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Office Memorandum

The draft National Fibre Policy 2010-11 is being placed in public domain for comments from Industry/Ministries/State Governments/Stake Holders. Comments may be submitted to Shri V.Srinivas, Joint Secretary, Ministry of Textiles, room no. 229, Udyog Bhavan, New Delhi, E-mail- nfp-mot@nic.in between June 8, 2010 – June 21, 2010. Based on the comments received necessary amendments in the policy would be incorporated for adoption by Union Government.


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Director
08.06.2010



National Fibre Policy 2010-11

**Ministry of Textiles
Government of India
Dated June 7, 2010**

CONTENTS

1. Overview
2. Aim and Objectives
3. Projection of Fibre Demand – 2014-15; 2019-20
4. Gap Analysis
5. Major Policy Interventions required to meet the Gap
 - a. Cotton and Organic and Speciality Cotton
 - b. Man Made Fibre and Speciality Fibres
 - c. Jute
 - d. Wool
 - e. Silk
 - f. Other Natural Fibre
6. Financing Requirements

Overview

1. The National Fibre Policy has been designed with a decadal perspective of 2010-20 and seeks to place India firmly on the World Fibre map by strengthening the existing policy framework and providing institutional and technological support for rapid Fibre growth in the country in the coming decade. The projected growth trajectories envisaged under the National Fibre Policy are ambitious and would benefit all stake holders in the Textile Industry value chain.
2. The National Fibre Policy seeks to build a strong and vibrant textile industry competent of producing quality cloth at acceptable price, increasingly contributing to enhanced employment provision and competing for an increased share of global market. The Fibre neutral policy seeks to balance the existing disparities within the complete range of fibres by providing additional fiscal and non fiscal incentives for sustainable growth of all fibres and be competitive in the international market.
3. The policy framework has been built keeping in mind the potential growth of technical textiles both for domestic and international demands. Special attention has been drawn to promote the lesser known specialty man made fibres and other natural fibres. The domestic **fibre consumption ratio** in India at present is 41:59 (FY09) between man-made fibres and cotton, while it is almost 60:40 globally. The global fibre consumption trend in future is likely to further tilt in favour of man-made fibres as there is a limitation to growth of cotton world wide on account of limited availability of land for cotton cultivation. Given that the future demand is expected to be largely in favour of man-made fibre based textiles; special attention is required to boost the consumption and production of man-made fibres in India.
4. Investments needed for modernization and technology upgradation have been envisaged through continuation of the TUFS scheme while promoting greater downstream integration. The policy also envisages extension of the TUFS scheme to Man Made Fibres production and Technical Textiles.
5. The Handloom Sector plays a vital role in the economy. In terms of employment, the Sector is next only to agriculture and provides employment to the weaker sections of the society, with 86 % handloom weavers/workers living in rural and semi-urban areas. The National Fibre Policy addresses increasing the

demand for raw materials for handloom weavers keeping in view the projected growth rates of the handloom sector.

6. The key elements of the National Fibre Policy thus include the following:

- a) **Cotton production** is envisaged to rise at a growth rate of **4.7 percent** from 319 lakh bales in 2010-11 to 483 lakh bales in 2019-20; Cotton Consumption is envisaged to increase to 413 lakh bales by 2019-20 with 70 lakh bales being surplus;
- b) **Man Made Fibres** and Speciality Fibres domestic demand will rise at a growth rate of **8 percent** per annum from 3.9 billion kgs in 2015 to 6 billion kgs in 2020;
- c) **Jute production** will rise at a growth rate of **3.6 percent** from 94 lakh bales in 2010-11 to 130 lakh bales in 2019-20;
- d) **Wool** consumption is projected to nearly double from 114.2 million kgs in 2009-10 to 260.8 million kgs in 2020.

7. The National Fibre Policy also envisages significant institutional strengthening mechanisms in the form of the following:

- a) A Inter Ministerial Committee of Secretaries headed by Textiles Secretary to calibrate cotton exports to ensure improved supply chain management for domestic consumption, Electronic data exchange between Customs Department and Textiles Commissioner for monitoring cotton and yarn export shipments;
- b) Establishment of a Yarn Advisory Board for formulation of a Yarn Balance sheet to ensure adequate yarn availability for handlooms and garments sector;
- c) Launching of a Technology Mission on Technical Textiles and creation of centres of excellence in the identified sub groups of technical textiles;
- d) Creation of a Jute Development Fund for R&D efforts in modern machinery development of Jute sector;

- e) Setting up of an MMF advisory council with all stakeholders to monitor excise duty and other concessions and take an integrated approach to solving the problems of MMF producers;
- f) Adopting a Mission Mode approach and establishing an Inter Ministerial Board for promotion of Organic, Suvin and ELS cotton sector;
- g) Restructuring the Central Wool Board on the lines of the Central Silk Board to effectively implement the various schemes and policies and achieve desired objectives;
- h) A Focus Fibre Focus State approach would be adopted for development of Other Natural Fibres in the Country.

Aims and Objectives

8. The Indian Textiles and Garments sector is envisaging a long term growth trajectory, which entails huge requirements of fibres (natural as well as man-made). In order to augment the value-added segments of the textiles value chain, it is extremely important to boost the fibre availability in the country and resolve all inherent issues associated with different fibres. There is a growing concern that the fibre sector requires special attention, especially in view of the fact that presently the fibre consumption in India is in the ratio of 59:41 between cotton and man made fibres as against 40:60 ratio world wide.

9. With a view to strengthen the fibre economy of the country and make Indian textiles and garments sector competitive in the near, medium as well as long-term; Ministry of Textiles, Government of India constituted a Working Group to formulate a National Fibre Policy for Textiles and Garments sector of India. Within the Working Group, 8 sub groups were formed viz. **Cotton, Man-made fibres, Jute, Silk, Wool, Other Natural fibres, Speciality fibres (Technical Textiles), and Speciality (Suvin and Organic) Cotton**. The constitution of each Sub-group comprised of a Convener from the Government's side and a Co-Convener from the Industry side along with other members, representing officials from concerned Ministries, Boards, Associations and majority representatives of the Industry/ Sector.

10. The recommendations made by all Sub-groups were directed towards the objective of formulating a fibre policy that will be fibre neutral and would seek to

enhance the production and availability of fibres in India to ensure sustained growth for the textile value chain. Recommendations have been made to correct fiscal anomalies and policy limitations that are currently present in the textile eco-system, with a view to ensure a balanced growth of the textile industry in the future. The Sub-groups representing fibres which currently have limited production in India (Speciality fibres and Other Natural fibres) have recommended policy interventions towards developing a conducive environment to facilitate growth and development of such fibres.

11. This draft policy paper based on the report of the working group invites public comments in the Ministry's efforts to provide a conducive environment for enabling the Indian textile industry to realise its full potential and achieve global excellence. It endeavours to ensure balanced growth of the entire sector by promoting all the fibres equally and equitably. The policy envisages an enhanced income and employment generation capacity of the textile industry. It aims to improve industry's competitiveness and brand image in the world market for its products.

12. The National Fibre Policy has the following aims and objectives:

- Augmenting investment and providing support on both fiscal and non-fiscal front to increase fibre availability in the country and facilitate high growth and competitiveness of the textile sector;
- Focusing on improving quality of the fibre produced in India;
- Devising means to augmenting remuneration of all the stakeholders within the fibre eco-system;
- Correcting fiscal anomalies and policy limitations that are currently present in the fibre eco-system in order to ensure balanced growth of the textile industry;
- Providing assistance for building capacity in both industry segment and human capital required for processing the expected surge in the fibre production;
- Supporting modernisation and technological up-gradation of various segments of the industry, to increase its competitiveness;
- Addressing the problem of infrastructure bottlenecks.

Projection of Fibre Production – 2014-15 and 2019-20

13. The long term projections on consumption and production of fibres and the estimated investment requirement for the textile value chain have been presented below:

COTTON FIBRE SCENARIO

14. Cotton production in India has more than doubled in a span of 7 years. Cotton production reached a peak of 307.0 lakh bales during 2007-08 from 140.0 lakh bales in 2000-01 but it fell to 290.0 lakh bales in 2008-09. The gradual increase in cotton production over the years can largely be attributed to the phenomenal increase in the yield of cotton. The introduction of BT cotton seeds has played a catalytic role in enhancing cotton production in India. The consumption of cotton by the textile mills and small-scale spinning units has witnessed sustained increase since 2001-02, except in 2002-03 when the total domestic consumption declined. Domestic consumption of cotton fibre increased at a CAGR of 7.0% rising from 168.8 lakh bales in 2002-03 to 236.9 lakh bales during 2007-08, and fell to 229 lakh bales in 2008-09. Cotton consumption has witnessed a sustained increase since 2003-04 onwards due to growing demand for Indian textiles and subsequently, there has been considerable expansion and modernisation of the textile mills. Even though the Indian cotton consumption has increased at a rapid pace in the last few years, it has not kept pace with the growth in domestic cotton production, which has led to a surplus of production since 2003-2004. As a result, India has emerged as one of the top exporters of raw cotton in the world. Currently, India is the second-largest exporter of cotton after the US. In order to boost cotton exports, the Indian government liberalised raw cotton exports since July 2001, doing away with the system of allocation of cotton export quota in favour of different agencies and traders. Over the years, India's cotton export has been growing at an impressive rate, except for FY05, when exports dipped. In FY08, India exported 88.5 lakh bales of cotton. India's exports during 2008-09 have been estimated to have declined to 35 lakh bales.

FUTURE OUTLOOK OF INDIA'S COTTON PRODUCTION AND CONSUMPTION

15. Cotton production largely depends on the area under cotton production and productivity. Considering the issues pertaining to food security and land pressures, the area under cotton production is assumed to be largely constant at the current level. Thus, the future production is expected to be driven by improvement in

cotton yield. Yield is assumed to grow at 4.7%. The final scenario for 2020 is encapsulated in the table below.

Future Outlook for Cotton Production and Consumption (figures in lakh bales)			
Year	Production	Consumption	Surplus
2010-11	319	267	52
2014-15	384	323	61
2019-20	483	413	70

16. In the years to come, the robust increase in domestic consumption is likely to drive down the surplus in cotton. Therefore, it is essential that there is greater focus on enhancing domestic production of cotton significantly to cater to the expected increase in domestic demand.

MAN-MADE FIBRES

17. Analysis of the world Textile and Garment production vividly brings out that India's failure to harness the potential of Man Made Fibres has proved to be a limiting factor in attaining a dominant position it deserves in the international Textiles and Clothing sector.

18. India is the second largest producer of man-made fibres in the world (World Fibre Report 2008) with presence of large plants having state-of-the art technology. MMF textiles constitute almost two-third of the domestic textile market. However, India's share in global exports of value-added textiles of man-made fibres is miniscule at around 2.25% in 2008 (India's MMF exports were US\$ 3.3 billion as against global exports of US\$ 146.7 billion). Hence, the domestic MMF: cotton fibre consumption ratio in India is 41:59 (FY09) while it is the reverse globally. The share of man-made fibres in total fibre consumption has risen from 25% in early nineties to 41% at present. However, since quota abolition, the share of MMF in India's fibre consumption has almost stagnated at around 40% on account of rising cotton production and international demand for cotton by textile manufacturers to cater to export demand from global markets.

19. India's capacities for man-made fibres currently stand at 3.4 billion kg, which is around 6.6% of global MMF capacities. India's total **production** of man-made fibres stood at 2.5 billion kg in FY09, of which **exports** constituted 10.1% at 0.25 billion kg. and **imports** constituted 0.12 billion kg. Indian man-made fibre industry is **largely polyester dominated**, which constitutes over 83% of total man-made fibre production.

20. While man-made **fibre production** is highly concentrated, with limited players engaged in manufacturing of MMF, the **value added MMF textiles** manufacture is primarily in the decentralised sector, with presence of large number of small and medium enterprises. Production of MMF fabrics has grown from 21 billion square meters in FY05 to 23.9 billion square meters in FY09. While in the domestic market, MMF textiles and garments are dominant (65.70), cotton textiles are predominant in the export markets (over 80%).

21. Given the changing consumption pattern in favour of man-made fibre based textiles, there is a need to assess the medium term and long term demand for man-made fibres in India. The demand for man-made fibre depends upon the demand for yarn and fabrics, which in turn depends upon the consumption of finished textiles namely apparel and made-ups.

22. Considering future GDP growth of 8%, the domestic demand for man-made fibres/ filament yarns is estimated at 3.9 billion kg in FY15 and about 6 billion kg in FY20. Adjusting to this the likely exports and imports of MMF, the overall MMF requirement is estimated at 4.2 billion kg for FY15 and 6.48 billion kg for FY20. This implies capacity additions of about 1.8 billion kg (FY15) and 4.6 billion kg (FY20), which would require an investment of over Rs 90 billion by FY15 and Rs 230 billion by FY20.

Future Outlook for MMF/filament yarn demand (million kg)		
Fibre	2015	2020
PSF	1,105.80	1,638.20
VSF	372.5	546.1
ASF	133.3	180
PPSF	3.9	6
PFY	2,129.20	3,366.30
VFY	66.7	96
NFY	47.1	72
PPFY	62.7	96

Total MMF domestic demand	3,921.10	6,000.60
(+) Exports	470.5	720.1
(-) Imports	156.8	240.0
Total MMF requirement	4,234.8	6,480.6

SPECIALITY FIBRES AND TECHNICAL TEXTILES

23. Technical Textiles are “textile materials and products used primarily for their technical performance and functional properties rather than their aesthetic or decorative characteristics”. Some of the terms used for Technical Textiles include “industrial textiles”, “functional textiles”, “performance textiles”, “engineering textiles”, “invisible textiles” and “hi-tech textiles”. Technical Textiles are used individually to satisfy a specific function (fire retardant fabric used in the uniforms of firemen) or as a component of another product for enhancing its strength, performance or other functional properties (tyre cord fabrics used in automobile tyres). They are also sometimes used as accessories in processes to manufacture other products (paper maker felt in paper mills). Some examples of Technical Textiles in our day-to-day life include- tea bags, interlinings in clothes, carpets, wall coverings, sanitary napkins, baby diapers, mattresses, and blankets amongst others. Technical Textiles have a very important role in nation’s security and infrastructure development and nation building in general. Some examples are - geo-textiles for long lasting roads, environment/ soil protection fabrics used in disaster management, protective clothing (such as bullet proof vests) for security personnel, fire-retardant fabrics for public places etc.

24. With globalisation of Indian economy and the rise in the expectations & capacity of the middle class, the market size for technical textiles have shown a healthy growth of 18% during 01-02 to 2007-08 and is expected to grow at 11% per annum till 2012-13 and thereafter at 6-8% per annum till 2020 naturally. However, if government interventions take place in the form of a stimulus the growth of technical textiles industry can be estimated at 12-15% per annum till 2020.

25. Speciality fibres are special man-made fibres used for manufacture in Technical Textiles. The requirement / consumption of speciality fibres therefore have direct correlation with the manufacturing base of technical textiles in the country and its growth.

26. The proposed policy interventions in speciality fibre sector would enable the technical textiles sector to attract an investment of Rs 5,000 crores by 2012; to create additional employment opportunities for 12 lakhs persons by 2012 and to grow at 12-15% CAGR.

27. A comprehensive Technology Mission of Technical Textiles is also proposed to be launched.

JUTE

28. Jute is a rotational crop which is grown once a year between March / April and July / August. It provides sustenance to more than 44 lakh people including jute farmers, workmen, labourers and self employed artisans and weavers, especially in the Eastern and North-eastern parts of the country, where it is the mainstay of agro based industries. Jute being a natural, environment friendly fibre the current scenario of environment consciousness has opened a new potential for the sector, which can be exploited by entering into new markets and new products.

29. The production of raw jute has been stagnating at around 95 lakh bales during the last 10 years. With the proposed interventions in the farm & agriculture sector for increase in yield, it is expected that the production would increase to around 115 lakh bales by 2015 and to around 130 lakh bales by 2020 (CAGR = 3.2%). The production of jute goods too has registered a marginal growth of 0.1% in the last 10 years. With higher availability of raw jute and by modernization of jute industry, the jute goods production is projected to increase from present 16 lakh MT to 20 lakh MT by 2015 and 22 lakh MT by 2020 (CAGR = 3.2%). Product mix of jute goods is also expected to change, with less dependence on Sacking (presently 70%) to 60% by 2015 and 50% by 2020.

SILK

30. Total **Raw Silk production** showed a growth of about 6.6% in 2009-10 after a period of stagnation during 2006-07 to 2009-10. Mulberry Raw silk, which

constitutes almost 83% of India's total raw silk production, showed a growth of 4.6% during the same period and production of Vanya Silk jumped by 16%. In spite of several limiting factors, the silk industry in India has shown a **growth** of over 5% over last 10 years, the export of silk goods in terms of quantity has shown a growth of over 6%, while imports (mostly from China) continue to grow at about 3% over this period.

31. Raw silk production is projected to grow at an average rate of 5% during the year 2010-2015 and 7% during 2015-20. The domestic consumption of raw silk is also expected to grow at 4-5% during this period.

WOOL

32. In the next decade, consumption of raw wool is estimated to double, from 114.2 million kg in 2008-09 to 260.8 million kg by 2019-20 mainly on account of normal annual rise in domestic demand on account of increasing population further fuelled by rising incomes and over all higher standards of living. Besides, rise in consumption of raw wool is also expected due to increase in exports of woollen products manufactured from raw wool. During the period between 2009-10 and 2014-15, raw wool consumption is expected to grow at a CAGR of 7.8%; this growth rate is expected to be maintained during the period between 2015-16 and 2019-20 as well.

33. It is expected that exports of woollen products will continue with their strong growth. This rise is expected to be on account of world economy growth, lower manufacturing cost due to availability of cheap labour force at home, availability of new markets and expected drop in exports of woollen products from some of the competitors and India rushing in to fill the vacuum so created. During the period between 2009-10 and 2014-15, exports of woollen yarn, fabrics and made-ups are expected to record a CAGR of 11.6%, while during the period 2015-16 to 2019-20, exports are likely to post higher CAGR of 13.9%. As per our estimates, the exports of readymade wool garments would post a CAGR of 19.1% during 2009-10 to 2014-15. The growth momentum is expected to accelerate during the following five years and exports are projected to record a CAGR of 21.5% during the period between 2015-16 and 2019-20.

OTHER NATURAL FIBRES

34. Other Natural Fibres (Banana, Pineapple, Agave/ Sisal, Hemp/ Nettle and Flax) would provide revenues of Rs 2,786.5 million per annum after a period of 5 years and provided that the policy recommendations are implemented. The projection on future potential of other natural fibres is provided in the table below.

Fibre	Return per year (Rs Million)
Banana	1,123.5
Pineapple	933
Agave/ Sisal	160
Hemp/Nettle	240
Flax	330
Total	2,786.5

SPECIALITY (ORGANIC, SUVIN AND ELS) COTTON

35. While it may be difficult to arrive at robust forecasts of future production of Organic cotton (given the paucity in available data), simply extrapolating from current levels would give an indication of the potential of this fibre. Given that approximately 200,000 hectares under Organic cotton cultivation yields 500,000 bales currently, if the area were to go up to 500,000 hectares by 2015 (as estimated by experts), the potential output would be approximately 1,250,000 bales. This is under the assumption that no Government intervention would be made for supporting this sector. However, if support was provided to this sector, it is possible that the total output of Organic cotton touches 2,000,000 bales by the year 2015, as the area under cultivation could increase to over 600,000 hectares and significant improvement in yield is also achieved.

36. Currently, India has the distinction of being the world's largest producer of organic cotton and accounts for almost 51% of the world Organic cotton production. Organic cotton fibre is considered extremely important to Indian agronomy as organic cultivation is the only sustainable tool, available today, to revitalise the depleted / fast depleting agricultural lands of the country. It also possesses the unique advantage of having a highly evolved end to end value addition chain, which no other cotton producing country has. This home grown

advantage needs to be sustained without loss of momentum and credibility. Therefore the organic cotton sector deserves special attention by the government of India. While considerable progress has been made in Organic cotton production in India, the sector still encounters certain issues and challenges. Also, the organic cotton sector in India is still in its infantile stage and it is in a stage where it needs support to mature and become independent and sustainable.

37. Suvin cotton is the Jewel in the Indian cotton crown. The king of cotton and India's pride "Suvin" variety was released in 1979 by cross breeding Sujatha (Indian cotton variety) with St.Vincent (Sea-Island cotton variety). Suvin is the finest cotton being produced in India and has no parallel and alternative in the world today. It is the only commercially available fibre in the world today with spinnability up to 240s count. The highest production of Suvin was 36,000 bales (170 kg), achieved in the year 1989-90. However, the production of Suvin has depleted steadily over the years and currently stands at 300 MT i.e. around 1250 bales. It will be a national loss to let a world renowned fibre to phase itself out, for lack of initiatives.

GAP ANALYSIS

38. The Indian T&G industry is complex in structure, with the presence of numerous small-scale, decentralised and fragmented units along with some large-sized integrated enterprises, also known as composite mills. While the small-scale sector is largely unorganised and labour-intensive, large-scale enterprises on the other hand are mostly organised and capital-intensive. In the last few years, the industry has witnessed considerable expansion, integration and technological up-gradation due to potential growth opportunities in the export as well as domestic market.

39. Capacity installation and utilisation in the industry has also improved considerably over the past few years. The domestic textile industry comprises of 1608 spinning mills and 200 composite mills, with an installed capacity of 35.61 million spindles, 4,48,000 Open End Rotors and 69,000 looms in the organised sector along with another 1219 small scale spinning units with 4.00 million spindles and about 1,57,226 Rotors in the small scale decentralised sector. The capacity utilisation in the spinning sector of the organised textile mill industry ranged between 80 to 93% while the capacity utilisation in the weaving sector of the organised textile mill industry ranged between 41 to 63%.

40. India's strength lies in the production of cotton yarn, which accounts for around 74% of total spun yarn production in India. The production of cotton yarn in India has recorded an annual average growth rate of around 6.5% between

FY05-FY09. While there has been a sustained improvement in cotton yarn production since FY05, the yarn production witnessed marginal decline of 1.69% in the FY09 as compared to an increase of 4.42% in FY08

41. India is net exporter of cotton yarn. In 2007-08, India registered 8.3% growth and 9.9% de-growth in exports and imports respectively. The dismantling of Multi fibre Agreement (MFA) in 2005 provided a boost to India's yarn exports.

42. India manufactures a large variety of fabrics, with a range of finishes, width, and designs. India's cloth production is mostly in the form of cotton or blended cloth. However, non-cotton cloth has gained prominence during the last 15 years, and currently accounts for about 37.9% of country's total fabric production. At the time of independence, the mill sector was the main producer of cloth in India. However, the growth of the powerloom and handloom sectors, aided through government incentives, has led to a steep decline in the share of the mill sector in India's overall cloth production. The share of mill sector in cloth production has gone down from over 70.0% in the 1950s to less than 6.0% in FY97 and to a mere 3.3%, currently. On the other hand, fabric production in powerloom and handloom sectors has grown considerably; currently, these account for about 74.4% of India's total cloth production. The production of knitted fabrics in the hosiery segment has also increased in recent times; currently, hosiery accounts for 22% of total cloth production in India.

43. Cotton Cloth production in India has witnessed sustained increase since 2003-04 before witnessing a marginal decline in 2008-09. While the production in hosiery and mill sectors experienced modest increase, production in power looms and handlooms declined compared to the previous year. The decline in cotton textile during 2008-09 could be attributed to a confluence of factors like higher price of cotton, high interest rates and slowdown in demand in domestic as well as international markets.

44. Given that the production of cotton fibre, as well as MMF fibre and filament yarn is expected to witness a substantial increase in the next 10 years, the installed capacity for value addition under the textile value chain also needs to witness substantial improvement to absorb the expected increase in fibre production. It is estimated that the Textiles Industry would require investments worth Rs 176,510 Crores during FY10-FY20 for creating the required capacity along the textile value chain on the basis of estimate of the increased fibre production. The segment wise projected investment requirement is presented in the below table:

Investment requirement till 2020 (Rs cr) (For All Fibres)	
Spinning	63,525
Weaving	38,485
Knitting	12,499
Processing	26,695
Garments	35,305
Grand total	176,510

45. The Industry needs an investment of Rs. 176,510 crores till 2020 to cater to demand growth. The spinning, weaving and processing segments would require a significant portion of this investment. These segments are capital intensive and are also characterized by low returns, thus heightening the need to incentivize investments.

46. Huge additional capacities are required in the man-made fibre industry in the wake of future demand. However, the MMF industry is capital intensive with long gestation period. Thus, it is desired that incentives are provided to the industry to accelerate the process of capacity build-up, to ensure adequate supply of fibres to the user industry.

47. At present, TUFS is not applicable to manufacture of synthetic fibres as the sector falls under the ambit of Department of Chemicals and Petrochemicals. If TUFS is available to manufacturers of synthetic fibres as well, it would aid in reducing the capital cost and hence the capital servicing charges such as depreciation and interest on debt taken for capital equipment purchase. Thus industry players want certain allocation of funds under TUFS for synthetic fibre manufacturing.

Enhancing Investment along the Textile Value Chain

48. Increased availability of cotton fibre necessitates enhanced investment along the textile value chain. The interest compensation of 5% available under the Technology Upgradation Fund Scheme (TUFS) has helped in incentivizing investments in the T&C industry. TUFS has had a major role to play in the growth of the industry and increased investments in recent years in the sector. Given the significant estimated investments required for the textile value chain, it is therefore recommended that the Technology Upgradation Fund Scheme be continued, so that the industry may avail of the benefits under it.

49. The National Fibre Policy recommends that the TUFS scheme should be continued into the XII plan period to promote further investments. The spinning sector has seen the bulk of investments under the TUFS scheme. It is felt that while continued investments in spinning are required to ensure yarn availability and domestic value addition of cotton, it is important to encourage forward integration. Investments in spinning in integrated textile parks with downstream weaving facilities, where the yarn can be consumed, should be eligible for the interest subsidy.

50. While the weaving sector is in dire need of technology upgradation, there exists a need to consolidate and improve the economies of scale. Weaving sector will remain highly fragmented and remain a weak link in the value chain unless Government policy enables consolidation. Consolidation in the weaving sector will also stimulate downstream investments in processing and boost the competitiveness of the garmenting and made-ups sectors. The knitting sector's productivity has shown improvements because of investments in high-speed circular knitting machines. The National Fibre Policy would continue to encourage this initiative.

51. Garmenting sector is not capital intensive, and is relatively less dependent on interest rate subsidies. Setting up of larger, integrated operations that will improve the economies of scale, is the need of the hour in this sector. As the garment and made-ups industry is highly fragmented, there is little incentive for players to invest in modernized machinery. The National Fibre Policy would seek to provide incentives to garmenting and made-ups sectors based on a proportionate basis.

52. Most of the fabric finishing / processing is undertaken by small-scale, non-integrated firms in the unorganised sector using old technology. Small and fragmented weaving capacities have been partly responsible for low investments in

processing sector as large process houses would find it logistically challenging to source grey fabric from disparate sources. A consolidation in the weaving sector will encourage the setting up of modern process houses. TUFS would continue to encourage modernization in the powerloom sector.

53. The National Fibre Policy also recommends that synthetic fibres should be covered under TUFS with fund support from their administrative Ministry i.e. Department of Chemicals and Petrochemicals. The machinery for manufacture of synthetic fibres post polymerisation would be covered under TUFS. The coverage under TUFS will result in attracting more investments, entry of more players, thereby increasing the availability of MMF at competitive prices.

54. The industry needs an investment of Rs. 54,000 crores by 2011-12, and an additional Rs. 145,000 crores in the XII plan period to cater to the growth in demand. A significant portion of this investment is required in the spinning, weaving and processing segments.

Major Policy Initiatives Required to meet the Gap

Cotton

55. India will be a cotton surplus Nation in the next decade. For the Textiles Ministry therefore, supply side management issues are of vital importance which needs to be addressed in the National Fibre Policy.

56. The key issues involved in policy formulation include (a) cotton contamination (b) improving quality (c) improving infrastructure (d) problem of admixtures (e) need for establishing uniform standards and need for an Indian arbitration for imported cotton. The responsibility for enhancing production rests with the Ministry of Agriculture. The policy measures include creating an institutional framework for development of cotton fibre, improving irrigation facilities and water harvesting and increasing awareness amongst farmers for suitable agronomic practices.

Improving Supply Chain Management and Ensuring Cotton Security

57. After independence, most productive cotton lands became part of Pakistan and Indian Union was left with short cotton production for large cotton based Industry. This led to serious shortage of cotton and India turned from an exporting country to a net Importer of long staple cotton.

58. However, with various Governmental measures and agriculture extension schemes to grow more cotton in the Country through Intensive Cotton Development Program in 1971-72 and setting up of Technology Mission on Cotton in 2000 coupled with release of Bt seeds for Commercial cultivation in 2002-03; the cotton production of the Country reached a record level of 307 lakhs bales in 2007-08. With these developments, India became the 2nd largest producer, consumer and exporter of cotton in the world. Minimum Support Price (MSP) Mechanism safeguards the interest of cotton growers in the wake of fall in kapas prices.

Cotton Export: Self Sufficiency in Cotton

59. Initially, cotton exports from India during the nineties were governed by long-term cotton export Policy of the Government of India. As per this policy, quota of 5 lakhs cotton bales including short staple non-spinnable Bengal Deshi used to be released in the beginning of the season depending upon the availability of surplus cotton. Thereafter the additional export quota used to be released in a phased manner depending upon the availability of surplus cotton after meeting the domestic consumption needs. A major portion of the quota was given to CCI. Some portion of this quota was also allocated to Co-operative Institutions like NAFED, HAFED, MarkFed, Maharashtra Federation etc. Since some of these institutes did not possess sufficient basic infrastructure & marketing expertise; therefore, CCI was facilitating in liquidating their quota. In late 1990s, residual quota was also given to private traders in small quantities. During this quota system, Textile Commissioner's Office was tasked with undertaking registration of export contract. CCI, NAFED and other State Federation were under obligation to give a Legal Undertaking (LUD) while private traders had to give Bank Guarantee to ensure performance of Export Contracts. Now Maharashtra Federation, GUJFED, RAJFED and mostly other State Federation have become defunct and are not involved in cotton marketing any more.

60. The Government of India with effect from July 2, 2001 had liberalized cotton exports from the country and placed the same under Open General License (OGL). Thus, the system of allocation of cotton export quotas in favour of different Agencies including CCI was dispensed with.

61. Cotton exports from India which used to be around 5 to 6 lakhs bales upto 1985-86, reached to the level of 13 lakhs bales in 1986-87. Thereafter, there were only meager exports from the country except for the year 1992-93 and 1996-97. In 2005-06, exports were 47 lakhs bales and touched the highest level of 88.50 lakhs bales in 2007-08.

62. In 2009-10, the actual export shipment from the Country is reported to the extent of 73.28 lakhs bales. An additional 3.12 lakh bales are being shipped to Bangladesh and Pakistan. Considering the cotton consumption of the Country as 260 lakhs bales, the carry over stocks shall be around 34 lakh bales, which is equivalent to 45 days consumption only. Thus, carry over stock for next Cotton Season shall be around 14.3 % of cotton production of 292 lakhs bales estimated for Cotton Season 2009-10, resulting in very tight supply position of cotton for Indian Textile Mills.

63. In the medium and long term, the stock to use ratio would be a determinant of the exportable surplus. The National Fibre Policy thus seeks to improve supply chain management with calibration of cotton exports and putting in place credible and transparent institutional mechanisms for ensuring India's cotton security commensurate with the growth envisaged in the sector.

64. In order to avoid repetition of such a situation (09-10) of over exports resulting in shortages & disruption of supply of cotton to domestic textile industry, tangible steps have been considered under the National Fibre Policy for future to ensure regular supply of cotton to Industry till the end of every cotton season.

65. The National Fibre Policy envisages the following policy measures:

- Aggressive marketing strategy would be adopted by CCI to procure at least 20% of cotton production in the country i.e. 60 to 80 lakhs bales so as to ensure secured supply of cotton to textile mills at competitive prices. This shall obviate the possibility of cartelization for individual gains;
- After projecting cotton consumption of domestic mills vis-à-vis expected cotton production, availability of surplus cotton would be ascertained by Cotton Advisory Board. An Inter Ministerial Committee of Secretaries under the Chairmanship of Textiles Secretary would, based on recommendations of Cotton Advisory Board and other factors; consider the quantum of export quota to be given to CCI from time to time to calibrate export of cotton from the country and also ensuring the prescribed carry over stock at the end of season;
- Textiles Ministry in consultation with ISRO/ Department of Space would put in place improved crop mapping of cotton so as clearly identify production and acreage;

- In consultation with Department of Revenue, Textiles Ministry would put in place an electronic data exchange system, that would ensure that every Shipping/ Dry port provides a platform for data exchange on cotton shipments on a weekly basis to the Textiles Commissioner.

Cotton Yarn

66. The National Fibre Policy to the extent possible will seek to eliminate export shipments to bonded warehouses in non consumption countries and shall be instrumental in getting better per unit export realization, which shall ultimately benefit cotton growers of the country.

67. Textiles Ministry would also initiate necessary policy interventions for greater monitoring and streamlining of yarn exports to ensure adequate availability to the handloom and garment sector. 2009-10 has witnessed significant price surges in the yarn industry that has resulted in significant distortions in the supply chain to the handlooms and garments sector. The policy interventions envisaged by the Ministry of Textiles to stabilize prices of cotton yarn for improved supply chain management for textile yardage, handloom weavers and garment sector are the following:

- Yarn export registration which has commenced from April 2010 would be firmly established as an institutional strengthening mechanism.
- A Yarn Advisory Board would be established to formulate a Yarn Balance Sheet for the Country. The Yarn Advisory Board comprising of representatives of stakeholders, ministries of Government of India and the Industry would function on the lines of the Cotton Advisory Board and would be an enabling mechanism for considered policy making to ensure adequate supplies to downstream industry;
- Ministry of Textiles would intensify the Test Check of Hank Yarn Obligations through the Textiles Commissioner to ensure that the industry fully adopts the prescribed norms for ensuring adequate availability of hank yarn to the handloom sector. Inspections in 2009-10 have indicated that several spinning mills have not been submitting their mandatory obligations to the Textiles Commissioner and significant breaches of the hank yarn obligations are being witnessed. The Ministry of Textiles would advise the Textiles Commissioner to explore necessary legal and regulatory options available under the Essential Commodities Act to ensure that the mandatory obligations of the Spinning Industry to the Handlooms Sector are duly fulfilled.

- In addition to the above, Textiles Ministry has constituted a committee under chairmanship of Development Commissioner (Handlooms) to examine all issues of Hank Yarn Obligations to ensure adequate availability of hank yarn to weavers. The Committee's recommendations would be considered for future policy interventions.
- A prohibitive export duty on yarn would be considered in consultation with Finance Ministry to improve domestic availability of yarn if the trigger point prescribed for yarn exports by the Yarn Advisory Board is breached.

Improving marketing and branding of Cotton

68. Grading of Kapas is imperative for improving the marketing and branding of Kapas and lint. The grading system by an independent agency, regulated ware housing system, better contracting system with risk management instruments, will raise the dynamics of Indian cotton to a greater level of acceptance, fine image and remarkable branding. The National Fibre Policy envisages the following policy measures:

- A structured mechanism for promotion of cotton use would be developed, in order to sustain domestic consumption on a long term basis, so as to maintain the strength of cotton economy.
- Pilot projects for marketing of lint by the farmers, instead of kapas would be considered. This would result in higher income to the farmers and accelerate cotton production.
- The role and functions of Government agencies involved in marketing of cotton fibre will be looked into for any reorientation of their role towards inclusion of price stability.

Drawing Lessons from Other Countries

69. The sub group on cotton has conducted a detailed policy review of the leading cotton producing countries. Some of the following policy interventions that would be considered during the implementation phase of the National Fibre Policy are the following:

United States of America:

- a) Direct Payments, Counter Cyclical Payments, Marketing Assistance Loans and Loan Deficiency Payments with the objective of providing income support to farmers;
- b) Commodity certificates with an objective to speed up the process of obtaining commodity loans;
- c) Average crop revenue election program to reduce market risks by allowing farmers to lock in revenue guarantee;
- d) Recourse loans for seed cotton to enhance support to farmers of cotton farming;
- e) Special upland cotton marketing loan provisions to temporarily increase cotton supplies into the country;
- f) Upland cotton economic adjustment assistance to increase domestic consumption;
- g) Special competitive provisions for extra long staple cotton to increase exports and maintain competitiveness in world markets;
- h) Cotton price forecasting for better information dissemination and
- i) Crop insurance and disaster assistance by establishment of a Risk Management Agency to evaluate the Industry.

China:

- a) Cotton Quality, Classification, system reform plan to align China's classification with international standards and to create a system of scientific testing process;
- b) Multi Year Seed Subsidy program to stabilize the cotton planted area;
- c) Transportation subsidy and targeted loans to financially assist domestic marketing;
- d) State Cotton Reserve Management Policy to support domestic cotton prices and facilitate marketing of domestic cotton;
- e) Quality credit assessment measures to strengthen inspection and quarantine supervision of imported cotton;
- f) Tariff rate quota to regulate the market and protect the interests of both farmers and industry.

Brazil:

- a) Premium to commercial buyers to supplement the supply of commodities in the areas of the country considered to be deficient in agricultural production;
- b) Equalization Premium to Farmers to compensate the farmers for currency fluctuations;

- c) Premium Commercial buyers under a private sell option contract to signal future price for the market and guarantee future income to the farmers;
- d) Federal Government Acquisition to ensure purchase of product at a minimum price determined by the Government with an aim to support the farmers and commodity prices.

Pakistan:

- a) Cotton Standardization system to earn better price in the international market;
- b) Clean cotton program to enable production of standardized and clean cotton;
- c) Cotton fibre testing to encourage instrumental classification of cotton fibre;
- d) Infrastructure and technological development to develop clusters with amenities for testing product development and research and promotion of ginning factories;
- e) Focus in value addition to introduce BT cotton and production of long staple cotton on priority basis;
- f) Marketing insurance schemes and zero rating of exports to foster the export of cotton fibre

Organic, Suvin and ELS Cotton

70. The policy on Organic & Suvin Cotton aims to ensure that the acreage under Suvin fibre should not be allowed to decline further and prevent Suvin from becoming extinct. This Policy suggests that a special subsidy package could be developed in order to sustain the long duration crop and to keep alive the interest of the current Suvin growers. Steps in this direction would include

- a) Ensuring seed availability for organic, Suvin and ELS cotton;
- b) Incentives to the farmers for sustaining organic cultivation;
- c) Streamlining organic certification;
- d) Adopting a Mission mode approach and establishing an Inter Ministerial Board, for the Organic, Suvin and ELS Cotton Sector. The National Fibre Policy recommends establishment of a Board for speciality cotton comprising of the Ministries of Agriculture, Commerce and Textiles with the responsibility to ascertain areas as organic zones/ refuge zones in Bt Cotton areas as per regulations and ensure timely availability of variety seeds for this purpose.
- e) A technology mission on speciality cotton would be developed.

Fibre Availability for Handloom Sector

71. Handloom sector is next only to agriculture so far as employment is concerned. During the 11th plan Rs. 1370 crores has been allocated for the handloom sector out of which Rs.946 crores have been utilized till end 2009-10.

72. Handlooms are being positioned as a niche' product by using innovative measures of promotion and by branding these products through celebrity endorsements and popularizing measures to encourage the youth and the up-market consumers to use these products as a fashion statement.

73. With the brand promotion of hand woven fabrics used in conventional products as well as in home furnishings, bed and table linen, the handlooms are capable of providing ethnic yet contemporary products. The handloom sector is likely to see a resurgence provided there is adequate infrastructure support for timely production and marketing of quality handloom products to meet the demands of the national and international markets.

74. The Handloom fabric production was continuously increasing at the growth rate of 6 to 7% from the year 2004-05 to 2007-08 while there was a marginal decline of 3.88% during 2008-09. This has happened due to global economic recession and all the sectors including handlooms were affected. That said, the sector witnessed a positive growth in cloth production during 2009-10 of 1.66 per cent more than the previous year.

HANDLOOM Fabric Production (million Sq. mtr.)

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Cotton	5098	4519	4792	5236	5717	6076	5840	5819
Blended	118	117	146	145	99	123	118	147
100% Non Cotton	764	857	784	727	720	748	719	822
Total	5980	5493	5722	6108	6536	6947	6677	6788

The Cluster Approach

75. To provide financial/policy support and the necessary regulatory framework that fosters the development of viable entities which enable artisans and micro enterprises (individually and collectively), assistance for Infrastructure Support to handloom clusters have been offered under the Cluster Approach, by setting up

new/ upgrading existing infrastructure ,to expedite production and improved product quality. This includes support for setting up Common Facility Centers (CFC), work sheds, setting up or up-grading dye houses besides offering assistance in acquiring equipment like reeds, heads, jacquards, and winding machines, which have helped in accelerating production and helped enhanced income generation. Financial assistance from banks too has been facilitated to provide credit to weavers through SHGs/consortiums/Producers' Companies. Since 2006-07, 2.68 lakh weavers have benefited from the above approach.

76. Handloom sector represents the rich cultural and traditional heritage unique to India. Being a unique craft woven with dexterous hands, the unique skills need to be protected from languishing. In the face of growing competitiveness in the textile industry both in the national and international markets and the free trade opportunities emerging in the post- MFA environment, a growing need has been felt for adopting a holistic approach to facilitate the handloom weavers to meet the challenges of the globalised environment. Handloom weaving provides a source of livelihood for 65 lakh handloom weavers. For their sustainable development, a focused approach for increase in production, use of innovative yarns and fibres in new designs and developing products of international market requirements is the need of the day.

77. In fact the new series of products namely home furnishings, bed and table linen, made-ups, stoles and scarves have generated a great market demand in the international market. However this needs to be substantiated by increasing the production pattern suitably. Looking at the potential and growing demand in the export market, there is a need felt for addressing the inherent problems of providing good quality raw material to the handloom weaver at competitive rates for fulfilling the qualitative and quantitative requirements for the export market.

78. Moreover the environment friendly nature of the handloom products makes them easily accessible to countries with stringent Non-Tariff barriers. For this, international exposure of these goods to showcase innovative and contemporary designs to enable a sustained supply chain management service through aggressive e-marketing is required.

79. As per the estimates of Census (2009-10), the number of looms has declined from 31.40 lakhs to 22.10 lakhs (vis-à-vis previous Census of 1995-96) due to competition from power looms and mills. Moreover, the number of weavers engaged in handloom weaving has also reduced from 65 lakhs to an estimated number of 45.5 lakhs. Handlooms sector continues to employ a good

percent of the total textiles workforce and continues to need infrastructure and technology support.

80. The per loom productivity has improved due to up-gradation of looms and training of weavers being provided by the Government. Looking ahead, Handlooms sector has the potential to grow at a rate of 3-5 percent per annum.

81. The production cost of handloom products pre-dominantly constitutes of raw material costs which varies from 40 to 60% depending upon the product. Therefore, the availability of raw material at reasonable cost is of utmost importance to the handloom sector

82. Given this scenario, the anticipated growth of 5% will translate into 1.14 lakh new looms taking the total installed looms upto 23 lakhs. This is likely to generate employment for 3.3 lakh additional handloom weavers since one loom provides employment to not only one handloom weaver but also to 02 ancillary workers engaged in pre-loom and post-loom activities.

83. If, approximately 15% of domestic supply of cotton is likely to be utilized in the handloom sector then, Handloom sector's cotton consumption would increase by 30 lakh bales over the next decade.

84. Presently, 6788 million Sq.mtr. handloom fabric is produced annually by the handloom sector on 22 lakh looms. With additional 1.14 lakh looms, almost 340 mln.sq. mtrs. of additional handloom fabric is likely to be produced every year.

Powerloom Sector

Upgradation of traditional powerlooms to high tech shuttle-less looms.

85. The share of decentralised powerloom sector is about 62% of the total fabric production in the country. This sector is still a weak link in the textiles value chain and has not reached the desired level of modernization. Out of 22.56 lakhs looms in decentralised powerloom sector, there are only 1,02,854 shuttleless looms, rest being plain traditional looms. The productivity of the plain looms and the quality of fabrics produced in these looms is much lower compared to that of shuttleless looms and caters to the lower end of the value chain. Fabric production in India has to move up in the value chain to cater to all segments of the clothing industry and establish India as a producer of quality high end fabric producer and remain competitive in the global market in terms of both, quality and price. Therefore, it is essential to upgrade the plain traditional looms to high-tech shuttleless looms in a time bound manner. It is proposed to upgrade/replace at least 50 % of traditional looms to modern shuttleless looms by the end of 12th Plan.

86. Since shuttleless looms are very costly, it is difficult for the entrepreneurs in the unorganised powerloom sector to replace the traditional looms with shuttleless looms without adequate support and incentive from the Government. For the upgradation of technology in textile industry, Govt. of India had introduced and implemented Technology Upgradation Fund Scheme (TUFS) since 1-4-1999. Under this scheme a lot of new investment has come in the modern machineries. However, the decentralized power loom sector has not been able to take full benefit of this Scheme due to fragmented nature and financial weakness of the sector. It is, therefore, necessary to dovetail the Technology Upgradation Fund Scheme with other schemes, such as Cluster development schemes and if necessary, introduce new schemes to focus on modernisation of these looms. Allocation under TUFS would also need augmentation to enable the decentralised powerloom sector to migrate from the traditional plain looms to modern shuttleless looms. This enable the sector achieve economies of scale and consistency in production in terms of quality and volume. Installation of modern jacquard machines and dobby machines would also be encouraged with necessary training for skill development.

87. There is a need for appropriate capacity building in the machinery sector to achieve the above objectives of replacing old traditional looms with modern shuttleless looms in a time bound manner. Therefore, local manufacturing of high-

tech shuttleless looms would be encouraged by providing adequate incentives and policy support so that our dependence on shuttleless looms is reduced. In the interim period it is desirable to reduce the import duty on shuttleless looms so that cost of installation of such looms is reduced.

88. These measures, along-with improvement in processing facilities, would enable the Indian Textile Industry to become competitive in the world market and shall be able to achieve its export potential.

Speciality Fibres

Introduction

89. Technical Textiles are “textile materials and products used primarily for their technical performance and functional properties rather than their aesthetic or decorative characteristics”. Technical Textiles are used individually to satisfy a specific function (fire retardant fabric used in the uniforms of firemen) or as a component of another product for enhancing its strength, performance or other functional properties (tyre cord fabrics used in automobile tyres). They are also sometimes used as accessories in processes to manufacture other products (paper maker felt in paper mills).

90. Based on the characteristics of the product, functional requirement and end-use, the variety of Technical Textiles products have been classified into 12 segments as follows:

Segments of Technical Textiles	
Segment	Usage
Agrotech	Agriculture, horticulture and forestry
Buildtech	Building and construction
Clothtech	Technical components of shoes and clothing
Geotech	Geotextiles, civil engineering
Hometech	Components of furniture, household textiles and floor coverings
Indutech	Filtration, cleaning and other industrial usage

Meditech	Hygiene and medical
Mobiltech	Automobiles, shipping, railways and aerospace
Oekotech	Environmental protection
Packtech	Packaging
Protech	Personal and property protection
Sporttech	Sport and leisure

91. Fibres used in Technical Textiles can be segregated into three categories:

- Regular/ Generic fibres,
- Speciality variants of regular/ generic fibres, and
- High tech/ high performance fibres

92. While the regular fibres like natural fibres and synthetic fibres (polyester, viscose, nylon, polypropylene) account for 70% of the total fibre used in technical textiles, speciality fibres constitute the remaining 30%. While speciality variants of regular fibre constitute majority of speciality fibres (25% of the total 30%), the high performance fibres constitute a small proportion, i.e. 5%.

93. This section on speciality fibres for the National Fibre Policy has focused only on the 30% of these fibres, namely - speciality variants of regular fibre and hi-tech/ high performance fibres.

Global Scenario – Technical Textiles

94. The global market size of Technical Textiles is estimated to be US\$ 127.3 billion in 2005 (24 billion kg) in 2010. Amongst all the segments of Technical Textiles, Mobiltech, Indutech and Sporttech are the more prominent ones which collectively accounted for 56% of global market size.

95. Globally, production of segments in the textiles industry has reached a saturation point and its manufacture has become extremely competitive due to shift in production to low cost nations. Hence, these nations have shifted their focus on manufacture of value added products namely Technical Textiles which offer good margins and are technology intensive.

96. World consumption of fibres in Technical Textiles in 2005 was 22% of the total fibres consumed. Of the total fibres consumed (19.68 mn tonnes), around 80% comprised of MMFs and remaining comprised of natural fibres. It is expected that the share of MMFs in total fibre consumption will further increase to 81.3% by 2010. Among various fibres, polyolefin and polyester collectively accounted for 50% of total fibre consumed in Technical Textiles in 2005 followed by glass (15%) and jute (14%). Specialized fibres like aramid and carbon account for 1% of fibres consumed in Technical Textiles. Natural fibres find application in comparatively less demanding applications like sacks, twine and carpet backing.

Indian Scenario

97. India is the second largest textiles economy in the world after China; however, its contribution to the global technical textiles market is insignificant. However, the growth of Small & Medium Enterprises in the Technical Textiles Sector has been very significant. As on date there are 3000 units manufacturing technical textiles in the country, of which about 90% are in SME sector; and around 1,000 units have commenced production during the last 5 years. The market size of Technical Textiles in India stands at Rs 417.6 billion (2008-09) and it has grown at a CAGR of 9.6% from Rs 219.9 billion in 02-03. Packtech is the largest segment accounting for a 35% share in overall market size of Technical Textiles in India in FY08 followed by Clothtech (16.5%), Hometech (12%) and Indutech (7.7%).

Segmental market size (Rs mn)			
Segment	02-03	08-09	CAGR (%)
Agrotech	2,610	5,530	11.3
Buildtech	10,511	21,570	10.8
Clothtech	53,951	69,080	3.6
Geotech	1,100	2,720	13.8
Hometech	7,579	50,250	31.0
Indutech	26,220	32,060	2.9
Meditech	11,933	16,690	4.9

Mobiltech	12,764	31,830	13.9
Oekotech	-	680	-
Packtech	35,877	146,300	22.2
Protech	3,475	13,020	20.8
Sporttech	53,898	28,510	-8.7
Total	219,917	417,560	9.6

98. The technical textiles segment in India has a potential to attract investment and create additional employment opportunities in coming years. Investments of Rs 5,000 crores are expected by 2012 and employment is expected to increase to 12 lakhs by 2012.

99. The technical textiles industry is expected to register a growth of 11% per annum till 2012-13 and is likely to grow at **6-8% per annum till 2020** without any policy interventions. However, if government interventions take place in the form of regulatory push the growth of technical textiles industry can be estimated at **12-15% per annum till 2020**.

100. In India, indigenous production of fibres is limited and majority of specialty fibres are imported to cater to growing demand. Among various fibres, polypropylene and polyester account for 34.4% of total fibre consumption in Technical Textiles. While jute has mostly been replaced by HDPE or Polypropylene all over the world, India still uses jute in manufacturing of packaging products due to mandatory packaging in jute materials Act. Also, other traditional fibres like hemp, sisal and cotton are rapidly getting substituted by synthetic fibres like polyester, polyethylene, nylon, etc due to better performance and functional properties of these fibres.

101. Issues And Concerns Of Technical Textiles Sector

1. **Low penetration:** Technical textiles sector in India is at a nascent stage in terms of market development. There is lack of awareness amongst the entrepreneurs as well as consumers about the usage, benefits and high growth potential. At present, the major deterrent for expansion of the sector is low demand.

2. **Lack of R&D:** A major concern related to development of speciality fibres is lack of indigenous research and development in the area of speciality fibres. Further, the technology required for manufacturing of most of the speciality fibres is proprietary and very expensive. High cost and low demand have also deterred Indian players to develop speciality fibres indigenously.
3. **Absence of HSN codes:** The HSN code classification for a number of speciality fibres is not available at the eight-digit level, while for some of the speciality fibres, such as meta-aramid and para-aramid fibre, the HSN code is same. This creates difficulty in studying the trend in production, imports and exports of the speciality fibres. Also, a number of speciality fibres are clubbed together under the heading 'Others', thus making it impossible to study the trends of the individual speciality fibres.
4. **Fiscal anomalies:** There exist duty anomalies in the technical textiles industry wherein an **excise duty** is levied on the raw material while the finished product has been exempt from the duty. Some of the products exhibiting such anomaly are – Baby diapers, Incontinence diapers and Sanitary napkins. Anomaly also exists with respect to customs duties. One of the **customs duty related anomaly** has been observed in case of aramid yarn. Further, currently, the VAT rate in some states (like Tamil Nadu, Karnataka) is different for the same products based on the base fibre used. There also exists a discrepancy in fiscal treatment of nonwovens and other textile products. Also, DEPB for nonwoven and converted products do not find a mention and needs to be notified.
5. **Regulatory issues:** One of the reasons for low penetration of technical textiles, especially in the meditech segment is the existence of regulations that discourage use of modern technical textile products. For instance, the Indian Drugs & Cosmetics Act 1940 and Indian Pharmacopoeia recognize only woven medical products, due to which the consumption of nonwoven fabrics in medical area is very low. Similarly, in other segments like geotech, absence of Indian standards has led to a low consumption of geotextiles over conventional methods. Further, the usage of fire retardant textiles in public places is currently suggested in the National Building Code (NBC) but is not mandatory.

6. **Concerns over GST:** Textile industry is concerned over the applicability of GST as the industry involves a lot of inter-state transfers especially at the fabric stage. As GST would be applicable on inter-state depot transfers, it could lead to blockage of funds/cash flow issues as no credit would be available on the finished goods stock at such depots, unless they are sold. The same concern holds for imported goods as well. Another area of concern is the treatment of stock transfers and job work under GST. It is also not clear whether optional cenvat would be available for textile industries under GST.

Objectives Of The Fibre Policy – Speciality Fibres

102. In India, indigenous production of speciality fibres is limited and majority of specialty fibres are imported to cater to growing demand. Among various fibres, polypropylene and polyester account for 34.4% of total fibre consumption in Technical Textiles.

103. India has large plants and adequate capacities in regular synthetic fibres but players have shied from the production of speciality fibres till date due to low demand and lack of requisite technology. However, as India needs to increase its share of technical textiles in the next 5-10 years, in this policy, due attention on the indigenous development of speciality fibres in order to attain near self-sufficiency in the key raw materials required for production of technical textiles is proposed. Simultaneously, the policy also attempts to provide necessary impetus for increasing the usage of technical textiles so as to bring our country at the same technological level (in usage of technical textiles) as that of developed world.

Approach & Policy Interventions

104. There are numerous types of speciality fibres present globally, but not all are of strategic importance from the policy attention point of view. A limited number of speciality fibres have been identified that can be successfully developed in the country and be useful to the industry and the economy in the future. List of the 23 speciality fibres as identified are:

- Meta Aramids
- Para Aramids
- FR Modacrylic
- Superabsorbant Fibre

- High Density Polyethylene (HDPE), High Modulus Polyethylene (HMPE)
- Carbon Fibre
- Polyphenylene sulfide Fibres (PPS)
- Glass Fibre
- Flame Retardant (FR) Viscose
- Flame Retardant (FR) Polyester
- High Tenacity/ Super high tenacity Nylon (more than 7 gpd)
- High Tenacity/ Super high tenacity Polyester (more than 7 gpd)
- High Tenacity/ Super high tenacity Polypropylene (more than 7 gpd)
- High Tenacity/ Super high tenacity Viscose (more than 7 gpd)
- Ceramic Fibre
- Polytetrafluoroethylene (PTFE)
- PBI Fibres
- PBO Fibres
- Anti-microbial/Anti-fungal/Anti-bacterial Fibres
- Phenolic Fibre
- Conductive Fibre
- Fibre for concrete re-enforcement
- Alginate Fibre

105. The indigenous development of speciality fibres is highly dependent upon the demand for these fibres in the domestic market from the downstream industry, i.e. the technical textile manufacturers. Thus, besides the recommendations for speciality fibres, the policy also proposes specific fiscal and non-fiscal recommendations for technical textile products with a view to increase their consumption and production in India.

106. The fiscal and non-fiscal recommendations for speciality fibres and technical textiles are as below.

107. Fiscal Measures for Identified Speciality Fibres

1. Excise duty on focus speciality fibres to be reduced to incentivize the focus speciality fibres;
2. Import duty and CVD on additives used in Flame retardant speciality fibres and other speciality fibres to be removed;
3. Capital equipment used in the manufacture of identified speciality fibres to be exempted from Custom duty
4. The government to consider introduction of a *Special Incentive Package* for enabling Indian or foreign companies to set up manufacturing facilities for

speciality fibres, thereby strengthening the raw material base for Indian technical textile industry

108. Fiscal Measures for Technical Textiles

1. Excise duty levied on nonwovens should be uniform with that levied on other textiles.
2. Non-woven & converted products to be covered under DEPB scheme.
3. Excise duty on baby diapers, sanitary napkins and incontinence diapers to be rationalised
4. The customs duty exemption to be allowed even to an independent manufacturer of aramid fabric, which will be used for production of bullet-proof jackets for defence and police personnel
5. State Governments would be pursued for uniform VAT/ GST rates for technical textiles products irrespective of the base fibre used and irrespective of the source of origin of the product, whether from domestic market or from imports
6. Government to consider higher funding to provide incentives to encourage development of downstream technical textiles industry, viz.- 25% capital subsidy to be provided in lieu of 10% capital subsidy and 5% interest rate subsidy to small & medium entrepreneurs (upto capital investment of Rs 2 crores) engaged in manufacture of technical textile products

109. Non-fiscal Measures for Identified Speciality Fibres

1. An R&D centre for speciality fibres with a funding of at least Rs 50 crores to be set up at either NCL Pune, one of the IITs or UICT Mumbai
2. Incubation centres to be set-up for transfer of technology and acceptance of innovative technologies by the industry
3. Well-equipped laboratories to be set-up in the four Centres of Excellence to extend support of the industry in fields of testing and development, as per the requirements
4. Specific HS codes for Speciality fibres whose HS codes could not be identified to be notified. Also, converted products of non-woven to be prescribed a specific HSN code.

110. Non-fiscal Measures for Technical Textiles

1. Standards to be notified for specific segments of Technical Textiles where standardization is required on a priority basis include Geotech, Buildtech, Protech, Meditech, and Agrotech
2. Ministries to issue guidelines which would increase the level of adoption and awareness levels of Technical Textile products and aid in creation of a large

market for these products in India. Some specific initiatives and support required from other ministries include:

- Mandatory usage of fire retardant fabrics in exhibition centres, cinema halls and other public places
- Mandatory usage of fire retardant apparel for fire-fighting personnel
- Increased usage of geo-synthetics in infrastructure development projects
- Increased usage of nonwoven disposable Meditech products in medical institutions and hospitals

3. In order to boost the consumption of Technical Textile in India, following measures to be undertaken by concerned Ministries to increase the level of awareness of Technical Textiles:

- Participation in medical fairs to promote the usage of Meditech products (especially nonwoven single use products)
- Organization of symposiums, road shows in different parts of India so as to familiarize people with the application and benefits of products
- Creation of framework for partnership in rural areas
- Creation of specific programs for end use application to educate users about benefits of the products
- Incorporation of new generation medical textiles manufactured from MMFs and their blends in Indian Pharmacopoeia and change in Schedule F-2 of Indian Drugs & Cosmetics Act
- Infrastructure projects could be modified to DBOT from BOT to emphasize more on initial design so as to enhance usage of latest material and technology relating to geotextiles
- Various Ministries could make amendments in certain existing Policies/Acts/Guidelines to directly/indirectly boost the growth of Technical Textiles in India

4. Technology Mission on Technical Textiles to be initiated at the earliest as it will boost domestic production as well as consumption of Technical Textiles in the country;

5. In order to meet the stringent and critical performance related requirements of Technical Textile products in the international markets, it is recommended that world class testing facilities to be promoted to be set-up in India. These facilities will assist in accurately evaluating the products to meet international requirements;

6. Technical textiles to be included in the syllabus and curriculum of educational institutions at B.Tech/B.E. and higher levels in all related branches of engineering and technology, architecture and medicine to ensure availability of skilled manpower over the long-term.

Man Made Fibres

111. To meet the objectives of attaining high growth and increasing the competitiveness of Indian textile industry, a special emphasis is required on improving the competitiveness of Indian man-made fibres and textiles industry as it can drive the growth of the industry in future, both in domestic as well as export markets. This requires addressing of issues and constraints faced by the industry at present:

- **Lack of global competitiveness:** Indian man-made fibres textile industry has not been able to create a mark in the global textiles market post dismantling of textile quotas even though cotton textiles industry has witnessed a substantial growth. Since dismantling of quotas (2005 onwards), Indian cotton apparel exports to the world have grown at about 10.7% CAGR, while MMF apparel exports have witnessed a decline.
- **Limited number of players:** There are only a few big players manufacturing man-made fibres in India. The industry follows a pricing policy on import parity basis at landed cost. However, MMF producers export man-made fibres at lower prices than in the domestic market.
- **Levy of anti-dumping duties:** Indian MMF textile manufacturers are also faced with higher fibre prices as against their global counterparts on account of levy of anti-dumping duties on imports of majority of man-made fibres. This in turn affects the availability of fibres to MMF textile manufacturers at competitive prices.

112. Addressing the above and other concerns of the industry following recommendations are being made:

- (1) A **fibre - neutral excise policy** is recommended i.e. all textiles and fibres should attract the same excise duty i.e. 4% optional. A major concern area has been the historical discrimination of man-made fibres and textiles against cotton and cotton textiles in the form of higher excise duties.

Although there has been substantial reduction in excise duties on man-made fibres and textiles during the last 10 years, the current duties on MMF and MMF textiles are still high; while cotton is exempt from excise duty, MMF attracts excise duty of 10%. Further, while MMF textiles attract a mandatory CENVAT of 10%, cotton textiles have an optional CENVAT of 4%. Any reduction in excise duties on MMF and MMF textiles will have a highly positive impact on the growth of MMF consumption.

- (2) **Customs duty exemption** is recommended for **specialized MMF** which are not produced indigenously. Various specialised man-made fibres (like acetate/ tri-acetate, cuprammonium filament yarn, nylon 66, nylon 11, lycra, etc) are not being manufactured in India despite having huge potential and thus have to be imported by the weavers.
- (3) **Customs duty exemption on raw materials and additives** that are primarily imported.
- (4) **Removal of 4% Special Additional Duty (SAD) on imports of man-made fibres to make the same available to domestic consumers at competitive prices.** Presently, Special Additional Duty (SAD) of 4% is levied on the import of basic raw-materials for MMF textiles such as fibres & filament Yarns. 4% SAD can be availed as Cenvat Credit by the manufacturer. This credit can be used to pay Excise duty on the finished products manufactured out of such raw-materials that are imported. However, while there is a mandatory Excise duty of 10% on manmade fibres and yarns, there is optional Excise duty at successive stages of production such as Spun yarn, fabrics, made ups etc. Majority of the manufacturing units in the manmade fibre sector have opted for the exemption route and therefore cannot avail of the Cenvat Credit of 4%. This adds to the cost for the manmade fibre textiles manufacturers. Therefore, it is recommended to exempt SAD at 4% on the import of manmade fibre textiles to make available the inputs at competitive prices.
- (5) **Export oriented incentives** should be provided to manufacturers of MMF textiles and garments for a limited period to neutralize the impact of cost-disadvantage vis-à-vis exporters in competing countries. This could

include higher drawback rates and inclusion of processed fabrics, made-ups and garments made of man-made fibres under the Focus Product Scheme. A **Graduation Scheme** for three years would be introduced under the Focus Product Scheme with benefits of 10% in first year, 7% in second year and 3% in third year. This scheme would cover man-made textiles and garments.

(6) Schemes for capacity expansion and up-gradation of machinery

At present, TUFS is available to the textile industry for up-gradation of machinery. However, under TUFS, all the segments of the textile industry including VSF and VFY are covered **except** manufacturing of synthetic fibres and yarn (i.e., PSF, PFY, NFY, ASF, PPSF, PPFY etc.) as the latter is administered by the Ministry of Chemicals and Petrochemicals. Given that man-made fibres are used by the textiles industry, incentives provided to MMF industry for technological up-gradation will ultimately benefit the user industry.

- a) It is recommended that synthetic fibres should be covered under TUFS with fund support from their administrative Ministry i.e. Department of Chemicals and Petrochemicals.
- b) The machinery for manufacture of synthetic fibres post polymerisation may be covered under TUFS.
- c) The post polymerisation machinery may be benchmarked by TAMC in consultation with proposed advisory council on MMF.
- d) To encourage setting up of small size units, particularly from chips the restriction on term loan and also on capital cost may be fixed by IMSC in consultation with TAMC and proposed advisory council.

113. The coverage under TUFS will result in attracting more investments, entry of more players, increasing the availability of MMF at competitive prices.

Setting up of MMF advisory council

114. An MMF advisory council with all the stakeholders may be set up to note, advice and also to take an integrated approach to solving the problems of MMF producers and users of MMF and to accelerate their growth.

115. Such a scenario would result in high growth of man-made fibres and textiles industry, thereby contributing to higher revenues, increase in employment

generation, and higher foreign exchange earnings. Financial implications of these recommendations would be balanced by the intangible **benefits and cascading effect in the economy.**

Generic Recommendations

Consultation with Ministry of Textiles for Anti dumping duties

116. At present, there are apprehensions amongst MMF textile players that often anti-dumping duties are levied on man-made fibres without adequate consultation with the concerned user industry. In order to redress the grievances of the user industry, it is recommended that introduction of anti-dumping duties on man-made fibres must involve consultation with the Ministry of textiles to truly reflect the concerns of the user industry. At present this is restricted to Department of Chemicals and Petrochemicals.

Institutional support for initiating anti-dumping proceedings

117. The users of man-made fibre generally constitute small players who are not able to initiate anti-dumping proceedings for their products, as it involves huge costs. Thus, there is a need for introduction of an institutional mechanism to provide support (financial and other) to industry associations to initiate and defend the anti-dumping proceedings / safe guard duties.

Priority in gas allocation to processing units

118. MMF manufacturing and processing units are generally more energy intensive and thus to ensure cleaner environment, it is recommended that these units should be given a priority under the gas allocation policy, at par with the power sector. This would reduce their dependence on coal and thus contribute towards greener environment.

JUTE

Preamble

119. Government recognizes the significance of jute in India's economy, which provides sustenance to more than 44 lakh people including jute farmers, workmen, labourers and self employed artisans and weavers, especially in the Eastern and North-eastern parts of the country, where it is the mainstay of agro based industries. It has been recognized that jute and allied fibres occupy a unique position as eco-friendly, biodegradable renewable natural fibres with substantial value addition at each stage of processing. The policy aims to enhance the welfare and well-being of farmers, farm labour, workers, particularly those in the unorganized sector and assure a secure future for their families in every respect through offering remunerative earnings across the value chain. The policy also aims to increase the use of jute in new areas in order to ensure a sustainable growth of the sector and as a measure towards environment protection.

Current Scenario

120. Jute is a rotational crop which is grown once a year between March / April and July / August (90 – 110 days). There are different grades of jute viz. TD 1 to TD 8 (Tossa variety) and W1 to W8 (White variety) and six grades of Mesta M1 to M6. Tossa Daisee (TD) jute is the most commonly used by industry. TD 4 and TD 5 constitute of almost 60% of the total jute production. The present production level of raw jute in the country averages at about 95 lakh bales comprising about 85 lakh bales of jute and about 10 lakh bales of Mesta. (1 bale=180 KG). However, growth in raw jute production has remained flat in the last 10 years and the area under cultivation has witnessed a decline.

121. The Prices of raw jute have been very volatile, across the seasons as well as within the year with lower prices at the start of the jute season and higher prices at the end of the season. During the last two years, the prices have shown an exceptional increase due to increase in demand of jute goods and stagnation in supply.

122. The jute industry has grown marginally at a CAGR of 0.1% in volume since 1999, but it has grown in value terms largely because the costs have increased over the years. Sacking and Hessian has been the mainstay of the Jute industry constituting around 82% of total production of jute goods. Domestic consumption of jute goods contributes to around 87% of the production. Sacking is the key product in the domestic market and yarn and hessian are key products in export

market. However the share of sacking in exports has been going up while the share of Hessian and yarn has been coming down.

123. The world production of jute fibre was 2668.20 thousand tons in 2007-08 of which India's production was 1642.30 thousand tons i.e. around 62 percent. Other producers are Bangladesh (37%) and Myanmar (1%). India is the leading producer of jute products. It produces about 70% of the world's estimated production.

124. The global export jute products were 832.7 thousand tons in the year 2007 out of which India's share was 175.6 thousand tons which is about 21 percent. Other major exporters of jute products include Bangladesh which is having a market share of 66%. Over the last five years, the share of Indian exports in World trade has been coming down in tonnage terms.

Issues Faced By Jute Sector

125. The constraints faced by the jute sector leading to the present problems are identified as follows-

(A) Agriculture

- (a) Lack of adequate availability of certified seeds
- (b) No major breakthrough in development of HYV seeds.
- (c) Lack of awareness of HYV seeds developed so far.
- (d) Low incidence of mechanised farming.
- (e) Poor price realisation to farmers.
- (f) Increase in preference for alternate crops.
- (g) Shortage of farm labour
- (h) Volatility in prices and ineffective price stabilization mechanism

(B) Demand constraints

- (a) Dominance of single product – sacking.
- (b) Dominance of domestic consumption. Domestic consumption is dominated by sacking for packing of reserved products.
- (c) Stagnant volumes for non-sacking products.
- (d) Absence of institutionalized marketing effort at an industry level
- (e) Lack of awareness about jute in developed nations.
- (f) Price competitiveness of jute products vis-à-vis their rival products.

(C) Technological issues of Industry

- (a) Jute industry predominantly produces traditional products like sacking and hessian using age old technology.

- (b) Stagnant worker and machine productivity leading to the high conversion cost.
- (c) No major technological breakthrough that has been widely adopted by the jute industry after the change from rove to sliver spinning system in early 1960's.
- (d) Poor work culture within the mills, lack of proper training for operation, maintenance and poor working conditions etc.
- (e) Slow adoption of advanced technologies.

Vision For Jute Sector

126. Jute is a natural, environment friendly fibre. The current scenario of environment consciousness has opened a new potential for the sector, which can be exploited by entering into new markets and new products. Endowed as the Indian Jute Sector is with multifaceted advantages, it shall be the policy of the Government to develop a strong and vibrant sector that can:

1. Compete with confidence in the domestic and global market and become self sustaining;
2. Ensure remunerative returns to the jute farmers.
3. Produce good quality fibre and products to meet the requirements of the domestic and international demand; and
4. Increasingly contribute to sustainable employment and the economic growth of the nation.

127. Objectives Of The National Fibre Policy On Jute

1. Enable the jute industry to build and adopt world-class state-of-the-art manufacturing capabilities in conformity with environmental standards;
2. Facilitate the Jute Sector to attain and sustain an eminent share in the global and domestic market of technical textiles;
3. Enable jute farmers to produce better quality jute fibre and to enhance yield of raw jute substantially and facilitate skill development and upgradation of the workforce of the industry;
4. Sustain and strengthen the traditional knowledge, skills, and capabilities of our weavers and craftspeople engaged in the manufacture of traditional as well as innovative jute products;
5. Encourage stakeholders to collaborate, develop mechanisms and undertake activities that assist in bringing about overall development of the jute sector;
6. Make Information and Communication Technology, an integral part of the entire value chain of jute and the production of jute goods, and thereby

facilitate the industry to achieve international standards in terms of quality, design, and marketing;

Thrust Areas Of The National Fibre Policy On Jute

128. In furtherance of the above objectives, the strategic thrust will be for a new Commodity Development Strategy incorporating the following:

(A) In order to increase the productivity & improve the quality of jute fibre, following approach needs to be followed:

1. Increase availability of certified seeds and improve distribution of the same through government agencies / channels.
2. R & D for development of new variety of seeds involving reputed seed companies.
3. Develop and adopt new retting practices or other methods for extraction of the fibre from the jute plants to ensure quality upgradation of the fibre, reduce the water requirement and make the process less physically demanding for the farmers.
4. Increase penetration of new farm techniques by conducting awareness programme.
5. Empower the growers, improve the marketing systems and infrastructure and develop buffer stock of jute seeds.
6. Encourage contract farming for jute as well as Organic Jute.
7. Use of modern crop assessment techniques, such as satellite imagery for deciding government interventions.

(B) Improve the existing marketing systems and infrastructure to improve farm remuneration by-

1. Organising the growers into self help groups and empowering them to address their issues will go a long way in reducing the volatility in raw jute prices and ensuring better returns to them.
2. Taking up with state governments to strictly implement the provisions of APMC act to increase the volume of trade of raw jute in the premises of market yards.

(C) Stabilising Raw Jute Prices and ensuring raw jute security for manufacturers and market by developing buffer stock of raw jute with Jute Corporation of India.

(D) Providing Incentives to Jute Industry for modernisation:

129. The government has been providing 100% reservation for packing Sugar & Food-grain in Jute since 2005. This has provided an assured market for jute sacking and thus sustenance of the sector. Further, Government agencies, that procure 60% of the sacking produced by the industry buys jute sacks on an administered price mechanism based on Tariff Commission formula. The stagnation in efficiency criteria in the Tariff Commission formula has left no incentives with the jute industry to modernise and reduce the conversion costs. Therefore, it shall be the policy of the government that while continuing the protection to the industry (by way of reservation in JPM Act) gradually induct efficiency criteria in the administered pricing formula to ensure that the mills modernize their processes progressively during this period. This would be undertaken by the following measures-

- a) The man days taken for pricing the government purchase would progressively be reduced from the present level to the best (top quartile) man days achieved in the industry by the end of the third year.
- b) The raw jute to jute bag conversion ratio would be progressively reduced from the present levels to the best (top quartile) conversion ratio achieved in the industry, by the end of the third year.
- c) From the fourth year onwards pricing will be based on the best (top quartile) achieved parameter in all the parameters used to determine the pricing.

(E) Market Development of Jute Diversified Products:

130. The JPM Act provides an assured market to the jute used in packaging due to which, 60% of the market for jute products is sacking. The government shall endeavour to reduce the dependence of the industry on sacking by on one side gradually reducing the level of reservation, while on the other promote and develop markets for non-traditional products such as geo-textiles, composites etc. The government shall further promote marketing of jute diversified products such as carry bags, furnishings, etc.

131. In the interest of equity, inclusive growth to the rural economy and artisans, the government shall intensify its support to Small and Micro-enterprises, NGOs and SHGs that produce & market jute diversified products. They would be developed to be substantial consumers of non-sacking jute products, and thus provide alternate market for jute products.

(F) Enhancing the scope and funding in Jute Technology Mission for-

1. Creation of a Jute Development Fund for R&D efforts in modern machinery development in Jute Sector.
2. Modernization of industry and adoption of new Technology

3. Improve working conditions at the shop floor, develop better work culture and adopt better maintenance practices.
4. Skill Development and Upgradation of the Workforce:
5. Export Market Development:
6. Product Development and Marketing:
7. Strengthening of informal sector for production of Jute Diversified Products

SILK

132. In spite of significant improvement in production in 2009-10, **gap between demand and supply** is likely to remain in the medium term horizon. The National Fibre Policy recommendations for the sector are aimed at bridging the gap between domestic demand and supply both in terms of quality and quantity, and at reducing the country's dependence on import of raw silk, while maintaining a balance between the interests of all stakeholders in the value chain, including farmers, reelers, twistors, weavers and value-added producers. These objectives are designed to be achieved through a set of Fiscal and Non Fiscal Measures, focused R&D efforts and enhanced and intensified field extension work.

133. The policy recommendations in this report are so designed as to **encourage sericulture activities, improve the quality and output of fibre by intensive R&D and extension activities**, and to establish economies of scale through **modernisation and clusterization** of various pre- and post- cocoon activities, thereby promoting competitiveness of Indian Silk Industry in the global market.

134. In order to encourage farmers to adopt sericulture practices, a **price support scheme** would be formulated. The **existing and potential areas for** developing sericulture in the country will be mapped through ISRO remote sensing satellite images and schemes will be implemented in a concerted manner in non-traditional new areas as well.

135. Domestic production of silk needs to be augmented through constant up-gradation of sericulture technology and productivity improvement through research, skill enhancement and modernisation to match the international standards. Sustained R&D efforts are recommended for systematic development and strengthening of silkworm seed production, for improvement in productivity of silkworm food plants through soil enrichment adopting eco-friendly measures and for development of mechanisation in sericulture farming and silkworm rearing to **reduce labour inputs**. Modernising the silk production and processing to improve

the yield quality, uniformity and precision to arrive at the desired output will be a priority.

136. Centrally Sponsored programs for R&D and extension works through Central Silk Board and State Sericulture Departments shall be strengthened and monitored to achieve these objectives. R & D by private players will be encouraged. Efforts will be made to **include sericulture within the Rashtriya Krishi Vikash Yojana (RKVY)** to provide additional incentives to the sericulturists.

137. India has the unique distinction of producing the commercial varieties of non mulberry silk. These varieties of silk fetch premium in the international markets. Therefore, adequate thrust would be laid for development of this segment of the silk industry. Vanya Silk would be promoted as **Eco Silk** by providing support for eco friendly production and processing in the form of subsidy/incentives, especially by convergence with other developmental programmes.

138. Further, there is a need to provide an effective linkage between various stages in the value chain of silk and create a cost effective structure for conversion of fibre into value added products. Post cocoon activities are required to be upgraded through technology transfer and creation of scale economies through **cluster development**, introduction of **high end machineries** and creation of **common facilities for processing, degumming, dyeing**, etc.

139. Existing cluster development programmes and **Catalytic Development Programme (CDP)** are to be modified to encourage automatic reeling/dupion reeling machinery and to provide for subsidy for production of bivoltine silk on the basis of grading alongwith dovetailing of various on going programmes. **Fully integrated Silk Clusters** will be organized in silk growing and weaving areas in south, north and north-east regions with strong hinterland linkages.

140. Mechanisms need to be put in place for ensuring **availability of raw silk** to the domestic weavers and producers of value-added products. Efforts will be made to get **Silk Fabric, Garments & Made-ups included in Focus Product Scheme** and to get sericulture included in VKGUY.

141. Though India produces a significant quantity of silk and exports niche products to the global market, awareness about Indian silk, its quality and brand is missing. A concerted effort and campaign would be made to promote and **establish 'Indian Silk' as a brand** in the global market.

WOOL

142. The policy recommendations for the wool industry towards a sustained long-term growth, include the following two categories –

1. Fiscal measures, which mainly include rationalization of the import duty structure for import of wool and wool tops. Duty rationalization is looked from the perspective to encourage value addition by the domestic industry by importing quality raw material to export woollen products, and in the process earn valuable foreign exchange for the country and generate sustainable employment too; and
2. Non-fiscal measures, which are required to provide boost towards improving the quantity and quality of wool in India.

Fiscal Measures

Duty structure rationalization

143. The country is dependent on imports for quality wool to meet domestic as well as export requirements. India is dependent on Australia for its requirements for apparel grade wool. The domestic raw wool production is estimated to grow at a marginal CAGR of 1% during 2009-10 to 2014-15. Given the requirements of the Indian wool and woollen products industry for both, domestic and export purposes, imports of wool are estimated to increase at a CAGR of 11.7% during 2009-10 to 2014-15.

144. In this respect there is need to reduce import duty on finer quality of raw wool (of less than 25 micron) and waste wool and wool tops (of less than 25 microns)

Non Fiscal Measures

Carpet grade wool

145. The domestic industry has potential in carpet grade wool, and therefore efforts should be concentrated on increasing the production of carpet grade wool to reduce our dependence on imported wool. India has some of the best carpet grade wool producing sheep breeds such as Magra, Chokla, Nalli and Bikaneri. Thus, focus should be laid on these selective sheep breeds.

146. This should be done through increased thrust on cross-breeding programmes with an aim to bring down the micron structure of the carpet grade wool. At the

same time, efforts should be made for selective breeding and for cross breeding of imported sheep breeds with inferior and widespread local breeds, so as to increase the fleece and body weight, resulting into better returns to the sheep rearers.

147. Selective breeding farms should be encouraged to be set up, preferably in the private sector or as joint ventures towards improving the production and quality of carpet grade wool.

148. The 'Bikaneri Chokla' wool is considered to be the best indigenous carpet grade wool. With a view to preserve this breed of sheep and improve upon its number, selective breeding programmes should be implemented.

149. The cross-breeding programmes should be implemented in conjunction with the respective State Departments of Animal Husbandry and Central Govt. department of Animal Husbandry (Ministry of Agriculture) to ensure better synergy and involvement, in order to achieve the laid objectives.

Highland wool

150. Iran is among the leading exporters of wool knotted carpets in the world. There is rising preference for Iranian carpets, and this can be attributed to use of highland wool in production of their carpets. This kind of wool can be developed in the hilly tracts of India such as Ladakh, hills of Uttar Pradesh and West Bengal, Sikkim, Arunachal Pradesh and Himachal Pradesh, etc. Efforts should be focused on implementing programmes for producing highland wool in these regions.

Deccani wool

151. Adequate focus should be laid on implementing long term cross-breeding programmes with an aim of improving the quality of Deccani wool (presently the Deccani wool is generally black in colour), and obtaining finer variety of the wool (less coarse fibre). The ultimate aim of these programmes should be to upgrade the use of the Deccani wool to make them suitable for use in carpet making, as against the current practice of using them in making low-value blankets.

Speciality Fibre

152. Although India has presence in specialty fibre production such as Angora, Pashmina, etc, we have not been able to increase its production. Growers of these specialty fibres should be provided with adequate extension support for marketing to encourage them to take up this activity.

153. Certain regions in the Southern part of India have climatic conditions which are suitable for production of specialty fibre such as Angora, Pashmina, etc. Focus

should be laid on exploiting this opportunity and appropriate schemes should be implemented to produce these specialty fibres, particularly since they have export potential.

Bring down mortality rate from current 12-15% to 3-5%

154. Domestic production of wool is not sufficient to meet demand. This is also because of high mortality rate among sheep, which currently is at about 12-15%. This is because of lack of adequate healthcare and veterinary facilities. With proper healthcare facilities, it is possible to bring down the mortality rate to as much as 3-5%. Moreover, with proper nutritional support, an increase in wool yield up to as much as 50% can be achieved. Hence, the government policy should focus on extending proper nutritional support facility, and adequate healthcare and veterinary facilities. Government should also organise healthcare programmes for better management of sheep at farmers' level.

155. Awareness and training camps should be organised for shepherds for wool improvement, productivity and sheep management. Camps should be organised to educate and train the sheep breeders on the techniques and advantages of proper rearing practices, nutrition support, healthcare measures, such as vaccination, disease management, etc.

156. An inter Ministerial Task Force shall be constituted comprising of the Ministries of Textiles and Animal Husbandry for this purpose.

Undertake collaborative research projects with leading wool producing countries in the world

157. The industry should undertake collaborative research projects with the major wool producing countries, with necessary support from the government. Some of the international organisations with which India could enter into collaborative research projects include Australian Wool Innovation, Wools of New Zealand, Federacion Lanera Argentina, American Wool, South African Merino, British Wool Marketing Board, etc.

158. The research should be in the areas of breed improvement, with an aim to increase both, yield and quality of wool. Since Indian sheep lack in producing fine quality wool, the emphasis should be on developing such sheep breeds which can produce finer variety of wool, suitable for apparel making. At the same time, it

should also focus on carpet grade wool producing sheep, mainly through successful cross-breeding at 'live' conditions rather than at 'farm' conditions.

159. Also, since the mortality rate among Indian sheep is high, the research projects should focus on overcoming the diseases in sheep breeds and producing disease-resistant stud rams which are capable of thriving in local conditions.

Introduction of grading system & marketing support

160. To incentivise the sheep breeders by way of better wool prices, scientific grading system should be introduced. Awareness programmes should be organised to educate wool growers on the benefits of grading.

Strengthening the Central Wool Development Board

161. There already exist various schemes under the CWDB such as Integrated Wool Improvement & Development Programme (IWIDP), Quality processing of wool & woollen products, and Social Security Scheme for Sheep Breeders, aimed at development of the wool and woollen products industry. The Wool Research Association's activities are aimed at improving quality of wool through research efforts. However, these schemes/programmes are not fully able to yield the desired objectives. Thus, there is a need to review and redefine the role of the CWDB to make it more effective and to enable it to perform the tasks assigned to it appropriately. This should be done in close collaboration with wool producers and the user industry. A restructuring of the CWDB in lines with the Central Silk Board, Bangalore, will help it to implement the various schemes and policies in an effective manner and achieve the desired objectives.

Other Natural Fibres

162. A 'Focus Fibre Focus State' Approach would be adopted for development of Other Natural Fibres in the country. The chosen states for the selected fibres under the 'Focus Fibre Focus State Approach' are as follows:

FFFS Selection

- Banana: *Tamil Nadu*
- Pineapple: *Tripura*
- Sisal: *Orissa*

- Hemp/Nettle: *Uttarakhand*
- Flax: *Madhya Pradesh*

163. In these States common strategies for cluster approach would be taken up. Other interventions for development would include capacity building, training, creation of necessary infrastructure, aggressive international marketing, brand building and brand promotion would be taken up.

164. Amongst the fiscal measures for promotion of Other Natural Fibres are:

- 100% exemption on custom & excise duties on the import of plant & machinery, consumables, embellishments on natural fibres for enhancing the quality.
- 50% capital subsidy for entrepreneurs promoting Other Natural Fibre based industries.
- Tax holidays for manufacturing and exporting units for 10 years
- Interest subsidy for establishments (like TUFs)

HUMAN RESOURCE DEVELOPMENT

165. The projected size of the Indian Textile Industry by 2011-12 is US \$115 billion and the corresponding manpower requirement is estimated at 6.5 million. The shortage of skilled manpower is likely to be a major constraint faced by the textile industry for its growth. To surmount the huge skilled/semi-skilled gap of workforce, an Integrated Skill Development Scheme to impart employable skills in different segments (textiles, apparel, handlooms, handicrafts, sericulture, jute etc.) would be launched to train approximately 26.75 lakh persons over a span of 5 years.

166. The scheme would be specifically tailored-made to suit the requirement of entire segments of textile sector providing for a direct linkage with the job requirements in textiles areas. Apart from upgrading the existing infrastructure and resources of organisations within the Ministry of Textiles, participation of private sector in the training programmes shall be the major feature of this Scheme. The Scheme would address the existing and imminent skill gap so as to ensure that the textiles sector takes a quantum leap forward by 2015.

Financing Requirements

167. The non fiscal concessions envisaged under the National Fibre Policy would require enhanced plan allocations. A plan allocation of Rs. 32000 crores over the XII and XIII Plan period would be necessary for implementing the TUFS scheme for composite and integrated mills.

168. Textiles Ministry would also be seeking additional Plan allocations for implementing the other non fiscal measures envisaged under the National Fibre Policy. Plan allocations for Textiles Ministry have been witnessing a percentage growth of 25 percent in the 1997-2010 period. To implement the recommendations, Ministry of Textiles would be approaching Planning Commission for enhancing the Plan allocations by 25 percent per annum till the XIII Plan Period.

169. There would be substantial financing requirements for implementation of TUFS given the projection of growth of fibres in the next decade.

170. Ministry of Textiles would interact with the Ministry of Finance, Department of Revenue for the fiscal concessions envisaged under the National Fibre Policy.

171. There is likely to be a significant increase in domestic consumption of all textile products given the favourable demographic profile and enhanced purchasing power of the Indian consumer. The National Fibre Policy envisages to meet these rising demands with a timely acceleration and growth impetus to Fibre sector of India.