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OPPORTUNITY STUDY
FOR THE DEVELOPMENT OF THE
AFRICAN TRADITIONAL TEXTILE INDUSTRY

Burkina Faso, Mali and Senegal

Technical Report: Design and Marketing of Traditional Textiles

Prepared for the Governments of Burkina Faso, Mali and Senegal
by the United Nations Industrial Development Organization

Based on the work of Feliccia S. Johansen, expert in the
design and marketing of handcrafted textiles

United Nations Industrial Development Organization
Vienna

*Backup off. Mr. Tense
"DD/IND/AFR"*

This report has not been cleared with the United Nations Industrial Organization which does not, therefore, necessarily share the views expressed.

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**OPPORTUNITY STUDY
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I. INTRODUCTION

A. Purpose of Opportunity Study

1. The traditional handcrafted African textile cottage and small-scale industries create a key source of employment for skilled African artisans, particularly female artisans and entrepreneurs, residing in village and urban areas. There exists a great potential to expand this industry, since international and domestic demand well exceeds exports and current production capacity of highly sophisticated finished products utilizing these textiles. Professional international technical assistance is urgently required to translate this demand into increased industrial production respectful of the cultural environment, so that pre-existing traditional skills are organized into financially practical terms generating an ongoing income for the artisans and entrepreneurs.
2. I was invited by UNIDO to conduct an Opportunity Study for Burkina Faso, Mali and Senegal, from 19 December 1989 - 17 January 1990, as an American Textile Designer and Market Consultant who participated directly in the successful evolution of Pakistan and India's traditional textile industry since 1975.
3. I was requested to appraise the potential of the African traditional textile industry in terms of:
 - a. Government policies and support for this development in the urban and rural sectors;
 - b. market appeal in relation to the domestic, African and international demand by analyzing its quality, design, price level and finished products;
 - c. what forms of assistance would increase this market appeal;
 - d. current capacity of production to meet this demand;
 - e. potential employment which may be generated by the development and assistance to this industry;
 - f. defining what forms of technological and marketing assistance would be practical and useful, clarifying immediate and long

range strategies by first becoming familiar with present methods and conditions of traditional production; and finally to

g. study current financial resources available to producers supporting their endeavours. (Annex 1)

4. I had the opportunity to discuss the subject with Government officials representing the Ministries of Industries, Commerce, Export Promotion, and those involved in creating government policies to assist the artisans develop their potential. They analyzed and specified what forms of international assistance would best catalyze such development. (Annex 2)

5. I met representatives of UNDP and other U.N. agencies familiar with promoting cottage and small-scale industrial development and became acquainted with their policies and endeavours. (Annex 3)

6. I interviewed non-Government organizations interested and/or engaged in the development of small enterprises and traditional craft programmes. Specifically, I met Directors of U.S. A.I.D. and the Peace Corps. We defined grass root strategies and ideas for mutual collaboration. (Annex 4)

7. The majority of my time was devoted to visiting artisans at their production sites. I observed the current technical methodologies and conditions, as well as the traditional relationship between artisans and entrepreneurs. While appraising their production, in terms of technology and market appeal, I asked them to define what forms of assistance would be most helpful to them. (Annex 5)

8. I also interviewed exporters. (Annex 6)

B. Conclusion

1. The unanimous conclusion of all individuals engaged in government policy-making and its execution, its production, and its commerce with domestic and international market outlets, as well as the intelligentsia inclusive of Africans and international visitors, was that:

a. a great tragedy is perpetuated by our hesitation to directly assist efforts to preserve and nourish the evolution of the world's cherished and valuable African handcrafted textile small and cottage industries; and

b. a main reason for stagnation in the African small and cottage handcrafted textile industries, contrary to their successful development in Asian and South American developing countries over the past thirty years, was West Africa's lack of contact and knowledge of the international market, including EEC countries, the developed countries of Asia such as Japan, and particularly North America. The American market was most emphasized; and

c. most previous efforts by importers and exporters have been to market the textile craft as is. Very few have modified its dimensions or designed finished products which are far more saleable.

2. Government policies are in total support of assisting the evolution of the traditional textile industry because such efforts coincide with their priorities to:

a. generate semi-skilled employment in the rural and urban sector of the population, particularly for women, and thereby promote labour-intensive industrial development, accounting for more jobs per unit of capital invested;

b. help check rural-urban migration;

c. develop indigenous entrepreneurial capabilities badly needed for industrialization;

d. preserve a cultural heritage and catalyze its expansion;

e. assure development of the small enterprise sector to process the raw material of cotton into marketable and more profitable finished products;

f. increase export-orientated productivity to assure reliable/safe international monetary investment. Government officials were astutely aware of the success of India, China, Pakistan and Indonesia. They realized the door was wide open for them to enter the international market with a promising success.

3. The magnitude of successful and expedient development of the traditional textile industry currently depends upon highly specialized professional international assistance knowledgeable and respectful of the artisans' cultural textile traditions and technical methodology, so as to appropriately guide the selection of:

- a. an integrated programme for development of the textile small-scale and cottage industries' financial, intra-structural and institutional arrangements;
- b. a method to collect information on the types of textiles that can be produced;
- c. finished textile products most appealing to the international market in terms of design, quality and price level;
- d. required technological inputs to develop production of these products;
- e. the most appropriate market strategies which would best capitalize on the most sophisticated market demand;
- f. appropriate market outlets receptive to the current capacity of production, and its expansion;
- g. design assistance to translate market specifications into concrete and viable terms to the producers;
- h. appropriate training programmes in financial and production management to assist producers and entrepreneurs in maximizing production capacity and monetary benefits, while adhering to required consistency of international standards of quality; and
- i. financial facilities to provide incentives by offering more flexible, simplified credit schemes to cottage and small-scale enterprises.

C. Recommendations

1. A holistic, practical and realistic strategy must be conceptualized to assist development of the traditional textile small-scale and cottage

industries. Such an approach simultaneously strengthens the links of the chain connecting producers to buyers on an ongoing basis; so that the means to this end develop a firm foundation for a viable and permanent relationship.

2. The preliminary step, agreed upon by all my contacts during the mission, was to select an international market for a pilot Market Research Opportunity Study. EEC countries, Japan and the United States were chosen priorities. An initial study would focus on one location and create a Market Research Strategy Model to be utilized for extensive international research during the lifetime of the project. The American market was suggested as the first location for the Opportunity Study. Its receptive and immensely diversified market place for unique African textiles and its cultural ties with Black Americans assure successful and sophisticated publicity, so invaluable for expedient and profitable marketing. The Market Research Opportunity Study will consist of two phases:

a. "Phase I" will consist of presentation of my selection of available textile samples to relevant importers of clothing, ethnic arts, and interior design products. Design, projected production capacity and price level will be appraised. (Annex 7)

(i) Market feedback will be transformed into design and technological specifications by the UNIDO Textile Designer and Market Consultant in terms of improved marketability as unfinished and/or finished products.

(ii) Results will be communicated to the producers, and textile prototypes will be designed and executed according to the defined market specifications by the UNIDO Designer.

b. "Phase II" will assist textile producers and exporters in their relationships with importers. Producers will become more capable of translating market feedback into marketable products, appropriate for diversified market outlets. They will also become more familiar with export procedures by:

- (i) following up results of scheduled trade shows, exhibitions, and seminars with direct assistance from UNIDO on design, marketing, and management strategies;
 - (ii) pursuing activities defined by exporters attending the Pragma Corporation's "Developing Country Handicraft Exporters Programme", to be held in Los Angeles, 18 - 25 July 1990 (Annex 8);
 - (iii) collaborating with UNIDO staff to exhibit textile products developed during "Phase I and II" at the "2nd Salon International de e'artisanat de Ouagadougou" in October 1990. The UNIDO Textile Designer and Market Consultant may attend this exhibition in order to analyze test marketing strategies and market feedback, and broaden knowledge of producers, exporters, and products (Annex 9); and
 - (iv) accepting pilot orders established through interaction with the international market.
- c. "Phase II" will define what products and which producers should receive priority assistance in the effort to develop this industry.
- d. Appropriate market techniques and market outlets will be evaluated for each product category to ensure the most sophisticated selection in regard to:
- (i) distribution alternatives such as a direct retail outlet versus distribution channels;
 - (ii) preference for specialization, in terms of interior design, clothing, and/or ethnic arts;
 - (iii) strategic cultural exhibitions, market shows, and publicity.
- e. Coordination for translating market interests and specifications will be realized, and a plan for assistance will be formulated.

f. Remedies for production and quality control measures will be defined and assistance conceptualized.

g. Opportunity and/or feasibility studies for developing appropriate production will be defined and presented for consideration.

h. Schemes for financial assistance to entrepreneurs and artisans will be researched, in order to advise African Governments on a viable plan of action to create facilities where small-scale entrepreneurs could secure long-term loans. Focus will be upon creating a guarantee system for loans granted by local financial institutions.

i. Based upon the experience of "Phase I and II," terms of reference for technological, design and marketing assistance will be proposed for a long range UNIDO project for participation by countries selected.

j. A Project Document will be formulated to include activities in conjunction with A Programme for the Industrial Development Decade for Africa, Sections 212-217

3. Traditional lifestyle and technology of traditional artisans and entrepreneurs organized in cooperatives and/or cottage industries will be respected entirely. The nature of assistance will be designed to :

- a. transform production to more saleable products;
- b. increase productivity;
- c. improve financing and management know-how;
- d. increase self-efficiency, to maximize monetary benefits,
- e. enhance access to commercial lines of credit to allow expansion of productivity.

4. Burkina Faso, Mali, and Senegal were selected as test countries for my Opportunity Study of the West African traditional textile industry. They shared many common attributes, and, although unique in their textile traditions, they require common forms of international

assistance. It is recommended that they approach their evolution as members of a regional programme. Unified, they may be at a greater advantage to:

- a. acquire international banking credit facilities needed by producers to expand their current production capacity;
- b. coordinate their textile training, product design, and sophisticated market techniques for international projection, through the regional textile institute of ESITEX, located in Segou, Mali, a joint effort of seven West African countries. Such training would be imparted to the leaders of Africa's future and UNIDO assistance would be guaranteed worthiness (Annex 10);
- c. conduct market research studies as a joint venture, thereby economizing on the expensive costs of such exercises;
- d. organize regional exhibitions and market presentations that are more diversified than those from separate countries, thereby creating a greater impact on the international audience. The result may generate rapid and successful market commitments;
- e. coordinate at the regional level appropriate quality control technology and standards, crucial not only to enlighten the industry, but also to guarantee standardization and good reputation for products newly entering the international market place. Quality of the highest calibre is mandatory at this stage, and is the deciding factor for the industry's success in exportation;
- f. improve colour-fast dyeing technology, as this is a fundamental prerequisite for successful exportation. A regional solution may be most practical for this shared technological weakness;
- g. coordinate marketing to avoid price competition among each of the member countries, particularly for products common to the region and offered to the international market place;
- h. engage in recommended regional activities and institutional framework as formulated in A Programme for the Industrial

Development Decade for Africa, Section 217, i-1, and 218

II. FACT FINDING: "Discovering the Traditional Textiles of West Africa and Their Potential"

A. Introduction

1. The exquisite range of handcrafted cotton textiles of Burkina Faso, Mali and Senegal represent West African traditions of technique and design of a cultural heritage tracing back to over two thousand years, and, as profoundly, create evidence of the African cultures' contemporary evolution.
2. A concept of international assistance must be devoted to the preservation and development of both these valuable attributes so that uniqueness is not only appreciated but is an accentuated characteristic and hallmark of finished product design. Such a synthesis guarantees endless patronage by the sophisticated international audience in constant search of such ethnic transformations.
3. Within this context, a plan for international technological design and marketing assistance must be sensitive and appropriate to the unique ethnic character of the textiles, as well as the mentality, potential and needs of the artisans and their entrepreneurs, who must be encouraged to maintain their authenticity and expand their productivity. At the same time, such assistance must catalyze the transformation of their production into utilitarian products meeting the requirements of a domestic and international market of the 1990s. Such assistance must also be sensitive to the needs and potential development of government agencies which may be guided to extend their services to assist such endeavours.
My mission to West Africa, along with my fifteen years of experiences with the Pakistan and Indian textile and marketing evolution, pointed the way to a concrete strategy to generate increased productivity by a joint collaboration between West African governments and the United Nations Industrial Development Organization.
4. "Discovering the Traditional Textiles of West Africa and Their Potential" is a detailed description of how to increase productivity in relationship to:
 - a. the traditional artisan and entrepreneurs, by analyzing contemporary operational aspects including rural and urban

lifestyles, production facilities, and organizations of producers. Ways to assist them are proposed;

b. the contemporary designer/ artist/ entrepreneurs, who already crossed the bridge, transforming traditional African textiles into saleable finished products. Their additional requirements include:

(i) expanded access to producers including those located in rural areas having unique skills and who can be engaged in their production concepts;

(ii) professional, technical and design feedback from the international market place;

(iii) multi-functional production facilities for design and fabrication of finished products meeting international standards of quality; and

(iv) financial assistance to expand their capacity of production and breadth of operation.

c. the textile product, by describing product categories and suggesting appropriate product design diversification, technological inputs including design, dyeing, raw material and finishing facilities, and modern production equipment, and training;

d. marketing techniques that will expand market outlets, disseminated through suggested training programmes to be developed specifically for this purpose.

5. The regional discussion will be followed by a report of each country visited, highlighting each country's unique attributes and requirements.

6. It is my intention to present a cohesive and all-inclusive frame of reference so that priorities suggested as "Follow-up Activities" in Part III can be reviewed, selected and implemented within a tangible and realistic context.

B. The Artisan and the Entrepreneur

1. Most artisans contacted and interviewed during my brief mission were located in urban capitals. Some were visiting from rural localities. As agriculturalists, they engage annually in winter season craft production located in temporary urban facilities where they can acquire more direct access to contracts, entrepreneurs and the market place. I learned that rural artisans:

- a. who migrate to the cities represent a very small fraction of all rural artisans;
- b. for the most part remain extremely isolated and lack market contacts;
- c. are scattered throughout the countryside, and data on their actual and potential productivity and skills are at the earliest stages of government formulation;
- d. produce unique and marketable textile products and have great potential to expand production capacity;
- e. are underemployed as skilled hand-spinners;
- f. utilizing indigenous skills in such an expanded production scheme could provide dependable year-round rural employment, which could thereby:
 - (i) help reduce the pattern of urban-rural migration;
 - (ii) relieve economic pressure resulting from crop failure;
 - (iii) increase rural productivity, by moving artisans from the greatly "overstaffed" fields during agricultural activity, to employment alternatives in the profitable cotton textile industries, an employment shift many rural inhabitants would welcome.

2. All traditional artisans, whether from the urban or rural sector, are organized in cottage industry production networks:

a. Some are members of a cooperative organization, often established by government or non-government organizations, which improve operational aspects of production by establishing:

(i) a common production facility and often providing equipment otherwise unaffordable;

(ii) contracts and offers a defined market outlet for members;

(iii) group purchasing power for procurement of raw materials, thus availing economic bulk rates to members.

b. Most artisans worked at home or on the premises of private entrepreneurs who:

(i) contracted their production;

(ii) supplied raw materials;

(iii) paid wages on a piece-work basis, a satisfactory system for all, granted consistent demand for their work.

c. Most production facilities, whether for weaving, printing, or dyeing textiles, were located outdoors in a courtyard or field, where one to twenty skilled artisans created outstanding high-quality handcrafted textiles with minimal, meager, traditional equipment. They were only able to work when weather conditions were favourable, therefore excluding several months during the rainy season.

d. Almost all entrepreneurs are women who:

(i) contract relatives or workers (both female and male) to produce specified designs against their procured commissions;

(ii) rarely had the financial resources to stock inventory, and therefore created sporadic employment for the artisans, dictated by day-to-day demand of clientele;

(iii) do not choose and cannot afford to sell production at the private domestic market place on traditional terms of consignment, because it does not create the required cash flow;

(iv) often supplement commissions from local and private individuals with sales at local exhibitions;

(v) often meet success at exhibitions held in other African countries, and some participate in exhibitions in Europe, particularly in France; and some of whom:

(vi) attend government-sponsored programmes to develop entrepreneurial skills.

3. I attempted to study small-scale industrial units for traditional handcrafted textiles, but discovered only a few. They were capable of:

a. purchasing more expensive and modern equipment;

b. providing employment year-round, as a result of having indoor facilities;

c. engaging a more diversified staff to carry out the tasks of designing, accounting, management, marketing, and production;

d. procuring easier access to financial institutions, because their assets and financial management structure enhance their credit-worthiness;

e. building working capital, which enables them to:

(i) plan and implement more ambitious annual production schedules;

(ii) stock inventories and thereby:

(iii) capitalize on a marketing schedule of activities thereby enhancing financial returns.

f. setting up and stocking a display facility on their premise to promote and market their production, thus establishing access

to direct sales and price levels without acquiring additional overhead costs.

4. Conclusions

a. The integrity of the traditional organization of artisans in cottage industry production facilities is often questioned, particularly by those keen to ignite rapid advancement for artisans, the creative and skilled members of the poorest strata of the developing countries' populations. Many concepts and programmes for imparting assistance to the traditional artisans focus upon modernizing their traditional technologies and methods, and establishing small- and medium-scale industrial facilities to increase production capacity. Such facilities establish more concrete terms of reference to justify and assess "profits" in return for investments in sophisticated technological transfers and inputs such as expensive and more efficient equipment. At the same time, such concerns as quality, product standardization and production schedules become more controllable.

Such decision-making seems logical and worthy until the benefits of cottage industrial organization are more carefully examined and evaluated. Intimacy with urban and particularly rural based textile artisans reveals many valuable characteristics of a cherished lifestyle and quality of life which would be difficult to deny and impractical to change. Costly alternatives hardly affect a sizeable proportion of the population, but, in theory, even when implemented, they inevitably would uproot skilled, but nevertheless illiterate, peoples from their familiar culture and way of life.

Interviews with African artisans, entrepreneurs and individuals familiar with their lifestyle resounded with a unanimous conclusion: useful forms of assistance should be devoted to improving their conditions, not replacing the ancient system of organized cottage industry production, because this system uniquely:

- (i) provides family members a joint income while accommodating the traditional lifestyle and schedule of

family activities. This is particularly relevant to female artisans and entrepreneurs who are, foremost, caretakers of children, family and household;

(ii) creates part-time work for elders and children without disrupting their education and family responsibilities;

(iii) provides self-employment and direct monetary rewards gained from personal initiative. Increased production brings direct profit to the artisans and entrepreneurs;

(iv) reduces overhead expenses. Household production eliminates rental of external facilities, as well as transportation and other costs incurred while working outside the home;

(v) provides children with free exposure to vocational training which commences at a very early age. This intimate apprenticeship solidifies family life and ensures the survival of family traditions;

(vi) caters to the scattered geographical location of the artisan population, where more formal industrial development is unfeasible;

(vii) allows seasonal employment to accommodate the agricultural schedule.

b. A realistic strategy of direct assistance to the African traditional textile artisan may be considered by way of reviewing the history of India and Pakistan's extraordinary success in developing productivity for its vast and scattered population of artisans. Cottage industry continues to be the most viable form of organized production.

One example suffices of a prominent Pakistani businessman who exports his multimillion U.S. dollar annual production of hand knotted carpets. He manages production on 5,000 looms. All the artisans and their families are commissioned for years in advance and one hundred percent of them work at home,

organized in cottage industries. They are given raw materials, design specifications, advance payments, and a promised market outlet. Quality control is enforced by their required adherence to production specifications, and the carpets are finished in small- and medium- scale industrial facilities. The market outlet is in the urban centre catering to the most sophisticated international clientele.

Shortcomings of such an arrangement notwithstanding, it must be recognized that it would be quite difficult to improve upon this viable and traditional form of organized employment, where one employer can generate an income for 5,000 families, most of which are located in remote rural areas.

c. Entrepreneurs were very impressive in their ability and potential to absorb training assistance to increase productivity by improving and expanding production facilities and by adjusting operational management to meet a growing market demand. Entrepreneurs are capable and willing to:

(i) participate in organized communication networks linked to assistance programmes in order to synchronize their design conceptualizations with market specifications;

(ii) acquire accounting skills for improved financial management necessitated by financial assistance;

(iii) organize and participate in a scheme of cooperative marketing outlets as emporiums for producers and entrepreneurs;

(iv) acquire knowledge of standard procedures and requirements in regard to exportation and shipping;

(v) develop international experience and know-how.

d. Many non-governmental organizations supported by domestic and bilateral assistance, as well as church programmes, established cottage industry and micro enterprises. They were well organized on a grass root level, but their lack of design and market experience seriously limited their effectiveness. Many

expressed enthusiasm to participate in a programme which would coordinate and expand their endeavours. Their invaluable inputs would be to encourage entrepreneurs to establish small businesses by offering them training to become self-sufficient and efficient in business and required operations.

e. Requirements for improved operational facilities include:

(i) construction of economical waterproof sheds to allow year-round production in backyards or courtyards;

(ii) establishment of organized and economical finishing facilities for detailed fabrications;

(iii) centrally located sophisticated market outlets to promote sales and production for local consumers, tourists, the international community and visiting importers.

f. There was a lack of research and data available on the identity, location, production and capacity of urban and especially rural artisans and entrepreneurs. Such research and public information would assist in the analysis and formulation of required coordinated assistance for receptive entrepreneurs and producers of potentially valuable textile products. It may be expedient to define potentially valuable products available in capital city market places and museum collections and extend top priority in tracing their source of productions and relevant producers.

g. There was a serious lack of access to banking facilities such as loans and commercial lines of credit without unreasonable guarantees. The availability of credit schemes or grants would encourage:

(i) increased establishment of cottage enterprises by interested entrepreneurs;

(ii) expansion of production facilities to accommodate increased productivity, including equipment purchases and construction of waterproof sheds for year-round production;

(iii) creation of inventory and stock production for exhibition and sales during non-productive rainy season or for emporiums;

(iv) bulk purchase of raw materials such as cotton fiber, cloth, and dyes at bulk rates, thus reducing cost of production;

(v) establishment of a market outlet facility for product promotion and sales. If set up as an entrepreneur cooperative, the facility would require financing for construction cost or shared rent, display installation and inventory.

h. Government policies of Burkina Faso, Mali and Senegal were in support of all initiatives to realize a programme to stimulate traditional handcrafted textile production through direct assistance to artisans and entrepreneurs. Government representatives expressed sincere interest to coordinate and support a cohesive approach with UNIDO, as such endeavours were fairly new and required professional international assistance for development and implementation.

C. The Contemporary African Textile Designer and Entrepreneur

1. The contemporary African textile designers and entrepreneurs were among the most inspiring encounters of my mission. I had the opportunity to discuss ideas for collaboration with professionals who cherished their cultural heritage, devoted their career to the production of the highest quality handcrafted traditional textiles, and were completely challenged by concepts of how to transform ethnic techniques and designs into finished products to create impressive international recognition.

Most significantly, they convinced me of their ability to create this mandatory evolution, and emphasized the urgent necessity to assist them to establish suitable facilities for such industrial development. This "realization" superceded my initial consideration to concentrate on the exporting of most textiles to international designers and manufacturers, who could guarantee the success of this transformation.

Although such a scheme to stimulate the development of African industry capable of producing sophisticated finished products for international consumption demands a far more ambitious programme of international assistance, the projected benefits seem worthy of consideration. Such a development pattern :

- a. greatly increases possibilities for export, as there is greater and more diversified market demand for finished products;
- b. dramatically increases profits derived from exportation, as there is greater profit margin derived from finished products as opposed to semi-finished products;
- c. provides finished products for domestic and African consumption to meet the growing demand for such products as handcrafted and well designed household utilitarian products. I observed a tremendous shortage of such products which were in obvious demand by Africans, tourists and the international community, and who were forced to purchase imported or industrially produced substitutes;
- d. develops and promotes cottage and small-scale industry, creating increased employment of skilled and semi-skilled manpower not only in handcrafted textile production, but in related industries for finishing products, such as product design, sewing, furniture fabrication, and other industries related to interior design products and accessories;
- e. assures preservation of cultural traditions of ethnic textiles by providing artisans with a vital role in contemporary industrial development, contrasted to the more typical annihilation of ancient craft traditions by modernization in many developing countries;
- f. establishes the traditional textile industry as a "trend setter" for other national industries, which can greatly advance by transforming cottage industry products into highly valuable finished products, engaging modern small and medium scale finishing facilities;

g. promotes the vital role of the industrial designer and encourages the training of such professionals in technical institutes and universities. The increased number of trained indigenous designers in developing countries, such as India, is recognized as a profound underlying factor in their ongoing accelerated industrial growth.

2. Conclusions

The contemporary African textile designers as entrepreneurs are an indispensable and crucial link in the chain connecting artisans to the demands of the market place. Imparted assistance to them must develop their ability to efficiently function and actualize their vital role. In addition to similar conclusions defined for the traditional artisans and entrepreneurs, designers expressed primary concerns for consideration and suggested viable forms of international assistance, such as:

- a. improving their connection to a diversified, receptive and sophisticated international market place, including contacts with innovative designers, importers, galleries, trade exhibition facilities and market specialists familiar with impressive publicity channels; and including well organized visits to selected market places to develop an enlightened sense of appropriate quality, product design, and price;
- b. providing them with data and access to the scattered population of the informal sector of artisans who may become engaged in their production or may be capable of receiving design assistance so that they may develop more saleable production themselves;
- c. coordinating their participation in domestic, African, and relevant international training programmes in marketing, production management, and related technological transfer;
- d. providing grants and /or credit schemes for construction or rental of adequate facilities in which they can economically realize their production into finished products, including multi-functioning facilities such as:

- (i) Design Center for their own production requirements and a long range possibilities to extend their services to less sophisticated or less skilled entrepreneurs and artisans;
- (ii) production facilities to accommodate equipment for fabrication into finished products, involving pattern drafting, cutting, sewing, as well as constructions utilizing wood, leather or other accessories;
- (iii) showrooms, possibly at their premises, to enhance promotion and sales.

D. The Product

1. Introduction

- a. The most striking characteristic of all West African handcrafted textiles was their uniquely exotic and endlessly diversified designs utilizing incredible combinations of colour ranging from the most subtle to the most daring contrasts. Not only are they breathtaking in beauty but definitely among the world's highest achievements in terms of quality and sophisticated utilization of intricate techniques. They became a focal point of my visual impressions of African culture, as handweaves, batik and tie dye prints were exquisitely worn in traditional fashion by women and men of all strata of the society.
- b. In the context of womens' pagnes (traditional skirts) and houbous (loose kaftan dresses with matching head scarves wrapped in endless ways) as well as mens' embroidered floor length robes, I discovered a range of textiles that could be transformed into appropriate finished products for clothing and household which could revolutionize the international textile industry.
- c. The interviews I conducted with the international community and tourists in Africa reinforced my subjective impressions and judgment. They shared my enthusiasm. We all could imagine captivating window displays in the highest end international boutiques and department stores featuring African textiles

transformed into western clothing and accessories, as well as extraordinary home interiors, all featuring the very cloth traditionally used for pagnes and boubous. The fact that these fabrics are unique in design, handcrafted, African and beautifully finished into appealing and practical products creates a textile product concept of promised success.

d. This flattering appraisal not only serves to emphasize the need to develop this industry and exportation of its finished products, but also dictates the necessary steps to follow in formulating an international assistance project including focus on appropriate product design, industrial development, and market research strategies. Major concerns requiring international assistance will be to define technological transfers, quality control, increased productivity, and design and production of appropriate finished products.

e. Burkina Faso, Mali and Senegal share common textile traditions in their handwoven and printed handcrafted textiles in terms of design, colour and technique. Distinctive designs and products are a hallmark of each of the countries visited and should be accentuated, so that maximum diversification is developed to ensure maximum opportunities in the market place.

f. The following discussion will define the region's products individually, in terms of their techniques, raw material content, current finished products, capacity of production and approximate price level. Their potential development will be analyzed in reference to their market appeal, suggested market outlet and transformation into finished products. The conclusion will include recommended forms of assistance for each product in terms of quality improvement, appropriate required technologies transfer and design modifications. Recommendations for finished textile products will evaluate the type of products currently in most demand and with the least competition with the exportations from other developing countries. Precise evaluation will be exemplified by the American market, with which I am most familiar.

g. Products unique to specific countries will be discussed in individual country reports.

h. Finally, a regional training programme will be proposed for consideration at ESITEX, the newly established regional textile institution.

2. Cotton and Cotton Fiber

a. Indigenously cultivated cotton is utilized for the entire handcrafted textile production of Burkina Faso, Mali and Senegal.¹ The quality is outstanding as are the fibres, both handspun and industrially spun. I did not explore the cotton industry in depth during my brief mission, and did not discover anything outstanding or notable in terms of cultivation or spinning which required improvement. Raw materials seemed readily available to the weavers.²

b. Both handspun and industrial spun cotton were used for the weft, and industrial spun fibers were always used for the warp. Most of the contemporary production utilized industrial spun fibers for both weft and warp, as African consumers seemed to favour it because it was more finely spun and produced finer cloth more suitable for the tropics. Weavers also preferred it because it was easier to manage and, perhaps, to procure.

c. As an International Textile Designer and Marketing Consultant, I envisioned development of more versatility in the texture and weights of industrial spun fiber to enhance the aesthetic appeal of the handwoven cloth. A textile development programme may investigate these possibilities in conjunction with product design.

d. More significantly, I predict further market appeal and increased profit gains in the expanded production and utilization of handspun fibers because:

(i) there are many skilled and underemployed handspinners in the rural sector of each country. There is great government intent to expand productivity of this sector particularly in enterprises for producing finished cotton products;

(ii) development of this industry may result in a profitable exportable commodity;

(iii) handwoven textiles of handspun fiber are more unique and valuable and may increase value, saleability and national profits of handwoven textile products in the international market. The preferred character of older examples of traditional African handweaves is due partly to their utilization of handspun fiber. The same weaves, utilizing industrial spun fibers, have far less aesthetic appeal in comparison;

(iv) the cost differential between handspun and industrial spun seems insignificant in comparison to the very much increased price level and sales handspun may fetch.

3. Dyed Cotton Fibers

a. Most urban located handweavers procure industrially dyed cotton fiber (I did not establish what percentage is hand-dyed by the urban and rural sectors). General feedback in all countries alerted me to a very serious problem, both relating to the irregular availability of a broad range of required colours, and the lack of availability of colour-fast fibers. Many fundamental colours were known to always fade or run. There seemed to be no current solution to this problem, and this drawback encouraged indigenous consumers to purchase imported textile substitutes of more standard quality.

In depth investigation of fundamental problem was beyond the scope of my mission, but I did discover that attempts to improve the dye facilities at industrial spinneries was under progress.³

The current international market place is intolerant of poor quality dyed textiles. Cotton textiles, particularly for clothing, are typically machine washable, although there can be some leigh way gained if the dyes do well in dry cleaning and the textiles have appropriate washing instructions. It is mandatory that strict enforcement of quality control is organized prior to textile exportation. Poor representations are unforgettable and difficult to remedy, and may impair exportation for the entire region for years to come.

Thus, improvement of dye technology is a major and fundamental recommendation for the UNIDO Programme for the Development of the African Traditional Textile Industry.

b. Fibers dyed by the informal sector represent another reality. Those dyers interviewed all used imported dyes as Cibyl Geigy, BASF, and Santose. I was informed that many weavers commissioned them for the colours that were not available as colour-fast from the industrial sector. However, the dyers complained that the full range of colours was difficult to procure and the prices were unpredictable and often unaffordable, due partly to high taxes and the whim of middlemen who sold them.

The other serious problem was that many dyers did not apply the dyes correctly and often did not rinse the fibers long enough to remove the excess dyes. African consumers, as those in Asia, are familiar with this problem and further process the cloth by rinsing out excess dye or washing it with vinegars and salts to fix the colour. However, this step must be taken by producers prior to exportation and quality control must be seriously enforced.

It may prove mandatory to label products that pass international quality control standards. Such finishing steps may be achieved by a separate finishing facility, which could also pack and ship in accordance with international standards, especially during early stages of development and particularly for the scattered producers of the rural sector, who will require long range training to achieve such abilities.

c. Indigo dyeing

a. West African artisans continue the treasured art of dyeing with natural indigo. It is a technology, virtually distinct in Asia, and its application to indigo printed cloth is later discussed in detail. The use of indigo in dyeing handspun fibers can prove most valuable for exportation. Japan has expressed concrete interest, and the idea is saleable in the Northern Hemisphere, and possibly in EEC countries. An Opportunity Study is strongly recommended for this potential production, and could be easily extended to woolen fiber.

b. As noted for dyeing by the informal sector, indigo dyers as a whole have not mastered the finishing stages to remove excess dye. Many indigo products lose their market appeal because the colour easily rubs off. This is easily remedied.

4. Handwoven cloth - the strip weavers

a. Most traditional handweavers are men and the entrepreneurs are women, although cooperatives were established for women. Most traditional handwoven cloth is woven in strips from three to six inches in width, which are then sewn together to create the final width of the cloth, of over one meter. This narrow width of the strips is dictated by the standard traditional narrow loom.

Warps are therefore unusually long to accommodate the five to seven strips of cloth. Thus, if the cloth is one meter width, a traditional two meter long pagne with four-inch wide strips requires twenty meters of warp. Usually several pagnes are woven from one warp. The warp is measured out on portable spikes in the earth and the weavers walk the threads over the stakes, a most common technique of traditional weavers. The warp is tied to a weight, often a heavy rock, and stretched out in a field or courtyard. The rock is moved toward the loom, creating the required tension, as the woven material hangs down the front side of the loom.

Intricate weave effects are created on the two harness loom by pick-up techniques engaging sticks or loose harnesses. Inlay patterns are also achieved in this fashion, as well as overall double weave patterns. Many colour effects are easily achieved by warp dominated weaves which create vertical stripes of the warp colour. Each village contributes their distinct style and colour preference for strip weave designs, creating diversified texture and weights by varying yarn selection. Weavers were extremely capable of modifying their selection of colours and designs, in accordance with the entrepreneurs' specifications.

Strips are typically sewn together by a tailor who uses a sewing machine. The stitching greatly varies in quality. It is noted that this finishing stage is very critical in the conceptualization of

the final product. Older and finer examples of strip weaving were exquisitely handsewn, and the step requires careful consideration of design and specifications of standardization.

b. Current handwoven strip weave finished products are:

- (i) pagnes (2 meters)
- (ii) boubous (4 - 6 meters)
- (iii) table-cloths and napkins
- (iv) blankets
- (v) cotton floor coverings
- (vi) wall-hangings.

c. Price levels for all products were extremely varied and difficult to appraise, as the quotations were based on familiar small orders. However, although relatively expensive in comparison to Asia and South America, prices could be:

- (i) acceptable, if products were of high quality, appropriately finished into finished products, and marketed properly;
- (ii) reduced by the economical bulk purchase of raw materials and if producers were exempt from taxes on imported inputs;
- (ii) reduced by placing large orders with artisans who might modify their fees for weaving if working on a more regular basis.

d. The current market outlet is domestic and there is importation/exportation among African countries, with mention of occasional sales to Western countries. Weavers suffered intensely from the competition of industrial machine-woven cloth, both locally produced and imported from Europe. The handweavers generally complained that supply now exceeded current demand. The weavers were obviously very underemployed.

e. As is the case for the entire handcrafted textile industry, it is very difficult to evaluate the precise capacity of production or its potential. However, it is obvious that increased market demand can generate enormous productivity for large

populations of underemployed skilled weavers. Research, including data collection in the rural regions, is recommended on weavers of products which prove interesting in the suggested international market research study, in order to determine their realistic capacity of production.

f. Potential market appeal has been appraised as extremely limited by the narrow width of the strip weave cloth. Many projects attempt to provide the African weaver with wider looms through small industrial units. As mentioned in previous discussions, such a solution only caters to a very small proportion of the population. It may be a technical answer for certain products, as upholstery or curtains.

My reaction, reinforced by feedback from those interviewed, was that the charm and uniqueness of the African cloth is precisely its strips sewn together. Granted, the technique and quality of the sewing is crucial, but if the same cloth actually were to be woven into wider widths, it would enter into stiff competition with comparable Asian products, which are at a considerably lower price level and already well established in the international market. An alternative worthy of consideration requires professional textile, clothing and household interior designers to dictate unique applications for strip weaving into finished products, such as:

- (i) clothing, such as jackets, shirts, dresses, and skirts, accentuating the feature of the strips in their design;
- (ii) unsewn strips marketed as borders, to be used for sashes by manufacturers of clothing, and for interior products as curtains and bedcovers;
- (iii) table-cloths and napkins;
- (iv) unique combinations of diversified strip weaving designs, arranged in unique compositions, to compose products for the interior of "mix and match" design sets, such as bedcovers, curtains, cotton blankets, and pillows. Interior design products are best marketed in sets;
- (v) small finished products, such as eye-glass cases, cosmetic bags, and purses;

(vi) products for the futon bedding industry in Japan and western countries, as fitted bedcovers and "mix and match" patterns for pillows and other interior accessories;

(vii) unstitched and stitched sarongs and wrap skirts for casual, cruise and beach wear (pagnes can be easily transformed into sarongs);

(viii) shawls and scarves (pagnes have been displayed in French fashion magazines as shawls);

(ix) upholstery, as for chairs, made from specially designed heavier weights of cloth.

g. Recommendations for assistance include:

(i) market research opportunity study to determine which products are best suitable for domestic and international marketing;

(ii) opportunity study to determine the potential of rural sector handweavers concerning the products specified as valuable during market research study;

(iii) product designer for clothing and one for household interior design to define the products and establish their production facilities;

(iv) establishment of finishing facilities, whether as part of existing entrepreneur facilities, as subcontracted premises of tailors, or as new constructions;

(v) international market consultant to develop expanded international contacts to patronize the handwoven textile industry;

(vi) design modification, besides being based upon market research design specifications, to be improved by study of older traditional handwoven textiles in the Musée du Nationale du Mali-, Bamako, and museums and

textile collections in the States and in Europe. I had the chance to see a portion of the impressive collection in Mali, and conceptualize how contemporary handweaves can be easily modified in colour, quality and fiber to revive the character of these authentic examples. These modifications promise higher value for the production.

5. Hand-printed Cloth: Tie-and-Dye (called In ligo in Africa)

a. The West African tradition of tie-and-dye is unique in design, ranging from intricate and subtle single colour patterns to the use of multiple brilliant colours composing huge medallions and creating the world's most exotic printed cloth. One dyer presented me with eighty samples of the distinctive patterns in her collection, which she produces for a client against a commission. She employed twenty dyers.

Most of the patterns are created by tightly tying coated threads around the cloth so that when the cloth is immersed in a dye bath, the tied areas remain undyed. For multiple dye immersions, lighter colours are first applied. After the second areas are tied, the original light colour remains prominent in the cloth. The technique is universal, but the patterns are strikingly unique, particularly their monumental, majestic proportions.

Equally excellent, but different patterns are created by sewing the cloth together with a sewing machine. In both methods, the threads are all removed in the final stage.

The majority of the tie-and-dyes use imported bessain from Europe. It is a well established tradition to use this cloth which resembles damask. Bessain features a "white on white" figurative pattern which is lustrous as a satin weave. There are three qualities of the cloth and the finest quality currently costs over US\$12.00 per meter. Most houbous are printed on this cloth.

Quite different in character are tie-and-dyes printed on handwoven strip weaves, often used for pagnes, but they are also used for houbous by nomadic and rural women.

b. Most of the urban dyers are men and women working under a female entrepreneur. The cloth is used by African women, 5 1/2 meters for boubous and 1/2 meter for matching head wraps. Depending upon the intricacy of the pattern and the quality of bessain, boubous retailed from US\$20.00 to over US\$100.00.

Tie-and-dye is also used to pattern table cloths and western clothes, including tee shirts, pajamas and kimonas. The current market outlet was domestic and African countries. A very small quantity was exported, mainly to France. The cloth was in good demand, but all entrepreneurs complained that they could triple their production capacity if there was a larger international market outlet. They also said the cloth would be more popular and saleable locally if they could offer a lower price by reducing the cost of inputs. If imported dyes and bessain were tax-free, the costs would automatically be lower.

Africans cherish their tie-and-dye boubous, and they are worn by all levels of the society.

c. In terms of increasing productivity by expanding the international market outlet, the cloth would be more saleable if utilized in finished products. Nonetheless, it is also recommended to test market the unstitched pagnes and boubous.

Finished products as suggested for strip weave would be appropriate, as well as the fabrication of:

(i) scarves in standard dimensions, including 42x42 inches, 36x36 inches and 14x72 inches; and rectangular shawls 72x42 inches;

(ii) decorative pillows or covers, stitched in elegant shapes and sizes, whose designs would be based on market research;

(iii) clothing such as kimonas, womens' pants, pajamas and bathrobes.

d. The quality of finished clothing products would range from ethnic casual to extremely elegant and formal, depending on the

base cloth used. At first, the products can sell as expensive one-of-a-kinds, and eventually some products can be produced in large bulk quantities.

Natural indigo tie-and-dye, one of the most valuable handcrafted textile products of West Africa, can be marketed as pagnes or in finished products. This cloth is unique, and so the industry is the most worthwhile to develop, as its product has definite large market appeal. It is usually printed on handwoven cloth and the combination is perfect. An opportunity study for natural indigo tie-and-dye is strongly recommended.

e. Recommendations for assistance included:

(i) developing domestic industrial woven substitutes for bessain, as the product could be easily affordable as an exported textile if the cost of the base cloth were reasonably priced. Substitutes should have a similar sheen as bessain, but could be like chintz. It is also recommended that market research be conducted using tie-and-dye presented on less expensive qualities of bessain.

(ii) improving dye quality before initiating wide-scale exportation. The dyes used for tie-and-dye in the countries visited have the reputation of fading. Many Africans have to redye their bessain items annually. Technological research is also required on the dyes' reaction to dry cleaning;

(iii) research on Indigo cloth, for procedures to fix the colour and to rinse excessive dye;

(iv) identify appropriate finished products for the international market. The same products should have mass appeal in Africa.

6. Hand-printed Cloth - Batik

a. Batik printing is often traditionally crafted by the same artisans who produce tie-and-dye. The patterns are created by applying melted wax to resist the dye using a cold-water dye-bath. A second waxing process can be applied after the first bath to maintain this colour. During the second bath a darker

colour is used. These stages are repeated for multiple colour effect. A metal block is dipped into hot wax and stamped on cloth. Block-printed cloth usually is composed of repeated modules of a 4x4 inch block. Individual pattern blocks are used for separate colours which line up perfectly with the many blocks employed for multicolour effects.

Another popular technique of batik is painting the wax onto the cloth with a brush. Such batiks can create intricate compositions as in a fine painting. Many batik artisans, both women and men, continue the African tradition of designing narrative and nature compositions, and some are graduates of fine arts programmes in the university. Their innovative compositions create evidence of Africa's cultural evolution.

b. Domestic industrial woven cotton cloth is usually used for batiks. The stamped cloth is marketed in six meter lengths for stitching boubous. Available finished batik products include:

- (i) table cloths and napkins;
- (ii) clothing, such as dresses, skirts, shirts, jackets, pants, pajamas, kimonas;
- (iii) wall-hangings.

c. Price levels varied considerably according to quality of base cloth and intricacy and uniqueness of design. The average retail price for an average block-printed batik cloth was US\$3.00 per meter.

d. The main market outlet was domestic. There was evidence that African countries did export batik to one another, and there was mention of export to western countries in the EEC and North America. Urban productions were large enough to meet the domestic requirements as well as to establish an impressive international export.

e. The potential market appeal is dependent upon expanding the availability of finished products, price levels and assuring colour-fastness. In terms of international exportation, the designs of batik yardage are unique and very appealing.

However, they have strong competition with fine and well established exports from Malaysia and Indonesia. Price levels are very competitive, especially if the base cloth is of required fine quality. Worth pursuing are several unique alternatives:

(i) The natural indigo process is a cold water bath process, and is easily employed by batik dyers. This product would be valuable and unique;

(ii) Other natural dyes can be utilized to create similar uniqueness;

(iii) Carefully selected unique designs and colours printed on higher quality cotton, perhaps handwoven, can create a successful high end and unique textile product.

f. Prototypes of unique finished products which are potentially of international demand may be test marketed to include:

(i) lamp shades, well designed and constructed on a wooden or bamboo frame;

(ii) curtains;

(iii) table-cloths and napkins, and "mix and match" place-mats and runners;

(iv) futon coverings and bedcovers, and "mix and match" cushion and covers;

(v) clothing for casual and high end market;

(vi) wall-hangings, well designed into finished products, and selected for unique artistic value; some examples would be worthy of museum exhibition, and marketing at exclusive galleries for interior design;

(vii) scarves, a perfect dimension for batik, executed for casual and formal apparel.

f. Recommendations for assistance include:

- (i) design assistance for design selection to accentuate uniqueness of African character, and design for finished products;
- (ii) marketing research to expand outlet and evaluate price level;
- (iii) dye technology improvement and standardization.

7. Basketry and Plaited Natts (Mats)

a. Basketry is included for consideration as part of the regional Textile Programme, because it is constructed from fiber, shares a common market outlet, and is very marketable. Baskets are made by village women and men and there is a picturesque array of various kinds of baskets in the markets and on roadsides throughout West Africa. Although it is usual to find locally crafted baskets, there are large producers who market their work all over the country and contribute to the national exportation. Baskets are a part of most African households for utilitarian and decorative purposes, and the African basket is cherished by the international consumer.

Basket techniques and their design elements are traditional. Diverse shapes and sizes have evolved to serve practical functions, as well as being adapted to modern uses. A strong and crude basket used in Africa to transport agricultural products is found as a decorative element or filled with magazines in the most elegant western drawing rooms.

Basketry techniques include coiling, plaiting, braiding and interlacing. A broad range of materials are used including tree branches and palm leaves.

b. Tremendous market appeal is already well established, as is the fact that an enormous rural population can be easily employed in this labour-intensive, profitable production, which requires the least input of facilities or equipment.

c. Since there is always a shortage of supplies to meet the increasing demand of African basketry, it is recommended that international assistance be extended to:

- (i) organize productivity and coordination with rural producers and distributors;
- (ii) select the most suitable designs which are well priced in terms of international competition;
- (iii) expand market contacts and assist in the initial transactions;
- (iv) design nests of baskets that fit into one another to economize on shipping costs which have drastically limited the feasibility of many previous attempts to offer appropriate price levels;
- (v) adapt the plaited prayer mats into marketable finished products, including window shades; beach and floor mats of appropriate international dimensions; and place mats for the table.

E. Regional Training

1. ESITEX is directed by Die Roger PARE, Le Chef du Projet. ESITEX is a regional textile institute established by and for CEAO members for teaching, training, and research, within the framework of African culture. It encourages associate membership of all African countries, and has exchange programmes with many French institutes. Reasons for establishing ESITEX were:

- a. success of the textile industry of West Africa can generate tremendous economical growth and impact on the development of the region;
- b. sustained and rapid economic growth and technological transfer can best be realized through regional cooperation;
- c. the success of the textile industry depends on the innovative and professional training of its future management and all levels of the workforce. It is the philosophy of ESITEX that "the future of the African textile industry lies within the human resources;"

- d. members lack their own national textile institutes;
- e. to increase the current 10% transformation of the region's 250,000 ton annual production of raw cotton.

2. ESITEX will be operational in 1990. The internationally impressive Institute owns 50 hectares and provides the most modern facilities and highly technological equipment for the training of 180-200 students. The staff has twenty-five teachers from all branches of the industry.

3. ESITEX is mainly devoted to the industrial development of the textile industry. It also is interested in the development of the traditional handcrafted textiles industry. It will establish a museum for traditional textiles.

4. Mr. Pare was very enthusiastic to develop a programme of collaboration with UNIDO, which may include:

- a. training in international marketing strategies and textile and finished product design;
- b. development of a design center;
- c. product design of prototypes for the traditional artisans based upon market research specifications;
- d. provide concepts for the improvement of dye technology for the informal sector;
- e. seminars for the artisans to impart required training;
- f. seminars facilitated by international textile professionals.

F. Market Diversification and Strategies

1. Introduction

- a. The influx of both domestic and imported industrially produced textiles drastically reduces the demand for the handcrafted textiles, which once met the needs of the entire population. Not only are industrial substitutes often less expensive, but they captivate the consumer who enjoys acquiring products representing the modern highly technological world.

This is an unavoidable pattern for most developing countries, but for West Africa, this dilemma is amplified by the fact that handcrafted textiles have not yet been transformed into practical utilitarian finished products. West African artisans and manufacturers must translate the demands of modern trends for clothing and household and create a new realm of products for the African consumer, as well as the international audience. My mission influenced me to believe that such a transition, promising a potentially valuable and tremendous impact on the African economy, will be best catalyzed by international technical, design and marketing assistance.

b. The domestic and regional African and international markets will be discussed by suggesting product diversification in accordance with what is in demand and lacking in their respective market places. Market strategies and suggestions for assistance to expand the market base are suggested for consideration.

c. The prerequisite for a large-scale transformation of the textiles into finished products is the analysis of the results of the proposed Phases I and II of the Market Research Opportunity Study. However, my Opportunity Study on Burkina Faso, Mali and Senegal of African artisans, production facilities, and their market outlets has revealed the following general concepts.

2. The Domestic Market

a. The main consumption of handcrafted textiles by West Africans is for wearing apparel. It is a tradition to purchase cloth and have a local tailor stitch it to specifications of design and size. Industrial development to manufacture ready-made clothing of traditional and international styles, and particularly of handcrafted textiles, is still to be realized. It is identified as an extremely worthwhile pursuit for future research, analysis and assistance.

b. Equally impressive is the domestic market's demand for household utilitarian finished products. Tasteful handcrafted finished products are hardly available to the consumer, and development of this industry has the potential to tremendously increase productivity of many types of artisans.

(i) When I went to Pakistan in 1975, there were two prominent handweaving and printing producers providing the domestic consumer with household related handcrafted textiles for furniture fabrication, such as upholstery and cushions for interior and exterior use, as well as curtains and bedding, such as bedcovers and cushion covers. Tasteful middle class and affluent Pakistanis, as well as the international community and hotels solely commissioned them. They extended their market outlet by creating impressive display galleries in the major cities.

(ii) Today, there are over fifty companies of variable sized production capacity. They are thriving and creating their own nuances of design and interior concepts, displayed in boutiques and innovative showrooms throughout the cities.

c. West African countries visited are akin to Pakistan in 1975. Because there is a comparable market demand for their products, it is recommended that international assistance focus on the development of indigenous traditional textiles to meet this obvious domestic demand.

d. Such an industry for finished products, with the possible exception of upholstery, requires minimum finishing facilities. Indigenous designers can be assisted in textile technology and design to adapt the current production of African textiles to appropriate weight and strength for product durability.

e. Further suggestions for finished products for the household which were noticeably lacking for domestic consumption include:

(i) floor coverings such as mats and rugs of cotton, wool or natural fibers, including grasses and palm leaves similar to the traditional natts and prayer mats. Product adaptations require textile technology and designing to modify available fiber weights and create appropriate designs and dimensions at an affordable price level;

(ii) table-cloths and accessories such as napkins, placemats and runners;

(iii) wall-hangings which can be finished to best ensure this function;

(iv) lamp shades.

f. Promotion of the handcrafted textile industry to increase consumption requires attractive display facilities. The present shortcoming is attributed to a lack of capital to afford overhead expenses and inventory. Availability of international and government financial assistance may initiate the development of this vital link in the chain, and requires priority consideration. Such assistance may be given to help establish cooperatives for entrepreneurs who can establish impressive boutiques and display centers for their products. This can provide economical alternatives to marketing because:

(i) overhead expenses can be shared;

(ii) overhead expenses for staff salaries would be eliminated, because entrepreneurs would time-share operations and management;

(iii) self-ownership eliminates middle-man expenses and such savings greatly reduce retail price levels;

(iv) revenues can be increased by renting space to non-members;

(v) increased sales are assured by selection of prime commercial locations to attract affluent clientele and tourists;

(vi) test marketing of new designs and finished products is expedited without additional investment of capital.

3. The African Region's Market

Development of finished products for the domestic market will define successful products and their potential to increase capacity of production to provide exportation to other African

countries. African trade shows and promotion exhibitions can be the best opportunity for presentation and market promotion of these products. It is recommended that professional international assistance be extended to exhibitors so that they may maximize production to accommodate these contacts.

4. The International Market

a. The international market demand for finished products of handcrafted textiles is vast. Concentration on developing the industry requires a precise strategy of action. Priority steps must be evaluated. In view of the fact the West Africa is currently at the early stages of developing this exportation, as well as its facilities for designing and finishing products and coordinating operational activities to cultivate commerce, it may prove worthwhile to focus on the household interior design market. This consideration is recommended because the products are:

(i) in permanent demand;

(ii) a safer investment than clothing, which is a vulnerable victim of critical trends which create unpredictable long-range market appeal. Annual modifications of market demand for clothing require acute and constant attention, as well as maximum contact with importers. It is much more simple to adjust and evolve product designs for the household. Endless demand is unconditional.

b. Contacts with the international market have been very limited. An analysis of this situation is described to suggest viable alternatives for consideration on the formulation of a market strategy that may be initiated by UNIDO's Market Research Opportunity study.

(i) Due to French as the spoken language, contacts have been greatly restricted with North America, Asian developed countries such as Japan, and many countries of the EEC such as England, Italy, Germany.

(ii) Traditional handcrafted textiles have not yet been transformed into practical utilitarian products with a broad base market appeal.

(iii) Unfinished traditional African textiles are relatively expensive in comparison to handcrafted textiles from countries such as India, Pakistan, Indonesia, China, Guatemala, and Mexico.

(iv) Facilities and knowledge of international standards of quality control are underdeveloped.

(v) Sophisticated international marketing techniques and publicity strategies have not been realized by West African governments. For example, sophisticated marketing and publicity greatly catalyzed India's development.

(vi) The follow-up to international promotional exhibitions can be better organized to reap maximum benefit from the exposure and contact.

(vii) West African governments are at early stages of facilitating financial assistance and professional guidance for producers and exporters, who must be encouraged to travel to the international market place to comprehend first-hand the appropriate strategies of interaction.

c. Thus far, attempts to improve contact with an expanded international market base have been isolated attempts on a very small scale. To initiate a large-scale expansion of the productivity of the traditional textile industry by encouraging the development of exportation, a strategy must address the serious issues cited above. An international programme of assistance can:

(i) decrease the consequences of the language barrier, best exemplified by success of China. The initial stages of the programme may limit focus to very few countries;

(ii) assist in the transformation to finished product best suitable to the international market through design, technological and marketing assistance;

(iii) avoid competition with other developing countries by promoting a collection of unique and highest quality textiles and finished products, with focus on very exclusive market outlets where price levels will be relatively more independent, and small quantities are welcomed;

(iv) select appropriate market locations for each product. Research exclusive tropical market outlets such as Hawaii and exclusive North American resorts in California and Florida, and European and Asian resorts where exotic, elegant cotton clothing and tropical interior decorations are most appealing;

(v) distinguish between and target market research and product development for specific market outlets. For example, India's textile products appeal to a broad market base. Specific outlets are:

(vi) select appropriate distribution channels for each product taking into consideration capacity of current production and targets for future development. For instance, there are pros and cons to investigate when choosing between direct distribution by importers who have their own retail outlets, and wholesale distributors. In the United States, for example, wholesale distribution reaches out to a far broader market outlet. Many exclusive stores who purchase small quantities and one-of-a-kinds rely solely on wholesalers. An example is American museum stores. They create a very significant market for international handcrafted textile products and mainly purchase from wholesale distributors. However, the retail prices offered by direct distribution are triple the FOB price, whereas the retail price is often 100% higher when distributed by wholesalers;

(vii) establish well researched and enforced policies on quality control to assure a reputation of fine quality for the West African region;

(viii) pursue economical but powerful marketing publicity to promote the African traditional textile industry. The visuals of the textiles and their production captivate an international audience and can be easily publicized free of cost. Advertisements in the most exclusive magazines distributed to the appropriate clientele include those which feature arts, crafts, fashion, interior design, and anthropology. Highly professional feature articles can be written, illustrated and received well, but must be accompanied by reliable commercial contacts in participating countries. Such marketing strategies must be developed and coordinated by the international programme;

(ix) Other coordinated activities include:

d. A marketing training programme will be vital to the development of the international market and can focus on:

(i) study of the "ripple effect", which explains how appealing to the higher end of the market encourages a far longer life-time for a product;

(ii) exploration of the market to discover which market channels are most receptive and profitable, and are reputed as "trend setters." For example, the affluent Black American would be most influential and receptive to African commerce for utilitarian products and, certainly, clothing;

(iii) visits to the market place with a professional country representative who can initiate the appropriate contacts and tour;

(iv) participation in the process of presenting available products to an importer and translating market feedback specifications into suitable prototypes and following

commercial transactions. Such experience may be attainable by participation in government-sponsored international trade promotions and exhibitions. Also, the UNIDO Project staff may avail training by guiding follow-up activities.

III. CONCLUSION: Follow-up Actions

A. Characteristics and Strategies of the Proposed Regional Programme for Developing African Handcrafted Textile Cottage and Small-Scale Industries

1. A general philosophy of operation must be fundamentally agreed upon so that project activities can be coordinated and pursued within a purposeful framework which inspires and assures efficiency and expediency.
2. A programme to initiate and perpetuate development, based upon commercial interaction, must perform with the initiative of a newly aspiring business enterprise. The methodology of operation must be entirely flexible. It must be capable of pursuing opportunities and tackling unpredictable situations, often without guarantees of concrete financial benefits.
3. The project must be conceived in such a way as to continually develop access to, and expand traditional textile productions. Simultaneously, it must assist the establishment of appropriate facilities and provide technological transfer which encourages the evolution of consumable finished products.
4. It is strongly recommended that the Regional Programme has two bases of operation, particularly in the early stages of its activities: the location in Africa is to be determined, and the second may be initially in the United States if it is decided that the Programme commences with an in depth American Market Opportunity Study.
 - a. The UNIDO Textile Designer and Market Consultant, intimate with field operations and appropriate technology, can be requested to manage the base in the location of the major market research study, to expedite contacts and develop commerce. Duties will be to:

- (i) import and present textile prototypes to importers and consumers and conduct the market Research Programme;
- (ii) communicate reactions, market specifications, and suggestions for prototypes including finished product designs to the African base for distribution to producers;
- (iii) dictate terms of reference for commercial procedures and transactions for exportation to the market place;
- (iv) research and schedule appropriate trade shows and exhibitions;
- (v) design and propose publicity for all activities, as well as for the general introduction of the textiles;
- (vi) suggest products for priority assistance by the African-based programme;
- (vii) conduct Opportunity Studies for other West African countries and suggest their form of participation in the Programme. Benin, Sierra Leone, Togo, Ivory Coast, the Gambia, and Guinea have already been suggested because of their rich textile tradition and need for assistance;
- (viii) assist in developing market links to many countries. Japan may receive top priority as it has already specified its interests in particular textile products (indigo and cotton handspun fiber and handwoven cloth from West Africa, as well as high quality tie-and-dye). Japan continually proves to be one of the strongest contemporary patrons of high quality internationally produced handcrafted textiles;
- (ix) coordinate and supervise curriculum at ESITEX for training programmes and encourage participation in the international project.

(x) The duration of such direct contact with the market place may prove long-range, and operational throughout the life of the project.

b. The African-based operation will coordinate all activities generated by the "international base" and will implement assistance plans for producers to meet demands specified by the domestic and international market place. It will promote development of the industry by:

- (i) transmitting market specifications by creating an antenna network of communication and assistance, particularly inclusive of the rural areas;
- (ii) conducting Opportunity Studies to determine viable collaboration with non-government organizations and to carry out grass root assistance;
- (iii) recommending appropriate training for producers, entrepreneurs and exporters;
- (iv) defining types of technological inputs which would improve production;
- (v) defining and conducting Opportunity and Feasibility Studies to develop and expand the industry;
- (vi) coordinating African-based publicity for trade shows and exhibitions to catalyze domestic and African sales of traditional textiles;
- (vii) assisting development of cooperative owned and managed retail outlets for highest quality production to cater to domestic clientele, tourists and visiting importers;
- (viii) developing export facilities and training in export procedures in terms of packing, shipping and export documentation;
- (ix) assisting producers and traders to communicate their needs to agencies and policy-makers;

(x) formulating recommendations for governments to provide financial incentives to encourage export such as:

(xi) researching specifications for construction of waterproof sheds for outdoor year-round production facilities for cottage industry producers.

5. Thus far, international assistance to this industry is in its earliest stages of growth. Projects and programmes devoted to such development have been isolated and fragmented attempts which have not had a significant impact. What is fundamentally needed is a long-range UNIDO project which assists West Africa launch into action an elaborate policy for the development of the entire sector. Such a long-range UNIDO project can:

a. create a base for an overall approach and become a Resource Centre for other agencies and private promoters. It can become best qualified to:

(i) articulate requests for technological transfer;

(ii) assist and coordinate activities and efforts of all government ministries and organizations;

b. effectively pool together existing and new data about the informal sector of artisans, as well as established producers and suppliers;

c. provide interested investors with concrete programme proposals and strategies, as well as the project's ongoing market research;

d. coordinate smaller satellite textile projects and provide product designs to producer and suppliers initially, and then assist in the development of a design centre to continue such endeavours;

e. publicize information about trade show and exhibition schedules and initiate training programmes;

- f. communicate information about financial assistance and encourage new strategies.

B. Recommendations for Opportunity and /or Feasibility Studies

1. It is recommended that the following opportunity and/or feasibility studies be conducted as an initial phase of a long-range programme for the development of cottage and small-scale industries for handcrafted textiles. They will define the frame of reference and activities of the project.

2. Suggested studies include:

- a. Study to define government counterparts, infrastructure, in terms of interaction, government financial inputs and recruitment of staff;
- b. Study to select ongoing projects of United Nations agencies and non-governemnt organizations whose efforts may be coordinated by the project, and to define terms of collaboration;
- c. Study to define collaboration with ESITEX for regional textile trining, including suggested subjects such as product design and international marketing;
- d. Study of finishing facilities, and define terms of reference and inputs for manufacturing finished products;
- e. Study of dyeing technology, to identify appropriate technological assistance both to improve industrial facilities and also to impart training to the informal sector. Study may include:
 - (i) research conducted by UNIDO and ESITEX for the industrial sector;
 - (ii) research Ciby Geigy, BASF, and Santose for the informal sector;
 - (iii) research industrial dye technology assistance in Bangladesh where cotton dyes are of high quality;

- f. Study of product design, to define what inputs are required to establish facilities and frame of reference for training programme;
- g. Study of rural development strategies, including research of:
 - (i) Burkina Faso's northern regions for blanket weavers and other locations;
 - (ii) Mali's Segou and Mopti Regions;
 - (iii) Senegal's Casamance region;
- h. Study for a Cotton Handspinning Development Programme, to locate suitable regions, formulate assistance strategy and conduct market research;
- i. Study of natural indigo products and research suitable locations for assistance;
- j. Study of scholarships, fellowships, and stipends, to assess potential financial assistance for training in various fields, such as textile technology, marketing, finance, and design;
- k. Study of quality control facilities, to research existing facilities and formulate training programme and inputs;
- l. Study of display centres, to assist in establishing sophisticated emporiums for rural and urban producers, and to research feasibility of entrepreneur and artisan cooperative ownership;
- m. Study feasibility of assistance for construction of waterproof inclosures, such as sheds, to encourage year-round production.

Purpose of project:

Provide different governments with an opportunity study in order to enable them on one hand to take a decision concerning the development of traditional textile industry, particularly regarding European and American export markets, and on the other hand to give them recommendations how to facilitate the establishment of economic policies supporting the traditional textile sector.

Duties:

The consultant has to:

1. Elaborate an opportunity study which has to comprise six chapters, each providing information and detailed analysis as follows:

Chapter I: Aide mémoire of execution

Chapter II: Introduction

Chapter III: General opportunity study for each country

Chapter IV: Annexes comprising the list and position of people met

Chapter V: Suggestion of terms of reference and potential investors identified

2. Submit a list of traditional textile sites as well as a recommendation on the technological proceedings which are likely to be appropriate. Prepare the list for each country.
3. In case of feasible project ideas, at least three terms of reference for feasibility or prefeasibility studies recognized as opportune will be prepared. The creation of an industrial unit deriving from traditional textile industry and recognized as opportune will be prepared.
4. In addition, she has to examine the present situation, the conditions, the methods which are at the moment applied by the local artisans in the traditional sector; This has to be done in each of the visited countries. She also has to examine if appropriate technologies and innovatives could meet the needs of the artisans.
5. To record the principal traditional working sites (dyeing, finishing, among others)
6. Study the import possibilities or the strengthening of small production units giving details on the possibilities of promotion in the other countries of the sub-region, of the promotion of the technology applied as well as the promotion of products delivered to European and American markets.
7. Make recommendations for the implementation and the success of each project.
8. Study the financial resources and the credibility of local promoters.

9. Propose a synthetic report serving as recommendation for the governments for the policy to be adopted to support this sector. This parallel to the large-scale textile industries.
10. Consult the UNIDO Manual (ID.206) in the field of technology applied in UNIDO.
11. Edit the terms of reference according to the UNIDO standards, as follows:
 - a) Background and justification
 - b) Promotors and potential investors
 - c) Project objective
 - d) Expected result
 - e) Composition of the mission
 - f) Condition for realization
 - g) General work plan
 - h) Government input
 - i) Envisaged follow-up

Additional information:

Following several pre-investment studies on the textile sector in Africa it seemed that some governments, particularly in West Africa, expressed the wish to develop this sector. If it is true that UNIDO intervened with efficiency in this field through the realization of a study transferring technology that has already been known and applied in the Western world, we will, nevertheless, have to admit that the traditional textile sector, at present manual trade, has so far never been dealt with in an elaborate study.

Nevertheless, referring not only to the situation of Mali, it has been stated in connection with the project "Pre-feasibility study on a textile unit in Bougoni" that the local traditional artisans have been dealing with the transformation of raw cloth particularly to produce dyed cloth. It seems that this aspect of the textile sector "spinning and weaving" will be saleable on the European and American markets.

Unfortunately, the artisanal work cannot meet the demand. The objective of this project is to record sites and to propose small- and medium-scale industrialization in order to increase the capacity of traditional sectors and to contribute to the undervaluing of the balance of trade of the country. It has to be noted that the development of this traditional sector can only be carried out using small industrial units, also sometimes in a pilot form, and that the situation of the already existing large-scale textile enterprises has to be considered, who are not flexible enough to realize that the products produced by the small traditional units should not compete with the large existing units.

DESCRIPTION DE POSTE

- Désignation du poste: Consultante spécialisée dans développement des produits textile dans le monde traditionnel.
- Durée de la mission: Cinq semaines, dont au moins trois semaines sur le terrain.
- Date d'entrée en fonctions: Novembre 1989
- Lieu d'affectation: Bamako (Mali), Ouagadougou (Burkina Faso), Dakar (Senegal).
Vienne: briefing/debriefing; Home base.
- But de projet: Mettre à la disposition des divers gouvernements une étude d'opportunité afin de leur permettre d'une part de prendre une décision quant au développement de l'industrie textile traditionnelle, notamment vers les marchés d'exportation européens et américains, et d'autre part de leur apporter des recommandations afin de faciliter la mise en place de politique économique en soutien au secteur traditionnel textile.
- Attributions: La consultante devra
1. Réalisation d'une étude d'opportunité devant ^{com}entreprendre six chapitres, chacun fournissant des informations et analyses détaillées de la manière suivante:

Chapitre I: Aide mémoire d'exécution
Chapitre II: Introduction
Chapitre III: Etude générale d'opportunité par pays
Chapitre IV: Annexes comprenant la liste et fonction des personnalités rencontrées
Chapitre V: Proposition des termes de référence et d'investisseurs potentiels identifiés
 2. Proposer une liste de sites traditionnels de travail de textile ainsi qu'une recommandation portant sur le procédé technologique susceptible d'être approprié. Faire la liste par pays.
 3. En cas de viabilité des idées de projet, au moins trois termes de référence d'étude de faisabilité ou de pré-faisabilité retenues comme opportune seront préparés. La création d'une unité industrielle à partir de textile traditionnelle et retenue comme opportune, sera préparée.

4. En plus, elle devra étudier la situation actuelle, les conditions, les méthodes actuellement appliquées par les artisans locaux dans le secteur traditionnel; Ceci dans chacun des pays visités. Elle devra en plus déduire si des technologies appropriées et innovatives pourraient répondre aux besoins des artisans.
5. Recenser des principaux sites de travail de types traditionnels (teinture, finissage, entre autre)
6. Etudier l'importation ou le renforcement des petites unités de production avec des précisions sur les possibilités de promotion dans les autres pays de la sous-région, de promotion de la technologie adaptée ainsi que de la promotion des produits fournis vers les marchés européens et américains.
7. Faire des recommandations pour la mise en oeuvre et la réussite de chaque projet.
8. Etudier les ressources financières et la crédibilité des promoteurs locaux.
9. Proposer un rapport de synthèse devant servir de recommandation au gouvernements pour la politique à entrer en oeuvre pour soutenir ce secteur. Ceci en parallèle aux grandes industries textiles.
10. S'inspirer dans la matière technologie de l'ONUDI compris dans le Manuel de l'ONUDI (ID.206).
11. Rédiger les termes de référence selon le standard de l'ONUDI suivant:
 - a) Historique et justification
 - b) Promoteurs et investisseurs potentiels
 - c) Objectif du projet
 - d) Résultat attendu
 - e) Composition de la mission
 - f) Condition de réalisation
 - g) Calendrier général de travail
 - h) Apport du Gouvernement
 - i) Suivi envisagé

Formation et expérience requises:

Consultante spécialisée dans développement des produits textile dans le monde traditionnel.

Mettre en relation des promoteurs pakistansais avec ceux des pays visités. Aptitude afin de faire des propositions des politiques économiques dans le secteur textile traditionnel pour les gouvernements.

Connaissances linguistiques: Français et anglais.

Renseignements complémentaires:

Suite à plusieurs études de pré-investissement portant sur le secteur textile en Afrique il apparaît que plusieurs gouvernements, notamment en Afrique de l'Ouest, souhaitent développer ce secteur. S'il est vrai que l'ONUDI intervient avec efficacité dans ce domaine par le billet de la réalisation d'étude transférant des technologies déjà connues et maîtrisées dans le monde occidentale, il convient néanmoins d'admettre que le secteur traditionnel textile, actuellement artisanal, n'a jusqu'à maintenant pas fait l'objet d'étude approfondie.

Pourtant, pour ne prendre que le cas du Mali, il a été constaté dans le cadre du projet "Etude de pré-faisabilité d'un complexe textile à Bougoni" que des artisanats traditionnels locaux maîtrisaient la transformation du tissu écrie notamment pour produire des tissus imprimés au teint. Il semble que cet aspect du secteur textile "filature et tissage" trouve des débouchés sur les marchés européens et américains.

Malheureusement, le travail artisanal ne permet pas de satisfaire la demande. L'objet de ce projet est donc de recenser des sites et de proposer une industrialisation à l'échelle d'une PMI afin d'augmenter la capacité des secteurs traditionnels et contribuer à la minoration de la balance commerciale du pays. Il convient de préciser que le développement de ce secteur traditionnel ne pourrait se faire que sous forme de petites unités industrielles, parfois sous forme pilote, et que compte tenu de la situation des grandes entreprises textile déjà existantes pas suffisamment flexibles pour réaliser de tels produits les petites unités traditionnelles ne devront pas faire concurrence au grandes unités existantes.

OPPORTUNITY STUDY
FOR THE DEVELOPMENT OF THE
AFRICAN TRADITIONAL TEXTILE INDUSTRY
Burkina Faso, Mali and Senegal

LIST OF PERSONS MET: GOVERNMENT

GOVERNMENT REPRESENTATIVES IN BURKINA FASO

Ministere de la Promotion Economique: *Direction de l'Artisan*

Mr. Thomas Sanon, Minister
Madame Ouedragogo Josephine nee Sounon, Directeur
Mr. Sanou Salia, Economist, in charge of Programme Development
Mr. Harold Ptisterer, Consultant in Residence, German Aid and Technical Cooperation

Centre Artisanal Feminine de Goughin

Ms. Ouediaogo Fatima ta, Directeur

Ministere du Travail de la Securite Sociale et de la Fouction Publique: *Office Nationale Pou La Promotion de l'Emploi ONPE*

Mme. Sanon Hortense, Directeur

Office National du Commerce Exterior (ONAC)

Mr. Zambramba Benoit, Directeur General

Chambre de Commerce D'Industrie and D'Artisanat

Ms. Sylvie F. Kabore, Secretaire General

Faso Dan Fani

Ms. Jeanne Coulibaly, Directeur

GOVERNMENT REPRESENTATIVES IN MALI

Ministere de l'Industrie, MIHE

Mr. Dramone Traore, Conseiller Technique

Chambre de Commerce D'Industrie

Mr. Daba Traore, Secetaire General

Mr. Mary Andre Coulibaly, Chef de Service de la Promotion Industrielle et Artisanat

Centre Malien du Commerce Exterieur, CMCE

Mr. Hama-Ag Haqq, Directeur General

Mr. Abdoulaye Sanoko, Chef de la Division

Mr. Souleymaore Sangare, Charge d'Etude Bureau Artisanat

Le Centre d'Etudes et de la Promotion Industrielles, CEPT

Mr. Sy Sada Diane, Directeur General Adjoint

Musee National du Mali

Mr. Samuel Sidibe, Director

GOVERNMENT REPRESENTATIVES IN SENEGAL

Ministry of Industries

Mr. Tschor, Director Industries

Mr. Mathiam Thiam, Director de Artisanat

Mr. Michel David, Advisor to Minister, French Cooperation

Societe National d'Etudes et de Promotion Industriel, SONEPT

Mr. Sakho, Directeur General

Cellule de Restruction Industrielle

Mr. Djibril Naiaye, Directeur National MDIA

Senegal Industrial Sites for Small Enterprise Development, SODIDA

Mme. Ndlaye Khourdia Kholle, Directeur General

OPPORTUNITY STUDY
FOR THE DEVELOPMENT OF THE
AFRICAN TRADITIONAL TEXTILE INDUSTRY
Burkina Faso, Mali and Senegal

LIST OF PERSONS MET: NON-GOVERNMENT ORGANIZATIONS
AND BILATERAL ASSISTANCE.

NGO'S AND BILATERAL ASSISTANCE IN BURKINA FASO

SIGNUR: Systeme Integre de Gestion et de Negoces Pou l'Utilization des Ressources

Ms. Francoise de Chivigny, Chargee de Programmes

German NGO'S

Ms. Eva Marie Bruchaus, Consultant

SDID - Canadian Aid Agency

Ms. Anne Marie Blouin, Director of Programmes

U.S. A.I.D.

Mr. Wilbur Thomas, Director
Ms. Jeanne Marie Zongo, Training Officer

OPPORTUNITY STUDY
FOR THE DEVELOPMENT OF THE
AFRICAN TRADITIONAL TEXTILE INDUSTRY
Burkina Faso, Mali and Senegal

LIST OF PERSONS MET: NON-GOVERNMENT

NON-GOVERNMENT IN MALI

Ecole Supérieure de Industries Textiles ESITEX

Mr. Die Roger Pare, Le Chef du Projet

Bank Mondiale

Mr. Mama Garba Jabo

NON-GOVERNMENT AND BILATERAL ASSISTANCE MALI

Peace Corps

Ms. Hillary Whittaker, Director
Mme. Jill Donahue, Districe Adjoint Developpment Petites Entreprises
Ms. Mary de Witt, Field Officer, Developpment Petites Entreprises SED

U.S. A.I.D.

Mr. Dennis Brennan

INTERPRETERS

Ms. Korotimy Thera
Mr. Chekene, CITRI

NGO's AND BILATERAL ASSISTANCE IN SENEGAL

U.S. A.I.D.

Mr. Julius Coles, Director
Mr. Terry (Desaix) Meyers, Chef du Bureau D'Elaboration des Projects

Peace Corps

Mr. Buddy Shanks, Director
Cynde Robinson, Associate Director
Demba Balde Associate Director

OPPORTUNITY STUDY
FOR THE DEVELOPMENT OF THE
AFRICAN TRADITIONAL TEXTILE INDUSTRY
Burkina Faso, Mali and Senegal

LIST OF PERSONS MET: UNITED NATIONS

UNITED NATIONS : BURKINA FASO

United Nations Development Program (UNDP)

Mr. Toe, Representant UNDP

UNITED NATIONS : MALI

United Nations Development Program, UNDP

Mr. Peter Gil, Representant Resident Adjoint Principal
Mrs. Cecilia Berthaud, Assistant Resident Representative
Mr. Oumar Sako, Representant d'UNDP
Ms. Konate, Programme Officer

UNITED NATIONS : SENEGAL

UNIDO

Mr. Norbert Muehenbach, SIDFA
Ms. Yutta Nopper, GTO
Ms. Jenny Bie, Secretary

OPPORTUNITY STUDY
FOR THE DEVELOPMENT OF THE
AFRICAN TRADITIONAL TEXTILE INDUSTRY
Burkina Faso, Mali and Senegal

LIST OF PERSONS MET: ARTISANS AND ENTREPRENEURS

ARTISANS AND ENTREPRENEURS IN BURKINA FASO

Faso Dan Fani Cooperative
Ms. Ouedraogo Anasthasie

Batik Entrepreneurs:

Ms. Felicite Nakoulma
Mr. Minoungou Djibril
Faso Masiri Art de la Teinture Burkinabe

ARTISANS AND ENTREPRENEURS IN MALI

NIELENI, Tapis de Segou

Mme Awa Cisse, Tie Dye Artist a Badalobougou

SERVULART, Segou
Mr. Mamadu Aguibou Ba, Coordinator

Cooperative Artisal de Couture, COOPAC
Mme. Fatou D'Piaye, Directeur

Beaute Mah
Mme. Fatoumata Mahdrame

Dingongola Cooperative, Markola
Mme. Aissata Traore, Directeur

ARTISANS AND ENTREPRENEURS IN SENEGAL

ACOMA, Dakar

Ms. Anne Marie Diam

Mr. Ibou Souare

AMK

Aissa Djionne

Manufactures Senegalaises des Arts Decoratifs

Papa Ibra Tall

OPPORTUNITY STUDY
FOR THE DEVELOPMENT OF THE
AFRICAN TRADITIONAL TEXTILE INDUSTRY
Burkina Faso, Mali and Senegal

LIST OF PERSONS MET: EXPORTERS

EXPORTERS IN BURKINA FASO

Burkina Artisanats Creation (BAC)

Mr. Kambire Maurice
Ms. Annick Gireaudau
Ms. Kathy Muntch

Prodia Gemumag

Mr. M. Nielander

EXPORTERS IN MALI

Mr. Mamadou Traore
Mme. Fatoumata Mahdrame
Mr. Issa Sako
Mr. Oomar Cisse

**THE PRAGMA CORPORATION
INTERNATIONAL EXECUTIVE DEVELOPMENT PROGRAM
DEVELOPING COUNTRY HANDICRAFT EXPORTERS PROGRAM
July 18 - 25, ~~1989~~ 1990
Los Angeles**

[Dec. 14, 1989 Draft. Subject to minor changes]

Wed, Jly 18 All participants, staff arrive L.A. Day of rest.

Thu/19 Late morning brunch orientation, introductions, icebreakers. Participant and program objectives identified and defined. (Eng)

PM: "The Craft Market in the U.S.--Riches or Rags?" State of the industry. Trends, weaknesses, strengths, what moves, what dies on the shelves. Who are the consumers of crafts and where are they bought and sold? (Johansen/Cormaney)

Fri/20 AM: "To Market, To Market" Formal lecture: structure of U.S. giftware market; building links to markets abroad; defining your target market--channels of demand; channels of distribution, understanding the players. (Cormaney)

PM: "Nuts and Bolts of Developing Your Market" Knowing your product; pricing as strategy, presentation, forms and function, "retail is detail," organizing your sales. Who will buy? (Cormaney)

Sat/21 AM: "Craft and Gift Shows": why, who, what, where, when, how. What to look for at the show, who to talk to, what to say, how to approach potential buyers. Business ethics and etiquette. Pros and cons of gift shows. (Cormaney/Johansen).

PM: Attendance at the Anaheim "Buyers Market of American Crafts."

Sun/22 AM: "The Retail Market and Retail Stores Tour" "Retail is Detail" reiterated. Presentations, visuals, creative advertising, product mix, price pints, selling procedures. (Cormaney)

PM: Group tour of several retail shops specializing in international handcrafted giftware.

Mon/23

AM: "Production Values of a Quality Handicraft" Designing for the American palate. Quality and uniqueness vs. mass production of handicrafts: contradiction in terms? Can it be done? How to access information and technology. (Johansen) Introduction, L.A. Gift Show, and what to look for. (Eng)

PM: Attendance, L.A. Gift Show

Tue/24

AM: "Legal Side of the Handicraft Trade." Responsibilities between buyers, sellers and middlemen. Dotting "i's" and crossing "t's" in documents. The negotiated contract--keeping them and getting out of them. Sales agreements, letters of credit, verbal agreements--how and when do they work? Understanding and applying copyright and design protections to your product, and knowing the limits of these laws. (O'Mara)

PM: Tagging and labeling products for the private show. Hands-on workshop to understand pricing, shipping, packaging terminology, and practice tagging merchandise. (Johansen/Eng)

EVE: Group Meeting. Participants unpack and set up merchandise for next day's private show at hotel (Eng/Johansen)

Wed/25

AM: private showing of participants' products to "by-invitation-only" guest list of ten local wholesale and retail buyers of overseas hand-produced crafts. Buyers will evaluate products for quality, price, color, design and other variables. All jurors will grade each product, note its strong and weak points, determine its viability in the marketplace, and suggest ways of improving its saleability.

NOON: Luncheon will feature guest buyers as panelists to discuss personal and corporate decision-making policies and processes in ordering and purchasing handicrafts, and overall assessment of the handicraft import trade in the United States.

Late PM: participants dismantle and repack merchandise.

Thu/26

AM: FREE

PM: "The Customs Process from A to Z." Focus on handicraft imports to the U.S.--the harmonized system of preferences and its impact on handicraft imports; U.S. customs brokerage services; the entry process (formal and informal); responsibilities among forwarders, exporters and commerce officials; pricing merchandise for custom's valuation of goods; marking merchandise; understanding U.S. laws regarding trademarks, and trade names; responding to transport documents such as Ocean B/L's; House B/L's, MAWB, HAWB. (guest U.S. Customs Official/Johansen)

Fri/27

AM: "Negotiations and Sales Skills Workshop." Participants engage in group problem solving of common problems in negotiating responsibilities, commissions, payments and problems with overseas representatives, middlemen, and buyers (Eng/Johansen)

PM: "Back to the Future: Action Planning for Now and Later." Development, through group effort, of specific step-by-step action plans to define corporate and individual goals for short-term (next month), intermediate (six months) and long-term solutions to activating, changing or enhancing current business operations at home. Through facilitated interaction, participants will incorporate experience, new knowledge, and ideas from the previous sessions to create tangible product development, marketing and export plans specific to their individual needs. (Eng)

EVE: Pragma-sponsored Closing Dinner and Awards Ceremony

Sat/28

AM: "Alternative Handicraft Marketing Channels." In-depth look at ATOs such as non-profit groups (churches, missions) and special interest groups (i.e. Pueblo To People catalogue sales) to distribute products, and how to access these channels. (Johansen)
Summary, evaluation, and wrap-up (Eng)

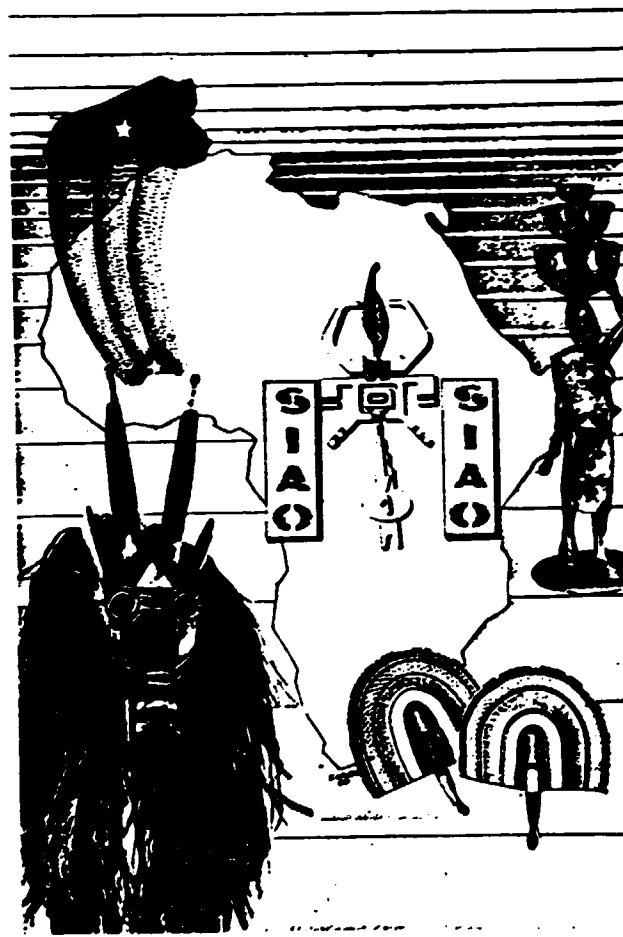
1990
LA PLUS GRANDE MANIFESTATION
ARTISANALE DU CONTINENT AFRICAIN



SIAO

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01 B.P. 389 OUAGADOUGOU 01
BURKINA FASO

^{ANNEX}
**2^e SALON INTERNATIONAL
DE L'ARTISANAT
DE OUAGADOUGOU**



27 Octobre - 3 Novembre 1990

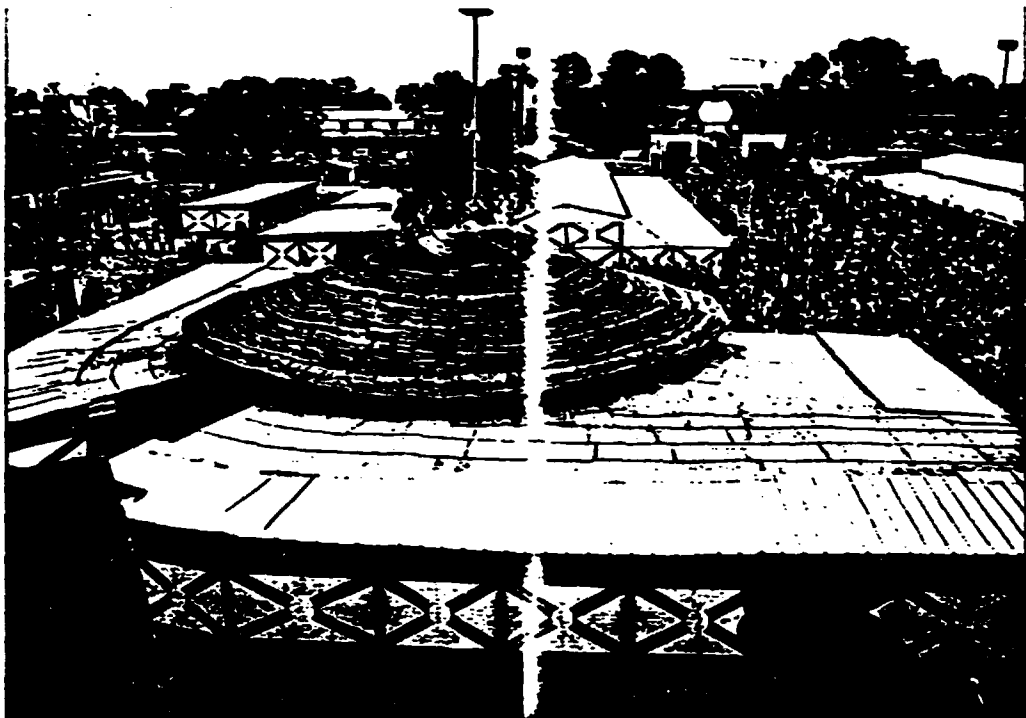


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Aire
d'Exposition

SIAO
First édition

Exhibition
area



**UN EVENEMENT EN AFRIQUE : LE 2e SALON
INTERNATIONAL DE L'ARTISANAT
DE OUAGADOUGOU (SIAO)**

1990 à Ouagadougou, capitale du BURKINA FASO : un événement d'une importance exceptionnelle va regrouper pendant une semaine les artisans et artistes de tous les pays africains qui offriront aux touristes, décorateurs, collectionneurs, galeries d'art... du monde entier, les meilleurs produits artisanaux du Continent Africain.

La 2e édition : encore un succès.

Le Salon international de l'Artisanat de Ouagadougou (SIAO) Forum de la créativité artistique et artisanale africaine, est cet important outil de promotion d'achat, de vente, de rencontre, de contact, pour vous et, entre vous et l'Afrique.

**AN EVENT IN AFRICA : THE SECOND
INTERNATIONAL AFRICAN ARTS AND CRAFTS
TRADE SHOW OF OUAGADOUGOU (SIAO)**

1990 in Ouagadougou, Capital of Burkina Faso : an event of a great importance will gather for a week the craftsmen and the artists from all african countries and offert tourists, decorators, collectors, art galleries importers... from all over the world, the best arts and crafts products of the african continent.

The second edition : One more succes.

The International Arts and Crafts exhibition of Ouagadougou, forum of the African artistic and artisanal creativity, is the most important rendez-vous of the year for business in Africa.



Annex
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Naissance d'un projet

Les pays de la COMMUNAUTÉ ÉCONOMIQUE DE L'AFRIQUE DE L'OUEST : LE BÉNIN, LE BURKINA FASO, LA CÔTE-D'IVOIRE, LE MALI, LA MAURITANIE, LE NIGER ET LE SÉNÉGAL, déjà unis par l'histoire et la géographie, partagent la même conviction profonde qu'une croissance plus rapide, plus soutenue et mieux équilibrée de leurs économies, commande la réalisation entre leurs États, d'une zone d'échanges organisée et la mise en œuvre, au niveau régional, d'une politique active de coopération.

C'est pourquoi, après avoir consacré les premières années de son fonctionnement au développement des échanges intra-communautaires, la C.E.A.O. a décidé d'accorder la priorité des priorités au développement des ressources humaines indispensables dans les principaux secteurs de leurs économies : former d'abord les gestionnaires de notre développement.

La cohérence de cette démarche a conduit, dans le domaine du textile, à la création de l'ESITEX, Institution spécialisée de la C.E.A.O. en matière d'enseignement, de formation et de recherche, à vocation inter-africaine.

L'industrie textile a largement contribué au développement industriel des États de l'Afrique de l'Ouest.

Réduite à quelques complexes au lendemain des indépendances, cette industrie s'est développée pour atteindre aujourd'hui la dimension internationale.

Plus que dans d'autres domaines industriels, les pays de la sous-région ouest-africaine pourraient maîtriser dans le secteur textile, la totalité de la filière. Mais cette maîtrise suppose celle des moyens et des stratégies.

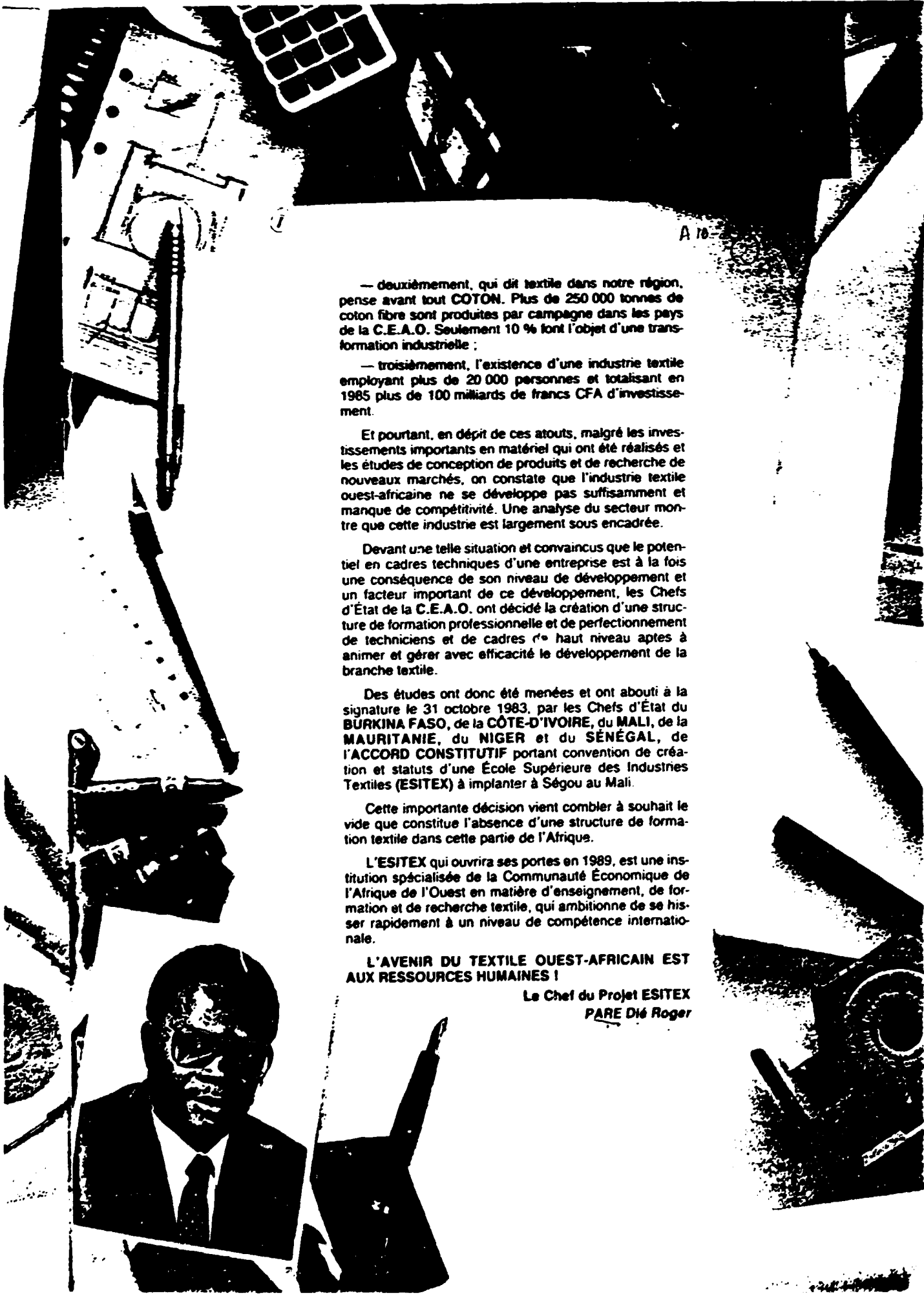
C'est dire, combien notre compétitivité, notre capacité d'innover tant dans le domaine des produits que dans celui des méthodes de production, notre crédibilité et notre professionnalisme sont des facteurs indispensables à la survie et au développement de notre industrie textile. Cette réussite passe nécessairement par l'acquisition de la compétence, en d'autres termes, par la FORMATION permettant de disposer de nos propres équipes d'animateurs.

L'Afrique de l'Ouest possède, en effet, trois atouts majeurs susceptibles d'assurer à son industrie textile une expansion soutenue :

— premièrement, son marché du textile, déjà potentiellement considérable, est en augmentation rapide du fait de la poussée démographique dans la zone géographique concernée. La consommation de fibres textiles est, actuellement, estimée à 3 kg par habitant contre 15 kg pour l'Europe et 16 kg pour l'Amérique du Nord. Pour les seuls pays de la C.E.A.O., une étude récente a révélé l'existence d'un marché de plus de 300 milliards de francs CFA, alors que le chiffre d'affaires global des usines implantées dans la zone n'est que de quelques milliards de francs CFA. La production est donc loin de répondre aux besoins ;



ESITEX



A 10-

— deuxièmement, qui dit textile dans notre région, pense avant tout COTON. Plus de 250 000 tonnes de coton fibre sont produites par campagne dans les pays de la C.E.A.O. Seulement 10 % font l'objet d'une transformation industrielle ;

— troisièmement, l'existence d'une industrie textile employant plus de 20 000 personnes et totalisant en 1985 plus de 100 milliards de francs CFA d'investissement.

Et pourtant, en dépit de ces atouts, malgré les investissements importants en matériel qui ont été réalisés et les études de conception de produits et de recherche de nouveaux marchés, on constate que l'industrie textile ouest-africaine ne se développe pas suffisamment et manque de compétitivité. Une analyse du secteur montre que cette industrie est largement sous encadrée.

Devant une telle situation et convaincus que le potentiel en cadres techniques d'une entreprise est à la fois une conséquence de son niveau de développement et un facteur important de ce développement, les Chefs d'État de la C.E.A.O. ont décidé la création d'une structure de formation professionnelle et de perfectionnement de techniciens et de cadres de haut niveau aptes à animer et gérer avec efficacité le développement de la branche textile.

Des études ont donc été menées et ont abouti à la signature le 31 octobre 1983, par les Chefs d'État du BURKINA FASO, de la CÔTE-D'IVOIRE, du MALI, de la MAURITANIE, du NIGER et du SÉNÉGAL, de l'ACCORD CONSTITUTIF portant convention de création et statuts d'une École Supérieure des Industries Textiles (ESITEX) à implanter à Ségou au Mali.

Cette importante décision vient combler à souhait le vide que constitue l'absence d'une structure de formation textile dans cette partie de l'Afrique.

L'ESITEX qui ouvrira ses portes en 1989, est une institution spécialisée de la Communauté Économique de l'Afrique de l'Ouest en matière d'enseignement, de formation et de recherche textile, qui ambitionne de se hisser rapidement à un niveau de compétence internationale.

L'AVENIR DU TEXTILE OUEST-AFRICAÏN EST AUX RESSOURCES HUMAINES !

Le Chef du Projet ESITEX
PARE Dié Roger



Une Ecole au cœur de la C.E.A.O.

RG
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Situation privilégiée :

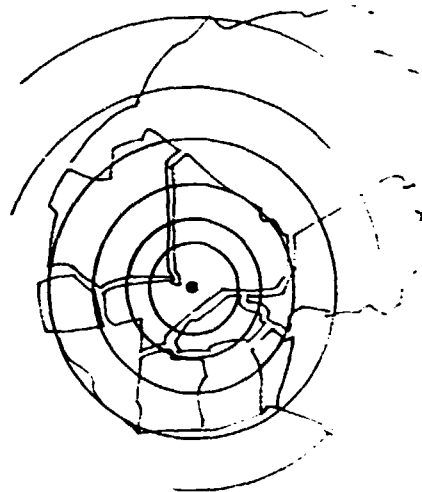
La première Ecole Textile Internationale Africaine pour la formation des Cadres est implantée à Segou. L'ESITEX est à 230 km de BAMAKO, capitale du Mali, et au cœur de la C.E.A.O. Elle bénéficie ainsi d'un environnement communautaire textile privilégié. Son site, en bordure du Niger, large d'un kilomètre, apporte le calme et la fraîcheur indispensables à une réussite scolaire de haut niveau.

Vocation et objectifs de l'ESITEX :

Aux termes de l'accord constitutif signé par les États membres fondateurs, la vocation première de l'ESITEX est d'assurer l'enseignement, la formation, le perfectionnement et la recherche/développement avec pour objectif de fournir à l'industrie Textile, un personnel technique d'encadrement, de direction, de conception et d'exécution de haut niveau suffisamment qualifié pour mettre en œuvre les programmes et les techniques de production dans les principaux secteurs de l'industrie Textile.

A cette fin, elle accomplit notamment les missions suivantes :

- 1) Formation initiale ou - formation première - de longue durée, s'adressant à des élèves issus du milieu scolaire et débouchant sur un diplôme :
 - d'ingénieur textile,
 - de technicien supérieur des Industries Textiles.
- 2) Formation continue, s'adressant à un public issu des entreprises et débouchant sur un perfectionnement et une promotion professionnelle et permettant d'obtenir :
 - le brevet d'agent de maîtrise,
 - le brevet d'agent de maintenance,
 - le certificat d'aptitude professionnelle de régleur.
- 3) Recherche appliquée en liaison étroite avec les industries et les administrations.
- 4) Information, documentation, conseil et expertise dans divers domaines textiles.
- 5) Collaboration avec les institutions nationales, régionales et internationales œuvrant directement ou indirectement dans une des activités sus-mentionnées.



Organes :

Les organes de l'ESITEX sont

- la Conférence des Chefs d'Etat de la C.E.A.O.
- le Conseil des Ministres de la C.E.A.O.
- le Conseil d'Administration,
- le Conseil de Perfectionnement,
- la Direction,
- le Comité d'Enseignement.

Membres :

- 1) L'ESITEX est composée de membres fondateurs et éventuellement de membres associés.
- 2) Les membres fondateurs sont les États membres de la Communauté Économique de l'Afrique de l'Ouest (C.E.A.O.).
- 3) Les membres associés sont tous les autres États africains, désireux de participer à l'ESITEX et ayant été agréés par la Conférence des Chefs d'Etat de la C.E.A.O.

Statut juridique :

L'ESITEX est un établissement spécialisé de la Communauté en matière d'enseignement de formation et de recherche, doté de la personnalité morale, de l'autonomie financière et administrative.

Régime de l'école et capacité d'accueil :

L'École peut accueillir 180 à 200 élèves encadrés par 25 enseignants. Le régime est l'Internat.

Diplômes et certificats :

Les diplômes ou certificats délivrés par l'ESITEX sont mis en équivalence avec ceux délivrés par les établissements comparables, nationaux ou étrangers dans tous les États membres.



ESITEX : Horizon futur, les moyens de demain

Une étude très approfondie réalisée par une équipe d'une grande compétence a permis de concevoir et de réaliser l'ESITEX

1 - Locaux :

Un ensemble immobilier d'une conception moderne de plus de 5 000 M² couverts sur un site de 50 hectares abrite

- l'administration.
- les locaux d'enseignement (salles de cours, laboratoires, salles de travaux pratiques, bibliothèque).
- l'hébergement des élèves, le restaurant et le foyer.
- un plateau sportif complète ces installations.

2 - Équipements :

Pour atteindre ses objectifs l'ESITEX s'est doté des équipements les plus modernes existants sur le marché de la machine textile.

Ce sont plus de 1 500 000 000 F CFA qui ont été investis en matériel pour la filature, le tissage, l'ennoblissement, les laboratoires (métrologie textile, chimie, automatisme, informatique, mécanique, électricité, etc.).

3 - Corps enseignant :

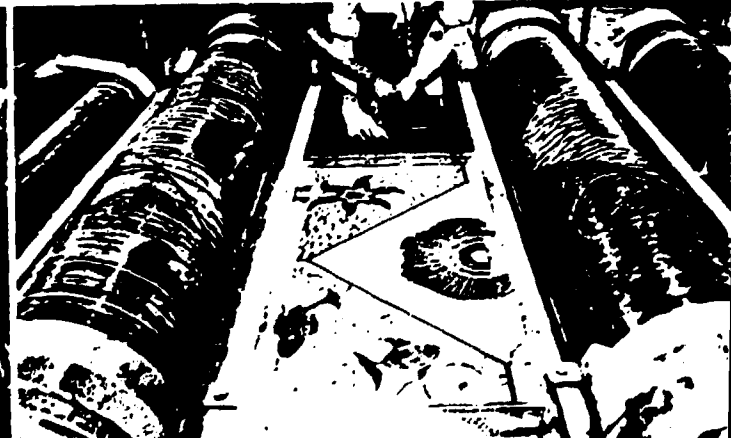
Un corps professoral composé d'ingénieurs et de Techniciens textiles ayant une expérience confirmée dans la profession et une formation pédagogique complémentaire assurera l'enseignement spécialisé.

4 - Premiers partenaires :

Des accords inter-établissements pour des échanges pédagogiques ont été passés avec les Ecoles suivantes :

- l'École Supérieure des Industries Textiles d'Épinal (ESITE) ;
- l'École Nationale Supérieure de l'Industrie Textile de Mulhouse (ENSITM) ;
- l'École Supérieure des Techniques Industrielles et Textiles à Villeneuve-d'Asq (ESTIT) ;
- l'École Nationale Supérieure des Arts et Industries Textiles à Roubaix (ENSAIT) ;
- l'Institut Universitaire de Chimie de Lille ;
- l'Institut Textile et Chimique de Lyon (ITEC).

Dans le cadre de ces accords inter-Établissements, ces partenaires s'engagent à assurer pendant plusieurs années, une assistance technique pédagogique. Ceci constitue un atout pour la réussite et la crédibilité de l'ESITEX. Pour atteindre l'objectif d'efficacité et de qualité qu'elle s'est fixé, l'ESITEX se veut plus qu'une institution. Elle est équipée pour organiser des séminaires, colloques et conférences pouvant regrouper des instituts similaires, des constructeurs de matériel textile, des industriels. Elle sera le lieu de rencontre privilégié des professionnels de l'industrie textile.



SECTIONS D'ENSEIGNEMENT

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A10-5

Ingénieurs Diplômés ESITEX

Durée des études :

3 années dont 2 à l'École et 1 année de recherche appliquée en entreprise.
Un stage de 1 mois en entreprise est effectué à la fin de la première année.

Conditions d'admission :

- a/ Sur titres après examen du dossier scolaire pour :
 - les titulaires d'un DUT technologique ou scientifique
 - les titulaires d'un DEUG
- b/ Sur concours pour :
 - étudiants de maths spéciales
 - titulaires BTS technologique ou scientifique.

Sanction des études :

Diplôme d'Ingénieur de l'École Supérieure des Industries Textiles, délivré à la suite d'un contrôle continu des connaissances tout au long de la scolarité et à l'issue de la présentation des travaux de recherche appliquée réalisés en 3^e année.

Ce diplôme délivré par l'ESITEX est admis en équivalence avec ceux délivrés par les établissements comparables nationaux ou étrangers dans les États membres.

PROGRAMME D'ENSEIGNEMENT

1^{re} et 2^e années

• Formation scientifique

Méthodes statistiques.
Physique-chimie.
Mécanique.
Électricité - électronique automatique - informatique.
Dessin industriel.

• Formation technique

Matières premières naturelles et chimiques.
Les filés - procédés de filature : fils continus, fibres courtes et longues.
Les surfaces textiles : tissus, tricots, non-tissés.
Les traitements de finition : blanchiment, teinture, apprêts.
Les matériels pour réaliser ces fabrications.
Les contrôles de fabrication.
Initiation aux techniques de la confection et des techniques de la maille.
Ordonnancement - ingénierie.
Ces cours comportent une large part de travaux pratiques en ateliers et laboratoires.

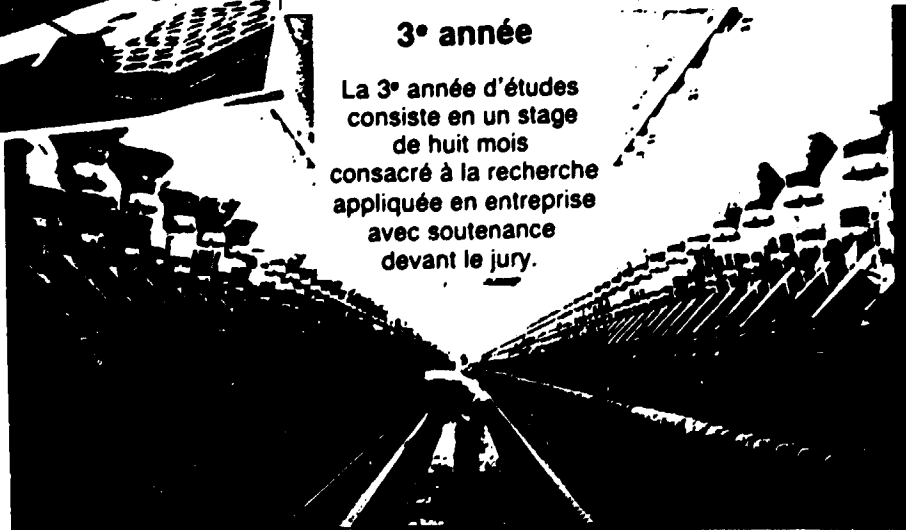
• Formation économique, sociale et humaine

Expression écrite et orale : correspondance, comptes rendus, exposés oraux.
Langue étrangère (anglais).
Législation du travail.
Organisation.
Économie et gestion d'entreprises.
Ce programme est complété par des conférences à l'école et visites d'usines.



3^e année

La 3^e année d'études consiste en un stage de huit mois consacré à la recherche appliquée en entreprise avec soutenance devant le jury.



Techniciens Supérieurs ESITEX

TEXTILE et ENNOBLISSEMENT

Durée des études :

L'ensemble du programme est réparti sur deux années scolaires. Un stage ouvrier d'un mois dans une entreprise textile avant la 1^{re} année et un stage de 1 à 2 mois en fin de 1^{re} année seront réalisés et feront l'objet d'un rapport qui sera présenté et noté par le Chef d'Entreprise et par les professeurs de l'École.

Conditions d'admission :

- a/ Sur titre pour les titulaires du baccalauréat (séries scientifique ou technologique) ou brevet de technicien à caractère industriel.
- b/ Sélection sur dossier d'après les résultats scolaires des deux dernières années.

Sanction des études :

Le brevet de technicien supérieur est délivré à la suite d'un contrôle continu des connaissances tout au long de la scolarité.

Ce brevet délivré par l'ESITEX est admis en équivalence avec ceux délivrés par les établissements comparables nationaux ou étrangers dans les États membres.

Options :

- Deux options sont prévues :
- une option "textile" filature et tissage
- une option "ennoblissement" blanchiment teinture impression et apprêts.



PROGRAMME D'ENSEIGNEMENT

1^{re} et 2^e années

I. Tronc commun aux deux options

- Formation scientifique : 576 heures

Mathématiques statistiques.
Électricité - électronique.
Mécanique.
Automatismes - régulation.
Informatique.
Dessin industriel.
Physique-chimie.

- Formation sciences humaines économiques et sociales : 320 heures

Expression écrite et orale.
Langue étrangère (anglais).
Comptabilité, gestion économie.
Commerce.
Travail, hygiène, sécurité.
Organisation, ordonnancement, ingénierie.
Créativité.
Relations humaines.

II. Formation technique 1 024 heures

2.1. Option filature tissage

Matières textiles
Métrologie textile.
Filature.
Tissage - non tissés.
Chimie initiation
Bonneterie - confection (initiations)
Maintenance
Contrôle de fabrication.

2.2. Option ennoblissement

Métrologie textile
Chimie
Chimie minérale
Chimie organique.
Chimie macromoléculaire
TP chimie.
Chimie traitement textile
Maintenance
Filature tissage
Bonneterie - confection (initiations)
Contrôle de fabrication.

Ces cours comportent un large part de travaux pratiques en ateliers et laboratoires
Ce programme est complété par des conférences à l'école et des visites d'usine



Agents de Maîtrise

Durée de la formation :

Pour un cycle complet, durée 40 semaines, soit 1 200 heures.

Conditions d'admission :

Etre titulaire du BEPC ou équivalent et justifier d'une expérience professionnelle réelle.

Sanction des études :

L'ESITEX délivre à la suite d'un contrôle général, le "Brevet d'Agent de Maîtrise".

PROGRAMME D'ENSEIGNEMENT :

La formation des Agents de Maîtrise est décomposée en quatre modules de durée identique à savoir 300 heures chacun. Dès que le stagiaire a satisfait aux épreuves d'un module et acquis les connaissances requises, il passe au module 2 et ainsi de suite.

MATIÈRES ENSEIGNÉES :

Module 1 :

- calcul de base
- expression écrite et orale.

Module 2 :

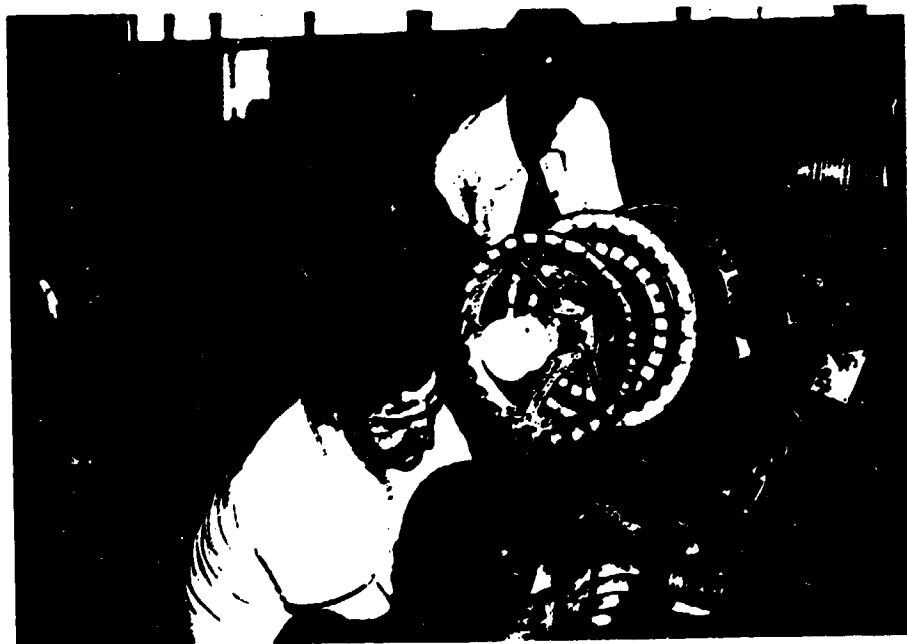
- mécanique et dessin industriel
- électronique - électrotechnique
- automatisme
- TP maintenance

Module 3 :

- chimie et/ou technologie des machines
- travaux pratiques
- contrôle

Module 4 :

- commandement
- pédagogie
- hygiène sécurité
- législation du travail



Agents de Maintenance

Durée de la formation :

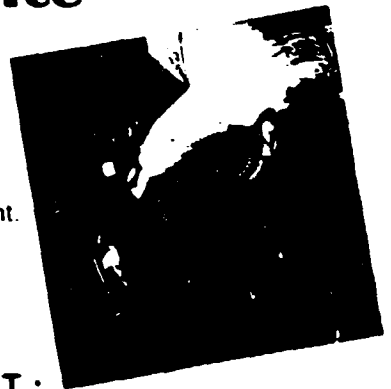
Durée totale 40 semaines de 30 heures, soit 1 200 heures de cours.

Conditions d'admission :

Etre titulaire d'un CAP mécanique ou électricité ou niveau équivalent.

Sanction des études :

L'ESITEX délivre un "Brevet d'Agent de Maintenance".



PROGRAMME D'ENSEIGNEMENT :

L'enseignement se répartira de la façon suivante.

Enseignement général scientifique : 480 heures

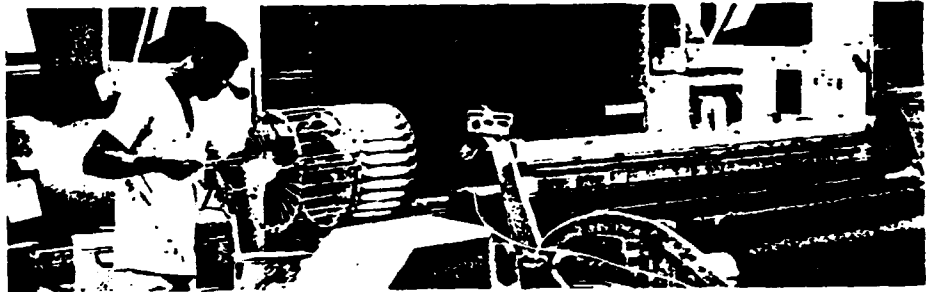
Calcul
Mécanique
Electricité
Electrotechnique - électronique
Automatismes pneumatiques
Dessin industriel

Relations humaines : 320 heures

Commandement
Pédagogie
Expression écrite et orale
Hygiène et sécurité
Organisation législation

Travaux pratiques de maintenance : 400 heures

Métriologie
Filature
Tissage
Electricité électronique
Automatisme - pneumatique



Régisseurs

Durée de la formation :

La formation est réalisée sur une durée de 20 semaines soit 660 heures d'enseignement.

Conditions d'admission :

Titulaire du certificat étude primaire ou avoir le niveau équivalent et ayant une expérience en entreprise.

Sanction de la formation :

L'ESITEX délivre après contrôle des connaissances un "Certificat d'Aptitude Professionnelle".

PROGRAMME D'ENSEIGNEMENT :

La formation se réalise suivant deux options :

- option filature
- option tissage.

Les cours d'enseignement général sont communs aux deux options.

I. Enseignement général et scientifique : 320 heures

Calcul
Mécanique et dessin industriel
Electricité
Automatisme
Hygiène et sécurité

II. Enseignement textile : 280 heures

Filature ou tissage
Technologie des machines
Travaux pratiques textiles
Métréologie

Les travaux pratiques représentent 65 % de l'enseignement textile

La Formation Continue

TEXTILE et ENNOBLISSEMENT

Entretien et perfectionnement des connaissances :

2 formules de stage :

- inter-entreprises à l'ESITEX ou autre localité suivant effectif à former.
- intra-entreprises sur demande et sous forme d'interventions adaptées à des besoins spécifiques.

Domaines d'intervention :

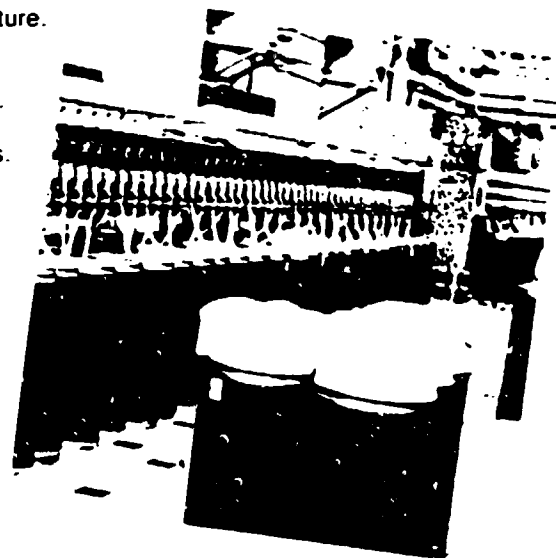
- Perfectionnement des régisseurs et agents de maîtrise pour la filature (coton) et le tissage.

Filature : soigneurs de machines à filer

formation à l'électronique des machines textiles.

Tissage : tisserands, échantillonnage, fabrication préparation CAO/DAO appliquée au textile.

- Métrologie textile
- Perfectionnement agent laboratoire chimie textile et teinture.
- Maintenance mécanique, électricité, automatismes.
- Informatique, productique.
- Formation à la connaissance de l'Entreprise (Économie).
- Prix de revient - productivité.
- Formation de base du personnel des Entreprises textiles.
- Initiation textile pour utilisateurs et vendeurs.



Au service de la Profession Textile

Domaines d'intervention :

- Filature.
- Tissage.
- Métrologie textile.
- Chimie textile.
- Laboratoire teinture.
- Maintenance.
- Formation de base du personnel des Entreprises Textiles.
- Connaissance des textiles pour utilisateurs et vendeurs.
- Recherche développement.

Sections d'enseignements :

Formation première :

- Ingénieurs diplômés.
- Techniciens supérieurs option "Textile".
- Techniciens supérieurs option "Ennoblement".
- Agents de Maîtrise.
- Régleurs filature-tissage.
- Agents de maintenance.

Formation continue :

100 à 150 stagiaires par an.

Entretien et perfectionnement des connaissances.

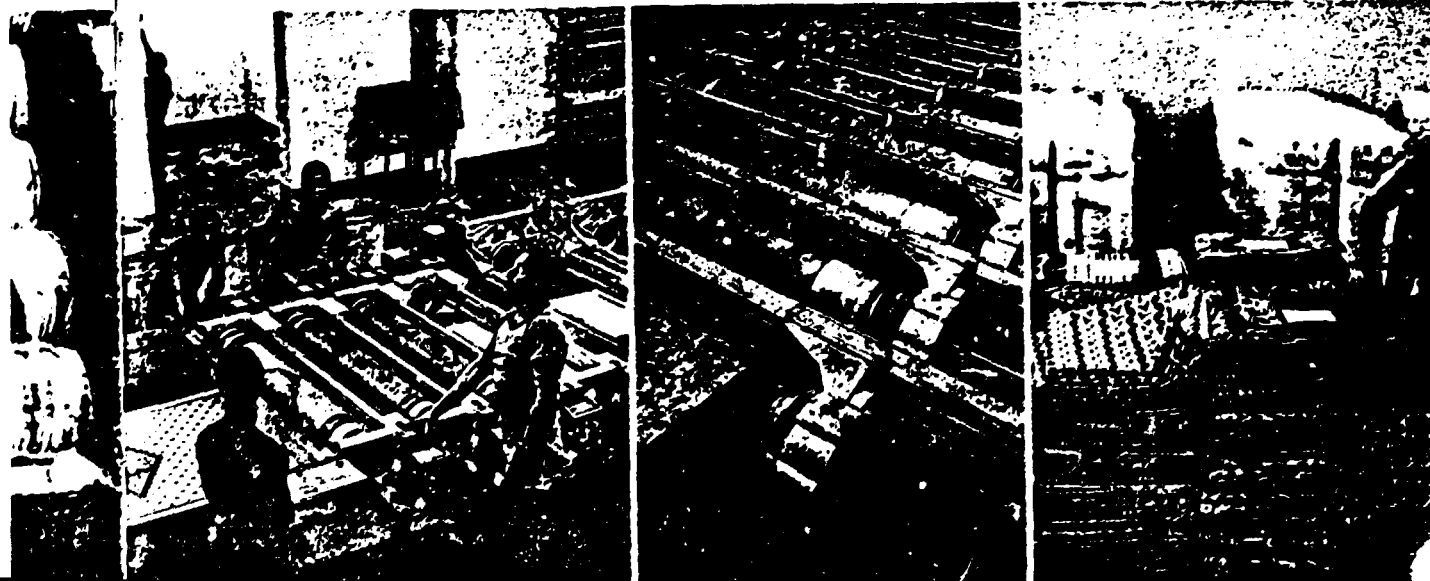
2 formules de stage :

- inter-entreprises à l'ESITEX à Ségou ou autre lieu éventuellement.
- intra-entreprises sur demande et sous forme d'interventions adaptées à des besoins spécifiques.

Service aux entreprises :

Les laboratoires de l'ESITEX peuvent intervenir pour les contrôles de fabrication et pour l'analyse des matières premières textiles et des produits finis.

- Essais sur cotons et filés.
- Essais sur tissus.
- Essais divers, solidité teinture, analyse de tissus teints.
- Traitement des eaux, etc.



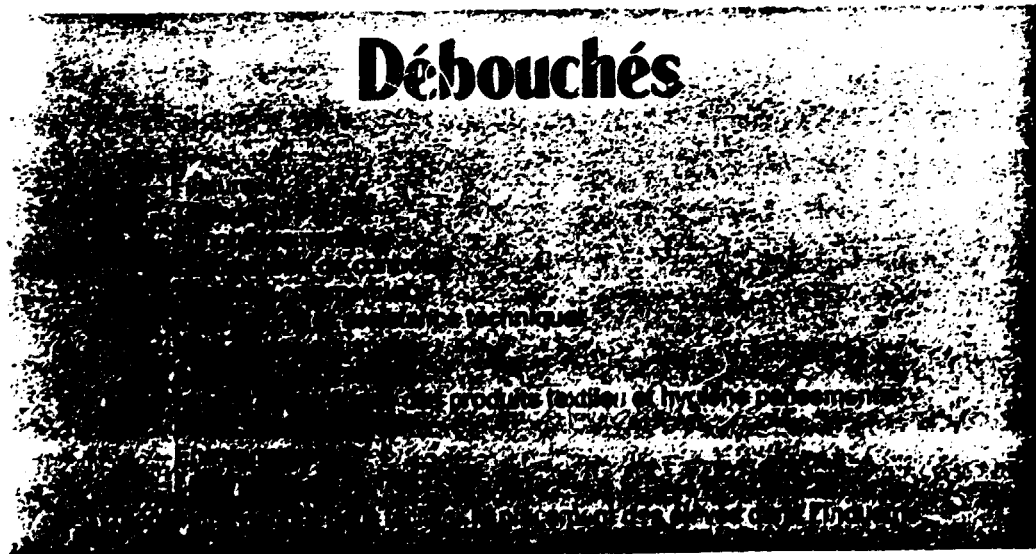
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A 10-11

Laboratoire d'Analyses, d'Essais et de Contrôles Textiles

Les laboratoires de l'ESITEX interviennent pour le contrôle de fabrication et dans l'analyse des produits finis.

De la matière première au produit fini teint et/ou imprimé.

- *Analyses coton*
 - longueur des fibres
 - résistances des fibres
 - pourcentage de déchets, etc.
- *Analyses des filés*
 - titre
 - régularité
 - torsion
 - résistance
 - taux de reprise, etc.
- *Essais sur tissus*
 - analyse contexture, titre chaîne et trame
 - comptage
 - résistance dynamométrique
 - abrasion
 - éclatement, déchirure, hydrofugation, etc.
- *Essais sur tissus finis*
 - solidité à la lumière
 - dosage des fibres dans un mélange
 - composition colorimétrie, etc.



ESITEX



Annexes

EXTRAITS DU RÈGLEMENT INTÉRIEUR

Le régime de l'école est l'internat. Les élèves prennent leurs repas au restaurant de l'école. Les cours ont lieu en principe de 8 h à 11 h et de 15 h à 18 h, soit 33 heures de cours par semaine dont 3 heures de sport obligatoires.

La présence aux cours, travaux pratiques et visites d'usines est obligatoire.

La réussite des élèves ne dépend pas d'un examen de fin d'année, mais d'un travail régulier contrôlé tant au long de l'année par des interrogations (notées de 0 à 20).

Moyenne générale obligatoire de 12/20 pour chacune des années d'études (ainsi que pour le rapport du stage de fin d'études Ingénieur) sans moyenne inférieure à 10 pour toutes les matières techniques et sans moyenne particulière inférieure à 5 pour toutes les autres matières.

Le redoublement peut être accordé exceptionnellement une seule fois après avis du conseil des professeurs.

Les décisions du jury sont sans appel.

Les élèves des sections TS désirant se présenter au concours d'entrée en section Ingénieur, ne peuvent faire état de candidature qu'à la condition d'avoir obtenu un avis favorable du Conseil des professeurs, à l'issue de la 2^e année TS et d'être obligatoirement dans le premier quart du classement général.

Les stages entre les années d'enseignement pendant les vacances sont obligatoires et font l'objet d'un rapport qui sera remis au professeur principal.

