

PD - AAU - 038

UNITED STATES GOVERNMENT

# Memorandum

TO : AFR/RA, Mr. E. Dennis Conroy

DATE: NOV 30 1977

FROM : AFR/RA, Jeannette B. Carson

SUBJECT: WID Project 698-0388.4 - Kassack Nord - Senegal

ISN = 16617

Discussion: The Government of Senegal is requesting A.I.D. assistance for two years to help create a pre-cooperative village organization of women that will provide a variety of economic and social activities. The activities will increase agricultural production and improve the village economy through a program of integrated development to increase women's income and promote the role of women in rural development.

A total of \$25,000 is requested to finance commodities, equipment, construction costs and supplies. The Government of Senegal will be the grant recipient and will provide approximately one-fourth of the costs consisting of personnel and land.

The attached project has been reviewed by the Project Committee and is hereby submitted for your approval as Activity No. 4 under subject project. An approved Initial Environmental Examination is attached.

Recommendation: That you approve (1) the attached WID project and (2) sign the attached cable authorizing the ADO/Dakar to negotiate a grant agreement with the GOS and obligate not to exceed \$25,000.

APPROVED: \_\_\_\_\_

*E. Dennis Conroy*

DISAPPROVED: \_\_\_\_\_

DATE: \_\_\_\_\_

*November 30, 1977*

Clearance: AFR/RA: JKraus

AFR/SFWA: JLanglois

AFR/DP: EMcKoy

AFR/DP: GCauvin (draft)

AFR/RA: CSanders (draft)

GC/AFR: EADragon on yellow

AFR/DR: DDibble (info)

A/WID: LGoodman (info)

AFR/RA: JBCarson:m1s:11/23/77



PROJECT

KASSACK NORD ACCELERATED ACTIVITY PAPER (AAP)

A. BACKGROUND

In mid-1976 a Promotion Humaine literacy training program was begun in Kassack Nord, a village created in the Senegal River Delta Fleuve Region in 1966. The training program was later taken over by SAED <sup>2/</sup> instructors to train village men in basic reading and writing skills. The village women became interested in literacy training and also requested a training program. The women's literacy training, which began in late 1976, led to other group actions, again at the women's request, such as sewing classes and nutritional education. In January, 1977 the women requested SAED assistance to organize a broader range of women's activities.

A survey was conducted in February 1977 by SAED extension workers in collaboration with a committee of village elders, men and women, to identify the needs of village women and the types of activities of particular interest to Kassack Nord women. Questionnaire interviews held with the village women identified these concerns:

1. Women's heavy (14 hour) workday of gathering wood, cooking, pounding millet grain, tending children and working in the fields.
2. Women's desire for greater involvement in economic activities such as agriculture, commerce, artisanal production, livestock raising.
3. The desire for improved medical services. In a village with no health facilities, 84% of the women interviewed expressed preference for giving birth at a dispensary. Fifty four percent of the women claimed to have been assisted in child birth by only a traditional mid-wife and forty four percent to have delivered their children without assistance.
4. Village sanitary conditions were considered inadequate.
5. Ninety-two percent of the women responded that they would like to acquire or improve their reading and writing skills. Ninety percent of the women interviewed are illiterate.

1/ A broad background of women's role and potential in development in Senegal is presented in Sect. I, Women in Development. PRP dated 10/29/76.

2/ Société d'Aménagement et d'Exploitation des Terres du Delta.

## B. PROJECT DESCRIPTION

In response to the survey findings, the Kassack Nord project will create an Association of Rural Interest (AIR), a pre-cooperative village organization of women that will provide a framework for collective activities. Social and economic activities will be initiated and managed by the AIR organization and within two years the organization can be chartered as a cooperative and benefit from government support through credit availabilities and technical assistance. The grant recipient will be the Government of Senegal.

SAED will provide all technical, social, administrative, economic and planning services in the "Zone Pionnière" of the Fleuve Region (See Technical Analysis, Section G for discussion on "Zone Pionnière".)

SAED is the implementing agent for the Kassack Nord project. The various project activities are described below:

### 1. Pre-Cooperative Structure (AIR)

Women leaders will be trained to direct and continue the project activities as officers of the AIR. The AIR structure consists of a managing board: president, vice-president, secretary-treasurer and two AIR members trained in administrative skills. This board will provide administrative services such as seed and tool purchases, organization and training members, sale of AIR products and liaison with SAED for support assistance. Other AIR cadre will include activity managers responsible for the day-to-day operation of food production activities, village industries, training and social services.

2. Vegetable Production will be initiated on 60 ares adjacent to the Gorom tributary and within a short distance from the village.

3. Rice Production will be initiated on six hectares of SAED land.

4. Women's Literacy Training will be offered to all members of the AIR.

5. A Village Fabric Dyeing Cottage will be initiated.

6. Poultry Production will be started to assure a supply of meat and eggs and will be undertaken collectively as an AIR village industry.

7. A Mechanical Grain Mill will be operated by the association, and a donkey cart will be provided for AIR members to gather wood, freeing women's time now spent on these tasks.

8. Health Components will include training in nutrition and hygiene for AIR members, the organization of a village health post and of a village maternity service. The health post will provide an outlet

for non-prescription items such as aspirin, anti-malarial pills and salves, and the maternity will introduce aseptic mid-wife assistance at childbirth.

C. The goal of AID assistance to women's groups in Senegal, and of this project, is to improve women's economic and social well being and to assist them in exerting a more decisive role in the development of their milieu.

D. The purpose of the Kassack Nord project is to alleviate the heavy burden of daily tasks performed by village women, to offer as work alternatives a variety of economic and social activities within a pre-cooperative structure and to increase agricultural production and improve the village economy through a program of integrated development to increase women's incomes and promote the role of women in rural development. This pilot activity will test out a cooperative approach that can be replicated in other villages within the SAED "Zone Pionnière".

E. PROJECT OUTPUTS

<u>Truck Gardening</u>	<u>Value of Outputs</u>	
Products for auto-consumption	852,000	§3550
<u>Domestic Activities</u>		
50 tons threshed millet at 10f/k	500,000	§2083
<u>Maternity</u>		
Asceptic delivery of births. Approximately 70 per year.	50,000	§ 208
<u>Health Post</u>		
Medicine supply	60,000f	value sold at?
<u>Literacy Classroom</u>		
1-300 women functionally alphabetized.		
<u>Rice Cultivation</u>		
Harvest	871,500	§3631

Poultry Farming

Sale of chicks	30,000	
Sale of eggs	180,000	
Sale of roasting chickens	24,000	
Sale of spring chickens	30,000	
	<u>264,000</u>	\$1100

Eggs and meat for auto-consumption.

Fabric Dyeing

Sale of pagnes 200 at 1500f.	300,000	\$1250
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F. PROJECT INPUTS

	<u>Value of Inputs</u>
<u>Literacy Training</u>	\$2,290
Construction materials Training materials	
<u>Maternity</u>	\$6,750
Construction materials Mid-wife and assistants' training Furnishings and equipment Medicine	
<u>Health Post</u>	\$ 250
Sanitation agent's training Medicines	
<u>Vegetable Production</u>	\$3,290
Land (0.6 hectares) Soils analysis, first plowing Seed, pesticides and fertilizers Farm tools Irrigation pump Fuel and oil Training	

<u>Rice Production</u>	\$1,530
Land (6 hectares)	
Seed, pesticides and fertilizers	
Water	
Training	
<u>Poultry</u>	\$1,460
Construction materials	
Poultry stock	
Equipment and feed	
Fencing	
Veterinary treatment and inoculations	
Training	
<u>Fabric Dyeing</u>	\$1,375
Construction materials	
Bowls, dyes, and other equipment	
Cloth	
Training	
<u>Domestic Activities</u>	\$3,100
Construction materials	
Grain mill	
Cart and donkey	
Fuel and oil	
Guard salary	
Training	
<u>Fencing</u>	\$1,250
Construction materials	
<u>SAED Supervisory Assistance</u>	
Literacy instructor	
Social assistants (2)	
Technical personnel (5)	
Administrative personnel (5)	

## G. TECHNICAL ANALYSIS

In this section project components are discussed with reference to technical and backstop services provided by the village, SAED and GOS regional agencies. Concluding the section is a breakdown of SAED and project personnel.

### Literacy Training

The SAED literacy instructor, who has lived and worked in Kassack Nord over the last year will introduce the AIR organization and structure to project participants. He will also provide general assistance through the first phases of project implementation, hold elections and introduce the conventions contained in governmental decree No. 60-177, which provides the basic design for the organization of an AIR.

Two SAED social assistants will complete training at ENAES (Ecole Nationale des Assistants et d'Education Spécialisée - Santé) in Dakar and will be stationed at Ross-Béthio where they will be responsible for all women's cooperatives in the SAED "Zone Pionnière". Their efforts during the next 8 months will be concentrated on the Kassack Nord project, the first women's AIR in the zone. The social assistants will have received general training in cooperative skills and will be prepared to fulfill a number of functions such as training AIR members in sewing, nutrition, and in the management of project activities.

The literacy instructor and social assistants are supervised by the SAED Director of Cooperatives at St. Louis, and the SAED Director of Training. The Regional Inspector of Promotion Humaine will provide additional agents and technical assistance as required.

### Maternity

The project health activities will have an immediate impact on all Kassack Nord villagers and will involve AIR members in pharmacy and health training. A traditional mid-wife is now completing three months training with a professional mid-wife at Richard-Toll. Following this training she will return to work in Kassack Nord. The traditional mid-wife's primary function will be to assure that child delivery in the village maternity is performed under aseptic conditions.

### Village Health Facility

A Kassack Nord villager is being trained in St. Louis dispensaries under the supervision of the GOS area physician, to stock and sell basic medicines in the village. This villager will receive three months training in symptomatic diagnosis of the ten major endemic diseases, first aid care, preventive health measures and management of a village health post. This village sanitation agent will make regular visits in Kassack Nord homes to discuss nutrition, disease prevention and to locate villagers showing symptoms of endemic disease. Medicines will be paid for by villagers to cover costs. Periodic refresher training of the sanitation agent and supervision will be provided by the GOS medical bureau at St. Louis.

Village health training will be a collaborative effort by the AIR mid-wife and sanitation agent and organized under AIR supervision. AIR members will attend discussions on nutrition, basic hygiene practices and child care to reinforce home visits by the sanitary agent and consultations with the traditional mid-wife. The SAED social assistants and literacy instructor will moderate health discussions and prepare teaching aids when required.

### Irrigated Vegetable Production

Vegetable production will be initiated adjacent to the village where 0.6 hectares have been set aside by the village chief for the women's use. A SAED horticulture agent will train women gardeners and the activity manager who is responsible for day to day supervision of garden activities. A diesel pump (20 m<sup>3</sup>/hour capacity) will be purchased for the project and maintenance of the pump will be provided by a Kassack Nord villager trained at the SAED equipment center. Motor repairs however, will be left to SAED mechanics or to the supplier. Repair costs will be covered by AIR revenues.

### Rice Production Irrigated By SAED

SAED is responsible for introducing rice production in the Fleuve Region Pioneer Zone which extends from St. Louis to Bakel and includes all land between the paved road (Route Nationale N° 2) and the Senegal River.

In 1978, SAED will develop six hundred hectares of riceland adjacent to Kassack Nord that will be parcelled out to Kassack Nord farmers. Six hectares will be reserved to AIR members for collective exploitation. SAED will provide irrigation infrastructure including pumping facilities, soils analysis and will supervise technical aspects of rice cultivation from planting through harvest.

The AIR will reimburse SAED for the cost of water, the initial deep plowing of the land, for seed and fertilizers. The harvest will be sold to SAED at the Government regulated price of 41.5 CFA per Kg.

Salt water intrusion in the Delta area during the hot season limits irrigated production to one crop annually. Current yields on Delta rice perimeters average 3.5 tons per hectare and a similar yield is anticipated at Kassack Nord. SAED field agents will provide full technical backstopping of the women's rice activities and will train AIR members in crop management, allowing members to eventually assume full responsibility for rice production.

### Poultry

Poultry raising is a traditional village activity in the Delta and over the last ten years both Rhode Island Red and Jupiter cocks have been successfully introduced into the area. The poultry operation will be the first attempt in the Delta to establish a full stock of high quality breeds. Fifty-four Rhode Island Red and fifty-four Jupiter chicks will be bought to initiate the village poultry industry which will provide eggs and meat for villagers, and for sale on the local markets. A mortality rate of 8% is anticipated from the purchase date of the chick (one day old chicks) to productive age at five months. One hundred and eight chicks will be bought to assure a stock of 100 layers. Training in poultry care and technical assistance will be provided by two SAED veterinary agents stationed at Ross Bethio. Chicks will be purchased at the M'Bao poultry center outside of Dakar; inoculations will be provided by the Government livestock agent at St. Louis. Purchase cost is 100 CFA per chick. Layers will produce eggs for a twelve month period with resale scheduled after eighteen months at an average value of 1,200 CFA per chicken.

### Fabric Dyeing

A village cloth dyer will instruct AIR members in this traditional occupation. Project funds will provide start-up supplies while marketing will be done through village markets and through the St. Louis artisanal center.

### Domestic Activities

Project funds will provide a wood cart and millet mill for use by AIR members, freeing time for AIR economic and social activities. The organization of domestic activities will be left to AIR members. Members will pay a small fee to the AIR for use of the equipment. The village mechanic will be responsible for the operation and maintenance of the grain mill. Repairs will be performed either by SAED technicians or by the machine supplier and paid for by the proceeds.

Although the village mechanic will not receive a salary, some form of compensation for his work is envisioned, such as a contribution of AIR labor for work on his fields.

### Infrastructure

A work and meeting area is planned at mid-village that will include the dispensary, classroom, dyeing and grain mill huts creating a women's center. Construction of the center will follow the same design used for the Thies Women's Center incorporating some modifications proposed by the St. Louis area physician and the SAED Industrial Division to adapt the basic design to the Delta site. Labor will be provided by the village while masons and carpenters will be provided by the SAED Industrial Division. Construction plans will be submitted for AID approval prior to construction.

### Project Personnel

#### Village:

AIR Officers	(3)
Members representatives	(2)
Kassack Nord Men	(2)
Traditional mid-wife	(1)
Sanitation agent/pharmacist	(1)
Dyeing technician	(1)
Grain mill and pump operator	(1)
AIR Activity Managers	(5)

#### SAED Field Agents

Literacy instructor	(1)
Social assistants	(2)
Horticulture agent	(1)
Veterinary agents	(2)
Technical agent, rice	(1)
Agricultural engineer	(1)

#### SAED Administrative

Project Director, Mme Diagne  
Training Director, Mr. Ba

Sociologist, Mlle N'Diaye  
Economist/Accountant, Mr. Diallo  
Cooperative Director, Mr. Diagne

Structure of the AIR and Activities

Initially the AIR structure will include an administrative board of three officers and two representatives of AIR membership. Participants in each project activity will be identified to begin training and work in close collaboration with the SAED literacy instructor, social assistants, project director and staff.

Activity managers will be selected from among project participants to supervise the day to day operation of the nine project activities: rice production, vegetable production, poultry, fabric dyeing, literacy training, health post, maternity, wood gathering, and the operation of the grain mill. A total 300 women will be involved in the project representing 100% of Kassack Nord women over eighteen years old.

At project completion the AIR structure will evolve to an autonomous organization with coordinators responsible for areas of activity: food production, training, industry and health; while activity managers will continue responsibility for day to day project operations.

The division of coordinating responsibilities will result in answer to the members' need for representation on the administrative board and to provide a rational approach to the management of similar activities.

Village men will assist in activities that require heavy labor or technical work such as machinery maintenance and construction and will advise on matters of crop care. Two men were assigned by the village chief to organize men's support when required.

Although the implementing agency, SAED, is responsible for all technical support services in the "Zone Pionnière", outside assistance from conventional government services may be called upon by SAED to provide expertise in a particular area. Promotion Humaine, Livestock, Health and Artisanal Services will provide professional guidance during the initial phase of project implementation including training, vaccination of poultry, and dyeing techniques. The roles of these technical agencies are outlined in Section G "Technical Analysis".

#### H. INNOVATIVE ASPECTS

Several facets of the project are without precedent in the Fleuve Region. Labor-saving devices will alleviate pressure on the village women in two of the three primary tasks of rural women 1/ gathering wood and pounding millet. A milling machine will replace the human labor necessary for pounding the millet, and a donkey cart will be used to transport firewood to Kassack Nord. AID will finance the construction of a women's center that will group together a classroom, a maternity, a section for dyeing cloth, and the millet machine. A village health post will also be established to supply nivaquine, aspirin and other non-prescription medication and will serve not only Kassack Nord but other neighboring villages as well.

Perhaps the most innovative aspect of this activity is the initiative taken by the Kassack Nord women to group 300 women ranging from the age of 18 to 55 in a village organization. This is the first time women have requested a project for and by women in a village of the region and the innovation of a project based on this initiative is appreciable within the context of the Islamic society and conservative social mores of the Toucouleur community.

Pursuant to the establishment of literacy training by SAED, village women identified those daily tasks which were most labor-intensive and time-consuming. However, what appears unique to this project is not solely the identification of work and social concerns; it is of fundamental importance that the women, of their own initiative, sought financing and counseling to alleviate hardship conditions and to achieve better living conditions for the community. There is little need to sensitize and mobilize villagers in response to the project proposal; that vital and necessary groundwork is already done by the village women themselves.

The AIR structural component is equally precedent-setting for the Fleuve region and establishes the first women's AIR in the region. This pre-cooperative will eventually assume all project management and be in a position to finance itself while evolving to full cooperative status.

The project will create spillover effect elsewhere in the region, specifically in seven other pilot centers anticipated by SAED in the Fleuve. A cautionary note is that such innovations may be bound by factors of ethnic make-up (i.e. Toucouleur women) or considerations peculiar to the village of Kassack-Nord.

1/ the third, fetching water, presents little problem since Kassack Nord is situated on the bank of a river tributary.

Upon initiation of the project SAED will identify other pilot villages in the "Zone Pionnière" where the Kassack Nord experience may be extended.

## I. FINANCIAL ANALYSIS

This integrated project consists of several activities for which construction and the purchasing of materials are called for. The different activities include the construction of a 12-bed maternity, a literacy class-room, and a fence to surround the Women's Center, and the introduction of truck gardening, rice cultivation, fabric dyeing, poultry farming, and domestic activities for which a millet mill and a donkey cart will be purchased.

### Budget:

For the truck gardening activity a diesel motor pump will be purchased (\$1670) as will materials including 15 spades, 10 rakes, 10 watering cans and 2 back-pack sprayers (\$625). Operational costs include seeds (\$83), fertilizers (\$125), crop protection products (\$250), motor fuel and lubricants (\$145), maintenance and repairs for the pump (\$105). TOTAL: \$3003.

Domestic Activities: call for the purchase of a millet machine (\$2091), a donkey cart (\$208), and a donkey (\$41). Construction of a hut for the millet machine will cost \$312. Operational costs include the purchasing of motor fuel and lubricants (\$58), repairs millet machine (\$208) the salary of the guard (\$125). TOTAL: \$3043.

Construction costs for the maternity are for 5 huts, 1 kitchen, 1 bathroom with showers, and the installation of a water tank (\$2708). The purchasing of equipment amounts to \$2500. Operational costs include the training of the matrone for three months and the training of the two assistants sociales (\$562), the purchase of medicines (\$187), maintenance and sundry expenses amounting to \$208 and bonuses for the matrone (\$83). Total: \$6248.

The Health Post will require the purchasing of medicines (\$250).

The Literacy Classroom calls for the construction of a classroom 200 m<sup>2</sup> with a thatched roof 20 x 10 (\$2083) and the purchasing of equipment (\$208). TOTAL: \$2291.

Construction of the fence (316 m x 2 m) to enclose the Women's Center will amount to \$1250

For Rice Cultivation purchases will be for seeds (\$30), fertilizers (\$21), urea (\$21) and crop protection products (\$21). Fees for water amount to \$104. TOTAL for 6 hectares: \$1182.

The Poultry Farming activity calls for the construction of a chicken coop, a hen-house and an enclosure (\$416). Equipment costs amount to \$166, petrol (\$21), chicken feed (\$500) and veterinary treatments (\$145). TOTAL: \$1248.

The Fabric Dyeing activity calls for the construction of a hut (cement/brick) with a thatched roof (plastic lining) costing \$416. Equipment, including 5 tubs, 5 bowls, 10 pairs of gloves and sundry items (\$125) and operational costs for materials, dyes and other products (\$833). Total: \$1374.

Miscellaneous expenses/transport/contingency: \$4000

Total costs for project: \$25,000 - A.I.D. Input

25 Percent Host Country Contribution:

Project is to be implemented by SAED which will provide:

1. SAED Field Agents - One literacy instructor, two social assistants, one horticulture agent, two veterinary agents, one technical agent for rice, and one agricultural engineer.
2. SAED Administrative - Project director, training director, sociologist, economist/accountant, and cooperative director.
3. Land - 0.6 hectares for vegetable production and 6 hectares for rice cultivation.

Villagers will provide:

1. Personnel - Three air officers, two members representatives, two Kassack Nord men, one traditional mid-wife, one sanitation agent/pharmacist, one dyeing technician, one grain mill and pump operator, six air activity managers, three hundred women of Kassack Nord and one guard.
2. Labor.

GOS INPUTSKASSACK NORD  
VILLAGERS INPUTSAID --INPUTS

## Project implementation by SAED

## SAED Field Agents:

Literacy Instructor (1)  
 Social assistants (2)  
 Horticulture agent (1)  
 Veterinary agents (2)  
 Technical agent for rice (1)  
 Agricultural engineer (1)

## SAED Administrative:

Project Director  
 Training Director \  
 Sociologist  
 Economist/accountant  
 Cooperative director

Land— 0.6 hectares

for vegetable production

6 hectares for rice cultivation

## Personnel:

AIK officers (3)  
 Members representatives (2)  
 Kassack Nord men (2)  
 Traditional mid-wife (1)  
 Sanitation agent/pharmacist (1)  
 Dyeing technician (1)  
 Grain mill and pump operator (1)  
 AIR Activity Managers (6)  
 Women of Kassack Nord (300)  
 Guard (1)  
 Labor

Financing construction of maternity (5 huts, 1 kitchen, 1 bathroom with showers, water tank)  
 Hut for the millet machine  
 Literacy classroom  
 Fence  
 Chicken coop, hen-house, enclosure  
 Hut for the fabric dyeing  
 Financing purchase of diesel motor pump  
 Millet machine  
 Donkey cart  
 Donkey  
 Materials for truck gardening activity  
 Seeds  
 Fertilizers  
 Crop protection products  
 Fuel and lubricants  
 Medicines for the maternity and the health post.  
 Equipment for the literacy classroom  
 Petrol  
 Chicken feed  
 Equipment for the fabric dyeing activity  
 Material and dyes  
 Financing maintenance and repairs for the millet machine and the motor pump  
 Salary of the guard  
 Training of the matrone and training of the 2 assistants sociales  
 Bonuses for the matrone  
 Fees for water  
 Veterinary treatments  
 Sundry expenditures

COSTS AND BENEFITS AFTER BASE YEAR

Truck Gardening:

Seeds	\$ .83	Products:	\$3550
Fertilizers	\$125		
Crop protection products	\$250		
Motor fuel, lubricants	\$145		
Maintenance & repairs	\$105		
	<hr/>		
	\$708		

Domestic activities:

Motor fuel, lubricants	\$ 58	Threshing of millet	
Salary of guard	\$125	50 t at 10 f/k	\$2083
Repairs	\$208		
	<hr/>		
	\$391		

Maternity:

Purchase of medicines	\$187	Delivery of births	\$208
Maintenance & sundry exp	\$208		
Bonuses for matrone	\$ 83		
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	\$478		

Health Post:

Medicines	\$250	Sale of medicines	? 2 times?
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Rice Cultivation:

Seeds	\$ 30	Harvest:	
Fertilizers	\$' 21	3,5 tons at 41,50 f/k	
Urea	\$ 21	X 6	\$3631
Crop. prot. prod.	\$ 21		
Fees for water	\$104		
	<hr/>		
	\$197		

Poultry Farming:

Petrol for lamps	\$ 21	Sale of chicks	
Chicken feed	\$500	25 X 1200f	\$ 125
Veterinary	\$145	Sale of eggs	
	<hr/>	16 eggs/day/450 days	
	\$666	25f X 16 X 450	\$ 750
		Sale of roasting chickens	
		20 X 1200f	\$ 100
		Sale of spring chickens	
		50 X 600f	\$ 125
			<hr/>
			\$1100

Fabric Dyeing:			
10 pairs of gloves	\$ 41		
Material, dyes & other prod.	\$833	Sale of pagnes 200 pagnes at 1500f	\$1250
	<u>\$874</u>		

COSTS AND BENEFITS AFTER BASE YEAR

Truck gardening	\$ 708	\$3550
Domestic Activities	391	2083
Maternity	479	208
Health Post	250	?
Rice Cultivation	1181	3631
Poultry Farming	666	1100
Fabric Dyeing	<u>875</u>	<u>1250</u>
	\$4550	11,822

COSTS AND BENEFITS OF BASE YEAR

Truck Gardening	\$3208	\$3550
Domestic Activities	3279	2083
Maternity	6750	208
Health Post	250	?
Literacy Classroom	2083	--
Fence	1250	--
Rice Cultivation	1181	3631
Poultry Farming	1458	1100
Fabric Dyeing	<u>1375</u>	<u>1250</u>
	20,834	11,822

Rice cultivation, poultry farming, and fabric dyeing are the only activities to which the project can turn for income. The benefits from these three revenue generating activities total \$5981. In order to meet expenses and amortize the millet mill and diesel pump,

	\$5981	(benefits from 3 revenue-generating activities)
minus	\$3198	(operating costs)
	<u>\$2783</u>	

Millet mill costs \$2091 plus 10% inflation for each year for 8 years.  
Diesel pump costs \$1666 plus 10% inflation for each year for 8 years.

\$6812 for amortization over 8 years  
\$ 850 for each year.

\$2783 (benefits minus operating costs) minus \$850 for amortization  
\$1933 balance  
10% should be added to all figures to cover unforeseen expenditures and increased costs due to market fluctuations (ex. cement).

It is clear that meeting expenses and amortizing the millet mill and diesel pump depends to a great extent on the benefits from rice cultivation. It has already been noted that the figure quoted for the estimated yield from rice cultivation may be a bit high at 3,5 tons. However, even adopting a more conservative estimate for the yield, at perhaps only 2 tons,

2 tons at 41,50 f equals \$345 x 6 hectares equals \$2070  
Total benefits would be \$4425 minus operating costs at \$3198  
(which is greater than the operating costs would be at 2 tons)  
equals \$1227 which would cover the \$850 needed to meet expenses and amortize.

#### J. SOCIAL ANALYSIS

When SAED was conceived in 1965 its mandate was to undertake a technically and administratively comprehensive program for Delta development. SAED's initial objective was to prepare the Delta for intensive agricultural development, build dikes, canals, irrigation works, build villages and move in settlers when necessary, provide social services and technical support, buy, transport, and sell the produce. Kassack Nord is a resettlement area established in 1969 by SAED.

According to a study <sup>1/</sup> conducted by an American anthropologist, Kassack Nord villagers do not yet regard the SAED excursion as much of a success.

<sup>1/</sup> Alfred S. Waldstein, Interim Progress Report of Research on Three Sahelian Populations: Their Mechanisms for Adaptation With Implications for Development and Rehabilitation Projects, African-American Scholars Council, Inc., 1976.

Due to the salinity of its lots the village suffers from attenuated yields. It has been suggested that the cultivators tend to "use their lands as hedges against conditions in their original home areas" and only plant the crops most profitable to them, in many cases not meeting the targets set by SAED.

The most striking mechanism the residents of Kassack Nord use to adapt to their new environment is movement. During the course of the agricultural cycle almost every male leaves the village for some period of time, perhaps as brief as several weeks or as long as 8 or 9 months. The concrete objectives of these trips vary as to their duration, but the motive appears to be essentially the same.

The resident of Kassack Nord feels he has gone out on a limb in resettling. He must therefore hedge his bets by maintaining an interest in some other activity while trying to turn his interests in Kassack Nord into a profitable venture.

The most common pattern of movement is between Kassack Nord and the home village, a pattern which is practiced most particularly by the Toucouleur. At least some Toucouleur of Kassack Nord grow rice on their "walo" or flood recession land at home. It would appear that a pattern is now materializing whereby the techniques of rice cultivation witnessed at SAED are being imported to the home districts.

The inability of the women to reap benefits from their agricultural work, with their economic rewards limited to what they get from vegetable gardening, is apparently posing a marital problem for many families. Several marriages have ended in divorce because, according to the husband remaining in the village, the wife found "life in Kassack Nord frustrating and empty." It is suspected that other divorces have taken place for the same reasons, with the spouses not necessarily conscious of the source of their tensions. Other wives, while remaining married to men from Kassack Nord, live with their parents during part of the year their husbands spend in Kassack. Unless the women stay in Kassack Nord year round, it is greatly feared that the zone will become a migrant work camp.

Convincing women to stay necessarily entails offering them a productive outlet. Limitations on the quantity and of the quality of uncultivated land will limit, in the short run, the possible solutions to this problem.

The village of Kassack Nord is structurally composed of 202 identical houses built of cement and local clay. While the prevailing norm is that most of the peasants in the Delta are polygamous, the houses constructed by SAED do not conform to the traditional pattern; the houses are 2-room structures adapted solely for monogamous households.

The village further consists of a few vacant lots, 2 mosques (1 for weekday prayer and 1 larger one for Friday prayer), a 1-room school, and 5 small shops. An area has ostensibly been set aside for marketing activity but has yet to be used. Near the shops in the village center there is a shelter covered by a woven mat awning, known as a "palayer tree" where formal and informal discussions on village affairs are held.

There is little additional construction. The rooms of the houses are relatively bare; straw-filled mattress for sleeping, table with pots and basins stacked on it, and mosquito nets. Few adults in Kassack Nord speak French. All children spend time in Koranic school, but few go to state school.

The population of the village is 1089, of which there are 280 women, 311 men, 278 boys, and 220 girls. As is true of a great number of societies, the Toucouleur society is stratified into castes. Three criteria denote the belonging to a particular caste: heredity, endogamy and professional specialization. These castes form closed groups whose dealings with other groups are predicated by a hierarchy.

In the mid-1960s, when the call went through the Fouta Toro for pioneers to settle Kassack Nord, a number of young men of lower caste responded. The village therefore consists predominantly of members of the artisan and slave castes, with fewer members of the noble caste than in the home area in Fouta Toro.

The residents of Kassack Nord stay, inasmuch as they do, because they have no better alternative. They are generally members of the lower castes, having left what little land they were entitled to in the Fouta to other members of their families. It would be difficult to reclaim that land.

The most frequent complaint of the villagers of Kassack Nord is their lack of a dispensary. Proper health care is hard to come by; the villagers have to go to Kassack Sud or to Boundoum in times of emergency. Almost every woman who has been bearing children over the last decade has lost a child.

According to the survey conducted by SAED to which 50 women were asked to respond, the gravity of the health care is particularly acute in the area of maternal and post-natal care.

Fifty four percent of the women have their births delivered by women who traditionally perform this role; forty four percent of the women say that Allah alone assists them, by which is meant they give birth alone. SAED has wisely recognized that one of the major problems to be addressed if resettlement schemes in the River Delta

are to succeed is the role of women in the new communities and they have taken special efforts to respond to the primary social and economic problems of Kassack Nord women.

K. IMPLEMENTATION PLANNING

The project will begin in October 1977, after the wet season, when construction can begin and materials will be delivered to Kassack Nord without risk of damage by rain: the project will be completed in December 1978 with an evaluation of all activities scheduled for that month.

OCTOBER 1977

Vegetable production

soils analysis by SAED

Purchases: irrigation pump  
pulverizers (2)  
field tools  
Seeds

Domestic activities

grain mill

OCTOBER - DECEMBER 1977

Construction:

- maternity: 5 huts
- classroom
- grain mill hut
- dyeing hut
- poultry coop

AIR organization

Train AIR officers

NOVEMBER 1977

Vegetable production

Planting on 60 acres

Village Health facility

Purchases: medicines  
equipment

AAP FACESHEET  
-o-o-o-o-o-o-o-

COUNTRY/ENTITY	SENEGAL.
PROJECT TITLE	KASSACK NORD AIT'
ESTIMATED COSTS	\$25,000
LIFE OF PROJECT	18 MONTHS

JANUARY 1978

AIR Organization:

Dyeing  
Grain mill  
Wood gathering  
Health post

Literacy training under AIR supervision.

Members select activities

Commence training

Commence operation

Commence operation

Commence operation

Equip: - maternity

- classroom

- grain mill hut

- dyeing hut

FEBRUARY 1978

Poultry

Purchase stock and begin poultry production (100 chicks)

Maternity

Commence operation

Vegetable production

Vegetable harvest and sales

JUNE - JULY 1978

Rice production

Preparation of land rice planting

Dyeing

Commercialization of fabrics

NOVEMBER 1978

Rice harvest

BEGIN SECOND YEAR OF OPERATION

Vegetable planting  
Fabric dyeing  
Poultry

DECEMBER 1978

Project evaluation

INITIAL ENVIRONMENTAL EXAMINATION

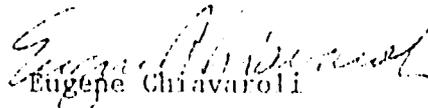
1. IEE subject project as follows:

2. Facesheet:

Project location:	SENEGAL
Project title:	Kassack Nord Women's Pilot Project
Funding:	FY78 Dol. 25,000
Life of Project;	18 months
IEE prepared by:	George O'Shea/Patricia Lerner ADO/PRH/Dakar September 20, 1977

Environmental action recommended: We recommend a negative threshold decision in accordance with AID regulation 16.

Concurrence:



Eugene Chiavaroli  
Acting Regional Development Officer  
September 20, 1977

Assistant Administrator's Decision

Approved: \_\_\_\_\_ Date \_\_\_\_\_

Disapproved \_\_\_\_\_ Date \_\_\_\_\_

B. Impact Identification and Evaluation Form: Impact Areas and Sub-Areas

N : No environmental impact

L : Little impact

M : Moderate impact

H : High impact

U : Unknown impact

1. Land Use

a. Changing character of land through

(i) Increasing the population L

(ii) Extracting natural resources N

(iii) Land clearing L

(iv) Changing soil character L

b. Altering natural defenses N

c. Foreclosing important uses N

d. Jeopardizing man or his works N

2. Water Quality

a. Physical state of water N

b. Chemical and biological states N

c. Ecological balance N

3. Atmospheric

a. AIR Additives N

b. AIR Pollution N

c. Noise pollution N

4. Natural Resources
  - a. Diversion, altered use of water M
  - b. Irreversible, inefficient commitments N
  
5. Cultural
  - a. Altering physical symbols N
  - b. Dilution of cultural traditions M
  
6. Socio Economic
  - a. Changes in economic/employment patterns L
  - b. Changes in population L
  - c. Changes in cultural patterns L
  
7. Health
  - a. Changing a natural environment L
  - b. Eliminating an element in an ecosystem N
  
8. General
  - a. International impacts N
  - b. Controversial impacts N
  - c. Larger program impacts M

C. Narrative Evaluation of Impacts

1. Land use:

Land use patterns are expected to be little changed throughout the project area. Traditional crops will be continued

for the most part, with intensification through light mechanization, improved seeds and cultural practices and fertilizer constituting the major means to increase production. Irrigated agriculture will be introduced by the implementing agency onto approximately six hectares of land by the AID financing made available to the project. The land being proposed for irrigated farming is presently uninhabited and unused. Total 600 hectares of land have been set aside to be developed for rice production by the implementing agency, of which 6 hectares have been reserved for collective exploitation by project participants. No AID input feasible to determine how surrounding 594 hectares are to be developed. Salt water intrusion in the Delta area during the hot season limits irrigated production to one crop annually. Current yields on Delta rice perimeters average 3.5 tons per hectare and a similar yield is anticipated at Kassack Nord. The use of pesticides on the project will be limited. The Project Agreement will contain the provision that any pesticides used by the implementing agent on the project must conform with the AID pesticide regulations as in effect at the time of such use, except as AID may otherwise agree in writing. Fertilizer applications will be expected to change the character of the soil, making it more productive. With the introduction of more intensified farming practices and especially with the use of intermediate technology, implementing agency field agents will provide full technical back-stopping and training in crop management for project participants. The total area to be irrigated will be small and will not significantly effect the total ecosystem of the area. Irrigation will be through a PVC pipe system where applicable. Relatively small amounts of water will be withdrawn from the river.

## 2. Socio-Economic/Cultural:

No population shifts are anticipated of the project participants presently in the area nor is significant rapid immigration into the area because of the project likely. It is the male resident of the village who leaves the village for relatively long periods of time during the course of the agricultural cycle.

The project area is a pioneer zone with fixed number of dwellings, 1089 inhabitants of which total 300 women are project participants. The entire area is presently sparsely inhabited and the land could easily support the minor immigration which a successful project in the African culture would induce. (the highly structured tribal and village cultures tend to minimize migratory movements except in periods of stress or over traditional migratory patterns).

Any population growth which does occur will be gradual, as the entire 600 hectares is developed, and resettlement and population growth problems can be addressed within normal village structures. Overall question of migration negligible factor for project as only 6 hectares are being irrigated.

It is likely, and desirable, that eating habits will change, that diets become more varied as more staples and vegetables become available and, as the farmers begin to realize a return on their work investment, that more meat and eggs will enter into the diet. Indeed, the primary goal of the project is to improve women's economic and social well-being.

### 3. Health

It is not expected that the project will have a significant direct effect on health conditions as they presently exist in the project area. The village health post and trained sanitation agent/pharmacist are first steps towards bridging the void in access to medicines and disease suppressives. Likewise, the village maternity and the trained mid-wife will provide facilities and assure aseptic delivery of births. Proper health care is hard to come by and the villagers must travel considerable distances in times of emergency. Irrigation from the river is not repeat not likely to increase the incidence of malaria. Canalization through a PVC pipe system with valve connections at each plot and irrigation by the ridge and furrow method will serve to eliminate the health hazards of stagnant water.

In addition to the health component described in the project description and discussed above, a Yale University Health Study was conducted in the Senegal River Delta Basin. Kassack Nord was one of the villages included in the study. Although the study is not yet available, an information base has been established from which some monitoring of the health of the villagers in terms of increased incidence of water borne or other diseases can be carried out.

### 4. Recommendation for Environmental Action:

It is determined that the project will not have an adverse effect on the environment. A negative determination in accordance with AID Regulation 16, is recommended.

#### Clearances:

AFR/SFWA, JLanglois

AFR/RA, JKraus

AFR/RA, DConroy

AFR/DR, DDibble

AFR/GC, EDragon