OMAN GREEN AWARDS 2011

NOMINATION FORM

Instructions for completing the nomination form:

1. Please use a separate Nomination Form for each award category.
2. You may attach extra paper as necessary
3. In the event you attach photographs, Statistical Tables and Reports to support your nomination they should be clearly labeled and marked
4. Please note that it is mandatory to provide two independent referees for the Nomination to be considered.

Organization Details:

Organization Name	Department of Soils, Water and Agricultural Engineering, SQU
CR No.	
Organization Type (Business/NGO/Gov)	Governmental
Website	http://www.squ.edu.om/college-agricultural/tabid/2223/language/en-US/Default.aspx
Location /Address	Department of Soils, Water and Agricultural Engineering Sultan Qaboos University P.O. Box 34 Al-Khod Postal Code: 123, Sultanate of Oman Tel (968) 24141228 Fax (968) 24413-418
Award Category	The Green Innovation Award

Project Details:

Project Title	Treatment and Reuse of Ablution Water from a Community Mosque in Oman: A Case Study
Location of Project	Community Mosque in Hail South- Seeb, Oman
One Line Description of Project	Low cost- low maintenance treatment system has been designed to collect, treat and reuse ablution water from small to medium size mosques.

Effectiveness

What were your goals?	(1) To determine quantity and quality of ablution water produced in a selected community mosque (2) To identify necessary treatments

(3) To design, construct and operate a low cost- low maintenance ablution water treatment system, and
(4) To evaluate its performance.

How have you measured your success?

(1) Treated water quality samples were tested and found to meet Omani's standard for irrigation water.

(2) The grass at the mosque irrigated with the treated water had higher chlorophyll pigment and looked healthier.

(3) Soil samples indicated that soil physical and chemical properties were not significantly affected and some parameters were improved.

(4) The number of sewage trucks to empty the septic tank in the mosque was reduced from 4 to 2 per month.

(5) People in charge of the mosque were very happy to have the system. The prayers showed great appreciation for the technology transfer and community service provided by the Department and SQU.

Innovation & Creativity

How were innovative methods, strategies or ideas applied?

The ablution water treatment systems was designed to be simple and as possible local materials were used in the construction. Local contractor was hired to make the water storage tanks and the piping. Ablution water (grey water) filter was made from ready available 400 gallon water tank. Washed sand beach, construction gravel and Wadi stones were used as the main layers of the filter. (see attached conference paper of details).

Impact

How has the project/initiative/work motivated others to contribute to a greener Oman

1) Treated ablution water can be reused to irrigate grass and trees around the mosques. Mosques areas can be made more pleasant
2) Reduce uses of fresh (municipality) water in small community mosques.
3) Reduce pressure in the sewage treatment network or local septic tanks of small community mosques.

4) Reduce risks of soil and ground water contaminations as results of leaks septic tanks of small community mosques.
5) Based on the outcomes of this project, several citizens consulted the project team to construct grey water (ablution water is consider grey water) treatment units in their homes.

Originality and Leadership

How has the nominee demonstrated vision, foresight and persistence?

Team members made Presentation of the outcomes of the project to the officials in the Ministry of Awqaaf and Religion Affairs and Ministry of Regional Municipalities and Water Resources. Both Ministries showed great interest in adapting the treatment unit and made plan to install similar units in few mosques in Muscat area. In fact Ministry Regional Municipalities and Water Resources installed a similar unit in Abo -Hamzaa Al-Shaari mosque in Al-hail South, Seeb. Team members presented conference papers in Oman, Kuwait and Turkey. A scientific paper was published in a well-recognized journal.

Continuity & Sustainability

How sustainable is the initiative carried out?

The structure of treatment unit is relatively very simple and easy to maintain. This is because of the use of locally available materials such as a water storage tank and washed beach sand in its construction. Maintenance cost is low compared to the saving gain from water bill.

Explain how it will be effective in the long term

There are more than 13000 community mosques in Oman (Al-Masjed Magazine, 2003). Large quantity of fresh water is being used for ablution in these mosques and then wasted. With this low cost- low maintenance ablution water treatment system this water can be re-used to irrigate grass and trees around the mosques. Mosques areas can be made more pleasant and large quantity of fresh water can be saved if this this low cost- low maintenance ablution water treatment technology is adopted and used in small community mosques.