



# DEW IN DESERT

Drinable Easy access to Water in Deesrt of Tharparkar

@ village Nasrullah Sand









# Association for Water Applied Education & Renewable Energy- AWARE

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#### **Table of Contents**

•	Project Progress @ a Glance	03
•	Background	05
•	The major issue of villagers	05
•	About project launched with support of ADP	06
•	Progress	06
	- Formal ToP with community	06
	- Project steering committee	07
	- Procurement	07
	- Awareness Sessions	07
	- Construction work	07
	- Meetings with community	07
	- Project Visibility	07
•	Financial Report	08
•	Results Achieved	09
•	Recommendations	10
Bid pr	ocess/Tender notice published in newspaper	Annexure - A
Sketch	n of Resolution by Community Group	Annexure - B
Introd	luctory meeting snaps & scan copy of attendance sheet	Annexure - C
Mens	trual hygiene session pics & attendance sheet scan copy	Annexure - D
Health	a & hygiene session pics & scan copy of attendance sheet	Annexure - E
Civil/c	construction work	Annexure - F
Schoo	l level Hygiene sessions	Annexure - G
Projec	t Inauguration Ceremony	Annexure - H
Media	a coverage	Annexure - I

### Drinkable Easy Water (DEW) in Desert @ a Glance

	Project Summary
Project Title	Drinkable Easy Water (DEW) in Desert
Project Location	Village Nasrullah Sand, UC Tardos, Tehsil Chachro District Tharparkar
Project Duration	January – May, 2014
Beneficiaries	248 souls (69 male, 82 female, 97 children – 45 boys and 52 girls)
In Media	<ul> <li>The News published the news of inauguration of project <a href="http://www.thenews.com.pk/Todays-News-11-261267-Solar-Sindh">http://www.thenews.com.pk/Todays-News-11-261267-Solar-Sindh</a></li> <li>In Lahore times a detailed article published and also mentioned ADP's name <a href="http://lhrtimes.com/2014/07/12/solar-powered-water-pump-district-tharparkar/">http://lhrtimes.com/2014/07/12/solar-powered-water-pump-district-tharparkar/</a></li> <li>Daily Messenger published news <a href="https://www.facebook.com/photo.php?fbid=10204122589694663&amp;set=a.1161510167598.25618.1523140853&amp;type=1&amp;theater">https://www.facebook.com/photo.php?fbid=10204122589694663&amp;set=a.1161510167598.25618.1523140853&amp;type=1&amp;theater</a></li> <li>A letter published in Daily Times <a href="http://www.dailytimes.com.pk/letters/16-Jul-2014/solar-energy-in-tharparkar">http://www.dailytimes.com.pk/letters/16-Jul-2014/solar-energy-in-tharparkar</a></li> <li>Daily Jahan Pakistan <a href="https://www.facebook.com/photo.php?fbid=319505131559786&amp;set=a.125197470990554.24167.100005009049443&amp;type=1&amp;theater&amp;notif=t=like">https://www.facebook.com/photo.php?fbid=319505131559786&amp;set=a.125197470990554.24167.100005009049443&amp;type=1&amp;theater&amp;notif=t=like</a></li> <li>Daily Sobh published news <a 09-jul-2014="" href="https://www.facebook.com/photo.php?fbid=339669922864283&amp;set=a.116667715164506.24637.100004638330021&amp;type=1&amp;theater&lt;/a&gt;&lt;/li&gt; &lt;li&gt;Letter published in The Nation &lt;a href=" https:="" letters="" solar-water-pumps-a-blessing"="" www.nation.com.pk="">https://www.nation.com.pk/letters/09-Jul-2014/solar-water-pumps-a-blessing</a></li> </ul>
Pictures	The level of happiness of community can viewed <a href="https://vimeo.com/100878493">https://vimeo.com/100878493</a> comments of a villager Ghulam Mohammad talking about ADP pump and its benefit. Also a woman of the same village shared about the water woes faced by women in Thar <a href="https://vimeo.com/100875779">https://vimeo.com/100875779</a> A local medical Dr. Nathu Singh shared his view <a href="https://vimeo.com/100878026">https://vimeo.com/100878026</a> that if people consume i=unsafe water of getting water with lot of efforts then what are the health consequences Snaps of project inauguration <a href="https://www.facebook.com/photo.php?fbid=315712658605700&amp;set=a.3">https://www.facebook.com/photo.php?fbid=315712658605700&amp;set=a.3</a> <a href="https://www.facebook.com/photo.php?fbid=274994572677509&amp;set=a.2">https://www.facebook.com/photo.php?fbid=274994572677509&amp;set=a.2</a> <a href="https://www.facebook.com/photo.php?fbid=274994572677509&amp;set=a.2">https://www.facebook.com/photo.php?fbid=274994572677509&amp;set=a.2</a> <a href="https://www.facebook.com/photo.php?fbid=274994572677509&amp;set=a.2">https://www.facebook.com/photo.php?fbid=274994572677509&amp;set=a.2</a> <a href="https://www.facebook.com/photo.php?fbid=274994572677509&amp;set=a.2">https://www.facebook.com/photo.php?fbid=274994572677509&amp;set=a.2</a> <a href="https://www.facebook.com/photo.php?fbid=274994572677509&amp;set=a.2">https://www.facebook.com/photo.php?fbid=274994572677509&amp;set=a.2</a> <a href="https://www.facebook.com/photo.php?fbid=274994572677509&amp;set=a.2">https://www.facebook.com/photo.php?fbid=274994572677509&amp;set=a.2</a> <a href="https://coldstorage.macbonsai.com/adp-photo.php?fbid=274994516010848.1073741834.100005009049443&amp;type=1&amp;theater">https://coldstorage.macbonsai.com/adp-photo.php?fbid=274994516010848.1073741834.100005009049443&amp;type=1&amp;theater</a>

	library/Public/projects/water-aware-solarproject/photos/6.jpg  Over all access to water in Thar is not an easy job <a href="https://www.facebook.com/photo.php?v=591114557587189&amp;set=vb.10">https://www.facebook.com/photo.php?v=591114557587189&amp;set=vb.10</a> 0000659492098&type=2&theater						
Video Link	Promo	Promo of documentary <a href="https://vimeo.com/101846208">https://vimeo.com/101846208</a> The complete documentary yet to be developed  Also a raw video on press club Chachro's FB account is available <a href="https://www.facebook.com/photo.php?v=497017603763659&amp;set=vb.100003662724605&amp;type=2&amp;theater">https://www.facebook.com/photo.php?v=497017603763659&amp;set=vb.10000362724605&amp;type=2&amp;theater</a>					
Budget v/s Expenses	S#		Date	Remarks			
	2	1 <sup>st</sup> Installment 2 <sup>nd</sup> Installment	10,46787 10,04895	Jan 21, 2014 April 11, 2014			
	3	Total received amount	20,51682		Bank deducted some amount		
	4	Total expenses against ADP approved budget heads	20,64648		Due to high prices of construction material cost increased		
	5	Approved budget	20,53778				
	7	Spent more than the	2096				
Name of Implementing Organization	Assoc (AWA	budget siation for Water, App RE)	lied Education	& Renewa	l able Energy		
Registration Act	Socie	ties Registration Act	1860				
Telephone	0092	232273054					
E-mail	info@	aware.org.pk					
Website	www.a	aware.org.pk					
Address	AWARE Office, Kamal Nagar opposite Army Public School Chachro District Tharparkar						
Contact Person	Ali Akbar						
Cell#	00923337092067						
E-mail	aliakbar@aware.org.pk						
Position/Relation to Project:	Projec	ct Coordinator					

#### **Background:**

50years back digging wells, the only source of water was more cumbersome, time and resource consuming. people used to cut trees went door to door for collecting quilts, old cloths and such other things to plug the open spaces left out from the stuffing of the tree stumps and branches; because the sandy soil used to collapse and fill up the dug space after few feet digging if the trees and other stuff was not applied.

A very humane Engineer Mufti Mullana AbdulHaq from Village RawatSar took pains to see all this and wanted to amelioratethe tormenting exercise by findingalternative solution. he invented an especially kind of backed brick and methodology for the purpose. Then digging well became less troublesome efforts thanks to the local Engineer. Despite that innovative effort some 50 years ago the extracting of water remains as tough as before in most of the Thar Area. AWARE sharing the dream of deceased engineer startedexperiments to take the mission of that great person to logical conclusion. As first step AWARE experimented with installation of deep Hand pump for pulling the water from deep well but it did not work. Then the experiment of wind mills was introduced with the support of philanthropist in 2003. This worked but sometimes, in case of absence of strong windsin the atmosphere supply for drinking water remained suspended.

After consultation with the community the idea of solar pump sprang out. This project was designed with the close and long community consultation An inadequate water and sanitation services to the people of Thar desert has detrimental effect on their living conditions, income earning potential, overall well-being, and increase their vulnerability to all kinds of water borne diseases such as cholera, typhoid, shigella, meningitis, and hepatitis A and E.

The people of Thar desert have been grappling with issue of inadequate safe drinking water for themselves and their livestock for last many decades. Plus, sanitation services are very poor.

Deep underground water and difficult practice of dragging out from dug wells compels inhabitants to use less water and resulting hygiene issues affects health and living standards. A short video can you understood the its get issue and intensity in Thar https://www.facebook.com/photo.php?v=591114557587189 Mostly children and women have to bear the brunt of the situation http://www.bbc.co.uk/urdu/multimedia/2014/07/140723 desert mithi.shtml Children have to look after animals which are used for hauling water bucket from dug wells and women have to fetch water in pitchers, carrying on head, to home http://tune.pk/video/3414347/waterscarcity-in-tharparkar-sindh While fetching water pregnant women are at more risk because sometime miscarriage cases also take place. Moreover, the open dug wells are at risk of getting contaminated by external particles which are harmful to health.

#### The Major Issue of Villagers:

Village Nasurullah Sand with is situated in UC Tardos, of Chachro Tehsil, District Tharparkar. Because of all villagers belonging to one cast; Sand is great degree of unity among them. Majority of them is engaged in rain dependent agriculture and livestock raring. Like majority of other villages of Thar, a main problem of this village was also drinking water. Villagers said they spent lot of time and energies as well as animals potential in fetching water. And on average 5 members from each household (2 men, 1 child and two women) engaged in extracting the water from deep well after waiting sometimes long hours for turn and taking the water to homes and thus many other responsibility / chores remained unattended or inadequately attended.

Villages said heat usually thy and their children suffered from heat strokes, fever and such other diseases.

Due to busyness of women in fetching water they could not spend adequate time in cleanliness of households and children thus this worsened the hygienic related ailments of the entire family.

They said that if due to tiredness, if donkey (s) stopped dragging the heavy pail tied with the animal pulls back into well with full force that person standing beside got coiled in that rope and fell in the wells getting seriously injured.

During strong summer winds dung of animals and other particles fell in the well and made it extremely harmful for human health and consumer of such water are often afflicted with cholera and other water borne and skin diseases. And in the absence of any health facility nearby, the health condition got more serious.

To mitigate the issue of water, AWARE with the Support of Association for Development of Pakistan (ADP) introduced Solar Water Pump in Village Nasurullah Sand. To set a good example for others to replicate this model for the benefit of other villagers of Thar.

#### **About Project Launched with support of ADP:**

The AWARE requested to Association for Development of Pakistan (ADP) to support in materializing an innovative idea to quench the thirst of inhabitants of village Nasrullah Sand by providing safe drinking water through alternative energy in order to improve health and hygiene of villagers of Nasrullah Saund, Union Council Tardos, Taluka Chachro, District Tharparkar. Under this project one solar pump on dug well is installed to drag out the underground water from depth of 270 feet. Total populations of beneficiaries are 248 souls (69 male, 82 female, 97 children – 45 boys and 52 girls) covering 48 households. This is a one of model projects which directly benefits women and children. To raise the awareness among masses health and hygiene sessions held at community level, school health sessions and menstrual hygiene sessions for women remained of high importance. Community also developed a story on water woes of Thar and played a theater show to get realized the visitors during inauguration ceremony of event. Water meters are installed to assure the water conservation and judicious use as well.

#### **Progress:**

Project is implemented with participatory approach and stakeholders involvement remained at

different steppes. The steps wise progress and implementation strategy was as under:

The object "improved water and sanitation services in one community; village Nasrullah Saund of U.C. Tardos, Taluka Chachro, District Tharparkar, Sindh" was achieved. Along promotion of participatory development approach by engaging community in increasing the access of the people in U.C Tardos to safe drinking water through installation of one solar water pump. The contribution made in improving health and hygiene of the people by providing safe drinking water and raising awareness among them by holding health and hygiene awareness sessions.

This is foreseen that absenteeism and drop-out ratio among school going age children will be reduced by provision of safe drinking water at household level. No doubt this initiative will add or accelerate the empowerment of women because their burden is reduced and have got leisure time.

AWARE Team started project from January 01, 2014. To implement project professional staff has been hired as per HR policy of AWARE.

In Tharparkar, water scarcity is the worst. Installation of RO plants in Thar failed largely due to corruption. AWARE has installed specific solar technology to extract water. This has been a blessing for the villagers; to run the project 20 paisa per litter is charged from each household. Now more water is available for bathing and other household purposes. Women are growing vegetables for household needs which addresses some of the food security issues. Children's health has improved and they can now concentrate on their education. Animal cruelty as well as spending on their fodder has also decreased. Gulsher Panhwer

Writer

**Formal Agreement:** AWARE has shared project with community in a BBCM (for details please refer annex – C) and each and every activity was discussed in detail. After reaching at the position of common understanding a format in writing resolution cum ToP was signed. Scan copy is attached as annex – B.

**Project Steering Committee:** With joint consensus one project steering committee is formed to look after the project implementation. 1. Haji Jeearo from Community 2. Jan Mohammad Samoo from AWARE staff and 3. Manzoor Hassan from BoD.

**Procurement:** AWARE procurement policy is properly followed. Tender notice appeared in daily Kawish on Jan 17, 2014 on page number 07 <a href="http://kawish.asia/Backissues/2014/Jan%2014/17/03.jpg">http://kawish.asia/Backissues/2014/Jan%2014/17/03.jpg</a> and same was uploaded on FB <a href="https://www.facebook.com/photo.php?fbid=251533218356978&set=a.125197470990554.24167.1000">https://www.facebook.com/photo.php?fbid=251533218356978&set=a.125197470990554.24167.1000</a> 05009049443&type=1&theater

The details and sketch is attached herewith as annex – A.

**Awareness Sessions:** As per plan one session on health and hygiene was organized by AWARE staff in which manual of AWARE was followed. Pictures and scan copy of attendance sheet as attached as annex- E.

An awareness session on menstrual hygiene was organized by Social Mobilizer Woman at village Nasrullah Sand in which women participated. Session was delivered with support of WAP manual developed in Sindhi. The details along pictures and scan copy of attendance sheet can be viewed in annex – D.

Construction/civil work: As per AWARE procurement policy, qualified contractor M/S Atta Mohammad was awarded contract and they have completed work on time. The pictures of construction work can be seen in annexed-A Also can be seen on https://www.facebook.com/aware.thar/media set?set=a.274994516010848.1073741834.1000050090 49443&type=1

**Meeting with Community:** A detailed meeting has been conducted with Community Organization – Aurat Sujag and Sada Bahar of Nasrullah Saund and they were briefed about the progress and plans in detail. Community was also suggested to get prepared for purchasing of pipes and digging etc to lay down the pipes in next month. The role of community and AWARE was clearly reiterated in said meeting.

**Project Visibility:** It is really encouraging that this innovative approach of AWARE is being highly appreciated and name of ADP/weblink of ADP project is mentioned in story. IRIN reported a story on water woes of Thar and quoted solar water pump with metering in Thar as a best example <a href="http://www.irinnews.org/report/99553/water-brings-change-flowing-in-pakistan-s-tharparkar">http://www.irinnews.org/report/99553/water-brings-change-flowing-in-pakistan-s-tharparkar</a> The same story is reproduced by Voice of America <a href="http://www.urduvoa.com/content/water-crises-in-tharparkar-sindh/1841813.html">http://www.urduvoa.com/content/water-crises-in-tharparkar-sindh/1841813.html</a> and published with some changes.

Relief web also published the same story <a href="http://reliefweb.int/report/pakistan/water-brings-change-flowing-pakistan-s-tharparkar">http://reliefweb.int/report/pakistan/water-brings-change-flowing-pakistan-s-tharparkar</a>

Logo of ADP is also printed on all attendance sheets, banners and also details of project are mentioned on FB account of AWARE too.

The project inauguration ceremony was organized at village Nasrullah Sand in which a large number of stakeholders attended. The local, national and international media also reported the project as an innovative project in Tharparkar with support of ADP

- The News published the news of inauguration of project <a href="http://www.thenews.com.pk/Todays-News-11-261267-Solar-Sindh">http://www.thenews.com.pk/Todays-News-11-261267-Solar-Sindh</a>
- In Lahore times a detailed article published and also mentioned ADP's name <a href="http://lhrtimes.com/2014/07/12/solar-powered-water-pump-district-tharparkar/">http://lhrtimes.com/2014/07/12/solar-powered-water-pump-district-tharparkar/</a>
- Daily Messenger published news <a href="https://www.facebook.com/photo.php?fbid=10204122589694663&set=a.1161510167598.25618.1523">https://www.facebook.com/photo.php?fbid=10204122589694663&set=a.1161510167598.25618.1523</a>
   <a href="https://www.facebook.com/photo.php?fbid=10204122589694663&set=a.1161510167598.25618.1523">https://www.facebook.com/photo.php?fbid=10204122589694663&set=a.1161510167598.25618.1523</a>
   <a href="https://www.facebook.com/photo.php?fbid=10204122589694663&set=a.1161510167598.25618.1523">https://www.facebook.com/photo.php?fbid=10204122589694663&set=a.1161510167598.25618.1523</a>
   <a href="https://www.facebook.com/photo.php?fbid=10204122589694663&set=a.1161510167598.25618.1523">https://www.facebook.com/photo.php?fbid=10204122589694663&set=a.1161510167598.25618.1523</a>
   <a href="https://www.facebook.com/photo.php?fbid=10204122589694663&set=a.1161510167598.25618.1523</a>
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  <a href="https://www.facebook.com/photo.php?fbid=10204122589694663&set=a.1161510167598.25618.1523</a>
  <a href="https://www.facebook.com/photo.photo

- A letter published in Daily Times <a href="http://www.dailytimes.com.pk/letters/16-Jul-2014/solar-energy-in-tharparkar">http://www.dailytimes.com.pk/letters/16-Jul-2014/solar-energy-in-tharparkar</a>
- Daily Jahan Pakistan
   <a href="https://www.facebook.com/photo.php?fbid=319505131559786&set=a.125197470990554.24167.1000">https://www.facebook.com/photo.php?fbid=319505131559786&set=a.125197470990554.24167.1000</a>

   05009049443&type=1&theater&notif t=like
- Daily Sobh published news <a href="https://www.facebook.com/photo.php?fbid=339669922864283&set=a.116667715164506.24637.1000">https://www.facebook.com/photo.php?fbid=339669922864283&set=a.116667715164506.24637.1000</a> <a href="https://www.facebook.com/photo.php?fbid=339669922864283&set=a.116667715164506.24637.1000">https://www.facebook.com/photo.php?fbid=339669922864283&set=a.116667715164506.24637.1000</a> <a href="https://www.facebook.com/photo.php?fbid=339669922864283&set=a.116667715164506.24637.1000">https://www.facebook.com/photo.php?fbid=339669922864283&set=a.116667715164506.24637.1000</a>
- Letter published in The Nation <a href="http://www.nation.com.pk/letters/09-Jul-2014/solar-water-pumps-a-blessing">http://www.nation.com.pk/letters/09-Jul-2014/solar-water-pumps-a-blessing</a>

#### **Sustainability:**

The project is innovative, environment and use friendly. The life of solar pump is at least 10 years whereas the life of solar PV panels is 25 years. But the major aspect is not required frequent maintenance, change of oil, batteries etc or even high technology involved. Despite of that no doubt a responsible person is required to on and off the system (thought sensor system is there) as per need, open and close the valves, and collect charges from households regularly and look after the system. With consultation of local Community Organization CO) named Sada Bahar a three members Water Users Committee is formed to manage the water supply system:

Name	Designation	Contact #
Haji Jearo s/o M Manzoor	Chairperson	0342-3178793
Mirjan s/o Salar	Member (male)	0341-3505155
Fatma w/o Ghulam Muhammad	Member (woman)	0346-3409457

Initially, above said Committee has decided to charge 20 paisa per liter from users. Whereas a local young man has been trained (hand on) and has been given responsibility of look after the water supply system and collect service charges.

Name	Designation	Contact #
Basher Ahmed	Chairperson	0345-5247725

Committee has decided that initially Rs. 1000 per month as remuneration for operator. The collected amount will be deposited in account of Community Organization (CO) of village named Sada Bahar Village Organization.

#### **Financial Report:**

AWARE has bank account with swift code in NBP Umerkot branch but it is used for multipurpose, so ADP funds received plus AWARE cash contribution was transferred to a separate account managed by AWARE in FMFB Umerkot. The details are as under:

S#		Amount Received from ADP	Date	Remarks
1	1 <sup>st</sup> Installment	10,46787	Jan 21, 2014	
2	2 <sup>nd</sup> Installment	10,04895	April 11,	
			2014	
3	Total received amount	20,51682		Bank deducted some
				amount

4	Total expenses against ADP approved budget heads	20,64648	Due to high prices of construction material cost increased
5	Approved budget	20,53778	
6	Less amount received	2096	
7	Spent more than the budget	12966	

The bank account details are as under:

Bank account # 766050 Account title: AWARE

Bank: FMFB Umerkot branch

Note: Budget, expenses and variance report along bank statement, reconciliation report, BPV and

CVP scan copies are enclosed herewith for record and review purposes.

#### **Results Achieved:**

- Over all it remained of high value and interest for AWARE Team as well as Community
- Media and other stakeholders appreciated and quoted a best example
- The level of happiness of community can viewed <a href="https://vimeo.com/100878493">https://vimeo.com/100878493</a> comments of a villager Ghulam Mohammad talking about ADP pump and its benefit. Also a woman of the same village shared about the water woes faced by women in Thar <a href="https://vimeo.com/100875779">https://vimeo.com/100875779</a>
- A local medical Dr. Nathu Singh shared his view <a href="https://vimeo.com/100878026">https://vimeo.com/100878026</a> that if people consume i=unsafe water of getting water with lot of efforts then what are the health consequences
- Women saved from taking heavy buckets of water on their heads
- Men and children relieved from extracting water from deep well, using animals or their bare hands
- water from covered well through pipes replaced pollutant water which improved health of the beneficiaries
- More water available for bathing and other household washing purposes improved health and hygiene
- Due to conflict on turn of the water which sometime resulted into infighting and even blood shed discarded (recently in neighboring village one men was killed on the turn of water controversy)
- With additional convenient water available, women grew vegetables for household needs which meet the deficiency of composite diet
- Growing of vegetables and tree plantation in the result of additional water contributed in greenery and improve environment of the village
- Children relieved from finding out animals, keeping and feeding them as well as spending three
  more hours in driving animals for extracting water; this improved their health and education
- animal cruelty as well as spending on their fodder ended
- School enrolment increased as boys have no more to run after donkeys and drive them and girls to take water on their heads to home
- Men free from ordeal of fetching water, spend their time on fields
- Women with free time on their disposal busy themselves in handcraft and other activities
- AWARE introduced another innovation of water meters which helped in reducing community conflicts; they use water according need and if there is any wastage they have to pay 20 paisa per liter
- Additional time also spent on healthy entrainment of puzzles, chatting among men and men
- After introduction of this model by AWARE, three other entities have replicated this in the area

- Since the installation of the solar water Pump, people from all over the area visited the facility in curiosity and disbelief and after observing the facility are demanding from government to provide the same in their villages
- Introduction and applying of this technology has also been converted into spontaneous campaign for alternative energy without any social mobilization efforts
- This model covers Human rights Based approach i.e. Solidarity, Empowerment and campaigning
- This technology has immense potential for future development of the area
- This technology address several problems at the same time
- Solar pump technology is very much adaptable for the area

#### **Recommendations:**

- This project is of high value and usefulness but by adding sanitation component with PATS will result more better
- Manual on menstrual hygiene be developed by ADP or get from any other organization to educate women in rural areas such as in Thar Desert etc.

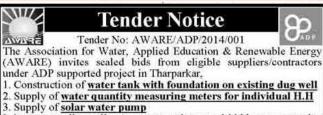
#### AWARE tender published in Daily KawishHyd on page # 07 dated Jan 17, 2014

Link:

https://www.facebook.com/photo.php?fbid=251533218356978&set=a.125197470990554.24167.100005009049443&type=1&theater

http://kawish.asia/Backissues/2014/Jan%2014/17/03.jpg





It is open to all suppliers/contractors; interested bidders may receive the tender documents from below mentioned address between 11:00 am to 3:00 pm). Bidding documents may be purchased upon payment of a non refundable fee of Pk Rs. 500/= only by PO/DD/TT.

Tenders can be submitted upto January 25, 2014 at 11:30am at given below address; late received tenders will be rejected and returned un open to bidders.

For further details and tender submission

Manager Finance & Admin AWARE, Ward # 311, Gharib Abad, Umerkot, Sindh Ph: 0238-500039, Cell: 0307-3443506

#### **COMPARATIVE STATEMENT**

FOR Construction of Water Tank, Solar Water Pump & Water Quantity Meters

Date: 27/01/2013

S.#	Name of Vendor	Description	Qty.	Unit Rate	Total	Remarks
01	M/S Atta Mohammad	Construction of Water Tank	01	245,500/-	245,500	Recommended by keeping in view the experience and cost/lowest price tendered
		Water Quantity Meters	48	1100/-	52,800	
		Solar Water Pump	01	930,000/-	930,000	
				Total =>	1,228,300	

				Total =>	1,225,960	
		Solar Water Pump	01	880,300/-	880,300	in view the cost tendered and experience in field
02	M/S Galaxy	Water Quantity Meters	48	950/-		Recommended by keeping
		Construction of Water Tank	01	300,000/-	300,000	

-		Solar Water Pump	01	793,000/- Total =>	2,685,000	
	Traders	Calan Water Dumin	0.1	995,000/-	995,000	
03	M/S Sindh	Water Quantity Meters	48	30,000/-	1440,000	
	THE SECOND STATE OF THE SE	Construction of Water Tank	01	250,000/-	250,000	

Recommended For:

M/S Atta Mohammad, Umerkot for Construction of Water Tank & M/S

Galaxy for Water Quantity Meters & Solar Water Pump

Rational:

Lowest Price & technical satisfactory with timely delivery.

Prepared By Behari Lal Malhi
Finance & Admin Officer

Signed By Procurement Committee

Jan Mohammad Samo Programme Officer Ali Akbar Rahimoo Executive Director Manzoor Hassan Finance Secretary

#### **Resolution by Project Management Committee**



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# Introductory meeting with community





#### Attendance Sheet Introductory Meeting

Venue: Nasarullah Sand

Date: 15-01-2014

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# **Menstrual Hygiene Session**







# Attendance Sheet Menstrual hygiene sessions

82.

Venue: Nusvallah Sand

Date: - 20 - 01 2014

	Name	Men			Women						
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# **Health & Hygiene Session**



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Attendance Sheet

School health sessions

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Venue: Nusrallah Sand.

Date: 18-01-2014

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# Construction/Civil Work



Modification of dug well



Constriction of overhead tank



Platform and dug well modification completed



A view of overhead water storage tank

# Health & Hygiene Session @ School

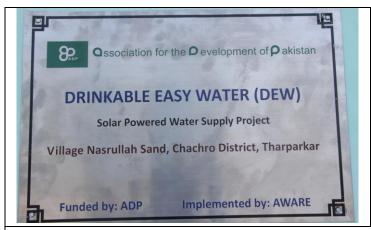


Children after attending session on hand washing



School health & hygiene session view

### **Project Inauguration Ceremony**





Project Inaugurated by Mai Noori an older woman of the village



External view of solar PV panels



A girl first time in her home got piped water from solar pump



Children are in happy mood



A theater on water woes of Thar is being played

#### **Media Coverage**





ARY One TV rep recording event







## Sindh TV correspondent

Daily Sobh news clipping



Jahan Pakistan news clip

DEW in Desert - Innovative solar powered water supply scheme with water metering inaugurated in Tharparkar

MITHI, Jul 15: First ever innovative solar powered water supply project with water metering "Drihable Easy access to Water (DEW) in Desert" inaugurated in a remote village Assullah Saud of deep desert of Tharparkar with capacity of water dragging out 19000 liters per day from depth of 300 feet by using alternative energy to

using alternative energy to improve health, hygiene, noome earning potential and he overall well-being of vilagers especially women and hildren. Project was inaugurated by the project was inaugurated yallow of village, Mai Noori Sand here on Wednesday, On the occasion Ms. Noori shared her emo-

Wednesday. On the occasion Ms. Noori shared her emoions that we never dreamed uch facility and it is miracle or us though I have no more easier to live but I am more han happy that at least my grand children got rid off from tetching water pitchees on her beads and walk for miles harsh summer. Woman serivist Fatims

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g abilities of villagers will be reduced. He also urged the Government and other organiof zations working on water in Tharparkar should learn from this model initiative and replicate to quench the thirst of

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# MESSENGER KARACHI EDITION - Thursday, July 17, 2014, Ramadan 18, 1435

Daily Messenger news clip

http://www.thenews.com.pk/Todays-News-3-262320-Solar-powered-water-pump-inaugurated-in-Thar

Solar-powered water pump inaugurated in Thar

#### Jan Khaskheli

Friday, July 18, 2014 From Print Edition

HYDERABAD: The first-ever solar-powered water pump having a capacity to drag out 19,000 liters of underground water per day from 300-foot depth was inaugurated in a remote village of Nasrullah sand of Tharparkar district.

The project is to improve health, hygiene, income earning potential and the overall well-being of villagers especially women and children.

An elder woman of the village Mai Noori Sand inaugurated the project namely, "Drinkable Easy access to Water (DEW) in Desert" on Wednesday.

Sharing her emotions, she said that they had never dreamt of such facility and it looked like a miracle for the villagers.

"I am more than happy that at least my grandchildren have got rid of fetching water pitchers on their heads and walking miles in harsh summer to get water," Noori added.

A woman activist Fatima Sand said that it was difficult to haul water from deep-dug well, which was a serious problem in the area, affecting the life style, health and livelihood of the local communities.

Women and children are usually responsible for obtaining water from dug wells and this consumes 3 to 5 hours every day, Fatima added.

A veteran social activist Gotam Rathi said that in Thar children were assigned duty of driving animals to drag out water from wells and because of that absenteeism in schools was very high.

This innovative project will improve the health and hygiene of the local community and bring down absenteeism and dropout rate among school-going children, Rathi added.

Researcher and social worker Ali Akbar Rahimoo said that the open dug wells in Thar were at risk of getting contaminated water by external particles, increasing the vulnerability of the local population to water borne diseases.

This project, he said, will reduce the vulnerabilities.

He also urged the government and other organisations working on water in Tharparkar to learn from this model initiative and replicate the same to quench the thirst of Thari people.

A local activist Jan Mohammad Samoo said that one solar photovoltaic powered pump on an existing dug well was installed and it did not need batteries and was run directly on sunlight.

Water is stored in a storage tank for further distribution through pipelines to each household.

To promote water conservation and revenue generation for maintenance, community organisation charges only 20 paisa per liter and for measuring water consumption water meters are introduced first time in Sindh.

A local civil society organisation Association for Water Applied Education and Renewable Energy designed and implemented the project with the financial support of Association for the Development of Pakistan.

Ilyas Rind, Ramzan Nohri, Mumtaz Arisar, Madan Gopal, Ali Murad Dal, Manoj Kumar and others said that now more water would be available for household purposes and families would be able to grow vegetables to fulfill their own needs. On the occasion, a local group performed a theater on water woes of Thar.

# http://lhrtimes.com/2014/07/12/solar-powered-water-pump-district-tharparkar/

# Solar Powered Water Pump in District Tharparkar

BY MUSSRAT JABEEN

Tharparkar comprises of an area of 22,000 square kilometers with a population of more than 1.4 million and about 5 million livestock heads. The region is entirely dependent upon rainfall and that is annually recorded from 09 to 350 millimeters. Every few years, it experiences a severe drought and one famine almost every decade. The primary source of drinking water is underground wells.

Easy access to safe drinking water is an acute problem in District Tharparkar affecting the life style, health and livelihood of the local communities. Women and children are usually responsible for obtaining water from dug wells and this can take up to 3-4 hours every day. Moreover, the open dug wells are at risk of getting contaminated by external particles increasing the vulnerability of the local population to water borne diseases.

Local Organization Association for water Applied Education and Renewable Energy (AWARE) Tharparkar Based installed Solar Powered Water Pump in Village Nasrullah Sand, Financial Support by Association for the Development of Pakistan (ADP).

The proposed project aims to provide safe drinking water by using alternative energy to improve health, hygiene, income earning potential and the overall well-being of villagers belonging to Nasrullah Sand. Include improving health and hygiene of the local community and reducing absenteeism and drop-out ratio among school going age children through easy availability of safe drinking water. The proposed work envisages installing one solar pump on an existing dug well. A Solar PV system operated pump will drag out underground water from a depth of 250 feet which will be stored in a storage tank for further distribution through pipelines to each household. Promote water conservation and revenue generation for maintenance, a nominal user fee will be charged from households. Total beneficiaries will include 248 members of the community. Provisional and federal Government may replicate this model in backward areas of overall country.

The Lahore Times Read more: <a href="http://lhrtimes.com/2014/07/12/solar-powered-water-pump-district-tharparkar/#ixzz38grvJipx">http://lhrtimes.com/2014/07/12/solar-powered-water-pump-district-tharparkar/#ixzz38grvJipx</a>

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