

## CLEANER IS BETTER

*Local producers find a lucrative business opportunity in cleaner charcoal production with carbon credits*

The “black cloud” is the vernacular term that Egyptians have coined to refer to a recurring problem of air pollution. One significant contributor to air pollution in Egypt is the charcoal industry.

About 7 million tons of wood residues are used as the feedstock for charcoal manufacturing in Egypt by means of 900 traditional open earth-pits. The emissions from those pits cannot be controlled.

Consequently, many harmful pollutants are emitted to the atmosphere including: methane, carbon monoxide, nitrogen oxides, particulate matter, tar, formaldehyde, phenols, hydrocarbons, and volatile organic compounds.

As a chemist, a charcoal manufacturer, Nader Hussein has been concerned about the many health and environmental problems that the charcoal industry was creating, with its rudimentary production methods. He has been actively searching for solutions that were economically viable and at the same time environmentally friendly. For him modernizing manufacturing methods presented a business development opportunity.



traditional charcoal production

His search was answered in a technical workshop organized by Clean Development Mechanism- Awareness and Promotion Unit (CDM-APU), that he was invited to attend.

Through a longstanding cooperation with the Ministry of State for the Environment in Egypt, and as part of the Millennium Development Achievement Fund joint programming under the environment and climate change window, UNDP with other UN agencies have helped establish this Unit.

Since its establishment, the Unit has assembled a team of experts to address priority environmental problems, including the “black cloud.” Those experts search for appropriate technological solutions, ensure that the technology is affordable, and broker access to Carbon Financing to allow for the sustainability of operations.

The workshop presented charcoal manufacturers with a technical model for upgrading their operations that is economically feasible with Carbon Credits.



Chemist Nader with partners and new charcoal technology

Realizing that “seeing is believing” the Ministry of State for Environmental Affairs, along with the Governorate of Qalyoubiya, arranged in early 2012 a practical demonstration of a pilot new kiln prototype to traditional and prospective charcoal producers.

Environmentally, the new mechanized Charcoal Kiln improves local air quality and reduces greenhouse gases (especially methane emissions), and protects the local water quality, land resources and agriculture production from tar emissions on land and vegetation. Economically, it increases charcoal productivity and

quality while utilizing less land for production. Additionally, it improves health and safety of charcoal producers and local population

After witnessing the pilot charcoal kiln in Qalyoubiya governorate, Nader went forward to purchase his own new kiln and is currently preparing to start production with the new kiln in November 2012, even before registering the project for Carbon Trading.

The CDM-APU is currently supporting efforts to validate and register the new charcoal kilns with the United Nations Framework Convention on Climate Change (UNFCCC) before the end of the Kyoto Protocol that will end on December 31, 2012. Registration will make the kiln more economical and shorten the payback period on investment in financing it.

#### **HIGHLIGHTS**

- About 7 million tons of wood residues are used as the feedstock for charcoal manufacturing in Egypt by means of 900 traditional open earth-pits.
- The projects have a potential to reduce the greenhouse gases by 10 million ton Co<sub>2</sub>e/year. The CDM APU provides the technical assistance to register the projects and it is up to the proponent to take advantage and invest in the new technology and reap the benefits of the sold carbon credits.

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More information about the objectives of the CDM APU can be found at:  
[http://www.eeaa.gov.eg/english/main/cdmapu\\_obj.asp](http://www.eeaa.gov.eg/english/main/cdmapu_obj.asp)

More information about the Modernization of Charcoal production program in Egypt  
[http://www.eeaa.gov.eg/english/main/cdmapu\\_poa\\_pipe.asp](http://www.eeaa.gov.eg/english/main/cdmapu_poa_pipe.asp)