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Business

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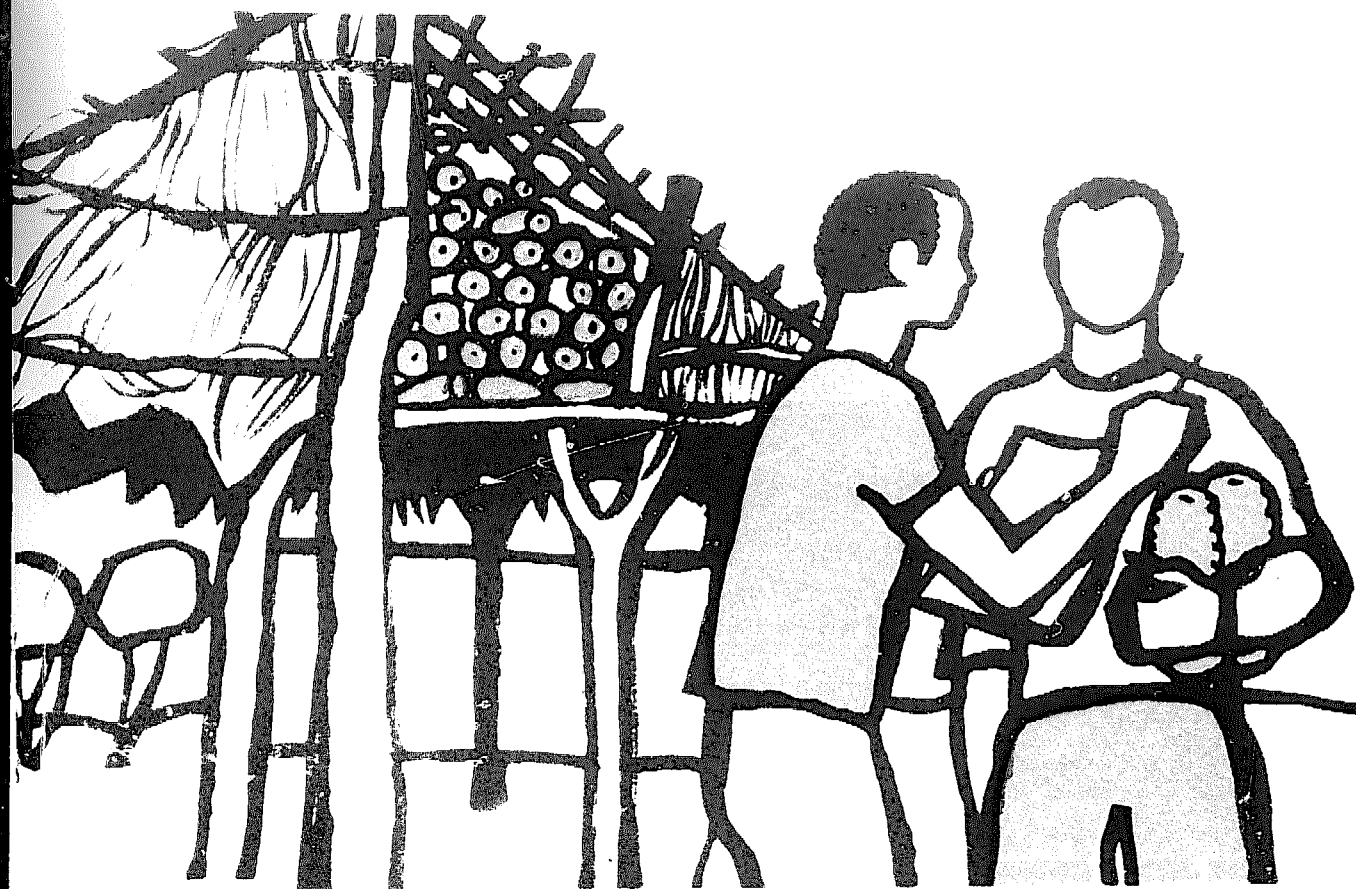
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the modern farm business



BETTER FARMING SERIES

Twenty-six titles have been published in this series, designed as handbooks for a two-year intermediate level agricultural education and training course. They may be purchased as a set or as individual documents.

FIRST YEAR

1. The plant: the living plant; the root
2. The plant: the stem; the buds; the leaves
3. The plant: the flower
4. The soil: how the soil is made up
5. The soil: how to conserve the soil
6. The soil: how to improve the soil
7. Crop farming
8. Animal husbandry: feeding and care of animals
9. Animal husbandry: animal diseases; how animals reproduce

SECOND YEAR

10. The farm business survey
11. Cattle breeding
12. Sheep and goat breeding
13. Keeping chickens
14. Farming with animal power
15. Cereals
16. Roots and tubers
17. Groundnuts
18. Bananas
19. Market gardening
20. Upland rice
21. Wet paddy or swamp rice
22. Cocoa
23. Coffee
24. The oil palm
25. The rubber tree
26. The modern farm business

The modern farm business

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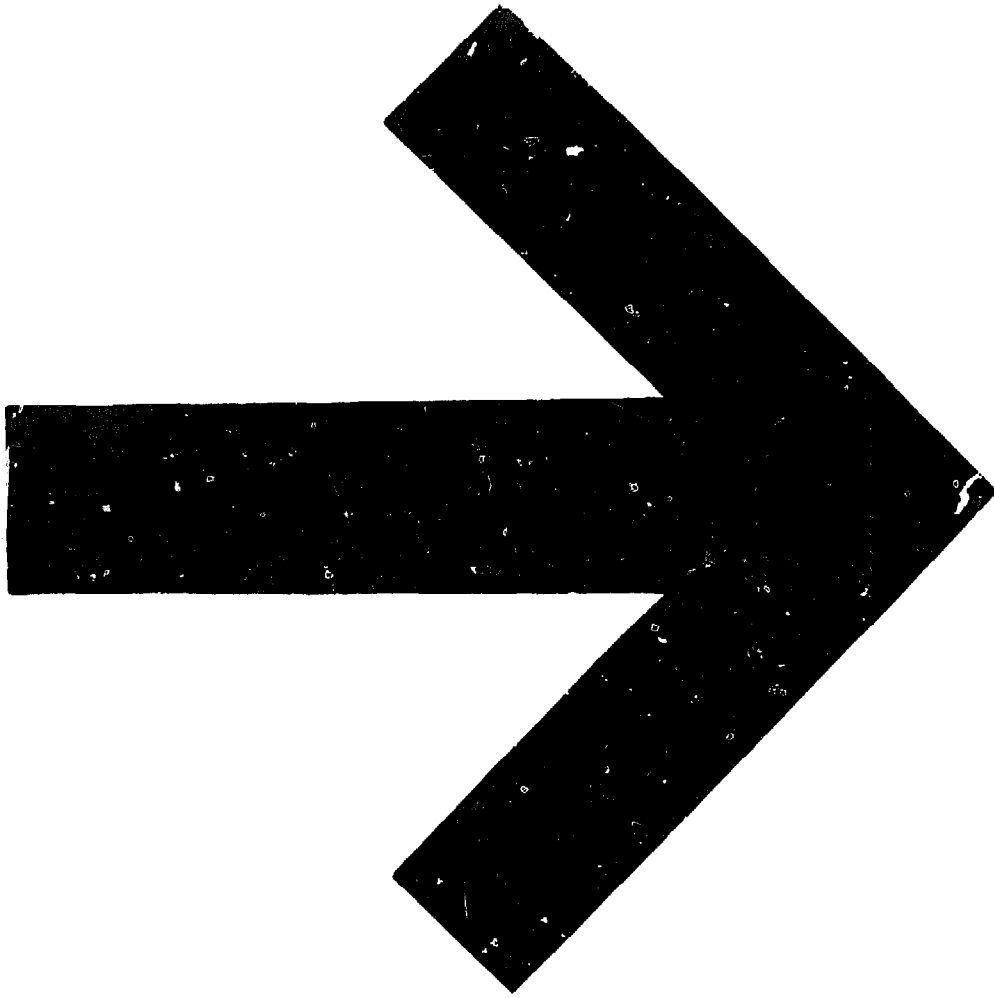
PREFACE

This manual is a translation and adaptation of "L'entreprise agricole moderne — l'agriculteur chef d'entreprise," published by the Agri-Service-Afrique of the Institut africain pour le développement économique et social (INADES), and forms part of a series of 26 booklets. Grateful acknowledgement is made to the publishers for making available this text, which it is hoped will find widespread use at the intermediate level of agricultural education and training in English-speaking countries.

The original texts were prepared for an African environment and this is naturally reflected in the English version. However, it is expected that many of the manuals of the series — a list of which will be found on the inside front cover — will also be of value for training in many other parts of the world. Adaptations can be made to the text where necessary owing to different climatic and ecological conditions.

Applications for permission to issue this manual in other languages are welcomed. Such applications should be addressed to: Director, Publications Division, Food and Agriculture Organization of the United Nations, Via delle Terme di Caracalla, 00100 Rome, Italy.

The author of this English version is Mr. A.J. Henderson, former Chief of the FAO Editorial Branch.



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INTRODUCTION

What have we learned during this two-year course?

We learned more about:

- **Plants and the way to grow them.**

In the first year we studied
the root, the stem, the leaves, the fruits.

In the second year we studied
how to grow certain plants:
groundnuts, cotton, millet,
or coffee, cocoa, yams.

- **The soil and how to work it.**

We saw what must be done
to conserve good soil
and to improve its fertility.

- **Animals and how to raise them.**

In the first year we studied
how to feed and look after animals,
how to house them and breed them.

In the second year we studied
cattle breeding and sheep breeding,
or how to keep chickens.

**So from these two years of the Better Farming Series,
we have learned the techniques
of crop farming and of animal husbandry.**

**All farmers need a good knowledge of
crop farming techniques
and animal husbandry techniques.**

**If they don't know these techniques,
they will not be good farmers.**

**But is it enough for farmers to know
only the techniques of farming?**

**No, a farmer must also know how to
organize and manage his farm business.**

The farmer is a businessman

A farmer is not only a man who works with his hands.

He must also work with his head.

He must think in order to know
how to manage his business better.

He must be a business manager.

At one time, on traditional farms,
village people worked to produce
whatever would satisfy the needs
of their families and of the local inhabitants,
that is to say:
food and drink,
clothes (from local cotton or animal hides),
housing (from dried earth and millet stalks).

This was subsistence farming.

Now, on a modern farm,

farmers still produce part of their own food.

But more and more they produce crops that can be sold,
such as coffee and cotton.

Nowadays farmers work to earn money
(see pages 10 to 12).

A good farmer

**must organize and manage his business
so as to earn more money.**

- **He must know how to earn more money.**
We shall study this on pages 14 to 31.
- **He must know how to spend his money better,
how to make better use of his money.**
We shall study this on pages 34 to 42.
- **He must join with other farmers
to make better progress.**
We shall study this on pages 44 to 49.

PART 1

The modern farm business

THE MODERN FARM BUSINESS

In the first booklet of the second year
we made a farm business survey.
We saw that a farm business
is made up of various elements.

- **First, there are the workers.**

That is, the farmer who holds the land and the animals.
He is the head of the business.
Next, there are the members of his family
who work on the farm.
There are also perhaps some labourers
who work on the farm and get a wage.

- **On many farms there are animals.**

There are chickens, sheep, goats.
Often too there are oxen, cows, pigs.
In some places there are donkeys or horses;
near the deserts there are camels.
Often farmers do not concern themselves
with these animals.
But all the same all the animals
are a part of the farm.
They may produce milk, they may yield meat,
and some may provide work —
animal power for tilling or transport.
Animals can produce,
so they are part of the farm business.

- **All the land that belongs to the farmer is likewise part of the farm business, that is:**

the ground where vegetables are grown — the garden;
the tree plantations, for example,
coffee plantations, oil palms, mango trees, papaws;
the cultivated fields of cotton, rice,
yams, millet, groundnuts, maize;
fields that are left to rest
or are not cultivated, the fallows;
land where animals come to feed — the pastures.

All this land which produces plants
is part of the farm business.

- **The farmer's tools are part of the farm business:**

machete, hoe, plough, seed drill, cart,
sprayer, thresher, pulping machine.

- **The buildings are part of the farm business,**

for instance,
those made to shelter animals
or keep tools in.

- **The installations and arrangements made by the farmer are part of the farm business:**

the compost pit, the place for manure,
the well, the irrigated rice fields.

**The farm business is a whole made up of
workers,
animals,
land,
tools,
buildings and installations.**

PART 2

What a modern farm business does

WHAT A MODERN FARM BUSINESS DOES

First of all, the farm provides goods that are necessary to the farmer and his family.

The farm provides food for all the family, food such as yams, cassava, maize, okra, pimento, millet, rice, bananas, groundnuts, goat meat or mutton, chicken, and so on.

The farmer and his family eat the food produced by his farm. This is what is called farm consumption.

Even now a farmer and his family buy little food. They eat the millet or the yams grown on the farm, the meat of sheep and chickens raised on the farm.

But more and more modern farms supply produce that is sold.

Why?

The farmer and his family need money, for nowadays, in the modern world, you cannot get shorts or a shirt without money; you cannot get a cooking pot or a bicycle without money.

To get all these goods, to meet his family's needs, the farmer must sell a lot in order to get more money.

- **The farm sells food products to town people.**

Nowadays there are many people living in towns.
These town people do not till the land.
They have to buy everything they eat.
Even in the villages
there are people who do not till the land,
such as teachers, nurses, dealers.
Farmers must provide food products
for all the people who do not work on the land.
Farmers earn money
by selling millet, cassava, rice, meat.
With this money,
they can better satisfy their own needs.

- **The farm sells produce
that is exported to foreign countries.**

More and more African farmers grow cash crops,
that is, crops which are sold to foreign countries,
for example, coffee, cocoa,
bananas, pineapples, groundnuts.
These products are bought by countries
which do not grow them themselves.
By selling coffee, cocoa, groundnuts,
farmers earn money.
With this money,
they can better satisfy their own needs.

- **The farm sells produce for factories.**

Farmers also grow produce
that is used and treated in factories,
such as cotton, which is turned into cloth,
or sisal, which is turned into string.
By selling such products for industry,
farmers earn money.
With this money,
they can better satisfy their own needs.

Farmers and their families have new needs.

They buy a part of their food:
fish, salt, beer, sugar.

They need clothes:
shorts, shirts, trousers, dresses,
clothes for children going to school.

They need furniture for the house,
and household articles such as matches, crockery,
paraffin lamps, soap.

They want better and nicer houses.
For these, they need sheet iron and cement,
doors and windows made by a joiner.

Villagers get about more and more,
they take a taxi or travel by motorcoach,
or buy bicycles.

Many village children now go to school.
Books, exercise books, pencils
must be bought for them.

To learn the news of their country
or of other countries,
farmers may wish to buy radio sets or newspapers.

**To satisfy all these new needs,
farmers need more money.**

**So they must earn more money
by working on their farm.**

PART 3

What can a farmer do to earn more money?

- **A better choice of crops**
- **Producing more by increasing crop yields**
- **Producing more by increasing the area farmed**
- **Better selling of produce**
- **Protection against dishonest dealers**

WHAT CAN A FARMER DO TO EARN MORE MONEY?

A farmer seeks to increase his income.

His income is all the money he earns
with the produce he sells.

For example, Moussa is a farmer in savanna country.

*He grows cotton, groundnuts, millet,
and he keeps some chickens and sheep.*

He sells all his cotton.

He sells a large part of his groundnuts.

He sells a little of his millet.

He sells some chickens and sheep.

Moussa's income is the money he earns by selling:

all his cotton,

part of his groundnuts,

part of his millet,

some chickens and sheep.

If Moussa wants to earn more money, what can he do?

- **He can try to sell more cotton,
more groundnuts,
more millet,
more chickens and sheep.**

To do that, he must produce more of each of these products.

- **He can also try to get a higher price for his
cotton,
groundnuts,
millet,
chickens and sheep.**

**To do that he must apply himself to the sale of his produce.
This is what is called marketing.**

**In the following pages, we shall see
how a farmer can earn more money.**

● **The farmer can make a better choice of crops.**

He must grow what sells well.

He must choose crops that bring in a lot of money.

He shall study this on pages 16 to 18.

● **The farmer can produce more
by increasing the yield of his crops.**

All his crop-growing work must be better done.

We shall study this on pages 19 to 21.

● **The farmer can produce more
by increasing the area farmed.**

He must work longer.

He must organize his work better.

He must work faster.

We shall study this on pages 22 to 24.

● **The farmer can do better with his sales.**

He must sell everything that is not needed on the farm.

He must not let anything go bad.

He must try to sell at a higher price.

We shall study this on pages 25 to 31.

A better choice of crops

The farmer should produce what sells well.
He must choose crops that bring in a lot of money.

For example:

*Bikai farms 1 hectare.
He plants yams.
He works hard and well.
He harvests 8 000 kg of yams.*

*To feed his family, he stores 2 000 kg of yams.
To plant the next year, he keeps 2 500 kg.
So he stores altogether 2 000 plus 2 500 = 4 500 kg.
He can sell 8 000 less 4 500 = 3 500 kg.*

*Bikai lives a long way from the town.
He sells his yams at the village market.
Not many yams can be sold in the village;
there are few buyers.
Yams are not dear.
Bikai sells 800 kg at 8 francs,
and 1 500 kg at 7 francs.*

*So Bikai sells 800 kg plus 1 500 kg = 2 300 kg.
He still has for sale 3 500 kg less 2 300 kg = 1 200 kg.
But nobody buys them.
There are too many yams for sale at the village market.
So Bikai's 1 200 kg of yams go bad.*

Thus Bikai earned:
 $800 \times 8 = 6\,400$ francs
 $1\,500 \times 7 = 10\,500$ francs
16 900 francs

**Bikai farms 1 hectare.
He has enough food,
he can plant the following year,
he has earned 16 900 francs.**

Another example:

*Nlend farms 1 hectare.
He plants $\frac{1}{2}$ hectare of yams.
And he sows $\frac{1}{2}$ hectare of upland rice.*

*He harvests 4 000 kg of yams
and 600 kg of paddy (that is, rice with its husks).*

*To feed his family, he stores 2 000 kg of yams.
To plant $\frac{1}{2}$ hectare next year, he keeps 1 200 kg.
He also keeps 15 kg of paddy for sowing.*

*So he stores:
a total of 1 200 plus 2 000 = 3 200 kg of yams,
and 15 kg of paddy.*

*He can sell:
rice: 600 kg less 15 kg = 585 kg
yams: 4 000 kg less 3 200 kg = 800 kg.*

*Nlend lives a long way from the town.
He sells his rice and yams at the village market.
He sells all his yams at 8 francs per kilo.
He sells all his rice at 35 francs per kilo.
So Nlend earns:
sale of paddy: $585 \times 35 = 20\,475$ francs.
sale of yams: $800 \times 8 = 6\,400$ francs.
Altogether, he earns $20\,475$ plus $6\,400 = 26\,875$ francs.*

**Nlend farms 1 hectare.
He has enough food,
he can plant the following year,
he has earned 26 875 francs.**

Bikai and Nlend each farm one hectare.

*They put aside part of their harvest
for food and for planting.*

*Bikai earns 16 900 francs.
Nlend earns 26 875 francs.*

*Nlend chose his crops better.
He grows rice.
Rice stores well.
Rice transports well.
Rice sells well.
Nlend thinks before planting.*

*A modern farmer thinks before deciding on his land use
(see Booklet No. 5, page 27).*

Nlend says to Bikai:

"The modern farmer produces what sells well."

*Bikai and Nlend are good farmers,
but Nlend earns more than Bikai.*

**You must think
to make a better choice of crops.**

**Choose crops
that bring in a lot of money.**

You must produce what sells well.

Producing more by increasing crop yields

In Africa crop yields are often not very high.
By working better, you can greatly increase crop yields.

To increase yields,
a farmer must do better all his work on the land,
and do it at the right time.

**For a good yield,
the most important work is:**

- **sowing at the right time**

Sowing done at the beginning of the rainy season
has every chance of yielding a good harvest;
sowing done late in the rainy season
will not yield a good harvest.

The sowing date is certainly
the most important thing
in getting a good harvest.

*For example, at Anié Mono, in Togo,
cotton sown on 15 June yielded 1 494 kg;
cotton sown on 1 July yielded 1 106 kg;
cotton sown on 15 July yielded 886 kg.*

*For example, in northern Cameroon,
cotton sown on 1 June yielded 800 kg;
cotton sown on 1 July yielded 400 kg;
cotton sown on 1 August yielded 100 kg.*

**Sowing at the right time
is very important
for increasing yields.**

- **weeding**

Weeds grow very fast.
If they are not removed,
they take all the food away from the plants,
yields are low,
and the farmer does not earn much.

Weeding must be done often,
at least three times a year.

- **sowing selected varieties**

For many crops, there are better varieties of seed
which have been selected by research institutes.
These improved varieties give a better yield.

For example:

*Traditional varieties of coffee
yield 500 to 700 kg per hectare.
The new varieties of selected coffee
introduced in Ivory Coast
can yield up to 2 000 kg per hectare.*

*Local varieties of groundnuts
often give a maximum yield of 800 to 900 kg.
Selected varieties
can yield up to 2 000 kg per hectare.*

*Selected breeds of chickens
grow faster than local breeds.
If you want to breed chickens that earn money,
it is better to buy selected chicks.*

- **using all the necessary pesticides**

Some plants, such as cotton or cocoa,
have many diseases.
If you do not use pesticides,
the plants become diseased,
produce much less,
and sometimes die.

It is absolutely necessary to use all the pesticides advised by the extension worker.

A farmer who does not use pesticides can lose half his harvest.

● **applying fertilizers**

Many fields are now farmed every year. Each year, these fields become a little poorer. There are no longer enough mineral salts in the soil to feed the plants. The soil must be given back its mineral salts; for that, you must give it manure or fertilizers.

Selected varieties of plants demand a lot of food, for they produce a lot. They need more mineral salts to grow well. So it is often necessary to apply fertilizers.

The farmer who does all his work well, who applies fertilizers, gets big yields. He has a bigger harvest, and earns more money.

Yields must be increased.

Producing more by increasing the area farmed

The farmer who
increases the area farmed
has more work to do.

How can he do this additional work?

- **First of all, he should do all he can to waste less time.**

The farmer should work for more hours a day.
He should not spend whole days
or even weeks in doing nothing.
He should use his free time
during the dry season
in preparing work
for the next crop season.

- **The farmer should organize his work better.**

He should plan well ahead
the different jobs he will have to do
in each field.
He should prepare his tools
and the materials he will use.
By organizing his work
and planning what there is to do,
he will be able to do much more work;
he will be able to farm bigger fields
and increase the area cultivated.

- **The farmer should also work faster.**

To work faster, the farmer can use two means:

- **Work with machines,**
that is, work with animal power,
for instance, till the soil
with a plough and two oxen.
- **Work with other farmers,**
that is, do work in common.

- **To increase the cultivated area,
the farmer can work with machines.**

There are still many farmers in Africa
who work only with their own strength.
They have few tools,
some use only a hoe and a machete.
By using only a hoe and a machete
you cannot work quickly,
you can only farm small fields,
you do not get much harvest,
you do not earn much money.

Modern farmers who want to cultivate bigger fields
use **machines** and **animal power**.
In that way, the work is done much more quickly.

*A farmer who has a pair of oxen and a plough
tills his land very quickly.
He can also weed with a cultivator drawn by oxen;
weeding will be done much faster
and the farmer can weed more often.
The farmer can also have a seed drill
drawn by a donkey or an ox.
With this seed drill, the farmer
will do his sowing quickly,
and
above all can get it done
in good time.*

Machines are dear.

One farmer by himself does not have enough money to buy
a spraying machine for cotton or cocoa,
a pulping machine for coffee,
a seed drill for rice.

But several farmers can get together
to buy these machines.

- **To increase the area cultivated,
a farmer can form groups for joint work.**

Work in the fields is long and difficult.

Sometimes the work must be done at a given moment,
in a very short time,
such as, for example, sowing at the right time.
Often farmers do not manage to get the work done
in good time,
because they are alone.

In order to do all these big jobs
in a very short time,
they farm small fields;
they don't get much harvest.

If farmers get together
to do certain difficult jobs
such as clearing the land and grubbing trees,
such as sowing and weeding,
such as bringing in the harvest,
**they get on much more quickly,
and they can farm bigger fields.**

Farmers can also get together
to buy and use machines that cost a lot;
they can form groups
for joint use of their machines.

*For example, a group of farmers
can buy a winch
for clearing the land and grubbing trees
in the fields of all the farmers in the group.
A group of farmers can buy a seed drill
with which all the sowing of all the farmers
can be done quickly
and at the right time.*

By working together, you work faster.

Better selling of produce

The farmer who has cultivated big areas,
who has done all the work in the fields well,
gets a bigger harvest.

But it is not enough to produce more.

You must also sell well, which means:

- selling all the produce that is not used
by the farmer and his family;
there should be no produce left unsold and going bad.
- selling at a good price.

**The farmer who wants to earn more money
must sell: all his unused harvest,
at a good price.**

SELLING ALL THE UNUSED HARVEST

Often farmers store on their farms
a large amount of foodstuffs
which will not be eaten,
such as yams, taro, cassava.

If farmers do not use these yams or taro
by eating them, or selling them,
it is useless to produce them,
and to try to increase the yields
or the areas farmed.

**The farmer should make more effort
to sell everything that can go bad or be wasted.
He should apply himself to marketing his produce.**

**Trying to sell produce is just as much work
as weeding or harvesting.**

The farmer makes an effort to till the ground;
in the same way, he should make an effort to sell better.

SELLING AT A GOOD PRICE

What can a farmer do
to sell his produce at a better price?

- **He should choose crops that are easy to sell and fetch a high price.**
We saw on page 17
that Nlend chose to grow less yams
and some rice as well,
because Nlend sold his rice at a better price.
Farmers should do like Nlend,
and think before choosing their crops.

They should also choose
the best varieties.

*For example, in countries
where arabica coffee grows,
planters should grow arabica
rather than robusta,
because arabica sells at a higher price per kilo.*

*For example, Mono cotton
has little by little been replaced
by Allen cotton, which sells at a higher price.*

*For export to foreign countries,
banana growers now grow the Poyo variety,
which sells at a higher price
than the Gros Michel variety.*

- **The farmer must pay great attention to the quality and presentation of his produce.**

- **To have high-quality products, the farmer must harvest at the right time.**

You must not harvest long before the produce is ripe. Nor must you harvest when the produce is too ripe. Often the harvest must be gathered in several stages; for example: to harvest coffee berries, you must go through the plantation four or five times, every fortnight, to gather the ripe berries only.

- **To have high-quality products, they must be sorted.**

Sorting means taking out everything bad, taking out everything rotten or mouldy or damaged. Produce must be sorted before selling.

- **Products must be graded in several classes.**

Products are not all of the same quality. They must be separated into different heaps containing products of very good quality, products of medium quality, products of low quality. The farmer can get a better price for products graded in several classes.

- **Products must be well presented and packed.**

A well-presented product sells at a better price. The farmer should especially pay attention to packing his produce well in sacks or cases. Then the goods do not get damaged and are protected from dust, rain, mud.

- **Produce must be sold when its price is highest.**

With certain produce such as millet, sorghum, maize, yams, prices change during the year.

*For example, in Upper Volta,
a kilo of millet sells at 12 francs at harvest time in October,
then at 18 francs in April,
at 25 francs in June,
at 30 francs in July.*

In some years, a kilo of millet sells at 40 francs in August.

The farmer who wants to earn more money should not sell his millet at harvest time.

For at that time there is millet everywhere, nobody needs to buy millet, the price of millet is very low.

The farmer should store his millet in granaries for 6 or 8 months; then he should sell his millet just before the next harvest.

At that time, there will not be much millet about, people will want to buy millet, and the price of millet will be very high.

But usually at harvest time, farmers need money, perhaps to pay debts, or to send the children to school.

So they are obliged to sell, even if the price is low.

If farmers are joined together in a cooperative, the cooperative can buy their produce at harvest time, at a reasonable price (for example 22 francs per kilogramme).

Then the farmers will get money right away, and will get a higher price.

The cooperative keeps the millet in its barns, and resells this millet at the beginning of the rainy season when the price is high,

for example 30 francs per kilogramme.

The cooperative keeps part of the money so earned, to buy the next harvest at a good price; it can distribute the rest of the money to farmers.

- **Produce must be sold where it is dear.**

Often food crops
such as yams, cassava, bananas, millet,
do not fetch a high price in villages.
But in town markets
these products are much dearer.

Why?

First of all, there is the **cost of transport**.
The dealer who carries these products
from village to town
has to pay the cost of transport by lorry.

Then the dealer takes a profit on what he sells.
Often this dealer sells to another dealer,
who perhaps sells to a third dealer.
Each one of these dealers takes a **profit**
on the price of the produce.

It often happens that the price of a product
in town markets
is two or three times the price
in the villages.

For example, yams bought at 10 francs per kilogramme
in the villages
sell at more than 30 francs per kilogramme
in the towns.

It is often to the advantage of farmers
to sell their produce in town.

They can sell at a higher price in town,
than to the dealers who come to the villages.
But a farmer by himself
will not succeed in selling at a good price in town.

Farmers must form a group
to sell their produce in town.

For example:

*Mawem has 200 kg of rice to sell.
In the village, rice sells at 25 francs per kilo.
In town, rice sells at 45 francs per kilo.*

*Mawem plans to carry his rice to town
and sell it there.*

He finds a lorry.

The lorry can carry 1 000 kg.

The carrier asks 6 000 francs for the job.

Mawem has 200 kg to be carried.

So for the transport he spends per kilo

$$\frac{6\ 000}{200} = 30 \text{ francs per kilo.}$$

*Mawem has not earned any money
by selling his rice in town.*

He has in fact lost money.

He sold the rice in town

for 20 francs per kilo more

than he could have got in the village.

But he has spent 30 francs per kilo for transport.

So he has lost 30 less 20 = 10 francs per kilo.

Mawem thinks what to do.

He gets together with his brothers Nack and Nlend.

Between them, they have 1 000 kg of rice to sell.

They take the same lorry.

It can carry 1 000 kg.

The carrier still asks 6 000 francs.

Mawem and his brothers have 1 000 kg of rice.

Transport costs them per kilo

$$\frac{6\ 000}{1\ 000} \text{ francs} = 6 \text{ francs.}$$

*Mawem and his brothers have made money
by selling their rice in town.*

*They sold the rice in town at 20 francs per kilo
more than the village price.*

They have spent 6 francs per kilo for transport.

They earned 20 less 6 francs = 14 francs per kilo.

*By selling his rice in town on his own,
Mawem lost 10 francs per kilo.
By selling together with his brothers, in a group,
Mawem earned 14 francs per kilo.*

Protection against dishonest dealers

Many dealers are not very honest.

They often try to cheat the farmer
when they buy his produce.

How?

A bad dealer can cheat the farmer in these ways:

- **on the weight of the harvest;**
The dealer uses scales
which show less than the true weight.
In this way, the dealer can cheat the farmer
of 5 or even 10 kg on a sack of 80 kg.
The farmer by himself cannot check
whether the dealer is cheating him.
- **on the quality of the produce;**
Often the dealer says the harvest is of poor quality.
He buys it at a lower price.
- **on the price;**
The dealer knows that the farmer needs money
and is ready to sell even at a very low price.
The dealer takes advantage of the weakness
of the single farmer;
he won't buy the produce except at a very low price.
- **on the reckoning:**
Some dealers make mistakes in multiplying
the number of kg by the price per kg.
A farmer who can't do his own reckoning
cannot defend himself.

**To defend themselves against cheating dealers,
farmers should get together in a group.
Together they will be stronger
and can defend themselves.**

PART 4

The farmer's expenses

- **Expenses for the family**
- **Expenses for the farm business**
- **How a farmer can find the money**

THE FARMER'S EXPENSES

So far, we have seen
how the farmer can earn more money.

A farmer tries to earn more money
in order to have more money to spend,
and in this way to meet his needs.

Now we shall see
how the farmer can use the money he has earned.
We are going to study the farmer's expenses.

A farmer has various kinds of expenses.

Expenses for the family

A farmer may buy clothes for his wife,
his children, himself:

shorts, dresses, shirts, trousers, shoes.

He may buy food:

salt, sugar, fish, meat, beer, wine.

He may buy furniture for his house:

a table, chairs, beds.

He may buy things for the kitchen:

jars, cooking pots.

He may buy articles of everyday use

such as soap, paraffin, matches.

All these expenses are to satisfy the family's needs;
they are called **consumption expenses**
(or family expenses).

These expenses make up the **family budget**.

They are not expenses for the farm business.

In studying a farmer's expenses,
we must keep apart
expenses for the family
and **expenses for the farm business**.

Expenses for the farm business

Expenses for the farm business make up the farm budget.

There are two chief kinds of expense for the farm business.

- **First, there are expenses that come every year. These are called yearly production costs.**
They are expenses that have to be met every year, so that the farm can go on working and earn more money.

YEARLY PRODUCTION COSTS

Examples of yearly production costs:

- **Buying selected varieties of seed**
To get bigger harvests, the farmer must buy each year selected varieties of cotton, or groundnuts, or rice. This expense has to be met each year.
- **Buying pesticides**
To prevent his plants from becoming diseased, the farmer has to buy pesticides every year to protect cotton or groundnuts, to protect cocoa trees or coffee trees.
- **Buying fertilizers**
To increase the yield of his crops, the farmer has to buy chemical fertilizers every year to apply to the crops that earn money. The farmer must think carefully before deciding to apply fertilizers. He must be sure that all the other farming jobs have been well done, for example, that sowing was done at the right time, that weeding has been done often enough, that pesticides have been used. Otherwise, it is useless to spend money on fertilizers.
- **Expenses of paying labour**

- **There are also expenses that do not come every year.**
These expenses have to be met only from time to time.
They are expenses for improving the farm business.
These expenses increase the farm's **productive capacity**.
Spending money to increase productive capacity
is making an **investment**.

**To make an investment means spending money
to increase the farm's productive capacity.**

INVESTMENT

Examples of investment:

- **Buying new tools**
A farmer buys a plough or a seed drill
that is drawn by animals.
With this plough or seed drill,
the farmer works better and quicker.
By this means he can increase the area farmed.
He will have increased his productive capacity
by buying a plough or a seed drill.
He has made an investment.
- **Land improvement**
The farmer clears some land
and grubs up all the trees.
He digs irrigation and drainage ditches
to make an irrigated rice field.
He makes barrier strips and terraces
to protect the soil from erosion.
All these undertakings are investment
because they increase productive capacity.
- **Establishment of new plantations**
The planter who makes new plantations
of coffee trees or mango trees
also makes an investment.

Investment expenses are often very large.

- **Some farmers have enough money at hand to pay the full cost of an investment.**

Example:

*Issa is a good farmer,
he has had good harvests for several years;
he has not spent any money on useless things.
Issa has more than 40 000 francs in reserve.
Issa wants to get on.
He wants to buy a plough and a pair of oxen.
The plough costs 8 000 francs and the oxen 20 000 francs.
Issa pays cash for the plough and the oxen.
Issa can pay for his investment right away
because he has money in reserve;
he has made savings.*

- **But many farmers are not like Issa, they have not got enough money to make an investment.**

They have to ask for money from banks or credit institutes; they have to borrow money (see page 41).

Example:

*Marcel wants to get on;
he wants to buy a plough and a pair of oxen.
The plough costs 8 000 francs, the oxen 20 000 francs.
But Marcel has no money.
He borrows 28 000 francs from the agricultural credit institute.*

The institute lends him the money for five years.

Each year Marcel is to give back

$$\frac{28\ 000\ \text{francs}}{5} = 5\ 600\ \text{francs}$$

to repay his loan.

In addition, he has to pay the agricultural credit institute interest of 5% a year, that is:

$$\frac{28\ 000\ \text{francs} \times 5}{100} = 1\ 400\ \text{francs.}$$

So each year Marcel has to pay the institute

$$5\ 600\ \text{plus}\ 1\ 400\ \text{francs} = 7\ 000\ \text{francs.}$$

At the end of five years, he will have paid

$$7\ 000\ \text{francs} \times 5 = 35\ 000\ \text{francs.}$$

Complementary Note

The next three pages (pages 38, 39 and 40) are difficult. If you do not understand, you are not obliged to read them, you can go straight on to page 41.

When is an expense profitable?

A farmer who wants to get on
has to spend money for his farm.
He has to buy selected varieties of seed,
pesticides, fertilizers;
he has to invest by buying new tools,
improving his land, making new plantations.

But a farmer has to be very careful
when he spends money;
he must not spend on just anything for the farm.

He must spend only on what will earn money later.
When an expense earns a lot of money,
we say that it pays,
that it is profitable.

What makes an expense profitable?

Three conditions are necessary to make an expense profitable:

- (1) The increase in output
must repay the money spent.
- (2) The increase in output must pay the interest
(here reckoned at 5%).
- (3) In addition, the increase in output
must leave a profit.

The following two examples show
how to reckon the returns on an expense.

In the first example,

we show the returns on an expense for one year
(the expense has to be repeated every year).

In the second example,

we show the returns on an expense
that is required once in several years
(it is not repeated in following years).

In the first case:

If the expense is yearly, it will be profitable if:

- (1) the increase in output repays the money spent;
- (2) the increase in output also repays the interest on the money spent;
- (3) in addition, the increase in output leaves a profit.

Example:

In 1970 John sowed 1 hectare of cotton, he did his work well, and he used pesticides, but did not apply any fertilizer. He harvested 720 kg of cotton, which sold at 30 francs per kilo. He earned: $720 \times 30 \text{ francs} = 21\,600 \text{ francs}$.

In 1971 John again sowed 1 hectare of cotton, he did his work well, he used pesticides, and applied 100 kg of ammonium sulphate; on this he spent 2 500 francs. He harvested 960 kg of cotton, which he sold at 30 francs per kilo. He earned: $960 \times 30 \text{ francs} = 28\,800 \text{ francs}$.

Thanks to the fertilizer, he increased his earnings by 28 800 francs less 21 600 francs = 7 200 francs. But he has to repay the cost of the fertilizer: 2 500 francs. He also has to pay the interest on the cost of the fertilizer (interest at 5%):

$$\frac{2\,500 \times 5}{100} = 125 \text{ francs}$$

*This makes a total of: 2 500 francs plus 125 = 2 625
So his increased earnings are really:
7 200 francs less 2 625 francs = 4 575 francs.*

Therefore, the use of fertilizer is profitable because the farmer earns an additional 4 575 francs.

In the second case:

If the expense happens once in several years,
it will be profitable if:

- (1) the increase in output in all these years
repays the money spent.
- (2) if the increase in output in all these years
repays the interest on the money spent.
- (3) if the increase in output in all these years
leaves a profit.

Example:

*In 1968 Karamoko bought a pair of oxen and a plough.
He paid 25 000 francs for the oxen
and 10 000 francs for the plough.*

*He spent a total of 35 000 francs.
With the two oxen and the plough
Karamoko can increase the area cultivated;
he will grow crops on another hectare
and thus will get a bigger harvest.
He will be able to do his work quicker and better,
and thus will increase the yield.*

*The plough and the oxen will last him for 5 years.
The yearly cost of the plough and oxen will be:*

$$\frac{35\ 000\ \text{francs}}{5\ \text{years}} = 7\ 000\ \text{francs a year.}$$

*The yearly interest on the sum spent must also be included
(taking the interest at 5%):*

$$\frac{35\ 000 \times 5}{100} = 1\ 750\ \text{francs}$$

*Each year the increase in output
obtained with the plough and oxen
should be more than:*

$$7\ 000\ \text{francs plus } 1\ 750\ \text{francs} = 8\ 750\ \text{francs.}$$

In 1969 Karamoko earned 13 650 francs more.

In 1970 Karamoko earned 18 220 francs more.

In 1971 Karamoko earned 26 400 francs more.

*Karamoko has not yet worn out his plough and oxen,
but with the money already earned in 3 years,
he can cover much more than the cost of what he bought.
His investment is profitable.*

How a farmer can find the money

To get on, a farmer must invest;
so he must spend money.
But often farmers have no money in reserve.
They are obliged to look for the money elsewhere.

Where can a farmer find the money?

To find the money,
the farmer has to ask for money.
He has to borrow.

To borrow = To ask someone for money.
This money has to be returned
after a certain time.

To lend = To give money to someone
who will return it
after a certain time.

The farmer can borrow money
from a **relative** or a **friend**.
But often relatives and friends
have no money to lend.

The farmer can borrow money
from **dealers**.
But often dealers
demand a very high rate of interest.
Farmers should not borrow from dealers
because they will often be robbed.

The farmer can borrow
from a **commercial bank**.
But commercial banks do not readily make loans
to individual farmers,
and moreover they ask a high rate of interest.

To get money, farmers should apply to an agricultural credit institute.

In most African countries there are credit institutes that lend money to farmers.

These institutes may have different names: they may be called National Agricultural Credit Fund, or else National Agricultural Development Bank. In other countries there are development corporations which lend money to farmers.

These credit institutes make loans at a fairly low rate of interest.

They can make **short-term** loans, that is, loans for yearly expenses such as buying fertilizers and pesticides. The farmer has to repay the money after the harvest.

They can also make **medium-term** and **long-term** loans for investment expenses such as buying tools, improving a plantation. The farmer has to repay the money over a period of 4 or 5 years, or of 10 years.

The agricultural credit institutes do not readily lend money to individual farmers, because sometimes individual farmers do not repay the money.

The credit institutes often prefer to lend money to farmers who belong to a cooperative group.

Why?

Because if a farmer cannot repay the money he has borrowed, then the other farmers in the group will repay the money in his place. This is what is called **mutual liability**. All the farmers in the group undertake to help the one who is in difficulty.

Farmers in a cooperative group get a loan more easily.

PART 5

Can a modern farmer succeed by himself?

- **Farmers who try to get on by themselves
often do not succeed**
- **Farmers should unite and form cooperatives**
- **How to succeed with a group**

CAN A MODERN FARMER SUCCEED BY HIMSELF?

Farmers who try to get on by themselves often do not succeed

- **A farmer who tries to get on must buy new equipment so that he can work quickly and farm more land.**

But this equipment is often very dear;
often the farmer cannot buy it
because he does not have enough money.
So he will not make much progress.

If the farmer buys this equipment all the same,
he spends all the money he has,
and is obliged to borrow.

As a result, he has to pay back
the money he has borrowed,
he will have to work a long time,
and may be ruined.

The equipment bought is too big for the area farmed;
it is used only a very small part of the time.
So buying the new equipment is not profitable.

But if the farmer gets together in a group
with other farmers in his village,
the difficulties are much less.

Several farmers together
can easily buy machines and new tools.

The cost for each farmer is not too great;
even if the farmers have to borrow,
they will more easily be able to repay the loan,
and will not be ruined.

The machine will be used by several farmers;
it will be well used during a large part of the year.
Buying this equipment is profitable
for farmers in a group.

- **The farmer who is alone
also has to face the dealers alone.**

The dealers know their trade well enough.
They can take advantage of the weakness
of a farmer on his own.

They can cheat the farmer
who does not know how to defend himself.
The farmer will not be able to sell his produce
at a good price,
and will not earn much money.

If a farmer wants to sell his produce better,
if he wants to defend himself against the dealers,
he must get together
with the other farmers in his village.
Farmers must form marketing groups.

- **Often the farmer who tries to progress by himself
gets no help from the village
when he is in difficulties.**

Often the farmer who wants to get ahead by himself
is cut off from the other villagers.
The other farmers are sometimes hostile to him.
They do not back him when he needs help.

When this farmer has a setback,
no one comes to help him.

The farmer who wants to progress
should get the people of his village to join in:
he should explain to them why he is trying to do better.
He should encourage them to do like him.
He should explain why he does what he does.
He should also ask for the others' opinion.
Above all, he should try to work with the others.

Farmers should unite and form cooperatives

Modern, go-ahead farmers want to contribute to the development of their village, their region and their country. They should try to get other farmers to make progress together. Then the village as a whole will develop, because everyone is helped by the progress of the others.

How can you help the development of your village?

A modern farmer who wants to bring about the development of his village can try to form cooperative groups:

- **A group for joint work on such jobs as:**
 - clearing land and grubbing trees from new land to be farmed;
 - getting the sowing done as quickly as possible, and at the right time for all the farmers of the group;
 - bringing in the harvest, which often takes a very long time;
 - land improvement, as for example, making an irrigated rice field with irrigation channels and checks;
 - making a new plantation of coffee, oil palms, mango trees;
 - mending villagers' houses;
 - digging a well.
- **A group for joint buying.**

Some machines cost a lot, for example, a coffee berry pulping machine, a small thresher for rice, a seed drill. These tools are very useful to farmers, but each single farmer cannot buy these tools. Farmers should form a group to buy the equipment jointly, but also to use jointly. Then the farmers of the village will get on without being ruined.

- **A joint selling group.**

Farmers alone are weak against dealers.
Dealers can cheat them
over the weight, the quality and the prices.
If the farmers of a village
make a cooperative selling group
they will be strong as against the dealers.
They can defend themselves
and can get a fair price for their produce.

These sales cooperatives can sell produce
in town, where prices are higher.

These cooperative groups buy food crops from the farmers
at a good price at harvest time,
and sell them some months later
in the hungry season, when prices are high.
Thus, the farmers get their money
at harvest time (see page 28).

- **Mutual credit groups.**

Farmers do not have enough money for investment.
They have to borrow,
but often the credit institutes
will not lend money to farmers on their own;
or will only lend small sums
at rather high interest rates.

If the farmers have formed a group,
the credit institutes are readier to lend money,
because all the farmers in the group
support the one who gets the loan,
and can pay for him if he cannot.

Farmers can also make their own mutual credit fund.
Each farmer brings to the fund his money and savings;
the mutual fund can then lend this money
to those who need it.

- **Other groups.**

For example, study groups of five or six members
to learn farming from the Better Farming booklets.

How to succeed with a group

Many groups have not succeeded.

Why?

Because no thought was given to the following rules.
They are essential for the success of a group.

First rule:

The members of the group must be united.

The group is made for the interests of all.

In a group a farmer does not seek his own interests,
but the interest of the whole group.

Each must take his share in joint work,
such as sorting and transport.

All must work.

No one must leave work for others to do.

Losses and additional work must be shared,
just as much as profits.

*For example, in order to break up a group,
a dealer offers higher prices to one member of a group.*

*If the offer is accepted, the group is broken up,
all the members of the group will lose,
even the one who has agreed to sell.*

*Once a group is broken up,
the dealer can buy at a lower price.*

Everyone loses.

A group that is not united is lost.

In a group, everyone must know everyone else.
But the group should be open to others to join.

It must also be known and approved
by the village elders.

Second rule:

**The members of the group must
obey the rules of the group.**

In a group the members are united.
Everyone must obey the rules of the group.
If a member does not obey the rules,
the group is lost.

An example:

*The group decides to sort and grade,
and to present its produce in the same way,
If everyone does it,
the quality of the produce is always the same.
Customers trust the produce.
If one member of the group does not do it,
the quality of the produce changes,
customers no longer trust the produce.
The group loses its customers.*

Another example:

*The group decides to sell every Wednesday
1 000 kg of plantains.
Each member of the group delivers every Tuesday
five bunches of plantains.
But several members of the group do not bring
their five bunches on Tuesday.
The dealer comes,
but there are only 800 kg of plantains.
The lorry will not be fully loaded.
The dealer has wasted his time.
The dealer will not want to buy again from the group.*

If the rules are not obeyed,
all the members of the group suffer.
The group is lost.

Without rules which everyone keeps,
there is no group.

CONCLUSION

Farmers are responsible for the future of their village

- **A village makes no progress
if its farmers are not modern.**
- **If the way of farming remains what it always was,
nobody earns much money.
The young people won't stay in the village,
because they want to earn more money
to satisfy all their new needs.**
- **If the village does not modernize itself,
if there are no better houses,
if there is no pure water, no dispensary,
living conditions are difficult.
The young people want to go away
to live in better conditions.**
- **If there is no life in the village,
if there are no groups for work,
no associations for leisure,
the young people become bored,
they are attracted by the life and amusements of town.**

- **If the young people leave,**
there is no future for the village,
little by little, it will die.
The farmers, the grown-up men,
will become disheartened,
they won't want to work for a dying village,
they won't make an effort any more
for a village whose children have gone away.

**To get the young people interested in agriculture,
to encourage them to stay in the village,
farmers must modernize agriculture.
They must build up modern farm businesses
that will ensure a better future for the young.**

What is a living village?

It is a village which has:

**modern farm businesses,
groups for work and marketing,
leisure associations.**

**It is a village
where the living conditions are good:**

**where housing has been improved,
where the rules of health are respected,
where children and ill people are cared for.**

A living village has a future.

The people of such a village will want
to make even more progress.

They will make a village
where people are happy to live,
where everyone can cope with his life and work,
where the young people who have been to school
will wish to remain and work.

Modern, go-ahead farmers
should make the other farmers understand
the need for progress,
by taking village affairs in hand.
Then every villager will feel his responsibility
for the life and vigour of his village.

**It is a long and difficult task
to try and make others get on,
to make them understand
why and how the village must change.**

But it is the only means to bring about
the development of your village and
to give it a future.

**Farmers should be the leaders
of their village.**

Summary of what we have learned in this booklet

The farmer should have a good knowledge
of the techniques of crop farming and animal husbandry.

But he must also think carefully
and know how to manage his business.

- (1) He must know how to use
the work of men, animals,
land and plants,
tools and land improvements
so he can feed his family better,
and earn more money.

This money will meet the new needs of his family
and of his farm business.

- (2) The farmer can earn more money
- by a better choice of crops,
 - by increasing yields,
 - by increasing the area farmed,
 - by selling his produce better.

- (3) The farmer can use his money
- by spending it on his family,
 - by spending it on his business.

He must know how to reckon
the returns on his yearly expenses
and his investment.

The farmer sometimes needs credit
to get money for these expenses.

- (4) It is difficult for a farmer to get on by himself.
He needs others.
By forming cooperative groups,
farmers are stronger
and make great progress.

**Farmers are responsible
for the future of their village.**

SUGGESTED QUESTION PAPER

ANSWER THE FOLLOWING QUESTIONS

What is the chief difference between the traditional farm of the old days and modern farm of today?

What makes up a modern farm business?

Why do farmers need more money nowadays?

How can a farmer increase his output?

What should a farmer do to sell his produce at a good price?

What are the farmer's two kinds of expense for his business?

In your village or region are there any cooperative groups?

What do these groups do?

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Iraq	National House for Publishing, Distributing and Advertising, Rashid Street, Baghdad.
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Italy	Distribution and Sales Section, Food and Agriculture Organization of the United Nations, Via delle Terme di Caracalla, 00100 Rome; Libreria Scientifica Dott. L. De Biasio "Aeiou", Via Meravigli 16, 20123 Milan; Libreria Commissionaria Sansoni "Licosa", Via Lamarmora 45, C.P. 552, 50121 Florence.
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Korea, Rep. of	The Eul-Yoo Publishing Co. Ltd., 5 2-Ka, Chong-ro, Seoul.

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Luxembourg	Service des publications de la FAO, M.J. De Lannoy, rue du Trône 112, 1050 Brussels (Belgium).
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Romania	Ilexim, Calea Grivitei N° 64-66, B.P. 2001, Bucarest.
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Somalia	« Samater's », P.O. Box 936, Mogadishu.
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Switzerland	Librairie Payot S.A., Lausanne et Genève; Buchhandlung und Antiquariat, Heinemann & Co., Kirchgasse 17, 8001 Zurich.
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