



## Rotary Club of Delhi Megapolis

### Project Proposal: Anandpur Sahib Wala Dam - Feb 2017

#### BACKGROUND

The state of Punjab is located in the Northern part of India. It is primarily an agrarian state with maximum contribution from agriculture sector. The state has been witnessing severe water scarcity in the last few years. Punjab, also known as the land of five rivers, is staring at a dark future on the water front; the ground water level is fast depleting. Bore wells yield water at 300 to 400 feet, where earlier the ground water levels used to be 70–100 feet. Every year, the level goes down by 10 feet. The situation is very alarming<sup>1</sup>, as it is directly affecting the people in the state, who are mainly dependent on agriculture and its allied activities.

Ropar district is located in the eastern part of the Punjab State. Administratively the new Ropar district is divided into four tehsils: Rupnagar, Chamkaur Sahib, Anandpur Sahib and Nangal. Agriculture is also the main source of the economy here. Depleting groundwater has led to an increasing demand for water to meet the agricultural and household needs. The traditional ponds system of Punjab, including the ones in Ropar are now lying in ruins. There is a need to harvest the rain water and increase the underground water levels.

#### PROPOSED LOCATION

**State:** Punjab

**District:** Rupnagar District

**Tehsil:** Anandpur Sahib

**Village:** Jhajjhar

**Population:** 1500

**Total Households:** 180

**Check dam Names:** Anandpur Sahib and Anandpur Sahib Jhajjar

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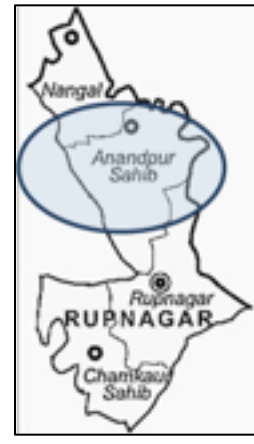
<sup>1</sup> [http://articles.economictimes.indiatimes.com/2016-04-08/news/72161407\\_1\\_punjab-agricultural-university-ground-water-water-scarcity](http://articles.economictimes.indiatimes.com/2016-04-08/news/72161407_1_punjab-agricultural-university-ground-water-water-scarcity)



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Ropar Distirct in Punjab, India



Anandpur Sahib in Ropar Distirct

## GPS Location of the Proposed Project Area

### Check Dam 1 Water Catchment Details





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### Check Dam 2 Water Catchment Details



### Both Check Dams Together



**NEED FOR CHECK DAM IN ANANDPUR SAHIB, ROPAR DISTRICT, PUNJAB**



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Increase in demand from the agriculture sector is directly proportional to the exploitation of the ground water in the agrarian belts of Punjab. There is an increasing concern over the declining water table in this area, therefore the Central Ground Water Board has recommended reducing area under paddy by more than 10 lakh hectares to achieve sustainable growth. Ropar is one of the worst affected districts<sup>2</sup> in Punjab.

The stage of groundwater development<sup>3</sup> in Anandpur Sahib is 93%<sup>4</sup>, which means it is critical and needs to be addressed at the earliest. The Central Ground Water Board has recommended development of the Groundwater resource in Anandpur Sahib and Ropar blocks to ensure that the groundwater table is maintained .

To combat the above problem, it is proposed to construct two check dams at a distance of 1.0 km to cover entire belt in this location. The check dams proposed are to be constructed on a seasonal water stream that will cover an area of approximately 550 meters and will directly benefit 100 acres of agriculture area.

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<sup>2</sup> <http://agrariancrisis.in/2012/02/25/punjab-declining-water-table-reduce-area-under-paddy-water-board-tells-govt/>

<sup>3</sup> “Ratio of Annual Ground Water Draft and Net Annual Ground Water Availability in percentage.”

<sup>4</sup> <http://cgwb.gov.in/documents/papers/incidpapers/paper%2011-%20sushil%20gupta.pdf>



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### TIMELINE FOR EACH DAM

Duration	Task
1 <sup>st</sup> - 2 <sup>nd</sup> Fortnight	Excavation and foundation work
3 <sup>rd</sup> - 4 <sup>th</sup> Fortnight	30% construction work to be completed
5 <sup>th</sup> - 6 <sup>th</sup> Fortnight	50% construction work to be completed
7 <sup>th</sup> - 8 <sup>th</sup> Fortnight	70% construction work completed
9 <sup>th</sup> -10 <sup>th</sup> Fortnight	100% construction completed
<b>Total duration of the project: 2- 2.5 months</b>	

### DETAILED BUDGET

PROJECT- ANANDPUR SAHIB WALA CHECK DAM						
Name of the check dam		Anandpur Sahib Dam 1 and Dam 2				
Name of the villages		Jhajjar				
District and State		Ropar, Anandpur Sahib, Punjab				
Population		1500				
Households		180				
Agricultural Land (Acre)		100				
Milch Animals		1200				
Water Holding Capacity		Check Dam-1= 77692 cu ft		Check Dam-2= 476748 cu ft		
Combined Water Capacity		554440 cu ft				
Estimated Budgetary Projections (INR)						
S. no.	Item	Rate	Check Dam- 1		Check Dam- 2	
			Quantity	Total	Quantity	Total
1	Cement (bags)	360	611	2,19,780	1,092	3,93,228
2	Bajri (Trolley)	2,500	36	90,750	63	1,56,750
3	Stone (Trolley)	2,000	114	2,27,700	205	4,09,200



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4	Water Tanker s	700	101	70,455	180	1,25,895
5	Labour (per day)	350	530	1,85,378	934	3,26,865
6	Mason (per day)	600	149	89,100	262	1,57,410
	<b>Construction Cost</b>			<b>8,83,163</b>		<b>15,69,348</b>
	<b>Total Construction Cost</b>		<b>INR 24,52,51 1</b>	<b>= USD 37,160</b>		