THE BUDGET
a learning element for staff of agricultural cooperatives

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MATCOM
Material and techniques for cooperatives management training

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In collaboration with cooperative organizations and training institutes in all regions of the world, MATCOM designs and produces material for the training of managers of cooperatives and assists in the preparation of adapted versions for use in various countries. MATCOM also provides support for improving the methodology of cooperative training and for the training of trainers.

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PREREQUISITES

To benefit from this MATCOM Learning Element, you should:

- be able to perform simple percentage calculations;

- have studied the MATCOM Element "Basic Economics of an Agricultural Co-operative", or have the corresponding knowledge.

HOW TO LEARN

- Study the Element carefully.

- Give written answers to all the questions in the Element. This will help you not only to learn, but also to apply the knowledge in your work at a later stage.

- After studying the Element on your own, discuss it with your instructor and your colleagues, then take part in practical exercises organised by your instructor.
INTRODUCTION

Unity Co-operative has about 1,000 members. They grow groundnuts and vegetables, which they sell through the co-operative. The members can also buy fertilisers and some other farm supplies through their co-operative.

It is now June. The business year is coming to an end for Unity Co-operative. The year's trading has almost been concluded. The new "financial year" begins on 1 July.

This year everything seems to have gone according to plan. Sabu, the manager, can already tell his committee that there will be a net surplus of some T$100,000*, roughly what they had planned. How could Sabu know the result ahead of time? Is he good at guessing? NO! He was able to forecast a surplus because he had planned the business in advance. Already a year ago, he had estimated the income and the expenditures for the coming year. Then he kept careful track of developments and controlled them so that everything went as planned.

* We use an imaginary currency here, because this booklet is used in many countries. We call it "Training dollars and cents" (T$ and c).
This is what we mean by PLANNING AND CONTROLLING a business. Let us see if we can learn something from Sabu and his committee by following their work in Unity Co-operative.

**The Budget Meeting**

The committee of Unity meets regularly to discuss the business. Today, the committee has one of the most important meetings of the year. It is the budget meeting, at which the committee will discuss the budget and the plans for the following year.

To draw up a budget means to estimate what the co-operative will *earn* and what it will *spend*, and to prepare a plan based on these figures. This allows the committee to check that spending will be balanced by earnings. The committee and the manager want to be sure that there will be a *surplus* - not a loss! - at the end of next year.

We are going to follow the committee through this budget meeting. Here are the major items for today's meeting:

**Agenda:**

- Estimating the sales of produce.
- Estimating the sales of farm supplies.
- Estimating the running costs.
- Completing the estimates.
ESTIMATING THE SALES OF PRODUCE

The committee had many matters to discuss. The most important business of the co-operative is "marketing", that is selling members' produce. So this was at the top of the agenda.

Sabu, the manager, and the committee came well prepared to this meeting. They had collected some important information from the villages, and Sabu had put together several charts with useful figures.

**The Sales**

**Groundnuts**

"This year's sales of groundnuts have just been concluded, and we have sold 809 tonnes in all. That is a little more than last year," the chairman announced.

"The question is whether or not we can plan for a further increase next year," said Sabu. "Let's look at this chart."

Sabu called the committee's attention to the "statistical" figures on the chart. These showed how many groundnuts the co-operative had sold in the last few years. He had also made a graph, which was posted on the wall. (The chart and the graph are shown on the next page for you to see.)

From the graph it was easy to observe the small increase in the groundnut business. There had been a drop in sales three years before, but that was caused by a certain transport problem, which had long since been solved.
"You can see that we have increased the sales by 2% to 6% each year," said Sabu. "Can we do it again next year?"

<table>
<thead>
<tr>
<th>GROUNDNUT SALES</th>
<th>UNITY CO-OP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>81/82</td>
</tr>
<tr>
<td>TONNES</td>
<td>741</td>
</tr>
<tr>
<td>PRICE PER TONNE</td>
<td>2,190</td>
</tr>
</tbody>
</table>

In recent years the development had been rather slow. It seemed as if the farmers had now reached the maximum of what they could produce on their small plots of land. Therefore, the only way to increase the co-operative's business was to enlarge the membership.

Unity Co-operative had three "buying points" for groundnuts, that is, the places where members brought their nuts for collection by the co-operative staff. "The chairman and I have put together the figures for our three buying points," said Sabu, pointing to a big chart (see next page).

Sabu said: "Look first at column 4. At the bottom we can see this year's total, 809. Now, the question is: can we get more nuts next year?"
The committee members studied the chart and discussed the figures. It was obvious from columns 3 and 5 that all farmers in the Balta area were already members. No increase could be expected at that buying point. "Some members there have some unplanted land, but I think they will use it for other crops, not groundnuts," noted one committee man.

"In Kanno we have a group of 30 farmers who don't sell through us, and in Tora about 90. They sell to private agents. Suppose that we could get all those people to join us. Look at column 5. You can see that we could increase our sales potential by 95 tonnes. That is 11.7%, to be exact," said Sabu.

"But what is happening in Tora?" said one committee member, and pointed at the "90" in column 3. "Have some farmers in Tora left our co-operative?"

The chairman said: "You are right. However, I do have some good news. We have now had meetings in the villages in Tora. Forty farmers who used to sell to us before had their reasons for changing to other agents. They are all living in the outer area, and they were promised help with their transport by an agent from town. However, they were not satisfied with his help, nor with his prices. So recently, when they had heard how much our members were paid, they said they would certainly come back to Unity next year."
The committee was pleased to hear this. But at the same time they regretted that they had a "communication problem" with the farmers living in the outer villages. After all, the purpose of their co-operative was to help all farmers in the area. "A thing like this should not happen, we must try to keep them better informed." So the committee decided to arrange more information meetings in the remote villages. The farmers' major problems, including transport, could then be freely discussed.

The committee went on assessing the likely production for the following year. The committee members came from various villages, and between them they knew the whole area and the members very well. Therefore, their estimates were realistic. They were sure that they would get a few more members in Kanno, and that the 40 "lost" members in Tora would come back again. In addition, they thought that some more members would join in Tora, as a result of their meetings there recently. "But let us not be overly optimistic," warned Sabu.

The chairman summed up: "I believe we can count on 165 tonnes in Balta, 365 in Kanno and 310 in Tora. That makes 840 tonnes altogether."

**Groundnuts - The Selling Price**

"840 tonnes, what does that mean in terms of money?" said the chairman.

Unity Co-operative sells the groundnuts to the Marketing Board, which is a special agency set up by the Government.

The Marketing Board pays a fixed price during the whole trading season. The problem was that when the Unity Co-operative committee held its budget meeting, the price for the next year had not yet been announced.
"You can see in my chart (page 6) how the prices have increased over the last three years," said Sabu. "From T$2,190 per tonne to T$2,275 to T$2,410, that's 4% to 6% per year."

In the latest news bulletin from the Marketing Board it was stated that prices would most probably remain steady for the next buying season. Normal inflation would probably mean an increase of 5% to 10%, but that was difficult to say for sure.

Once again, Sabu cautioned against over-estimating. "Although we all hope for a high increase, we should not now calculate on more than a 4% increase. It is better to be on the safe side. 4% more than this year means about T$2,500 per tonne." The committee agreed with Sabu's remarks.

1.1 Why did Sabu warn against over-estimating production and the selling price? Write your comments on a separate sheet of paper.

1.2 Fill in the estimates of total production and selling price in the chart on page 6.

1.3 Prepare a staple diagram, similar to the one on page 6, for the production in your co-operative.

We have now seen how the committee arrived at its estimate for the total income from groundnut sales:

840 tonnes x T$2,500 per tonne = T$2,100,000

They used statistics from previous years, and they used first-hand information from the growers. So the estimates should be reliable, provided nothing very unusual happens. Let us see how the committee continued its work in this budget meeting.
Other Products

The committee now went on to prepare the estimates for the sales of the other products. Some 100 members were growing potatoes and beans as a "cash crop" to earn an income, but many members brought to the co-operative the surplus from their garden crops. Obviously, this amount could vary, so it was very difficult to estimate the total business. Therefore, each year the committee made a survey: the village leaders were asked to estimate how many kilogrammes would be delivered to the co-operative next year. The reports from the village leaders had now been collected by the chairman.

In addition to this information, Sabu had the sales statistics from previous years. These two sources of information made it possible for the committee to prepare a forecast.

<table>
<thead>
<tr>
<th>SALES - OTHER PRODUCTS</th>
<th>UNITY CO-OP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>81/82</td>
</tr>
<tr>
<td>BEANS</td>
<td></td>
</tr>
<tr>
<td>TONNES</td>
<td>12</td>
</tr>
<tr>
<td>PRICE/TONNE</td>
<td>2,480</td>
</tr>
<tr>
<td>POTATOES</td>
<td></td>
</tr>
<tr>
<td>TONNES</td>
<td>79</td>
</tr>
<tr>
<td>PRICE/TONNE</td>
<td>1,760</td>
</tr>
</tbody>
</table>

The estimates for the bean deliveries presented no problem. The production figures had hovered steadily around 12 tonnes the last few years, and the committee found no reason to expect any change.

But the production of potatoes was increasing, that was clear. In fact, the demand for potatoes had been very high in the last years and the growers had been paid a very good price. So the committee had encouraged the members to grow more potatoes, and they had responded well.

The chairman said: "I believe that the village leaders' estimates are correct. Because we managed to get a good price
again this year, I am sure that the production will increase to at least 120 tonnes."

Other Products – The Selling Price

Selling potatoes and beans was quite different from selling groundnuts in Unity Co-operative. The co-operative was free to sell the potatoes and beans to anyone and to decide the selling prices itself.

So the problems facing the management were to find buyers, and to obtain a fair price for their products.

Over the years, Unity had built up a circle of regular customers who preferred to buy from Unity, because the co-operative had a reputation for good quality and fair prices. It was also Unity's policy to deliver to its regular customers instead of always looking for higher prices from occasional customers.

But now vegetable prices were fluctuating. The main question in the budget meeting was whether potato prices would go down or not. "If the potato production is going up like this, I fear that the prices will come down," said the chairman.

Their main buyer of potatoes was a company which had shops all over the country. Sabu reported: "They paid us T$2 a kilogramme this year. I have talked to their manager. He hinted that they can buy more from us, but that prices may be lower."
One committee member said: "I think we can earn more if we sell to shops and petty traders in town. They pay at least 10 cents more per kilogramme."

Sabu said: "Don't forget the transport and the handling costs. It takes four times as long to drive around to the shops and we need two men to go with the lorry. Let me give you an example:

"Suppose that we deliver 5 tonnes and the company pays us T$2 and the shops T$2.10 a kilogramme.

<table>
<thead>
<tr>
<th>Sales to the company</th>
<th>Sales to six shops</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,000 x T$2 = T$10,000</td>
<td>5,000 x T$2.10 = T$10,500</td>
</tr>
<tr>
<td>Transport cost = 320</td>
<td>Transport cost = 1,400</td>
</tr>
<tr>
<td>T$ 9,680</td>
<td>T$ 9,100</td>
</tr>
</tbody>
</table>

"You can see that we earn more even if we sell at a lower price to the company. It pays because we save on transport and labour costs."

The committee realised that it made sense to have a single buyer who could take the bulk of the production. They were also anxious to continue the collaboration with the company, which had proved to be a reliable customer. So they agreed to sell to them even if they paid two or three cents less than the shop owners.

After these discussions, the committee had still not estimated the expected selling price for potatoes next year. In the end the committee members agreed that it was still a "seller's market", and that the buyers would be forced to pay at least the same price as the previous year, probably a bit more because of inflation. They decided on an anticipated price of T$2 a kilogramme.
As for the beans, the price had increased with the inflation rate in recent years, and would probably again need to be raised by a few percentage points. The committee agreed to a cautious estimate of T$3 per kilogramme for beans.

The Total Sales

Sabu summed up the estimates of the sales on a large piece of paper, which he posted on the wall. Note that he changed all kilogrammes to tonnes and turned the selling prices into tonne prices, so that they could deal with all figures in the same way.

\[\begin{align*}
\text{SALES ESTIMATES} \\
\text{GROUNDNUTS} & \quad 840 \times \text{T$2,500} = \text{T$2,100,000} \\
\text{BEANS} & \quad 12 \times \text{T$3,000} = \quad 36,000 \\
\text{ROASTED SUGAR BEANS} & \quad 120 \times \text{T$2,000} = \quad 240,000 \\
\text{TOTAL SALES} & \quad \text{T$2,376,000}
\end{align*}\]

2.1 Fill in the estimated selling prices in the chart on page 10.

2.2 What sources of information did the committee use to estimate next year's production? Why were the sales statistics from the previous year not enough?

2.3 The committee discussed their "marketing policy" (see pages 11 - 12). What do you think about the way Unity is marketing and pricing its products?
The Commission

When Sabu added up the total of the sales estimated for next year, he arrived at a sum of T$2,376,000 (see the chart on page 13). All this money would be payment for agricultural products grown by the members, so they should receive the money, of course. The role of Unity Co-operative is just to help the members to sell their products. But this means a lot of work for the co-operative, and a lot of expenditure for wages, transport, storage and so on. Unity Co-operative must therefore keep some of the money to be able to pay for all costs of running the business. So the co-operative has (to take a commission or a levy) on the sales.

The question was how much commission Unity should take on the sales of produce next year.

Groundnuts

The committee had no trouble deciding the amount of commission on the groundnut business. As we have heard already, the Marketing Board determined the price of groundnuts. They had also fixed the commission: no agent was allowed to charge more than 6% commission. For example, if the Marketing Board pays T$125 for a 50 kg bag, an agent is allowed to keep a commission of T$7.50 and the farmer must be paid at least T$117.50.
The manager calculated: "6% of T$2,100,000 gives us a commission of T$126,000." For Unity, this commission was usually more than enough. When the financial year came to an end, Unity always had some money left over after all costs had been paid. They could then usually pay out an extra bonus to the groundnut producers. So, in the long run, the co-operative took less than 6% commission; they just took enough to cover the costs, and gave the rest back to the producers.

Other Products

Unity Co-operative took, at most, a 6% commission on the groundnut sales, as we have seen. On the other products, however, the co-operative had to charge a higher commission of 15%.

Sabu looked at his statistics again. He told the committee members that the commission on potatoes and beans had amounted to T$10,200 this year.

Some committee members were really worried about this high commission. They wanted a lower margin and pressed Sabu to find some way of reducing costs so that the growers could be paid more.

But Sabu answered: "Wait until we discuss our costs. You will see that there is not much we can do. You must remember that we have much higher handling costs for these vegetables."

After some more discussions and tentative calculations, they decided to settle on a 15% commission for potatoes and beans. The figure was to be adjusted, if necessary, when the committee had looked into the running costs for next year.
3.1 Give some likely reasons why Unity Co-operative charged a higher commission on their "side-products" beans and potatoes.

3.2 One member complained to the manager of Unity Co-operative: "You pay us T$118 a bag. Our private trader is paying more."

Suppose you are the manager. Write down all your arguments for why the member should continue to sell his produce through the co-operative.

Sabu summed up the estimates: "I will round off the figures," he said. "We cannot be too precise. Let us say that sales will be T$2,376,000 and our commission will be T$167,000."
The committee had now estimated the income from selling the produce. But Unity Co-operative has one more source of income: the sale of farm supplies.

They buy fertilisers and some other farm supplies from wholesalers and sell these things to members. In order to prepare a budget for this business, Sabu and his committee had to:

- estimate how many farm supplies they would sell,
- calculate the cost of these goods and their margin.

The Sales

"How many supplies are you going to sell next year, Sabu?" asked the chairman.

Sabu replied: "Well, let's first look back. This year we have sold fertilisers, pesticides and some other farm inputs
for T$142,600 altogether. The question is - will it be the same next year?"

There are many reasons why sales of supplies may differ from one year to another, so it would have been wrong of Sabu to just assume that sales would also be about T$142,600 the following year.

In trying to judge whether they would sell more or less the following year, Sabu asked two questions:

- Did anything out of the ordinary happen this year, which made us sell more or less than usual?
- Is anything likely to affect next year's sales?

This Year

Looking back at what has happened this year, the committee remembered some events which had made sales different from an "ordinary" year.

Sabu said: "We did not sell any pesticides at the beginning of the season because we could not get any supplies. We lost at least T$4,000 in sales."

He added: "Remember, too, that we delivered all the water pipes for the irrigation project in Balta. It was a special order, worth T$10,200. We won't be involved in anything like that next year."

The committee members confirmed that there would be no more big orders like that next year.
Sabu continued: "Therefore, we should use the figure T$136,400 if we want to make a comparison." He showed his calculation:

\[
\begin{align*}
\text{Sales this year} & \quad \text{T$142,600} \\
+ \text{Pesticides (if they had been available)} & \quad + \ 4,000 \\
- \text{Water pipes (special delivery)} & \quad - \ 10,200 \\
= \text{Sales/adjusted figure} & \quad \text{T$136,400}
\end{align*}
\]

**Next Year**

Now that they saw what the "normal" sales might have been this year, the committee considered the changes they knew would take place next year.

The chairman said: "We have already estimated that our membership will increase by some 60 farmers, and they will certainly buy their requirements from us. They can't get them cheaper anywhere. So the question is - how much will each farmer buy?"

For planning purposes it is very useful to know how many farm supplies the "average farmer" buys each year. Sabu had studied the sales figures over some years. He said: "Last year each member spent an average of T$110 on supplies, and it is probably a bit more this year." This is how he had made his calculation:

\[
\frac{T$109,800}{998} = T$110
\]

T$109,800 was the total sale of supplies. 998 was the number of members. T$110 was the average sale to each member.

The committee members nodded approvingly. They knew that some farmers spent more on fertilisers and spray, and others less, but as an average figure it was certainly right.
Sabu concluded: "So, together the 60 new members would buy supplies for about T$6,600 from us next year. Will there be any other changes that will make us sell more or less than this year?"

None of the committee members were able to think of anything else that could affect the sales of supplies the coming year. Sabu summed up:

\[
\begin{align*}
\text{Sales this year (adjusted figure)} & \quad T$136,400 \\
+ \text{Sales to new members} & \quad + 6,600 \\
= \text{Total expected sales next year} & \quad T$143,000
\end{align*}
\]

**Price Increases**

Sabu said: "We must not forget the price increases. Last January, for instance, one bag of fertiliser was T$26.40. Now it is T$28.00. And it is the same with most of the other supplies. Prices are going up all the time.

"So, even if we sell the same amount of supplies next year, our income will increase, simply because of the inflation."

Sabu knew that for some years, the price of most supplies had gone up by 5% to 10% each year. Most probably the same would happen next year. Therefore he advised the committee to increase the figure for the expected sales by 5%.

\[
\begin{align*}
\text{Total expected sales next year} & \quad T$143,000 \\
+ \text{Expected 5% price increase} & \quad + 7,000 \quad \text{(appr.)} \\
= \text{Total expected sales next year, including price increases} & \quad T$150,000
\end{align*}
\]

Based on his experience as well as on statistics from previous years, Sabu was able to say that 70% of this sum would be for fertilisers, or T$105,000. The rest, T$45,000, would mainly be for pesticides."
The Margin

So the committee thought that they would be able to sell supplies worth T$150,000 during the following year. To cover the costs for all the work involved, Unity had to earn a "margin" on its supply business, in the same way as it had asked for a commission on the marketing business. For the last few years it had been Unity's policy to earn a margin of about 10% on the supply sales. This had given the co-operative sufficient money to cover the running costs.

Pricing Problems

But there were some problems. First of all, they could not earn an exact 10% margin on all the various farm supplies they were selling. For instance, the price of the most popular fertiliser was controlled by the Government. Unity bought it from the wholesaler at T$26.60 a bag, and sold it to the members at T$28. That means a margin of only 5%.

To make up for the low margin on this fertiliser, Sabu had to earn more on the sales of some other items. For example, he could buy a drum of pesticide at T$16, and sell it at T$20. That was a margin of 20%.

---

The margin table:
- 5%
- 15%
- 20%
- 14%

Average 10%
Leakage Problems

Another problem was that it was very difficult to achieve the planned margin. Sabu had found that the margin that was actually earned when all supplies had been sold, was usually lower than the planned margin.

In his Purchase Register Sabu had noted down all farm supplies bought during the year. He entered in what he had paid to the wholesalers, the cost price, and also how much the goods had been "marked up" to arrive at a selling price. Now Sabu had added up all the purchases for the whole year.

PURCHASE REGISTER

<table>
<thead>
<tr>
<th>DATE</th>
<th>PARTICULARS</th>
<th>PURCHASES AT COST PRICE</th>
<th>MARK-UP</th>
<th>PURCHASES AT SELLING PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.7</td>
<td>COOP WHOLESALE SOC</td>
<td>2,800</td>
<td>510</td>
<td>3,310</td>
</tr>
<tr>
<td></td>
<td>Inv. 120036</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.8</td>
<td>AGROSUPPLIES LTD</td>
<td>82,418</td>
<td>5,770</td>
<td>88,188</td>
</tr>
<tr>
<td></td>
<td>Inv. 32018</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL FOR THE YEAR</td>
<td>T$127,750</td>
<td>T$15,750</td>
<td>T$143,500</td>
</tr>
</tbody>
</table>

Sabu said: "As you can see from these figures, we actually aimed at a margin of T$15,750, which is about 11% of the planned sales. However, the sales of these supplies brought in only T$142,600, which was T$900 less than expected. So our margin was actually only T$14,850, or about 10.4% instead of 11%.

In fact, this was no surprise to Sabu or the committee. Through experience they had learned that the margin was often reduced. For instance, it happened that they had to cut the price of some bags, because they were damaged. Like all traders, they also had some leakage in their operation, which means that some goods "disappeared" without being paid
for. (They were stolen, damaged through careless handling, never paid for because of careless book-keeping, etc.)

Of course, Sabu did his best to keep the leakage to a minimum, but he knew that he had to aim a little bit higher than 10% when he decided on his margin and fixed the selling prices.

The co-operative did not intend to change the margin on farm supplies. And there was no reason why the leakage should change much. Thus Sabu could estimate that the real margin for farm supplies would remain at 10% during the coming year. That would give them T$15,000 to cover the running costs for the supply services.

<table>
<thead>
<tr>
<th>ESTIMATES - SUPPLIES</th>
<th>ESTIMATES - SALES</th>
<th>ESTIMATES - COMMISSION</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>FERTILISERS</td>
<td>T$ 105,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PESTICIDES</td>
<td>T$ 45,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>T$ 150,000</td>
<td>15,000</td>
<td>10%</td>
</tr>
</tbody>
</table>

4.1 Calculate the average sale of farm supplies to each member in your co-operative.

4.2 What could cause the sales of farm supplies to vary from one year to another? Give some examples.

4.3 Sabu knew that prices went up by 5% to 10% every year. But he advised the committee to calculate with a price increase of 5%, not 10%. Why?
ESTIMATING THE GROSS SURPLUS

The committee had now arrived at an estimate of the total volume of business during the next year, including both produce and supply sales. They also had an estimate of how much they would earn on their operations.

Sabu, the manager, made a chart summarising their estimates:

<table>
<thead>
<tr>
<th>MARKETING</th>
<th>SUPPLY SERVICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>Sales</td>
</tr>
<tr>
<td>T$ 2,370,000</td>
<td>T$ 150,000</td>
</tr>
<tr>
<td>Commission</td>
<td>Margin</td>
</tr>
<tr>
<td>T$ 167,000</td>
<td>T$ 15,000</td>
</tr>
<tr>
<td><strong>Total Gross Surplus</strong></td>
<td></td>
</tr>
<tr>
<td><strong>T$ 182,000</strong></td>
<td></td>
</tr>
</tbody>
</table>

We can see that they used the word *gross surplus* for what they earn on the operations. The committee was pleased to see that the figures were higher than last year. But they also suspected that the costs of running the co-operative would be higher next year. One committee member was really worried: "Maybe this surplus is not enough, maybe the running costs will be so much higher...?"

The chairman said: "We will soon get an idea about that, as the running costs are next on the agenda."
If everything goes as planned, Unity Co-operative will earn a gross surplus of T$182,000 next year. All the costs of running the co-operative will have to be paid for out of this amount.

The chairman asked Sabu to give the committee the cost figures for the current year, and any other information that would help them prepare an estimate of the costs for the following year.

Sabu presented a chart which showed all the operating costs for the society. He had split up each of the costs under two headings: marketing costs and supply costs.
Sabu said: "Let's start with the staff wages." Unity Co-operative had only four permanent employees: Sabu the manager, a clerk, a storeman and a truck driver who also helped in the storehouse and at the buying points. But during the trade season, many hands were needed to help with the deliveries and the co-operative then hired occasional labourers who were paid by the hour.

The fixed wages to the permanent staff were:

- The manager: T$ 700 per month
- The clerk: 600
- The storeman: 550
- The driver: 550

Total: T$2,400

The committee had decided that the co-operative should stay in line with official wage rates. Since prices had already gone up by about 5% this year, the committee members thought that a wage increase of about 7% was a realistic estimate.
One member suggested that this was maybe too high. But Sabu insisted that it was better to set the estimates too high than too low. So the committee agreed to the estimate of a 7% wage increase.
The society pays an additional 5% social fee (insurance and pension) on the wages. Sabu calculated the total cost to the co-operative:

### Permanent staff:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>This year's wages</td>
<td>T$2,400 per month</td>
</tr>
<tr>
<td>Wage increase next year (7%)</td>
<td>168</td>
</tr>
<tr>
<td>Wages next year</td>
<td>T$2,568</td>
</tr>
<tr>
<td>Social fees (5%)</td>
<td>128</td>
</tr>
<tr>
<td>Total cost for permanent staff</td>
<td>T$2,696</td>
</tr>
</tbody>
</table>

Sabu multiplied by 12 to get the total cost for next year: it amounted to T$32,352. Sabu rounded off the figure to T$32,400. We must remember that the figures are estimates, and there is no need, nor is it possible, to be exact.

Sabu had recently made a study of the staff's working time, checking regularly to see what kind of job each person was doing. In certain periods they were dealing with farmers' produce only. At other times they were busy with the farm supplies. But over the whole year the four employees used 80% of their time for the marketing work and 20% for supplies. Sabu said it would probably be the same for the next year, so they agreed to allocate 80% of T$32,400 = T$25,920 to marketing, and the rest, T$6,480, to the supplies.

Then the committee looked at the costs for occasional labourers. Sabu reported: "This year we paid them T$4,800. We must also increase this amount by 7%, of course. But next year we will need more labourers. Production will increase."
The committee members had experience from the work at the buying points and the warehouse, so they could make a realistic estimate of the working time needed. They now suggested an increase in wages to T$5,800. All of this was put under the heading "marketing".

The chairman reminded the meeting about the costs for training. They should also be included under staff costs. Sabu was to go to a seminar at the Co-operative College, and the whole committee would attend a training workshop next year. The training was free of charge but the co-operative had to pay for travel, totalling T$280. This sum was divided equally between "marketing" and "supply".

Sabu then summed up all figures neatly in a table:

<table>
<thead>
<tr>
<th>ESTIMATED STAFF COSTS NEXT YEAR</th>
<th>MARKETING</th>
<th>SUPPLY</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERMANENT STAFF</td>
<td>25,920</td>
<td>6,480</td>
<td>32,400</td>
</tr>
<tr>
<td>OCC. LABOURERS</td>
<td>5,800</td>
<td>-</td>
<td>5,800</td>
</tr>
<tr>
<td>TRAINING</td>
<td>140</td>
<td>140</td>
<td>280</td>
</tr>
<tr>
<td>TOTAL STAFF COSTS</td>
<td>31,860</td>
<td>6,620</td>
<td>38,480</td>
</tr>
</tbody>
</table>

He then rounded off the figures to T$31,900, T$6,600 and T$38,500 respectively, and entered them in the main table of running costs (see page 26).

5.1 Fill in the estimated staff costs for the next year in the table on page 26. As you go on reading the committee's estimates for the other costs, fill in their figures in the table.
Three years ago Unity spent T$136,000 building a storehouse. But a building is used for many years; therefore, it is common practice to spread out the building costs over a period of time to get a reasonable figure for the yearly costs. Usually, the "lifetime" of a building is said to be 20 years. So, to get the yearly cost we divide the building cost by 20.

T$136,000 : 20 = T$6,800. This amount of T$6,800 is called the depreciation cost. The co-operative does not pay this each year. It is the calculated cost per year for having a building, and it is included among the co-operative's other running costs.

If a building is still being used after the depreciation period, there is no further depreciation cost involved in using it, just the normal costs of maintenance.

Sabu said that the costs connected with the building would be increased in the next year, as they were going to renovate the office, at a cost of T$2,000. With the usual depreciation period of 20 years, the yearly depreciation cost would be T$100.
They estimated T$800 for maintenance and minor repairs in the warehouse building during the next year.

The total yearly costs for the warehouse building were:

- Depreciation cost of the building: T$6,800
- Depreciation cost of the office: 100
- Building maintenance and repairs: 800
- Total costs of building: T$7,700

The cost of any furniture, fixtures, and equipment in the storehouse which are expected to last for at least five years is usually depreciated over a "lifetime" of five years. For the Unity Co-operative, the original cost of these items was T$4,000, and so the yearly depreciation cost was T$800.

(Note that costs for things which are expected to last for less than five years are not depreciated. Instead, the whole cost is included in the running costs for the year in which the purchase is made.)

Sabu reminded the meeting about the new screening machines. Some of the groundnuts had been rejected this year at the Marketing Board depots for having too much dust content, and the committee had therefore decided to buy three new screeners at a price of T$1,500. Depreciated over five years, the yearly cost would be T$300.
Finally, they estimated T$100 for maintenance and minor repairs for the equipment in the storehouse.

The total costs connected with the store building and its equipment now looked like this in the estimates:

- Depreciation and maintenance of building T$7,700
- Depreciation of equipment 800
- Depreciation of new screeners 300
- Maintenance and repairs of equipment 100
- Total costs, building and equipment T$8,900

The storehouse and the equipment were used mainly for the marketing business; only occasionally was a minor part of the building used for farm supplies. Therefore, the practice was to charge 90% of the costs to "marketing" and 10% to "supply". In round numbers this meant T$8,000 to marketing and T$900 to supply.

**Interest**

Sabu said: "We owe the bank T$30,000 and we have to pay them 6% interest, that is, T$1,800."

Yes, without the bank loan the co-operative would not have been able to begin trading. They had to accept the cost of the loan.

The loan had helped them to pay for the building and the equipment. Therefore, they distributed the cost in the same way, i.e. 90% on marketing and 10% on supply.

(Note that the repayment of a loan is not included as a running cost. Before a loan can be repaid, the co-operative must build up its own capital reserves, for instance by using some of the net surplus they earn on the business, or by using contributions from the members.)
Sabu said: "We will have some other interest costs as well."

Like most marketing co-operatives, Unity had problems with the timing of the cash flow. When a farmer delivered some produce, he wanted his payment immediately. He did not like to wait until the co-operative had sold his produce and received money for it. Therefore, Unity had built up some funds of working capital which they used to pay the members "cash on delivery".

But the working capital was not sufficient. The Marketing Board advanced some money to Unity for the groundnut business, but it was more difficult with the other products. Fortunately, Unity had a good relationship with their bank and they were granted an overdraft, allowing them to pay the members, at least an advance. But the overdraft was very expensive: the bank charged 15% interest. Therefore, Sabu avoided the overdrafts as far as possible. Even so, the interest on the overdraft this year amounted to T$1,980.

Sabu said: "I will prepare a cash budget later so that I can determine the need for cash month by month. Maybe we can get a short-term bank loan at lower interest instead of using the overdraft. But I suggest that we estimate T$2,000 for interest anyhow." This amount was to be entered under "marketing".

So the interest was estimated as follows:

<table>
<thead>
<tr>
<th></th>
<th>Marketing</th>
<th>Supply</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bankloan</td>
<td>T$1,620</td>
<td></td>
<td>T$1,800</td>
</tr>
<tr>
<td>Overdraft</td>
<td>2,000</td>
<td>T$180</td>
<td>2,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>T$3,620</strong></td>
<td><strong>T$180</strong></td>
<td><strong>T$3,800</strong></td>
</tr>
</tbody>
</table>

The figures were rounded off, like the others, before they were entered in the main table (page 26): T$3,600, T$200 and T$3,800 respectively.
The transport of the groundnuts from the buying points to the depots was a big affair. Many trucks were involved for several weeks. Fortunately, this was organised and paid for by the Marketing Board.

But Unity Co-operative itself had to organise the transport of the other produce and some farm supplies. They had a smaller truck for this. Sabu had all costs concerning the truck in a separate account, and he gave the committee the following report:

<table>
<thead>
<tr>
<th>TRANSPORT COSTS</th>
<th>THIS YEAR</th>
<th>ESTIM. NEXT YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIXED COSTS (LICENSE, INSURANCE)</td>
<td>550</td>
<td>550</td>
</tr>
<tr>
<td>VARIABLE COSTS (PETROL, OIL, 25,000 km NEXT YEAR)</td>
<td>5,600</td>
<td>7,400</td>
</tr>
<tr>
<td>MAINTENANCE, REPAIRS</td>
<td>1,050</td>
<td>1,050</td>
</tr>
<tr>
<td>DEPRECIATION</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>TOTAL TRANSPORT COSTS</td>
<td>9,200</td>
<td>11,000</td>
</tr>
</tbody>
</table>

The committee agreed that they could use the same figures for next year, except for the petrol. Petrol prices could be about 15% higher, and the mileage would increase by some 3,000 km, because of the increased potato production. "That means about T$7,400 for petrol and oil next year," calculated Sabu. As the truck was in good condition and not very old, they hoped that they could avoid costly repairs in the coming year.

The total cost for transport came to T$11,000. They usually divided the cost 80% - 20% between marketing and supply. Sabu entered the figures in his charts (above and on page 26).
Before the harvest, the farmers collected empty bags from the co-operative. When Unity delivered the produce to the buyers, the co-operative could retain its bags. In order to keep the costs of bags down, it was necessary to keep records of how many bags were issued to the farmers and how many were returned. Any shortages were charged to the farmers. Still, the bag service cost the co-operative quite a lot of money because the bags were worn out soon or later, and some bags were lost every year.

This wear and loss of bags cost the co-operative about T$2,100 this year. And the storeman had told Sabu that they had to buy 1,900 new bags for the next season. The committee members stressed that there must be enough bags in the store when the new season started, so they decided to buy 2,200 new bags. Any surplus bags could of course be saved for the next year. Sabu calculated the cost – T6,200.

"We have now gone through the principal costs," said the chairman, looking at the big chart with the estimates, "but there are still some minor expenses."

To make it easy to remember them all, Sabu had gone through the accounts and the vouchers, receipts and invoices, and he had prepared a list of the various minor costs incurred during the year.
Knowing what has been spent in the past, the committee could estimate how much they were likely to spend during the coming year.

Sabu told the committee:
"We should increase the insurance value for the building when the new office is ready. The new premium will be about T$800. And the insurance for our stock will cost about T$600 next year.

"We need to print produce receipts for T$480 and buy a new set of accounting books for about T$100."
"Last year we spent T$128 on cleaning material; T$226 on travel costs; T$40 on stamps; T$116 on bank charges; and T$80 to entertain some visitors from the Ministry. That is T$590 in all. Let us allow a bit more next year, because of price increases and the increased business, say T$700. In addition, we have to pay a levy of T$900 to the Co-operative Union.

Sabu said: "When I add up all these figures under the heading 'Other costs', I get T$3,180 for marketing and T$400 for supply. That makes T$3,580 altogether.

"We can now add up all the running costs," Sabu continued. And he completed the table we saw already on page 26:

<table>
<thead>
<tr>
<th>COST ITEM</th>
<th>THIS YEAR</th>
<th>ESTIM. NEXT YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MARK.</td>
<td>SUPPLY</td>
</tr>
<tr>
<td>STAFF</td>
<td>28,992</td>
<td>6,048</td>
</tr>
<tr>
<td>BUILDING EQUIPMENT</td>
<td>7,645</td>
<td>815</td>
</tr>
<tr>
<td>INTEREST</td>
<td>3,600</td>
<td>180</td>
</tr>
<tr>
<td>TRANSPORT</td>
<td>7,360</td>
<td>1,840</td>
</tr>
<tr>
<td>BAGS</td>
<td>2,200</td>
<td>-</td>
</tr>
<tr>
<td>OTHER COSTS</td>
<td>2,957</td>
<td>328</td>
</tr>
<tr>
<td>TOTAL</td>
<td>52,754</td>
<td>9,211</td>
</tr>
</tbody>
</table>
The committee members looked at Sabu's chart. They were pleased with their work, as they had put together all the estimates, and in a few minutes they would have a total picture of the situation.

In this meeting, the committee and the manager have worked together on all the figures, as we have seen. In other co-operatives the manager may be asked to work out the estimates himself, which then will be discussed by the committee.

6.1 It seems as if Sabu has a rule not to overestimate sales and not to underestimate costs. Why?

6.2 Which costs are the highest in your co-operative? Describe what you have done to keep these costs at a minimum.

6.3 How long is the depreciation period for buildings owned by your co-operative? What are the yearly depreciation costs?
The chairman summed up: "We now have all the information we need to complete the estimates. We have calculated how much we are going to earn from the sales, and we have estimated our costs." After a while, Sabu had put all the figures together, and he could present the budget you see here.

### BUDGET 1984/85

<table>
<thead>
<tr>
<th>MARKETING OF PRODUCE</th>
<th>% of sales</th>
<th>Ref. page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SALES OF PRODUCE</td>
<td>T$2,376,000</td>
<td>13</td>
</tr>
<tr>
<td>PAYMENT TO PRODUCERS</td>
<td>2,209,000</td>
<td></td>
</tr>
<tr>
<td>GROSS SURPLUS (COMMISSION)</td>
<td>167,000</td>
<td>7%</td>
</tr>
</tbody>
</table>

**RUNNING COSTS FOR MARKETING:**

- Staff: T$31,900
- Building, equipment: 8,000
- Interest: 3,600
- Transport: 8,800
- Bags: 6,200
- Other costs: 3,200

**NET SURPLUS ON MARKETING:** T$105,300

<table>
<thead>
<tr>
<th>SALES OF SUPPLIES</th>
<th>% of sales</th>
<th>Ref. page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SALES OF SUPPLIES</td>
<td>T$150,000</td>
<td>20</td>
</tr>
<tr>
<td>COST OF GOODS</td>
<td>135,000</td>
<td></td>
</tr>
<tr>
<td>GROSS SURPLUS (MARGIN)</td>
<td>15,000</td>
<td>10%</td>
</tr>
</tbody>
</table>

**RUNNING COSTS FOR SUPPLY SALES:**

- Staff: T$6,600
- Building, equipment: 900
- Interest: 200
- Transport: 2,200
- Other costs: 400

**NET SURPLUS ON SUPPLY SALES:** T$ 4,700

### TOTAL NET SURPLUS

- NET SURPLUS ON MARKETING: T$105,300
- NET SURPLUS ON SUPPLY SALES: 4,700
- TOTAL NET SURPLUS: T$110,000

4.4%
The budget, which Sabu now wrote up on the board, shows how much income the co-operative expects next year, and which costs they will have to pay; that is, the total expected result of the operations.

Sabu summed up:

"If everything goes according to plan, our co-operative will earn a net surplus of about T$110,000."

That is about 4.4% of the sales. Will that be enough?

Sabu made some calculations, and after a while he said: "I think it is enough. Listen here:

"25% of the net surplus will go to the Reserve Fund, as required by the law. That is T$27,500."

He added: "We should also pay interest on the share capital. Members' shares amount to T$30,000, so 3% interest will be T$900.

"That leaves about T$82,000. We shall use some more of this surplus to build up our own funds, but we could also pay a bonus to the members at the end of the business year, if everything goes as planned."

The chairman added: "People are pleased to get a bonus, but they are a nuisance for us to calculate and pay out. Now that our estimates show a net surplus, wouldn't it be better to lower the prices of farm supplies and reduce our commission instead of paying a bonus afterwards?"

Sabu did not want to reduce the net surplus. He said: "What would happen if, for one reason or another, we do not achieve the result we have estimated? Suppose there is a
crop failure, or a shortage of fertiliser.... In our estimates we have not assumed that anything like that will happen, but if it does...? Our sales and our income will be much less."

To emphasize his point, Sabu gave the committee members an example: "Suppose that we reduce the margin on all farm supplies to 7%. How much would that give us? Let's see, 7% of T$150,000 is only T$10,500, just about enough to cover the running costs! There is no 'safety margin' whatsoever if anything should happen."

From this we can see that it is advisable to estimate for a net surplus. If all goes well, the net surplus will be of benefit to the members, some of it may be returned to them as a bonus. Therefore, it is the practice of most co-operative managers and committees to aim at a net surplus of 3% to 5%.

But now we must ask ourselves a question: what to do if the estimated net surplus seems to be too small?

If this happens when you prepare estimates for your own co-operative, you have to examine your figures carefully. Look for ways of improving the net surplus:

- can the sales of produce or supplies be increased?
- can the commission on produce be increased?
- can the margin on supplies be increased?
- can the costs of running the business be reduced?

To avoid the risk of a loss, it may sometimes be necessary to increase commissions and margins, or to reduce the costs drastically, perhaps by reducing the number of staff.
7.1 Give all reasons you can think of, why a co-operative should aim at having a net surplus at the end of the business year.

7.2 What do you think? Is it better to:
   a) reduce margin and commission, or
   b) plan for a larger surplus, so that members can be given a bonus at the end of the year, if everything goes as planned?
   Give reasons for your answer.

7.3 What has been the net surplus (expressed in percentage of total sales) in your co-operative during the last few years? Add your comments to these figures.

The Budget As Main Tool

The Unity Co-operative committee had done a good job preparing a satisfactory new budget. The chairman concluded the meeting with these words: "If we can achieve the result we have estimated, we will be in good shape. And we know that it is possible. It is a realistic budget, based on our experiences, statistics and surveys. But we also know that the budget is just the beginning of next year's work. Now the budget must be developed and used.

"Anything can happen, and we may face problems next year. Then it is our responsibility to take quick action to solve the problems. The budget is our main tool in this work. It will help us to discover any unexpected changes and to solve any problems that arise."

Quarterly or Monthly Budgets

The chairman said that the budget must be developed and used. What exactly did he mean by that?
The budget in its initial form just shows the total result of the operations - it is an "operational budget". If sales and expenditures conform to the budget, then the co-operative will have another successful year and make a net surplus.

But if anything unexpected happens, Sabu must be quick to respond. Therefore, he must "follow up" the budget, constantly keeping an eye on income and expenditures to see whether they agree with the estimates or not.

As the budget looks now, it is not easy for Sabu to control the development of business according to plan. This is because the budget shows the total result for the whole year. For instance, the budget says that the transport costs are estimated at T$11,000. Suppose now that the truck is needed mainly during the end of the business year. A less experienced manager may think, at the beginning of the year: "We have T$11,000 for transport, and we are hardly spending anything now. I can allow some more driving." And when the trading season begins, half of the budgeted transport costs may be spent already!

Therefore, it is necessary to subdivide the budget into quarterly or monthly budgets. The transport budget, for instance, could look like this:

<table>
<thead>
<tr>
<th>Transport Costs:</th>
<th>July-Sept</th>
<th>Oct-Dec</th>
<th>Jan-March</th>
<th>April-June</th>
</tr>
</thead>
<tbody>
<tr>
<td>T$900</td>
<td>T$2,100</td>
<td>T$5,500</td>
<td>T$2,500</td>
<td></td>
</tr>
</tbody>
</table>

With this differentiated budget the manager will find it easier to control the transport costs. This is one way of developing and using a budget.

Another way is to develop the operating budget into a cash budget.
We know that Unity Co-operative is likely to do good business and to earn a surplus next year. This can be seen from the operational budget.

But this does not mean that the co-operative will have enough money at any given time. On the contrary, it is likely that there will be a lack of cash sometimes when cash is needed, and Unity may have to borrow money for short periods. This is a typical problem for many agricultural co-operatives. (We mentioned the problem regarding payment to farmers on page 32.)

It is, therefore, important for the manager to plan the cash flow. Sabu, for instance, must make sure that he has enough cash to pay the members an advance when they bring their groundnuts in January - March; he must have cash to pay the large bills for fertilisers in August; he must have money for wages every month, and so on. Therefore, Sabu has to prepare a cash budget.

A cash budget shows how much money is expected to come in every month, and how much is to be paid out. (If necessary, the budget can show instead the cash flow week by week.)

Sabu is now going to prepare a cash budget for next year. As a basis he will use the ordinary income and expenditure budget (the operational budget) which has just been set up. On his desk he has all his notes from the budget meeting.

Let us follow Sabu in his preparation of the cash budget. Sabu draws up a big chart with a column for every month of the year. On the left he writes all the possible income and expenditure items. You can see his chart on pages 48 - 49. To start with, of course, there are no figures filled in at all. We will now see how Sabu works when he calculates the amounts and prepares the cash flow budget.
Groundnuts

The first line is the income from the sales of groundnuts. From the operational budget, Sabu can see that they have estimated sales of 840 tonnes, and that they expect to receive T$2,100,000 from the Marketing Board as payment for this. Now, Sabu's task is to write in the cash budget when this money will arrive at Unity Co-operative.

"Fortunately, the Marketing Board will pay us an advance in January," says Sabu, "so that we have something to pay the farmers when they start to bring their nuts. We will apply for T$1,000,000 and I trust we will get it. That is about half the estimated amount. We will then receive the balance in May when everything has been delivered."

Sabu fills in the figures on line 1 in the cash budget: T$1,000,000 in January, and T$1,100,000 in May.

Sabu wants to finish dealing with the groundnuts at once, so he goes on to line 7. There he notes when the farmers are to be paid, and how much. From previous years Sabu knows that 25% of the harvest is collected in January, 50% in February...
and 25% in March. Traditionally, Unity pays about half of the total price when the nuts are collected, and the rest in May or June, as soon as the Marketing Board has sent their final payment to Unity. Sabu's calculations are based on a price of T$2,350 per tonne, which is 6% lower than the Marketing Board price. As we remember from the operational budget, the co-operative takes 6% in commission.

**Payment to farmers for groundnuts:**

<table>
<thead>
<tr>
<th>Month</th>
<th>Percentage of the Harvest</th>
<th>T$</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>25%</td>
<td>246,750</td>
</tr>
<tr>
<td>February</td>
<td>50%</td>
<td>493,500</td>
</tr>
<tr>
<td>March</td>
<td>25%</td>
<td>246,750</td>
</tr>
<tr>
<td>June</td>
<td>final payment</td>
<td>987,000</td>
</tr>
</tbody>
</table>

Total payment to farmers T$ 1,974,000

Sabu enters these figures (rounded) on line 7 in the cash budget.

**Potatoes and Beans**

"We expect to receive T$240,000 for the potatoes," says Sabu. "The potato company pays us cash on delivery, and that will be in April." Sabu fills in T$240,000 on line 2, in the April column.

Unity was going to take 15% commission on the potato business (see page 15). That means that T$204,000 would be paid to the potato growers. They will receive half of this as an advance when the potatoes are collected in February, and the final payment in June. Sabu notes T$102,000 under February and the same amount under June on line 8.

Sabu continues in the same way to plan the in-flow and out-flow of cash for the beans. You can see the result on lines 3 and 9.
Farm Supplies

Unity Co-operative delivers the fertilisers to the farmers in June every year. Total sales are estimated at **T$105,000**, so Sabu notes this sum on line 4 in the June column. Usually Sabu collects the payment in connection with the final payment to the farmers for groundnuts, so he can be quite sure about this income. The pesticides are delivered in October, and then most members ask for credit until they deliver their produce a few months later. Sabu notes on line 5 in the cash budget that he will receive T$45,000 for pesticides in March, although he may receive some of it already in January and February when members start bringing their produce in.

The invoices from the wholesalers for fertilisers will be about T$98,000, which must be paid at the latest in August. Sabu notes this sum on line 10. The pesticides will cost about T$37,000 and must be paid for in January.

Staff Costs

Sabu continues with the expenditures. As we remember from the budget meeting, the total staff costs amount to T$38,500 (page 28). Sabu first takes the cost for the full-time permanent staff, T$32,400, and divides this by 12. That gives the sum of T$2,700 to be paid out every month (line 12). A sum of T$5,800 had been estimated for occasional labour. How should this sum be divided among the months? Sabu relies on his statistics again, checking last year's practice and using the same pattern now. He decides to allocate T$300 to October; T$1,400 to January; T$1,800 to February; T$1,400 to March; T$600 to April; and T$300 to June. These amounts must be added on line 12.

Furthermore, there are the travel costs for Sabu's training course and the committee members' seminar. Both these events will be in September, so the September amount must be increased by T$280.
Building and Equipment

Sabu looks at the estimated costs for the building (see page 31). There are a few things that make the operational budget and the cash budget differ here. First, the depreciation cost is nothing that is paid out in cash, so Sabu can forget about that one. Second, there will be a cost for renovating the office, and that amount, T$2,000, was not included in the operational budget because the cost would be spread out over the depreciation period. But the amount of T$2,000 will be needed, of course, when the job is to be done in October, so it must be included in the cash budget. The same goes for the new screeners, to be purchased in December for T$1,500.

The cost for maintenance and repairs is T$900. Sabu cannot say when the money will be needed, so he includes it early in the year to be on the safe side.

Other Costs

Sabu goes on filling in all the other expenses. He must make sure that no expenses are forgotten, and that they are all entered under the right month.

Once Sabu has filled in all the figures for the cash flow next year, he adds up the totals of income and expenditures for each month. Then he compares the income and the expenditures and writes the balance on line 19, "NET". Will the cash be enough, or will loans and an overdraft be needed?

Sabu knows that there will be T$112,000 as an opening cash balance when the new business year starts on the 1st of July. That is all the money that is available to Unity Co-operative. (Cont. on page 50)
CASH BUDGET

<table>
<thead>
<tr>
<th>Line</th>
<th>Item</th>
<th>July</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>June</th>
<th>TOTAL</th>
<th>Line</th>
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<tbody>
<tr>
<td>1</td>
<td>INCOME: Sales of: Groundnuts</td>
<td>1,000,000</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>2</td>
<td>Potatoes</td>
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<td>240,000</td>
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<td>3</td>
<td>Beans</td>
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<tr>
<td>4</td>
<td>Fertilisers</td>
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<tr>
<td>5</td>
<td>Pesticides</td>
<td></td>
<td>45,000</td>
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<tr>
<td>6</td>
<td>TOTAL INCOME</td>
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<td>45,000</td>
<td>258,000</td>
<td>118,000</td>
<td>105,000</td>
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<td>7</td>
<td>EXPENDITURES: Paid to members for: Groundnuts</td>
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<td>493,500</td>
<td>246,700</td>
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<td>8</td>
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<td>10</td>
<td>Paid to suppliers for: Fertilisers</td>
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<tr>
<td>11</td>
<td>Pesticides</td>
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<td>2,980</td>
<td>3,000</td>
<td>2,700</td>
<td>2,700</td>
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<td>4,500</td>
<td>4,100</td>
<td>3,300</td>
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<td>14</td>
<td>Interest</td>
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<td>Transport</td>
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<td>300</td>
<td>800</td>
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<td>17</td>
<td>Other costs</td>
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<td>580</td>
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<tr>
<td>18</td>
<td>TOTAL EXPENDITURES</td>
<td>3,700</td>
<td>103,300</td>
<td>3,860</td>
<td>3,300</td>
<td>3,500</td>
<td>9,000</td>
<td>226,100</td>
<td>616,800</td>
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<td>4,800</td>
<td>3,300</td>
<td>1,086,000</td>
<td>2,111,060</td>
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</tr>
<tr>
<td>19</td>
<td>NET</td>
<td>(3,700)</td>
<td>(103,300)</td>
<td>(3,860)</td>
<td>(5,300)</td>
<td>(3,500)</td>
<td>(9,000)</td>
<td>(703,300)</td>
<td>(616,800)</td>
<td>(207,800)</td>
<td>(253,200)</td>
<td>(1,144,000)</td>
<td>(1,003,600)</td>
<td>(114,940)</td>
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<tr>
<td>20</td>
<td>CUMulative NET Balance</td>
<td>(12,000)</td>
<td>108,300</td>
<td>5,000</td>
<td>1,140</td>
<td>(4,160)</td>
<td>(7,660)</td>
<td>(16,660)</td>
<td>687,240</td>
<td>70,440</td>
<td>(13,736)</td>
<td>115,840</td>
<td>1,330,540</td>
<td>226,940</td>
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</tr>
<tr>
<td>21</td>
<td>CUMulative NET adjusted after loan</td>
<td></td>
<td></td>
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<tr>
<td>22</td>
<td>CUMulative NET adjusted</td>
<td></td>
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</tbody>
</table>
According to the cash budget, there will be no income in July, but only expenses totalling T$3,700, so the "cumulative net" at the end of July will be reduced to T$108,300. Sabu writes this sum at the bottom of the July column, on line 20.

In August the expenditures are very large, and Unity will almost run out of cash! In fact, starting in October there will be a negative cash balance (indicated by brackets in the cash budget) until January, when the money from the Marketing Board will arrive. Unity is also short of cash in March. All this can be foreseen from the cash budget.

**Loan or Overdraft**

Sabu knows he needs to think about these problems early on. Unity needs a loan for the period October - December and for March. Sabu and the chairman have to talk to the bank manager about their problem. It will be very useful for them to have this properly prepared operational budget and cash budget. A loan application based on budgets of this type is far more likely to be accepted by the bank manager than a last-minute emergency request when Unity runs out of cash.

Look in the cash budget on pages 48 - 49. What does the sum of T$1,500 on line 13/December stand for?

8.2 What exactly does the entry of T$4,100 on line 12/January stand for?

8.3 Suggest how Sabu should solve his cash problem. When should he borrow? How much? When should he repay?

8.4 Fill in line 21 according to your suggestion above.

8.5 Calculate the cost of the loan, if the annual interest is 10%.
FOLLOWING UP THE BUDGET

Sabu says: "This cash budget is very useful for me. In fact, I use it as the main instrument for controlling developments and to help me follow up results."

As the chairman said, the budgets must be used, otherwise it would be meaningless to prepare them.

The operational budget can be used for continuous follow-up, if it is subdivided into shorter periods, months or at least quarters. But Unity conducts almost all of its business during a short period of the year, so Sabu finds it unnecessary to prepare operational budgets for all the "idle" months.

But he has already prepared a cash budget, month by month, because that was necessary. And Sabu thinks that the cash budget can help him to oversee that everything goes according to plan, month by month.

October

It is October when we visit Sabu next. We ask him about his business: "Are you still within the budget limits you set yourself?"

Sabu tells us: "The first three months were all right, even better than planned. No expenses were above the estimates. And the bank was helpful as usual, we were given a loan - enough to keep us going. But I can see one problem now. Look here in the cash budget. We estimated to pay out T$37,000 for pesticides in January. We estimated to pay out T$37,000 for pesticides in January. We estimated to pay out T$37,000 for pesticides in January. We estimated to pay out T$37,000 for pesticides in January. The fact is that members bought more pesticides than expected. The invoice from the suppliers is T$42,200, and the members have credit until February - March. Furthermore, the truck broke down last week, and it will cost T$1,200 to put it on the road again."
"Altogether we must pay T$6,400 more than planned. We can pay for the repair now, and the pesticides in January, but when I adjust the cumulative figures I can see that I will have some problems in February. We may be short of money then, because the loan we have negotiated won't cover these increased expenses.

"I have to do something about it. First I will ask the Marketing Board to increase their advance to us in December. If they will do that, everything will be fine."

Clearly it is useful for Sabu to have this budget. He can immediately see how small things that happen now in October will cause problems in February. And he can take immediate action to solve the problem in advance.

March

We visit Sabu again at the beginning of March. This is in the middle of the trading period. Sabu is very busy supervising the work and talking to members.

In this situation, Sabu's most important responsibilities revolve around receiving the produce and selling it. It takes up every minute of his time. Maybe he has forgotten about the budget and the follow-up?

Sabu says: "No, I haven't. Now more than ever I must remember the estimates and compare them with the actual
operations. I keep a special eye on the expenses. If they should increase suddenly, outside my control, there will be problems. I can give you an example."

Now Sabu shows us an expenditure sheet, and says: "For instance, look here at the expenditures for February. There are some figures that worry me a bit. The staff costs were high already in January, and in February we exceeded the budget by T$300. I know the reason. This year we have a different opening schedule for our buying points, and it turned out to be impossible to manage it with the same number of labourers as last year. But I have now modified the system again. The costs are once more under control."

<table>
<thead>
<tr>
<th>EXPENDITURES</th>
<th>FEBRUARY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PAID TO MEMBERS</strong></td>
<td><strong>ESTIM.</strong></td>
</tr>
<tr>
<td>FOR GROUNDNUTS</td>
<td>493,500</td>
</tr>
<tr>
<td>POTATOES</td>
<td>102,000</td>
</tr>
<tr>
<td>BEANS</td>
<td>15,300</td>
</tr>
<tr>
<td><strong>PAID TO SUPPLIERS FOR FERTILISERS</strong></td>
<td><strong>ESTIM.</strong></td>
</tr>
<tr>
<td>PESTICIDES</td>
<td>4,500</td>
</tr>
<tr>
<td><strong>RUNNING COSTS:</strong></td>
<td><strong>ESTIM.</strong></td>
</tr>
<tr>
<td>STAFF</td>
<td>4,500</td>
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<tr>
<td><strong>BUILD/EQUIPM.</strong></td>
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<tr>
<td><strong>INTEREST</strong></td>
<td></td>
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<tr>
<td><strong>TRANSPORT</strong></td>
<td>1,500</td>
</tr>
<tr>
<td><strong>BAGS</strong></td>
<td></td>
</tr>
<tr>
<td><strong>OTHER COSTS</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>616,800</strong></td>
</tr>
</tbody>
</table>

Sabu says: "Here is another question mark." He points to the figure T$91,600, which was paid to farmers for potatoes in February. "We received fewer potatoes than expected, 10% less, in fact. Our commission - our gross surplus - will be reduced if things do not improve quickly."

"What is this unplanned expenditure of T$1,500 for buildings and equipment, Sabu. It doesn't look good."

"Well, it is for the groundnut screeners. That expense was planned for December, but we didn't have to pay until February. So that's just fine."
Yes, we remember. Of course, we understand that Sabu did not have to pay the screeners in December just because they were in the budget for that month. If he could improve the situation by waiting until February, he should do so. Sabu did not look upon the budget as a definite and fixed plan of action. He just saw it as an aid to his planning and control.

Sabu continues: "As you can see, there are also some smaller deviations from the budget for other expenditures, but they can all be explained and accepted. So when I meet the committee tomorrow, I shall report that everything is going as planned, except for the potato deliveries. We will then discuss what we should do about that."

The Follow Up Procedure

We have seen how the manager of Unity Co-operative followed a certain procedure when he checked the results of the operations, and prepared the monthly report for his committee.

- First he compares the actual income and expenditures with the budget. He notes if there are any large differences.

- He tries to find out the reasons for the differences.

- He considers whether or not the differences will affect the overall result for the whole year.

- If it does so, he decides (together with the committee) what action he will take.

In this way, by checking the progress each month and taking action when necessary, the committee and the manager guide the co-operative towards the goal, which is to achieve the result they have planned for in the budget.
In this MATCOM Element we have followed a team of co-operative leaders at work. We have seen how seriously they take their responsibilities and how carefully they plan operations in order to achieve good results for the benefit of the members.

We have seen that "Planning and Controlling" means three things:

- planning the sales,
- planning the costs,
- and then, following up and checking that the business is going according to plan.

The success of your own co-operative will very much depend on your ability to prepare realistic plans and to control operations adequately.

The "checklists" on the following pages sum up all the important steps in this work. Study the checklists now, to confirm that you remember and fully understand the whole process. You may also want to use the checklists later on in your practical work.
CHECKLIST 1 - ESTIMATE THE SALES

1. Check the sales of produce and supplies for the present and the previous years.
2. What changes will take place next year? Adjust the figures with regard to known changes in membership and production.
3. Adjust the sales figure to allow for the expected general price increase.
4. You now have a figure for the expected sales of produce and supplies for next year.
5. Calculate your commission or gross surplus on the expected sales.

A WARNING: Do not overestimate the sales. If you do, and then fail to reach the estimated sales figure, your gross surplus will be lower than expected and you may run into problems.

CHECKLIST 2 - ESTIMATE THE RUNNING COSTS

1. Estimate wages and other staff costs:
   Present wages
   + Expected increases
   + Other staff costs
   = Total staff costs next year
2 Estimate building and equipment costs:
   Rent or depreciation cost of buildings
+ Depreciation cost of equipment
+ Maintenance and repairs
+ Purchase of new equipment lasting less than 5 years
= Total building and equipment costs next year

3 Estimate all other costs:

   Make a detailed list of all other cost items during the current and previous year, consider what changes are likely to occur, and prepare a list of expected costs for next year.

A WARNING: Do not underestimate the costs. If you do, and then fail to keep the costs below the estimated level, you may not achieve a net surplus.

CHECK LIST 3 — FOLLOW UP THE ESTIMATES

1 Prepare a monthly budget.

2 At the end of each month, compare the actual figures for sales and costs with the estimated ones. Note any differences.

3 Investigate the reasons for the difference.

4 Judge whether the difference is likely to affect the result for the whole year.

5 Take action immediately if a difference is likely to lower the expected net surplus for the year.
To prove to yourself that you have fully understood this Element, you should now go through the following questions. Mark what you think is the right answer to each question. If you have problems with a particular question, go back and read the corresponding chapter again.

Key on page 60.

1. What is a budget?
   a) A plan for future activities.
   b) A plan for future costs.
   c) A plan for future income and expenditures.

2. What is the main reason for preparing a budget and following it up?
   a) To meet regulations.
   b) To have an instrument for planning and control.
   c) To support bank loan applications.

3. To estimate the sales, which is the best method?
   a) To assume sales to be equal to last year's.
   b) To check the previous year's sales and then consider how they are likely to change.
   c) To ignore the previous year's sales, since the situation is likely to be completely different.

4. Sales estimates must be realistic. What happens if they are set too high and cannot be achieved?
   a) The gross surplus will not be affected.
   b) The gross surplus will be higher than expected.
   c) The gross surplus will be lower than expected.

5. How much should the sales estimates be increased because of inflation, if you expect prices in general to increase by 6% to 10% next year?
   a) 4%
   b) 6%
   c) 10%
6 What happens if the running costs are estimated too low?
   a) The gross surplus will be lower than planned.
   b) The net surplus will be lower than planned.
   c) The commission will be lower than planned.

7 How large a commission should a co-operative plan for?
   a) The cover running costs, no more, no less.
   b) To cover running costs and outstanding loans.
   c) To cover running costs and allow for a net surplus.

8 What could make the gross surplus, smaller than planned?
   a) Increased sales.
   b) Increased leakage.
   c) Increased running costs.

9 What is meant by depreciation?
   a) A cost which is spread over a number of years.
   b) A building is worn out.
   c) The installment on a loan.

10 A plan for the flow of cash to and from the co-operative, week by week or month by month - what is it called?
   a) An operational budget.
   b) A cash budget.
   c) A flow chart.

11 Budget estimates and actual results should be frequently compared, and remedial action taken when necessary. Who should do this?
   a) The manager and the committee.
   b) The AGM
   c) The Registrar.

12 How often should the budget estimates and the actual results be compared?
   a) Once a month.
   b) Once every six months.
   c) Once a year.
COMPLEMENTARY EXERCISES

To complete your studies of this topic, you should take part in some of the following exercises.

1 **Sales**
Study the recent sales statistics of some co-operatives for produce and farm supplies. Look for disproportionate changes from year to year, and try to find the reasons.

2 **Improving the results**
a) Suggest and discuss various means of improving the net surplus of an agricultural co-operative in general.
b) Which costs are often too high in the co-operatives in your area? Work out a plan and a checklist for reduction and control of these costs.

3 **Trading reports**
Suggest and discuss what the monthly "trading report" from the manager to the committee should contain, and how it should be laid out. Draw up a model form for it.

Key to the "Check-out"

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<th>2</th>
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<th>4</th>
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<td>b</td>
<td>b</td>
<td>c</td>
<td>b</td>
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