



Report on the

POST HARVEST WORKSHOP IN MIGORI DISTRICT, KENYA FROM 3.3. - 11.3.1999



Project Name: Grain Storage Pilot Project, Homa Bay
Project Number: 648-99-004

**In collaboration of the Catholic Relief Services(CRS), Kenya and
the Swiss Agency for Development and Cooperation (SDC)**

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Introduction

Postcosecha Central America

In Central America, the **Postcosecha Metal Silo** is a well known technology to reduce the losses in grain storage to 0 %.

The Regional Post-harvest Programme is implemented and financed by the Governments of Honduras since 1980, Guatemala since 1998, Nicaragua since 1992 and El Salvador since 1994, with support from the Swiss Agency for Development and Cooperation (SDC), working in close collaboration with civil society.

The transfer of metal silo technology is done through a series of public and private development, training, financing institutions (approximately 50 in each country) and Artisans, known as transfer "channels".

The "channel" puts the post-harvest issue on its work agenda and introduces its own resources for the transfer to take place. For its part, the post-harvest unit trains both male and female artisans and technicians, provides didactic and promotional material, as well as follow-up on the cooperation agreements.

The POSTCOSECHA Metal Silo, which if properly handled has a useful lifetime of between 25 to 40 years, is effective for fumigation and safe storing of grains due to its hermetic design. The decentralised transfer system of the silo, through the artisans working in the Post-Harvest Programme, allows for massive dissemination at low transport costs, provides easy access for rural families and ensures after-sales service to help solve any use and management problems.

To date, 150,000 silos have been sold in the four countries Honduras, Guatemala, Nicaragua and El Salvador, for the benefit of an equal number of families, thus reaching over a million people. At the same time, a storage capacity has been created for more than 3 million short hundredweights (=136'000 tons) of basic grains, thus avoiding losses amounting to some 1.5 million dollars per annum. In Honduras alone, 100,000 silos were sold, which means that 40% of the families among the target population store, in a decentralised fashion, an amount of grains that exceeds the State's strategic reserves. In Honduras, savings as a result of less grain losses are estimated at over one million dollars a year. Therefore, for those governments wanting to advance in the area of food security for the poor, the Postcosecha family silos represent a low-cost alternative in the face of the lack of success in centralised storage systems.

It is estimated that the low cost of the silo (50-60 dollars) makes it possible for a family to regain this investment after one single harvest by means of the additional profits generated by the use of the silo. At the same time the silo increases the productivity of farmer families and jobs are created in rural areas.

The central element of sustainability in the transfer of the metal silo are the Artisans who, in their roles as micro-entrepreneurs, will for years to come make good profits from the manufacture and sale of silos.

In terms of food security and the reduction of poverty, the success of this Central American experience in decentralised grain storage at family level raises expectations that the post-harvest technology, already tested in some countries, could be useful in other geographical areas with similar food security problems.

CRS Postharvest Program in Kenya

The Catholic Relief Services (CRS) in Central America is a well-known Transfer Channel of the Postcosecha Metal Silo. With the successful Postcosecha co-operation experience in El Salvador and Guatemala for over 9 years and the impact on the programs, CRS decided to test the Postcosecha Metal Silo in Africa.

A first step in collaboration between Catholic Relief Services and the Swiss Agency for Development and Co-operation (SDC) I visited CRS in Kenya for 2 weeks. During this short time we achieved in a workshop useful results in the new CRS Postharvest Program, Kenya.

Report of the 2 weeks mission

Following I present a short report on the daily events and some recommendations. During the 2 weeks I worked closely with MR. Gregory Umayá, Agriculture Project Officer of CRS/Kenya, a real competent, active, responsible and friendly Collaborator. We were never tired of speaking day and night about Postcosecha, CRS, COSUDE, Postharvest en general, Research, Traditional and Improved Farm storage, Metal silo, Project Planning etc.

Monday, 1.3.1999

8.30 A.M. By Mr. Tom Remington, Agriculture Adviser, CRS/East Africa Regional Office and Mr. Gregory Umayá I got a short introduction to the Program of Catholic Relief Services East Africa and Kenya. After a presentation of Postcosecha Centro America and my experiences in Postharvest we agreed on my Terms of reference for the 2 weeks mission (see appendix).

10.30 A.M. Buying tools and material for the fabrication of metal silos was time consuming because not each item was available in just one shop. Furthermore at CRS was no shopping experience (quality requirements and price-benefit relations) for this kind of material and the market is non-transparent with exaggerated benefit margins.

Tuesday, 2.3.1999

Travelling from Nairobi to Migori in Homa Bay in Western Kenya (430 km).

Wednesday 3.3.1999

9.00 A.M. Introduction to the Head of Department Mr. Dismas O. Sure Program Manager, Rural Water Development Center by Mr. Philip Kajwang Program Co-ordinator, Agriculture and Environment Program, Diocese of Homa Bay (EAP). The

installation at the Center and the general environment were just perfect for the postharvest workshop and to build the first "Silo Postcosecha" in Africa.

9.30 A.M: Presentation of all the participants:

After a presentation in a friendly ambience I classified mainly two groups of participants; five persons (welder, carpenter, juacali) to be trained as further Artisans, four technicians from the AEP and MOA and one farmer representing a small credit scheme from AEP (ver appendix). It was missing the further Instructor/adviser of the Artisans.

10.00 A.M: Presentation of the Azimut Postcosecha 10-min. TV film. The speed of the changing pictures was too fast for the viewer and the English translation voice was not louder than the original sound. We decided to review the presentation again on another day to compare the Centro America with the Kenyan postharvest problems and their possible solutions.

10.30 A.M: Elaboration of the expectations to the "Postharvest Workshop in Migori":

Each participant noted on cards his proper expectations, which were classified on the board resulting to the following thematic:

Learning to manufacture Metal Silos, Explanation of differences of Silo and Crip, Advantages of Metal Silo over the Crip and traditional Stores, Marketing of Metal Silo, to learn to improve local stores and how to reduce grain losses, to know new Postharvest Technologies and their handling.

Each participant received the "Manual for Manufacturing Metal Silos for Grain Storage" from the Programa Regional de Postcosecha. In the Classroom the following document could be freely consulted and are now with CRS/Kenya:

- UK/KENYA Larger Grain Borer, Research Project, NRI y KARI 1995
- Kenya National Crop Storage Study, AID, 1980
- On Farm Grain Storage Project, Final Report, MOA and USAID, 1989
- Manual on Improved Farm and Village Level Grain Storage Methods, GTZ, David Dichter, 1978
- Everybody Gets a Grain Silo, Report on Experience in Post Harvest Program in Central America, LBL/SDC, Kurt Schneider, 1997
- Evaluation Method for the Post Production Losses of Basic Grains (maiz beans and sorghum) for the Small and Medium Producers in Honduras, Central America, Programa Regional de Postcosecha (PRP) Post Harvest Program in Central America, 1984
- Evaluation and Comparison of Losses Expressed in Monetary Terms of a Selection of Small and Medium Farmers Storing Maize in The Traditional System or Metallic Silos. PRP. 1985
- Abstract of a loss assessment of maize in traditional stores in Nicaragua with a description of the loss assessment method, PRP, 1995
- Libreta del Artesano Postcosecha, PRP, 1998
- Manual de Administration y Gestion. PRP. 1995
- Manual de la Hojalateria, PRP, 1987
- Posters and Flipchart for the Use and Handling of the Silo, PRP
- The Grain for Survival, AZIMUTHS program No. 58, VHS Video. PRP, 1997
- A binder, containing all the Postcosecha leaflets and handouts (in spanish), PRP

11.00 A.M:

We started to install the workshop with tools from the Center meanwhile we waited for our tools and material from Nairobi.

2.00 P.M: After the quality - test (see page 141 and 142 of the Manual) of the arriving galvanized metal sheets from Nairobi we decided to send it back and use the local available and better one.

Lesson learnt: A poor quality sheet considerably reduces the lifetime and the benefits of the silo. And therefore the good quality sheet it is utmost important for the success of the silo. First always investigate in the local market the availability, quality and cost of all material. From the Artisan we heard that in Kenya there are 5 factories producing galvanized metal sheets. Galsheet should produce the best quality, but compared with the world market the quality standard is low. CRS should assist the Artisans in the buying of quality sheets.

Thursday, 5. 3. 1999

8.00 - 9.00 A.M: We finished to craft the necessary tools, equipment and the installation of the workshop.

This was also the time when we formed two groups: A Technician group guided by Mr. Gregory Umayu and a Artisan group led by myself.

During the day the Artisan group finished with satisfaction the portable heating appliance for the soldering iron which is the first job in the training as Artisan.



The Technician group formed the cylinder and fixed the bottom of the heating appliance for soldering iron. All this practical work will help their performance on the supervision of the silos and gives understanding for the most frequent errors made by the Artisans in the fabrication of the Postcosecha metal silo. In the late afternoon the group started to describe individually the postharvest situation in the region of work.

Friday 5.3.1999

Artisan group: The local available metal sheet measure 1m x 2 m and we decided to build first a silo with a cylinder of 3 metal sheets and a volume of 1390 l or a capacity of 12 bags per 90 kg. This is a size of silo for a big family and for the Artisans trainee not so easy to manufacture. We have made step by step according to the Manual up to step 24, page 69, and prepared the sheets for the interlocking. Later in the day we exchanged experience on general postharvest problems in the region.

Lesson learnt: On the workbench we had to replace the 2 m angle because it was not possible to make the folded edges uniform on the length of 2m. Irregularities along the folded edges will result in weak interlocking joint and may come loose later on and the Artisan can not sell the silo. On the first day of the course nobody thought that the instruction on page 23 of the manual are so important. Other small "shortcuts" and not following the description step by step according to the manual resulted in various repetitions of the work.

Technician group:

The group presented the actual postharvest situation in the region and analyzed some problems, which can later be used as input in a project proposal. The description of the climate, the work in the field and at home, the market price of maize, beans and sorghum and time of storage is visualized in a table for each month. Furthermore the group observed closely the practical work of the Artisans.

Saturday 6.3.1999

Artisan group: In coordination with the Technician the group added a few new postharvest problems to their list on cards on the walls (see photos) Then we formed the cylinder of the silo, soldered the interlocking folded joints and prepared to place the bottom of the silo.

Lesson learnt: Again we faced some difficulties with the incorrect tin bars which may have 30% tin and 70% lead instead of 50 : 50 as it was stamped on.

Later we found again a better quality on the local market.

Technician group:

The group analyzed again the "problem tree" and made some reading on a loss assessment method. I found time for 1 ½ hour session for answering questions while giving me point of view in this topics. I believe that the level of school education of most of the participants is too low to understand in this short time all the steps of a one year loss assessment in the detail with all the formulas.

The group observed always very closely the practical work of the Artisans.

Lesson learnt: The group is studying hard to understand a maximum of the postharvest problematic and showed interest on the details of the manufacturing of the silo.

Sunday 7.3.1999

8.00 A.M. - 11.00 P.M,

Artisan group: We placed and soldered the bottom and the lid of the cylinder from the silo, making emphasis on calculating the radius of the bottom and the correct soldering in order to make the silo air-tight which is important for the correct fumigation.

Technician group: Studying the "metal silo use and handling with two hours of answering to special questions in the topic.

Lesson learnt: I was surprised that the participants worked over the weekend with interest and satisfaction.

After a special meal at night accompanied by Mr. Philip Kajwang Program Co-ordinator, (AEP) the participants presented various speeches on Postharvest problems and their causes, possibilities of technical and financial assistance from AEP after the workshop,

Monday 8.3.1999

Artisan group: We made the outlet, the lid of the intake throat and outlet and the final painting. This was the time when we finished the construction of the **First Postcosecha Silo** build in Africa, Kenya, Migori District. (see photos)



Technician group: The elaboration of the Program Planning Matrix was often interrupted with other important topics. So we exchanged ideas and experiences of how the Artisans and Technicians should present the poster on the silo. From 5.00 - 6.30 P.M. with the flipchart of Postcosecha I presented the problems of postharvest on the farm, the promotion, advantages, disadvantages, the use and management of the metal silo to both groups

Tuesday 9.3.1999

8.00 A.M. - 1. P.M

Artisan and Technician groups: With the step by step of the instructions in the Manual on page 132 we revised the new "Postcosecha Silo" for the frequent errors and causes in the construction of silos. We could not detect any error, but a small one which is a common one in the training courses and we could **congratulate the Artisans** for the good job done.

Then we performed a practice with the theoretical and practical explanation in the 1200-kg capacity silo about the fumigation with aluminium phosphin, QuickPhos tablets.

2 P.M. - 7 P.M.

Artisan group: Artisan group: In 2 groups the Artisans have started the construction of one silo of 240 kg and one of 750 kg capacity.

With the Technicians we visited the village Opasya, Suna Rabuor, in the Migori District 3 former pilot farmers from the MOA. All of them got 8 years ago a free "crip" from a USAID program, but no one is anymore in use or it has been replaced. One Farmer constructed 2 years ago a 1.5 x 3 meters wide store on posts like the crip and in postcosecha terms "Troja mejorada con patas". The Farmer knows that he could not dry the maize in this store and that it only keeps the maize safely for 3-4 month (see photo). We got the information that grain production and storage is no more as important in the village because there are 2 harvests of maize per year and new cash crop incomes from sugar cane, tobacco, banana and pineapple are available. The maximum storage period is 4 months. In this short period the farmers can use the improved traditional, rat proven basket granary or "Troja mejorada con patas". With the pre storage and storage recommendations given by the MOA / KARI (which are presented in the reports mentioned above and **applied by the farmers** the losses will not amount more than 1-2% in 3-4 month (see photos of the structures).

In this region the maize price changes from Ksh 400.- during harvesting time in June July to Ksh.1400.- per bag of 90kg in April -May. If we would store 13 bags of maize in the new silo for 9 month (July - April) we can pay from Ksh 13000.- (Profit per bag = Ksh1000.-) the interest for the capital of the grain (Ksh5200.-) and silo (Ksh 6000.-) and we can pay the silo and make a profit of Ksh 3000.-. To make this calculation a true fact we need a strong extension service and business minded farmers.

Lesson learnt: The Technicians need more practical knowledge in the traditional and existing improvements on farm storage practices.

Wednesday 10.7.3.1999

Artisan group:

Step by step the Artisans formed the cylinder of the two silos. On the form presented in the appendix we practiced the calculation of the costs for the different capacity of metal silos.

Lesson learnt: It is the duty of the Postharvest Program to **organize better and cheaper raw material** for the Artisans in order to reduce the cost of the silo. The profit of this action goes to the farmers, Artisans and the Program. In a future step the Artisans need more training on administration as a micro-entrepreneur (manufacturer and salesman).

Technician group:

The Technicians worked hard on the elaboration of the Planning Matrix, Overall Goal, Objective, Results, Activities and Budget for the Postharvest Program of 4 years (see photo and poster presented on 12.3.99 in Nairobi). An activity plan for the next 5 months was set up according to budget and the necessary steps in the training and gaining of experiences of the Artisans, market study of the raw material for the Artisans, preparing some activities for the new Postharvest Program, (planning, training, selection and preparing farmers in collaboration with the existing credit schemes the "On Farm Trial" with the new silos, loss assessment, selecting personnel etc), .

Thursday 11.3.1999

Artisan group: The Artisans worked on the intake throat and outlet in order to finish the 2 silos on the 12.3.99

Lesson learnt: The Artisans can make silos of good quality. It is important that they will practice the manufacturing on a few silos in the next weeks and always progressing step by step and using the "Manual for Manufacturing Metal Silos for Grain Storage". The Technicians have the knowledge to revise the new silos for mistakes and their causes. To strengthen the Artisans knowledge regarding silo manufacture and to correct mistakes that may occur in the process it is required to take the training course "Metal Silo Manufacture II". This training should be given in June - August 1999 from an Instructor of the PRP. At the same time the PRP Instructor must train a CRS Instructor. The selection of this Person should start in April 1999.

Technician group: The Technician organized in collaboration with the Artisans the next steps in the manufacturing of the silos in a decentralized manner in their villages.

In the closing session of the successful Workshop on Postharvest of Grain (manufacturing Silos, handling of grain, planning of Postharvest Program for Small Scale Farmers) we thanked everybody for the concentrated collaboration. We expected to see each other soon again to review 30 - 50 silos that will also be the start for a successful Postharvest Program in Kenya.

11.A.M. - 7 P.M. Travel back to Nairobi.

Friday 12.3.1999

With Mr Gregory Umayya we visited the factory for galvanization of metal sheets, "Galsheet". Because of the technically very old installation it is not easy to produce the

best quality of galvanized sheets. Therefore Galsheet is building in 1-2 years time a new factory in Mombassa. In the meantime CRS should investigate the possibility to import quality sheets with the norms of DIN/ UNI/BS or ASTM. The price CIF Mombassa per sheet 3'x6' gage 26 should not be more than US\$ 5.20.

Reviewed the proposal of the pilot grain storage program for the next 5-month and 4 years.

It is important, that the Artisans must manufacture some silos in the next 2-4 month to gain experiences. The CRS/SDC should organize from Central America a follow-up mission of an Instructor for Artisans and an Adviser for the "On Farm Trial" or demonstration of 20 -50 silos combined with the loss assessment of grain in the traditional family storage and the silo. The CRS has to decide if the Postharvest Program will start this year into a new area (outside Migori) with "The Entrance Test ". The selection of a CRS Instructor for Artisans should start next month and as well the farmers who will have the first silos for demonstration. The criterias of the selection are listed in the report on experiences by K.Schneider "Everybody gets a grain silo" page20.

Briefly I gave some feedback on the workshop and possible expected results on a Grain Storage Program with the Metal Silo to Mrs. Susan Hahn, Regional Director, CRS East Africa, Mrs. Jean Marie Adrian, CRS/Kenya Country Representative and Mr. Tom Remington, CRS/ East Africa Agricultural Adviser. In Kenya approximately 62 % of all the maize produced in the country is retained on the farm for subsistence purposes and stored in traditional granaries (KENYA FARMER DECEMBER 1988). Today the percentage is maybe even higher and therefore it is even more important to start the On Farm Storage Program in Kenya with the expected results or objectives like:

1. Reduce the grain losses in the storage to 0 % and increase the income of the farmers.
2. That the small-and-medium scale producer families always have good quality grains from their production available for consumption throughout the year and this over the whole country in the areas of one or two harvest/year or in the dry land with less production due to drought.
3. That the small-and-medium scale producer families can profit from the price fluctuation in the market.
4. That the small-and-medium scale producer families have **immediately** a store (metal silo) to protect their grain from the introduced and spreading insect Larger Grain Borer in Kenya. The Larger Grain Borer (*Prostephanus truncatus*) is a serious pest of open-air farm stored maize and cassava. The Research findings and actions of the "Integrated Pest Management Initiative for the Larger Grain Borer" will possible bring results in years and will require more investigations.
5. That the consumer and the government of Kenya will get an effective, additional and decentralised national food security. In a few years the saving for the Nation can go to millions of US\$.

Closing this short report I like to say many thanks to the participants of the workshop, Mr. Philip Kajwang, Gregory Umay, Mr. Tom Remington, all the Staff of CRS and AEP who have assisted the realization of the Mission. I would appreciate to receive some Information of the progress of the Postharvest planning and activities in Migori.

Terms of Reference

Mr. Hans Sieber shall effectively train selected AEP Homa Bay agriculture staff, CRS/Kenya staff, Ministry of Agriculture staff farmer artisans on how to construct metal silos and fabricate oil drums for grain storage. All sessions will have a theoretical and an extensive practical component (with carry-away written handout and illustrative reference materials). Mr. Hans Sieber shall focus on the following:

- Reviewing existing documents of Kenyan post harvest projects (CRS, NRI, Ministry of Agriculture, Kansas State University, GTZ, Grain Board of Kenya etc.)
- Giving advice on a postharvest loss assessment method in traditional and improved small scale grain storage
- Evaluating the traditional and improved postharvest technologies available in Kenya comparing to the possible introduction of the Postcosecha metal silo
- Supervising of the fabrication of 2 to 3 metal silos
- Reviewing of the plans of a pilot storage project.
- Writing a brief workshop report and to CRS/Kenya one month after the completion of the workshop.

LIST OF PARTICIPANTS:

POST HARVEST WORKSHOP IN MIGORI DISTRICT, KENYA, FROM 3.3. - 11.3.1999

SURNAME	OTHERS NAME	OCCUPATION	ADDRESS	TEI.
1. Umaya	Gregory	Project Officer	C.R.S. P.o.Box 49675, Nairobi	750787/8
2. Onyango	Charles Awino	Agricultural Extension Worker	A.E.P. P.o. Box 362, Homa Bay	0385-22478
3. Owiti	Erick Okeno	Agricultural Extension Worker	A.E.P p.o.box 362, Homa Bay	0385-22478
4. Akuku	John Otieno	District Agric. Mechanization Officer,	MOA P.o. Box 70, Mbita	0385-22176
5. Omayio	Bernard Mongare	District Crops Officer	MOA, P.o. Box 84 Suna-Migori.	Out of order 0385-20136
6. Samria	Julius Wasonga	Artisan	Ombo Catholic p.o. box 10, Migori	
7. Owiti	John Ouru	Kenya Power Lighting CO.Ltd, Electrician	A.E.P.Rakwaru Parish P.o. Box 349, Kisii	0387-42042
8. Auka	Fidelis Odongo	Agriculture and Construction	Nyarongi Parish P.o. Box 174, Ndhwa, Homa Bay	
9. Okon'go	Gabriel Ong'alla	Welder	P.o. Box 9 Othoch-Rakuom	
10. Owiti	Joseph Okech	Carpenter and Welding Smith	RWD Migori P.o. Box 212, Suna Migori	0387-20120
11. Wadeya	Daniel Opere	Farmer	P.o. Box 791 Suna-Migori.	
12. Sieber	Hans	Consultant	Postcosecha Cental America P.o Box A -165, Managua	505/2781323 FAX/2781324

CALCULATING COSTS FOR METAL SILOS

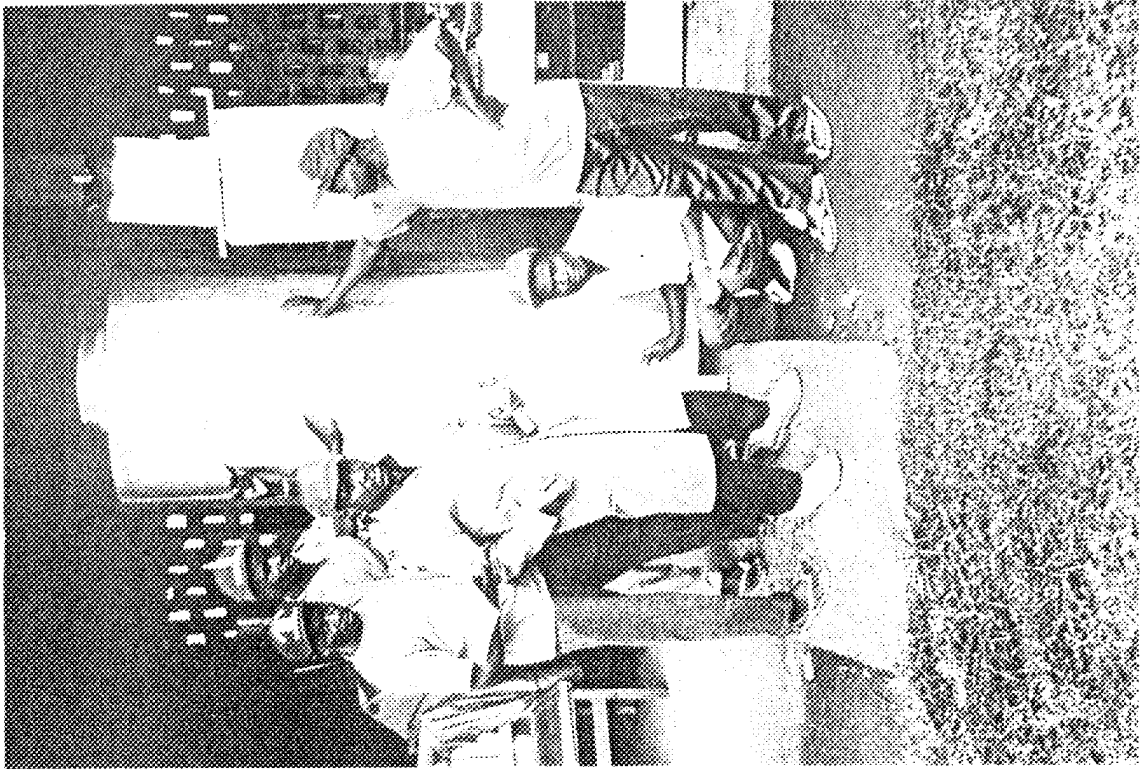
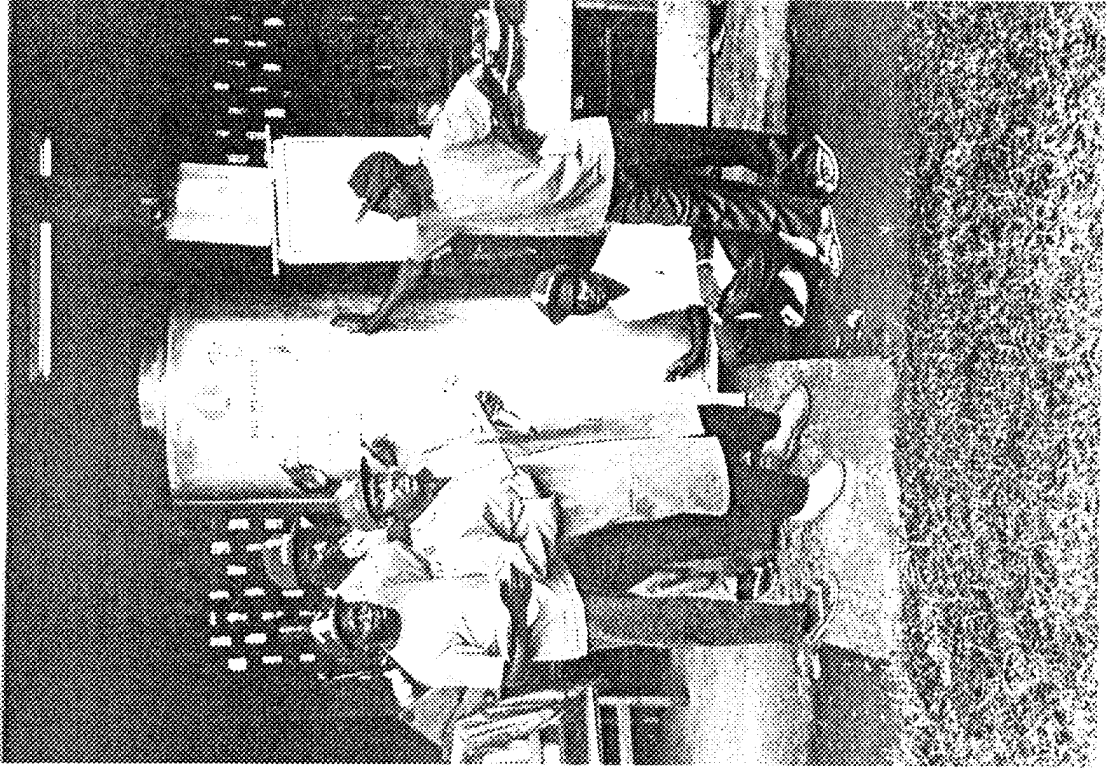
Breakdown	Unit Price Ksh.		1,200 kg		750 kg		240 kg		_____ kg	
	Unit	Price	Unit	Price	Unit	Price	Unit	Price	Unit	Price
1m x 2m Galvanised Sheet	Gauge 26	965.00	4.5	4342.50	4	3860.00	2	1930.00		
Tin 50 : 50	Kg	445.00	0.5	222.50	0.5	222.50	0.25	89.00		
Ammoniumchlorid	Kg	232.00	0.1	23.20	0.1	23.20	0.05	11.60		
Charcoal	Kg	5.00	7.0	35.00	7.0	35.00	3.3	17.50		
Detergent	50 g	12.00	1.0	12.00	1.0	12.00	0.5	6.00		
Hydrochloric Acid	1 ml	0.30	20.0	6.00	20.0	6.00	10.0	3.00		
Aluminium Paint	1 ml	0.30	40.0	12.00	40.0	12.00	20.0	6.00		
Total Cost of Material				4653.20		4170.70		2063.10		
Transportation (1)				612.00		612.00		550.00		
Labour	Day	400.00	1	400.00	1	400.00	0.5	200.00		
Depreciation of Tools (2)				120.00		120.00		120.00		
Profit (3)				465.00		417.00		206.00		
Interest Rate 24% on mat.	Month	2%		93.00		83.00		41.00		
Total Cost of Silo (4)				6340.20		5802.70		3180.10		

Observations: (1) From Migori to the farrest place in the District the transport cost for one person is Ksh.500.00 and Ksh25.00/ metal sheets. Normally the total cost of transportation will be calculated according to the cost of transport of the metal sheet including the expenses of the Artisans transportation, meals and lodging if needed

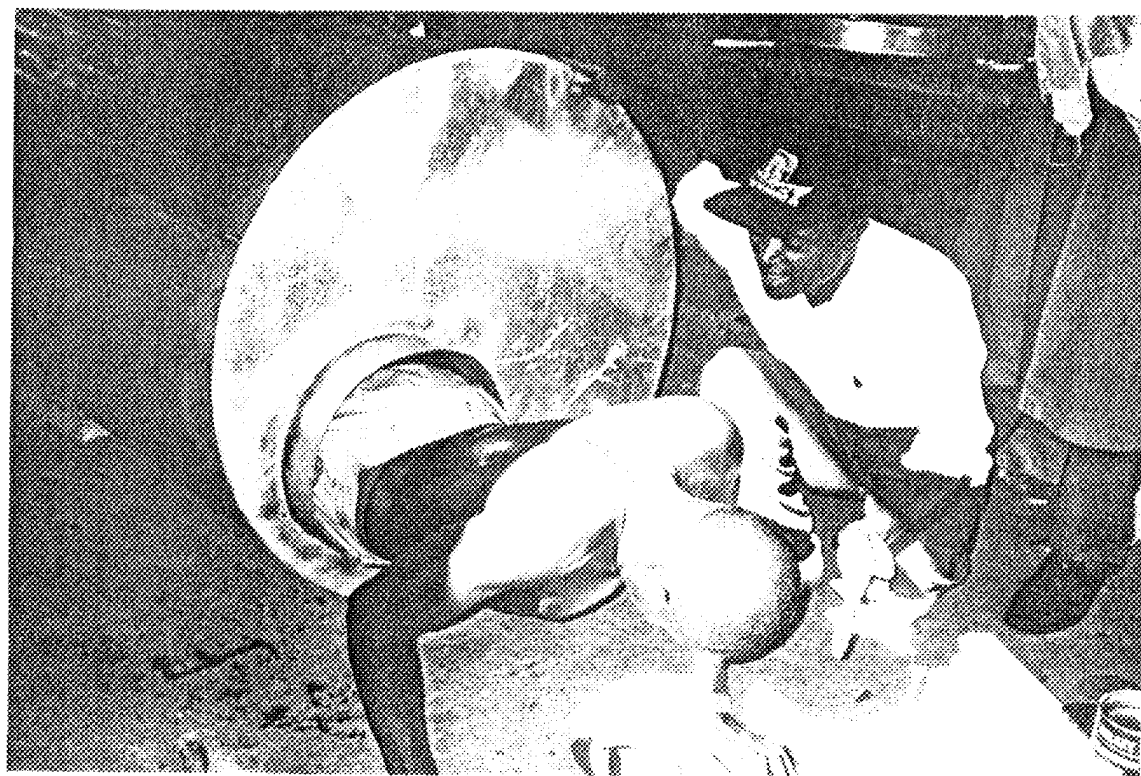
(2) Total cost of the tools is Ksh. 6000.00 and the lifetime is calculated to make 50 silos.

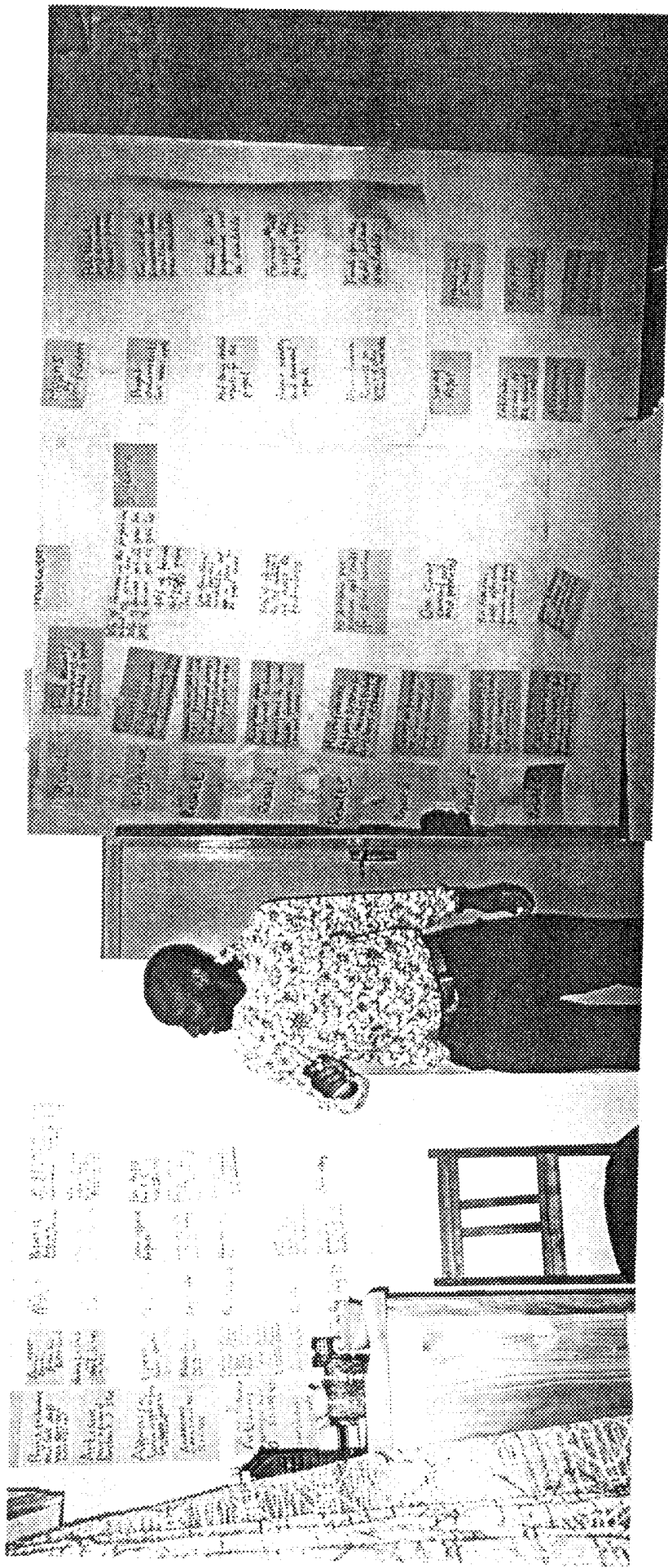
(3) Profit or Margin of cost. We calculated a 10% of the cost of material. After a acceptance of the metal silos by the farmer we can increase the profit to 15% of the sales price.

(4) AEP will reduce the total cost with the buying of the metal sheets at the factory or on the international market

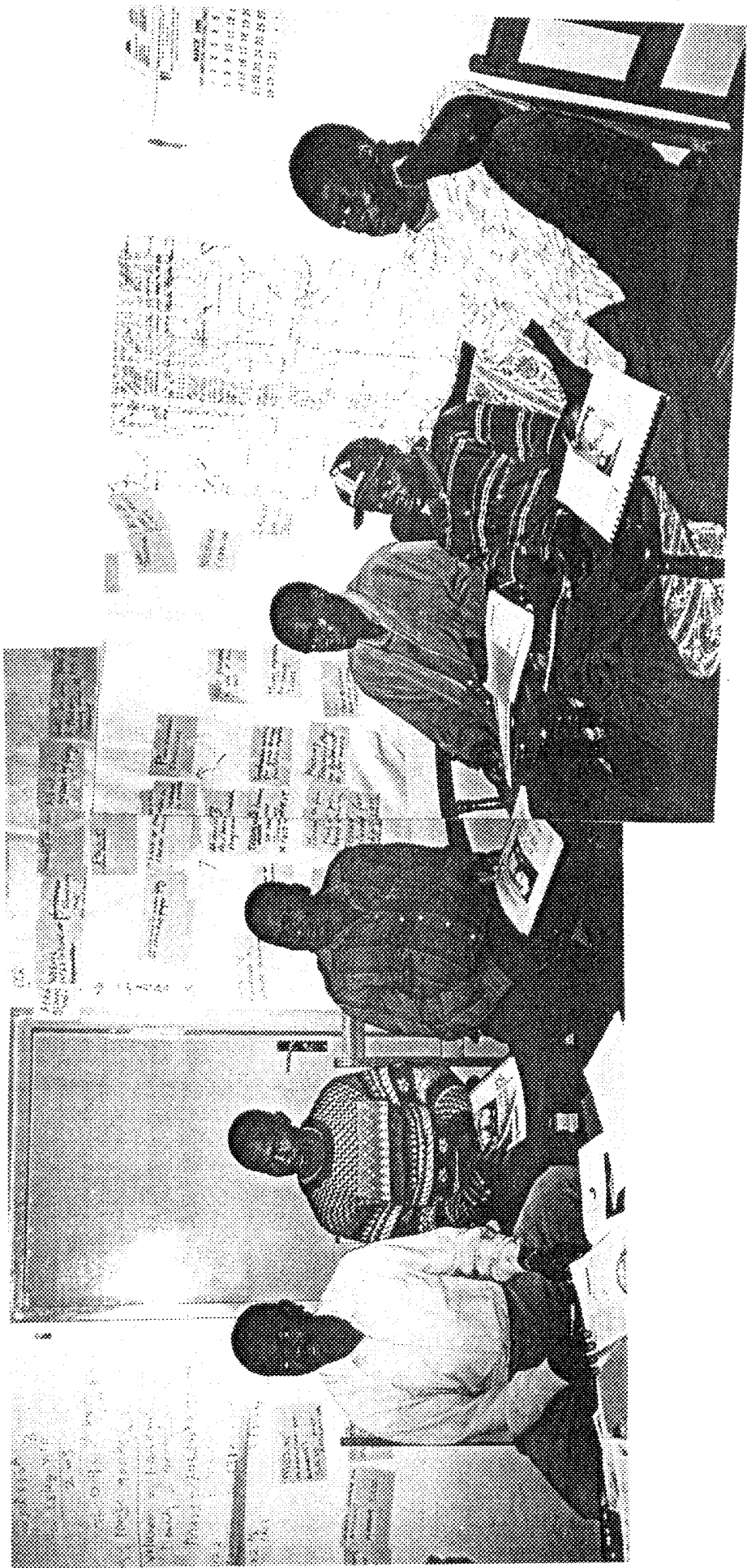


First Antioch School in 1910

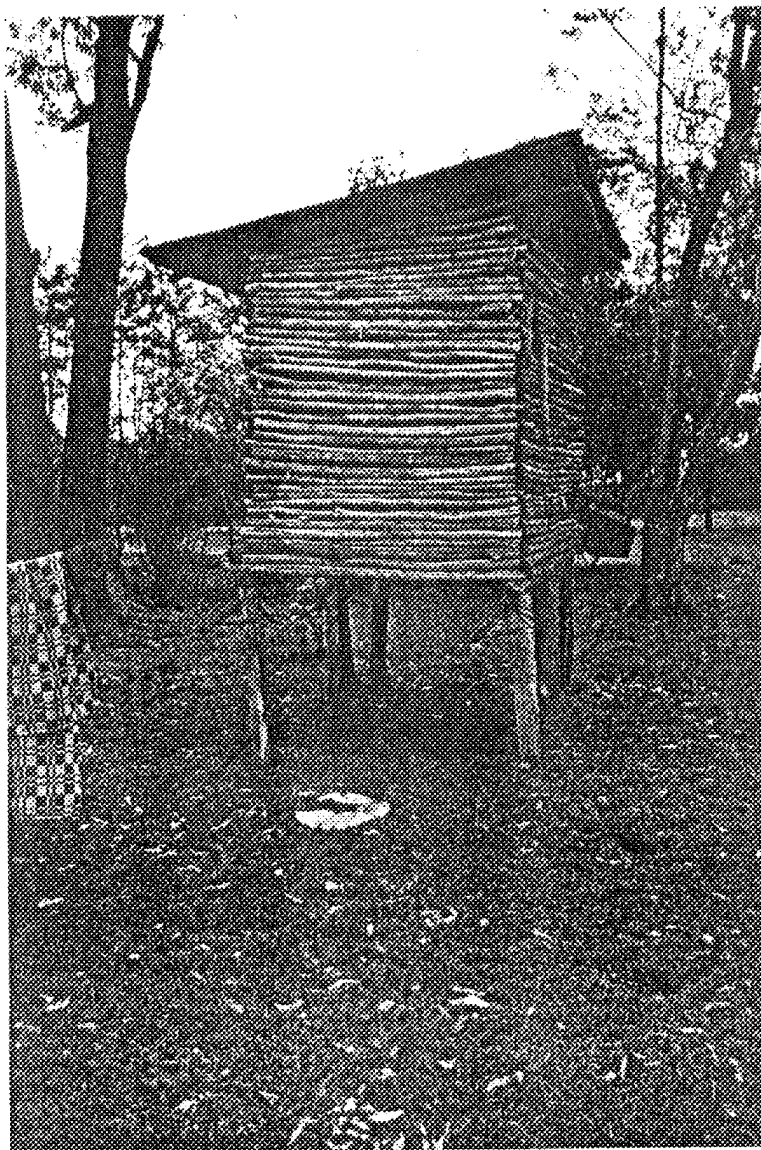




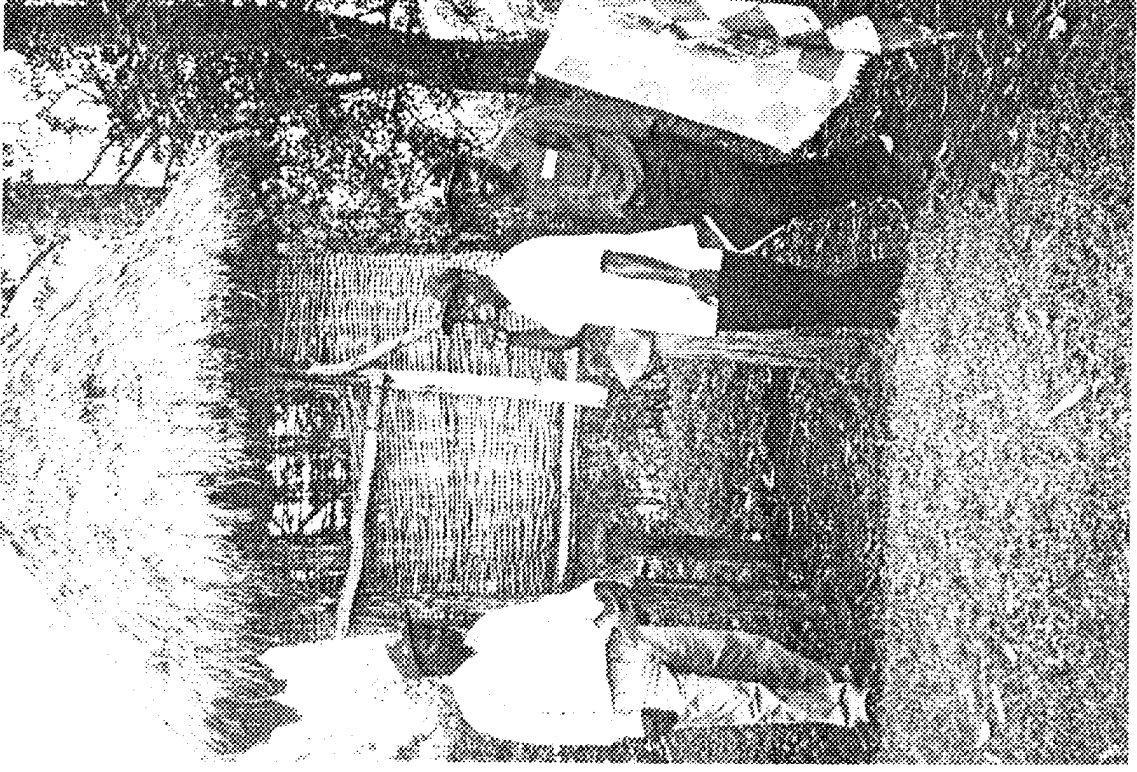
Goal, Objective, Result, Activity



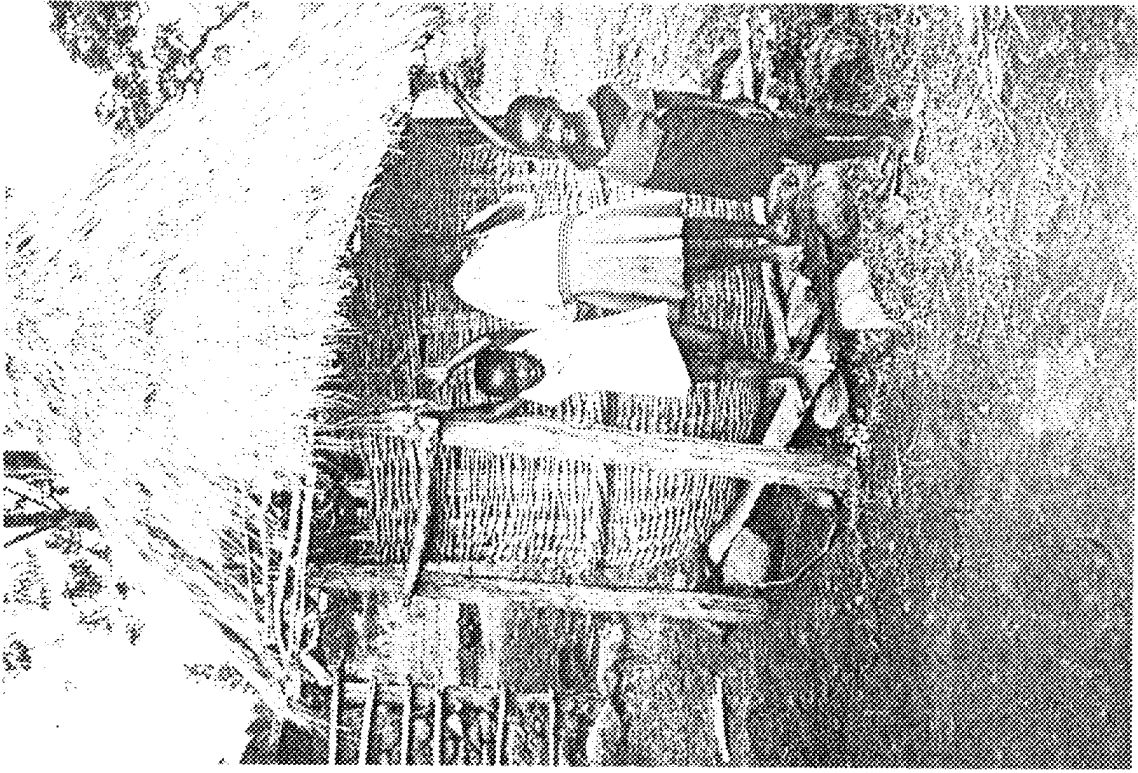
Reviewing of the Post-harvest Problems



Troja com Patas,



Improved Traditional Store



Traditional Store

Unidad Coordinadora Postcosecha
de Nicaragua (UCPCN)

Edificio María Castañ Módulo 21 - 25 Contiguo al
Centro Comercial Managua - Apdo. Postal - A 165
Managua, Nicaragua.

Tel.: (505) 2 - 772290 • (505) 2 - 781323

Fax: (505) 2 - 781324

E- mail: pc-ucpcn@ibw.com.ni

Ref.: Technical Assistance in Maiz Storage

Agencia Suiza
para el Desarrollo
y la Cooperación

INTA

Instituto Nicaragüense de
Tecnología Agropecuaria

Catholic Relief Services
Parkland Road, Rank Xerox House
P.O. Box 49675
Nairobi
Kenya



POSTCOSECHA

Managua, 7.4.1999

Dear Jean Marie Adrian

As agreed on 1.3.1999 in Nairobi I send you my brief workshop report and the certificates for the participants. I do hope to see you, Mr. Tom Remington and Mr. Gregory Umayá again soon in a progressing Post harvest "On Farm Storage Program in Kenya"

Best Regards,

A handwritten signature in cursive script, appearing to read 'H. Sieber'. Below the signature, the name 'Hans Sieber' is printed in a simple, sans-serif font.

Copy to: SDC, Bern, Switzerland
COSUDE, Managua, Nicaragua
PRP, Managua, Nicaragua