



COIR PRODUCTS VALUE ADDITION



INDIAN COIR

Natures Gift

HISTORY OF COIR

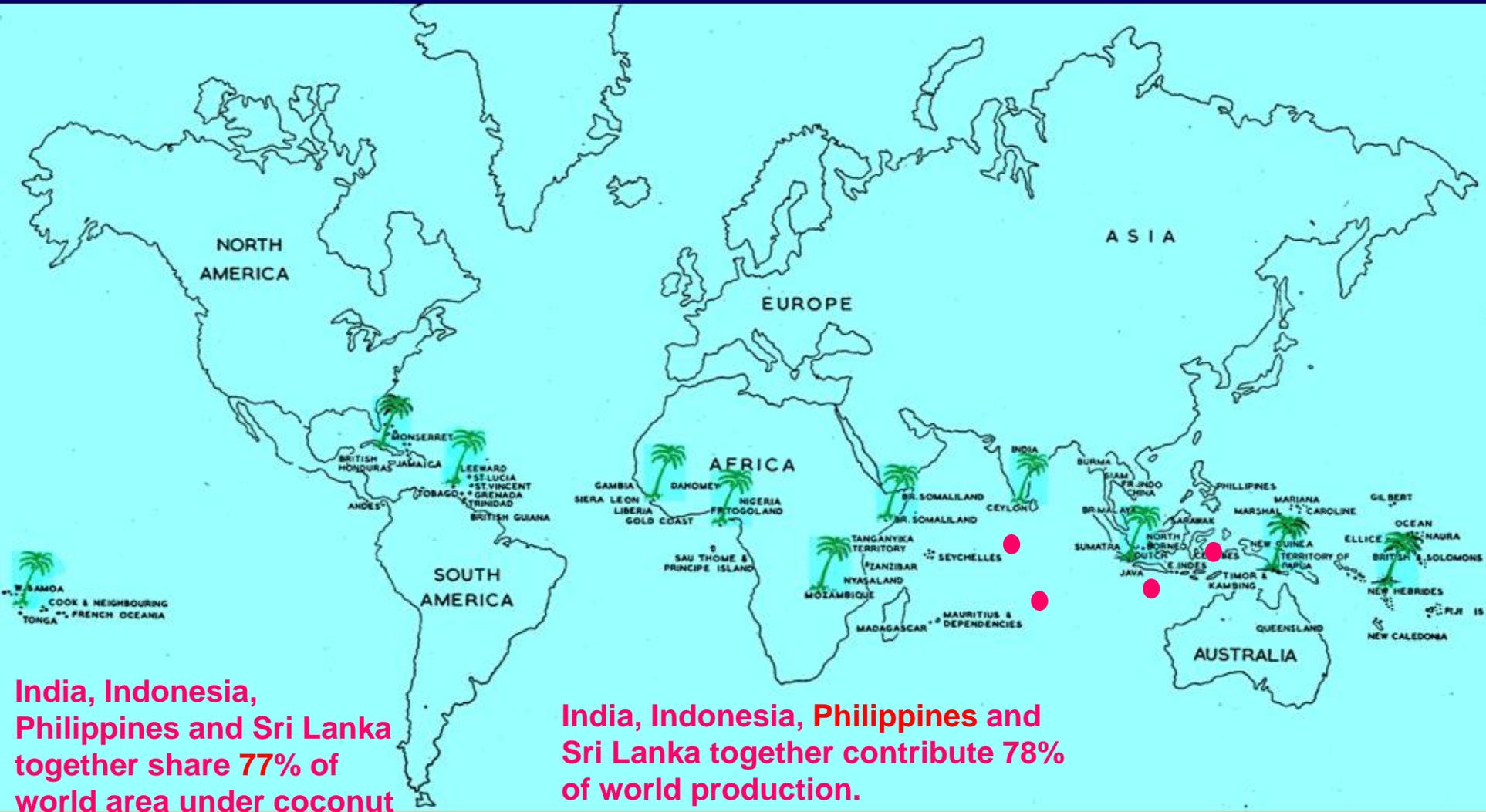


FIRST COIR FACTORY WAS ESTABLISHED IN ALLEPPEY
IN 1859 BY JAMES DARRAH,
FOLLOWED BY INDIAN ENTREPRENEURS AND FOREIGN
NATIONALS AND THEY EXPORTED COIR & COIR
PRODUCTS TO EUROPEAN COUNTRIES.



Coconuts are usually harvested at the end of every 45 days all throughout the year

Coconut is grown in 93 countries in the World



India, Indonesia, Philippines and Sri Lanka together share 77% of world area under coconut

COIR INDUSTRY IN INDIA



- India is third largest producer of coconut with an annual production of 12,833 million nuts.

- Area under cultivation of coconut- about 51,00,000 (hectares)

- Employs 6,22,000 workers out of which 80% are women.





Chemical Properties

Fibre	Cellulose	Hemicellulose	Lignin	Pectin
Flax	68 - 85	10 -17	3 - 5	5 -10
Hemp	70 - 75	12 -15	10 -15	1
Jute	61 - 70		12 -19	
Kenaf	31 - 39	21.5	15 -19	
Coir	43.44	0.25	45.84	3.3

Responsible for

Biodegradability, Thermal
degradability, Moisture
absorption

Responsible for

Thermal stability
UV degradability

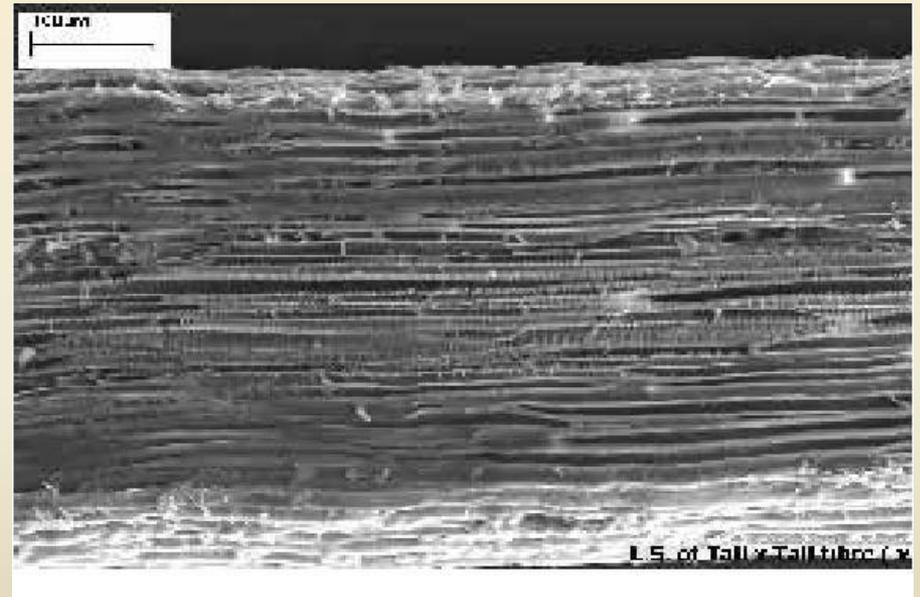
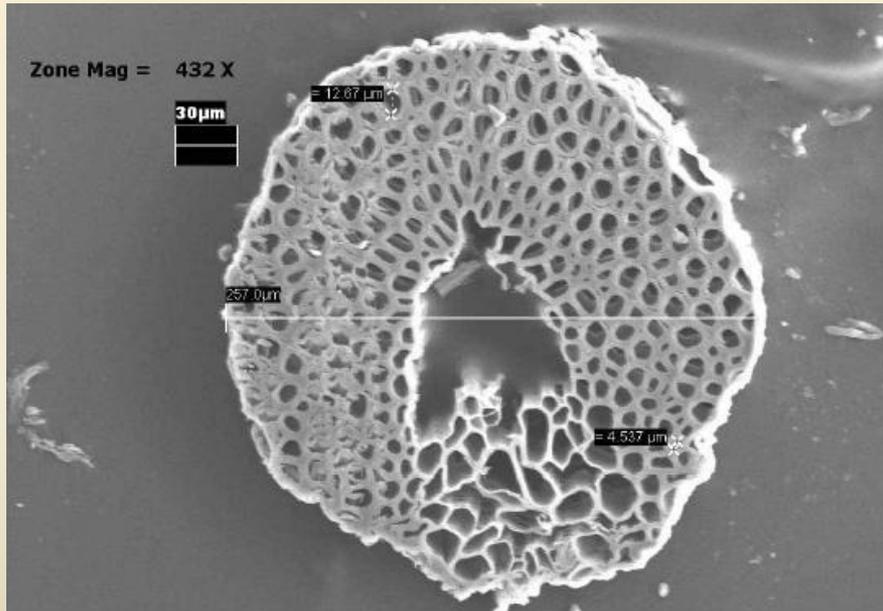
ABOUT COIR

- ▶ Coir is a lignocellulosic natural fibre
- ▶ It is bio-degradable and environmental friendly
- ▶ It is tough, durable, versatile and resilient
- ▶ It is extracted from coconut husk, the fibrous mass covering the coconut

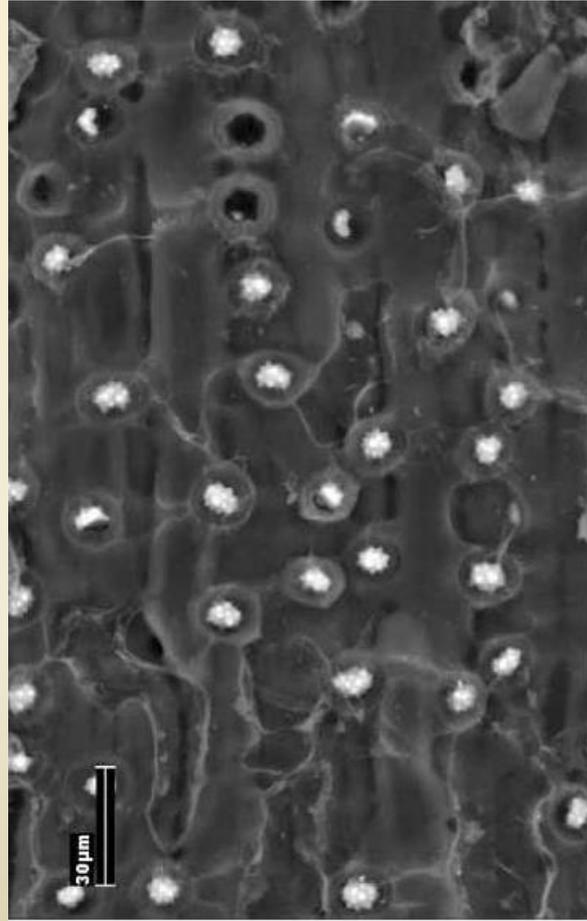
CHEMICAL COMPOSITIONS OF COIR

▶ Lignin-	45.84%
▶ Cellulose-	43.44%
▶ Hemi-cellulose-	00.25%
▶ Pectin and other compounds-	03.00%
▶ Water soluble-	05.25%
▶ Ash-	02.22%

Crosssectional & Longitudinal view



Surface view of Coir Fibre



Coir – Close Resemblance to wood



- ▶ Coir has 45.84% lignin as against 39.84% in Teak. Hence Coir is more durable than Teak.
- ▶ Coir is available in abundance.
- ▶ Coir is renewable.

Coir – Proven Properties

▶ Strength



Scaffold
Joins in building
construction

Coir – Proven Properties



- ▶ Resistance to weather conditions
- ▶ Cyclic usage of fishermen's boat in salt water and hot sun

Coir industry in India

- ▶ Total production of Coir Fibre in India is 3,64,000tons
- ▶ The industry employs 6 lakh rural persons out of which 80% are women
- ▶ The total utilisation of available husk is less than 40%
- ▶ More than 60% of the available husk is wasted.

Coir Products

Traditional Products

- ▶ Fibre
- ▶ Yarns
- ▶ Mats / Mating
- ▶ Curled Coir
- ▶ Rubberised Coir

Non Traditional products

- ▶ Non Woven Coir
- ▶ Geo-textiles
- ▶ Wood Substitutes
- ▶ Coir Pith
- ▶ Coco Lawn
- ▶ High Density Coir Pads

Coir industry – Contributions towards Sustainable Development

- ▶ Environment Protection
- ▶ Employment Creation
- ▶ Poverty Alleviation
- ▶ Improving lives of underprivileged
- ▶ Rural Development

GREEN COCONUT HUSK



TRADITIONAL RETTING IN BACKWATERS





Decortication Process



Burster



Baling Press

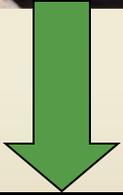
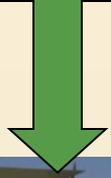


Decorticator



Sifter

Fibre Extraction



MOBILE FIBRE EXTRACTION MACHINE



Traditional Products – Fibre



Traditional Products – Yarns



Traditional Products

Traditional Products

Curled Coir Rope



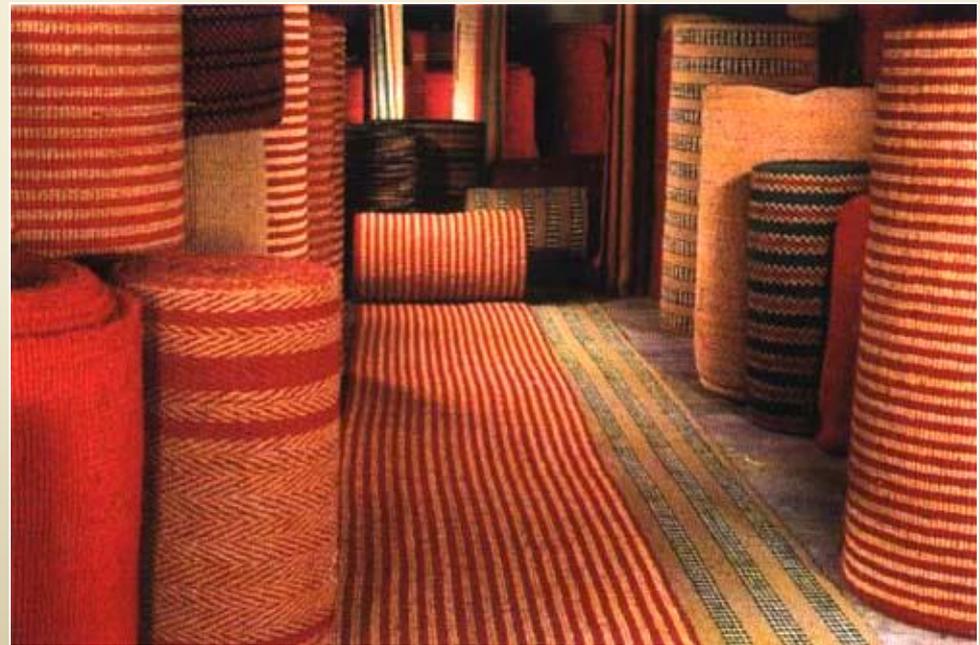
Traditional Products



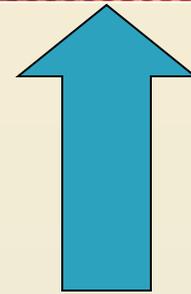
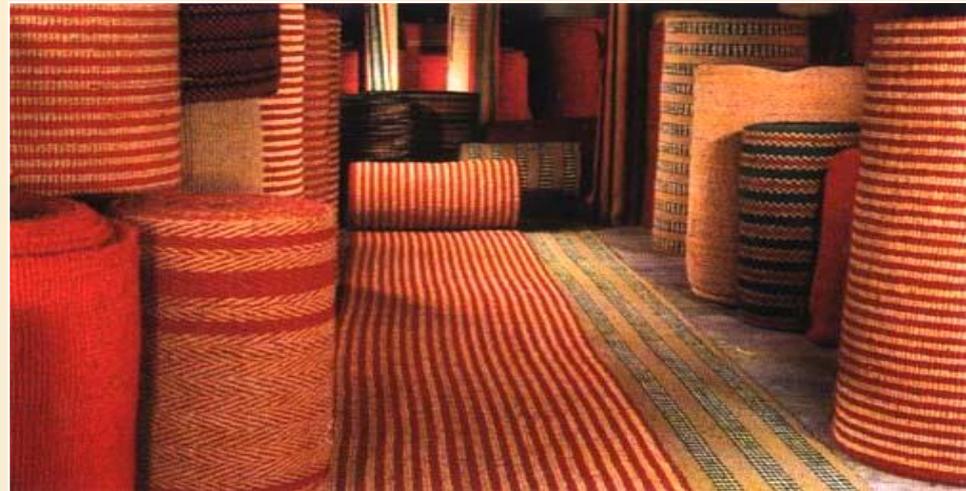
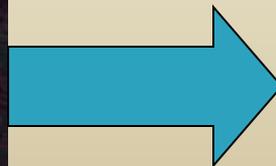
Rugs



Door Mats



Mattings



Coir Fiber to mattings

Rubberised Coir mattress



Non Traditional Products - Wood Substitutes



USE OF COIR COMPOSITES

- BUILDING SECTOR
 - SHUTTERING
 - CONCRETE RELEASING
 - CURING OF CONCRETE
 - DOORS AND DOOR FRAMES
 - WINDOWS AND WINDOW FRAMES
 - WARDROBES, FURNITURES AND OTHER INTERIORS
 - NOW EVEN AS WALLS FOR INTERIOR AND EXTERIOR

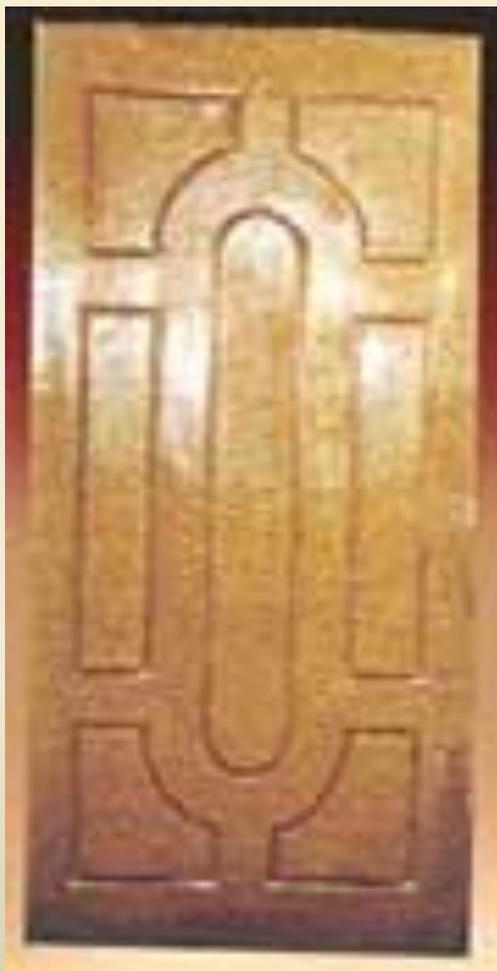
COIR MOULDED DESIGNS



MANUFACTURE OF COIR INTERIORS



COIR DOORS



COIR WALL PANELS



COIR GIFT ARTICLES



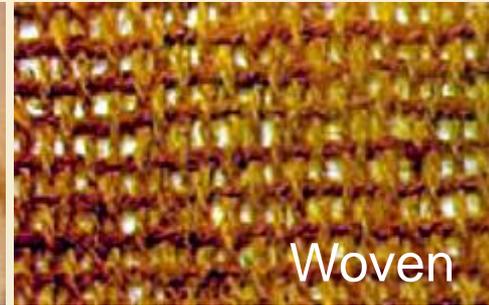
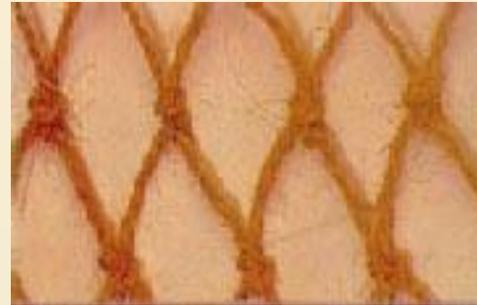
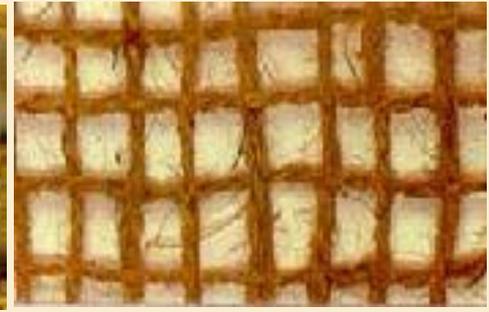
DOOR INSERTS



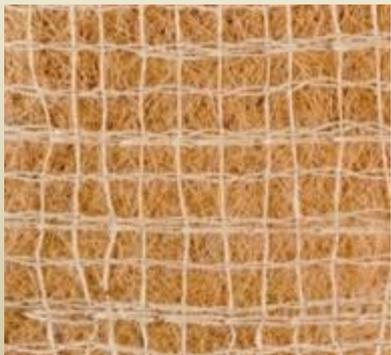
Non Traditional Products - Geo-textiles



Coir Geotextiles



Non woven stitched blanket



Coir Geotextiles, are basically classified into two categories ie; Woven and Non woven. Woven varieties are commonly made in handlooms.

Coir Geotextiles

Road / Canal embankment protection

- Protection of soil sliding in Railway cuttings
- Soil mulching
- Agricultural land protection, weed control etc.

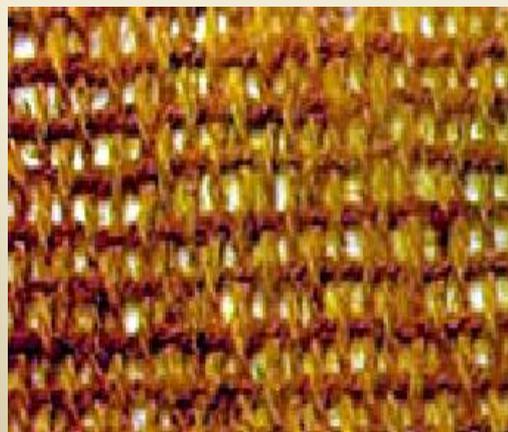
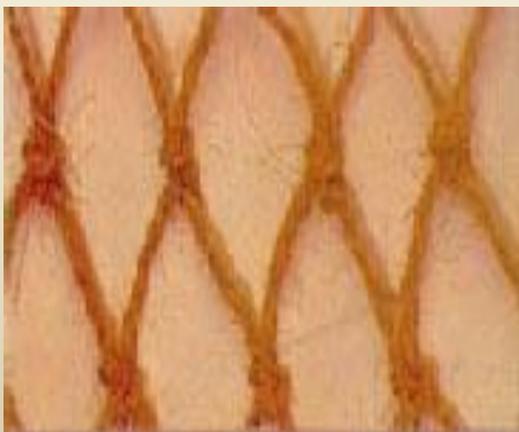
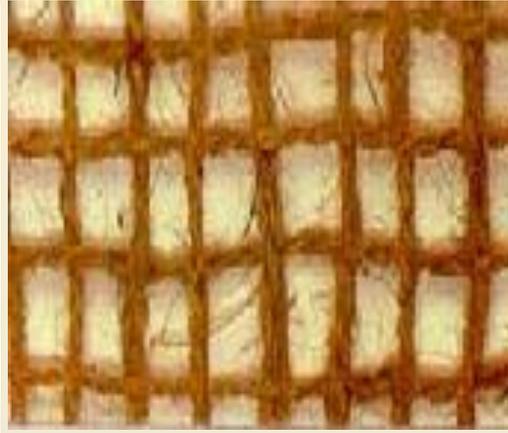


Strengthening the embankment of roads, canals and reinforcement of roads using coir Geo textiles.

Leveling of slopes



Laying of geotextiles



APPLICATIONS OF COIR GEO TEXTILES

Road / Canal
embankment
protection,
Protection of
soil sliding in
Railway
cuttings,
Soil mulching,
Agricultural



COIR GEO-ROLLS



CREATION OF GREENERY OVER ROCKY PATCHES USING COIR GEOTEXTILES



Installation of CGT over rocky patches

After Treatment

APPLICATION OF NON WOVEN GEO-TEXTILES ON CLAY SOIL







Non Traditional Products -

Coir Pith



COIR PITH

a soil conditioner and organic manure



Coir Pith Brick



Coir Pith compost



PITHPLUS



- ❖ PITHPLUS IS AN EDIBLE MUSHROOM SPAWN
- ❖ CONVERTS COIR PITH INTO A BIO-ORGANIC FERTILIZER IN A PERIOD OF 21 DAYS



in bijna alle gangbare plastic trays.



Forteco Kokosplanken
 Kokos^K geperst in planken
 in ingehoesd

voordelen:

- zeer eenvoudig installeerbaar
- leverbaar met plantgaten
- droog geperst, daardoor erg licht
- bij installatie
- leverbaar met drainslits
- door geperste volume ideaal te
- transporteren
- zeer snelle teeltwisseling mogelijk

Substraat in bakken

- Kokos^K geperst in planken
- Kokos^K levering los
- Kokos^K levering kant-en-klaar in bakken

HP-KOKOSBAK

- Kokos^K los gevuld in bak

voordelen:

- zeer eenvoudig installeerbaar
- voorzien van plantgaten en draingaten

FORTECO Power

Non Traditional Products -

Cocolawn



COCOLAWN™-
an Instant Lawn
using
Coir Bhoovastra
&
Coir pith organic
manure



COIR GARDEN ARTICLES

**Coir fibre finds numerous applications in gardens.
Add a warm hue to the surroundings.**

Available in various kinds like pots, hanging baskets, tree mats, creeper poles and anti-weed blankets.



Coco pots



Coir Hanging Basket

Coir Garden articles

such as coco pole, coco chips and moulded coir baskets are widely used in gardening and nursery uses.



Moulded coir basket



Coco chips



Coco poles



Creeper poles



Coir Basket

Coir - Polyester Moulded Products



COIR JEWELLERY ITEMS

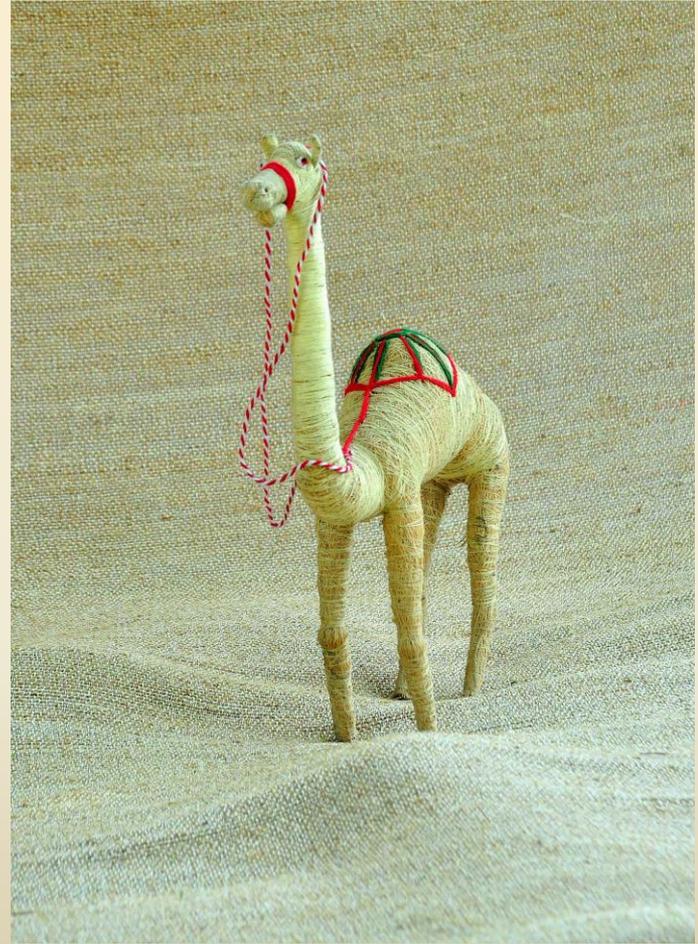


Coir Ornaments





COIR CRAFTS



COIR

..is Green Business

***Environmentally responsible
& Sustainable...***

THANKS

