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STANDARDIZATION OF INDUSTRIAL ACCOUNTING METHODS*

Development of industrial accounting systems and training
of the personnel concerned in the developing countries

prepared by the

Industrial Operations Division
Factory Establishment and
Management Section

* This document has been translated from an unedited original.

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PREFACE

Most industrialists and even Governments consider that financial questions are of prime importance in management. The emphasis which some developing countries place in their requests for technical assistance from UNIDO on perfecting their systems and methods of financial management and accounting prompted us to prepare this study. It was prepared by Mr. Tougoun Servais Acogny, Industrial Development Officer, and Mr. Gilbert Miangouila, Professor of Accounting and UNIDO consultant.

The study is timely. It will play a part in standardizing accounting methods in the developing countries, and in particular in the African, Caribbean and Pacific (ACP) countries associated with the European Economic Community under the Convention of Lomé, Togo, signed in February 1975.

1. Introduction

Before independence, the ACP countries^{1/} had the French or English accounting plans and techniques of data recording handed down to them. Unfortunately, the data were incomplete and did not make possible any economic analysis.

After independence, requirements in respect of economic information and training induced the Heads of States and Government of OCAM to decide that a study should be undertaken with a view to the standardization of accounting methods used in agricultural, industrial and commercial enterprises. The OCAM general accounting plan was, therefore, adopted by the Conference of Lomé in December 1969 to meet these requirements.

Despite the existence of the OCAM general accounting plan, it has been found that antiquated accounting methods are still used in many of the ACP countries. Serious inadequacies in the recording of data or in the means of communicating them to the upper management level interfere with proper operation of enterprises because the management is unable to base its action on full knowledge of the facts. At the macro-economic level, the State does not have the data required for up-dating statistics, preparing budgets and programmes, etc.

In order to overcome these difficulties, UNIDO plans to help countries, within the limits of its terms of reference, to prepare and implement their national accounting plans based on the OCAM accounting plan. This indispensable instrument for enterprise management is beginning to demonstrate its value in practice in some countries.

2. Adaptation of the OCAM general accounting plan for use in the ACP countries

2.1. Structures

The following steps can be recommended in order to ensure effective application of the OCAM accounting plan in the ACP countries:

^{1/} By the Convention of Lomé, signed in February 1975, the European Common Market associated itself with 47 African, Caribbean and Pacific countries, referred to by the initials ACP. This Convention recommends adoption of the OCAM accounting plan.

- (a) Each country should be required to adopt a text (decree, law, order) and make it binding on all enterprises and government agencies;
- (b) The Ministry of National Education in each country, for its part, should take a decision providing for reorganization of the programmes of accounting courses hitherto offered in technical secondary schools and universities and proposing programmes suited to the OCAM accounting plan;
- (c) Each country should set up a national OCAM accounting plan committee, as the single national body authorized to study all problems relating to the OCAM accounting plan and to ensure dissemination of information on it.

2.2. Scope of action

If the project for developing industrial accounting systems is to be successful, training must not be limited to enterprises, but must also be extended to the level of education. It would therefore be wise to organize seminars for teachers of accounting. In these seminars, problems relating to teaching methods will be considered together with those arising out of the innovations involved in the OCAM accounting plan. Thus, young professionals leaving secondary schools and universities will be able to perform their functions as soon as they enter industry.

Another information seminar will be organized for those active in accounting. This seminar will be attended only by experienced accountants capable of applying in practice the innovations involved in the OCAM general accounting plan and its machinery. This seminar, which should deal with practical problems, will enable participants, in turn, to train their colleagues in enterprises.

Lastly, for heads of enterprises and managers, a short seminar can be developed to enable them to read the summary documents, and above all to participate actively in the work of the board of directors.

3. Accounting systems

It would be improper to impose a single accounting system on all enterprises, and still less can such a system be imposed on all countries. Nevertheless, we should like to see the choice focused on one of the following three systems which, in our opinion, are the simplest and most widespread:

- The consolidated system,
- The multiple-entry system,
- The conventional system.

Consolidated statements will naturally have to be submitted in accordance with the requirements of the OCAM general accounting plan, as follows:

- Statement of financial data necessary for management,
- Statement of changes in capital accounts,
- Balance-sheet.

The need for the acceptance of all these principles and systems which we have just analysed appears at first sight to be self-evident. In fact, however, experience demonstrates that in the developing countries - as we pointed out in our introduction - young States are still hesitating and feeling their way in the search for coherent systems. In view of the importance of accounting, and in particular of the adaptation of a national accounting plan to all national enterprises, whether mixed-economy or private, in the same country, UNIDO has been entrusted with the task of assisting the developing countries in setting up their national accounting plans. For this purpose, it makes available to countries so requesting a team of experts whose activities are described below.^{1/}

4. Activities of the team of experts^{2/}

4.1. Action in enterprises

The team of experts will be expected to:

- Prepare diagnostic studies in enterprises on the basis of study and evaluation of existing accounting systems.
- Make recommendations proposing simple systems.
- Establish the system recommended, with the assistance and agreement of the head of the enterprise and accounting personnel. The system established will allow for harmonization between general accounting and cost accounting.
- Assist chief accountants in preparing lists of accounts specific to the activities of their enterprises. It should be pointed out that a national accounting framework should be prepared in each country in order to ensure that the enterprises in any one country speak the same language. The national accounting framework will incorporate only the principles of the OCAM accounting plan, but it will be more detailed.

^{1/} UNIDO's assistance, which consists primarily of making international experts available to Governments, can take place only where the necessary financial and administrative conditions have been fulfilled. In this connexion, UNIDO field advisers or UNDP resident representatives should be consulted.

^{2/} The programmes of activities of experts are adapted to each country.

The team of experts will also be responsible for providing technical assistance to enterprises in connexion with the content of accounting documents, on a permanent basis. At the end of the year, for example, the team of experts may help to seek out errors and draw up the balance-sheet and consolidated statements.

4.2. Training

On-the-job training is automatic, since the experts will be available and constantly moving about in the enterprises.

Seminars will be organized as described above.

- Seminar for chief accountants,
- Seminar for teachers of accounting,
- Seminar for heads of enterprises and other management staff. (See programmes in the annexes).

4.3. Functional relationships

The team of experts will maintain functional links with:

- The authority exercising supervision over the industrial sector in the country, to which it will report on its activities in industrial enterprises.
- The Ministry of National Education, whose contacts with the team of experts will relate mainly to the preparation of programmes for the teaching of accountancy. The seminar for teachers will also be drawn up with the agreement of the Ministry of National Education.
- The national committee for the OCAM accounting plan.

The experts will be associated with all the work carried out by the committee. The national committee for the OCAM accounting plan will have a secretariat co-ordinating its work. The committee will be responsible, for example, for studying the national accounting framework and disseminating information on it.

- The committee will be composed of national accountants, statisticians and tax experts.

5. Composition of the team

The team of experts will co-operate with national cadres belonging to a national agency which is an integral part of the country's civil service. These cadres should be chosen from among those most competent and experienced. They must be capable of discussing with and making suggestions to the foreign experts. A team of two foreign experts and four national experts per country might be economically justified and efficient.

6. Procedure

The action of the team of experts will be broad in scope. It is therefore recommended that a start should be made with a small number of industrial enterprises, as follows:

- Select three pilot enterprises.
- Provide training and assistance for six months. By assistance, we mean: preparation of accounting plans for the enterprises, establishment of accounting systems, keeping of accounts, etc.

7. Evaluation of action in pilot enterprises

The action may be evaluated through:

- Individual interviews with heads of enterprise, accounting staff and all persons concerned with the accounts of the three enterprises.
- Comparison between the accounting systems established in the pilot enterprises and those in the three other enterprises whose personnel has not yet been trained. For this purpose, they will be asked to submit a provisional statement as of a given date and to prepare consolidated statements.

The three control enterprises (personnel not yet trained) will be able to submit only a balance-sheet, a general operating account and a profit and loss account. The information which can be obtained from these documents is today no longer adequate for enterprise management. No analysis can be performed without first carrying out supplementary non-accounting work.

The pilot enterprises, on the other hand, will be able to produce the following:

- (a) The table of characteristic management balances, in which the over-all results are determined by stages, i.e.:

- The gross margin (for commercial enterprises): the difference between sales and purchase costs.
- Added value: a very important concept for industrial enterprises, making possible comparison of production with intermediate consumption. Added value is one of the data items of most interest to national economists.
- Operating results: a comparison between other income and other expenses, also called "components of added value".
- Non-operating results: a comparison of non-operating income (also called profits) with non-operating expenses (also called losses). Here, exceptional transactions are reflected.

Lastly, the table of characteristic balances will show the results of the transfer of fixed assets, the net result before taxes, the tax on the result and the net result for the period concerned.

- (b) Statement of changes in capital accounts: this statement affords a wealth of information but cannot be presented apart from the OCAM general accounting plan. It traces in schematic form the evolution of the capital accounts from an initial situation to a final situation, reflecting movements that have taken place during the reference period selected.
- (c) The analytical operating results account: shows the results by branch of activity.
- (d) The balance-sheet, showing the financial situation of the enterprise at the date given.

After having convinced the authorities of the country, heads of enterprises and all accountants of the advantages afforded by the data provided by the pilot enterprises, the team of experts will take all necessary measures to enlarge the field of action of its assistance and of the training activities.

8. Conclusion

For the ACP countries, the OCAM general accounting plan is an instrument of economic analysis, an instrument of synthesis making it possible to present the results obtained from the application of new data-processing techniques. The development of these countries' economies will depend to a very large extent on adoption of this plan.

It should be pointed out that teams of UNIDO experts are already carrying out the experiment we have described in a number of countries. One of these is Zaire.

The experts there are actively working with the Government and national institutions (National Permanent Council for Accountancy) to set up the basic structures for the establishment of coherent systems, the principles of which will then be taught and put into practice in all enterprises.

It is hoped in this way to facilitate administrative, financial and accounting management, as required to make possible a sounder and more complete view of the enterprise, so as to make it more profitable and, lastly, to facilitate tax assessment by the Government - all this being integrated into a well designed national structure.

For all additional information and to request technical assistance on this subject, write to:

Factory Establishment and Management Section
Industrial Operations Division
UNIDO
P.O. Box 707
A-1011 Vienna
Austria

ANNEXES

1. Draft accounting programme for people active in the field of accounting
2. General accounting
3. Cost accounting
4. Programme for the accounting seminar for heads of enterprises and other managers
5. Model request for technical assistance in the area of industrial accounting
6. Legislation
7. Bibliography

Annex 1

DRAFT ACCOUNTING PROGRAMME FOR PEOPLE ACTIVE IN
THE FIELD OF ACCOUNTING

In order to make possible the establishment of the methods and systems analysed above, it has appeared necessary to prepare programmes for the initial and further training of executives of industrial enterprises in industrial accounting at all levels.

The programmes designed, which are intended for executives of public enterprises as well as private and mixed-economy enterprises, are graduated by degree of training and responsibility and are also intended for teachers of accounting. In the latter case, several hours may be set aside for consideration of teaching methods.

Annex 2

GENERAL ACCOUNTING

This programme is designed to be implemented through a series of lessons with a total duration of around 34 hours.

This duration can be increased depending on the level and aptitude of participants. In addition, the programme may be altered to bring it into line with national or local reality.

1. The accounting framework

Duration: Two hours

1.1. Subject matter

- Background of the OCAM accounting plan
- Accounting innovations

1.2. Objective

At the end of this lesson, the participants should be familiar with:

- The advantages of the OCAM plan
- Its general innovations

1.3. Teaching method

- Lecture

1.4. Teaching aids

- Background materials
- Blackboard

1.5. Bibliography

- Le plan comptable général OCAM (The OCAM general accounting plan)
Imprimerie Compoffset
12, Boulevard de la Chapelle
Paris 18
- Guide d'application du plan comptable OCAM (Guide to the use of
the OCAM accounting plan)
Guizard

2. The various "classes" of the OCAM plan

Duration: Two hours

2.1. Subject matter

- Classes 1/01
- Classes 2/02
- Classes 3/03
- Classes 4/04
- Classes 5/05
- Classes 6/06
- Classes 7/07
- Classes 8/08

2.2. Objective

The participants will learn the classes and the relevant accounts.

2.3. Teaching method

- Lecture

2.4. Teaching aids

- Overhead projector
- Blackboard
- List of classes and accounts

2.5. Bibliography

- Pamphlet from FOUCHER

3. Long-term and medium-term capital

Duration: Three hours

3.1. Subject matter

- Equity capital
- Reserves
- Balances carried forward to next account
- Earnings to be reinvested in the business
- Equipment subsidies
- Debenture loans
- Other loans and long-term and medium-term debts
- Linking accounts
- Contingency reserves
- Practical exercise

3.2. Objective

- To familiarize participants with the content and operation of accounts,
- To enable participants to differentiate between the equipment subsidy and other subsidies.

3.3. Teaching method

- Lecture

3.4. Teaching aids

- Background material
- Overhead projector

3.5. Bibliography

- Le plan comptable général OCAM
Imprimerie Compoffset
12, Boulevard de la Chapelle
Paris 18

4. Fixed assets

4.1. Subject matter

- Intangible fixed assets, including costs
- Land
- Other tangible assets
- Other tangible assets (current)
- Advances and deposits on current orders in respect of assets
- Long-term and medium-term loans and other debts
- Securities (other than short-term securities)
- Amortizations in respect of accounts in class 2
- Reserves in respect of accounts in class 3

4.2. Objective

- To assist participants in learning about:
 - Expenditure to be capitalized
 - Intangible assets
 - Tangible assets
 - Other capital assets
- To impart knowledge of the operation and content of each account

4.3. Teaching method

- Lecture

4.4. Teaching aids

- Blackboard
- Overhead projector

4.5. Bibliography

- Le plan comptable général OCAM
- Guide d'application, Pérochon,
Imprimerie Compoffset
12, Boulevard de la Chapelle
Paris 18e

5. Working capital

Duration: Two hours

5.1. Subject matter

- Goods
- Materials and supplies
- Waste
- Commercial packaging
- Semi-finished products
- Finished products
- Products in the production process
- Work underway
- Stocks underway, to be checked and signed for, on consignment
- The "purchases" account
- Reserves for depreciation of stock
- Practical exercises

5.2. Objective

- To teach:
 - Perpetual inventories
 - Intermittent inventories
 - The relationship between the stocks account and the accounts in classes 6 and 7
- To explain the content and operation of each working capital account

5.3. Teaching method

- Lecture
- Discussion of practical problems

5.4. Teaching aids

- Blackboard
- Overhead projector
- Background material

5.5. Bibliography

- Le plan comptable général OCAM
- Guide d'application
- Initiation au plan comptable OCAM (Introduction to the OCAM accounting plan), Secretariat of UDEAC 1/

1/ UDEAC: Central African Customs and Economic Union, with headquarters at Bangui, Central African Empire.

6. Third party and regularizing accounts Duration: Three hours

6.1. Subject matter

- Suppliers
- Customers
- Personnel account
- States and African or international agencies
- Partners account
- Related companies
- Various debtors and creditors
- Management regularizing accounts for the period covered (liabilities)
- Management regularizing accounts for the period covered (assets)
- Suspense account
- Reserves for depreciation of the accounts in class 4

6.2. Objective

- To explain the operation and content of each account in class 4
- To teach participants to distinguish between:
 - The "suppliers" account and the "suppliers advances paid" account
 - The "customers" account and the "customers advances received" account
- To explain: expenses to be noted, income receivable and expenses noted in advance

6.3. Teaching method

- Lecture
- Explanation with the help of an exercise
- Discussion of practical problems

6.4. Teaching aids

- Blackboard
- Background material
- Overhead projector

6.5. Bibliography

- Le plan comptable général OCAM
- Guide d'application du plan OCAM
Imprimerie Compoffset
12, Boulevard de la Chapelle
Paris 18e

7. Financial accounts

Duration: Two hours

7.1. Subject matter

- Short-term borrowing
- Short-term loans granted
- Short-term securities
- Bills and warrants payable
- Bills and warrants receivable
- Cheques and coupons for collection
- Banks and postal checking accounts
- Cash
- Imprest and documentary credits accounts
- Internal transfers account
- Reserves for depreciation in accounts in class 5

7.2. Objective

- To teach the participants to record offset payments, transactions relating to funds managed by the cashiers or administrators, cheques in hand, cheques sent for collection and transactions on credit
- To explain the operation and content of each account in class 5

7.3. Teaching method

- Lecture
- Discussion of practical aspects

7.4. Teaching aids

- Blackboard
- Background material

7.5. Bibliography

- Initiation au plan comptable OCAM (Introduction to the OCAM accounting plan) (volume I)
- Guizard and Pérochon
- Le plan comptable général

8. Special capital movement accounts and financial situation accounts Duration: One hour
- 8.1. Subject matter
- Balance brought forward from the preceeding period
 - Transactions in suspense
 - Movements with respect to amortizations during the accounting period
 - Movements with respect to reserves during the accounting period
- 8.2. Objective
- To teach the participants to make the entries relating to the bringing forward of balances. They must understand the difference between the characteristic balances and the special accounts.
 - To explain movements in respect of amortizations and reserves
- 8.3. Teaching method
- Lecture
- 8.4. Teaching aid
- Overhead projector
- 8.5. Bibliography
- Le plan comptable général OCAM
 - Guide d'application
9. Charges (expenses) and losses classified by nature Duration: Four hours
- 9.1. Subject matter
- The "stocks sold" account
 - Materials and supplies consumed
 - Other services consumed
 - Miscellaneous charges and losses
 - Personnel costs
 - Taxes and dues
 - Interest charged to the enterprise
 - Appropriations for amortization and reserves
 - Income and services received from other establishments (internal transfers)
 - Exercise

9.2. Objective

- To teach the participants the new terminology
- To explain intermediate inputs and expenditure and the composition of added value
- To explain the recording of internal transfers
- To explain the content and operation of each account
- To explain the distinction between charges and losses

9.3. Teaching method

- Lecture

9.4. Teaching aids

- Blackboard
- Overhead projector
- Background material

9.5. Bibliography

- Le plan comptable général OCAM
- Guide d'application
- Initiation au plan OCAM (Guizard and Pérochon)

10. Income and profits, by nature

Duration: Three hours

10.1. Subject matter

- Sales of goods
- Production sold
- Production in stock
- Work performed by the enterprise on its own behalf
- Expenses to be recovered, capitalized or transferred
- Miscellaneous income and profits
- Operating and non-operating subsidies
- Interest accruing to the enterprise
- Amounts transferred back from amortizations and reserves
- Income and services transferred to other establishments (internal transfers)
- Exercise

10.2. Objective

- To enable the participants to assimilate the new terminology
- To explain "production" (in the broadest sense of the word)
- To enable participants to distinguish income from profits
- To explain the recording of transactions relating to internal transfers and the recording of finished products sold, semi-finished products and products in process

10.3. Teaching method

- Lecture
- Discussion

10.4. Teaching aids

- Blackboard
- Overhead projector
- Background material

10.5. Bibliography

- Le plan comptable général OCAM
- Guide d'application
- Initiation au plan comptable OCAM (Guizard and Pérochon)
- Initiation au plan comptable OCAM (Secretariat, UDEAC)

11. Amortizations and reserves

Duration: Three hours

11.1. Subject matter

- Amortizations
- Reserves

11.2. Objective

- To teach the participants to record:
 - Transactions relating to the transfer of fixed assets
 - Fixed assets scrapped, accidentally damaged or lost
 - Reduction in amortizations
 - Use of reserves
 - Amounts transferred back from amortizations and reserves

11.3. Teaching method

- Case study
- Discussion

11.4. Teaching aids

- The case prepared
- Blackboard
- Overhead projector

12. Characteristic management balances

Duration: Two hours

12.1. Subject matter

- Determination of the gross margin
- Determination of added value
- Determination of operating results
- Determination of non-operating results
- Determination of results of the transfer of fixed assets
- Determination of the net result before taxes
- Determination of the tax on the result
- Determination of the net result for the period concerned

12.2. Objective

- To explain how the results are determined by stages

12.3. Teaching method

- Exercise

12.4. Bibliography

- Plan comptable
- Guide d'application

12.4. Teaching aids

- Overhead projector
- Background material
- Copy of the exercise

13. General review exercise

Duration: Three hours

13.1. Subject matter

- Exercise covering questions relating to the subjects studied from the beginning.

13.2. Objective

- To teach the participants to use the basic knowledge gained, i.e. concerning the recording of transactions and the determination of the results by stages

13.4. Teaching method

- The lesson begins with the exercise. The participants may perform the exercise in small groups.

14. Consolidated statements

Duration: Four hours

14.1. Subject matter

- Table of characteristic balances
- General six-column balance-sheet
- Statement of changes in capital accounts
- Balance-sheet (financial situation)

14.2. Objective

- After this lesson, the participants should be able to prepare the consolidated statements

14.3. Teaching method

- Case study: the general review exercise continues to be discussed, this time with the presentation of the tables.

14.4. Teaching aids

- Diagrams showing the layout of each table

14.5. Bibliography

- Le plan comptable général
- Guide d'application

Annex 3

COST ACCOUNTING

Just as in the case of general accounting, the cost accounting programme on the following pages has been designed for a given period of time. The time required for these lessons has been estimated at around 50 hours. It also goes without saying that this figure is not mandatory, and that the programme should be applied with great flexibility.

16.4. Teaching aids

- Overhead projector
- Blackboard
- Background material

16.5. Bibliography

- Comptabilité analytique (Plan OCAM) (Cost accounting (OCAM plan)), volume I, Pérochon

17. Cost and cost price systems

Duration: Four hours

17.1. Subject matter

- The real cost and cost price system
- The standard cost and cost price system
- The proportional costs system

17.2. Objective

- To enable the participants to assimilate real costs and cost prices, standard costs and cost prices, proportional costs and direct costing.

17.3. Teaching method

- Case study
- Lecture

17.4. Teaching aids

- Case
- Overhead projector
- Blackboard

17.5. Bibliography

- Coûts et prix de revient (Costs and cost prices), volume I, Pérochon

18. Materials

Duration: Three hours

18.1. Subject matter

- Raw materials
- Consumables
- Stock accounting

18.2. Objective

- To assist the participants in defining raw materials and consumables and in performing stock accounting. Explanations will be given on supply and control of consumption of materials.

18.3. Teaching method

- Lecture
- Case study

18.4. Teaching aids

- Overhead projector
- Blackboard
- Background material
- Case

18.5. Bibliography

- Coûts et prix de revient, volume I, Pérochon

19. Labour

Duration: Two hours

19.1. Subject matter

- Determination and control of working time
- Evaluation of work and personnel costs
- Accounting in respect of personnel costs
- Practical exercises

19.2. Objective

During the lesson, the participants should learn to:

- Determine working time and evaluate it
- Carry out accounting in respect of personnel costs

19.3. Teaching method

- Lecture

19.4. Teaching aids

- Overhead projector
- Blackboard

19.5. Bibliography

- Coûts et prix de revient, volume I (OCAM plan), Pérochon
- Comptabilité analytique
Pierre Lauzel
Editions Sirey
22, rue Soufflot, 75005 Paris

20. Distribution of charges by area of activity

Duration: Four hours

20.1. Subject matter

- Homogeneous areas
- Classification of sections
- Distribution of charges by section
- Determination of the cost of a job unit
- Transfers between sections serving one another

20.2. Objective

- To give the participants an understanding of:
 - Determination of charges for the accounting period
 - Secondary distribution of auxiliary sections
 - Imputation to the purchase cost of raw materials
 - Imputation to production costs
 - Imputation to cost price

At the end of this lesson the participants should need no help in dealing with an exercise on homogeneous sections.

20.3. Teaching method

- Lecture
- Case study

20.4. Teaching aids

- Comptabilité analytique
Pierre Lauzel
Editions Sirey
22, rue Soufflot, 75005 Paris

21. Analysis of costs and charges

Duration: Three hours

21.1. Subject matter

- Factors determining costs
- Structure of the enterprise and charges
- Activity of the enterprise and charges

21.2. Objective

- To give the participants an understanding of:
 - Fluctuations in unit cost in response to activity
 - Determination of the break-even point
 - Procedure for calculation of rational imputation costs

21.3. Teaching method

- Lecture

21.4. Teaching aids

- Overhead projector
- Blackboard

21.5. Bibliography

- Comptabilité analytique
Pierre Lauzel
Editions Sirey
22, rue Soufflot, 75005 Paris

22. Real costs and cost price

Duration: Three hours

22.1. Subject matter

- Composition of the cost price
- The role of real cost prices
- The various stages in the calculation of costs and cost prices
- Practical exercise

22.2. Objective

During this lesson the participants should learn the difference between direct and indirect charges. They will learn the role of real cost prices and the various elements of cost prices.

22.3. Teaching method

- Lecture
- Case study

22.4. Teaching aids

- Case
- Overhead projector
- Blackboard

22.5. Bibliography

- Coût et prix de revient, volume I, OCAM plan, Pérochon

23. Production costs

Duration: Four hours

23.1. Subject matter

- Production cost
- The semi-finished product
- The finished product
- The problem of materials undergoing processing

23.2. Objective

- To provide definitions
- To explain how to determine the production cost of a semi-finished product

23.3. Teaching method

- Lecture
- Case study

23.4. Teaching aids

- Blackboard
- Overhead projector
- Case

23.5. Bibliography

- Manuals by Pérochon on cost accounting (OCAM plan), volumes I and II

24. Wastes and by-products Duration: Two hours
- 24.1. Subject matter
- Wastes and rejects
 - By-products
 - Practical exercise
- 24.2. Objective
- To explain:
 - Wastes and rejects written off
 - Wastes and rejects which can be recovered or sold
 - To show how to evaluate wastes and by-products
- 24.3. Teaching method
- Lecture
- 24.4. Teaching aids
- Comptabilité analytique
Pierre Lauzel
Editions Sirey
22, rue Soufflot, 75005 Paris
25. Perpetual inventory of products manufactured Duration: Three hours
- 25.1. Subject matter
- The movement of products
 - Perpetual inventory at real costs
 - Perpetual inventory at sales prices
 - Practical exercise
- 25.2. Objective
- To impart an understanding of:
 - Entries into stock of finished products
 - Exits from stock of finished products
 - Evaluation of movements of stock
 - FIFO (first in, first out), LIFO (last in, first out), weighted average cost and predetermined cost methods

25.3. Teaching method

- Lecture

25.4. Teaching aids

- Blackboard
- Overhead projector

25.5. Bibliography

- Comptabilité analytique, volume I - Pérochon

26. Distribution costs and the cost price

Duration: Three hours

26.1. Subject matter

- Cost price calculated by nature of product, group of products, order and nature of sale
- Distribution costs
- Cost price and enterprise management

26.2. Objective

- To explain the calculation of cost price by product, by group of products, by order, etc.
- To explain the choice of job unit

26.3. Teaching method

- Case study

26.4. Teaching aids

- Blackboard
- Case

26.5. Bibliography

- Comptabilité analytique
Pierre Lauzel
Editions Sirey
22, rue Soufflot, 75005 Paris

27. Organization of cost accounting

Duration: Four hours

27.1. Subject matter

- The costs and cost prices accounts
- Reclassification of expenses
- The perpetual inventory accounts
- Cost accounting results
- Integration of cost accounting into general accounting

27.2. Objective

The objective is to explain the content and operation of each account. At the end of this lesson, the participants will be able to make integrated cost accounting entries.

27.3. Teaching method

- Case study: the lesson will be based on a case study which will be dealt with by the group as a whole.

27.4. Teaching aids

- Blackboard
- Case

27.5. Bibliography

- Comptabilité analytique
Pierre Lauzel
Editions Sirey

28. Autonomous cost accounting

Duration: Two hours

28.1. Subject matter

- Difference between integrated cost accounting and autonomous cost accounting
- Journal entries
- Practical exercise

28.2. Objective

After this lesson, the participants should be able to distinguish between the two methods of cost accounting.

28.3. Teaching method

- Lecture

28.4. Teaching aids

- Blackboard
- Overhead projector

28.5. Bibliography

- Comptabilité analytique
Pierre Lauzel
Editions Sirey

29. Differences in imputation

Duration: Two hours

29.1. Subject matter

- Comparison of the results of cost accounting with those of general accounting
- Origin of the differences in imputation

29.2. Objective

- To teach:
 - Recording of non-imputable costs
 - Recording of imputed costs
 - Recording of residual area expenses
 - Recording of differences in inventory

29.3. Teaching method

- Lecture

29.4. Teaching aids

- Blackboard
- Overhead projector

29.5. Bibliography

- Comptabilité analytique
Pierre Lauzel
- Comptabilité analytique (Plan OCAM), volume II
Pérochon

30. Determination of the net results in cost accounting Duration: Two hours
- 30.1. Subject matter
- Carrying forward of results of general accounting
 - Determination of net profit
 - Practical exercise
- 30.2. Objective
- The participants should learn to make entries and determine the net profits.
- 30.3. Teaching method
- The lesson begins with an exercise. A lecture may follow.
- 30.4. Teaching aids
- Copy of the exercise
 - Overhead projector
31. Analyses of profitability Duration: Three hours
- 31.1. Subject matter
- Variable costs
 - Advantages and disadvantages of variable costs
 - Study of the profitability of an industrial enterprise
 - Study of profitability analysis
 - Practical exercise
- 31.2. Objective
- To explain variable costs
 - To indicate the advantages and disadvantages of variable costs
 - To teach methods of preparing a profitability study
- 31.3. Teaching method
- Lecture
- 31.4. Teaching aids
- Blackboard
 - Overhead projector
- 31.5. Bibliography
- Comptabilité analytique
Pierre Lauzel

32. Marginal costs Duration: Two hours
- 32.1. Subject matter
- Definition
 - Characteristics of marginal cost
 - The practice and utility of marginal costs
 - Practical exercises
- 32.2. Objective
- The objective is to provide explanations concerning the analysis of marginal costs and the practice and utility of marginal costs.
- 32.3. Teaching method
- Lecture
- 32.4. Teaching aids
- Blackboard
 - Overhead projector
- 32.5. Bibliography
- Comptabilité analytique, volume II (OCAM plan), Pérochon

Annex 4

PROGRAMME FOR THE ACCOUNTING SEMINAR FOR HEADS OF
ENTERPRISES AND OTHER MANAGERS

This seminar is intended primarily for heads of enterprises and managers who need to have some idea of accounting in order to do their jobs. The intention is not to make them experienced accountants, but simply to help them familiarize themselves with accounting documents and jargon.

This seminar should provide opportunities for exchanges of views and for more or less thorough consideration of the problems posed by accounting in industrial enterprises and the means of finding the most appropriate solutions to these problems.

- The administrative services and personnel budget
- Justification of differences
- The cash estimates
- Practical exercise

7.2. Objective

- To teach the participants to prepare budget estimates
- To explain the different parts of the budget
- Justification of differences

7.3. Teaching method

- Lecture
- Case study

7.4. Teaching aids

- Overhead projector
- Blackboard
- Background material
- Case

7.5. Bibliography

- Comptabilité supérieure, volume 5
Léo Chardonnet

8. The data-processing system

Duration: Three hours

8.1. Subject matter

- Transmission of data to the data-processing centre
- Correction of data sent back by the data-processing centre
- Translation of data processed
- Analysis of data processed

8.2. Objective

- To assist the participants in learning to prepare the data required for data processing
- The participants should be able to interpret or analyse data processed by computers

Annex 5

MODEL REQUEST FOR TECHNICAL ASSISTANCE IN THE
AREA OF INDUSTRIAL ACCOUNTING

A special technique has to be used in formulating a technical assistance request to the United Nations Development Programme (UNDP) or the specialized agencies of the United Nations system which act as executing agencies for projects.

Governments wishing to make requests are therefore advised to get in touch with the headquarters of these organizations, their regional or national offices, or the field advisers, who are usually attached to the offices of the resident representatives of the United Nations Development Programme in the countries belonging to the United Nations.

These international officials will be asked to help them in the formulation of their requests. However, in order to give the Governments or industrialists concerned an idea of what a request of this kind should contain, a project document extract covering the essential points is given in this annex.

It should be noted that these models for technical assistance requests are subject to frequent changes reflecting refinements or clarifications of working methods.

UNITED NATIONS DEVELOPMENT PROGRAMME

Project of the Government of

-- (country) --

Title: Establishment of a national accounting plan in the industrial sector

Number:

Duration: Three years

Sector: Industry

Subsector: Industrial management

Government co-operating agency:
(to be specified by the Government)

Executing agency:
United Nations Industrial
Development Organization (UNIDO)

Government inputs:^{1/}

UNDP inputs:^{1/}

(local currency)

(US dollars)

Signed: _____
on behalf of the Government

Date: _____

on behalf of the
executing agency

Date: _____

on behalf of the
United Nations Development
Programme

Date: _____

^{1/} The respective inputs of the Government and UNDP are determined according to the nature, extent and duration of the assistance requested. They are the subject of negotiations between the three contracting parties (the Government, UNDP and UNIDO).

PART I

LEGAL CONTEXT

The national agency which will be responsible for monitoring the project during its conception and execution should be identified under this heading.

Normally, for the establishment of a national accounting plan, the ministry or department in charge of public finances or of State-run industrial enterprises is designated as the agency responsible for oversight.

PART II

A. DEVELOPMENT OBJECTIVE

The Government attaches very great importance to increasing the national contribution to the country's economic activities. The training of national personnel and the monitoring of enterprise management are factors which will contribute towards this objective. One of the instruments of this training and monitoring programme is the Permanent Committee for National Accounting (PCNA), which is responsible for applying the general national accounting plan, reforming the programmes of instruction in the area of accounting, and furthering the organization of the profession of accountancy in the country.

The application of the general accounting plan in the private, mixed and public sectors is in response to the need for the Government to monitor and participate in the development of the country's potential resources.

The project has been included in the UNDP "country programme" for the programming period 1978-1981.^{1/}

B. IMMEDIATE OBJECTIVE

The short-term objective is to strengthen the capacity of PCNA so as to enable it to introduce the accounting plan in the industrial sector.

The project will involve the following activities:

- The development of the subsystems necessary to adapt the general accounting plan to the industrial sector;
- The formation of a team of expert accountants within PCNA.

The project will have attained its objectives when PCNA is in a position to train its own personnel and when national accountants in the country's principal industrial enterprises are able to manage their own systems of internal accounting control.

C. SPECIAL CONSIDERATIONS

The Secretary-General of PCNA has established a retraining centre, which will be a basic component of the organization under his direction.

^{1/} UNDP assigns to each country a budgetary quota for a period corresponding to its national economic and social plan. This quota is known as the indicative planning figure.

D. BACKGROUND AND JUSTIFICATION

This information must be furnished by the Government. Under this heading one might list the various conditions which the national accounting system must fulfil in order to enable the State to meet its economic and financial responsibilities, and the major problems facing the Government and national or private enterprises, e.g.:

- The determination of tax liabilities;
- Checking relationships between prices and production costs;
- Providing the Government with the statistical data necessary for the formulation of a rational investment and development policy for the industrial sector and for genuine planning;
- The employment of national personnel in responsible positions in expatriate enterprises.

The project will achieve these objectives in two ways:

- By the adaptation of the accounting plan to the industrial sector and its dissemination;
- By the training of national personnel within industrial enterprises and from among the PCNA staff. It is this Committee that will be responsible for the utilization of the results of the project.

E. OUTPUTS

The purposes of the project can be divided into two categories:

- The adaptation of the national accounting plan to the industrial sector and its application in State, mixed and private enterprises;
- The establishment of a professional and training centre at PCNA headquarters, supported by a first-rate library.

1. The national accounting plan will be adapted to the industrial sector mainly on the spot, in the enterprises themselves, and during the advisory programmes that will be organized. In the case of State and mixed enterprises, this work will be carried out with the co-operation of the agency responsible for oversight. In the private sector the activities will be organized by the Committee itself, as the officially designated agency with responsibility for this work.

The anticipated results are:

- The preparation of instruction manuals on the accounting system, including subsystems for particular industries or materials;
- The definition of the modalities of the systems to be established under the national accounting plan in order to:
 - Provide the Government with the statistics and data necessary for the formulation of a rational development and investment policy for the industrial sector and for better planning;
 - To check relationships between prices and production costs;
- The formation of a team of expert accountants within PCNA who will be able to see to the dissemination of the accounting plan in the industrial sector and ensure its continued application;
- The transfer of expertise in the Committee's area of interest to the senior personnel of enterprises, in regard to the introduction of accounting control systems and data interpretation.

2. The establishment of a professional and training centre at PCNA headquarters will include:

- The organization of courses and seminars for senior accountants at enterprises, including industrial enterprises, for the purpose of helping them to adapt their procedures to the national accounting system;
- The provision of reproduction and audio-visual equipment;
- The purchase of specialized literature and subscriptions to technical journals.

F. ACTIVITIES

- The adaptation of the accounting plan to the industrial sector;
- Studying accounting procedures and practices on the basis of the provisions of the general accounting plan;
- Developing the special conditions needed for their application to industrial enterprises;
- Studying the organization and personnel needs of industrial enterprises in order to prepare a programme for:
 - The setting up of control subsystems to provide the necessary information for:
 - The calculation of costs;
 - The monitoring of prices;
 - The calculation of taxes;
 - Management control.

- The training of the PCNA staff;
- The retraining of enterprise staff.

- Providing assistance to enterprises designated by PCNA in the adaptation of their accounting systems to the general national accounting plan, the use of which in all sectors of the economic life of the country is to be mandatory as soon as possible;
- Carrying out advisory missions on organizational matters in mixed or State enterprises as a means of improving their accounting and control systems.
- The establishment of a professional and training centre at PCNA headquarters:
 - The preparation of teaching material for use in retraining courses on:
 - The applications of the general national accounting plan;
 - Accounting as an enterprise management tool.
 - The organization of retraining seminars for the staff of industrial enterprises and PCNA personnel.

G. GOVERNMENT AND UNDP INPUTS

This section can and should in principle be completed by an official from UNIDO headquarters or from the local UNDP office. It should contain the following information.

1. The Government

PCNA will serve as the framework for the project and will provide the professional and secretariat staff responsible for popularizing the general national accounting system in the industrial sector.

2. UNDP

UNDP will provide two expert accountants specializing in industrial accounting.

One of these experts will be responsible for giving guidance to team members during their missions to enterprises.

The other will advise the professional staff at PCNA headquarters on:

- The adaptation of the accounting plan to the needs of industrial enterprises;
- The preparation of teaching material;
- The organization of seminars.

UNDP will also contribute towards establishing the nucleus of a library of works in French and English, which will enable PCNA to:

- Function as a training and research centre for the industrial accountant profession in the country;
- Accept students from other African countries and give them the opportunity, with the help of its retraining courses, to broaden their knowledge both in the theoretical area through seminars and on the practical level, under the supervision of national experts, by actual work in enterprises.

Annex 6

LEGISLATION

If they are to have mandatory force, the national accounting plan and its applications must be anchored in laws and regulations which will frequently be complex. In order not to overburden the present study, which is intended to serve as a practical and simple reference guide, we shall merely mention here the legal instruments required. They are:

- A basic law governing public finances.
- A decree regulating the State's system of public accounting and precisely defining all the activities which must be covered. This decree will make mandatory the elaboration of a national accounting plan.
- An order establishing and applying the national accounting plan. This text will specify all the details concerning the nature and operation of the plan.

UNIDO could make models of these different texts available to countries on request.

It should also be noted that the Division of Public Administration of the Department of Economic and Social Affairs of the United Nations, in New York, can assist United Nations Member States in the preparation of these basic legal documents, which every country should have.

Annex 7

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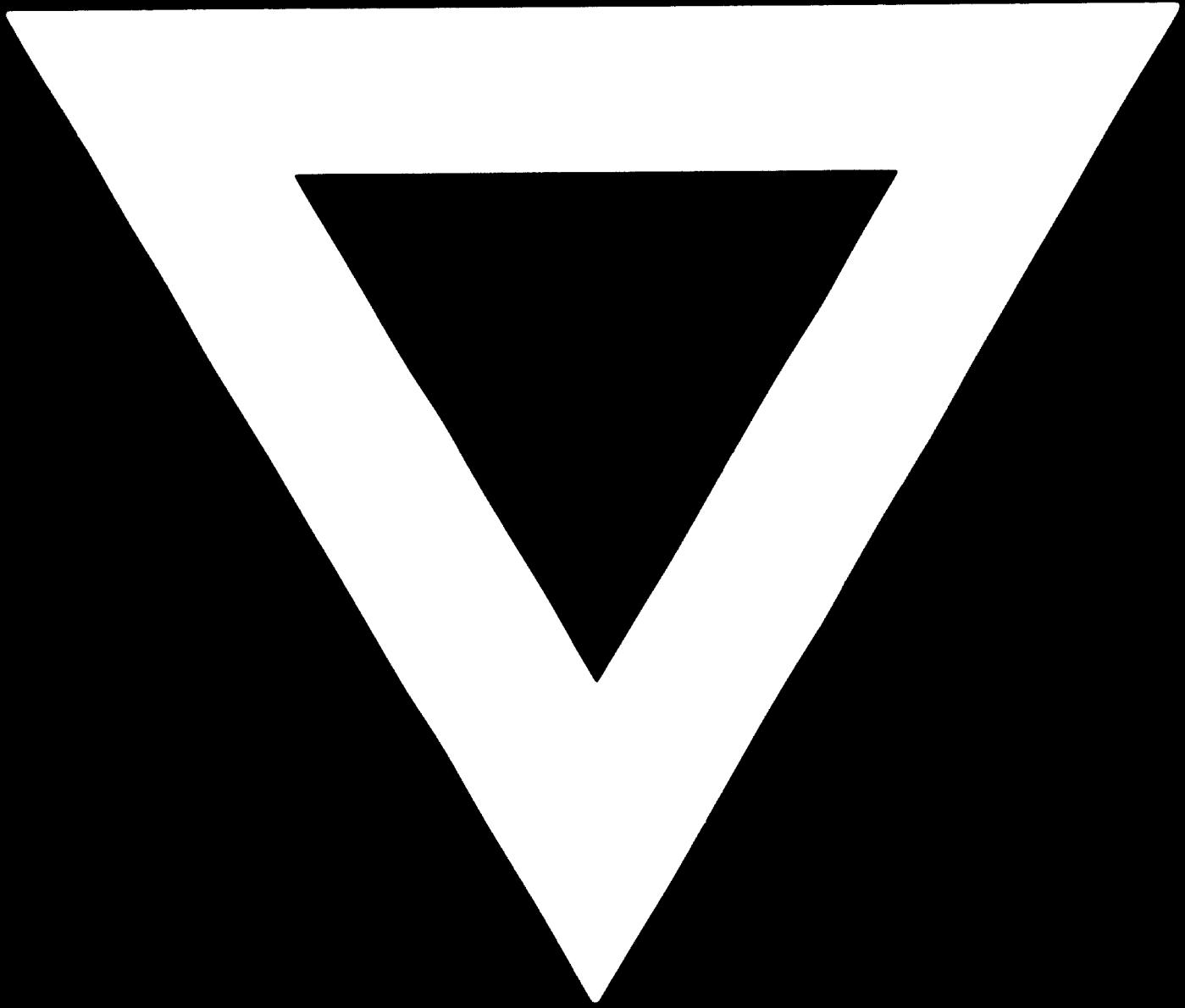
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