

What's happening in household energy?

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Book reviews

Air Pollution and Health in Rapidly Developing Countries

Gordon McGranahan and Frank Murray (eds)

This really interesting book covers each aspect of air pollution in surprising detail for a volume of such modest size. Excellently formatted, each chapter sets the problem of environmental pollution in context, provides key data and well documented evidence, with full references, for the information contained in it. The book gives a good overview of the topic for those not directly involved in the pollution debate, whilst providing those with specialist knowledge on particular aspects with a broad overview of other aspects of environmental pollution.

Starting with a brief introduction to set the work in context, chapters deal with pollution assessment, the health impacts of each pollutant, a review of evidence, ambient air, analysis for policy, air quality management, indoor air pollution and vehicular pollution, and concludes with three case studies from Hong Kong, Santiago, Chile and Greater Johannesburg.

*SEI and Earthscan, London, Sterling VA pp.224 £19.95 (\$32.50)
ISBN: 1 85383 895 X (paperback) and 1 85383 966 3 (hardback) 2003*

Stakeholder Incentives in Participatory Forest Management: A manual for economic analysis

Michael Richards, Jonathan Davies and Gil Yaron

This manual addresses the need for a greater understanding of the costs and benefits to local communities of participatory forest management. The book is designed to be used at project level, integrating economic analysis with other criteria for decision making. The book introduces economic analysis in a style accessible for social development advisers, social foresters,

donor advisers, project managers as well as economists. The second part of the book goes through the methodology for economic stakeholder analysis, quantification and valuation of costs, comparison of decision-making alternatives, participatory analysis and monitoring, and includes many examples. The book is completed with a glossary of terms, index, sources and economic tables, making it clear and user-friendly.

DFID, FRP and ODI £19.95 ISBN 1 85339 559 5 ITDG Publishing, UK, 2003

Other news

The Global Village Energy Partnership

The Global Village Energy Partnership (GVEP) is 'a partnership of partnerships' that seeks to reduce poverty and enhance economic and social development through the accelerated provision of modern energy services to those unserved or under served.

The Energy Sector Management Assistance Programme (ESMAP) was established, with strong support from UK Government Department for International Development (DFID), to assist developing countries respond to the oil price shocks of the 1970s. The concept of GVEP first emerged from the ESMAP co-sponsored Eighth Village Power Conference in 2000.

Between then and the launch of the Partnership in 2002, more than 2500 people were consulted through online consultation, focus groups, group meetings and one-on-one discussions.

This series of consultations was used to decide the breadth and focus of the Partnership. The result is that GVEP is 'technology neutral' – applications for enhancing lighting, cooking, heating and cooling should be of equal importance; and that the Partnership should offer five services:

- action plans
- capacity building

- finance facilitation
- knowledge management
- results monitoring and evaluation.

It offers these services to partners in an effort to scale up modern energy service delivery.

GVEP was launched on 31 August, 2002 at the World Summit on Sustainable Development (WSSD) in Johannesburg, South Africa. Approximately 450 people over the course of WSSD were contacted through a wide variety of GVEP-related events, including the launch, such as UNDP's Energy Day at the Community Kraal and the Energy for Sustainable Development Day hosted by the Electrical Supply Commission of South Africa (ESCOM), the International Energy Agency (IEA) and UNEP.

As of May July 2003, over 220 organizations have committed to the GVEP Statement of Principles, pledging to work together to increase access to, and affordability of, modern energy services. The Partnership base currently comprises: 103 NGOs, 74 firms from the private sector, 36 governments and 8 multilateral agencies. Fifty one countries are represented.

To date, the GVEP Technical Secretariat has co-sponsored activities worldwide and findings from these activities can be found on the GVEP website.

Contact details: GVEP secretariat; c/o ESMAP, 1818 H Street NW, Washington DC 20433, US. Tel 202 458-2849 Website: www.gvep.org European contact Dick Jones: Tel; +44 (0) 20 8686 8455. Email: Dick.Jones@DFID.GOV.UK

Ashden Award for Sustainable Energy 2004

The Ashden Trust is inviting submissions for the Ashden Awards for Sustainable Energy 2004. We hope to offer five first prizes of up to £30 000 each to outstanding sustainable energy projects (three for developing countries and two for the UK). The awards are for community-based renewable

energy and full details of criteria and application instructions can be found on the website www.ashdenawards.org. Overseas applicants will be asked to send a two-page concept note by 14 November 2003 (forms are available on the website). Because of the level of funding available, the judges are likely to favour smaller organizations for whom the award would make a real difference. Selected candidates will then be invited to submit a full application. Applicants must use the forms provided, both for the concept note and for the fully completed application.

Criteria

- To be environmentally sustainable. This refers to the local and global environment. Projects should minimize local environmental impact and should lead to reductions in greenhouse gas emissions.
- To have a significant and measurable impact on the quality of life of a community (for example in terms of income generation, education or health).
- To have an ability and willingness to involve the community (and particularly users) throughout the project's development, and to provide local training where necessary.
- To be exemplary, with the potential for replication and/or expansion.
- To represent innovative approaches to technology application.
- To provide an energy service, rather than technology alone, and to be clearly demand – rather than technology-led.
- To show evidence of the necessary skills (technical and project management) and a willingness to work in partnership with others where appropriate (e.g. NGOs, banks, credit providers, training providers).
- To have a proven track record and continuing commitment to renewable energy.
- To lead towards financial sustainability.

Absolute start-ups will not be considered. The judges are seeking

successful innovative projects, however small, that are proposing a new phase of development or an interesting adaptation, replication or expansion. Projects that have found ways of overcoming obstacles will be of interest (for example finance or credit facilities, tackling policy barriers, building technical capacity). Indigenous applicants will generally be favoured. Commercial organizations are not excluded provided they fully comply with the charitable objects of the award).

For further information
email: info@ashdenawards.org

The Origo and CleanCook stoves

In 1999, *Boiling Point* 43 reported the production and use of methanol as a clean fuel. Two new stoves have been developed for burning such fuel – the Origo and CleanCook stoves, manufactured by Dometic AB of Sweden. Both methanol and ethanol are ideal fuels for these stoves. Methanol can be manufactured from natural gas which is now flared in most of the oil producing regions of Africa (and available in other African countries as dry gas, unassociated with oil). Ethanol is of course manufactured from certain agricultural products and residues and is currently produced in some eight or nine African countries.

A pilot study project is planned with the CleanCook stove in Ethiopia using ethanol manufactured from the waste molasses at the Finchaa Sugar Factory as the primary alcohol for the stove fuel. Because alcohols are so safe in their burn characteristics and so clean when they burn, they are ideal liquid household fuels. They are also the ideal fuel to use in confined spaces, such as emergency housing, including tents. They handle as a liquid, but burn clean as a gas. The CleanCook stove holds the alcohol in an absorbent fibre in a rechargeable fuel canister that does not allow the fuel to spill. The alcohol fuels contain a strong bitter tasting agent, as well as a colorant and an odorizer, to prevent their being drunk. When properly treated, the alcohol is less likely to be drunk than kerosene, by child or adult.

The CleanCook stove is very stable, it holds large cook pots and will not tip

easily. If tipped, the fuel will not spill. Studies are ongoing in South Africa and in Nigeria assisted by Winrock International's Clean Energy Group.

Dometic is working with an Ethiopian manufacturer, Iacona Engineering of Addis Ababa, to test these stoves in varying settings in Ethiopia. We would like a potential co-operating agency to look at the feasibility of these stoves for use in refugee relief efforts and test them. Dometic would provide both stoves and fuel for testing.

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World Wind Energy Conference and Renewable Energy Exhibition, 23–26 November 2003, Cape Town International Convention Centre, South Africa

The World Wind Energy Conference has confirmed over 120 speakers and 40 poster presentations from 33 different countries. The conference programme is structured around: global markets; policy issues; technology development; wind assessment and prediction; specialized applications; financing; private sector; and capacity building.

WWEC 2003 consists of a conference, exhibition and a number of social functions. There will be a trade exhibition on renewable energy supplies, products and services.

Websites: www.sbs.co.za/wwec2003/
www.sbs.co.za/wwec2003/Programme.xls

NEPAD new website

The African Forum on Science and Technology for Development (AFSTD) has been established by the New Partnership for Africa's Development (NEPAD) to promote the application of science and technology for economic growth and poverty reduction.

Their new website (www.nepadst.org) features information about the forum and its initiatives, details of related events, and access to the forum's publications.

Website: www.nepadst.org

Cities Energy Strategies Conference

19–21 November 2003, Cape Town, South Africa

South Africa's first ever conference on energizing South African cities is to take place at the Cape Town International Convention Centre to help equip cities to formulate and implement a city energy strategy within the context of their development strategy.

Hosted by Sustainable Energy Africa, South African Cities Network and the City of Cape Town in association with SALGA, and ICLEI and endorsed by UNEP, the conference aims to inspire mayors, city managers, councillors and senior officials from all relevant city departments to think strategically and sustainably about energy, and to equip cities to implement these strategies.

Breakaway sessions will include debates around water services, public lighting, transport, green procurement, housing, energy education, fleet management and public buildings. The conference will conclude with a discussion towards forming an African Energy Cities Network.

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Micro level coping strategies by rural women for managing biomass resources

[Report No.1994RE53, Sponsored by: The John D and Catherine T MacArthur Foundation, Chicago, USA]

Though women are responsible for managing the fuel (primarily biomass-wood, animal dung and crop residues) and fodder needs of the household, they have little control/access to the sources.

With an increase in the pressure on these sources (increase in population, overexploitation of forests for commercial and other purposes, increase in agriculture and settlement land, etc.), women are finding it extremely difficult to cope and the impacts, therefore, are much more severe for them (drudgery and associated health impacts).

The objective of the project was to study coping strategies adopted by rural women in managing biomass resources in relation to their complexity and variability across different ecosystems. The research design was based on village level case studies.

The common factor across all the case studies was that the coping strategies adopted could provide only a limited reprieve from the problems associated with the resources under stress.

Thus emerges the need to find solutions based on the principle of sustainability; the project recommended technology development, capacity building, and an integrated approach towards rural development to help meet this requirement.

Field-testing of improved kerosene lighting devices

[Report No. 1998RE61, Prepared for Research and Development Centre, Indian Oil Corporation (IOC), Faridabad]

A large number of electrified and non-electrified rural households in India use kerosene for lighting. Most households cannot afford the initial cost of connection or the recurring costs of a supply that is erratic and often at low voltage. These three factors together have meant that 66% of rural households still use kerosene as the primary source of light.

Commonly used kerosene lighting devices include the wick lamp or diya, hurricane lantern and kerosene petromax. These devices consume large amounts of kerosene and produce light of a poor quality (a little more than half of the BIS specification) adversely impacting the quality of life.

Users' perceptions were measured for:

- light intensity
- kerosene consumption
- safety
- smoke emission
- aesthetic appeal
- handling ease
- durability.

The study also examined the local market supply network for kerosene lighting devices with a view to sug-

gesting methods for market-based promotion. Desirable features were listed as, 1) high light intensity (even if that meant greater maintenance), 2) low smoke emission, 3) durability, 4) a thick metal sheet at the base of fuel tank to prevent leakage, and 5) local availability of device parts and repair facilities.

Recommendations included: developing a wider product range; developing a competitive and user-oriented marketing strategy; identifying quality conscious manufacturers; co-ordination between the R&D Centre, IOC, the Petroleum Conservation Research Agency (PCRA) and the Bureau of Indian Standards (BIS) for greater information dissemination in the rural areas and can include improved kerosene lighting devices in their portfolio of promotional campaigns; continuous research and development for making these devices more user-friendly.

These interesting articles can be found on the TERI website:

www.teriin.org/reports/rep31/rep31.htm and www.teriin.org/reports/rep29/rep29.htm

WoodGas stoves keep emissions low

If you generate gas from wood, and use the correct amount of air to mix and burn it, the stove will be very efficient and have very low emissions.

The first forced draft 'toplit updraft gasifier' commercial stove is now available; details can be found on www.WoodGasllc.com. The stove is 15 cm high × 12 cm in diameter. It burns about 10 g/m (~3 kW thermal) of twigs, chips, cobs (10–20 minutes) and especially wood pellets (40 minutes). It typically also makes 20% charcoal which can also be burned in the stove. The stove uses a single AA battery which lasts three hours on high and six hours on low.

Although this first stove is targeted at the camping market in the US, the Biomass Energy Foundation is hoping that this stove will lead to developing better biomass and WoodGas cookstoves around the world to fill a desperate need.

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