PROPOSAL: May, 2026

Title: Reviving Heritage Aalasar Pond, Jaisalmer Rajasthan.
Duration: 02 months from the date of commencement, preferably completed before the Monsoon 2026

Submitted by: Tarun Bharat Sangh, India
Submitted to : United4Water, Netherlands

Background: The proposed project aims to rejuvenate and restore Aalasar Pond, a traditional heritage rainwater harvesting structure located in Village Salkha, Tehsil Sam, District Jaisalmer, Rajasthan. Situated within the fragile arid ecosystem of the Thar Desert, Aalasar Pond has historically played a vital role in supporting rural livelihoods, livestock, local biodiversity, and groundwater recharge. For generations, the pond has served as an important seasonal water source for surrounding communities living in a region characterized by low rainfall, high evaporation, and recurrent drought conditions. However, over time, increasing siltation, reduced storage depth, weakened embankments, and growing climate variability have significantly reduced the pond's water holding capacity and functional efficiency.



Satellite view of Village Salkha and AalasarPond showing the pond location, surrounding catchment area, natural drainage pattern, and nearby settlement in the arid landscape of Jaisalmer district, Rajasthan.

The temporal satellite imagery assessment indicates a recurring seasonal hydrological cycle within the pond system. Satellite imagery from April 2011 and June 2022 shows the pond remaining almost completely dry during peak summer months, with only minor residual moisture visible in the deeper central basin. In contrast, imagery from September 2019 and July 2023 demonstrates rapid water accumulation immediately following monsoon rainfall, reflecting the pond's strong runoff capture potential from the surrounding catchment area. Subsequent imagery from November 2021 and December 2018 reveals gradual post-monsoon water recession caused by evaporation and seepage losses.

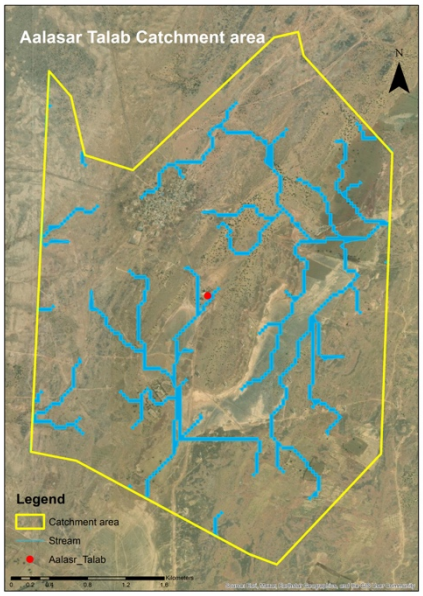
 April'11	 June'22
 July'23	 Sep'19
 Nov'21	 Dec'18

The satellite images presented above have been selected from different months across multiple years to illustrate the seasonal hydrological behavior of Aalasar Pond. Since cloud-free and high-quality satellite imagery is not consistently available for every month within a single year, the images have been compiled from different years based on data availability and visibility conditions.

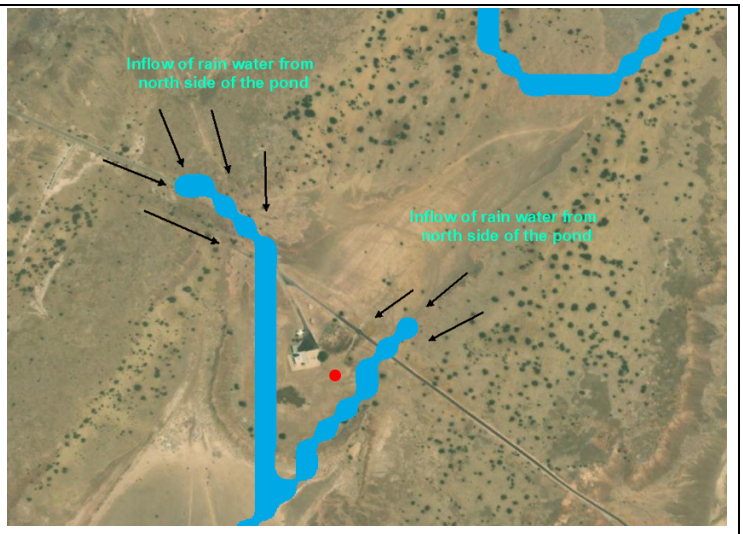
Overall, the analysis confirms that Aalasar Pond functions as a seasonal rainwater harvesting structure with high monsoon recharge potential but limited long-term water retention capacity.

The images below further present a hydrological analysis of Aalasar Pond and its surrounding micro-catchment area using satellite imagery and stream delineation mapping. The blue-highlighted drainage channels represent natural runoff pathways that direct rainwater toward the pond, while the black arrows indicate the major inflow direction from the northern side of the catchment. The red point marks the precise location of Aalasar Pond, strategically situated along the natural drainage alignment to maximize runoff collection.

The delineation analysis confirms that Aalasar Pond possesses a well-defined contributing catchment with multiple feeder channels and strong hydrological connectivity with the surrounding terrain, indicating substantial potential for rainwater harvesting and groundwater recharge. The mapped drainage network demonstrates how runoff from the wider catchment converges naturally toward the pond, making it an effective water storage and recharge structure within the arid desert landscape.



Catchment Area and Drainage Network of Aalasar Pond



Inflow Channels and Runoff Direction towards Aalasar Pond

The analysis further highlights that Aalasar Pond is not an isolated water body, but an integral component of a larger natural drainage and watershed system. There is an urgent need for rejuvenation interventions including desiltation, pond deepening, embankment strengthening, feeder channel restoration, and catchment treatment to improve water retention, groundwater recharge, ecological sustainability, and climate resilience within the desert ecosystem.

By restoring Aalasar Pond, the project seeks to establish a long-term, community-centred water security solution that strengthens ecological resilience and supports vulnerable desert communities facing increasing climate uncertainty and water scarcity. The intervention is expected to directly improve water security for nearly 300 households, reduce dependence on expensive tanker-based water supply systems, and enhance the resilience of livestock-dependent rural livelihoods in the region.

Need Assessment

Particulars	**Details**
Village	Salkha
Panchayat	Salkha
Tehsil	Sam
District	Jaisalmer
State	Rajasthan
Total Geographical Area	

Particulars	**Census 2011 Data**	**Estimated' in 2026**
Total Population	1,044	1814
Male Population	543	943
Female Population	501	870
Total Households	172	299

***Population estimates for 2026 are based on projected annual rural population growth trends using Census 2011 as the baseline.*

Land Use Category	Area (in Hectares)
Forest Area	0.00
Area under Non-Agricultural Uses	97.20
Barren & Uncultivable / Cultivable Waste Land	9,489.20
Permanent Pastures & Grazing Land	—
Land under Miscellaneous Tree Crops	—
Fallow Land other than Current Fallows	—
Current Fallows	—
Net Area Sown	—
Total Unirrigated Area	904.68
Irrigated Area by Any Source	0.00

Salkha village is characterized by a predominantly arid desert landscape with extensive barren and cultivable waste land covering the majority of the geographical area. The village has negligible forest cover and almost no irrigated agriculture, reflecting severe water scarcity and dependence on seasonal rainfall. Agriculture in the village is largely rainfed, while large tracts of land remain uncultivated due to harsh climatic conditions, sandy soils, and limited water availability. The land-use pattern strongly underlines the importance of traditional water harvesting systems and pond rejuvenation interventions for improving ecological resilience and livelihood security in the region.

Project Goal: To rejuvenate AalasarPond in Salkha village enhance water security, and climate resilience for desert communities.

Project Objectives: To rejuvenate and increase the water storage capacity of AalasarTalab through desiltation, deepening, and strengthening of earthen embankments.

Proposed Interventions:

S.No.	Proposed Activity
1	Technical assessment and layout planning
2	Community consultation
3	De-siltation and excavation
4	Embankment strengthening
5	Inlet and outlet repair
6	Catchment treatment and runoff channel management
7	Monitoring and documentation

Project Timeline:

Activities	Month 1	Month 2
Community Mobilization	✓	
Technical Survey	✓	
Desiltation & Earthwork		✓
Embankment Work		✓
Catchment Treatment		✓
Monitoring & Documentation	✓	✓

Implementation will be completed before monsoon onset through intensive pre-planned execution.

The Alaasar Pond



Satellite view of Aalasar Pond in Salkha village showing the pond structure, a temple and surrounding catchment area.



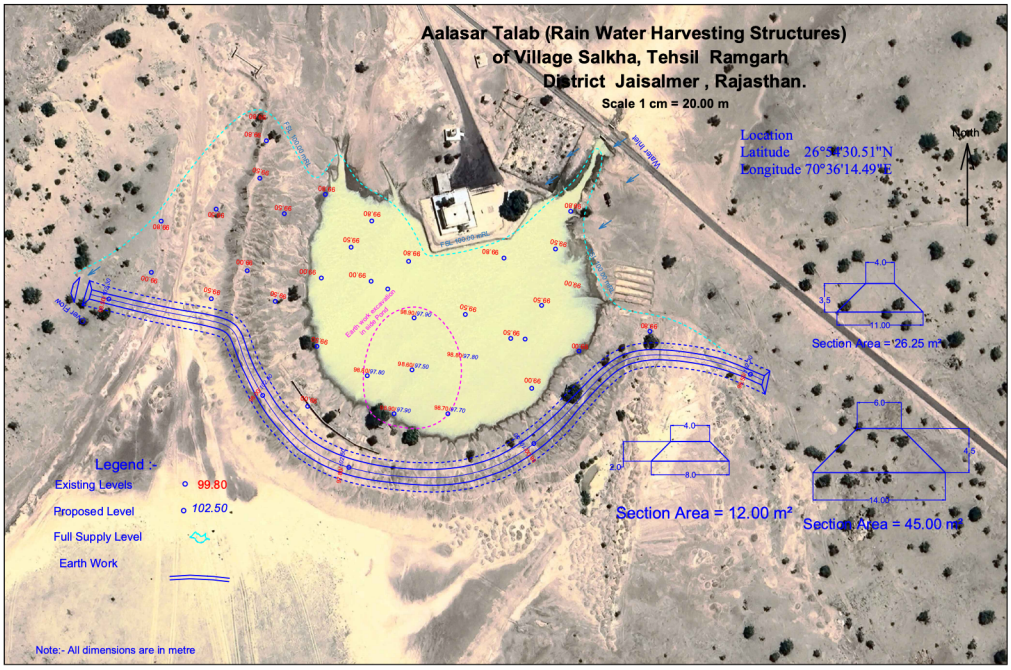
View of the proposed Aalasar Pond rejuvenation site near the temple, highlighting the arid desert terrain and water-scarce landscape



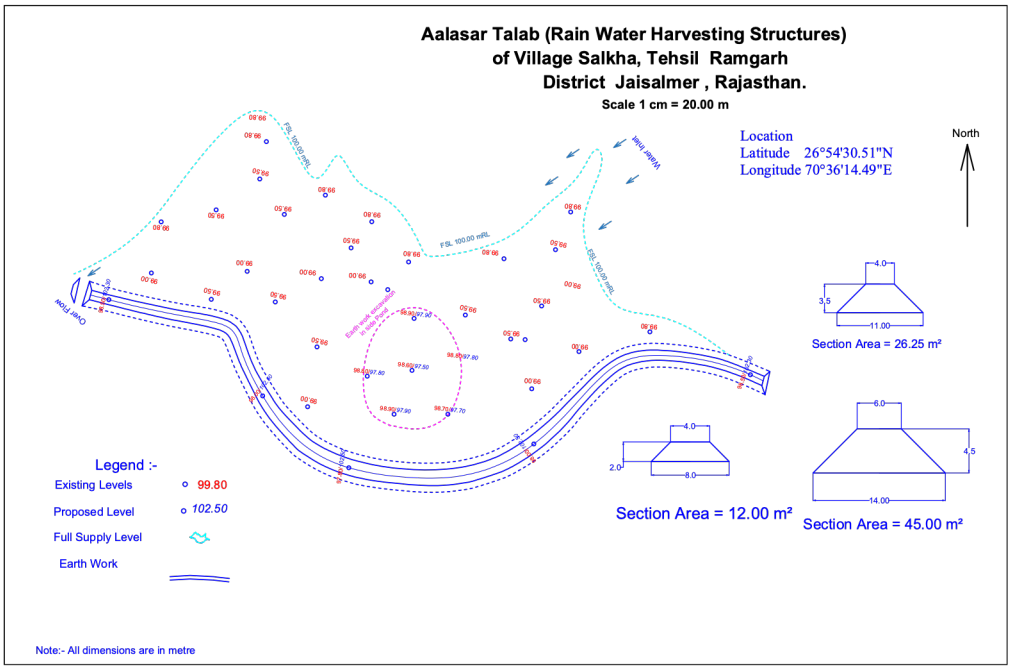
View of the dry and degraded catchment landscape surrounding Aalasar Talab



Mr. Bastian, Mr. Rajendra Singh, Mr. Chatar Singh, community leaders, and Mr. Chaman Singh during a field visit and community consultation at Aalasar Pond.



Engineering layout plan of Aalasar Pond, showing the proposed pond restoration design, embankment strengthening sections, excavation profile, and full supply level. The map illustrates the existing and proposed contour levels, earthwork alignment, cross-sectional dimensions, and structural interventions planned to enhance rainwater harvesting capacity, groundwater recharge, and long-term water retention within the desert watershed system.



Component	Existing Condition	Proposed Intervention
Structure Name	AalasarTalab (Rainwater Harvesting Structure)	Strengthening and expansion of pond structure
Location	Village Salkha, Tehsil Sam, Jaisalmer, Rajasthan	Improved rainwater harvesting infrastructure
Coordinates	Latitude: 26°54'30.51"N Longitude: 70°36'14.49"E	GPS-based monitoring and mapping
Catchment Characteristics	Natural slope towards pond from north-east direction	Catchment treatment and runoff management
Catchment Area	2.7 sq. km	Enhanced runoff capture efficiency
Existing Pond Area	27,740 sq. m (2.7 ha)	Deepening and strengthening of pond area
Existing Water Storage Capacity	1,38,70,000 litres	Increased to 4,16,10,000 litres
Existing Embankment Height	2.00 m	Raised to 2.00–3.00 m
Existing Top Width of Bund	2.00–4.00 m	Increased to 4.00–5.00 m
Existing Bottom Width	4.00–10.00 m	Increased to 6.00–14.00 m
Earthen Bund Length	415 m	Strengthening and stabilization of bund
Earthwork Requirement	12,637 cu.m excavation and bund work	Additional excavation and embankment reinforcement
Estimated Cost	₹20,09,362	Proposed investment for restoration.

Expected Outcome and Impact:

Parameter	Current Situation	Expected Situation After Alaasar Pond Restoration
Number of Beneficiary Households	Approximately 300 rural households depend on tanker-based water supply for domestic and livestock needs.	More reliable and locally available water source through improved pond storage and groundwater recharge.
Water Availability Duration	Local water availability remains adequate for only about 5 months annually.	Water availability expected to increase up to 10 months annually after restoration and strengthening of the pond.
Household Water Expenditure During Local Availability Period	Households spend approximately ₹500 per month on local water transportation and access.	Continued low-cost local access for a longer duration, reducing financial burden on families.
Household Water Expenditure During Scarcity Period	During 7 months of severe scarcity, households spend ₹1,000–1,500 per month to procure water from distant ponds and tanker sources.	Dependence on distant and expensive tanker water expected to reduce to only 2 months annually.
Total Annual Household Water Expenditure	Estimated collective annual expenditure ranges from approximately ₹28.5 lakh to ₹39 lakh for 300 households.	Estimated annual expenditure expected to reduce to approximately ₹21 lakh to ₹24 lakh.
Estimated Annual Community Savings	High recurring expenditure on emergency and distant water supply systems.	Potential annual savings of approximately ₹7.5 lakh to ₹15 lakh for the community through reduced tanker dependence.
Water Storage Capacity of AalasarPond	Existing storage capacity is approximately 1.39 crore litres, insufficient to meet extended dry-season demand.	Storage capacity expected to increase to approximately 4.16 crore litres after restoration.
Climate Resilience	Communities remain highly vulnerable to drought, erratic rainfall, and water scarcity.	Enhanced water security and improved resilience against drought and climate variability in the arid region of Jaisalmer.
Social and Livelihood Impact	High financial stress, water insecurity, and dependence on external water sources affect household well-being and livestock management.	Improved water security, reduced household burden, strengthened livestock-based livelihoods, and enhanced quality of life for rural families.

Summary Outcome:

Parameter	Current	After Restoration
Water Availability	5 months	10 months
Storage Capacity	1.39 Cr Litres	4.16 Cr Litres
Tanker Dependency	7 months	2 months
Annual Household Expenditure	₹28.5–39 lakh	₹21–24 lakh
Annual Community Savings	—	₹7.5–15 lakh

Budget Summary:

S. No.	Details	Unit	Unit Cost	Community Contribution	TBS Contribution	W4U Contribution	TOTAL COST
1	Renovation of Ponds	1	₹20,00,000	₹5,00,000	-	₹15,00,000	₹20,00,000
2	Administrative Cost			-	₹3,00,000	-	₹3,00,000
TOTAL				₹5,00,000	₹3,00,000	₹15,00,000	**₹23,00,000**

The total estimated project cost is **₹23 lakh**, which includes both infrastructure development and administrative support required for effective implementation and monitoring.

A major component of the budget, amounting to **₹20 lakh**, is allocated for the physical restoration of the pond. This includes excavation and deepening work, strengthening of the earthen bund, improvement of feeder channels, and enhancement of the pond's overall storage and water retention capacity. The community is contributing **₹5 lakh** toward the restoration work, reflecting strong local participation and ownership in the conservation initiative. The remaining **₹15 lakh** is proposed as support from W4U for execution of the core intervention activities.

An additional ₹3 lakh has been allocated toward administrative and project management costs, which will be fully supported by TBS. This includes project management, field coordination, technical supervision, monitoring, GIS documentation, reporting, and community mobilization activities essential for effective implementation, transparency, accountability, and long-term sustainability of the intervention.

Conclusion: The restoration of Aalasar Pond represents a community-driven climate resilience initiative rooted in Rajasthan's traditional water wisdom. Through collaborative support from the community, Tarun Bharat Sangh, and United4Water, the project aims to revive a critical desert water system that will strengthen ecological sustainability, groundwater recharge, and long-term water security for vulnerable rural households.

TARUN BHARAT SANGH
FCRA Registration Number: 12542001

FCRA Bank Account Details:
Account Name: TARUN BHARAT SANGH
Account Number: 40018479234 (FCRA Savings Account)
Bank Name: State Bank of India
Account Opening Date: 18/02/2021
Branch Code: 00691
IFSC Code: SBIN0000691
SWIFT Code: SBININBB104

Bank Address:
FCRA Cell, 4th Floor
State Bank of India, New Delhi Main Branch
11, Sansad Marg, New Delhi – 110001