This week's program is in two parts.
The first, if you are a Recswusa club member, you should already be intimately familiar with as we as a club, lead by Dr Vimal Hemani and PP Larry Levenson, were co-contributors. The second part of this program is just a quick primer on Green Technology. One page, a little information, and hopefully enough to give you some ideas about what to search for if you are interested in, confused by, or generally curious about Green Tech.

Part I: Windmills increase income for salt harvesters

http://rotary.org/en/MediaAndNews/News/Pages/100804_news_windmills.aspx
Five families who harvest salt from the desert in western India have Rotarians to thank for windmills that will double their income.

The Rotary Club of Wadhwan City, India, and the Rotary E-Club of the Southwest, Arizona, USA, received a Rotary Foundation Matching Grant and used club and District 5510 (Arizona) contributions to purchase 10 windmills. The windmills pump underground, salt-laden water into shallow ponds, where the salt can be separated through evaporation.

The families -- who are among the 10,000 families who migrate annually to the Little Rann of Kutch salt marsh in Gujarat to collect up to 800 tons of salt apiece -- previously relied on diesel engines to draw water to the desert's surface.

Five windmills were installed by the manufacturer in February with the help of Rotarians and the recipients. Club members expect the other five to be in use by October, the start of the six-month salt-harvesting season.

Deepak Agrawal, governor-elect of District 3060, visited the families in March and says they each saved about $100 in fuel and engine repair costs over a monthlong period.

"The project allowed them to buy basic amenities -- a glass to drink water from, books for their children, a light bulb," Agrawal says. "With the time they saved from engine maintenance, one of the fathers brought his child to school, and a mother read with her children."

A windmill-powered generator also produced electricity for one of the families.

In early April, the salt workers partially disassembled the 20-foot-tall steel and reinforced-plastic windmills and used trucks and tractors to move them to surrounding villages before the annual monsoon rains, which cover the desert in several feet of water.

Shrinand Palshikar, a Wadwhan City club member, proposed the project after his club surveyed the salt workers in 2008 and noted that fuel costs outweighed their profits. The next year, the club purchased one windmill to test and worked with the Gujarat Grassroots Innovations Augmentation Network , using the technical expertise of club members to modify the windmill to operate in desert conditions.

The e-club learned of the effort through one of its members, Vimal Hemani, who lives near Wadhwan City.

"Our e-club is international, and that helped facilitate this project," says past club president Larry Levenson. "Hemani was able to personally participate in the project and work with our Indian

partners."

"This windmill requires no major maintenance once the design is fully established," says Palshikar. "It's already two seasons that it has been under testing, and our confidence is very high."

Palshikar says that families who operate two windmills can reduce their fuel use by up to 80 percent, resulting in an even higher increase in income and decreased air pollution.

Agrawal says his district plans to help provide 100 windmills during the 2011-12 Rotary year, and he has talked to an area nonprofit and bank about making microcredit loans available to families so they can purchase windmills.

"We would be interested in expanding the project to serve many more families if the results are positive after the first full season," Levenson says.

Rotarians Vimal Hemani, Deepak Agrawal, Shrinand Palshikar, Kiran Dave, and Rajesh Bhatt with one of five windmills installed in western India to improve the lives of migrant salt workers. Photo courtesy of the Rotary Club of Wadhwan City

By Peter Schmidtke
Rotary International News -- 4 August 2010

Part II: Green Technology

So many people these days are saying "Green is the way to go". Regardless of how you feel about such a statement, Green is with us to stay. Knowing more about it can help you avoid marketing ploys and 'Green Washing', or the practice of making things appear green for the purpose of selling a product or idea.

So what is Green Technology?

Basically, green technology is that in which the technology is environmentally friendly and is created and used in a way that conserves natural resources and the environment.

You may hear green technology being referred to as environmental technology and clean technology.

Green technology is a field of new, innovative ways to make changes in daily life. Currently, this Clean Technology is in the beginning stages of its development, so the future will only bring bigger and better things for this field.

Goals of Green Technology

Green technology may be the future of global society. It's main goal is to find ways to produce technology in ways that do not damage or deplete the Earth's natural resources. We still have a long way to go.

In addition to ***not*** depleting natural resources, green technology is meant as an alternative source of technology that reduces dependence on fossil fuels and demonstrates less damage to human, animal, and plant health, as well as damage to the physical planet in general.

Green Tech Goals:
Sustainability - meeting the needs of society in ways that can continue indefinitely into the future without damaging or depleting natural resources. In short, meeting present needs without compromising the ability of future generations to meet their own needs.

"Cradle to cradle" design - ending the "cradle to grave" cycle of manufactured products, by creating products that can be fully reclaimed or re-used. (Recommend reading on the subject: http://www.mcdonough.com/cradle_to_cradle.htm)

Source reduction - reducing waste and pollution by changing patterns of production and consumption.

Innovation - developing alternatives to technologies - whether fossil fuel or chemical intensive agriculture - that have been demonstrated to damage health and the environment.

Viability - creating a center of economic activity around technologies and products that benefit the environment, speeding their implementation and creating new careers that truly protect the planet.

Types of Green Technology

Energy
Perhaps the most urgent issue for green technology, this includes the development of alternative fuels, new means of generating energy and energy efficiency.

Green building
Green building encompasses everything from the choice of building materials to where a building is located.

Environmentally preferred purchasing
This government innovation involves the search for products whose contents and methods of production have the smallest possible impact on the environment, and mandates that these be the preferred products for government purchasing.

Green chemistry
The invention, design and application of chemical products and processes to reduce or to eliminate the use and generation of hazardous substances.

Green nanotechnology
Nanotechnology involves the manipulation of materials at the scale of the nanometer, one billionth of a meter. Some scientists believe that mastery of this subject is forthcoming that will transform the way that everything in the world is manufactured. "Green nanotechnology" is the application of green chemistry and green engineering principles to this field.