NATIONAL BIOMASS FAIR

ORGANISED BY

ROTARY CLUB OF MADRAS EAST

To

Chairman
Dr. M.S. Swaminathan
Chairman
M.S. Swaminathan
Research Foundation

Vice-Chairman
M. Gopalakrishnan
Chairman & Managing Director
Indian Bank

Fair Co-ordinator
P.V.R. Krishna Rao
Director, Community Services
Rotary Club of Madras East

Address for Correspondence:
National Biomass Fair Secretariat
Orrell Energy Systems
17, Cenotaph Road,
Madras-600 018. India.
Phone : 451 250, 453 126
Fax : 91-44-458354
Attn. ROTARY EAST

Dear Sir,

The Gulf war has posed a serious threat to the availability of petroleum products, which today are the main source of energy in India. Energy and Economic problems stare into the country's face and technology will have to march to promote optimum utilisation of alternate sources of energy production. Energy from Biomass is one such potential source in our country and presently most of the Biomass is not converted into a wide range of value added material. Modern engineering has opened up opportunities for producing a broad spectrum of high value products.

The challenge before us is to convert this **Calamity into an opportunity.** It is with this view that our club is organising a **National Biomass Fair** in Madras from April 14 to 24 , 1991, under the guidance of world renowned scientist Dr. M.S. Swaminathan.

Please find enclosed the brochure and Registration form. May I request you to participate in this Fair by taking a stall, to display your products and services. The completed registration form may be sent alongwith the payment to the Fair Coordinator to reach before March 20, 1991.

Please feel free to get in touch with us for any further information. Kindly let us know if any of the companies known to you would be interested in taking part in this Fair. We would be glad to forward the details to them.

Looking forward to your registration form.

Yours in Rotary,

Rtn. P.V.R. Krishna Rao
Fair Coordinator

Sponsored By

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Indian Bank

NATIONAL BIOMASS FAIR

April 14 – 24, 1991 at Congress Grounds, Madras

Organised by

Rotary Club of Madras East

Sponsored by

Indian Bank

Last Date 20th March 1991

Prospectus

Stall Structure

Walls	: Pre-fabricated system using plywood walls.	
Roof	: Roofing with white false ceiling.	
Floor	: Flooring made of wooden planks with red coir mat covering.	
Name	: Name in thermocole cut-out letters fixed uniformly in the fascia.	
Furniture	: One table and one chair.	
Electrical	: For 3m x 3m x 2.5m stall	2 spotlights, 1 tube light and 1 Five Amp plug point.
	For 3m x 6m x 2.5m stall	4 spotlights, 2 tube lights and 2 Five Amp plug points.

Note: *Power consumption charges will be extra.*
Additional Facilities at Extra Cost (Rates will be quoted on request)

Tariff

For Small Scale Industries

W D H	
3 m x 3 m x 2.5m	Rs. 3,000
3m x 6 m x 2.5m	Rs. 5,000
Open area (min. area 15 sq m)	Rs. 200/sq. m

Copy of permanent SSI Certificate to be enclosed

For Others

W D H	
3 m x 3 m x 2.5m	Rs. 5,000
3 m x 6 m x 2.5m	Rs. 10,000
Open area (min. area 15 sq m)	Rs. 300/sq. m

General Regulations

1. The stalls will be made available to the allottees **24 hours** before the inauguration of the Fair.
2. The stall allotted is **non-transferable**. The participants shall not sub-let the space to any party and shall not use the space allotted for any other purpose than for what it is meant.
3. Any **tax liability** arising out of and in respect of this exhibition in respect of any stall, any article exhibited therein, any commodity sold or to be sold therefrom, or any other matter in respect of the exhibition by any concerned authority shall be borne by the respective participants.
4. No refund will be given in respect of **cancellations.**
5. Participants shall ensure that their banners, name boards and other display materials do not project outside their respective stalls into aisles, other stalls, passages, etc. They should also ensure that their sound systems, if any, do not cause disturbance to neighbouring stalls or in general prove to be nuisance. Besides, participants shall take all precautions to exhibit their ware in a **dignified and presentable manner.**
6. Participants shall take all steps to protect their stalls and exhibits at their own cost and risk.
7. **Insurance:** All the participants are advised to arrange for comprehensive insurance for their exhibits at their cost.
8. **Use of Audiovisual or Sound System :** Participants who propose to show films, use audiovisual and sound system in their stalls/open area, must notify the organisers.
   The participants will ensure that the volume of their sound system is restricted to the audible level confined to their stalls. The organisers reserve the right to stop the audio system in case it is found to be distrubance to other participants or visitors.
9. During the course of the exhibition, all personnel of the participants manning their stalls should remain till close of the fair for the day and ensure absolute **cleanliness** and upkeep of their stall/open area.
10. **Storage of packing materials:** All packing materials and empty boxes/cases will have to be removed and stored at the place meant for it.
11. No participant will be allowed to remove any of the exhibits before the closure of the Fair. The exhibits should be removed on **April 25th 91.**

NATIONAL BIOMASS FAIR

April 14 – 24, 1991 at Congress Grounds, Madras

Registration Form

To
Fair Coordinator,
National Biomass Fair
C/o. Orrell Energy Systems Pvt. Ltd.
17 Cenotaph Road, Madras 600 018.

Last Date 20th March 1991

Dear Sir,

We hereby forward the application form duly filled in together with demand draft for Stall/Open area rent.

Name of the Organisation

Address

Tel.	Tlx.	Fax

Name, Designation and address of the Executive who will liaise with the organisers

Line of Activity ❑ Manufacturing ❑ Servicing ❑ Trading ❑ Research ❑ Others

Category ❑ Small Scale ❑ Others

Stall Requirements

W D H 3m × 3m × 2.5m	W D H 3m × 6m × 2.5m	Open Area (Minimum Area 15 Sq. m)
❑	❑	❑ _____ Sq. m

Items to be displayed (Attach additional sheet)

Tariff

For Small Scale Industries

W D H	
3 m x 3 m x 2.5m	Rs. 3,000
3 m x 6 m x 2.5m	Rs. 5,000
Open area (min. area 15 sq. m)	Rs. 200/sq. m

Copy of permanent SSI Certificate to be enclosed

For Others

W D H	
3 m x 3 m x 2.5m	Rs. 5,000
3 m x 6 m x 2.5m	Rs. 10,000
Open area (min. area 15 sq. m)	Rs. 300/sq. m

Payment Details

Stall Rent : Rs.
Open Area : Rs.
Total amount : Rs.

DD No. _____ Dtd. _____

Rs. _____ on _____

(DD should be drawn in favour of **Rotary Club of Madras East – Biomass Project A/c.**, payable at Madras.)

I/We agree to abide by the general regulations governing this Fair.

Date :

Signature of the Exhibitor with Seal

Note : *Participants are requested to indicate all their requirements at one time to enable the organisers to make necessary arrangements.*

NATIONAL BIOMASS FAIR

14th TO 24th APRIL 1991

AT

CONGRESS GROUNDS
TEYNAMPET, MADRAS
BETWEEN 11 A.M. AND 8 P.M.

Organised by

ROTARY CLUB OF MADRAS EAST

Sponsored by

इंडियन बैंक
Indian Bank

RATIONALE:

Biomass is a renewable source that has the potential of supplying a variety of Non-Polluting Solid, Liquid and Gaseous fuels through various Bio-Conversion technologies.

Over the past few decades man has actually become aware of the limitation of his energy supplies. Most of our energy consumption is based on fossil fuels, for example petroleum and coal. All these natural resources are rapidly depleting as energy demands rise. This has created a global crisis in the availability and utilisation of energy.

One of the most remarkable features of this age of scientific march is the way in which things once regarded as waste are being made use and turned into sources of wealth.

Energy and Economic problems stare into the country's face and technology will have to march to promote optimum utilisation of the indigenous resources.

As much as 90% of rice straw goes waste in the country and only 10% is being used in paper and card board industry. Rice straw is also an useful animal feed of good nutritive value.

Agricultural Biomass derived from crops, trees, animals and fish, are the most widely available feedstock for rural industries. At present, most of the Biomass is directly utilised and not converted into a wide range of value-added materials. Modern Chemical Engineering and Microbiological technologies have opened up opportunities for producing a broad spectrum of high value products. Also, it is now possible to convert waste into wealth. Thus urban sewage and garbage could be valuable sources of energy and organic fertiliser.

The Gulf war poses a serious threat to the availability of petroleum products which today are our main source of energy. Thus the challenge before us is to convert this **"calamity into an opportunity"** where the innumerable blossoms of technological opportunities for generating energy and employment are lying uncared for in the dust.

The fair will show the current status of Biomass availability and utilisation of the country. It will explain the numerous technological options now available for preparing value

added products from every part of both plant and animal biomass.

THE FAIR WILL HAVE THE FOLLOWING SECTIONS:

1. Biomass and energy

Bioenergy refers to all fuels and energy products that can be produced from biological resources, which are collectively referred to as biomass. The major sources of biomass are agriculture, forests, aquatic plants, marine plants, manures/sewage, refuse (urban solid waste).

Two routes are available for the conversion of biomass to fuels and energy products.

(a) Direct utilisation through one of three options:

(i) combustion to produce steam/electricity.

(ii) gasification to produce low or medium heat value gas

(iii) cracking into simpler substances which can be used as fuel directly.

(b) Bio-conversion

to produce biogas (rich in methane) fermentation by micro organisms to produce alcohol.

2. Biomass and industry

Many industries give rise to effluents which are often rich sources of biomass and could be profitably converted to energy-rich products. Examples of such industries are: The sugar industry, the paper and pulp industry, oil industry, fruits and vegetables processing industry, textile industry, jute industry. The biomass generated by these industries are sugar and sugar components, starch, cellulose, hemicellulose, pectins etc. Amongst these sugar can be directly fermented to alcohol.

3. Biomass and agriculture

In the 1920s a portion of the agricultural production was used to supply energy for power to perform farm work

through horses and other draft animals. Today we are talking about using a portion of our agricultural production (eg. cassava, articholles etc.) to produce alcohol as transport fuel. We have now come back to viewing agriculture not only as a source of food but as a source of energy as well.

The major sources of biomass materials from agriculture are crop residues, conventional crops, forage crops. Some of them contain sugar which could be directly fermented to alcohol.

4. Biomass and dairy industry

The major biomass obtained from the dairy industry includes animal manures, and whole milk whey or deproteinised whey. The animal manure can be converted to biogas and this is widely practised in rural areas in India. Whey creates major disposal problems but can be utilised for the production of protein (SCP). The use of such protein as an animal feed component or as a component of food materials for human consumption is well known.

5. Biomass refineries

The biomass obtained from various sources like urban solid waste (garbage), industrial wastes, dairy, agriculture etc. are of mixed type. It will be beneficial to separate these into different components, after which they can be appropriately treated for conversion to fuels or energy-rich compounds. Hence an integrated and organised programme is required to streamline the system for efficient utilisation of biomass.

PARTICIPANTS:

Research Institutes, Universities, Manufacturers of Non conventional energy equipments, Private companies and Public sector undertakings, Central and State Governments will be invited to install live exhibits and organise practical demonstrations. Emphasis will be on practical demonstrations of energy conservation methods and non conventional energy sources.

TARIFF

STALLS:

Frontal Length	Depth	Height	Small Scale Industry	Others
3 mtrs	3 mtrs	2.5 mtrs	Rs.3000/-	Rs.5000/-
6 mtrs	3 mtrs	2.5 mtrs	Rs.5000/-	Rs.10000/-

OPEN AREA

Rate per sq. metre (Minimum 15 sq. metres) Rs.200/- Rs.300/-

COMMITTEE

Chairman

Rtn. Dr. M.S.Swaminathan
Chairman, M.S. Swaminathan Research Foundation

Vice Chairman

Rtn. M.Gopalakrishnan
Chairman & Managing Director, Indian Bank

Fair Co-ordinator

Rtn. P.V.R.Krishna Rao
Director: Community Service
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National Biomass Fair Secretariat
ORRELL ENERGY SYSTEMS PVT LTD.
17, Cenotaph Road,
Madras-600 018, India.
Tel: 451250, 453126
Fax: 91-44-458354 [ATTN] ROTARY EAST