

Proud to be a part of India's prestigious water distribution project (Sauni Yojana), through the supply of Ultrasonic Flowmeters.



Adept has supplied Ultrasonic Flowmeters UFM 6730 to L&T for the Sauni Yojana project L3P3 and L4P3 for measuring the flow of water.



## Introduction

Saurashtra Narmada Avtaran Irrigation Yojana (Sauni Yojana) is an ambitious project in the state of Gujarat. Saurashtra region of Gujarat includes 11 districts. It often faces a drought-like situation and has been reeling under severe water scarcity due to scanty rainfall. The Sardar Sarovar reservoir has storage capacity of 4.75 million acre-foot (MAF), which is further distributed to the states of Gujarat, Rajasthan and Maharashtra. A lot of flood water still overflows the dam especially in the monsoon season and ends up going to the sea route. With Sauni Yojana, the water will be distributed to all the big reservoirs in Saurashtra which will bring relief to a large population.

The project aims at filling 115 major dams to irrigate drought areas by diverting the water overflowing from the Sardar Sarovar Dam across the Narmada river. Over 1 million acre-foot (MAF) excess water overflowing from the Narmada will be distributed through four link pipelines that are 1126 km long and will irrigate over one million acres (400,000 hectare) of land.



**Link 1: 180 km** - From Machhu-II Dam of Morbi district to Sani Dam of Jamanagar District

**Link 2: 253 km** - From Limbdi Bhogavo-II Dam of Surendranagar District to Raidi Dam of Amreli District

**Link 3: 245 km** - From Dholidhaja Dam of Surendranagar District to Venu-I Dam of Rajkot District

**Link 4: 448 km** - From Limbdi Bhogavo-II Dam of Surendranagar District to Hiran-II Irrigation scheme of Junagadh

The work for Link 3 and Link 4 of Sauni Yojana has been awarded to **L&T Construction**, a leading infrastructure company in India.

## Challenges

- ▲ A flow-metering system should be capable of ensuring precise measurement of flow of water at several locations
- ▲ Pipe sizes are different in different segments of the pipeline and range from 500 mm to 3000 mm
- ▲ Lack of electricity supply at remote locations where the Flowmeters were to be installed
- ▲ Considering distant site locations where the Flowmeters are being installed, they should be capable of sending data with the help of remote telemetry
- ▲ Flowmeter installation should in no way result in pressure drop of water being pumped.

L&T has placed the order considering the above challenges under stiff competition.



With this installation, we are proud to be a part of an ambitious water distribution project in India. We are confident that with our Flowmetering solution, the Sauni Yojana authorities will be able to effectively measure water flow and conserve a precious natural resource.



## Our Solutions

Once on board, the Adept team thoroughly studied the requirements and site conditions. Based on our study, we recommended **Insertion Type Ultrasonic Flowmeters UFM 6730**. Solar powered batteries were recommended to overcome the issue of the unavailability of electrical power supply. For remote data collection, RTU-GSM modems at transmitting and receiving ends were recommended.

Advantages of using insertion type of Ultrasonic Flowmeters:

- ▲ No obstruction to flow of liquid
- ▲ Zero pressure drop
- ▲ Four paths help to reduce measurement errors thus giving accurate readings
- ▲ Better accuracy and long- term stability
- ▲ No moving parts and hence less maintenance required
- ▲ No need of shutdowns for installation and maintenance operations, thus making it convenient and cost effective

To help monitor their water distribution network effectively, Adept has supplied RTU-GSM modems at transmitting and receiving ends. RTU (Remote Telemetry Unit) is a remote device that monitors and reports events occurring at a remote site by transmitting telemetry data to the master system. With RTU-GSM modems, the data obtained from the Flowmeter can be monitored from a remote location which can be several kilometres away from actual site location. This allows the network operator to manage the network more effectively. Also, during our study, it was revealed that solar energy is available in these areas almost throughout the year. Hence, it is easy to power the Flowmeter using solar powered batteries. This will help in measuring the flow of water accurately even in the absence of electrical power supply.

## Benefits to End Users

- ▲ Advanced technology to ensure precision in water metering
- ▲ Easy collection of data will help in effectively controlling the water network
- ▲ Negligible maintenance required that too, without interrupting the flow of water
- ▲ Assurance of prompt support from the team of experts at Adept



Adept has supplied 10 nos. of insertion type Ultrasonic Flowmeters UFM 6730

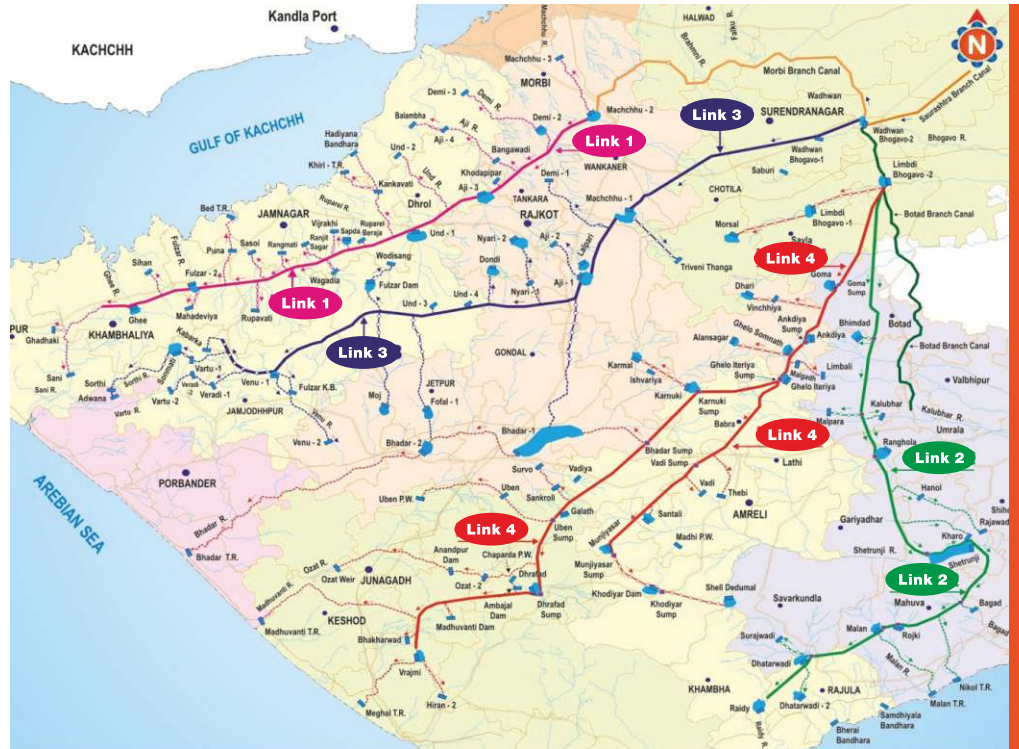
Sauni Yojana:  
Saurashtra Narmada Avtaran  
Irrigation Yojana

Launched in 2012 with a budget  
of INR 12,166 crores

900+ villages to be irrigated

Water supply to irrigate  
4.13 lakh hectares of land

1,126 km long pipelines  
to fill 115 dams



**Adept Fluidyne Pvt. Ltd.**

Corporate Office & Plant:

Plot 4, S. No. 17/1-B, Kothrud Ind. Estate,

Kothrud, Pune 411 038 INDIA

T +91 20 2546 4551/2543 1474

E info@adeptfluidyne.com

[www.AdeptFluidyne.com](http://www.AdeptFluidyne.com)

