connected to an Flowmore Borehole Reciprocating Piston Pump.

Remote Location
Outlet (or to overhead tank)

Faucet

Pressure and
System Gauges

MS Fabricated Base

Concrete Slab
(supplied by others)

Purification and
Sediment Filter (50 & 1
Micron)

Chlorinator

Cabin made of PVC Sheet
& MS Fabricated frame

Flywheel

Control Valve

Pressurized
Discharge Manifold

Pump
Discharge Head

Heavy Duty Pedals

Adjustable Seat

Pump
Connecting Rods

Well Casing

Reciprocating
Piston Pump

Well Screen

3. Treatment / Distribution

The water is first pumped from the borehole through a filter. A control valve then directs the water into an elevated tank in the village.

An automatic chemical feeder is included to disinfect the water through an automatic chlorinator and micron filter.

4. Solar Power

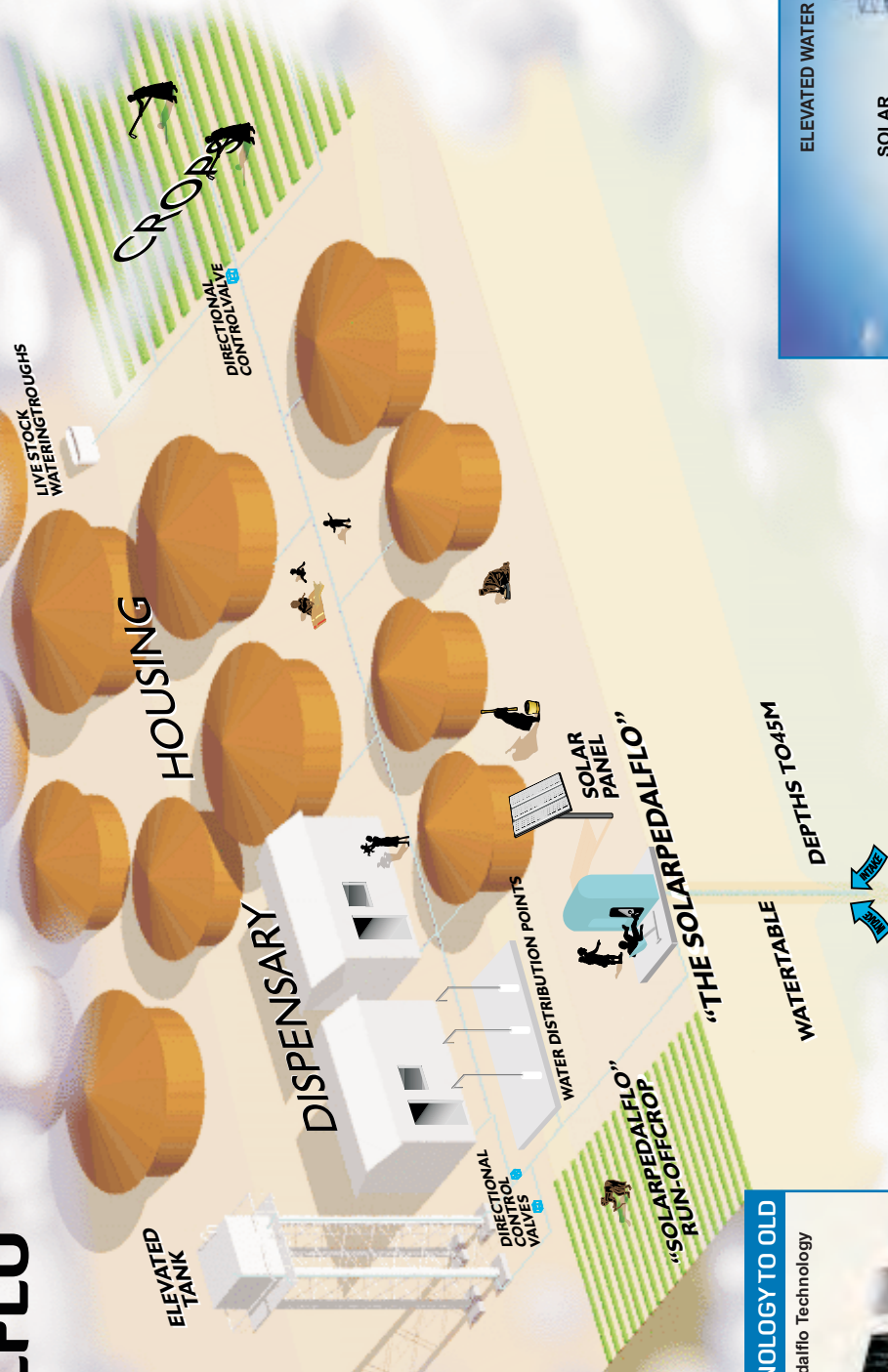
Solar Power is the primary power to operate the Solar Pedalflo continuously at up to 60 RPM. The solar panels are mounted on a frame with a manual adjustment. Theft resistant bolts are used to protect the solar panel.



Multiple Flowmore Solar Pedalflos can be installed in a network to supply water to villages of any size.

THE FLOWMORE SOLAR PEDALFLO

Typical Potable Water Distribution System



One Solar Pedalflo on one well delivers as much as 4 hand pumps on 4 wells and delivers it purified and pressurized.

4 HAND PUMPS = 1 SOLAR



SOLAR – PEDALFLO A DREAM MACHINE

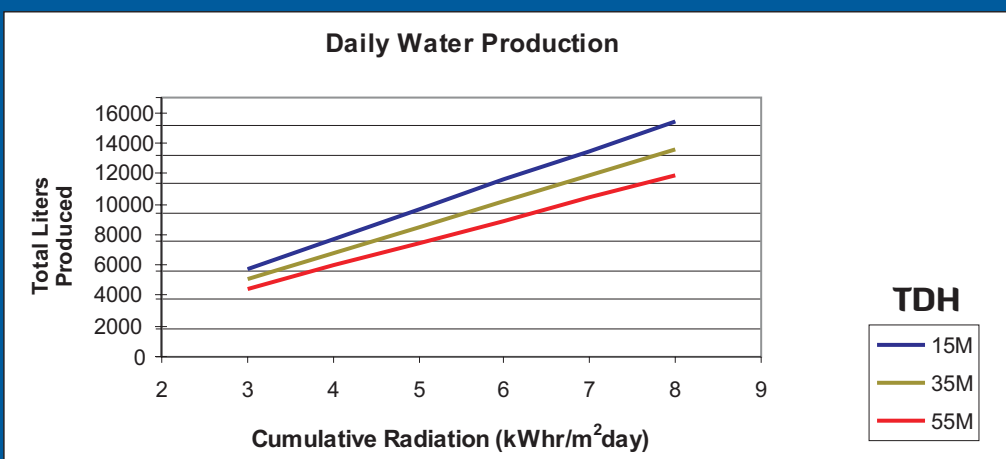
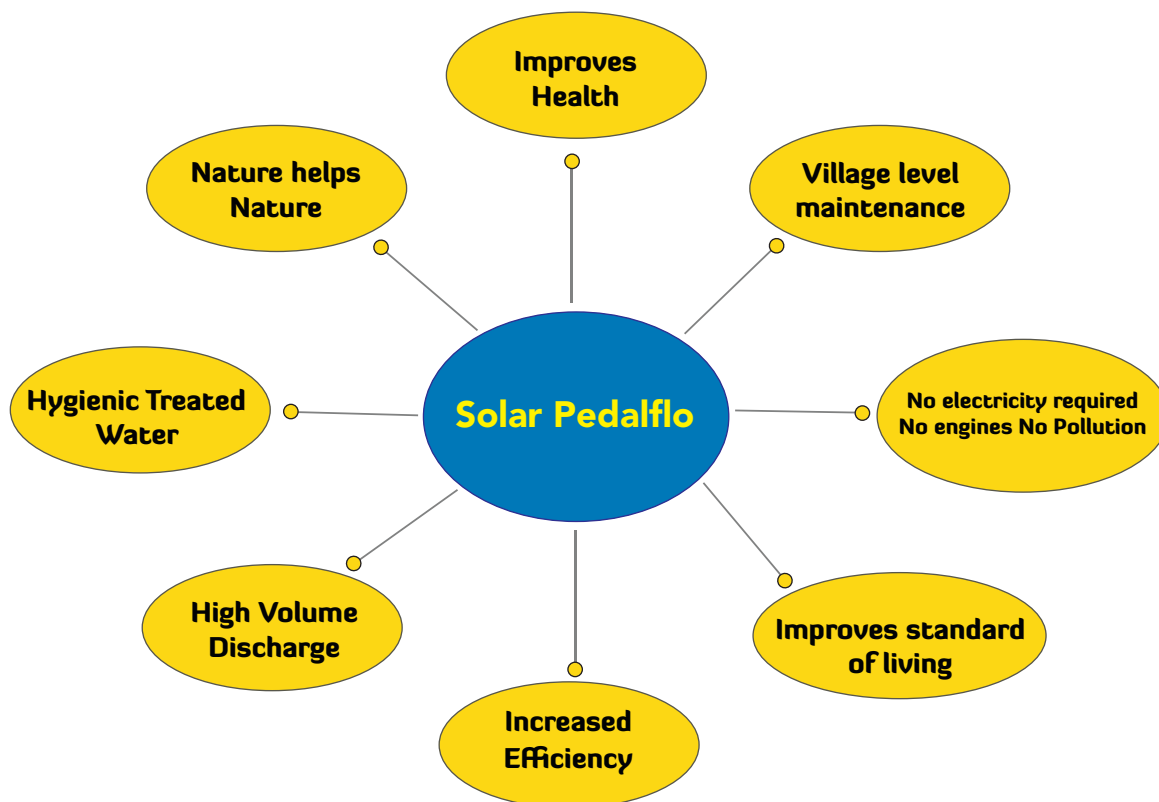
The endeavor of Solar Pedalflo is to have hygienic & healthy India. Adequate quantities of clean water are provided for drinking, hygiene and cooking.

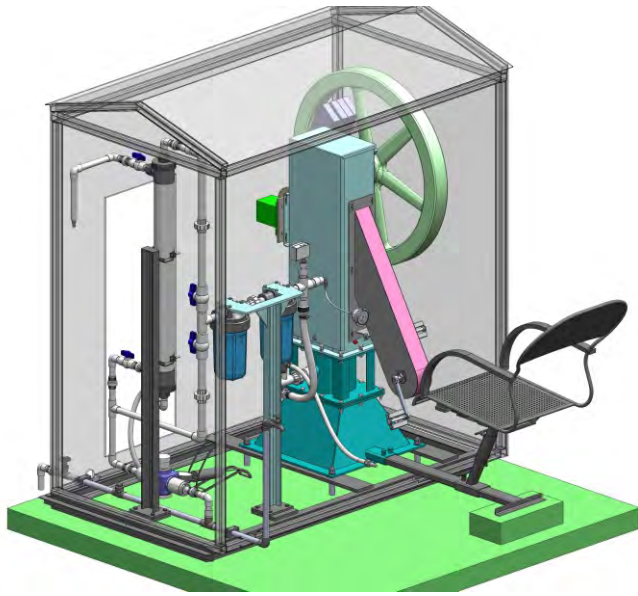
Solar Pedalflo can discharge over 20 liters per minute with an average 30 meter pump setting. Therefore on a typical day with 8 to 9 hours of usable Sunshine, the Solar Pedalflo can deliver over 10,000 liters of potable treated water using the sun as primary power. On overcast days, or when sufficient sun energy is not available, the human power secondary system can be utilized so that good dependable water is always made available. In fact where more water is needed, early morning and late afternoon users could pedal for their water, resulting in another possible 10000 liters available to a village.

TOTAL DYNAMIC HEAD (m)	FLOW (Litter per Minute)
10	27-28
20	25-27
30	23-26
40	20-25
50	17-22

LPM = Liters per Minute

NOTE: The flow rates contained in the Performance Chart shown above are approximate and are based on 1kW/m² of solar radiation. These flow rates, as well as the Daily Water Production shown below, assume the correct installation of the SolarPedalflo unit, as per the instructions in the OEM manual, the utilization of a fully-developed borehole with adequate yield and a 420 Watt solar power system.





Adjustable solar panel for sun Tracking

"The average Indian does not have a clean glass of water in his or her life."

"Infant mortality rates could be cut in half with global access to clean water and sanitation."

- UNICEF

"The daily death count from unclean water is placed at 30,000. Two billion people lack safe water."

- UNICEF



CONCLUSION

According to the World Bank, there are hundreds of millions of people whose health & life are threatened because of no access to good water supply. Let's join hands to resolve this problem.

We at Flowmore pledge ourselves to the endeavor.... each Indian will have access to good clean hygienic drinking water.

स्वच्छ भारत, स्वस्थ भारत, जय हिन्द !

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