

global natural fibre forum

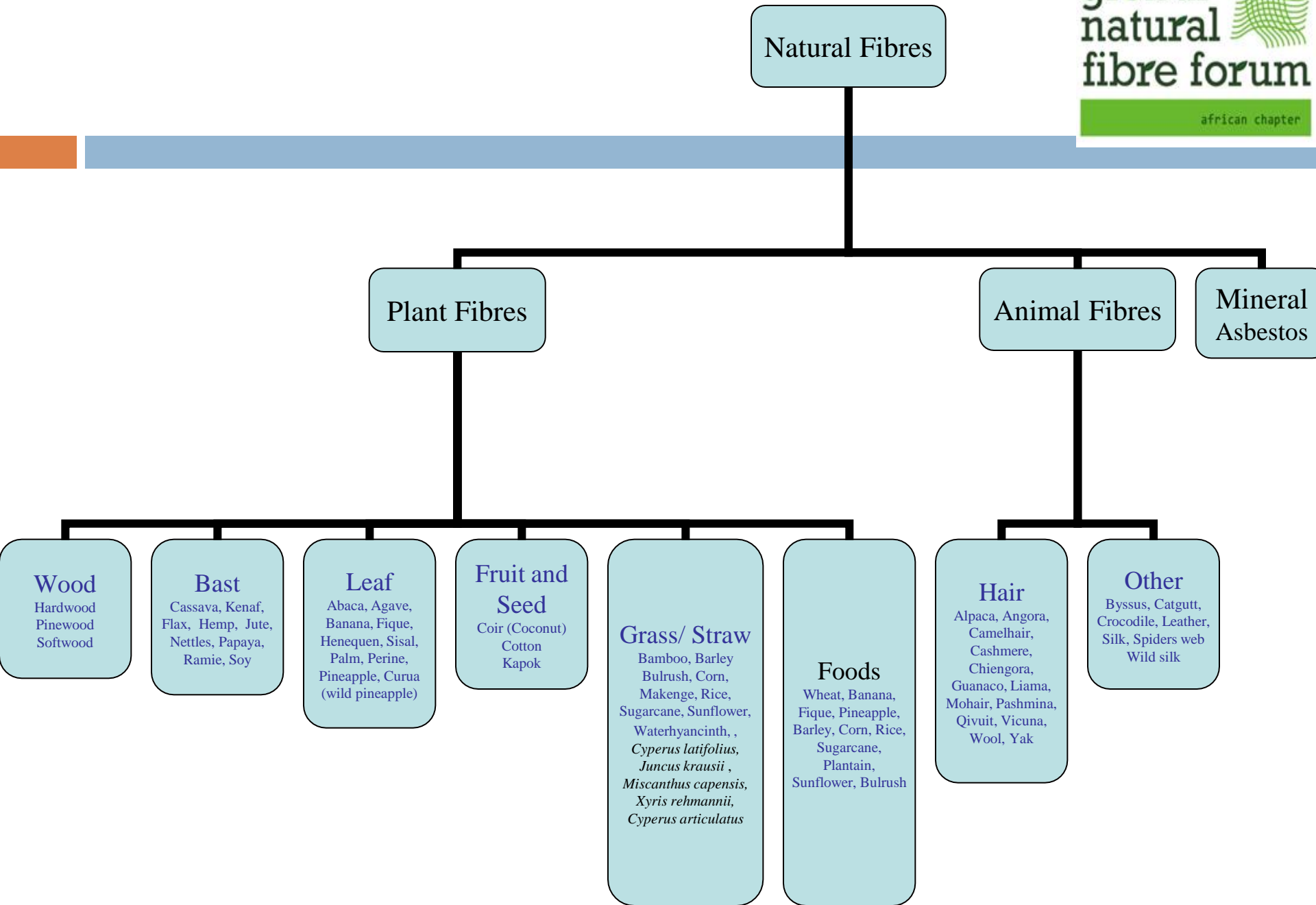


african chapter

Presented by: Dr. Thandeka Ruth Kunene

CEO House of Hemp SA

Regional Expert Consultant (GNFF Africa)



Summary from GNFF phase 1

Natural fibres come from localized resources which are significant livelihood assets.

The point of view of growers and primary processors is of significance. In addition the interest of secondary processors and producer organizations engaged in value addition should be represented.

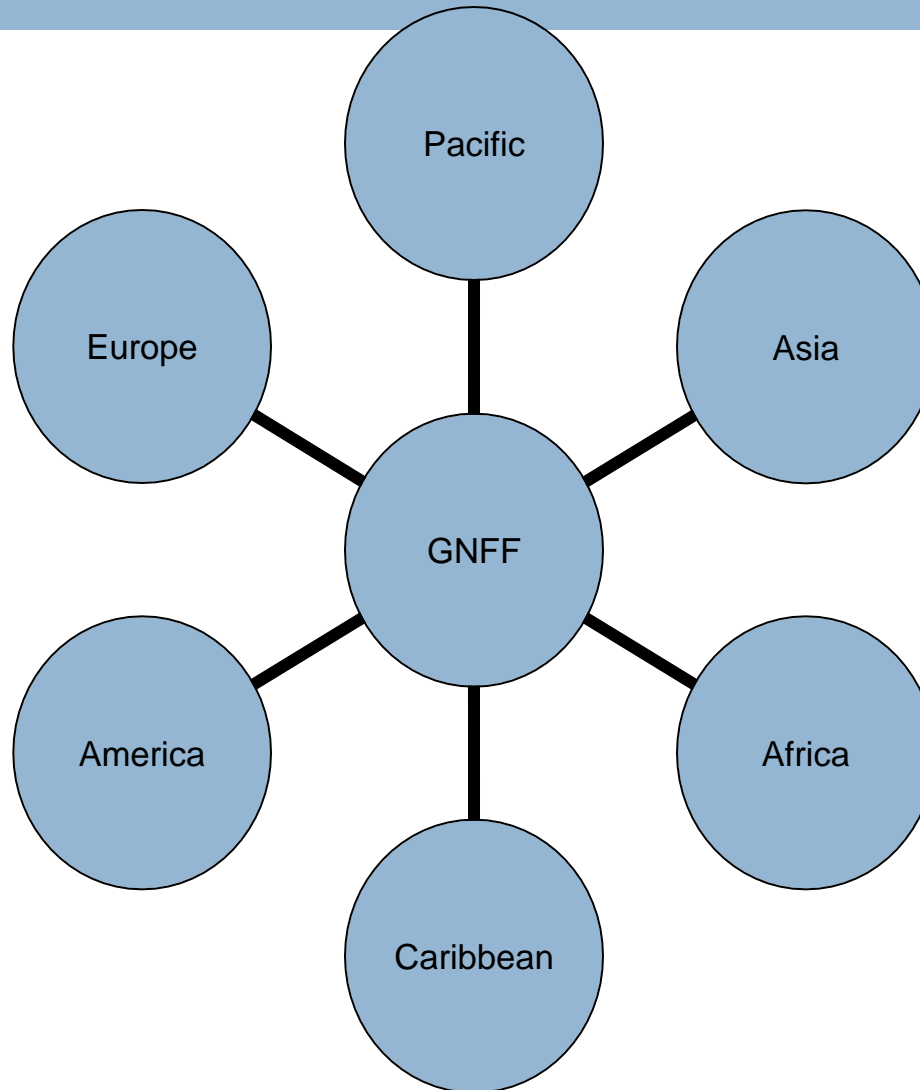
In the next 25 to 30 years, with reduced production of petroleum, the importance of Natural Fibres is bound to increase.

Therefore a global body to represent the interest of small artisan producers along with primary processors is the need of the hour. Therefore resolved to Set up Global Natural Fibres Forum with a objective to POPULARISE, PROMOTE and CREATE AWARENESS of the Natural Fibres as a Healthy choice; Responsible choice; Sustainable choice; High tech choice and Fashionable choice.

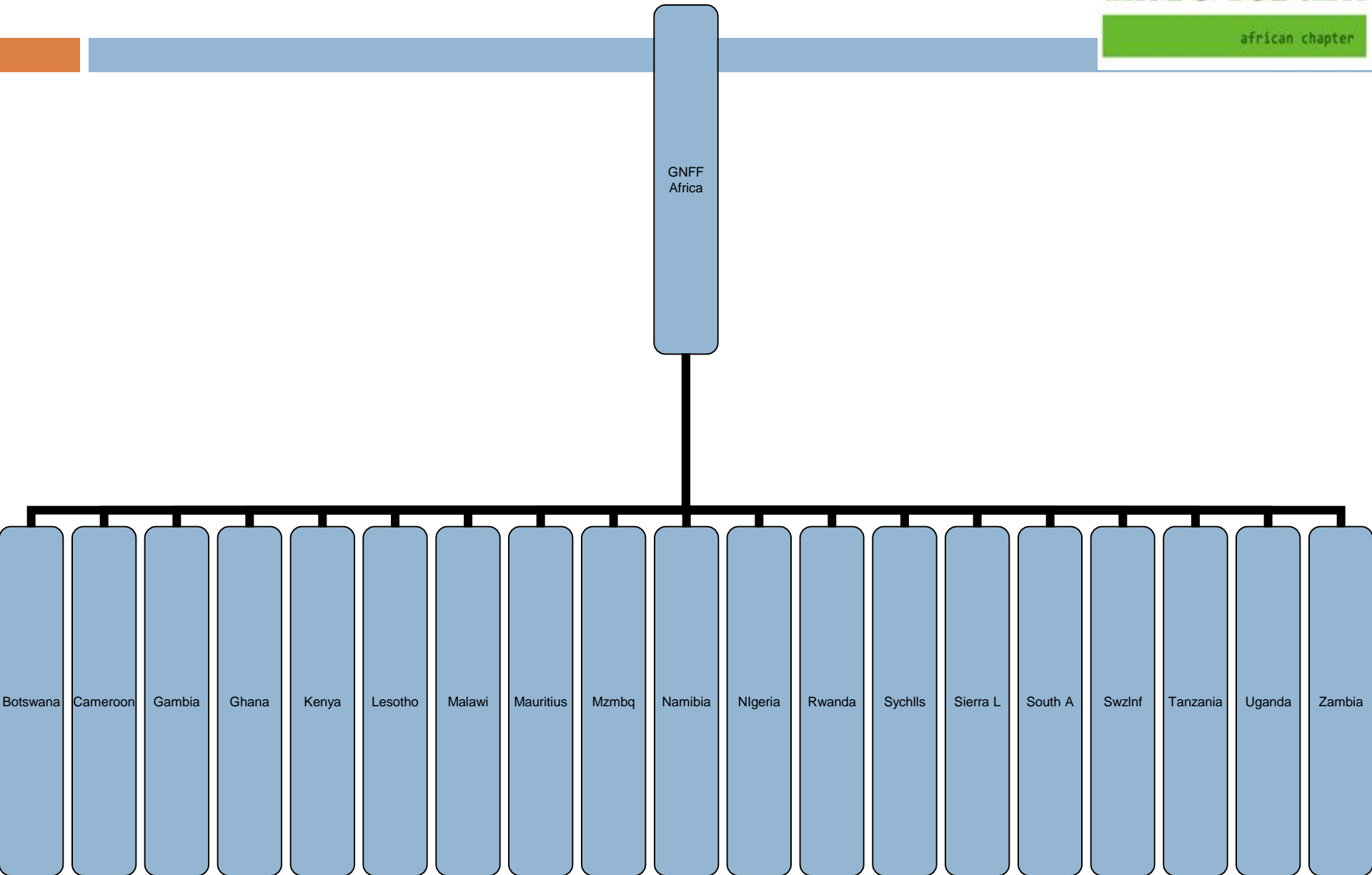
Many of the African countries have natural fibres but are underutilizing these fibres.

The Commonwealth Secretariat initiated to set up a Global Natural Fibres Forum (GNFF) to collect and distribute information around the use and economic value of natural fibres and how these fibres can be used in particular by poor communities in rural areas to uplift their live hoods.

Structure of the GNFF



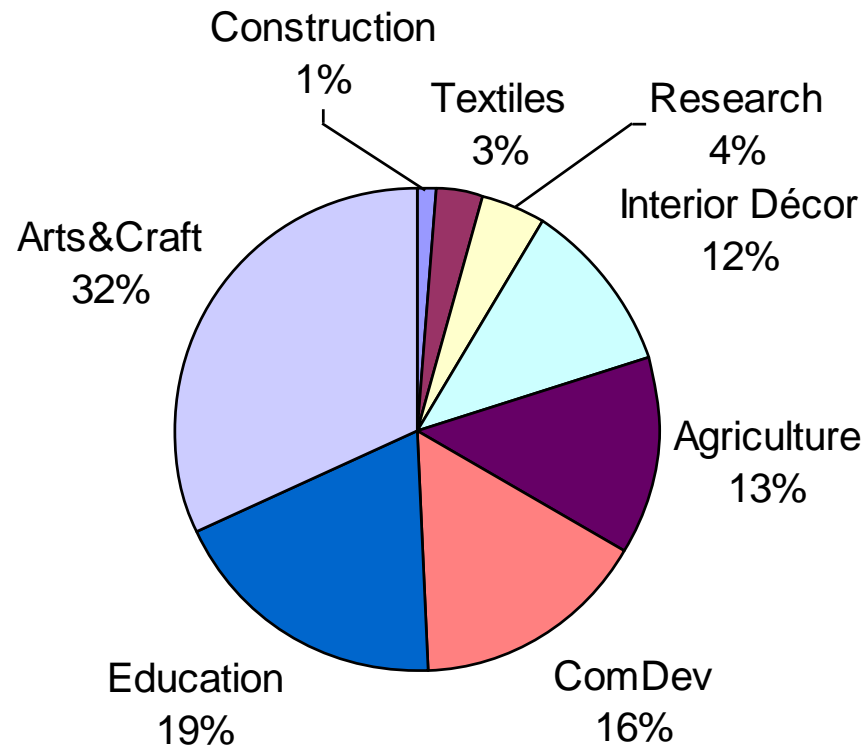
The African Chapter



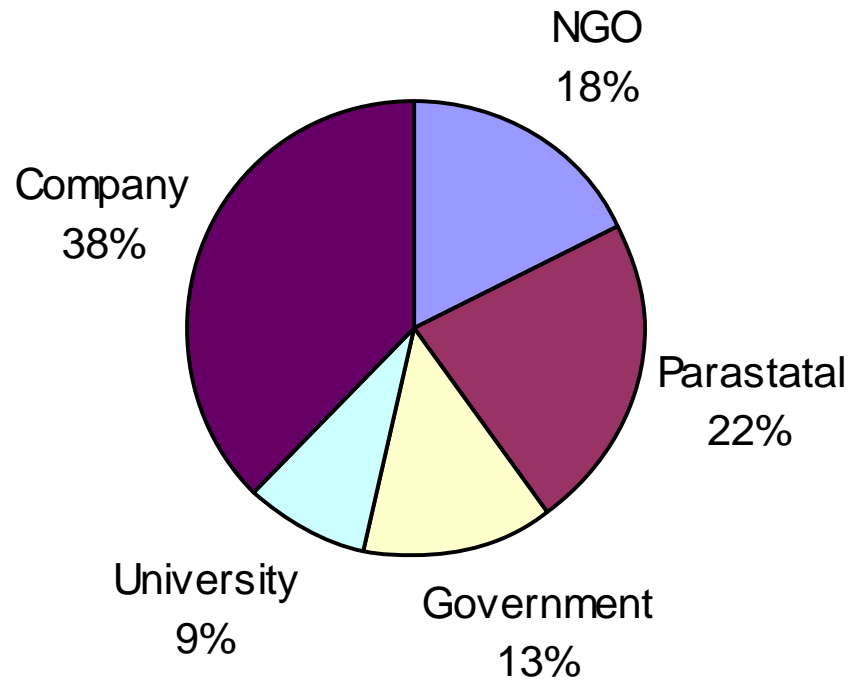
Phase 2 Project process

- What is happening in the region
 - ▣ Type of fibres that are grown
 - ▣ Initiatives / challenges / economic opportunities
 - ▣ Case studies
- The country chapter of the GNFF
 - ▣ What activities / services should the GNFF offer
 - ▣ Who are the key stakeholders that should be part of GNFF?
- GNFF Africa structure
- Three year GNFF intervention & sustainability program
- Exhibition of Africa's natural fibre products

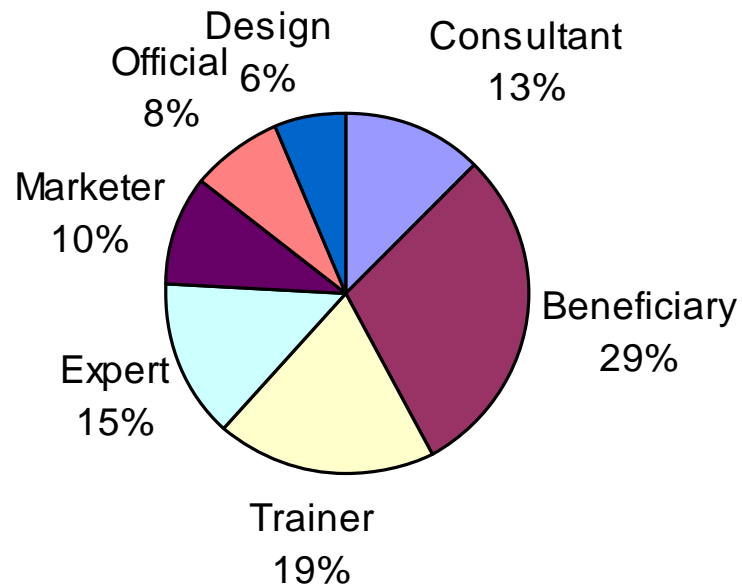
Questionnaire Respondents



Demographics of respondent



Demographics of respondent



Natural Fibres in Africa Region

1. Abaca
2. Agave
3. Angora
4. Bamboo
5. Bark Cloth
6. Banana
7. Barley
8. Bulrush
9. Camel Hair
10. Cashmere
11. Catgut
12. Cocoa
13. Coconut
14. Coffee
15. Corn
16. Cotton
17. Euphorbia
18. Flax
19. Grass
20. Hemp
21. Jute
22. Kassava
23. Kenaf
24. Leather
25. Llama
26. Millet
27. Mohair
28. Nettles
29. Palm
30. Papaya
31. Papyrus
32. Pashmina
33. Peanuts
34. Pineapple
35. Plantain
36. Qivuit
37. Ramie
38. Rattan
39. Rice husks
40. Rubber
41. Screwpine
42. Silk
43. Sisal
44. Sorghum
45. Soy
46. Sugarcane
47. Sunflower
48. Tobacco
49. Water Hyacinth
50. Wood
51. Wool

- Wild fibres which can be harvested.
- Comparative advantage in domesticated fibres that can be commercially grown.

Main current uses of fibres in AFRICA

- Harvested and sold as fibre bales.

- Handicraft, textiles and limited interior décor applications.
- Hand processing (Fibre, Yarn, Wovens).

- Almost negligent industrial uses.
- Few industrial processing
 - ▣ South Africa - Animal Fibre & Bast Fibres
 - ▣ Mozambique – Coconut & Pineapple
 - ▣ Tanzania – Sisal
 - ▣ Zambia – Cotton

Opportunities identified

- Alternative sources of renewable fuels
- Beneficiating the existing fibres
- Biodegradable products
- Bioenergy, BioChar
- Carbon credits
- Handicraft niche products that have some everyday use
- Import substitution
- Mosquito repellents (Use of tobacco & natural fibre tree oils like citronella)
- Natural Ceiling panels
- Natural dyes
- Natural fibre paper, pulp and packaging including tea bags
- Natural oils
- Organic fertiliser
- Replace plastics, asbestos and fibreglass,
- Toys from natural products
- Use fibre from factories that juice and pulp pineapple and coconut
- Fibre Waste management

Global industrial Uses

- Agriculture inputs (Fertiliser, Compost, Pesticides, Hydroponic Substrate)
- Animal care (Feed and bedding)
- Arts and Handicrafts
- Bio-Composites (Automotives / Aerospace)
- Bio-Composites (Building, Construction, Plumbing, Insulation)
- Bio-fuels (Biochar, Biogas, Biodiesel)
- Clothing and Textiles
- Cosmetics and Ointment
- Crates and plastic products
- Food and nutrition
- Interior Decor
- Medicines and Pharmaceuticals
- Nonwoven and Geotextiles
- Paper and pulp and packaging (Bio-composites)

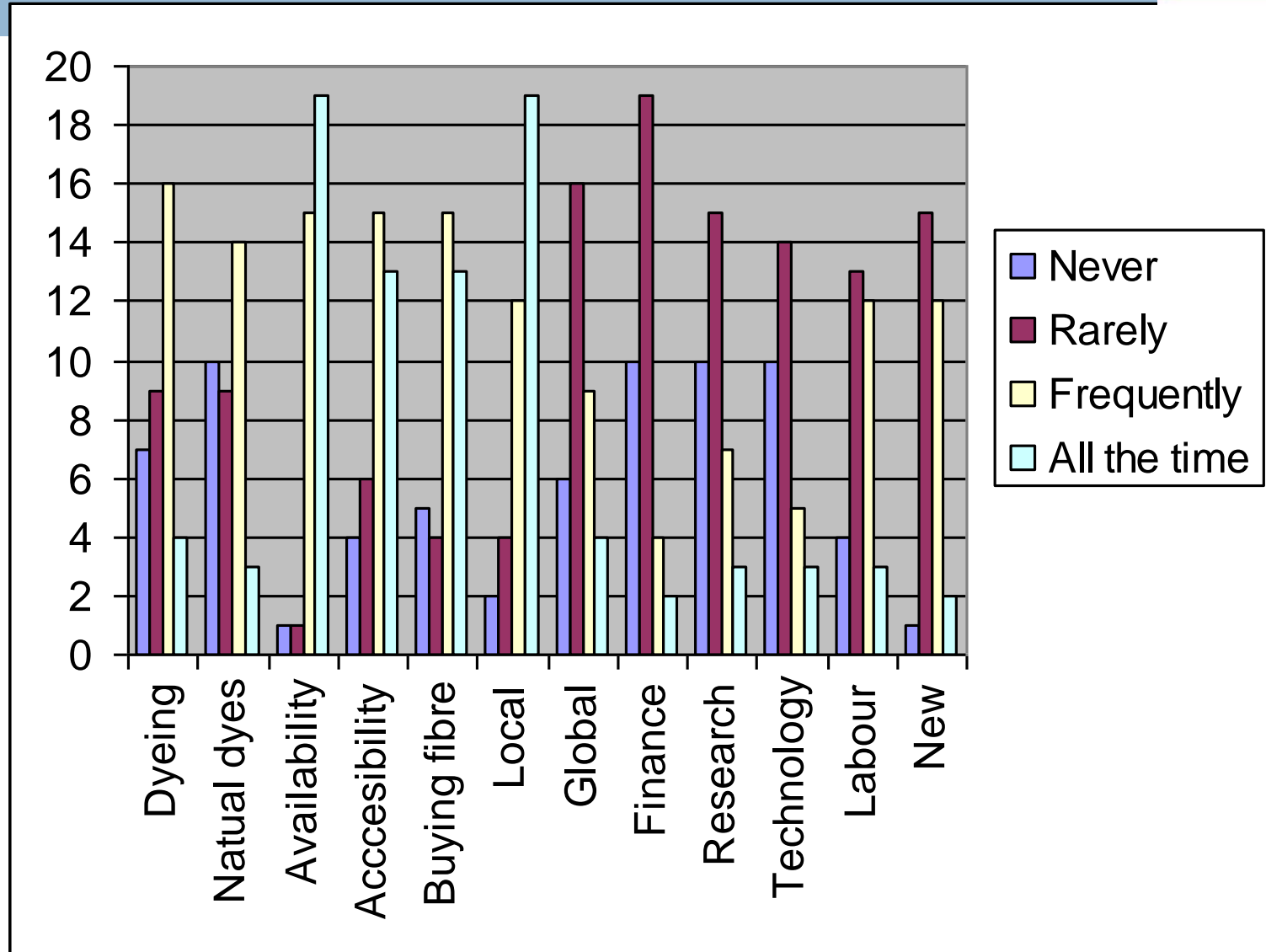


Challenges

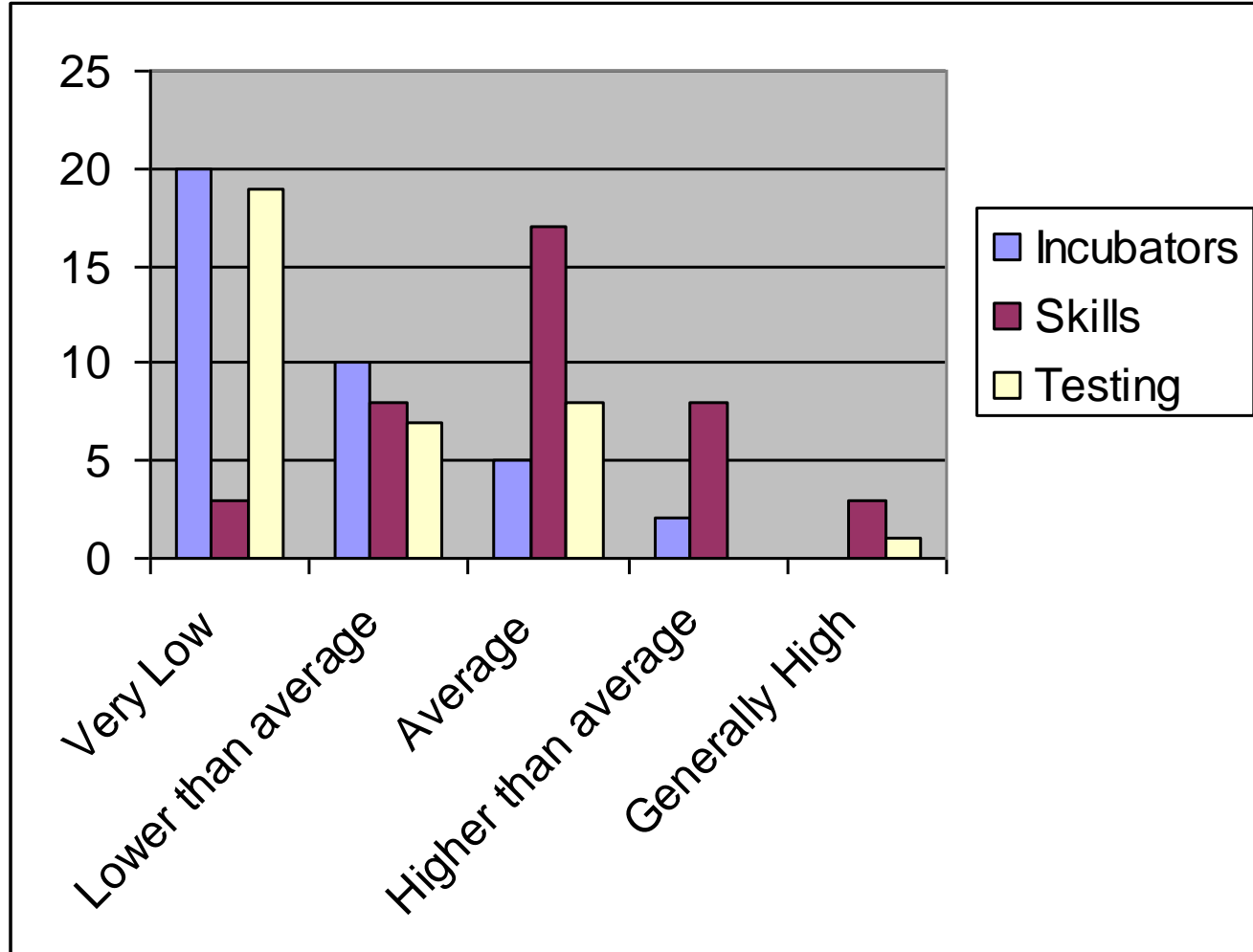
- Awareness Raising of a new concept.
- Capacity Building and Institutional Development.
- Certification and standardization of processes and products e.g. natural dyes, 100% natural fibre, sizing, origin.
- Clear roles and responsibilities of the GNFF.
- Collaborative R&D towards bankable model / business cases along value chain.
- Best practice and impact assessment.
- Commercial incubation and incubators.
- Productivity improvement (farmers and SMEs).
- Fibre Extraction and Oil Pressing technologies and toolkits.
- Guaranteed consistent supply and sustainable methods of harvesting source?
- Indigenous methods, processes and indigenous knowledge / IP protection.
- Links to role models and mentors.
- Market research and Market access.
- Product development (high niche) for existing SMEs to gain SCA.
- Quality control, Processes and Systems.
- Collaboration between students and researchers around natural fibres.
- Technical assistance with legislation and creation of enabling environment.
- Testing (THC, Chemicals, Fibres, Oil qualities).
- Value Addition and post harvest activities.



Factors of production

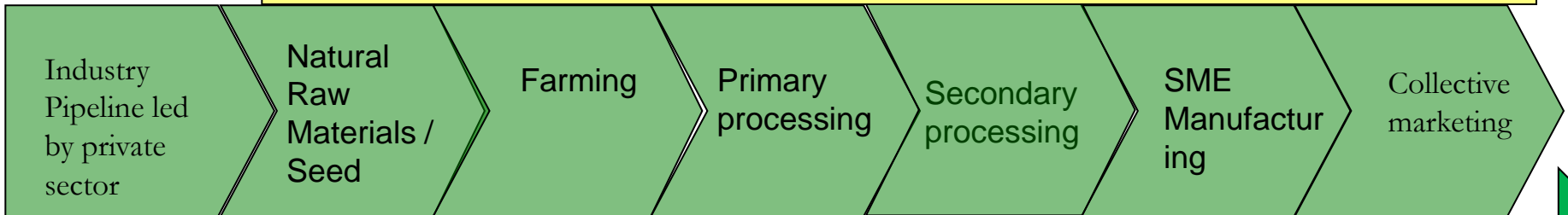


Access to facilities



Proposed GNFF Services

GNFF Services	Clustering, Networking, Forum, Steering Committee
	Facilitate Audits and Profiling of Fibres
	Awareness Raising & Info sharing on existing opportunities, experts
	Information to increase access to Finance and investment
	Information to increase access to markets, fair trade, supply chain
	Information on Human Resource Development & Capacity Building
	Information on Farmer, SME development, Design and Profiling
	Information on Technology Transfer, Research & Development, certification, international standards, competitive improvement
	Facilitate Legislation, governance, policy, institutional arrangements
Social, economic and environmental impact analysis and mapping	



Increase in Value Addition Through Research

GNFF PROPOSED STRATEGY

- Broader capital goods sector through a strategy of economic diversification
- Replacing dangerous materials (asbestos, fibreglass, bleach, plastics, glass and industrial waste).
- Fibre crops and rotational cropping to replacing imported fibres and increase food security.
- Agro-processing and Beneficiating the existing fibres incentives.
- Finding Alternative sources of renewable fuels, climate change and adaptation issues.
- Sustainable source, Tree Improvement, Conservation of woodlands and replacing Deforestation.
- Collective marketing (showroom and collaborative exports).
- Programs that can be duplicated in the region.
- Waste management from existing factories and industries.

3 PRONGED APPROACH

1. Support existing handicraft group produce better products for current markets.
2. Introduce new innovative lifestyles using existing skills and fibres (diversity product applications).
3. Explore ways of being involved in the total value chain with special focus on industrial applications and innovative products across industry intersectional linkages.

Collective Intervention Programs

EXISTING:

- Country specific Audit of existing natural fibres, properties and possible applications.
- Existing SME and farmer support programs.

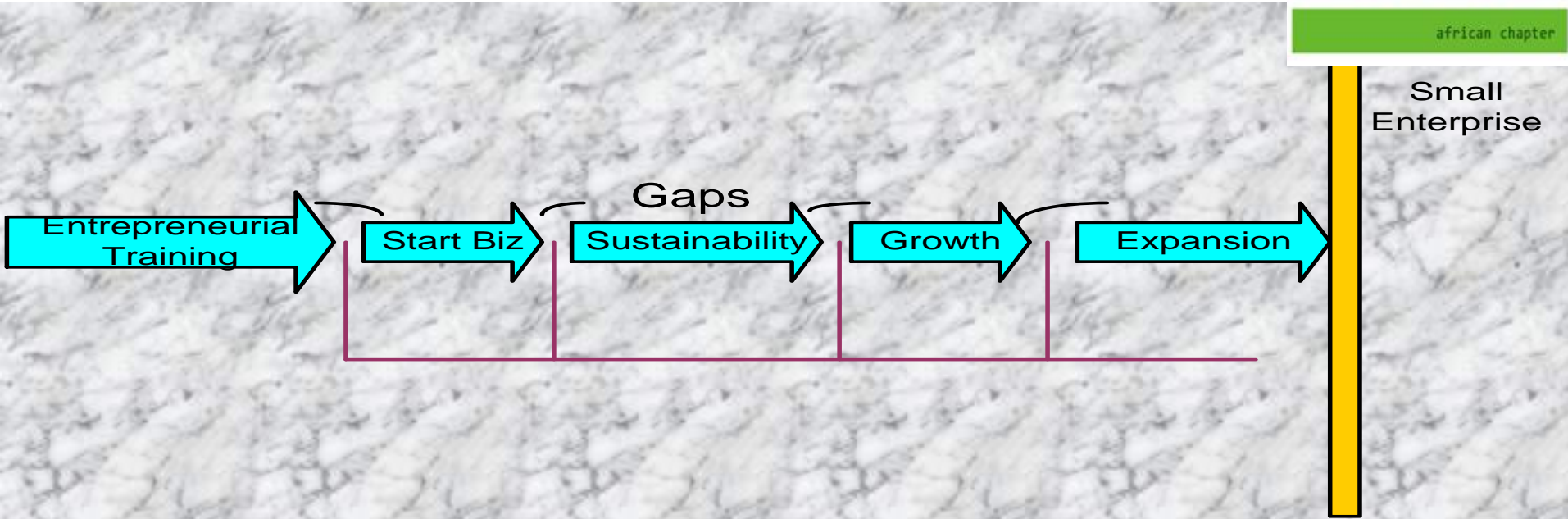
CURRENT OPPORTUNITIES:

- Pre-feasibility studies for anchor fibres and identified filler fibres.
- Demonstration centres for key anchor fibres.

EXPLORATIVE:

- Further collaborative research and development activities.
- Collective awareness raising program.

Gaps identified SMEs & Farmers



- Design High niche quality textiles and handicraft and expanding product applications to include lifestyle. (Sustainable Harvesting and Farming Methods)
- Linkages to finance, resources and factors of production.
- SME profiling, market research, marketing to increase access to markets.
- Business Processes, Production systems, Productivity improvement, .
- Training, Human Capacity development, Skills Transfer and Mentoring.
- Identification of relevant technology and technology Transfer.

Fibre Groups	Fibre	Feasibility studies Product development Demonstration Centres Targeted Industries
Leaf fibres	Pineapple	Animal feedstock and care
	Banana	
	Agave	
	Sisal	
Grasses	Bamboo	Automotives (Bio-composites)
	River reeds	
	Indigenous Grasses	
Bast fibres	Hemp	Construction and Building
	Flax	
	Kenaf	Creative, Arts and Handicraft
Coconut		
Fruit and Crop fibres	Cotton	Fuel and Energy
	Maize husks	
Food and food waste	Rice straw	Interior Décor and furniture
	Soya	
	Sugar cane (bagasse)	Nutrition and Oils
	Apple (pomace)	
	Animal fibres	Wild silk
Wool		
Cashmere		
Wood		Textiles

CRITICAL R&D to be undertaken:

(Including relevant technologies, machinery, techniques and tools).

1. Agricultural production	
Plant Breeding	Genetics, crossbreeding and reproduction.
Plant Growth	Agronomy: climate conditions, soil fertility and husbandry (plant establishment, fertilisers, crop protection (weed and pest control), irrigation, seed density, etc
Harvesting/storage	Maturity, handling and mechanisation
2. Post harvest processing and conversion	
Fibre extraction	Cleaning, extraction & valorisation of residues
Fibre Refinement & Preparation	Conversion (refining, extrusion, steam explosion, etc), chemical modifications/biochemical treatments, etc
Fibre Finishing	Compilation, finishing & compounding
3. Application and use	
End Product Development	End user products for diverse and specific applications, technical skills towards quality `control
Utilization	Product performance / marketing and sales, market feedback
Disposal	Disposal, distribution and logistics
4. Enabling environment	
Legislation and regulations	Technical assistance on legalisation amendment and policies models
Impact Assessment	Social, Economic, Environmental,

Awareness raising program

- Annual Regional Symposium and exhibition
- Country specific exhibitions
- Website
- Database
- Ecommerce
- Community workshops
- PR and press articles
- Profiling of role models

Identified Key Stakeholders

Public Stakeholders:

- Department of Education & Training & Vocational Training
- Department of Arts, Craft & Culture
- Department of Trade & Industry, Commerce & Economic Development
- Department of Science & Technology
- Department of Agriculture & Forestry, Animal Husbandry
- Department of Renewable Resources, Energy & Environmental Affairs
- Central Planning
- Research Institutions
- Labour
- Universities, Technical Colleges & Institutions HL
- Development Finance Institutions
- Small Business & Industry Development Agencies
- Trade & Investment Agencies
- Bureau of Standards
- Local Economic Development in Municipalities

Private Stakeholders:

- Crafters & associations
- Farmers & associations
- Designers
- Marketers, Distributors
- Trainers
- Technologist, Tech providers
- Processors & Beneficiation
- Specialists and Experts
- NF Industry Clusters
- Investors, Banks, VC , 3rd party funding
- International Networks
- Chambers of Commerce
- Processors
- Unions (labour relations)
- Bargaining Councils

KEY SUCCESS FACTORS

- Awareness raising and information sharing about fibers, characteristic profile, product types, possible markets and opportunities.
- Up to date database and profile of SMEs, farmers; experts and key stakeholder institutions.
- Collaborative research across total value chain from farming to marketing.
- Access to existing appropriate technology, tools, techniques for value addition / beneficiation.
- Linking with experts for skills transfer and training of trainers to train producers.
- Design and Production of innovative products in line with market pull (local, regional and global markets).
- Sustainable management of natural resources, proper harvesting and extraction methods.
- Development of sustainability models with related impact measurement, mapping and analysis.
- Access to finance available resources and incentives for SMEs and farmers.
- Enabling policies and legislation.
- National, Regional and Continental Agenda.
- Functional network which reaches all the stakeholders and facilitate collective lobby.

Adopted structure

- Regional Coordinator (1)
- Country Coordinators (18X2)
 - Private Sector Champion
 - Public Sector Champion
- Fibre Groups Coordinators (6)
 - Bast Fibres
 - Leaf Fibres
 - Animal Fibres
 - Grass and Wood fibres
 - Food Fibres
 - Seed and Fruit Fibres
- Technical team Support Coordinators (5)
 - Research and Development
 - Training and capacity building
 - Product development and marketing
 - Access to factors of production
 - Advocacy

Terms of reference for GNFF Africa coordinator / Regional Liaison

- Recording and dissemination of information about resolutions adopted at national, regional and international GNFF consultations.
- Recording and keeping track of all national programmes adopted for implementation.
- GNFF Africa Secretariat convening meetings and distributing minutes.
- Managing database of all country coordinators and programmes.
- Driving the collective awareness raising (ANFF 2013, Website).
- Collecting, managing and disseminating information to all GNFF Africa country chapters.
- Liaising with relevant technical support and fibre groups for collective advocacy and lobbying.
- Finalising GNFF Africa governance and institutional arrangements.
- Identifying resources needed and develop plan to mobilise these resources
- Developing sustainability plans for GNFF Africa post Common Wealth Support.
- Liaise with fibre and technical teams around the implementation of GNFF Africa priorities.
- Keeping schedules and monitoring the implementation of the GNFF Africa programs agreed on.
- Preparing reports for GNFF Africa chapter and presenting to GNFF symposium

Terms of reference for country coordinators:



- Country specific Stakeholder consultation and ensuring buy- in of all pertinent stakeholders in specific country.
- Set up GNFF in countries.
- Finalise governance and institutional arrangements in each country
- Finalise key GNFF services pertinent for your country.
- Finalise 3 year priority programs for intervention in your country.
- Develop a business plan / road map for program activities to be undertaken.
- Liaise with fibre and technical teams in implementation country program.
- Sustainability plans for country GNFF.
- Monitor progress of implementation and impact of GNFF in country.
- Liaise with Coordinating Secretary and other country coordinators.

Terms of reference for fibre group coordinators

- Link with all countries contact people and identify individuals and institutions dealing with that fibre in counterpart institutions in GNFF countries and include them in the fibre based group.
- Develop plans to support existing creative groups produce better products for current markets.
- Develop plans to introduce new innovative lifestyles products using existing skills and fibres (diversity product applications).
- Develop plans to research ways of being involved in the total value chain with special focus on industrial applications and innovative products across industry intersectional linkages.
- Develop a business plan / road map with clear time frames for program activities to be undertaken in the short term (12 months).
- Develop a business plan / road map for program activities to be undertaken in the medium term (three years).
- Identify resources and key partnerships needed to implement this plan and develop plan to gather these resources.
- Implement program, report outcomes/findings and map impact.

Terms of reference for technical support group coordinators

- Concretise expert team & Select a coordinator (institute and contact person) for technical support groups
- Detail all the activities that will be needed from the specific technical support group as per symposium outcomes, cluster them and prioritise them and agree on pilot interventions.
- Detail all processes and course of action steps that will have to be undertaken
- Develop a support plan / road map with clear time frames for program activities to be undertaken in the short term (12 months).
- Develop a support plan / road map for program activities to be undertaken in the medium term (three years).
- Identify resources and key partnerships and operational management needed to implement this plan and develop plan to gather these resources.
- Implement program, report outcomes/findings and map impact.

Product development, design and marketing: This group will identify and develop interventions towards assisting existing artisans, SMEs and Industry players to develop and design products that can be marketable as well as to identify markets and entry requirements and collective marketing campaign.

Research and development: This group will identify and develop interventions in research and development including auditing and testing of natural fibres, profiling of all natural fibres found in Africa, technology identification, technology transfer, sharing best practise, development of sustainable models, feasibility studies, commercialisation of research and setting up demonstration centres.

Training and Capacity Development: This group of trainers, educators and capacity development practitioners will identify and develop interventions that will include training, skills enhancement and capacity development to assist existing SMEs gain competitiveness across the fibre groups and the total value chain.

Access to factors of production: This group will identify and develop interventions that will assist SMEs, artisans, farmers and industrial players in the value chain on the natural fibre industry to identify and access factors of production including capital (finance, technology, machinery), land, natural resources, labour as well as expertise and entrepreneurship which brings all the resources together to add value.

Advocacy and government intervention: This group of government officials and change advocates will identify and develop interventions to assist with policy and legislative changes to create the right enabling environment to establish and promote the natural fibres industry.

Partnerships from the African Natural Fibre Symposium 2012 South Africa

1. Development of a business case/model and commercial demonstration centres for six fibre groups (ZELFO initiative).
2. Capacity Building for Self Help Groups in Rural Areas (Department of Social Development initiative).
3. Bio-composites Centre of Excellency (Department of Science and Technology Initiative).
4. Creative Industries Product development and Marketing (Cedarte-Industree initiative).
5. Industrial Natural Fibre (Coir Institute, House of Hemp and Katani initiative).
6. Awareness raising, Promotions and GNFF Africa 2013
7. Initiative to replicate GNFF programme in non-Commonwealth countries (NEPAD initiative).

Terms of reference for partnerships identified

- Clearly define specific interventions and activities.
- Identify specific stakeholders and specific resources needed.
- Finalise partnership agreements
- Finalise the gathering and securing of resources needed.
- Finalise technical/training support required from ComSec and GNFF partners.
- Implement programs.
- Monitoring of progress and impact assessment.
- Find partners and resources to replicate programs to other areas and countries.

Way forward

1. Finalise proposed GNFF structure per country.
2. Implementing teams and TOR for identified pilot programs.
 1. Audit of existing natural fibres and intervention program to support existing SMEs and farmers.
 2. Feasibility studies and demonstration centres on current opportunities.
 3. Collaborative Research, Development and Awareness
3. How to sustain the GNFF post ComSec?
 1. Country specific resources and membership fees.
 2. Linkages with other GNFF regional chapters and the Commonwealth Secretariat technical support programs.
 3. Linkages with other existing international programs on natural fibres (NEPAD, AU-Africa-Diaspora Initiative, INFO).

Siyabonga

- Obrigada
- Asante Sana
- Re a le bo ha
- Enkosi
- Murakoze
- Zikomo
- Give thanks