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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION

SMALLHOLDER TOBACCO PROJECT
UGANDA

April 13, 1970

Agriculture Projects Department
CURRENCY EQUIVALENTS

US$ 1.00 = Uganda Shillings 7.00
U Sh 1 = 100 cents - US$ 0.14

WEIGHTS AND MEASURES*

(Imperial system for length, area and volume)
(Metric system for weights)

1 inch (in) = 2.54 centimeters
1 foot (ft) = 0.30 meters
1 mile (mi) = 1.61 kilometers
1 square mile (sq mi) = 2.59 kilometers²
1 acre (ac) = 0.40 hectares
1 kilogram (kg) = 2.20 pounds
1 metric ton (ton) = 0.98 long tons

*Uganda is in the course of introducing the metric system.

ABBREVIATIONS

RAT : British-American Tobacco Company
PMB : Produce Marketing Board
UCB : Uganda Commercial Bank
# UGANDA SMALLHOLDER TOBACCO PROJECT

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This report is based on the findings of a Bank appraisal mission to Uganda in August 1969, composed of Messrs. M. van Gent, C. Walton, P. Grosjean (Bank) and B. Hartley (Consultant).
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MAP
i. This report appraises a project for the further development of Uganda's tobacco growing industry for which a credit of US$4.0 million equivalent is proposed. After coffee, cotton and tea, tobacco is Uganda's most important smallholder cash crop and provides a livelihood for some 20,000 small farmers most of whom grow less than half an acre of the crop. As a result of the project the number of growers would be increased by 6,000, annual production would be raised from a current 2.7 million kg of flue-cured leaf to about 5.3 million kg, and annual exports of tobacco would be increased from about 0.7 million kg valued at US$1 million at present to 3.1 million kg valued at US$3.8 million by 1975. Production increases would be brought about by both an expansion in the area under the crop and by improved productivity.

ii. The project involves strengthening the cooperative movement, to which all tobacco growers belong, in order to provide a suitable channel for providing credit to such growers. It would include the provision of short- and medium-term production credits to tobacco growers, and medium-term credits to cooperatives for the establishment of the facilities required to service their members efficiently. Provision also would be made for the establishment of additional central tobacco storage facilities, for the improvement of Government's extension services for tobacco farmers, and for the preparation of further agricultural projects aimed at a larger number of farmers and a wider range of agricultural production.

iii. Project costs are estimated at US$7.3 million equivalent. The proposed credit of US$4.0 million would finance 55% of project costs including some US$1.4 million local currency financing. The Government would meet 16% of project costs, and farmers and cooperatives the remaining 29%. Government would on-lend most of the proceeds of the credit to cooperatives and the Produce Marketing Board, retaining the balance to finance other project costs. Where practical project procurement would be by international competitive bidding, and goods and services obtained in this way would have an estimated value of US$1 million.

iv. The project would be carried out by a unit established for this purpose within the Ministry of Marketing and Cooperatives. Project policies would be determined by a project committee, and day to day management would be in the hands of a Project Director responsible to the Minister through the Permanent Secretary.

v. Marketing prospects, which are considered satisfactory, have taken into account the possible re-entry of Rhodesian tobacco onto the world market and a reduction of consumption increase in industrialised countries.
vi. The project would make a significant contribution to Uganda's economy, to its foreign exchange earnings; and would improve its agriculture, and the livelihood of many thousand small farmers. It would also demonstrate how credit may be made available to other agricultural activities. The economic rate of return from investment in the project, based on current estimates of long term tobacco prices would be about 27%. A sensitivity analysis shows that even were prices to fall 20% below these estimates the rate of return would be satisfactory at 16%. The project is suitable for an IDA credit of US$4.0 million.
UGANDA

SMALLHOLDER TOBACCO PROJECT

I. INTRODUCTION

1.01 In March 1968 the Government of Uganda applied to the Association for a credit to assist in financing a general agricultural credit project. The project was appraised in October 1968, but was found to be insufficiently prepared. In view of the time needed to prepare a satisfactory general agricultural credit project the Government, with the assistance of the Bank's Permanent Mission in Eastern Africa (PMEA), proceeded to prepare a smaller project concerned solely with tobacco production. The new project proposal was submitted to the Association in May 1969.

1.02 Under the project, credit would be provided to tobacco cooperatives and through them to tobacco growers. The proposed IDA credit would finance also the managerial and extension services needed to improve the productivity of tobacco production in Uganda and to extend the area under the crop and storage facilities. Tobacco production is expected to double its present level as a consequence of the project.

1.03 This report is based on the findings of a Bank mission, composed of Messrs. M. van Gent, C. Walton, P. Grosjean and B. Hartley (Consultant), which visited Uganda in August 1969.

1.04 The Association has made two credits in the Uganda agricultural sector. In 1967, a credit (109-UG) of US$3.4 million for a smallholder tea production project was made. Field work under this project is progressing satisfactorily but decision making by Government is slow and has led to problems with tea processing. In 1968 the second credit (130-UG) of US$3.0 million was made for beef ranching development. After a slow start, progress on this project is now ahead of schedule, although some staffing problems remain to be resolved.

II. BACKGROUND

A. Agriculture in the Economy of Uganda

2.01 Uganda is a landlocked country of about 75 thousand square miles of which more than 80% lies at altitudes of between 3,000 and 5,000 feet. Its soils and climate are generally favorable for agricultural production. Population in 1969 was about 9.5 million, and estimated to be increasing at about 3% annually. About 80% of the population is wholly or partially dependent on agriculture, which contributes about 60% of GDP. GNP per capita is about US$115. After a rapid increase in the period 1962 to 1964, agricultural exports, valued in 1967 at about US$173 million and equivalent to 80% of total exports, have leveled off. Coffee is the most important export crop, accounting in 1968 for 55% of all exports, followed by cotton with 23%. Tobacco exports in 1968 were valued at US$1 million and represented less than 2% of total exports.
2.02 Both coffee and cotton have received setbacks during the last two years, partly arising from the 1966 civil disturbances and partly from international marketing difficulties. Thus, despite the growing importance of other crops, such as sugar, tea and tobacco, the agricultural sector's production increased by only 2-1/2% a year in the period 1966 to 1968, and this has been the major factor in the slow growth of the country's economy in recent years. Government is now making efforts to improve the performance of the agricultural sector, in particular by increasing efficiency in the Ministries of Agriculture and of Marketing and Cooperatives.

B. Growth of Tobacco Cultivation

2.03 Although tobacco growing has been carried out on a small scale since the 1920's, a significant flue-cured tobacco industry was not established until the 1940's. Production of flue-cured tobacco increased slowly to 0.77 million kg in 1961, and then grew rapidly to over 2.7 million kg in 1968 when the estimated value of the crop was about USh 20 million (US$2.8 million equivalent). The crop (about 7,000 acres were grown in 1968) is produced by small growers, who each cultivate an average of half an acre. While a small quantity of fire-cured tobacco is also produced in Uganda, production has tended to stagnate and now averages about 0.9 million kg a year. Most fire-cured tobacco is used domestically.

2.04 Flue-cured tobacco production was encouraged initially to meet the requirements of domestic cigarette manufacture. The British-American Tobacco Company (BAT), the manufacturer, provided extension and managerial services to registered growers who contracted to sell their leaf to BAT. BAT continues this type of operation in the West Nile and Kigezi areas. However, supplies of flue-cured tobacco now outstrip domestic demand, estimated at about 2 million kg, and the production of tobacco for export is becoming of greater importance. BAT is not interested in export and with its supplies for domestic manufacture assured, is expected to withdraw from field operations within the next year. The responsibility for replacing the BAT service is being taken up by the Government, whose plans include an expansion of tobacco production for export. Under the new arrangements BAT would continue to own and operate its cured leaf handling plants and cigarette factories, and the Government would be responsible for production and export marketing. More details on Ugandan flue-cured tobacco production are contained in Annex 1.

C. Tobacco Development Policy and Institutions

2.05 Over the next four years Government plans to extend the area under flue-cured tobacco by about 4,700 acres, and thus increase production from 2.7 million kg to about 5.3 million kg. The expansion would take place in the three areas where tobacco growing is already well established, West Nile,
Middle North and Kigezi. Government proposes to replace BAT field supervision with government services and to reorganize and strengthen the tobacco growers' cooperatives to which all producers belong. As the requirements of local cigarette manufacture are unlikely to expand significantly, increased tobacco production will entail increased exports and thus augment Uganda's foreign exchange earnings.

2.06 Government policy is to allocate a large measure of responsibility for the agricultural development program to cooperatives. In recent years, the cooperative movement has become responsible for providing credit and other production, processing and marketing facilities for Uganda's major agricultural projects. Although defaults on cooperative repayments increased markedly in 1966 as a result of the civil disturbances, the causes were exceptional, and since then Government has strengthened its control of cooperatives. A result of this has been a considerable improvement in the financial position of the cooperative movement.

2.07 Credit for cooperative activity is supplied mainly by Government, through the Department of Cooperative Development of the recently established Ministry of Marketing and Cooperatives and, to a lesser extent from commercial banks. One of these, the wholly Government owned Uganda Commercial Bank (UCB) now handles most of government commercial banking business. Despite its growth, primarily from increases in savings and deposits, UCB has continued its policy of concentrating on short-term lending rather than medium- and long-term lending. It acts, however, as Government lending agent in the administration of various medium and long term loan schemes, and it is Government policy that UCB should be similarly employed in lending operations concerned with the tobacco development program. In due course, its functions as Government agent in this and other programs may be taken over by a development bank, formation of which the Government is now considering. Annex 2 gives further details on UCB.

2.08 The Produce Marketing Board (PMB), was established in 1967, but at present is responsible only for the marketing of tobacco (cotton and coffee are marketed by separate boards), though it is carrying out marketing surveys for other crops. PMB employs an experienced commercial firm, Trans-Continental Leaf Tobacco Corporation Ltd. (Trans-Continental), a Uganda registered company, subsidiary of a Liechtenstein based firm, as its agent for classifying and selling tobacco and uses BAT facilities in Kampala for the redrying, packing and storage of the crop prior to sale.

III. PROJECT AREAS

A. Location, Population, Soils and Climate

3.01 The project would be located in three areas: West Nile, Middle North and Kigezi (see Map). Flue-cured tobacco production is now well established in all three areas.
The West Nile project area, comprises six counties of the West Nile District in the north-western corner of Uganda. Tobacco is grown over a region of about 1,500 sq mi, which supports a population of about 200,000 persons (133 persons per sq mi). The area has good road communications with Kampala about 250 miles distant, and a railway extension to the area is under construction.

Altitude is between 3,800 and 5,000 feet, and rainfall averages 38 inches. Soils are mainly sandy loams and the combination of climate and soils is well suited to flue-cured tobacco production. There is no shortage of land for expanding tobacco production, but the area of natural woodland which provides fuel for curing the tobacco crop is diminishing. While some 8,000 acres of fuel wood plantations have already been established, the acquisition of the relatively large blocks needed for such plantations is becoming difficult.

Largely because of its remote location, economic development in West Nile has progressed slowly. Large numbers of West Nilers work outside the district and, while not contributing directly to local development, constitute a substantial source of income for the district through the repatriation of earnings. The area's major cash crops are coffee, cotton, and tobacco. The bulk of Uganda's flue-cured tobacco is grown in West Nile and the crop is the major source of cash income to area farmers.

The Middle North project area comprises parts of the Lango, Acholi and Madi districts. It forms part of Uganda's northern plateau, most of which lies between 3,500 and 4,000 feet in altitude. The area is less densely populated than West Nile, with about 50 persons per sq mi. It has good road and rail connections to Kampala, which is about 200 miles from the center of the area.

Rainfall pattern is bi-modal, with peaks in April/May and September/October. Rainfall is about 40 inches, and the climate and sandy loam soils make the area suitable for flue-cured tobacco production. Fuel from natural woodland is readily available, but will diminish with any substantial increase in tobacco production. Land is available for both tobacco and fuel wood plantings.

Compared with the West Nile and Kigezi areas, economic development in the Middle North is relatively advanced. Cotton growing was introduced as early as 1910, and its production together with the sale of a range of food crops produced in the area, has contributed significantly to the cash income of farmers. Cotton has suffered considerable price fluctuations in recent years, however, and for this reason flue-cured tobacco production is gaining in popularity as a substitute.

The Kigezi project area is situated in the Kigezi District in the south-western corner of Uganda. For the most part the area comprises broken mountainous country. Tobacco is grown on slopes at between 3,000 and 4,000
ft altitude. Population of the district is about 495,000, and its density about 335 persons per sq mi in the mountain areas, and 170 persons per sq mi on the lower slopes. Communications with Kampala are by road, part earth and part hard surfaced, totaling some 270 miles.

3.09 Rainfall is bi-modal, with peaks in April and in November. Annual rainfall varies considerably over even short distances, but is between 35 and 45 inches in areas where tobacco is grown on sandy loams. Due to altitude, rainfall and soil considerations, the area in Kigezi suitable for profitable tobacco production is estimated to be only about 2,000 acres. Fuel from natural woodland is available only in limited quantities, and it has been necessary to establish fuel wood plantations to supply the needs of tobacco growers. Land is available for the limited tobacco and necessary fuel wood planting programs proposed for the area under the project.

3.10 Economic development has been very restricted in this remote and relatively inaccessible area. Cash crops play a relatively unimportant role in the economy, and while attempts have been made to establish crops such as flax, coffee and vegetables, none has developed to a significant scale. Consequently, seasonal migration from the area has become customary. While conditions for large scale tobacco growing are less favorable in Kigezi than in the other areas, Government proposes to encourage development of the crop on a small scale as it offers better economic opportunities and returns to farmers than other crops.

B. Farming Patterns and Land Tenure

3.11 Farms in the project areas average about 11 acres of cultivated land, but range from less than 1 acre in Kigezi, to over 16 acres in Middle North. Millet, sorghum, maize, plantains, cassava, groundnuts and sweet potatoes are important food crops in all areas. Subsistence requirements, based on current average yields of food crops, vary from 0.4 to 0.7 acres per person. The use of improved varieties, fertilizer, and pesticides in either food or cash crop production is insignificant. The Government provides subsidized tractor and farm machinery hire services in the areas but only 10% of farmers use them. The remainder cultivate their farms by hand. As the project progresses it is expected that more and more tobacco growers will make use of the tractor hire service but successful carrying out of the project would not be dependent upon a greater use of these services. For the purpose of project calculations it is assumed that all farmers would use machinery hire services.

3.12 Land in the project areas is held by occupants under a traditional system of usufruct. Government, by Act of Parliament, has vested the authority over land in the Land Commission, and currently any person can acquire leasehold title for 49 years by written application to the Commission. Up to now, however, very few leasehold titles have been acquired under the Act,
since security of tenure is effective under the traditional system. Consequently loans may be made to farmers without risk of their losing control of their land.

C. Production of Flue-Cured Tobacco

3.13 Basic tobacco production statistics for the three project areas are given in the following table:

<table>
<thead>
<tr>
<th></th>
<th>West Nile</th>
<th>Middle North</th>
<th>Kigezi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered growers</td>
<td>12,400</td>
<td>3,000</td>
<td>968</td>
</tr>
<tr>
<td>Acres</td>
<td>3,600</td>
<td>2,978</td>
<td>484</td>
</tr>
<tr>
<td>Acres per grower</td>
<td>0.29</td>
<td>0.99</td>
<td>0.50</td>
</tr>
<tr>
<td>Cooperative societies</td>
<td>20</td>
<td>29</td>
<td>4</td>
</tr>
<tr>
<td>Size of barns (ft)</td>
<td>12 x 12</td>
<td>12 x 12</td>
<td>16 x 16</td>
</tr>
<tr>
<td>Number of barns</td>
<td>3,100</td>
<td>2,978</td>
<td>121</td>
</tr>
<tr>
<td>Average Yield (kg/ac, 1968)</td>
<td>590</td>
<td>191</td>
<td>199</td>
</tr>
<tr>
<td>Use of fertilizer (kg/ac)</td>
<td>136</td>
<td>70</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

1/ Tier: a level of horizontal poles from which tobacco leaves are hung during curing.
2/ Of which 1,307 are temporary barns.

3.14 Farmers in all three areas are organized in cooperative societies. These societies provide inputs, handle and market the tobacco and grow fuel wood. Each society has a leaf-handling shed, which also serves as its tobacco buying center. Societies in each of the three areas are organized into an apex area Cooperative Union. The Union acts largely as an agent for purchasing and distributing production inputs.

3.15 Tobacco is grown in a four to six year rotation, alternating with maize, cotton, beans and fallow, and this practice would continue. Tobacco seed is produced by BAT, and growers raise their seedlings in cooperative seedbeds. In West Nile and Middle North, sowing takes place in January and transplanting begins, with the early rains, at the end of February. In Kigezi, the season begins about three months later. The crop starts to mature 75 days after transplanting, and is harvested and cured in May through August in West Nile and Middle North, and in October through December in Kigezi. Seedbed practices include soil fumigation, fertilizer and pesticide applications, but these are satisfactory only in West Nile. In West Nile 136 kg/ac of compound fertilizer is used after transplanting, and the same technique is recommended for use in the other areas. No pest
control measures have yet proved necessary in the field. Growers cure their crop either in individually or communally owned barns. Barn sharing is less common in Middle North where growers cultivate about one acre of tobacco each and use barns capable of curing the production from such an area.

3.16 Poor seedbed maintenance and untimely planting currently results in poor yields in Middle North and Kigezi, due principally to the carry-over of disease and nematode infestation into the field from the seedbeds. Husbandry operations in these two areas are often poor, as is curing, which is frequently held up because of failure to collect fuel wood on time. Additional constraints are the existence of a large number of poorly constructed temporary barns in Middle North and inadequate leaf handling and baling arrangements. Because of these limitations, yields in Middle North and Kigezi in 1968 averaged under 200 kg/ac. In West Nile, however, under good BAT management and supervision the average yield in 1968 was 590 kg/ac. This is a good yield by any African standards, and demonstrates the ability of the Uganda farmer, when properly supported, to achieve a satisfactory level of technical efficiency.

IV. THE PROJECT

A. Definition

4.01 The project would add, over a four-year investment period, about 4,700 acres to Uganda's existing tobacco acreage, and would involve approximately 6,000 farmers organized in cooperative societies. The project consists of:

(a) the provision of credits to tobacco growers for the construction and improvement of tobacco barns;

(b) the establishment of a revolving fund to provide new growers with seasonal production inputs;

(c) the provision of credits to cooperatives for the construction of baling centers, office and storage facilities, and the establishment of fuel wood plantations;

(d) the establishment of a project administration, together with the basic development of cooperative union and society management staff, and of Government extension services to tobacco growers;

(e) the construction of additional tobacco storage facilities at Kampala; and

(f) the provision of technical assistance for the preparation of further agricultural projects.
B. Detailed Features

4.02 The project would mainly provide for the introduction of tobacco on settled but presently under-utilized farms, and partly for the extension of tobacco growing by farmers who already cultivate and cure the crop. Selection of new farmers would be based on their past performance with other crops and on willingness to join their local cooperatives. Throughout the areas, there is increasing collective experience of tobacco which would be strengthened through improved extension services and a farmer training program to be introduced. Beyond this, the project would cater to the differing tobacco production characteristics of the three project areas. In West Nile, where yields are already high, priority would be given to enlarging existing barns to improve curing efficiency, and to providing a satisfactory replacement for BAT services. Additionally, a limited number of new barns, and new fuel wood plantations would be established. In Middle North and Kigezi, main objectives are both expansion of tobacco acreage and increased productivity. Achieving these objectives requires the construction of new barns and tobacco handling facilities, and the establishment of adequate supervisory and advisory services and satisfactory arrangements for the provision of production inputs to farmers. Land suitable for tobacco is scarce and scattered in Kigezi, consequently a soil survey to locate satisfactory sites would precede expansion of the tobacco acreage. Government has given an assurance that no planting would take place on any land in Kigezi before a soil survey had shown that such land was suitable for tobacco.

4.03 Tobacco acreage under the project is scheduled to increase as follows:

<table>
<thead>
<tr>
<th></th>
<th>Cumulative Expansion in Tobacco Production</th>
<th>Total Increase under Project</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existing</td>
<td>Year 1</td>
</tr>
<tr>
<td>West Nile</td>
<td>3,630</td>
<td>4,000</td>
</tr>
<tr>
<td>Middle North</td>
<td>2,978</td>
<td>3,360</td>
</tr>
<tr>
<td>Kigezi</td>
<td>484</td>
<td>550</td>
</tr>
<tr>
<td>Total</td>
<td>7,092</td>
<td>7,910</td>
</tr>
</tbody>
</table>

Tobacco Barns

4.04 In West Nile, about 1,600 12x12 ft 4-tier barns would be modified to accommodate six tiers. A 6-tier barn, while consuming little more fuel wood than a 4-tier barn, can cure the production from about 1-1/2 acres of tobacco against 1 acre in the case of a 4-tier barn. In addition to barn extensions, 233 new barns, all 6-tier, would be constructed. In West Nile each barn is normally owned by a group of four growers.
In Middle North, a total of 4,329 12x12 ft 4-tier barns would be constructed in the project period. Of these, 3,022 would be built for new tobacco growers, and about 1,307 would be built to replace existing temporary barns. Although the construction of 6-tier barns would be more economical in terms of fuel usage, the decision to build the smaller barns is dictated by the tradition in this area of each grower owning and operating his own barn. An additional consideration is that the smaller barn with its limited capacity will help to prevent growers from cultivating larger acreages than they can efficiently manage. At present one acre of tobacco is about the maximum that the average project area grower can handle. Since fuel wood is not in short supply in the Middle North, fuel efficiency is not such a critical factor.

In Kigezi, 149 16x16 ft 6-tier barns would be built. Each barn would be shared by a group of about eight growers, as is traditional, and would be adequate to cure the production from about 3 acres assuming a maximum yield of 450 kg of cured leaf per acre.

Seasonal Production Credits

The IDA credit would provide short term (ten months) production credits for the first year for all new tobacco growers up to an amount of USh 600 (US$84) per acre of tobacco. This credit would cover between 80 and 90% of production costs, exclusive of the farmer's own labor, and is the same amount that is now being provided to existing farmers by commercial banks (see para 5.07). Hitherto, it has been the practice in Uganda for farmers to expect loans for crop inputs each year. Under the project a revolving fund would be maintained, from which farmers could obtain seasonal loans of up to Sh 600 per acre tobacco for five years only, the amount being reduced to Sh 300 in the sixth year and Sh 150 in the seventh. Credits would be made to growers in the form of either materials or services; no cash credits are envisaged. Thereafter it is anticipated that the farmers savings would be adequate to cover production cost. The basic mechanism for providing credits would follow present practice. Under this UCB is authorized by the Cooperative Department (under the project such authority would be vested in the project director) to make loans to societies, which then extend loans to farmers at an annual interest rate of 12%. Crop payments to the farmers are made by the societies after deducting loan repayments.

Baling Centers, Cooperative Offices and Supply Depots

Baling centers, comprising simple leaf-handling and storage facilities would be needed by all 33 cooperative societies in Middle North and Kigezi, and by five societies in West Nile. Each baling center would be equipped to bale up to 250,000 kg of cured leaf, about 3,000 bales, and be able to store up to 400 bales. The baling centers would serve also as buying centers for growers' leaf.

In Middle North and Kigezi, seven cooperative union supply depots would be built to serve as distribution points for barn materials and farm
inputs. Such facilities would not be necessary in West Nile. Each depot would consist of a store and a small office, and would be constructed near the offices that would be provided for project field staff.

Fuel Wood Plantations

4.10 A total of about 8,000 acres of eucalypt plantations would be established over the four-year project investment period by the Cooperative Unions. This would be additional to about 10,000 acres already planted to service tobacco production and which in part, together with large areas of natural timber, would provide fuel for curing tobacco to be planted under the project until the new plantations had reached maturity. The Unions would obtain a leasehold title to the land needed for these plantations. These plantations would produce about 60% of the total fuel wood requirements of tobacco growers in West Nile and Kigezi, and about 40% of those of growers in Middle North, the balance coming from natural timber. Planting of eucalypt would continue after the project investment period if this should prove necessary. Although eucalypt is a recognized fuel in East Africa, planting requirements can be established accurately only after experience provides more detailed and reliable data on the fuel requirements, and on the production characteristics of eucalypts. For project estimates, a fuel requirement of 45 cu yd per acre of tobacco, and a yield of 75 cu yd of wood per acre after each phase of a five-year growing cycle are assumed. On this basis 3 acres of eucalypt plantation would be required for each acre of tobacco maintained in production. During negotiations, Government agreed that the Ministry of Agriculture would begin a research program to determine the most economical heating system for flue-curing barns, including tests of improved furnaces and gas and oil heating, and, that within 3 years of credit signature, the government, on the basis of such research, would prepare firm plans for meeting future fuel requirements and would implement such plans after consultation with IDA.

Central Tobacco Storage

4.11 BAT-owned tobacco storage and processing facilities in Kampala are just adequate for Uganda's present crop. While processing capacity is sufficient to deal with the additional production generated by the project, storage capacity would be inadequate. In order to handle and store the additional production, two stores with a floor storage space of 40,000 sq ft each would be built under the project. The new storage would be used for leaf receiving and classifying (10,000 sq ft), wet leaf storage (60,000 sq ft) and redried leaf storage and dispatch area (10,000 sq ft). This storage together with that owned by BAT would be sufficient to handle a crop of approximately 5.5 million kg per year. Storage equipment, such as scales, fork-lift trucks and conveyors, would also be provided under the project. Detailed designs, equipment inventories, and subsequent tender documents would be prepared by PMB in consultation with the project director for submission to the Association for approval.
Project Administration and Extension Staff

4.12 Only in West Nile has tobacco production reached satisfactorily high yield levels and quality standards. This has been achieved through the intensive supervision and advisory services provided by BAT. Since BAT is withdrawing from the area, its services must be replaced. In Middle North and Kigezi, the largely Government-provided services are inadequate and are reflected by poor yields (see para 3.16). Consequently a completely new organization is required in these areas. The success of the project would also depend upon Uganda's tobacco development program being coordinated centrally. Thus, a central tobacco project administration would be established. The proposed credit would finance the investment costs of such reorganization including offices, housing and transportation and in addition operating costs during the four-year project development period. The project would also provide for training both technical staff and tobacco farmers at existing Ministry of Agriculture Farm Institutes.

Technical Assistance

4.13 Over the past five years Uganda, helped by IDA (PMEA) and FAO, has been attempting to identify and prepare agricultural projects suitable for external financial assistance. Success has been limited, however, and with the possible exception of additional livestock projects, there are no new projects which are being prepared. The chances of the Government itself preparing further suitable projects is slight due to a lack of expertise, and the agricultural problems of the country are such that the normal type of short duration IDA and FAO project preparation missions are unlikely to be of significant help. For these reasons an amount of US$ 70,000 would be included under the proposed credit, and would be used to obtain technical assistance in project preparation. It is proposed that Government, with the assistance of IDA would agree and prepare a list of projects which could be prepared within a reasonably short period of time. Consultants acceptable to IDA would then be employed, under a contract and terms of reference satisfactory to IDA, to further investigate these project possibilities, identify the most promising, and prepare these in a form suitable for submission to external financing agencies including the Bank Group. It is anticipated that a list of project possibilities could be developed within four months after signature of the credit, and at least one project prepared within eight months from employment of the consultants. During negotiations assurances were obtained from the Government that the procedures described above will be followed.

V. COST ESTIMATES AND FINANCIAL ARRANGEMENTS

A. Project Costs

5.01 Project cost estimates and their foreign exchange component are shown in the following table, and are elaborated in Annex 4:
## Summary Table of Project Cost

<table>
<thead>
<tr>
<th>Item</th>
<th>U Sh (millions)</th>
<th>US$ (millions)</th>
<th>Foreign Exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local</td>
<td>Foreign</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td><strong>On-farm Investments</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tobacco barns</td>
<td>13.8</td>
<td>1.8</td>
<td>18.6</td>
</tr>
<tr>
<td>First year inputs (fertilizers, tractor cultivation)</td>
<td>1.0</td>
<td>1.8</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td>14.8</td>
<td>3.6</td>
<td>21.4</td>
</tr>
<tr>
<td><strong>Cooperative Investments</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Society (baling centers, houses)</td>
<td>1.5</td>
<td>1.2</td>
<td>2.7</td>
</tr>
<tr>
<td>Union (stores, houses, vehicles)</td>
<td>1.4</td>
<td>0.7</td>
<td>2.1</td>
</tr>
<tr>
<td>Fuel wood plantations</td>
<td>2.5</td>
<td>0.3</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td>5.4</td>
<td>2.2</td>
<td>7.6</td>
</tr>
<tr>
<td><strong>Cooperative Management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Society (salaries, operation, maintenance)</td>
<td>1.5</td>
<td>0.3</td>
<td>1.8</td>
</tr>
<tr>
<td>Union (salaries, operation, maintenance)</td>
<td>1.5</td>
<td>1.5</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td>3.0</td>
<td>1.8</td>
<td>4.8</td>
</tr>
<tr>
<td><strong>Project Administration Investment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offices and houses</td>
<td>1.1</td>
<td>0.7</td>
<td>1.8</td>
</tr>
<tr>
<td>Vehicles</td>
<td>0.1</td>
<td>0.5</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td>1.2</td>
<td>1.2</td>
<td>2.4</td>
</tr>
<tr>
<td><strong>Project Management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HQ costs</td>
<td>1.3</td>
<td>0.8</td>
<td>2.1</td>
</tr>
<tr>
<td>Field staff costs</td>
<td>3.4</td>
<td>1.2</td>
<td>4.6</td>
</tr>
<tr>
<td>Training (staff and farmers)</td>
<td>0.8</td>
<td>0.2</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td>5.5</td>
<td>2.2</td>
<td>7.7</td>
</tr>
<tr>
<td><strong>Tobacco Storage (PMB)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central stores</td>
<td>0.9</td>
<td>2.7</td>
<td>3.6</td>
</tr>
<tr>
<td>Storage equipment</td>
<td>-</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td>0.9</td>
<td>3.1</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Technical Assistance</strong></td>
<td>0.1</td>
<td>0.4</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Contingencies</strong></td>
<td>1.5</td>
<td>1.0</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>32.4</td>
<td>18.5</td>
<td>50.9</td>
</tr>
</tbody>
</table>

1/ Salary and staff costs incurred in establishing the project.

2/ 10% on all items, except on-farm investments and technical assistance.
5.02 Cost estimates are based on BAT's experience in tobacco growing in Uganda and elsewhere. The foreign exchange component is estimated at 36% of total project costs.

B. Proposed Financing

5.03 It is proposed that an IDA credit of US$4.0 million (USh 28 million) would be made to the Government, and the project financed as follows:

<table>
<thead>
<tr>
<th>USh Million</th>
<th>US$ Million</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDA Credit</td>
<td>28.0</td>
<td>4.00</td>
</tr>
<tr>
<td>Government of Uganda</td>
<td>8.2</td>
<td>1.17</td>
</tr>
<tr>
<td>Farmers and Cooperatives</td>
<td>14.7</td>
<td>2.10</td>
</tr>
<tr>
<td>TOTAL</td>
<td>50.9</td>
<td>7.27</td>
</tr>
</tbody>
</table>

5.04 The proposed IDA credit of US$4.0 million would cover foreign exchange component amounting to US$2.6 million, and local currency costs totalling USh 9.8 million (US$1.4 million equivalent). The Government contribution of US$1.17 million equivalent would be made from budgetary sources. Farmers' contributions would be largely in the form of the labor and materials supplied by them for barn construction. The contribution of the cooperatives would be from self-generated funds. Annex 8 shows that the financial situation of the cooperatives would allow this contribution.

5.05 The proposed IDA credit would be made on standard terms to the Government of Uganda. Government would apply proceeds of the credit together with its own contribution as detailed in Annex 5 and summarized as follows:

(a) on-lend to cooperative unions for
   
   i. cooperative investments in an amount of USh 8.3 million (US$1.18 million) at 8% interest repayable over 14 years;
   
   ii. on-lending to farmers for tobacco barns, in an amount of USh 8.1 million (US$1.16 million) at 8% interest repayable over 7 years and for seasonal production loans in an amount of USh 2.8 million (US$0.40 million) at 12% interest, repayable after 10 months.
(b) to the Ministry of Marketing and Cooperatives for investments required for the project administration, and for the costs of expatriate management and consultants for further project preparation, in an amount of USh 4.9 million (US$0.70 million);

(c) on-lend to PMB for investment in tobacco stores and equipment, in an amount of USh 4.4 million (US$0.63) at 8% interest repayable over 19 years; and

(d) to payment of salaries and operating cost of project management in an amount of USh 7.7 million (US$1.10 million).

Expenditures under (a) above would supplement existing assets and facilities, some of which are currently owned by BAT. The purchase of such facilities by the unions concerned would be a condition of credit effectiveness.

5.06 All cooperative on-lending would be through UCB which, as Government disbursement agent would receive a 2% service charge on loans channelled through it. Cooperatives would receive a 2% margin on farmers' barn loans, and a 6% margin on farmers' seasonal crop loans. Government's margin would be approximately 4.75% on on-lending of the proceeds of the IDA credit. Further details of loan terms are given in Annex 6. Conditions of effectiveness of the credit would be that the Government would have entered into agreements with the three cooperative unions and with PMB, all acceptable to IDA, defining the conditions under which the Government would make funds available to those organizations. UCB acceptance to act as Government disbursement agent on terms acceptable to IDA would be a further condition of effectiveness. Assurance has also been obtained that the Government would make available all funds needed for the project in advance and in block account form on the basis of quarterly estimates approved by the project director and approved by the project committee.

5.07 Seasonal production credits for tobacco growers, and loans for cooperative development are provided currently by private commercial banks and by UCB, and these banks have given assurance that they would continue their present level of lending, of about USh 4.5 million annually. It would be a condition of effectiveness of the credit that the Government produces evidence of the intention of the commercial banks to provide crop loans to existing tobacco growers.

5.08 While the commercial banks are prepared to continue to provide short-term credit for all existing tobacco acreage, there is an unwillingness on the part of both Government and the banks that the latter should increase their participation (which is secured on the cooperatives assets) to cover the provision of credit under the project. For this reason, and because it would not be possible to channel IDA funds through private banks, the arrangements for seasonal credits under the project would be as described above and in para 4.07.
C. Procurement

5.09 Tobacco storage equipment, project administration vehicles, and bulk purchased construction materials, fertilizers and insecticides, valued at about US$1.05 million would be procured through international competitive bidding. Tenders for the construction of stores and houses valued at about US$1.6 million, would be let locally, since the size of individual contracts would be inadequate to attract international bids. Local contractors with experience in the type of construction required are available in sufficient numbers to ensure an adequate degree of competition. Government procedures for local procurement are acceptable to the Association. With the exception of bulk purchased construction materials, fertilizers and insecticides, other inputs needed for tobacco barns and fuel wood plantations, valued at about US$1.4 million, would be procured locally since bulk procurement of these items would be administratively cumbersome. In hiring expatriate staff and consultants at a cost of about US$0.33 million, standard IDA procedures would be followed. Preference to domestic manufacturers is not applicable, since almost none of the items to be procured internationally is manufactured locally.

D. Disbursement

5.10 Disbursement of the proposed credit would be made against:

(a) 100% of the cif cost of items directly imported for the project or procured through international competitive bidding, about US$1.05 million;

(b) 100% of the foreign exchange cost of expatriate staff and consultant services, about US$0.33 million; and

(c) a percentage, estimated to be 70% of the loans made for on-farm and cooperative investments, and of expenditures on project administration offices, houses, vehicles and equipment procured locally, less item (a) and (b) above; this is estimated to amount to about US$2.62 million.

Should an unspent balance of the IDA credit remain when development envisaged under the project is completed, it is recommended that it should be cancelled unless the government proposes an extension of the project for further acreage in the same areas satisfactory to IDA. A breakdown of disbursement items is given in Annex 5. An estimated disbursement schedule is given below and detailed in Annex 18.

<table>
<thead>
<tr>
<th>Year</th>
<th>1970/71</th>
<th>1971/72</th>
<th>1972/73</th>
<th>1973/74</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount disbursed (USH)</td>
<td>8.8</td>
<td>7.6</td>
<td>5.3</td>
<td>6.4</td>
</tr>
<tr>
<td>(US$)</td>
<td>1.3</td>
<td>1.1</td>
<td>0.7</td>
<td>0.9</td>
</tr>
<tr>
<td>Undrawn balance (USH)</td>
<td>19.3</td>
<td>11.7</td>
<td>6.4</td>
<td>-</td>
</tr>
<tr>
<td>(US$)</td>
<td>2.7</td>
<td>1.6</td>
<td>0.9</td>
<td>-</td>
</tr>
</tbody>
</table>
E. Accounts and Audit

5.11 The project administration, the Tobacco Capital Account (see para 6.07), PMB and each of the Unions would keep accounts for the project. All project accounts would be audited annually by an independent auditor acceptable to IDA. The services of independent auditors are commonly used in Uganda. Audited annual reports would be submitted to IDA within 4 months of the closing of the financial year.

VI. ORGANIZATION AND MANAGEMENT

A. Organization of the Project

6.01 The proposed project organization reflects the Uganda Government's policy of not establishing additional para-statal bodies for the development of individual crops when existing institutions, in particular the cooperative movement, can be employed if suitably strengthened. It reflects also the absence of a development bank with the capacity to carry out an agricultural credit program involving large numbers of small farmers all requiring a high degree of technical supervision. While the creation of such a bank may be desirable, the proposed project alone is too small to justify its creation at this time.

6.02 The project organization would comprise five elements:

(a) a project unit within the Ministry of Marketing and Cooperatives headed by a project director, and a project committee responsible for determining project policies and for coordinating project activities;

(b) three cooperative unions, one in each project area (serving 53 primary cooperative societies), responsible for carrying out the project in their respective areas;

(c) UCB, acting as a Government disbursement agent for loans to the three unions;

(d) PMB, responsible for establishing additional tobacco storage and for tobacco marketing; and

(e) extension service personnel of the Departments of Agriculture, Forestry, and Cooperative Development, responsible for providing technical assistance and advice to tobacco growers, who would be members of the project unit and who would work under direction of the project director and union managers.
Project Committee and Project Director

6.03 Responsibility for the overall direction of the project and the coordination of project entities would rest with the project committee which Government would establish by ministerial executive order. This committee which would meet regularly, but at least once a quarter, would be made up of senior representatives of the Departments of Agriculture, Forestry and Cooperative Development, PMB, UCB, and three tobacco growers representing each union, with the Permanent Secretary of the Ministry of Marketing and Cooperatives as Chairman. The project director who would act as the executive secretary of the committee would also be a member; and a representative of the Ministry of Finance would attend the committee's meetings as required. The project committee would be specifically responsible for approving quarterly estimates and would make recommendations to the Minister of Marketing and Cooperatives regarding the administration of the Tobacco Capital Account. In addition each member of the committee would be responsible for ensuring that the services and supplies required by the entity represented would be provided as required. The project director would be responsible to the Permanent Secretary of the Ministry of Marketing and Cooperatives for the overall execution of the project and would be assisted by a small staff, including a deputy director and an accountant (Annex 9). All staff would be employees of the Ministry of Marketing and Cooperatives and project headquarters would be located at the Ministry's offices in Kampala. The project director would have the authority delegated to him by the Commissioner for Cooperatives, for appraising the issue of loans by UCB to the three unions. Both the committee and project director would work to a plan of operations setting out the respective responsibilities of the project director and his staff in relation to the cooperatives and other involved organizations and the physical and financial programs. Such a plan of operations would be submitted for IDA approval as a condition of credit effectiveness and subsequently implemented. Assurances on the above matters were agreed during negotiations, and the establishment of the project committee would be a condition of credit effectiveness.

Cooperative Unions

6.04 Responsibility for day-to-day execution of the project would rest with the cooperative tobacco unions, and their associated primary societies (20 in West Nile, 29 in Middle North and 4 in Kigezi). Each primary society would be made up of growers cultivating a total of about 200 acres of tobacco.

6.05 The generally poor management of cooperatives in recent years has led Government to exert a much stronger measure of direct control. Thus, under the Cooperative Societies Act (1964), Government has the power to supervise and control the operations of any cooperative union or society. This legislation would be invoked in carrying out the project, under which qualified managers would be appointed to the three unions by the Department of Cooperative Development, and similar Department-approved appointments would be made to the societies. Until each primary society's tobacco acreage reached 100 acres, its affairs would be run directly by its apex union.
6.06 In order to permit the most economic use of assets and management, the whole of the operating charge (para 7.11) would be retained by the unions which, in addition to meeting their own project expenses, would meet the union-approved expenses of each of the societies. This arrangement would insure that all growers in each area would pay similar development and management charges, and that currently financially weak societies as well as new societies, would be supported by those that are more developed and financially stronger. While appearing inequitable, the currently better societies would benefit from a generally more efficient tobacco industry which could be brought about only by the project. Adoption of a system in which each society had its different financial arrangements would create an insurmountable administrative problem. An assurance on this arrangement was obtained during negotiations and also that while the system would be reviewed from time to time, no change would take place without IDA's prior approval.

6.07 Each union would have different capital requirements related to tobacco acreage depending both on its physical requirements, in terms of facilities, and on its capital indebtedness. Thus, if each union were required to service its own capital indebtedness the result would be unduly high capital charges for the Middle North and Kigezi unions which up to now have been less efficient than West Nile, and thus lower and discouraging prices to growers. To help overcome this unevenness, and also to help provide some continuing financial entity through which reserves could be built up and provision made for future tobacco development, a Tobacco Capital Account would be established. Under this arrangement the three tobacco cooperative unions would collect out of tobacco sale proceeds a cess of US$h 0.40 per kg of tobacco marketed. Such collection would be paid into the Tobacco Capital Account. The Account would first service all loans made to cooperatives under the project for buildings and fuel wood plantations and secondly, would be available to finance rebuilding and re-equipping of project or pre-project barns and other facilities as approved by the project director. Any surpluses would be used to finance further tobacco development or cesses could be reduced. The Account would be administered by the Minister of Marketing and Cooperatives on the recommendations of the project committee. Assurances to the above effect were obtained during negotiations, and additionally, that the Account would not be wound-up without IDA's prior approval.

UCB and PMB

6.08 Changes in the organization of UCB and PMB are not envisaged under the project.

Extension Service

6.09 Extension service staff of the Departments of Agriculture, Forestry and Cooperative Development would be allocated to the project in accordance with the schedules set out in Annexes 9 and 10. Some 171 agricultural, 18 forestry, and 11 cooperative staff would be involved and these would be of the middle and lower technical grades of the Government service. Such staff would be employed full time on the project and would work directly under the
appropriate union manager. They would receive, however, technical guidance from senior staff of their relevant departments. The Department of Agriculture therefore would employ a chief technical officer (Tobacco) and three senior technical officers (Tobacco) acting as advisors to the project director and union managers respectively. The chief technical officer would be responsible for planning and carrying out a tobacco research program (presently there is almost none) and for establishing and maintaining contacts with tobacco developments in other countries. The research program would be largely concerned with the testing of techniques proven in other countries. The senior technical officers would be responsible for carrying out staff and farmer training, for field trials in their areas and for tobacco seed production. During negotiations assurances were obtained that Government would provide adequate financial and material support for the research, training and seed production programs.

B. Staffing and Training

6.10 Persons with good managerial ability, as well as a knowledge of tobacco growing and cooperative organization, are required to fill the posts of project director and managers of the West Nile, Middle North and Kigezi unions. During negotiations assurances were obtained that the director and managers, their terms of reference and conditions of employment, would be mutually acceptable to Government and IDA. The appointment of a Project Director acceptable to the Association would be a condition of effectiveness.

6.11 A nucleus of qualified and experienced tobacco extension officers already exists in both Government Service and BAT field staff. Suitable arrangements are being negotiated by Government for its takeover of satisfactory BAT personnel, and other appointments would be made from the Government Service. No difficulty is anticipated in recruiting qualified personnel for lower level project posts, and during negotiations assurance were obtained from Government that project posts would be filled in accordance with the schedule at Annex 10.

6.12 Training in tobacco cultivation would be required for most project field staff. This would be provided at Department of Agriculture Farm Institutes which are located in each of the three areas. It is planned that in addition to staff training, which would be given initial priority, each tobacco farmer would attend a minimum of a one-week Farm Institute training course in tobacco cultivation, curing and handling.

C. Marketing Organization

6.13 After consultation with PMB, the Government each year fixes the producer prices for the various grades of tobacco according to expected world
market prices. Any difference between the estimated and actual prices accrue to PMB but since PMB's establishment in 1968, no marked difference has occurred. PMB which has a monopoly of tobacco leaf purchase under the provisions of the Tobacco Act (1966) and the PMB Act (1968), licenses each registered tobacco cooperative as a buying agent. Cooperatives' societies collect tobacco leaf from their members on the basis of the Government fixed price after allowing for appropriate deductions. Following an initial grading of tobacco by the cooperatives at their baling centers, the baled tobacco is transported by Trans-Continental to Kampala and classified. Trans-Continental is employed by PMB on an annual contract to classify the whole Uganda crop, and subsequently market the exportable surplus. Trans-Continental receives a fee of USh 0.15/kg for grading plus 4% of the value of export sales it handles.

6.14 After classification by Trans-Continental, PMB sells the tobacco required for local manufacture direct to BAT. Prices for those local sales discussed annually between PMB and BAT are based on the international market price and include a yearly variable component, evaluated at USh 1.50/kg, in project estimates, which is effectively the value of the import tax BAT would pay were the tobacco to be imported. To date this revenue accrued to PMB. The remainder of the crop is then processed and redried by BAT at its facilities in Kampala, and transported by rail to Mombasa for export. BAT charges a commercial fee of USh 0.88/kg for the processing. Even after completion of the project, tobacco production in Uganda would not justify the establishment of an auction floor in Kampala, since the crop would be too small to attract sufficient overseas buyers. Thus the present arrangements of export marketing, under an agency agreement, would be continued, and assurances were obtained during negotiations that any change in the existing arrangements for tobacco exports and the terms thereof would be made with the approval of IDA. An assurance was also obtained that PMB would maintain separate and identifiable accounts pertaining to its tobacco operations.

VII. YIELDS, OUTPUT, MARKETS, PRICES, OPERATING RESULTS AND GOVERNMENT REVENUES

A. Yields and Output

7.01 It has been assumed in project calculations that average yields of 230 kg/ac would be obtained from project year 1 in the Middle North and Kagezi, and that these would increase progressively, reaching 450 kg/ac in project year 5, and that in West Nile yields of 450 kg/ac would be obtained and sustained from project year 1 onwards. While the assumed average project yield is less than that currently obtained in West Nile it is considered a realistic estimate in view of the new tobacco growers who would be established under the project.
7.02 At maturity of the project, it is estimated that Uganda would produce 5.3 million kg of flue-cured tobacco annually from an area of about 11,800 acre. Of this total annual production, that part accruing from the project would amount to about 2.9 million kg.

B. Markets and Prices

7.03 World production, consumption and trade in tobacco have increased steadily during the last decade and favorable prices have encouraged both area expansion and yield improvement. A major factor resulting in high prices was the 1965 embargo on Rhodesian tobacco. While Rhodesia may again become a large exporter, its production and exports are not likely to rise to previous levels, due to the loss of significant numbers of growers to other farming activities and the emergence of competitive producers such as Uganda's smallholder tobacco growers. Further, it is unlikely that manufacturers will wish to return to arrangements which committed them to making the bulk of their purchases from a single producer.

7.04 Increasing concern, particularly in the developed countries, over the possible hazards of tobacco smoking to health may reduce the consumption of tobacco, or at least slow down its expansion as has been the case in the United States. The main growth of tobacco use during the last 10 years, however, has occurred primarily in developing countries and is likely to continue. It is likely, therefore, that the consumption expansion rate, which was 2.3% per year during the 1955-66 period, will diminish slightly to about 2% in the 1970's but still leave the opportunity for new producers to sell a quality product. More information on the tobacco market is given in Annex 16.

7.05 Domestic flue-cured tobacco consumption, including some exports to Kenya, has averaged 2 million kg annually over the last five years and is expected to increase to 2.2 million kg by 1975. Thus, of a total estimated annual production of 5.3 million kg by 1975, Uganda would need to export 3.1 million kg, equivalent to about 0.3% of world exports of this commodity in the mid 1960's.

7.06 Uganda's tobacco has a very short history on the international market, and before 1968 exports were limited to Kenya. In 1968, however, the United Kingdom purchased 0.7 million kg of Uganda flue-cured leaf at an average green weight price equivalent of US$ 8.80/kg 1/. In 1969, the price was higher and averaged 9.70/kg green weight. Uganda flue-cured tobacco meets the high quality standards of the British market and furthermore, on that market Uganda tobacco takes advantage of Commonwealth preference. Presently this consists of a US$ 0.34 per kg rebate on import

1/ The term green tobacco is applied to cured tobacco before redrying.
duties. It does not seem, therefore, that Uganda would face substantial difficulties in selling its production on the world market, particularly in Great Britain, providing it is able to maintain the quality levels it has achieved already.

7.07 To take into account the possible end of the embargo on Rhodesian tobacco, and the impact on consumption of the apparent hazards to health of smoking, a FOB Mombasa price equivalent to USh 8.42/kg green weight is used in report calculations. This figure is some 15% below the current price for Ugandan exports, but is considered to be that which might prevail should Rhodesia again enter the market on an unrestricted scale. Prices of tobacco for local manufacture are geared to international prices for equivalent qualities. In 1968, the average local price obtained was USh 7.88/kg green weight. With increased exports it is expected that the better grades of tobacco will be exported and lower grades used domestically by BAT. Therefore, a future price of Sh 7.50/kg green weight is assumed for sales on the local market.

7.08 The producer price used in the calculation of farmer income (para 7.10) is based on an international price equivalent to USh 8.42/kg green weight less processing, storage and marketing costs amounting to USh 3.03/kg. This is equivalent to a price of USh 5.39/kg at union level (in 1969 this was USh 5.47), and a farmer price after payment of cess and operating change of Sh 4.73/kg in Middle North and West Nile, and Sh 4.53/kg in Kigezi. During negotiations it was agreed that should Government consider it necessary to maintain the same minimum tobacco price to all growers, IDA would have no objection to an adjustment being made to the tobacco price payable to the unions so that in effect Kigezi farmers would receive the same price per kg of cured tobacco as the farmers of the other two unions (see para 7.11). Because of Kigezi's relatively small production, the overall price would diminish by about only 2 cents/kg. Details of these price calculations are given in Annex 15.

C. Operating Results

Farmers

7.09 In Kigezi and West Nile, the annual cash income of farmers who do not grow tobacco is very low, and in the order of USh 100 to 150 per family. In the Middle North, where cotton is a well established crop, incomes are higher and up to about USh 400 per annum. Recent lower cotton prices are resulting, however, in the acreage devoted to that crop declining and consequently a fall in incomes. In all three areas farmers cultivate the cereals, legumes and roots needed for family requirements, and cash expenditures for food are very low.

7.10 Tobacco would substantially increase the cash incomes of participants. The budget given in Annex 7 shows that, at maturity of the project, farmers would obtain net incomes from tobacco, after tax, equivalent to
about USh 1,400 per acre. In view of the relatively high income potential of tobacco growing, Government officials anticipate little difficulty in finding the number of participants needed to achieve project targets. Existing crop production would not be disrupted by the proposed expansion in tobacco growing, except possibly a limited amount of cotton production since, if prices and productivity do not improve, some resources would be switched from cotton to tobacco growing.

Cooperative Unions

7.11 Under the organizational arrangements discussed in paragraphs 6.06 and 6.07, the financial operations of the unions would fall into two parts: first a capital fund in the form of the Tobacco Capital Account financed by the USh 0.40/kg of tobacco cess, and second an operating account covering all union and society recurrent costs, financed partly by the margin on loans made by the Union to farmers, and partly by an operating charge. In the case of the West Nile and Middle North unions, an operating charge of USh 0.26/kg would be levied and would be adequate to meet recurrent costs after a short period. In Kigezi, however, the scale of development is limited in relation to overheads, and an operating charge of USh 0.46/kg would be necessary. Tobacco farmers in Kigezi would thus pay operating and capital charges totalling USh 0.86/kg compared with the USh 0.66 that would be paid by West Nile and Middle North farmers, though if Government decides to follow the procedure set out in para 7.08 above, the same minimum price would be payable to farmers in all three areas. Though the fixed charges would be 20 cents/kg higher than are presently levied against the farmer, under the Project the tobacco farmers would not be required to make an additional payment for the establishment of fuel wood plantation as is now the case. During negotiations assurances were obtained that the operating charges indicated above would be applied and would not be changed without the prior approval of IDA. Estimated operating budgets for each of the three unions are given in Annex 8.

D. Government Revenue

7.12 Government revenue from the project would be:

(a) the difference between the price paid by the domestic manufacturer and that received on the world market. BAT is required to pay more than the export price, the difference largely reflecting the import duty that would have had to be paid had the tobacco been imported. The total annual incremental value of this is estimated at USh 266,000;

(b) personal taxation, which is estimated at an incremental value of USh 70,000 per annum when the project is at maturity; and
(c) corporation tax, which would be paid by the unions, and which is estimated to yield USh 100,000 annually at project maturity.

Annual government revenue at project maturity is therefore estimated at about USh 450,000, excluding surpluses accruing to the Tobacco Capital Account which, while being applied towards further development of the tobacco industry would reduce the demands made on Government for such purposes. Additionally, Government would benefit from the margin between interest received from the on-lending of the IDA credit and the service charge payable to IDA which while fluctuating annually is estimated at a total of about USh 600,000 overall. Annex 13 is a project cash flow, and shows that the project would be in a surplus position throughout its life and therefore the Government would recover more than it put in.

VIII. BENEFITS AND JUSTIFICATION

8.01 The project's primary benefits would be the increased production of flue-cured tobacco and consequently provision of an improved livelihood for about 6,000 small farmers. Increased production would generate increases in tobacco exports of about 2.4 million kg, earning some USh 20 million (US$2.8 million) in foreign exchange annually. Important secondary benefits would be the strengthening of the cooperative movement, and the contribution to the modernization of Uganda's agriculture. The project would also provide an example of how credit could be made available for other agricultural activities.

8.02 Using the prices given in para 7.07 and Annex 15, assuming a project life of 20 years, and a zero cost for farm labor, the economic rate of return from project investment is about 27% ranging between 19% for Kigezi and 29% for Middle North, (See Annex 17). If a combined decrease of prices and yields would result in 10% and 20% lower values for project output, the rates of return would decline to 21% and 17% respectively. If, for any reason, the project life was reduced to 10 years the rate of return would be about 21% on the basis of the prices and costs assumed. A zero cost for farm labor may not be appropriate although there is much underemployment in rural areas, few opportunities for other economic activity, and most farmers would grow their tobacco without need to reduce other cropping activity. If all labor inputs are costed at the going farm wage rate of USh 3.0/day the rate of return would fall from about 27% to about 21%.

IX. RECOMMENDATIONS

9.01 During credit negotiations, agreement was reached on the following principal points:
(a) the financial operations of the unions and their constituent societies would be consolidated (para 6.07);

(b) a Tobacco Capital Account would be established (para 6.07);

9.02 In addition to the customary conditions, the following have been agreed upon as conditions of effectiveness of the proposed credit:

(a) Conclusion of subsidiary loan agreement acceptable to IDA between the Government and PMB, and the Government and the three cooperative unions (para 5.06);

(b) Agreement by UCB to function as Government disbursement agent (para 5.06);

(c) Submission by the Government of evidence that the commercial banks intend to continue crop loans to existing tobacco growers on terms comparable to existing ones (para 5.07);

(d) Submission and approval by IDA of a plan of operation for the project (para 6.03);

(e) Establishment of a Project Committee (para 6.03); and

(f) Appointment of a Project Director (para 6.10).

9.03 The proposed project constitutes a suitable basis for an IDA credit of US$4 million.
UGANDA

SMALLHOLDER TOBACCO PROJECT

HISTORY AND DEVELOPMENT OF FLUE-CURED TOBACCO

A. West Nile

1. Tobacco production in West Nile began in 1944 when a European farmer, now retired, started a tobacco production program. An outgrowers' scheme was started by the Government in Terego County soon afterwards, and later the Greek-owned East African Tobacco Company opened an estate in Otreva. In January 1950 all the schemes were taken over by the reorganized East African Tobacco Company (now BAT) and were developed and operated as what were known as the "green-leaf schemes". Under these schemes, farmers were given free seedlings at the time of planting. The crop was grown under the supervision of the company which, when harvesting started 8 weeks later, purchased green leaf from the farmers.

2. Green leaf was bought at Company buying centers, which consisted usually of six large curing barns with adjoining handling sheds for baling and grading. Such centers were situated at 3 to 4 mile intervals along roads. The centers were designed to handle a total of 300 acres annually, the crop being purchased over a 5-month period from April to August. Cured leaf was transported to the company's plant at Kampala for redrying, and subsequently used in cigarette manufacture.

3. Farmers were invited to grow approximately ½ acre each in order that they could care for the crop properly. Leaf was purchased from a wide area; and any one barn might contain tobacco from 40 to 80 plots spread over a 25 miles radius area. Since different types of leaf require different curing techniques, it was not possible to obtain high quality cured leaf from the green-leaf schemes.

4. In 1953 the first Tobacco Primary Cooperative Societies were formed. Tobacco growers were encouraged to own their own barns and to construct centers along the same lines as those of the company. The idea was that, instead of selling green leaf directly to the company, farmers would collectively cure, grade and bale their leaf and sell it in bale to the company. This experiment was proved unsuccessful once company supervision was reduced or withdrawn. At this point it was realized that a green-leaf scheme, whether run by the company or the cooperatives, was inherently inefficient. Consequently alternative methods of tobacco production were sought.

5. Up to the mid 1950's it was not considered possible to cure tobacco in anything other than the traditional large barn as developed in the USA and Rhodesia. These barns were built to rigid specifications, usually being 16 ft or 20 ft square and 17 ft at the eaves. In 1957 BAT undertook
trials with small barns, which could accommodate the leaf from 1 ac. The purpose of these trials was to establish whether an individual farmer owning and operating a small barn could grow, cure and sell his own tobacco. The result of the trials was that it was easier to cure in small barns than in the traditional large barns, and also that, because all the tobacco cured in the barn originated on a very restricted area, quality was high.

6. On the basis of these results, BAT decided to close down green-leaf operations and encourage all farmers to produce cured leaf in small barns, and construction and curing training programs were introduced. As it was thought that small farmers would not be capable of acquiring the required skills, middle class educated farmers and shopkeepers were selected as participants in the new BAT schemes.

7. The first attempts with the small barns failed largely because the middle class farmers became involved in politics, and the shopkeepers proved more interested in trade than producing high quality tobacco. Consequently a fresh start was made with small farmers, and was designated the Master Farmer Scheme. This time, the barns were constructed out of permanent materials - brick walls and galvanized, corrugated iron roofs, which would last 10 to 15 years, as against more temporary structures in the earlier scheme. It was thought that the possession of a well-built permanent barn would give growers a feeling of pride that would stimulate them to work hard and care for their crop.

8. In 1961 the Master Growers' Scheme was shown to be viable, and from 1962 growth of the Master Growers' Scheme was accelerated by a BAT decision to demolish its own large barns, leaving farmers with no alternative but to build their own units. The transformation was planned to be completed over an 8-year period with the last green-leaf center closing down in 1969. Progress was faster than anticipated, however, and by 1964 all production of green-leaf for sale to BAT or Cooperative Centers had ceased in West Nile. The number of small barns increased from 249 in 1962 to 3,119 in 1969.

9. The Master Farmer Scheme was successful for two main reasons:

1) BAT financed directly, or guaranteed loans for barn construction and seasonal production costs;

2) BAT provided strict supervision, and extended technical advice to farmers.

10. It was realized in 1967 that at the rate at which fuel wood was being consumed by tobacco growers, the limit of West Nile's tobacco production would soon be reached. Experiments at this time, however, showed that if the height of a barn was increased to allow the addition of another two tiers of green leaf, the consumption of fuel per barn remained practically the same, and the large barn would be able to cure the crop from 1.5 acres instead of only 1 acre. Accordingly a barn conversion program began.

11. BAT's objective since the start of the Master Growers' Scheme has been the handing over of management of the leaf growing industry to the
growers themselves, and to transfer supervision and extension responsibility eventually to Government. As a first step in this direction BAT reduced the number of its supervisory field staff early in 1969.

B. Middle North

12. Flue-cured tobacco was first introduced into the area in 1948 when the then East African Tobacco Company Limited pioneered the cultivation of a few plots within a 23-mile radius of Gulu, and subsequently cultivation spread more widely in the area. The first schemes were green leaf schemes but in 1957, as in West Nile, experiments were made with small barns. The success of these experiments encouraged the company to launch a Master Growers' Scheme in Acholi and Lango during the 1958/59 season, when 100 growers were selected to participate, and field instructors were employed by the company to advise growers in curing methods.

13. Progress was slow, however, and by 1962 production reached only about 570,000 kg of cured leaf. Thereafter BAT decided to concentrate its activities to West Nile, where they had found growers more receptive, and towards the end of 1964, they were told that no more assistance would be provided by BAT. BAT agreed, however, to continue to buy cured leaf produced in the area if growers formed themselves into Cooperative Societies, and used a tobacco Cooperative Union as selling agent. Following this advice, a tobacco Cooperative Society was formed in 1964 and it marketed some cured leaf the following year. During 1965, three more Societies were formed and the Acholi Tobacco Marketing Union was registered with four affiliated member Societies. BAT continued to buy from this Union until 1967, as well as from a few individual growers who had agreed to supply a fixed quota.

14. In 1966, following an offer by Rothmans of Pall Mall Ltd., an international tobacco manufacturer, to buy tobacco from the area for both export and domestic manufacture, the Government of Uganda launched an expansion program in Middle North covering the existing tobacco growing areas and additional areas in Lango, East Acholi and Madi districts. As a result 24 Tobacco Grower's Cooperative Societies were formed and registered with the Registrar of Cooperatives by the end of 1967. Only nine of these Societies have so far purchased shares in the Middle North Tobacco Cooperative Union Ltd. which was subsequently formed, but the Union arranges the supply of barn construction and production materials for all Societies.

15. By the end of 1968 there were a total of 1,060 permanent barns and 1,300 temporary barns in the area.

C. Kigezi

16. Flue-cured tobacco growing trials were started in 1952 in Kigezi and results were successful. The following year, Mr. H. Campbell, a private
businessman, established a central estate, with a curing factory at Begangori, and neighboring farmers were organized into an outgrowers' scheme and sold green leaf to the factory. The cured leaf was sold to BAT. This scheme worked very well until the early 1960's when growers felt that it would be in their best interests to grow, cure and market their own crop.

17. These self-help attempts failed and growers experienced difficulty in marketing their tobacco in 1967. In 1968 the Master Growers' Scheme was introduced to the area, and was supervised by BAT in close cooperation with the staff of the Department of Agriculture. The introduction was successful, largely because the scheme was modified to suit prevailing local conditions in Kigezi, such as:

(a) Each barn, constructed to 12x16 ft specifications, served eight growers;

(b) Each farmer was allowed to grow ½ acre;

(c) Credit for barn and production was provided through the Cooperative Credit Scheme; and

(d) Technical services were provided by the staff of the Department of Agriculture.

18. Extension staff of the Department of Agriculture selected growers, and eligibility requirements were waived to enable these farmers to obtain credit through the Cooperative Credit Scheme. The Ihimbo Tobacco Wood Fuel Growers' Cooperative Society Limited was formed and started with 20 barns and a membership of 161. In view of future envisaged expansion, it was decided to split the Society into four, in order to streamline the administration. This arrangement worked successfully and 77 barns had been brought into operation by the end of 1968, in line with plans.
UGANDA

SMALLHOLDER TOBACCO PROJECT

THE COOPERATIVE MOVEMENT, AGRICULTURAL CREDIT AND BANKING

Growth of the Cooperative Movement in Uganda

1. The Cooperative movement became established as a significant instrument in rural development in the 1950's. Since then the scale and scope of its operations have increased steadily, and today it comprises some 650,000 farming families, 2,050 Primary Societies, 35 District Unions and 4 apex organizations. While concerned primarily with agricultural production, processing and marketing; trading, thrift and wholesale supply operations are also significant. The movement has been particularly active in development of the cotton crop, and, by 1968, had acquired or built 48 ginneries, handling 95% of the country's crop. It also purchases virtually all of the country's arabica coffee crop and one-third of its robusta coffee crop.

Cooperative Credit Schemes

2. In 1961, a scheme to provide credits to farmers through their marketing Societies was introduced and financed from various Government loan funds. Comprehensive regulations were established, which laid down conditions for farmer and Society borrowings and for the management of Societies. The credit scheme was accompanied by an expansion of the Department of Cooperative Development's extension staff. Credit Officers were appointed and assigned to rural districts to advise farmers and Societies on their credit needs. The scheme is under the control of the Commissioner for Cooperative Development, acting under the Cooperative Societies Act, 1964.

3. The number of Societies receiving loans increased from 104 in 1962/63, to 344 in 1965/66, but subsequently fell back to 272 in 1968/69 when many Societies were refused new loans because of poor repayment performance. In 1966/67, 21% of the loans made by Societies to members were in arrears, and this number increased to 27% in 1967/68 (the latest figures available). The lending position between the Uganda Commercial Bank (UCB), which acts as a lending agent for Government funds, and Societies, however, has improved recently, and the default rate decreased from 15% in 1966/67 to 8% in 1967/68. This improvement reflects the increased financial strength of the cooperatives as a whole whereby increased Society profits are more than compensating for individual member's defaults (Table 1). Compared with loans made since 1962/63, totaling about USh 23 million, defaults from farmers to Societies outstanding as of September 30, 1968 amounted to USh 2.6 million and defaults from Societies to UCB and other commercial banks to slightly over USh 1 million.

4. The Department of Cooperative Development attributes the default position to several special factors. These include the reduction on the
cotton price paid to farmers of from USh 0.60 to 0.40 per pound following the decline in world market prices, and the 1966 emergency situation in Uganda. Moreover, many defaults occurred when Societies had no power to deduct loan repayments from farmers' crop proceeds, a situation now generally remedied. In 1966, a Government Commission of Inquiry investigated the affairs of the Cooperative Unions and its report highlighted the Societies' small financial margins and inadequate management. Most of the Commission's recommendations for strengthening the movement are being implemented by Government.

Tobacco Credit

5. Tobacco development has not been financed through Cooperatives long enough to establish any particular trends. Until 1968, West Nile tobacco farmers were financed by the British American Tobacco Company (BAT) and loans made since then by a commercial bank (against BAT guarantee) have not yet fallen due. Experience is therefore limited to production loans made by the Department of Cooperative Development to Middle North and Kigezi Societies in 1967 and 1968. Of the USh 600,000 advanced to these Societies, approximately USh 155,000, or 26%, was in arrears on July 31, 1969. The Department of Cooperative Development attributes this to the difficulties of getting the scheme started, as well as to the fact that many of the early loans in Middle North were applied to purposes other than tobacco cultivation. Although limited in scope, these statistics illustrate the vital importance of well managed Unions and Societies, project supervision, and efficient project management.

The Cooperative Bank

6. The Uganda Cooperative Bank (Cooperative Bank) was established in 1964 to coordinate, appraise and administer credit, primarily to the cooperative movement, but also to individual farmers. Certain irregularities, however, caused the Commissioner for Cooperative Development to order its suspension soon after it began operation and it has remained virtually dormant. In its absence, the Credit Division of the Department of Cooperative Development has continued to exercise final control over all credit operations. It has employed UCB as lending agent (as the Cooperative Bank would have done), the work of appraisal being divided between UCB and the Department of Cooperative Development's own and other technical extension services. It now seems improbable that the Cooperative Bank will be re-activated. Instead it is envisaged that a multi-purpose development bank will be set up to take over the lending operations of the Department of Cooperative Development and other Government agents. The latter would include the Development Loans Fund, which is under a separate board of control. Loans from that fund are currently administered by UCB.

The Uganda Commercial Bank

7. The Uganda Commercial Bank (UCB), wholly owned by Government, was created in 1965 and took over the assets of the former Uganda Credit and Savings Bank. It conducts all usual commercial banking operations and has
13 branches, which though inadequate to meet the requirements of all rural areas, are being augmented as opportunities allow. Its Board of Directors is appointed by the Minister of Finance. Since 1966, the posts of Managing Director and Deputy Managing Director have been vacant. The Secretary to the Board is acting as chief executive.

8. With the growth of savings and deposits, notably from parastatal bodies, UCB has grown rapidly, as shown in the comparative balance sheets and profits and loss accounts in Table 2. Its own lending operations have, however, been conservative and conventional. All bank loans are required to be secured by legal mortgage, thus limiting the Bank's advances to agriculture. As a result, the repayment record has been excellent and net profit in 1968 at USh 2,195,000 was double that of the previous year.

9. In acting as Government's lending agent for the administration of various development funds, UCB's responsibilities are limited to the preparation of loan documents, disbursements, the collection of funds and the maintenance of records. For these services, UCB normally receives a margin of 2% on loans outstanding, and UCB management has confirmed that this margin would be acceptable for the administration of loans under the proposed tobacco project.

Other Commercial Banks

10. Apart from UCB, there are seven other commercial banks, the most important being three British banks, Barclays DCO, Grindlays (Uganda) and Standard. These account for about 70% of the total financial resources of the country's banking system. Advances for agriculture vary considerably during the year according to crop financing requirements, but in 1968 they averaged about USh 300 million, or about half total advances. Grindlays (Uganda) has so far been the only bank financing tobacco on its own account (though under guarantee); on September 30, 1969, its advances for crop, barn and fuel wood plantation loans totaled about USh 4.7 million.

11. Operations of the commercial banks are supervised by the Bank of Uganda, the country's central bank, established in 1966. The Bank does not rule interest rates but fixes a ceiling to each bank for rediscount operations.

Credit Policies and Savings

12. There are no clearly defined interest rates applicable to the various types of lending, but most commercial banks charge between 7% and 9% per annum, depending on period and security. Crop loans extended through the cooperative movement are at the rate of 12% per annum to the farmers. Penalties are frequently charged on overdue repayments and, for larger loans, a commitment fee is sometimes charged.

13. Savings accounts are the most usual form of banking for the small farmers and in September 1969 amounted to Sh 40 million in UCB's accounts.
Grindlays (Uganda) Bank requires all tobacco farmers borrowing from it to maintain a savings account of at least Sh 50 (earning 3% per annum) which together with the Societies' share capital and other assets, are taken as security.
Table 1

UGANDA

SMALLHOLDER TOBACCO PROJECT

SUMMARIZED FINANCIAL STATEMENTS OF COOPERATIVE MOVEMENT

A. Aggregated Balance Sheets
(U Sh '000)

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<th>1965</th>
<th>1966</th>
<th>1967</th>
<th>1968</th>
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<tbody>
<tr>
<td>ASSETS</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Fixed assets</td>
<td>56,198</td>
<td>79,669</td>
<td>73,437</td>
<td>79,560</td>
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<td>Loans to members</td>
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<td>17,181</td>
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<tr>
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<td>90,598</td>
<td>92,986</td>
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<td>Deficits</td>
<td>2,095</td>
<td>6,802</td>
<td>18,163</td>
<td>18,809</td>
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<tr>
<td>TOTAL</td>
<td>155,260</td>
<td>194,250</td>
<td>198,022</td>
<td>219,281</td>
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<table>
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<tr>
<th></th>
<th>1965</th>
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<tr>
<td>LIABILITIES</td>
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<td>Other Liabilities</td>
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<tr>
<td>TOTAL</td>
<td>155,260</td>
<td>194,250</td>
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B. Net Worth

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<tr>
<td>Share Capital, Surplus and Reserves</td>
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<td>Deficits</td>
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<td>Balance</td>
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12/17/69
### Comparative Balance Sheets

#### As of September 30

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<td><strong>Paid in Capital</strong></td>
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<td>Capital reserve</td>
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<td>General reserve</td>
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<td>Profit and Loss Account</td>
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<td>Development Fund</td>
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<td>Training Fund</td>
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<td><strong>Sub-total</strong></td>
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<td><strong>Uganda Government Funds</strong></td>
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<td>Group Farming Loans Fund</td>
<td>1,691</td>
<td>1,638</td>
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</tr>
<tr>
<td>Special Tea Scheme Fund</td>
<td>111</td>
<td>369</td>
<td>359</td>
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<tr>
<td>Tobacco Development Loans Fund</td>
<td>--</td>
<td>59</td>
<td>--</td>
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<tr>
<td>Ranching Development Fund</td>
<td>--</td>
<td>--</td>
<td>--</td>
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<tr>
<td><strong>Sub-total</strong></td>
<td>2,105</td>
<td>2,037</td>
<td>3,394</td>
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<tr>
<td><strong>Current, Deposit and other Accounts</strong></td>
<td>75,614</td>
<td>95,586</td>
<td>132,893</td>
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<tr>
<td>Confirmed Credits, Acceptances &amp; Guarantees</td>
<td>18</td>
<td>2,867</td>
<td>3,125</td>
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<tr>
<td><strong>Sub-total</strong></td>
<td>79,732</td>
<td>108,453</td>
<td>136,018</td>
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<td><strong>Liability of customers for confirmed Credits, Acceptances &amp; Guarantees</strong></td>
<td>10</td>
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<tr>
<td><strong>For the year ended September 30</strong></td>
<td></td>
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<tr>
<td><strong>Salary and other staff expenses</strong></td>
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<td><strong>Miscellaneous expenses</strong></td>
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<td>614</td>
<td>706</td>
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<td><strong>Depreciation and amortisation</strong></td>
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<td>117</td>
<td>214</td>
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<td><strong>Loss Expenses recovered from Development Loans Fund</strong></td>
<td>380</td>
<td>530</td>
<td>520</td>
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<tr>
<td><strong>Net Profit for the year</strong></td>
<td>3,477</td>
<td>4,527</td>
<td>5,170</td>
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### Profit and Loss Account

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<th>1966</th>
<th>1967</th>
<th>1968</th>
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<td>Interest Receivable</td>
<td>4,699</td>
<td>5,836</td>
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<tr>
<td>Less Payable</td>
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<td>7,186</td>
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<td>1,558</td>
<td>1,650</td>
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<td>Basic receivable</td>
<td>117</td>
<td>173</td>
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<td>Bad debts recovered</td>
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<td>1</td>
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<td>Agency Fees</td>
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<td>4,123</td>
<td>5,227</td>
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<td>Development Loans Fund</td>
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<td>Other Government Loans</td>
<td>71</td>
<td>71</td>
<td>71</td>
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<td><strong>Net Profit for the year</strong></td>
<td>3,539</td>
<td>4,310</td>
<td>5,110</td>
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</tbody>
</table>
### Table 1: Tabular Data

#### Column Headers
- **Row 1:**
  - **1972/73**
  - **1973/74**
  - **1977/78**
  - **Total**

#### Data Rows
- **Row 2:**
  - **West Nile:**
    - Planting Program - Acres: 1,149
    - Equivalent to Servicing Tobacco Acres: 1,149
    - Total Cost & % of $ per Acre: 288
- **Row 3:**
  - **Mule Bay:**
    - Planting Program - Acres: 1,149
    - Equivalent to Servicing Tobacco Acres: 1,149
    - Total Cost & % of $ per Acre: 288

#### Notes:
- **Note 1:** Percentage of 1972/73 to 1977/78.
- **Note 2:** Basis of 1 acre of tobacco grown in 1977/78.
- **Note 3:** Total cost includes all fixed costs.

<table>
<thead>
<tr>
<th>Column Headers</th>
<th>1972/73</th>
<th>1973/74</th>
<th>1977/78</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planting Program - Acres</td>
<td>1,149</td>
<td>1,149</td>
<td>1,149</td>
<td>1,149</td>
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<tr>
<td>Equivalent to Servicing Tobacco Acres</td>
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<td>1,149</td>
<td>1,149</td>
<td>1,149</td>
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<tr>
<td>Total Cost &amp; % of $ per Acre</td>
<td>288</td>
<td>288</td>
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#### Additional Notes:
- **Note:** Total cost includes all fixed costs.
- **Data Source:** Document reference.
<table>
<thead>
<tr>
<th>Unit Cost</th>
<th>197/72</th>
<th>197/73</th>
<th>197/74</th>
<th>197/75</th>
<th>Total</th>
<th>Foreign Exchange</th>
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<tr>
<td>Tamarind leaves (Wb)</td>
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<td>389</td>
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<tr>
<td>Harvesting (Wb)</td>
<td>2.7</td>
<td>(138)</td>
<td>138</td>
<td>138</td>
<td>138</td>
<td>138</td>
</tr>
<tr>
<td>Total cost</td>
<td>7.7</td>
<td>(535)</td>
<td>535</td>
<td>535</td>
<td>535</td>
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<tr>
<td>Labor (Wb)</td>
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<td>(138)</td>
<td>138</td>
<td>138</td>
<td>138</td>
<td>138</td>
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<tr>
<td>Total cost</td>
<td>7.0</td>
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<tr>
<td>Sub-total</td>
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<tr>
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<td>Housing, society secretary &amp; clerk</td>
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<td>Maintenance society buildings</td>
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<tr>
<td>Total maintenance</td>
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<td>(25)</td>
<td>25</td>
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<td>25</td>
<td>25</td>
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<td>Materials</td>
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<td>10</td>
<td>10</td>
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<td>Total agriculture</td>
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<td>(20)</td>
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<td>20</td>
<td>20</td>
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<td>Staff Officers</td>
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<td>12</td>
<td>12</td>
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<td>12</td>
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<tr>
<td>Maintenance of union buildings</td>
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<tr>
<td>Sub-total</td>
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<td>5</td>
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<td>5</td>
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<td>Maintenance of buildings</td>
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<td>(25)</td>
<td>25</td>
<td>25</td>
<td>25</td>
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<tr>
<td>Total projects</td>
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<td>(10)</td>
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<td>105</td>
<td>(10)</td>
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<td>6</td>
<td>6</td>
<td>6</td>
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<tr>
<td>Staff man-power</td>
<td>25.0</td>
<td>(10)</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Total staff</td>
<td>105</td>
<td>(10)</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Staff man-power</td>
<td>25.0</td>
<td>(10)</td>
<td>10</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Total staff</td>
<td>105</td>
<td>(10)</td>
<td>10</td>
<td>10</td>
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<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>(1,000)</td>
<td>1,000</td>
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<tr>
<td>SUB-TOTAL</td>
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</tr>
</tbody>
</table>

1. Wb = Wet Bille, M. = Middle Bille, T. = Tigray.
2. Figures in brackets indicate numbers or quantities.
### MALL; U. A5C^PcfCJECr

#### FOREIGN EXCHANGE PROJECT

**SOURCES AND APPLICATIONS OF FUNDS AND DISBURSEMENTS**

(U Sh Million and US $ Million)

<table>
<thead>
<tr>
<th>Partners &amp; Cooperatives</th>
<th>Government</th>
<th>I</th>
<th>D</th>
<th>A</th>
<th>All Sources</th>
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<tr>
<td><strong>Total Purchases 1/</strong></td>
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<tr>
<td>On Farm Investments</td>
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<td>Tobacco barns: loans</td>
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<td>1,679</td>
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<td>1.59</td>
<td>1,508</td>
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<td>1,679</td>
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<tr>
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<td>-</td>
</tr>
<tr>
<td>Unions</td>
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<tr>
<td>Contingencies</td>
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<tr>
<td>Contingencies</td>
<td>122</td>
<td>.06</td>
<td>-</td>
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<td>Sub-total</td>
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<td>Project Administration Investments</td>
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<tr>
<td>Offices and houses</td>
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<td>Vehicles</td>
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<tr>
<td>Contingencies</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sub-total</td>
<td>2,003</td>
<td>.30</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Project Management</td>
<td></td>
<td></td>
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</tr>
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<td>Headquarters Staff</td>
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<tr>
<td>Field Staff</td>
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<tr>
<td>Training</td>
<td>-</td>
<td>-</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Contingencies</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sub-total</td>
<td>2,003</td>
<td>.30</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Tobacco Storage</td>
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<td>Central Stores</td>
<td>-</td>
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<tr>
<td>Storage Equipment</td>
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<td>-</td>
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<tr>
<td>Sub-total</td>
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<td>-</td>
<td>-</td>
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<tr>
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<td>2,165</td>
<td>1.17</td>
<td>18,623</td>
</tr>
</tbody>
</table>

**Notes**

1/ Based on 70% of total estimated local cost expenditures excepting item note 2/

2/ Based on 70% of total estimated local cost expenditures excepting item note 3/

3/ Balance of estimated local cost element of Tobacco Storage after deduction estimated Foreign Exchange costs
## Terms of Loans 1/

<table>
<thead>
<tr>
<th>Borrowers' Annual Interest Rate</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government to Produce Marketing Board:</td>
<td>19 2/</td>
</tr>
<tr>
<td>Government through Uganda Commercial Bank to Unions: 3/</td>
<td>14 1/</td>
</tr>
<tr>
<td>for Union purposes</td>
<td></td>
</tr>
<tr>
<td>for farmers' loans (matching on-lending)</td>
<td>7 5/</td>
</tr>
<tr>
<td>Unions to farmers:</td>
<td></td>
</tr>
<tr>
<td>for barns</td>
<td>10 months average</td>
</tr>
<tr>
<td>for crop loans</td>
<td></td>
</tr>
</tbody>
</table>

### Notes:

1/ based on expected life time of assets and present practices.

2/ 16 years repayments after 3 years grace from first year's drawings.

3/ UCB receives a service charge of 2%, i.e. paying Government 6% interest per annum on loans made for Union purposes and 4% interest per annum on loans made for farmer loans.

4/ 10 years repayments after 4 years grace from first year's drawings.

5/ 5 years repayments after 2 years grace from first year's drawings.

1/22/70
# Tobacco Farm Budget for One Acre of Tobacco

## Income

<table>
<thead>
<tr>
<th>Years</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco sales</td>
<td>1,088</td>
<td>1,419</td>
<td>1,656</td>
<td>1,892</td>
<td>2,129</td>
<td>2,129</td>
<td>2,129</td>
<td>2,129</td>
<td>2,129</td>
</tr>
<tr>
<td>Crop loan</td>
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<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>150</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Barn loan</td>
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## Expenses

### On-farm expenditures

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<td><strong>2,005</strong></td>
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### Debt Service

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<td><strong>Sub-total</strong></td>
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<td><strong>1,260</strong></td>
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<tr>
<td><strong>Total Expenses</strong></td>
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<td><strong>2,266</strong></td>
<td><strong>2,368</strong></td>
<td><strong>2,368</strong></td>
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### Net Income before tax

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<tr>
<td>Net income before tax</td>
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<td>565</td>
<td>796</td>
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<td><strong>NET INCOME</strong></td>
<td><strong>392</strong></td>
<td><strong>709</strong></td>
<td><strong>625</strong></td>
<td><strong>856</strong></td>
<td><strong>1,084</strong></td>
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<td><strong>1,134</strong></td>
<td><strong>1,234</strong></td>
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</table>

(See notes on following page)
Notes

1/ Price to the farmer: USh 4.73/kg (Annex 15); yields are given in Annex 14.
2/ Covers the cutting of fuel wood.
3/ Subsidised charge representing 52% of the cost to tractor Hire Service.
4/ Hessian, tarlined paper, jute and twice supplied by the Society.
5/ 10% of on-farm expenditures excluding barn construction costs which already include a contingency provision.
6/ 7 year loan with a grace period of 2 years and interest at 8% per annum.
7/ At the rate of 12% per annum repaid annually at the end of 10 months.
8/ Personal base payable is USh 60 on annual income below USh 1,200 and USh 75 on incomes between USh 1,200 and USh 1,800. The estimate is calculated on tobacco earnings only and assumes that one man cultivates one acre.
9/ In Kigezi, large shared barns will ultimately service about 3 acres of tobacco reducing the barn loan cost per acre by USh 300 to USh 1,200 and debt service proportionately. Against this the additional USh 0.20 charge levied in Kigezi reduces farmers' revenue from tobacco sales by USh 90 to USh 2,039 at full production level. In practice however, PMB may make a small adjustment to the price mechanism so that Kigezi farmers would receive an additional USh 0.20/kg to offset the higher operating charge and thus pay the same price to farmers in all three areas.
<table>
<thead>
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<td>(220) 220</td>
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</table>

1/ For total operations except debt service on loans (see annex 11) and profits deriving from trading operations on supplies.
2/ At estimated cost of 5 Sh. 18,000 per Society for the number of societies shown.
3/ At 6% on First-Year Inputs and 7% on Farm Loans.
4/ Paid by Province Marketing Board.

10/70
UGANDA: SMALLHOLDER TOBACCO PROJECT
ORGANIZATION CHART

MINISTRY OF MARKETING AND COOPERATIVES

PERMANENT SECRETARY

PROJECT COMMITTEE
Consisting of:
- Perm. Secretary, Min. of Marketing and Coop. (Chairman)
- Commissioner for Cooperative Development
- Commissioner for Agriculture
- Chief Conservator of Forests
- Tobacco Manager of PMB
- Representatives of UCB
- 3 Representatives from the Tobacco Unions
- Project Director

PROJECT ADMINISTRATION
Director
Deputy Director
Chief Accountant
HQ. Staff (6)

WEST NILE UNION
Manager
Assistant Manager
Accountant
Admin. Staff (7)

TECHNICAL STAFF
Junior Techn. Officer (4)
Asth. Coop. Officer (4)
Forer (4)
Field Assistant (40)
Coop. Supervisor (2)
Forst Ranger (4)
Tobacco Scout (20)

20 COOPERATIVE SOCIETIES
Secretary / Manager
Clerk

MIDDLE NORTH UNION
Manager
Assistant Manager
Accountant
Admin. Staff (7)

TECHNICAL STAFF
Junior Techn. Officer (7)
Asth. Coop. Officer (6)
Forer (4)
Field Assistant (56)
Coop. Supervisor (3)
Forst Ranger (4)
Tobacco Scout (20)

29 COOPERATIVE SOCIETIES
Secretary / Manager
Clerk

KIGEZE UNION
Manager
Admin. Staff (5)

TECHNICAL STAFF
Junior Techn. Officer (1)
Asth. Coop. Officer (1)
Forer (1)
Field Assistant (8)
Coop. Supervisor (1)
Forst Ranger (1)
Tobacco Scout (4)

4 COOPERATIVE SOCIETIES
Secretary / Manager
Clerk

TECHNICAL STAFF
Junior Techn. Officer (4)
Asth. Coop. Officer (4)
Forer (4)
Field Assistant (40)
Coop. Supervisor (2)
Tobacco Scout (20)

20 COOPERATIVE SOCIETIES
Secretary / Manager
Clerk

TECHNICAL STAFF
Junior Techn. Officer (7)
Asth. Coop. Officer (6)
Forer (4)
Field Assistant (56)
Coop. Supervisor (3)
Forst Ranger (4)
Tobacco Scout (20)

29 COOPERATIVE SOCIETIES
Secretary / Manager
Clerk

TECHNICAL STAFF
Junior Techn. Officer (1)
Asth. Coop. Officer (1)
Forer (1)
Field Assistant (8)
Coop. Supervisor (1)
Forst Ranger (1)
Tobacco Scout (4)

4 COOPERATIVE SOCIETIES
Secretary / Manager
Clerk

TECHNICAL STAFF
Junior Techn. Officer (4)
Asth. Coop. Officer (4)
Forer (4)
Field Assistant (40)
Coop. Supervisor (2)
Tobacco Scout (20)

20 COOPERATIVE SOCIETIES
Secretary / Manager
Clerk

TECHNICAL STAFF
Junior Techn. Officer (7)
Asth. Coop. Officer (6)
Forer (4)
Field Assistant (56)
Coop. Supervisor (3)
Forst Ranger (4)
Tobacco Scout (20)

29 COOPERATIVE SOCIETIES
Secretary / Manager
Clerk

TECHNICAL STAFF
Junior Techn. Officer (1)
Asth. Coop. Officer (1)
Forer (1)
Field Assistant (8)
Coop. Supervisor (1)
Forst Ranger (1)
Tobacco Scout (4)

4 COOPERATIVE SOCIETIES
Secretary / Manager
Clerk

TECHNICAL STAFF
Junior Techn. Officer (4)
Asth. Coop. Officer (4)
Forer (4)
Field Assistant (40)
Coop. Supervisor (2)
Tobacco Scout (20)

20 COOPERATIVE SOCIETIES
Secretary / Manager
Clerk

TECHNICAL STAFF
Junior Techn. Officer (7)
Asth. Coop. Officer (6)
Forer (4)
Field Assistant (56)
Coop. Supervisor (3)
Forst Ranger (4)
Tobacco Scout (20)

29 COOPERATIVE SOCIETIES
Secretary / Manager
Clerk

TECHNICAL STAFF
Junior Techn. Officer (1)
Asth. Coop. Officer (1)
Forer (1)
Field Assistant (8)
Coop. Supervisor (1)
Forst Ranger (1)
Tobacco Scout (4)

4 COOPERATIVE SOCIETIES
Secretary / Manager
Clerk

TECHNICAL STAFF
Junior Techn. Officer (4)
Asth. Coop. Officer (4)
Forer (4)
Field Assistant (40)
Coop. Supervisor (2)
Tobacco Scout (20)
### SMALLHOLDER TOBACCO PROJECT

#### DETAILS OF STAFF REQUIREMENT

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<tr>
<th>Project Administration</th>
<th>Existing</th>
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<th>Year 3</th>
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<tr>
<td>Tobacco scout</td>
<td>-</td>
<td>33</td>
<td>41</td>
<td>53</td>
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---

1/ Some cooperative Union staff do exist, but operate on a low level.

2/ 2 managers and 2 ass. managers for West Nile and Middle North; Kigezi Union is headed by a Junior manager.

3/ Existing staff at present with BAT, Ministry of Agriculture and Ministry of Cooperatives.

1/2/70
UGANDA

SMALLHOLDER TOBACCO PROJECT

RESPONSIBILITIES OF THE PROJECT DIRECTOR

1. The Project Director would have technical responsibility for carrying out the project and would have the following specific duties and powers:

   (a) Executing the project in accordance with a plan of operations agreed to by Government and IDA, and with policies and procedures agreed to by the Project Committee, in particular:

       (i) Advising and supervising the Union Managers on their duties and responsibilities and coordinating their activities and proposals;

       (ii) Approving, disapproving and recommending requests for loans made by Unions and PMB;

       (iii) Maintaining liaison with the Ministries of Agriculture and Marketing and Cooperatives in prescribing duties and responsibilities for supervisors and extension staff and making recommendations for selection, appointment, promotion, demotion, supervision, remuneration and other compensations; and

       (iv) Providing training for staff and tobacco growers.

   (b) Preparing annual and quarterly investment programs and budgets for the project;

   (c) Preparing annual and quarterly progress reports for submission to the Project Committee for transmittal to the Association;

   (d) Preparing quarterly reimbursement requests to IDA; and

   (e) Preparing financial accounts and statements and submitting audited accounts to the Project Committee for transmittal to the Association.
### Tobacco Capital Account

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### Loans

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<tr>
<td>1990</td>
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### Repayments

- **Interest at 6% per annum**: repayment by five-year annuity after 15 years' grace.
- **Interest at 6% per annum**: repayment by five-year annuity after five years' grace.
- **Debt - service - total loans** (US$ 9,790,000)

### Total Expenditure

- **Total receipts**
- **Total expenditures**

### Table footnotes:
1. Includes 6% fuel farm and project investments at an estimated total cost of US$ 9,890,000. At this expenditure may not be required, it is not brought into the cash flow but the table shows that this would be done in the overall cash flow. Debt service expenditures cover capital loans required under the Project (total US$ 9,790,000) repayable in 36 years. Debt service repayments are not included in the table as they are taken over and repayable to Government. The total interest on capital loans and repayments for both pre-project and project operations, but does not include the benefit of interest earned on surplus balances which would further improve the position.

### Notes:
1. The table reflects development expenditures and the replacement of all cooperative assets and farmers' loans for both pre-project assets and those required under the project, i.e. the total replacement during progress deployment required. The total amount of capital required during progress deployment which is part of the 6% fuel farm and project investments at an estimated total cost of US$ 9,890,000. As this expenditure may not be required, it is not brought into the cash flow but the table shows that this would be done in the overall cash flow. Debt service expenditures cover capital loans required under the Project (total US$ 9,790,000) repayable in 36 years. Debt service repayments are not included in the table as they are taken over and repayable to Government. The total interest on capital loans and repayments for both pre-project and project operations, but does not include the benefit of interest earned on surplus balances which would further improve the position.

2. Assumes replacement of pre-project investments of US$ 10,000,000 in 1971, 1,160, 1,100, and 1,125 of US$ 1,000,000 in 1972, 1,150, and 1,180. Interest requirements are of investments made in the project period.

3. Interest at 6% per annum: repayment by 15-year annuity after 15 years' grace.

4. Depreciation rates are applied to initial loans for these purposes from investment.

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### Table: SOURCE OF FUNDS

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<th>Total Loans</th>
<th>Borrowers - Interest</th>
<th>Borrowers - Repayments</th>
<th>Borrowers - Taxation</th>
<th>Tobacco Capital Account - Project</th>
<th>TOTAL FUNDS</th>
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<td>Loans - 1Y</td>
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<td>Sub-total</td>
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<td>Sub-total</td>
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<td>620</td>
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<td>1,165</td>
<td>1,392</td>
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<td>Borrowers - Taxation</td>
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### Table: APPLICAN OF FUNDS

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<th>Debt service - 1% service charge</th>
<th>Debt service - 1% service reimbursement</th>
<th>Debt service - 1% service repayment</th>
<th>Debt service - 1% service sub-total</th>
<th>TOTAL APPLICATION</th>
<th>PRE DUE PLAN</th>
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<td>33</td>
<td>95</td>
<td>136</td>
<td>210</td>
<td>210</td>
<td></td>
</tr>
<tr>
<td>TOTAL APPLICATION</td>
<td>13,138</td>
<td>9,804</td>
<td>9,716</td>
<td>9,190</td>
<td>9,522</td>
<td>11,180</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

- L shows the loan amount
- Y shows the year
- Total shows the total amount
- Debt service shows the debt service amount
- Interest shows the interest amount
- Tax shows the tax amount
- Capital shows the capital amount
- Sub-total shows the sub-total amount
- Total shows the total amount
### TOBACCO YIELDS

**Smallholder Tobacco Project**

#### 1. Incremental Yields

<table>
<thead>
<tr>
<th>Year</th>
<th>West Nile</th>
<th>Middle North</th>
<th>Kigezi</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970/1</td>
<td>166,500</td>
<td>87,860</td>
<td>15,180</td>
<td>269,540</td>
</tr>
<tr>
<td>1971/2</td>
<td>346,500</td>
<td>483,370</td>
<td>70,930</td>
<td>900,800</td>
</tr>
<tr>
<td>1972/3</td>
<td>616,500</td>
<td>873,580</td>
<td>126,680</td>
<td>1,616,760</td>
</tr>
<tr>
<td>1973/4</td>
<td>616,500</td>
<td>1,402,680</td>
<td>182,180</td>
<td>2,201,360</td>
</tr>
<tr>
<td>1974/5</td>
<td>616,500</td>
<td>1,726,460</td>
<td>223,680</td>
<td>2,566,640</td>
</tr>
<tr>
<td>1975/6</td>
<td>616,500</td>
<td>1,858,460</td>
<td>236,180</td>
<td>2,711,140</td>
</tr>
<tr>
<td>1976/7</td>
<td>616,500</td>
<td>1,955,610</td>
<td>244,930</td>
<td>2,817,010</td>
</tr>
<tr>
<td>1977/8</td>
<td>616,500</td>
<td>2,015,060</td>
<td>248,680</td>
<td>2,880,240</td>
</tr>
</tbody>
</table>

#### 2. Total Yields

<table>
<thead>
<tr>
<th>Year</th>
<th>West Nile</th>
<th>Middle North</th>
<th>Kigezi</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970/1</td>
<td>1,800,000</td>
<td>773,000</td>
<td>126,000</td>
<td>2,699,000</td>
</tr>
<tr>
<td>1971/2</td>
<td>1,980,000</td>
<td>1,168,000</td>
<td>182,000</td>
<td>3,330,000</td>
</tr>
<tr>
<td>1972/3</td>
<td>2,250,000</td>
<td>1,611,000</td>
<td>238,000</td>
<td>4,099,000</td>
</tr>
<tr>
<td>1973/4</td>
<td>2,250,000</td>
<td>2,087,000</td>
<td>294,000</td>
<td>5,131,000</td>
</tr>
<tr>
<td>1974/5</td>
<td>2,250,000</td>
<td>2,412,000</td>
<td>335,000</td>
<td>5,007,000</td>
</tr>
<tr>
<td>1975/6</td>
<td>2,250,000</td>
<td>2,544,000</td>
<td>356,000</td>
<td>5,150,000</td>
</tr>
<tr>
<td>1976/7</td>
<td>2,250,000</td>
<td>2,700,000</td>
<td>360,000</td>
<td>5,310,000</td>
</tr>
<tr>
<td>1977/8</td>
<td>2,250,000</td>
<td>2,700,000</td>
<td>360,000</td>
<td>5,310,000</td>
</tr>
</tbody>
</table>

---

1/ Yields assumed are:

   for West Nile: Each year 450 kg per acre

   for Middle North and Kigezi: First year 230 kg per acre

   Second year 300 kg per acre

   Third year 350 kg per acre

   Fourth year 400 kg per acre

   Fifth year 450 kg per acre

2/ Incremental yields include yields from incremental acres for all areas and for Middle North and Kigezi yields in excess of present level of 230 kg per acre on existing planted acres.
## ANNEX 15

**U G A N D A**

**SMALLHOLDER TOBACCO PROJECT**

**PRICE CALCULATION FOR FLUE-CURED TOBACCO**

(U Sh/kg)

<table>
<thead>
<tr>
<th>TYPES OF COST</th>
<th>INTERNATIONAL</th>
<th>LOCAL MARKET</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Estimated long-term dry weight price fob Mombasa (Sh 4.39/lb)</td>
<td>9.68 1/</td>
<td>--</td>
</tr>
<tr>
<td>2. Green weight price equivalent</td>
<td>8.42</td>
<td>--</td>
</tr>
<tr>
<td>3. Estimated green weight price equivalent of tobacco sold to BAT (Sh 3.40/lb)</td>
<td>--</td>
<td>7.50 2/</td>
</tr>
<tr>
<td>4. Cost between Kampala and Mombasa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Processing (Sh 0.40/lb)</td>
<td>0.88</td>
<td>--</td>
</tr>
<tr>
<td>Packing material</td>
<td>0.44</td>
<td>--</td>
</tr>
<tr>
<td>Transport: to rail in Kampala</td>
<td>0.18</td>
<td>--</td>
</tr>
<tr>
<td>to Mombasa</td>
<td>0.17</td>
<td>--</td>
</tr>
<tr>
<td>Port charges</td>
<td>0.12</td>
<td>--</td>
</tr>
<tr>
<td>Various charges in Mombasa</td>
<td>0.07</td>
<td>--</td>
</tr>
<tr>
<td>Export commission (4% of Sh 9.68)</td>
<td>0.39</td>
<td>--</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>2.25</td>
<td>--</td>
</tr>
<tr>
<td>5. Costs incurred by PMB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classification fee</td>
<td>0.15</td>
<td>0.15</td>
</tr>
<tr>
<td>Storage up-country</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Loading</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Transport to Kampala</td>
<td>0.13</td>
<td>0.13</td>
</tr>
<tr>
<td>Storage and handling in Kampala</td>
<td>0.08</td>
<td>0.08</td>
</tr>
<tr>
<td>Interest on crop finance</td>
<td>0.11</td>
<td>0.11</td>
</tr>
<tr>
<td>PMB overheads</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0.78</td>
<td>0.78</td>
</tr>
<tr>
<td>Surplus on local market price</td>
<td>--</td>
<td>1.33</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>3.03</td>
<td>2.11</td>
</tr>
<tr>
<td>6. AVAILABLE AT UNION LEVEL</td>
<td>5.39</td>
<td>5.39</td>
</tr>
<tr>
<td>7. Charges to Union and Societies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cess</td>
<td>0.26</td>
<td>0.46</td>
</tr>
<tr>
<td></td>
<td>0.10</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL CESSES</strong></td>
<td>0.66</td>
<td>0.86</td>
</tr>
<tr>
<td>8. PRICE TO THE FARMER (before repayment of production and barn loans)</td>
<td>4.73</td>
<td>4.53 3/</td>
</tr>
</tbody>
</table>

1/ Actual price in 1969: U Sh 11.15.
3/ See Note 9, Annex 7.
3/30/70.
1. Tobacco production, consumption and trade have been expanding in the past decade. From 1955-57 to 1965-67, world production, excluding Mainland China, increased at a yearly rate of about 68,000 metric tons (2.9%) and reached 3.9 million tons in 1965-67 (Table 1). In the same period world exports expanded by a yearly average of nearly 22,000 tons (2.7%) amounting to nearly 1.0 million tons in 1965-67 (Table 1). Tobacco stocks, which had been accumulating before the Rhodesian embargo, declined in recent years. Another consequence of the embargo was a sharp increase in 1966 of prices for flue-cured tobacco, the major leaf type exported from Rhodesia.

2. Developing countries experienced the largest growth in production and exports, and output in these countries almost reached the levels of developed countries in 1965-67. Output and export expansion in these countries was almost entirely due to increases in production and trade of flue-cured and burley tobaccos. Favorable prices encouraged area expansion and yield improvement. Other factors included:

(a) rising world demand for blended cigarettes;
(b) increased U.S. tobacco prices which reduced competitive position of that country;
(c) preferential arrangements for certain suppliers;
(d) ample supply of low-cost labor; and
(e) higher net returns per acre from tobacco than can be obtained from other competing crops.

The sudden curtailment of world market supply through the Rhodesian embargo provided a further inducement to step up flue-cured production.

3. Tobacco has been classified among the commodities of moderate or slight price instability, which is explained by three main factors:

(a) favorable long-term consumption factors sustained demand for raw leaf;
(b) owing to the large share of U.S. tobacco in world trade, this country's price stabilization policy has had a stabilizing effect on the world market; and
(c) a large proportion of international transactions is carried out under Government programs and bilateral agreements.

4. About 50% of world tobacco exports consist of cigarette leaf (flue-cured and burley), 30% of oriental leaf and the remainder is mainly cigar and pipe tobacco. In the past, major expansion in the tobacco trade has taken place in cigarette leaf. This tendency is expected to continue in the future.

5. Flue-cured tobacco production expanded by 2.2% yearly from the mid-1950's until the Rhodesian embargo in 1965. Exports increased by 2.7% yearly. In 1966, they declined sharply (Table 2) but gradually began to rise again in subsequent years. The United States is by far the major flue-cured tobacco exporter and accounted for more than half of world exports in 1968.

6. Export prices for U.S. flue-cured tobacco rose steadily during the 1960's, while prices for Canadian and Indian flue-cured tobacco fluctuated but did not increase until 1965 (the Rhodesian embargo). After 1965, they also increased. The situation is illustrated in Chart I. Rhodesian tobacco export prices declined sharply in 1964, because of an exceptionally large output. Prices continued to decline after the 1965 embargo, but official estimates are not available.

7. The most remarkable feature of the world tobacco economy during the past decade has been the consumption of cigarettes. Cigarettes contain a large percentage of flue-cured tobacco. In the United States, for example, flue-cured tobacco accounts for nearly 50% of the total tobacco content. In the United Kingdom cigarettes contain only flue-cured tobacco. As shown in Table 3, consumption increased by nearly 50% since the second half of the 1950's.

8. The publication of medical reports on the relationship between cigarette smoking and health has not yet resulted in any permanent decrease in cigarette smoking, either in the developed or in the developing countries, although consumption in the United States in 1968 and 1969 did not increase. However, these reports have helped to stimulate a tendency toward filter-tipped cigarettes, which at present meet about half of the world market demand, excluding that in the centrally planned countries. Another effect has been the rapidly growing demand for low-nicotine and low-tar content cigarettes, which has become and will probably remain a decisive factor in the purchasing of manufacturers.

9. World tobacco demand is expected to continue at past growth rates of about 2.0% per year. Light high-quality leaf with low-nicotine content will be in particular demand. Growth rates in developed countries (about 2%) will be below those in developing countries (2.3 to 2.6%). Since output is expected to increase at similar rates, demand and supply in the mid-1970's should be in equilibrium unless Rhodesia enters the world market at past high levels. In that case, there would be an oversupply with an adverse effect on prices.
10. It is difficult to forecast trends in the international tobacco trade because of the unsettled Rhodesian situation. Sanctions against that country have provided a number of developing countries with the opportunity to enter the international flue-cured tobacco market. Continued sanctions would soon eliminate Rhodesia's chances of gaining her former position as a major supplier of the world market, since competition from other exporters would be too strong to allow Rhodesia easy market access, unless Rhodesia drastically reduced her export prices.

11. In view of the expected supply and demand situation described earlier, world tobacco prices are expected to remain stable at recent levels. This forecast assumes that exports from other developing countries will partially replace past Rhodesia exports, and that Rhodesia will not re-enter international markets at past high export levels.

12. Within this framework, increased exports from Uganda as presently anticipated, are unlikely to adversely affect world market prices. The country is a relatively small producer of flue-cured tobacco and contributes less than 0.4% of world exports of unmanufactured cigarette tobacco. The expected expansion in production resulting from the project would not have a significant effect on either world supply or prices. Moreover, it is to be expected that Uganda, as a member of the Commonwealth, would continue to benefit from preferences in the U.K. markets. Currently, the U.K. takes about 90% of Uganda's total exports of unmanufactured tobacco.
### Table 1: WORLD PRODUCTION AND EXPORTS OF UNMANUFACTURED TOBACCO 1955-57 AND 1965-67

<table>
<thead>
<tr>
<th></th>
<th>Production (1,000 m. tons)</th>
<th>Exports (1,000 m. tons)</th>
<th>Yearly percent increase</th>
<th>Yearly percent increase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1955-57</td>
<td>1965-67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developed Countries</td>
<td>1,612</td>
<td>1,713</td>
<td>0.6</td>
<td>419</td>
</tr>
<tr>
<td>Developing Countries</td>
<td>1,212</td>
<td>1,680</td>
<td>3.3</td>
<td>229</td>
</tr>
<tr>
<td>Africa</td>
<td>114</td>
<td>214</td>
<td>4.2</td>
<td>82</td>
</tr>
<tr>
<td>Tanzania</td>
<td></td>
<td></td>
<td></td>
<td>0.3</td>
</tr>
<tr>
<td>Central Planed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Countries excluding</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mainland China</td>
<td>414</td>
<td>528</td>
<td>2.5</td>
<td>57</td>
</tr>
<tr>
<td>World Production</td>
<td>3,238</td>
<td>3,921</td>
<td>1.9</td>
<td>705</td>
</tr>
</tbody>
</table>

Table 2: WORLD EXPORTS OF FLUE-CURED TOBACCO, EXCLUDING CENTRALLY PLANNED COUNTRIES

EXPORT PRICES

AVERAGE 1955-59 AND ANNUAL 1960-68

<table>
<thead>
<tr>
<th>Year</th>
<th>United States</th>
<th>Zambia</th>
<th>India</th>
<th>Canada</th>
<th>Others</th>
<th>Total</th>
<th>United States</th>
<th>Zambia</th>
<th>India</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>1955-59</td>
<td>187</td>
<td>57</td>
<td>35</td>
<td>16</td>
<td>15</td>
<td>310</td>
<td>71.1</td>
<td>57.6</td>
<td>32.2</td>
<td>61.3</td>
</tr>
<tr>
<td>1960</td>
<td>186</td>
<td>75</td>
<td>29</td>
<td>16</td>
<td>14</td>
<td>320</td>
<td>77.2</td>
<td>57.1</td>
<td>36.6</td>
<td>71.1</td>
</tr>
<tr>
<td>1961</td>
<td>183</td>
<td>83</td>
<td>31</td>
<td>17</td>
<td>16</td>
<td>330</td>
<td>79.4</td>
<td>59.2</td>
<td>32.0</td>
<td>72.9</td>
</tr>
<tr>
<td>1962</td>
<td>170</td>
<td>86</td>
<td>55</td>
<td>21</td>
<td>20</td>
<td>352</td>
<td>80.9</td>
<td>58.8</td>
<td>30.6</td>
<td>67.1</td>
</tr>
<tr>
<td>1963</td>
<td>183</td>
<td>82</td>
<td>52</td>
<td>16</td>
<td>23</td>
<td>356</td>
<td>82.1</td>
<td>63.3</td>
<td>36.1</td>
<td>71.6</td>
</tr>
<tr>
<td>1964</td>
<td>180</td>
<td>101</td>
<td>62</td>
<td>22</td>
<td>27</td>
<td>392</td>
<td>82.2</td>
<td>49.1</td>
<td>31.3</td>
<td>67.5</td>
</tr>
<tr>
<td>1965</td>
<td>159</td>
<td>120</td>
<td>52</td>
<td>18</td>
<td>34</td>
<td>383</td>
<td>85.1</td>
<td>49.4</td>
<td>36.3</td>
<td>78.9</td>
</tr>
<tr>
<td>1966</td>
<td>192</td>
<td>33 1/</td>
<td>28</td>
<td>16</td>
<td>53</td>
<td>322</td>
<td>92.3</td>
<td>43.0 1/</td>
<td>39.3</td>
<td>95.0</td>
</tr>
<tr>
<td>1967</td>
<td>193</td>
<td>32 1/</td>
<td>46</td>
<td>20</td>
<td>49</td>
<td>340</td>
<td>94.3</td>
<td>43.0 1/</td>
<td>39.7</td>
<td>103.7</td>
</tr>
<tr>
<td>1968</td>
<td>201</td>
<td>29 1/</td>
<td>41</td>
<td>21</td>
<td>55</td>
<td>347</td>
<td>96.0</td>
<td>45.0 1/</td>
<td>44.3</td>
<td>107.0</td>
</tr>
</tbody>
</table>

1/ Estimates.

Source: U. S. Department of Agriculture
Table 3: ESTIMATED OUTPUT OF CIGARETTES
(millions of pieces)

<table>
<thead>
<tr>
<th></th>
<th>Average 1960-64</th>
<th>Actual 1968</th>
<th>Yearly Percent Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed Countries</td>
<td>1,229,451</td>
<td>1,470,500</td>
<td>3.0</td>
</tr>
<tr>
<td>Developing Countries</td>
<td>442,847</td>
<td>575,118</td>
<td>4.5</td>
</tr>
<tr>
<td>Africa</td>
<td>58,183</td>
<td>71,492</td>
<td>3.5</td>
</tr>
<tr>
<td>Centrally Planned Countries incl. Mainland China</td>
<td>708,916</td>
<td>926,659</td>
<td>4.6</td>
</tr>
<tr>
<td>World Total</td>
<td>2,381,214</td>
<td>2,972,277</td>
<td>3.8</td>
</tr>
</tbody>
</table>

AVERAGE EXPORT PRICES OF FLUE-CURED TOBACCO, PRINCIPAL COUNTRIES, 1955-59 AVERAGE AND 1960 TO 1968 (U.S. CENTS PER POUND)
UGANDA

SMALLHOLDER TOBACCO PROJECT

ECONOMIC RATE OF RETURN CALCULATION

1. Project Life

Tobacco barns have an approximate life of 15 years, consequently the last barns built under the project would have to be replaced some 20 years after commencement of the project. As barns represent the main investment in the project, a 20 year project life has been assumed. The costs of replacing barns in the last five years of the project have been included in the calculation. A sensitivity analysis shows the rate of return if the project was terminated after 10 years.

2. Costs

(i) On farm development

In the calculation, only the cash costs of barn construction are taken into account, and thus the value of farmers' labor is excluded, see para. 2(iv). Farm investment and annual costs are shown in the farm budget at Annex 7. The cost of tractor hire is subsidized by Government and 52% of the cost is shown in the farm budget, and the remaining 48% as a separate item in Table 1. Full tractor hire costs are used in the rate of return calculation.

(ii) Cooperative and Union Developments (Investment and Operating Costs)

Details of investment costs are given in Annex 4 under the headings Cooperative Investments and Cooperative Management, and those of operating costs in Annex 8. The costs in Annex 8 are those of all tobacco cooperative activity and have been apportioned on the basis of production figures in Annex 14 to establish the costs applicable to the project.

(iii) Project Administration (Investment and Operating Costs)

Investments costs are detailed in Annex 4 under Project Administration Investments and Project Management. The operating costs given in Annex 13 have been apportioned between project and other production costs on the basis of the data in Annex 14.
(iv) **On Farm Labor**

It is estimated that 89.2 man-days are required to grow one acre of tobacco, excluding land preparation which is covered by the charge for tractor hire service, and that another 24 man-days are required in the first year of operation for barn building. These figures do not include seed bed preparation and fuel wood planting which are carried out by the cooperatives and included in their costs, see Annex 4.

3. **Benefits**

Incremental benefits have been calculated by multiplying the incremental production given in Annex 14, by a tobacco price of U Sh 5.39/kg which is estimated as the price available at Union level (see Annex 15).

4. **Investment in Tobacco Storage and Technical Assistance**

The costs of new tobacco storage and technical assistance in project preparation (see Annex 4) are excluded from the economic rate of return calculation:

(i) **Tobacco Storage**

In developing the tobacco price at Union level, a storage charge of U Sh 0.08/kg is taken into account; this allows for the amortization of investment in new storage.

(ii) **Technical Assistance**

A return on this item is not quantifiable, thus the costs of such assistance have been excluded from the economic rate of return calculation.
### Economic Rate of Return

**Smallholder Tobacco Project**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A. On-farm Developments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm construction and extension</td>
<td>1,584</td>
<td>2,218</td>
<td>3,373</td>
<td>1,902</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,016</td>
</tr>
<tr>
<td>First year inputs</td>
<td>455</td>
<td>562</td>
<td>808</td>
<td>703</td>
<td></td>
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<td></td>
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<td></td>
<td>2,016</td>
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UGANDA

SMALLHOLDERS TOBACCO PROJECT

ESTIMATED DISENGAGEMENT SCHEDULE OF IDA CREDIT

(US$ '000)

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