Please visit the Jute ecolabel website at www.jute.com/ecolabel

Questionnaire on Stakeholder consultation on Indian Jute ecolabel

Your World Our People

www.jute.com/ecolabel

*a natural fiber

PRICEWATERHOUSECOOPERS

Dear Stakeholder,

Global environmental challenges are accelerating a transition towards sustainable and more environmental friendly goods and services. As a major renewable resource, jute (a natural fiber) is perceived to be an important material for packaging, carpet making and other diversified products.

Jute Manufactures Development Council (JMDC), Ministry of Textiles, Government of India has asked PricewaterhouseCoppers India to developing ecolabelling criteria (Type I ISO 14024) in consultation with stakeholders like yourself and consideration of life cycle impacts through an LCA study of jute.

In this connection, we are keen to have your views and would like to keep you informed of the developments. We are hopeful that you would give us 15 minutes of your valuable time to answer the questions below. We would be grateful if you respond with your comments and suggestions by 15th February, 2006. We thank you in anticipation of your response and look forward to working together.

Warm regards,

Dr. Manisha Mukherjee
Sustainable Business Solutions
PricewaterhouseCoopers (P) Ltd.
2/5, Sarat Bose Road,
Kolkata - 700 020
Tele - + 91 33 2474 8523 Ext - 206
Fax- +91 33 2485 8897
Mobile - +91 9830463921
E-mail: manisha.mukherjee@in.pwc.com

1) Your name :

2) Your organization name :

3) Mailing Address :

4) Phone number (including international code) :

5) Fax number :

6) Email contact :

7. Please tick as appropriate. The best way to describe you is :

- **A Jute product user**
- **A Jute trader / buyer**
- **A Jute expert**
- **Not connected to jute at all, but is interested in environment and ecolabels**
- **Waste handler**
- **Other, please specify**

8. you are aware of jute as a natural fiber:

- **for several years**
- **for the first time in your life**
- **have been a regular user of jute products**
- **other, please specify**

9. Which jute products are you aware of?

- **Jute Yarn**
- **Hessian**
- **Food grade quality Jute Hessian or bags**
- **Shopping bags**
- **Floor covering**
- **Jute Geotextiles**
- **Jute felt**

10. Do you think jute ecolabel would improve the awareness about the environmental aspects of jute? Please tick.

- **Yes**
- **No**

11. Do you think the functional aspects of jute products are as important as the environmental aspects of jute ? Please tick one

a) Both product life cycle environmental and health impacts and product function characteristics (including price, delivery, utility, economy etc.) are important

b) Jute product environmental impacts are only important

c) Only jute's pricing, functional utility vis-à-vis competing products is important.

d) (a) plus social impacts (employment and livelihood of people in developing countries)

12. The table below presents a summary of the draft ecolabel criteria for jute. Would you like to add your comments please?

Life cycle step	Criterium	Expectations	YOUR COMMENTS
Agricultural phase	Limitation of toxic residue in fibre	Selected pesticides like Aldrin, captafol, chlordane, DDT, dieldrin, endrin, heptachlor, Cypermethrin, , parathion, phosphamidon etc in fibre <0.05 ppm Use of pesticide is as per standard quantities prescribed by the Government of India.	
Agricultural phase	Limitation of green house gas emission during retting	The retting process followed may be of non-conventional type In case of conventional retting, the depth of the pond < 1 meter.	

Life cycle step	Criterium	Expectations	YOUR COMMENTS
Manufacturing	Limitation of toxic residue in fibre	Presence of heavy metals (mg/kg) in finished jute product Arsenic< 0.2, Lead <0.8, Cadmiuml,<0.1, cobalt <4, copper <50, chromium <2, mercury<0.02, Nickel< 4, tin < 4, zinc < 60 The hydrocarbon present should be less than 1250 mg/kg in Food grade packaging material No undesirable odours or odours untypical of jute shall be present.	
Manufacturing	Reduction of air pollution during product manufacturing	At least 20% of the fuel consumption for steam generation should be of renewable energy sources like jute caddies, rice husks, biomass etc VOC emissions from the manufacturing of shopping bag must be less than or equal to 2 gm/m2 of the surface of shopping bag or the components of printing paste should contains a maximum of 1% in weight of organic solvents.	
Manufacturing	Reduction of water pollution during product manufacturing	COD content of wastewaters from wet processes should be less than 25 g/kg, expressed as an annual average.	
Manufacturing	Limitation of use of substances harmful for the health and environment	At least 95% by weight of the detergents, fabric softeners, complexing agentsand seizing chemical used must meet the requirement for ready biodegradability. hydrogen peroxide should be used as bleaching agent to avoid AOX emission or AOX emissions in the bleaching effluent shall be less than 100 mg Chloride/kg. The levels of ionic impurities in the dyes used shall not exceed the following limits: Ag 100 ppm; As 50 ppm; Ba 100 ppm; Cd 20 ppm; Co 500 ppm; Cr 100 ppm; Cu 250 ppm; Fe 2 500 ppm; Hg 4 ppm; Mn 1 000 ppm; Ni 200 ppm; Pb 100 ppm, Se 20 ppm; Sb 50 ppm; Sn 250 ppm; Zn 1500 ppm For food grade quality jute hessian or sacking, the sum of concentration levels of lead, cadmium, mercury and hexavalent chromium present should not exceed 100 ppm by weight The levels of ionic impurities for pigments used should be(in ppm) Ba< 100, Cd <50; Cr<100; Hg< 25; Pb <100; Se <100;	

Life cycle step	Criterium	Expectations	YOUR COMMENTS
		Sb < 250; Zn <1 000 Chrome mordant dyeing is not allowed. If metal complex dyes based on copper, chromium or nickel are used, less than 20% of each of those metal complex dyes applied (input to the process) shall be discharged to waste water treatment (whether on-site or off-site). No azo dyes that cleave to a list of aromatic anines Dyes that is carcinogenic, mutagenic or toxic to reproduction shall not be used No use is allowed of dye substances containing more than 0.1 % by weight of substances that are assigned or may be assigned at the time of application any of the risk phrases (or combinations thereof) The potentially sensitizing dyes if fastness to perspiration (acid and alkaline) > 4 Plastisol based printing is not allowed for food grade quality Jute sacking. No use is allowed of flame retardant substances or of flame retardant reparations containing more than 0.1% by weight of substances that are assigned or may be assigned at the time of application any of some specific risk phrases (or combinations thereof) Coatings, laminates and membranes shall not be produced using plasticizers or solvents, which are assigned or may be assigned at the time of application any of some selected	
Transportation	Emissions to air	Requirement as to CO2 emission factor during transportation: the emission factor should not be more than 0.007 kg CO2/tonne-km in case of transportation of products by sea. For road transportation, the vehicles to be used should conform to the pollution under control (PUC) regulations under the Motor Vehicles Act in India.	
Disposal	Methane generation, leachates	Disposal protocol should be made available to buyers and consumers that take into consideration specific requirements for land disposal and waste to energy.	

Any other comments or other criteria you may wish to suggest :_____
_____
_____
_____
_____

13. Jute is a biodegradable natural fiber. If the above ecolabel criteria ensure that the environmental impacts are not significant for product use, what route of disposal would you recommend? Match the left with the right columns.

i. Jute Yarn (#_____) ii. Hessian (#_____) iii. Food grade Jute bags (#_____) iv. Shopping bags (#_____) v. Floor covering (#_____)	• Disposal in landfill as a non-hazardous waste • Bio-compost jute products • Use jute to make non-woven material • Blends in soil • Incinerate jute and derive energy from biomass (natural fiber) thus reducing greenhouse gas emission (no need for fossil fuel based enegy) • Any other, please specify

THANK YOU FOR YOUR TIME

Please Mail to Dr. Manisha Mukherjee AT manisha.mukherjee@in.pwc.com