



Training Discussion Paper

FINANCING VOCATIONAL EDUCATION

AND TRAINING

IN DEVELOPING COUNTRIES

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Deutsche Stiftung für  
internationale Entwicklung

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Etwa 55 Prozent des Programmvolumens werden im Inland abgewickelt, der Rest in Entwicklungsländern.

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Mit dem Entwicklungspolitischen Forum steht der DSE und ihrer Schwesterorganisation, der Carl Duisberg Gesellschaft, darüber hinaus eine Einrichtung zur Verfügung, welche die fachübergreifende Diskussion aktueller Fragen der internationalen Entwicklung auf hoher politischer Ebene zum Ziel hat.

### **Vorbereitung auf Auslandseinsätze**

In der Zentralstelle für Auslandskunde der DSE in Bad Honnef werden deutsche Fachkräfte und ihre (Ehe-)Partner sowie deren Kinder auf die Tätigkeit in einem Entwicklungsland vorbereitet. Die Vorbereitung zielt darauf ab, die künftigen Auslandsmitarbeiter und -mitarbeiterinnen zu befähigen, im Gastland aufgabengerecht zu arbeiten. Zur Vorbereitung gehören insbesondere die Vermittlung von Kenntnissen über Ziele und Verfahren der deutschen Entwicklungszusammenarbeit sowie das Bemühen, Verständnis für das Gastland und die Probleme der Zusammenarbeit mit Angehörigen einer anderen Kultur zu schaffen.

### **Dokumentation und Information**

Schließlich unterhält die DSE die größte Dokumentations- und Informationsstelle in der Bundesrepublik Deutschland zu Fragen der Entwicklungspolitik.

Der Information der interessierten Öffentlichkeit über aktuelle entwicklungspolitische Probleme sowie der Aufrechterhaltung des Kontakts zu ehemaligen Programmteilnehmern dienen die viersprachig erscheinende Zeitschrift "Entwicklung und Zusammenarbeit" und die Zeitschrift "Echo aus Deutschland", die gemeinsam mit der Carl Duisberg Gesellschaft herausgegeben werden. Zusammen mit der Deutschen Gesellschaft für Technische Zusammenarbeit (GTZ) und der Deutschen Landwirtschaftsgesellschaft (DLG) gibt die DSE die Zweimonatsschrift "entwicklung + ländlicher raum" heraus. Darüber hinaus informiert das Entwicklungspolitische Informationszentrum (EPIZ) der DSE in Berlin Besuchergruppen über die verschiedenen Aufgabenfelder der internationalen Entwicklungszusammenarbeit.

## **PREFACE**

This paper has been developed for the use of the participants of vocational training courses conducted by the Industrial Occupations Promotion Centre of the German Foundation for International Development in Mannheim. The participants, mainly in-service personnel, come from selected developing countries representing vocational training centres, Ministries of Education and Labour and Non-Government Organisations. As the participants are involved at different levels in the planning and implementation of vocational education and training in their respective countries, the main aim of this paper is to create in them adequate awareness of how vocational education and training systems are financed. The manual is a simple readable document which could be of use to participants with varying levels of education.

In its preparation the paper draws upon the ideas and country experiences contained in books and articles on the subject written by eminent educators and trainers.

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## CONTENTS

|  |    |
|--|----|
| PREFACE .....  | 3  |
| I. INTRODUCTION .....  | 5  |
| II. PUBLIC FINANCING .....                                     | 7  |
| 1. Tax Revenue .....   | 8  |
| 2. Advantages and Disadvantages .....                          | 9  |
| 3. Policy Implications.....                                    | 9  |
| III. ENTERPRISE FINANCING .....                                | 11 |
| 1. Single Employer Financing .....                             | 11 |
| 2. Payroll Tax.....  | 12 |
| 3. Tax Rebates and Credit Schemes .....                        | 13 |
| 4. Ways in which Tax is Used .....                             | 13 |
| 5. Advantages and Disadvantages .....                          | 15 |
| 6. Policy Implications.....                                    | 17 |
| IV. PRIVATE AND PUBLIC SPONSORED FINANCING .....               | 18 |
| 1. Training Fees .....   | 18 |
| 2. Fellowship, Grants and Loans.....                           | 18 |
| 3. Sale of Training / Non Training Services .....              | 18 |
| 4. Co-Financing Agreements .....                               | 18 |
| 5. The German Dual System.....                                 | 19 |
| 6. Production for Profit.....                                  | 20 |
| 7. Apprenticeship.....   | 21 |
| 8. Paid Educational Leave.....                                 | 21 |
| 9. Non-Government Organizations / Voluntary Organizations..... | 21 |
| 10. Advantages and Disadvantages .....                         | 22 |
| 11. Policy Implications.....                                   | 23 |
| V. INTERNATIONAL DONOR ASSISTANCE .....                        | 25 |
| 1. Advantages and Disadvantages .....                          | 26 |
| 2. Policy Implications.....                                    | 26 |
| VI. CONCLUSION.....  | 27 |
| ANNEXURE .....   | 30 |
| REFERENCES.....  | 32 |
| ABBREVIATIONS .....  | 35 |

## I. INTRODUCTION

In almost all the countries in the world education is provided in both the public and the private sectors. A certain minimum level of education is necessary for a country to achieve economic growth. The allocation of resources to education varies in each country in accordance with its priorities but generally ranges from 3 to 8 % of the gross national product (GNP) (UNESCO.. 1993).

The overall costs on education are on the increase. Developing countries are particularly hard hit due to the economic crisis. They need to improve productivity to enable them to compete in an era of rapid economic and technological change. This requires both capital investment and a workforce with the flexibility for acquiring new skills for new jobs. They are also faced with the challenge of meeting the requirements of the education sector, to fulfil the overall responsibility vested in the state for development of human resources. Governments cannot shift this responsibility as education confers benefits to the society at large. It can at best harness the support of the private sector, the community and individuals in its endeavour to reach its goals towards social and economic development of the country. While budgetary constraints are prevailing everywhere it is more severe in countries which have completely public financed education systems. Some of the reasons for the crisis in financing education are increase in demand for access to education, increase in teachers' salaries, inefficiency in the use of available resources, demographic growth unemployment of graduates, increase in the costs of land and buildings etc.. Reform in financing has to come about by modifying financing modes. Some ways could be, that users should bear some part of the costs as entire public funding cannot be justified; more efficient management of funds, search for private financing, community and enterprise involvement, foreign aid.

As budget allocations from government sources for education get tighter, the squeeze on availability of funds for Vocational Education and Training (VET) is apparent in so far as VET is dependent on public funds. Costs on VET as compared with general education are also 2 to 3 times higher as classes are small with instructor trainee ratios of 1:7 sometimes. This increases the unit teaching costs. Expenditure on equipment, infrastructure, consumables e.g. raw materials and spare parts is also much higher. It is then imperative to search for alternative means of financing. The challenge before policy makers is to introduce new and different ways of financing as well as to ensure that the resources which are available for VET are used more effectively.

Traditionally VET was provided by employers who paid lower wages and sometimes apprentices had to pay the employer. This was prevalent in many different countries. In Germany, approximately since the 12th century, a person was allowed to pursue a trade independently if he had finished the apprenticeship in a craft with a master. After apprenticeship he had to obtain professional experience as a journeyman. The master taught his apprentice and journeyman the knowledge of his trade. The craftsmen got united and formed guilds (craftsmen's organizations) and evolved a proper training system. The main responsibility for vocational training lay with the craftsmen's organizations and all conditions were regulated by the guild.

Traditional apprenticeship also existed in India for centuries. Even today in towns and villages it is a very common sight to observe an apprentice working with the master, learning by working on the job, all at a very early age. In the former times in India apprentices often lived with the master and there was a certain unity in living, learning and working. In the small by lanes of towns and cities in countries like Indonesia, Nepal, Bangladesh and India it is very common to see young apprentices in the age group of 10-20 years being trained by their employers e.g. the bicycle repair, the auto mechanics workshop. They go straight 'on the job'. Sometimes in the initial stages there is no payment. As they learn the work they begin to get a small wage. The costs are shared by the employer who provides the training and the worker who accepts low wages.

In the modern times the scenario has somewhat changed. Gradually governments have become more involved in VET especially in the last two decades. This is mainly to link vocational education and training with the social, economic and employment policies of the country. Public revenue for VET has assumed more importance. But owing to the economic crisis governments had to reduce the public budgets for education and this has a direct bearing on all sectors of education including VET. Serious attempts have to be made to find resources to supplement available funds. Every country has to assess its training needs and requirements in accordance with its goals and priorities and the prevailing socio-economic conditions. Thereafter strategies for financing VET have to be worked out and additional resources generated.

While governments are searching for new and alternative mechanisms, the private sector is being drawn in justifiably, for those who benefit must pay for it. The relevance of vocational education to the labour market requirements is crucial. As the employers become more involved in the actual provision of vocational education and training it will come closer to labour market needs influenced particularly by the rapid technological change.

Skill requirements have also become more complex. Vocational Training Institutes are set up with new and modern training methods being offered. This has naturally led to questions being raised about the costs of training and the mechanisms of financing it. It is difficult to estimate the exact costs on VET due to the complexities involved in the training systems, the absence of accurate accounts by employers and the productive work of the apprentices/trainees who accept lower wages and thereby offset part of the costs incurred. Nevertheless studies have concentrated on the total amount of funds allocated for VET and its adequacy. Mincer conducted a study as early as in 1958 on the costs of industrial training in USA. He estimated that the total opportunity cost of formal and informal vocational training was over US\$ 16 Billion in 1958 of which US\$ 10 Billion was the cost of training in private firms or corporate enterprises. 70% of this was spent on informal 'on the job' training and 30% on formal training (Mincer 1962). The costs on VET in the UK were also estimated, which put the total costs of education at £ 9,000 million per annum in Great Britain. Roughly the estimates out of this on VET would account for £ 3,000 million a year (Johnson 1979).

Even though the studies mentioned above show that a large volume of resources was used for VET in these countries, in many countries it is being consistently felt that not enough resources are provided for VET. This is particularly the case in developing countries which are experiencing a shortage of skilled manpower. Governments are therefore getting more concerned about financing of vocational training to meet the new and emerging labour market requirements.

Various financing strategies are practiced in different parts of the world. Some of the more well known mechanisms for financing VET have been categorized in the following four types:

- (1) Public Financing
- (2) Enterprise Financing
- (3) Private and Public Sponsored Financing
- (4) International Donor Assistance.

In the following pages the four types of financing mechanisms have been described briefly with some country examples. The advantages and disadvantages of each type have also been identified and policy implications indicated.

## II. PUBLIC FINANCING

-- Traditionally vocational training was provided by employers who paid lower wages or no wages at all to the trainees. Employers did this if it increased productivity of workers. In many cases, government was only involved with standards of training.

-- Involvement of governments increased mainly to link vocational education and training more closely with social, economic and employment policies of the country. There was also a growing concern about distribution of training opportunities for the poorer and disadvantaged sections of the society.

-- Public Financing is provided through public revenue (government funds). When the State finances vocational training through public funds it is on the assumption that the ultimate responsibility for development of human resources for national development lies with the State.

-- Governments also intervene in the provision of vocational training to ensure social equity for the poor in the rural and urban informal sector. Public financed VET provides opportunities to persons who may otherwise have limited chances e.g. those from the deprived sections of the society.

-- In most countries the budget for VET from public sources is relatively small, ranging from 1 to 12 % of the current expenditure on education (UNESCO, 1993). A table indicating the total educational expenditure as percentage of GNP and the vocational expenditure as percentage of public current expenditure on education for some countries in each continent may be seen at Annexure. The table shows the priority of governments to vocational education in budget allocations from public expenditure. A comparison can also be made of the provisions for education and particularly for vocational education in the developed countries vis a vis the developing countries.

-- Mostly public financed vocational training programmes are implemented in schools before employment is taken up. Non-formal training centres, pre-service and in-service training for Ministries also receive public funding.

-- Specialized vocational training institutions receive public funds mainly through subsidies, budget appropriations, tax incentives, financing of special programmes with special grants, financing of development projects, financing of supervisory bodies, fellowships for VET. In developing countries e.g. Pakistan, India and Thailand the main financial contribution for VET comes from public funds (government). Industry takes little part in contributing to vocational training institutes.

-- In cases of mixed funding, generally capital expenditure is provided by the governments and recurring expenditure is shared through other sources.

-- Public vocational training institutions generally offer courses which provide basic skills necessary in pre-service training. In Canada, manpower training programmes are offered in public institutions e.g. in colleges and vocational training centers.

## 1. Tax Revenue

-- The major source of public funds is through tax revenue. Sometimes governments give grants to vocational training institutions which can raise some resources on its own. Such a grant is called matching grant as it makes it obligatory for the potential recipient to first raise some finances on its own. In USA, the Federal Government makes use of financing through matching grants and categorical aid. It gives about 6-8 % of the State and local contributions for public supported VET (Herschbach, 1993).

-- Categorical aid is given for a specific purpose to meet the special needs of certain target groups. It supplements funds which are provided for general purpose VET.

-- In many countries owing to a shortage of skilled manpower governments had to create proper vocational training systems for long term social returns of training, need for equal opportunities of training for those who are unable to pay costs of their training, and to promote national VET policies. Training institutions thus created were mainly financed by a general tax through compulsory contributions made by firms and enterprises, contributions from national treasury, co-financing agreements and sale of training services (Ducci, 1991).

-- When governments finance vocational training institutions they control the volume of resources allocated to VET in accordance with the priorities of the social and economic sectors (Ducci, 1991). They are also able to exercise control on the quality of the programmes.

-- The cost effectiveness of vocational training through public financing is said to be low as public training institutions are not very keen to evaluate the qualitative and quantitative training needs. In Argentina, CONET receives funding from the Ministry which has been declining over the years due to a reduction in the overall budget of the ministry. There are restrictions on CONET securing funds from other sources e.g. sale of services, international sources and this has led to a serious shortage of resources affecting the efficiency of the institution in maintenance of infrastructure and equipment and reduction in staff salaries (Ducci, 1991).

-- When public training institutions are expanded and do not get adequate finances correspondingly the quality of training may become poor. In Egypt government enrolls more than half of upper secondary students in vocational schools to divert them from higher education. Open unemployment among graduates exceeds 35 %. In Bangladesh, Cameroon less than half of public trainees find wage employment in their trade. Public training has to respond to the demand in the labour market, only then can it become cost effective with good quality training leading to high placement rates (World Bank, 1991).

-- Public contributions are controlled by restrictive policies. Vocational training institutions which are dependent solely on public funds have the chance of becoming stagnant with a deterioration in their planning and efficiency. Sometimes subsidies to vocational training institutions are dependent on the good will of the government.

-- Many developing countries have highly centralized systems and major control is with the central government. When VET is financed through the State it controls the curriculum, certification, qualification of teachers (World Bank, 1988). In decentralized systems there is a sharing of power. A healthy policy is to allow communities and lower levels of government to have greater autonomy.

-- There should also be a balance between the resources controlled by the central government and those available to the lower levels of government.



## 2. Advantages and Disadvantages

### Advantages

- When government finances vocational training through public revenue it can coordinate the requirements in accordance with the demand projected in the economic and employment policies.
- Matching grants encourage local initiative as institutions wishing to receive grants from the government try to raise resources on their own.
- Categorical aid usually helps to implement change as it is given for a specific purpose or to meet the needs of specific target groups in the population.
- Through both these methods of financing, governments can share control and at the same time have part of the financial burden shared by others.
- In the initial stages, national training centres are said to develop better in centralized systems as the institutional capacities are not strong. But centralization is not desirable when institutions become well developed. At that stage more autonomy is required.
- In public distribution systems there is more equity. Publicly financed vocational training systems offer opportunities to the poorer sections of the society. For them it may be the only opportunity to become trained.

### Disadvantages

- Underfinancing. Shortage of resources for VET from public educational funds.
- Sometimes governments are under pressure to open more VET institutions even when resources are inadequate. This leads to implementation of programmes which are underfinanced and the quality of training may decline.
- Unreliable support. There are variations in the allocation of educational budgets. Funding fluctuates and VET programmes get affected.
- Sometimes new programmes receive substantial support. But priorities may change on account of political considerations.
- Unbalanced allocation of resources. Sometimes there is a larger investment in capital costs and not enough provision for recurrent expenses. Low salaries of teachers is found to adversely affect the quality of instruction and consequently student achievement may become low.
- In centralized systems there are high administrative costs, lack of flexibility and unresponsiveness to labour force requirements.
- The cost effectiveness of vocational training through public financing is found to be low in many countries as public training institutions are not very keen to evaluate the qualitative and quantitative training needs (Ducci, 1991). Rigidly prepared curricula in public institutions prevents them from responding to locally identified training needs.
- Public institutions are less able than private institutions to adjust training for the labour market in accordance with the rapidly changing technology.

## 3. Policy Implications

- To be successful public training should concentrate on choosing appropriate objectives, improving market orientation and matching policies in accordance with labour market needs, using resources efficiently and diversifying sources of finance.
- Public supported vocational training systems should be able to receive funding from local taxes, user fees and collaborative arrangements.

-- When Public Financing is the sole source of support to VET, institutions may face fluctuations in budget allocations. This can cause shortage of resources which may lead to low quality programmes with limited returns on investment.

-- In countries where the quality of vocational programmes is poor in public funded institutions, these programmes should be removed and available resources reallocated (Herschbach, 1993).

-- VET systems can be strengthened with complementary public funds from other sources and this can be done through programme reduction and resource reallocation.

-- Stability in provision of training facilities can come from long term financial support. Governments should adopt consistent policies required for removing inefficiencies.

-- Decentralization helps through delegation of authority to lower levels. Training institutions with a board of representatives of employers, workers organizations and the government have better chances to discuss and adopt relevant and cost effective strategies for training.

### **III. ENTERPRISE FINANCING**

- The enterprise/company conducts the vocational training of its labour force directly and bears the entire costs of training.
- Often enterprises finance a major part of the training but actual training occurs in specialized vocational training institutions.
- Sometimes enterprises contribute a small amount of money to a central vocational training fund as taxes and these resources are used in different ways to finance training.

#### **1. Single Employer Financing**

##### **1.1. Japan**

- Japan is well known for its vocational training organized within large private companies. Employers prefer to recruit fresh school leavers with general education and then provide them with continuous training within the enterprise.
- The public sector is generally small. In 1980's it employed 3.6 % of the labour force (Inoue, 1985). Private industry employs 85 % of the labour force and is dominated mainly by large industrial companies.
- Japanese people have a strong influence of culture derived from Buddhism, Confucianism and Shintoism which teaches them to achieve high standards through hard work and have lasting obligations to the school group, the family and the company (Lauglo, 1993).
- Generally a person devotes his whole life to working in the same company- Most Japanese companies also recruit a workforce for life. Training is given on the assumption that employees will continue to work for the same company. In large companies which employ 30 % of the labour force employment for life is an important norm (Mc Cormick, 1989).
- Most large companies organize their own vocational training and the outlays for in-house vocational training are considered a part of the labour costs. Smaller companies with less resources rely on training facilities outside the company and are supported financially from proceeds of the unemployment insurance funds to which the government and employers contribute half and half. Enterprises can also pay to get membership of outside training organizations and can thus use their facilities for training of trainers.
- Vocational training is also organized outside the companies in special vocational schools run by various Ministries. Private vocational schools offer courses of varying duration including day and evening courses. These schools get grants from the government if they are not run for profit.
- Most technical training in companies takes place in close connection with production. Production engineers train a small group of workers who will use the latest technology and in turn these workers will further teach others in their work groups which are established for production purposes. As such the extra resources provided for training are sometimes much less than the training that actually takes place (Mc Cormick, 1989).
- Technical training also takes place through self study of manuals or through correspondence courses. These costs also do not fall on the employers. According to Dore and Sako (1987) if hourly wages were to be calculated for this contribution the total may exceed the training costs incurred by the industry. Sometimes companies also provide

finances for self development of workers. Employees are highly motivated to upgrade their skills.

-- The government helps to finance and guide vocational training among small firms. But major companies do not rely on training done in government institutions. They also believe that employee training should be tailored to the requirements and conditions of each company (Pedder, 1989).

-- The Japan Industrial and Vocational Training Association (JIVTA) is the main organization in Japan concerned with training within industry. It is a private association of employers and has a constitution and a budget supervised by the Ministry of International Trade and Industry. JIVTA policy is developed by 1,000 company representatives of which 60 % are from large companies and 40 % from small companies. The government does not provide funding to JIVTA. 25 % of its budget is collected from membership fees and 75 % is generated from course fees. In the last 30 years JIVTA trained 30,000 persons as training leaders who in turn trained more than 1,000,000 trainees in their own industries. JIVTA has given a unique direction to the employers about an independent approach in vocational training (Pedder, 1989).

-- Employers consider training as an investment. They provide training in accordance with their own needs and this has resulted in developing effective policies.

## **1.2. Korea**

-- In Korea the Basic Law for Vocational Training enforced in 1976 makes it mandatory for enterprises with over 300 employees to conduct in plant training. If they do not do so they pay a training levy based on a certain percentage of payroll costs ranging from 1 % to 3.9 %. Large companies have training budgets and consider training as an important investment. Apart from Japan, Korea is an important example of a country in the Asian region which is relying heavily on skills training in the enterprise. But small companies still rely on the public training system (Pedder, 1989).

## **2. Payroll Tax**

-- In Latin America payroll tax was generally used to support vocational training. In 1942, the Brazilian government levied a special tax on enterprises for offering compulsory technical training to apprentices and SENAI - the National Industrial Training Service - was founded. Colombia established SENA in 1957, Venezuela the INCE in 1959 and Peru set up SENATI in 1961. There was a close collaboration between the government, the employers and worker groups (Ducci, 1983).

-- In 1987, Vocational Training Institutes (VTI) in 12 Latin American countries enrolled more than 3 million persons equivalent to 37 % of total secondary school enrolments in the same countries (Cinterfor/ILO, 1991).

-- Government usually assesses an annual levy of 1 to 2 % of the wage bill paid by the employers and sometimes even 3 %. In every country there are variations. Sometimes state enterprises and government bodies do not contribute. Sometimes smaller firms are exempt and larger firms pay more. Sometimes workers also pay, but most of the funds come from enterprises.

-- The range of training services include formal apprenticeships with classroom instruction, sandwich courses and training of instructors offered for technicians, supervisors and middle managers.

-- In UK the Industrial Training Act of 1964 aimed at increasing the amount of training in industry, improving its quality and redistributing costs more fairly. Through the levy grant all

firms contributed towards costs of training which ranged from 1 % to over 3 % of the total wages and salaries. The system increased the quantity of training but the Industrial Training Boards and the Industrial Training Act came under criticism. The Training Act was replaced in 1974 by a selective levy grant system involving exemptions to small firms or those which provide enough training for their own labour needs. Levies were not compulsory but imposed on firms which provided no training or limited training (Woodhall, 1987).

-- In France there is a compulsory tax system of training funds and an apprenticeship tax so that all firms must pay a certain proportion of their total wages and salaries as a payroll tax, and these funds are used for financing vocational education.

-- In some countries governments provide subsidies to encourage training and the costs are met from general taxation. In Australia the Commonwealth Rebate for Apprenticeship Full Time Training (CRAFT) is a subsidy used for reimbursing employers for part of the costs of apprenticeship training (Woodhall, 1987).

-- In some of the Latin American countries the payroll taxes have been criticised. In Argentina the payroll tax was removed in 1981 as attempts were made to restructure public expenditures to cope with the economic crisis. In Brazil, the payroll tax has grown. But co-financing between the enterprises and VTIs is gaining more importance. In Colombia, on one side the payroll taxes have been questioned and on the other its application has been diversified (Ducci, 1991).

-- In Costa Rica although the payroll contribution increased from 1 % to 2 % in 1983, the surplus money was transferred to another fund and used for purposes other than vocational training. In Peru, SENATI has lowered payroll taxes and is trying to find funding from other sources (Ducci, 1991).

### **3. Tax Rebates and Credit Schemes**

-- In most regions other than Latin America, Tax Rebates or Tax Credit system is more frequently used. The principle is the same as Payroll Levies - those who benefit, pay the costs of training.

-- In Tax Rebates, a portion of the tax is returned to the firm as subsidy for training. In Singapore and Tunisia, the rebate is on the basis of costs incurred. In Nigeria and Zimbabwe it is in the form of grants to set up training systems.

-- In tax credit the firm reduces its tax bill by the value of training.

### **4. Ways in which Tax is Used**

-- In Ivory Coast modern sector enterprises have to pay 1.2 % for continuing vocational training and 0.4 % for apprenticeship and initial training. Funds are managed by the Fund for Development of Vocational Training (FDFP) (Herschbach, 1993).

-- In Taiwan the small and medium sized firms took a keen interest for training in the enterprise. Firms get upto 80% of training costs reimbursed (Herschbach, 1993).

-- Tax rebates for financing vocational training were prevalent in Argentina since 1981 and in Brazil and Chile since 1976. In 1975 the Brazilian Government passed a law for deduction in the form of income tax of juridical persons equal to twice the expenditure invested in vocational training and upto a ceiling of 10 % of taxable earnings. But after 10 years a review showed discouraging results. The impact was small. There was evidence that tax rebates were mainly being used by those enterprises which already had ambitious training programmes (Ducci, 1991).

-- In Argentina tax credit system was introduced by law in 1980. Enterprises were authorized to deduct from their taxes upto 8 per thousand of overall wages and salaries as expenditure on technical education and training of workers. CONET is in charge of the spending and issuing of certificates when enterprises pay their dues to the general tax department. The Argentine Construction Chamber set up a Vocational Training Centre and a support body called Caesar M. Toledo Training Centre Association. Firms which belong to the Chamber give their share of contributions to this Association which uses the funds for training (Ducci, 1991).

-- In Chile the National Training and Employment Service (SENCE) created in 1976 is mainly responsible for Vocational Training. Tax incentives to enterprises are the main source of financing. Implementing agencies conduct training which is supervised by SENCE (Ducci, 1991).

-- France has a very comprehensive system of financing vocational training (Herschbach, 1993). There is a combination of public supported pre-service training, enterprise supported in-service training and funds from the state, regional and local levels account for approximately 40 % of the total annual budget for all types of VET. The rest is financed by private enterprises.

There are 3 ways of financing in France:

a) General tax revenues used for supporting public and private secondary level pre-employment vocational education. Outlay for VET is about 1.5 % of the Gross Domestic Product (GDP).

b) Compulsory Apprenticeship Tax of about 0.6 % of a company's wage bill is used for initial training. Of this 0.1 % is kept by the government for training of youth between 16 - 25 years of age and 0.5 % is collected and administered by regional councils. If employers accept apprentices they do not pay tax. They can also pay fees to the institutions that organize courses or they can pay taxes directly to the government. In this way employers fulfil their obligations.

c) Compulsory in-service tax is applicable to all enterprises which have more than 9 employees. It is 1.2 % of each company's total wage bill. Employers can use 0.8 % of this for their own in-house training. From the remaining amount 0.3 % is used for youth training and 0.1 % for training employees during paid training leave.

The French Training System has a large training industry and offers a variety of VET programmes. Government takes an active interest. It formulates policy, legal framework and monitors quality of training.

#### **4.1. Vocational Training Funds**

-- In many countries where employers are active participants in VET a Training Fund for financing vocational training has been set up. Tax contributions from the employers collected through payroll levies or subsidies from the government are transferred to the Training Fund.

-- In Zimbabwe companies by an Act of Law have to contribute 1% of their wage bill to a central fund managed by the Ministry of Education and called Zimbabwe Manpower Development Fund (ZIMDEF). The fund is used for financing vocational training activities e.g. apprenticeship training for various categories of trainees, upgrading training of skilled workers. Also companies that provide 'on the job' training to apprentices can claim rebates from this fund at a prescribed rate.

-- Management of funds can be handled by the concerned Ministry, the employers association and the workers' unions. This is a useful way as such cooperation facilitates formulation of appropriate training policy.

-- Funds can be managed in the following ways (Atchoarena, 1993):

(1) The "Fair Return" system of management.

Every firm contributes to the Fund in accordance with legal provisions. After contributing, the firm has a right for a certain period of time, to refund an amount equivalent to its contribution and use it for training.

(2) Mutualization.

According to Atchoarena mutualization is a term used as the financial expression of the principal of solidarity. Under this system, the contributions from the companies are managed entirely by the Fund. The management of the Fund decides how much training is required from each firm. The firms do not have special claims. Some of the small firms may get more funds than their contributions and others may get less. Training activities are organised according to the target group and demand for training.

(3) Drawing Rights.

Every firm gets a drawing right which is a fraction of its contribution. The remaining amount is mutualized. Every firm retains a certain degree of autonomy and the Fund also has some reserves.

## 5. Advantages and Disadvantages

### Advantages

- When individual companies train their own work force such as in Japan they can tailor their requirements in accordance with the actual needs. This leads to effective management policies and avoids wastage of trained manpower.

- When training occurs alongside production it reduces the overall costs on training.

- Training and employment in one company/enterprise gives stability to the individual and to the company.

- A study of financing of vocational training in Latin America (Klinger & Reyes, 1978) indicated that payroll taxes proved to be an effective financing mechanism as it helped to create training institutions that are workable and good alternatives to traditional training systems.

- Payroll levies are found to be more successful in middle income countries. They are effective in addressing the training needs of large formal sector enterprises. Also effective in strengthening government, employers and labour cooperation (Inter-American Centre for Research and Documentation for Voc. Training, 1991).

### Disadvantages

- Government officials try to regulate the independence of individual companies and this may create some policy problems.

- Companies try to recruit only the best students as trainees. This may cause social inequity.

- When training takes place only in one company there is absence of general certification. This affects labour mobilisation from one company to another.

- Companies may reduce training places to avoid costs if they do not make adequate profit.

- Payroll levies are found to be less effective in addressing the training requirement of small and medium sized employers, women, the workers and unemployed (Ducci, 1991). In small countries private sector is small, governments have less capacity to generate income, less administrative capability to collect payroll taxes and so they have not been successful.

- Payroll levies lead to firms reducing their self financed training activities. Taxes, in a sense crush the individual initiative and firms only train to fulfill the legal requirements (Bas and Castro, 1989).

### Advantages

- Payroll levies are shouldered by enterprises but part of the costs fall on workers in the form of lower wages. This leads to sharing of costs as workers subsidize their own training.
- Although training costs are high for the national training agencies but quality of training programmes is better and linked to employers needs.
- Larger enterprises benefit more through tax rebates and credits. In 1985, in Singapore all the firms with 200 or more employees applied for training grants in contrast to 25 % of firms with 50 employees or less. Firms which had 10 employees or less only 2.2 % applied for grants (Pang and Salome, 1986).
- Tax credits are more effective in matured or maturing economies.
- When seen from a broader perspective VTI's compete with each other to train manpower required by the enterprises. This encourages efficiency within the institutions.
- As the Vocational Training Fund observes the labour market closely and has regular interaction with business and industrial houses, it can influence the organization of appropriate VET programmes in accordance with labour market demand.
- It can also influence the quality of training.
- As it negotiates funding of training with business and industrial houses, to an extent it effectively regulates industrial relations.
- Through the process of Mutualization the Fund can provide resources for training to small firms and enterprises which may not otherwise have enough access to training. As such it can offer equal training opportunities to firms.

### Disadvantages

- Payroll levies are often criticised. Governments divert some of the funds collected through levies to finance other programmes. Sometimes only 15 % is used to finance national training authorities. In Colombia SENA has to give 50% of the revenues generated through payrolls to support formal public school vocational programmes (Cuervo and Van Steenwyk, 1986).
- In tax rebate and credit schemes high administrative costs are involved. Firms which would normally invest more have a tendency to reduce their effort to the bare minimum required by law. Sometimes reluctant firms organize poor training (Bas and Castro, 1989).
- In Brazil and Chile where some evaluations were made, tax rebates concentrated benefits on large enterprises in the more developed regions. Steps had to be taken to promote small and medium sized firms and associations (Ducci, 1991).
- Tax rebates ultimately imply that financing is by the State but the training imparted is by the enterprises. Although this leads to better coordination of the demand and supply of vocational training, sometimes the demand may not correspond to the real need.
- Tax credit schemes are less beneficial for low income countries as firms are not able to organize different types of training.
- The System of Mutualization may weaken the mechanism when in a difficult economic situation, many firms request the Fund to provide them resources at the same time (Atchoarena, 1993).
- Sometimes due to structural adjustment in the economies there is an expansion in the informal sector and a decline in the number of larger firms. This leads to reduction of tax contributions to the Fund and a shortage of available resources for vocational training. The Fund has to then search for alternative financing.
- It has been observed that sometimes the state makes use of the resources of the Training Fund for other purposes or it does not pay the Tax Revenue to which the Fund is entitled.



## Advantages

## Disadvantages

- Sometimes the Fund gets more occupied with banking functions and investing the resources it has collected rather than concentrating on development of training (Atchoarena, 1993).

- Experience has shown that with mutualization sometimes there is favouritism towards larger, more privileged firms and towards employees who are already well trained. These beneficiaries are better placed to negotiate their demands and get away with more funds (Atchoarena, 1993).

## **6. Policy Implications**

-- While the single employer financing mechanism has been very successful in Japan there are strong cultural influences which contribute to this success. It is questionable whether in the absence of cultural traditions such as spending a whole lifetime in one company or lasting obligations to the school group, the family and the company, this system of individual company training could be as successful in other parts of the world.

-- In developing countries the responsibility for training cannot be left to the enterprises alone. The government has to organize and finance training alongside to ensure social equity. The deprived and poorer sections of the society need adequate opportunities for training and the enterprises may not necessarily cater to all these groups.

-- Payroll taxes help to develop training institutions in the initial stages when institutions are building their training capacity. But it takes time to create training capacities and this may lead to high costs and sometimes inefficiencies in management.

-- While National Training Agencies have been more successful in larger economies, the same success was not possible in low income countries due to factors such as restricted economies, weak management, less financial resources and high unit costs (Herschbach, 1993).

-- Use of tax rebates and credits creates a dynamic approach to training when enterprises are encouraged to become responsible for training, and is particularly good for retraining and upgrading but less effective for pre-employment training. It is used best with other systems of financing. Tax rebates are particularly advantageous to large employers who have good management systems (Herschbach, 1993).

-- When resources are diversified for creating a Training Fund, efforts should also be made to get additional funding from the state in the form of subsidies.

-- Sometimes Training Centres may be managed directly by the management of the Training Fund. Fees can then be introduced to support financing. Donor agencies and regional authorities can also help in the provision of resources (Atchoarena, 1993).

-- The Training Fund is an important mechanism of financing VET and can diversify its funding, depending on the quality of financial services it offers.

## **IV. PRIVATE AND PUBLIC SPONSORED FINANCING**

Governments faced with a shortage of resources would like individuals, enterprises and non-government organizations (NGO's) to share the financial responsibility for VET.

### **1. Training Fees**

-- In some cases the entire operational costs are borne by the participants through payment of fees.

-- More commonly, employers or trainees bear part of the costs and government finances the remaining. Fees could be paid to the government or the training institution. In the informal sector the apprentices pay their master (Herschbach, 1993).

### **2. Fellowship, Grants and Loans**

-- In most countries of the Latin American region, public financing is through fellowships and grants. The most important system of fellowships and grants is being implemented in Chile. The National Employment Secretariat (SENCE) administers a large system of training fellowships which are designed to offer training opportunities to unemployed young people, the poorer sections, the workers from informal sector and the handicapped. The system is a supplement to tax rebates. The agencies which execute the training programmes are called OTE's and they are supervised by the SENCE. From 1977 to 1987 SENCE provided training to 300,000 persons with fellowships and grants through 19,000 courses organized by different agencies. The courses were mainly short term ranging from 6-12 weeks and covering a wide range of occupations e.g. agriculture and live stock production, forestry, mining and trade. SENAEM has another training programme for training young people in the age group of 18 - 24 who do not have adequate access to programmes offered by enterprises based on their tax rebates (Ducci, 1991).

-- Loans can facilitate training for students coming from poor families if they have to pay for vocational training. But in many developing countries there is no formal system of loans for education (Psacharopoulos and Woodhall, 1985).

### **3. Sale of Training / Non Training Services**

-- Vocational Training Institutes can generate income from the sale of services to public and private enterprises or through individual tuition services.

-- Some VTI's sell complete training packages to enterprises. Some firms may even buy services for setting up training units in their companies. INACAP, SENATI and SENAI in Latin America are well known for this (Ducci, 1991).

-- Some VTI's offer non-training services such as consultancies.

### **4. Co-Financing Agreements**

-- In Argentina co-financing has been arranged with enterprises, communities and vocational schools. In Colombia, Brazil and Peru also co-financing is popular (Ducci, 1991).

-- When there is an agreement between different parties then availability of funds becomes assured and training can be related to the actual demand.

## **5. The German Dual System**

-- In Germany more than two thirds of the 16 - 19 year olds receive training within the dual training system (Greinert, 1992).

-- The system is called dual because there are two places of learning - the vocational schools and the companies. The training is governed by training regulations of the Vocational Training Act, 1969.

-- The system offers a combination of training in vocational schools with learning and practical experience at the worksite. In a week, apprentices spend 1 or 2 days at the public vocational high schools where training in general subjects is offered. The remaining part of the week is spent on the job in the firm/enterprise.

-- Training is usually for 3 and a half years after which individuals get certification and are free to get jobs.

-- The dual system sets high standards of training which leads to high productivity and competitiveness of the labour force. This is why the workers and employees trained in the system are highly appreciated by the German society (Timmermann, 1993).

-- Expenditure on training is met by the state and the enterprise. School costs are provided by the State i.e. the Länder (Federal States) and local authorities from the public budget whereas the participating enterprise bears the cost of practical training or in-plant training. No company is obliged to provide training but it is evident from the number of companies that participate in dual training that they have economic benefit from training their own skilled workers.

-- The Federal Institute of Vocational Training, the institution of governance is totally funded from the federal budget. The chambers and training boards get their finances from levies on all member firms, specific fees from companies who demand services of the chambers and boards e.g. in counselling and examinations, and subsidies from state budgets for special activities. The firms/enterprises finance training from their own resources by overrolling them onto the prices of goods and services sold in the market; shifting part of the costs on the taxpayer; returns from the training through the contribution of the trainees to productive work; sale of training to other firms (Timmermann, 1993).

-- Outlays for Vocational Education and Training were approximately 1.85 % of the GNP in 1992. Contributions by the public and private sector increased from 1980 to 1992, with the expenditure on vocational education and training, rising from DM 15.5 to DM 51.7 Billion (Federal Ministry of Education and Science, 1993/94).

-- In 1985, the annual unit cost to a company was about DM 20,500 for all apprenticeable trades. Companies recovered a fair percentage of this from the work that the apprentice does and contributes to the production. The net cost to the firm was eventually DM 16,000 approximately (Gilardi and Schulz, 1989). The Federal Vocational Training Institute (BIBB) estimated for 1980 that the gross cost to a company was about DM 17,000 and the net cost was about DM 10,000. In 1991, the gross cost to a company rose to DM 29,573 with the net cost at about DM 17,862.

-- The cost surveys are however not completely representative as all training firms do not provide information and surveys in fact cover a small number of training firms. Other limitations are due to the structure of the in-plant training system. The value of the productive work of apprentices during in-plant training can only be estimated but cannot be exactly

determined. It is also difficult to account for the actual staff costs of part-time instructors. But surveys do reflect accurately the trends in the levels of vocational training costs (Hegelheimer, 1986).

-- The German Federal Government has continued to make efforts to improve training financed by firms. In 1973 a programme was started to promote inter-firm training workshops aimed at improving training by small and medium firms which were already providing more than half the number of training places. For the first time federal aid was given to the dual system on a significant scale. It was intended to raise the places in inter-firm training workshops from 20,000 to 77,000. It entailed a total expenditure of DM 2.7 Billion of which the federal government paid DM 1.7 Billion, the Länder about DM 0.4 Billion and the firms about DM 0.6 Billion. Firms that benefited were mainly craft firms and some in the industry and agriculture. Federal government also gave funds for vocational schools for special areas. In the late 1970's Länder gave financial aid to provide extra training places in firms to special groups such as girls, foreigners, the handicapped or apprentices from bankrupt firms (Schmidt, 1985).

-- In the dual system the federal government regulates the activities at the workplace through training regulations. Regional governments / the Länder work closely with the implementing agencies. There is need for constructive partnership between both.

-- In Germany, the dual system has proved flexible enough to offer a considerable number of training places even in times of economic difficulty. In large scale industry about 80 % of apprentices are subsequently employed by the company in which they trained (Raggatt, 1988). When large companies invest in the training of their future employees they feel confident that the skilled labour force would be of high quality and in accordance with their requirement.

-- In 1987, the ratio of youth to total unemployment rates in Germany was 1.1, while the average ratio for 14 other OECD countries was 1.9 (OECD, 1991). It would be reasonable to infer that apprenticeship system in Germany is an explanation for this pattern (Lauglo, 1993).

-- Financing by individual firms is a relatively efficient system and it is doubtful if better results could have been achieved in Germany with another financing system (Schmidt, 1985).

-- Among the developing countries, Jordan has successfully adapted the dual training system conducted by the Vocational Training Corporation. In large companies formal instruction as well as practical training is provided on site thereby reducing costs. In smaller firms, apprentices are given formal instruction one day a week at a training centre. Training in Jordan is effective because of cooperation between VTC and employing establishments, coordination of economic and training policy and centralized control. There are some problems too, such as inadequacy of off-site training. More vocational centres were required for theory work, so the costs went up. All students were also not successful in getting jobs as there are imbalances between the demand and supply of skilled manpower (Herschbach, 1993).

## **6. Production for Profit**

Money raising through productive work is widespread in primary and secondary schools. In vocational training programmes, while students learn they also produce. But a high percentage of costs cannot be offset through productive activities. Generally the most effective programmes are operated by NGO's which have greater flexibility. One would assume that the product which is best for the training institution to sell is training itself (Lauglo, 1993).

## **7. Apprenticeship**

Apprenticeship is a way of combining practical experience with theory. Generally there is a formal contract between an employer and a trainee under which the trainee agrees to work for the employer in return for practical experience which makes him a skilled worker. He gets a small wage till he reaches the level of a skilled worker. Thus the tradition of financing apprenticeship involves sharing of costs between employers and trainees (Woodhall, 1987). In India companies are obliged under the provisions of the Apprentices Act to accept a certain percentage of trained technical people for apprenticeship ranging from a period of 1 - 2 years. The apprentices are paid a stipend by the company and the government on a sharing basis.

## **8. Paid Educational Leave**

Another pattern of financing vocational and industrial education in some countries is the provision of paid educational leave. Employers continue to pay wages to employees while they receive part time or full time vocational education. In some countries e.g. France and Sweden there is legislation giving the right of paid educational leave to workers. In some other countries there are variations in the method of financing paid educational leave. A study in 1976 concluded that the system shifts the burden on the employers and creates many ambiguous situations. Almost all countries make the financing of educational leave the responsibility of the community. Therefore paid educational leave also becomes another way of distributing costs between the employers, workers and tax payers (Woodhall, 1987).

## **9. Non-Government Organizations / Voluntary Organizations**

-- The involvement of Non-Government Organizations (NGO's) / Voluntary Organizations in the implementation of VET is yet another way of cost sharing or financing of vocational programmes. Sometimes NGO's are charitable institutions working with the aim of upliftment of weaker and poorer sections of the society. Such institutions may have their own infrastructure and when they come forward to participate in VET, they can be successful especially in conducting short term training programmes in the rural or urban informal sectors. At times they provide education and training entirely from their own resources and at other times they receive grants or subsidies from the government.

-- In developing countries, the involvement of the NGO's in vocational training is assuming greater importance as governments continue their search for partners to share costs on training. In India e.g. the Society for Rural Industrialization in Ranchi Bihar is conducting vocational training courses related to rural technology for the poor tribal people of the local region. Grants are given by the central government and other agencies but the organization has to bear responsibility for some part of the costs. Similarly there are many other agencies voluntarily engaged in educational and training activities.

-- In the Philippines too, the involvement of NGO's in the social development process of the country has gained momentum in the last few years. Dualtech has been offering vocational training in Manila and other parts of the Philippines through the dual system with the involvement of the companies. It started its activities in 1982 with contributions from the industry and donations from the Hanns Seidel Foundation in Germany.

-- Since 1990 Dualtech has become more independent in its financing by adopting the dual system through which there is a sharing of costs with the industry. A large number of students from the lower income group are trained and 15 % of the poorest students are given scholarships. The NGO tries to maximize its resources through optimum utilization of existing facilities for training. When not in use for training, the facilities are used for commercial production on a small scale. In 1993 the organization had an operating budget of \$ 600,000, of which 95 % came from the industry and 5 % from the Hanns Seidel Foundation (Dualtech, 1993).

## 10. Advantages and Disadvantages

### Advantages

- Training fees enhance efficiency and contribute resources as well. Participants are likely to pay for training if it is of good quality and can bring personal benefits and high private rates of return.

- Fee level can control excessive demand as fees can be raised if there is more demand.

- If fees are high the quality may improve.

- Fees are found to be effective in financing short term training in the informal sector. Master craftsmen are paid small stipends for additional training which they give in approved sites. This is more economical than organized formal training (Herschbach, 1993).

- Loans are good for financing short term training.

- Sale of training services facilitate additional income for Vocational Training Institutes.

- Co-financing agreements raise the resource level of VTI's.

- Training can be organized in accordance with demand and therefore enhance training-employment linkages.

- Dual training system is beneficial to firms although cost figures are difficult to calculate due to hidden expenditures e.g. breakage and waste of materials, lower productivity of experienced workers who spend time in instructing apprentices. Work of apprentices also offsets costs.

### Disadvantages

- Fees affect poor students or the underprivileged as they may not get access to training.

- Training fees cannot fully support programme costs.

- If fee levels are too low it affects incentive to be responsive to students as the income from fees comprises only a small portion of the budget. In Sri Lanka the Foreman Training Institute recovers 10 % from fees paid by students and employers and government pays the remaining 90 %. The Institute is not concerned to observe economy measures, have a relevant curriculum and respond to market needs (Bressler and Hultin, 1987).

- Fellowship programmes can be expensive for governments as there are higher administrative and management costs (Herschbach, 1993).

- Fellowship programmes are subject to political interference.

- Loans involve problems of disbursements, collecting repayments and preventing defaults.

- Loans do not lead to greater equity as affluent students are in a better position to make use of them (Psacharopoulos and Woodhall, 1985).

- Too much emphasis on training services detract from the main function of Vocational Training Institutes which is vocational training.

- In the dual training system there can be imbalance between training demand and placement opportunities. To regulate imbalance, training workshops are set up in larger firms for supplementing on-the-job training. In countries which do not have a tradition of shared responsibility, dual system can be exploited by firms e.g. the firms can use trainees as cheap labour.

### Advantages

- Dual system is an efficient system of financing by individual firms and it is doubtful if better results could be achieved in Germany with another financing system. From 1980 to 1984 the number of college graduates entering the dual system rose from 20,000 to 80,000 (Schmidt, 1985).

- Production for profit can offset a small percentage of costs. In low income countries school production may help to supply goods and services when there are shortages (Herschbach, 1993).

- Paid educational leave motivates the workers/employees to upgrade their skill levels. Higher and more skills contribute to productivity.

- NGO'S generally work for charitable causes contributing to the socio-economic development of the country. When they become involved in vocational training they take over the liability of financing some of the costs which would otherwise fall on the government.

- As they are highly motivated and often work for the upliftment of the poorer and weaker sections of the society, their contribution leads to social equity.

- They are mostly very successful in providing short term training.

- NGO's operating in the rural and urban informal sectors generally have a good knowledge of the local market. Thus they can effectively link training with the local employment requirement.

- Non-profit making NGO's generally have dedicated persons on their management. They are keenly-engaged in offering good quality vocational training and can thus provide effective support to vocational training systems.

### Disadvantages

- Training by firms can meet only a part of the demand for training and cannot help to solve such problems as training of people with learning difficulties, language defects etc. (Schmidt, 1985).

- Sometimes institutions pay more attention to production activities than devoting time and effort to formal learning.

- As NGO's are not always subject to external scrutiny they may not maintain a high standard of training.

- They may also have problems of certification especially if they are very small organizations working in the rural or urban informal sectors.

- Sometimes NGO's may experience a shortage of resources. In such circumstances some of them are found to have an over dependence on foreign donors.

## **11. Policy Implications**

-- There are limits to which fees can be used to finance VET. Too much reliance on fees is not advisable as it cannot fully support training costs.

-- The most efficient way would be for governments to give subsidies to complement the use of fees.

- Fees could be high enough to generate adequate income but not so high as to stifle the demand (Herschbach, 1993).
- Fellowships are not effective in low income countries. The more affluent usually benefit more (Herschbach, 1993). The system of student loans is not very prevalent in developing countries.
- While sale of training and non-training services could become a secondary source of income, it should not become the main objective of Vocational Training Institutes. The Institutes should primarily concentrate on development and provision of training.
- Co-financing agreements raise the volume of resources available for vocational training. Institutes which have such agreements keep their courses updated and relevant to new technology (Ducci, 1991).
- Dual system is an effective system of financing by individual firms. It is beneficial to firms, trainees and the society. The dual system involves collaborative financing with contributions from tax revenues, enterprises and the trainees. Mobilization of additional resources is achieved as there are close links with enterprises and a rough balance between demand and supply. Training in the dual system is successful when there is a constructive collaboration between social partners and adequate potential for placement. Training is also less likely to be obsolete as close links with employers are maintained (Herschbach, 1993).
- Production for profit is not a reliable way to generate a large amount of resources for formal VET programmes. Production activities in formal VET should be limited so that more time is spent on formal learning. Local institutions will also require some autonomy for introducing a curriculum shaped by local production requirements (Herschbach, 1993).
- Paid educational leave is a good way to upgrade the skills of an employee. While the burden of financing may become shared, the system promotes motivation in the workers to enhance their skills and qualifications thereby contributing to productivity and economic growth.
- In the developing countries the involvement of NGO's in vocational training is gradually assuming greater importance. They not only share the financial burden but some of them are known to work for the upliftment of the downtrodden and weaker sections of the society. Thus they support the vocational training systems by helping to equalize opportunity in training for all and contribute to the social developmental process. They should be encouraged to come forward in closer partnership with the governments in organizing VET.



## V. INTERNATIONAL DONOR ASSISTANCE

- Donor support plays a very important role in developing VET systems.
- In many developing countries the large amount of international aid has contributed to the setting up of a base of training capacity. Infrastructure and facilities have been created, staff trained and instructional systems implemented through donor assistance. Mostly donors provide financial resources for capital costs and it is limited for short periods (Herschbach, 1993).
- In the 1980's, international assistance to vocational and technical education and training averaged about \$ 600 million annually of which the World Bank provided 45 %, bilateral agencies 30 % and other multilateral agencies 25%. Approximately 40 % of multilateral assistance for education was used to support VET programmes. NGO's and private sources also made a sizable contribution but the exact amount is not known (World Bank, 1991).
- From 1963 to 1976, 40% of lending for education by the World Bank was for VET at the secondary and post secondary levels. But evaluations conducted in the 1970's regarding cost effectiveness of vocational schooling especially diversified schools began to raise doubts. The World Bank lending then began to shift from diversified vocational education to centre based vocational training and development of national authorities (World Bank, 1991).
- In Africa about 7 % of direct international aid goes to finance primary education, 40 % to secondary education and 17 % to VET. For every S 1 spent on a primary school pupil, S 11 is spent on a secondary school student and S 182 on a VET student (World Bank, 1988).
- In Latin American countries much of the institutional infrastructure for VET was built through international donor assistance. A study of SENA in the 1970's showed that it had taken the maximum advantage of technical assistance offered by foreign governments and international organisations. The Brazilian SENAI at present benefits from assistance of nearly all countries of the EEC and Canada, Israel, Japan and USA (Ducci, 1991). In the beginning vocational training institutions sought international support for starting the Institution. Subsequently international resources tried to achieve the transfer of productive technology which would be appropriate for national development.
- Among multinational donors a very high amount goes towards capital expenditures and among bilateral donors a greater share goes for technical assistance and overseas fellowships at the expense of support for recurrent costs (World Bank 1988).

## 1. Advantages and Disadvantages

### 1. Advantages

- Donor assistance helps to set up vocational training institutions.

- In some of the low income countries, but for donor support, it may not be possible to create infrastructure required for VET. Donor assistance facilitates transfer of latest productive technology to low income countries which can stimulate economic growth.

- Donors provide technical assistance from countries which have been successful in vocational training.

### Disadvantages

- VET systems require long term support as they take long periods to mature, sometimes decades. Donor assistance is generally short term, sometimes for a few years. Donor agencies generally do not make long term commitments. This limits the effectiveness of assistance as recipient countries are not able to make long term plans.

- Donor agencies like to fund capital expenditure as it is easier to calculate and measure. Capital investments such as newly constructed buildings are visible and proof of the contribution made by the donor and therefore said to have greater impact. Extensive facilities are thus built which may not get adequate recurrent support from governments because they do not have adequate resources (Herschbach, 1993).

## 2. Policy Implications

-- Donor assistance is found to concentrate on capital costs creating large training facilities. Programmes cannot operate successfully without adequate support of recurrent expenditure by the host country. Therefore the size of the project to be funded by the donor and its duration should be based on the capacity of the recurrent funding available. Otherwise a project started with good intentions may start malfunctioning. The most successful donor projects are those which lay emphasis on strengthening the management and upgrading the quality of staff of training institutions (Herschbach, 1993).

-- Distortions should be avoided between over importance on capital expenditure as compared with recurrent costs. If initial investments are very extensive, countries may not be able to sustain VET institutions. When this happens the quality of the programmes in the institutions deteriorate and the project does not yield adequate return on the investment.

-- Donor assistance is most effective when a moderate level of finance is provided over a long period of time (Herschbach, 1993). Long term partnership with governments helps them in their efforts to build proper training facilities.

-- The host country should strengthen its essential systems so as to sustain the project long after the donor assistance is over.

## VI. CONCLUSION

Governments will continue to finance VET through public revenue as the overall responsibility for development of human resources in the country rests with it. Without adequate investment in education, it is almost impossible to promote development. Government support in financing VET will therefore continue to flow and remain the most reliable.

With diversification of financing mechanisms however, larger resources are available for creating more training opportunities. But the problems of financing VET cannot be solved entirely through diversification of resources. Efforts have to be made to better utilize available resources by removing existing inefficiencies, stricter accountability, improving organizational structures and proper application of new information technology. Vocational training systems should remain flexible with the ability to adapt to the changing social, economic and technological requirements of the country. To keep vocational training dynamic the following should be borne in mind: --

-- Public revenues are used mainly to finance pre-employment VET but pre-service and in-service VET is also being supported. Vocational Training Institutions funded through national budgets have more stability as there is a consistent flow of resources and the institutions can plan its training possibilities accordingly. When there is a reduction in the budget due to shortage in availability of overall resources it could affect the training programme in quantitative and qualitative terms.

-- Single employer financing in Japan has proved very successful. However the strong cultural traditions prevalent in the Japanese society have in some measure contributed to making this training system the backbone of the growing economy. As a mechanism of financing it is highly recommended if it works as well in other parts of the world.

-- Excessive dependence on payroll levies as an important financing mode has to change slowly. There has been criticism that taxes imposed on employers eventually discourage the demand for manpower. Payroll levies have however been effective in building national training capacity especially in middle income countries.

-- Tax rebates have been effective in financing in-service training and less effective in pre-employment training. Small and medium sized enterprises do not make much use of it.

-- Fees can easily finance VET but there are limits on the amount of resources that can be generated. Fees are a better way to finance short term training.

-- Fellowship and loans do not generally work in developing countries.

-- Production for profit is effective in financing VET for poor youth, unemployed school leavers and disadvantaged adults. It works best in programmes operated by NGO's.

-- While co-financing agreements are emerging as a popular method of generating resources, other sources of funding are required for providing financial stability. Agreements with firms and enterprises bring training institutions into closer contact with market requirements and with the emerging of new technology and bring better prospects of return. However generally, only those sectors which have enough resources can propose significant agreements (Ducci, 1991). Donations from the private sector in exchange for their involvement in the curriculum design of training programmes, and membership of governing boards can also be explored.

-- The Dual System is an efficient system of financing by individual enterprises. Firms provide training voluntarily at their own expense as they believe it is the best way to train a skilled workforce according to their requirement. They also demonstrate a social responsibility for training as a contribution to economic development. But it is not only the firm which invests in the trainee. The trainee does his share of work, thus to a certain degree offsetting the

expenditure the firm incurs on him. The costs of vocational training also reduce the tax on the firm's profits.

-- Although the dual system involves collaborative financing with contributions from tax revenues, enterprises and the trainees, it does not reduce much the overall tax burden on public revenues but the employers play a very crucial role in the training through apprenticeship. Training in the dual system is very successful when there is a constructive collaboration between social partners and adequate potential for placement. It is widely acknowledged that one of the reasons for the economic success of Germany is the vocational training of its labour force.

-- The involvement of NGO's in cost sharing for VET in developing countries is gaining momentum. Not only do these organisations bear a part of the financial liability but they are also known to work with a commitment for the socio-economic development of the country. Governments should try to bring forward more NGO's as partners in vocational training.

-- Donor Assistance is a very important source of financing vocational training systems. It is effective in all types of VET programmes but it has its limitations. Generally building of institutional infrastructure is through support for capital expenditure. But donor assistance can cause inefficiencies if the project cycles are too short and the host country is not able to maintain the quality of the institution. Donor assistance should have long term development policies, resources should be concentrated and special attention should be paid to recurrent funding (Herschbach, 1993).

Vocational training systems should continue its search for generating additional resources through the public and private sector such as government subsidies, enrolment fees in the long term or contributions from associations and unions. They should maintain a certain proportion of income from payroll levies and use it effectively for encouraging co-financing with enterprises. They could include decentralized and local bodies in the sale of general services to adapt to the new requirements of the governments. They should also make use of non-monetary contributions in the form of equipment and new materials for the training centres which may be donated through agreements with business.

If vocational training systems are very large and programme activities cannot be adequately supported, it may be better to reduce the programmes and consolidate the existing resources and reallocate them appropriately. The important thing is effective management of the institution through a proper balance between capital and recurrent expenditures. All training components should be strengthened and emphasis should be on quality training. The management should work closely with the employers.

Diversification of resources is not easily possible in countries which have highly centralized systems with rigid controls. New ways of raising resources will require new working relationships with religious bodies, trade associations and that requires delegation of authority. Governments have to consider making these changes (Herschbach, 1993).

The economic situation in the country also affects the financing mechanism. In low income countries there is a shortage of resources in the Government. At the same time it is not possible to find many suitable alternatives to government funding. In the middle income countries there are greater possibilities for diversifying financing and experience has shown that it is possible to have different forms of vocational education and training.

Strategies for financing VET have to take into account the pattern of economic development. There is no optimal combination of financing. In most countries there is a need to diversify training and new ways of financing may lead to new ways of training. Attempts to diversify financing will ensure stability in the long term as it will reduce excessive dependence on a single source. If there is financial stability, it will lead to better quality VET programmes (Herschbach, 1993).

There is no single or universal solution for financing vocational training and no one method which can serve all sections of the society. There are many different limitations in every system. Questions about who should meet the costs, the employers, individuals or the government are raised from time to time. A World Bank study reviewed the literature on these questions and concluded that the survey eventually raised more questions than it answered and that there is no universal solution about the absolute effectiveness of any one method (Zymelman, 1976). A combination of funding leads to greater access in VET. Diversifying financing will create greater opportunities and improve the quality of training (Herschbach, 1993). Governments have to realize that funding from public revenue is not the only way to finance investment in vocational education and training. There should be a determination to involve employers, individuals and the local communities.

## ANNEXURE

TABLE

| Country                  | Year | Total educational Expenditure |                                 | Vocational                                  |
|--------------------------|------|-------------------------------|---------------------------------|---|
|                          |      | As % of GNP                   | As % of total govt. expenditure | As % of public current expend. on education |
| <u>Africa</u>            |      |                               |                                 |   |
| Botswana                 | 1989 | 7.5                           | 16.3                            | 6.0   |
|                          | 1991 | 8.4                           | 12.5                            | 5.5   |
| Cameroon                 | 1990 | 3.4                           | 19.6                            | NA  |
|                          | 1991 | 2.8                           | 6.9                             | NA  |
| Ghana                    | 1989 | 3.5                           | 24.3                            | 2.0   |
|                          | 1990 | 3.3                           | 24.3                            | 4.9   |
| Mauritius                | 1989 | 3.5                           | 10.5                            | 1.3   |
|                          | 1990 | 3.7                           | 11.8                            | 1.2   |
| Ethiopia                 | 1989 | 4.7                           | 8.8                             | NA  |
|                          | 1990 | 4.9                           | 9.4                             | 1.0   |
| <u>America</u>           |      |                               |                                 |   |
| Canada                   | 1989 | 7.1                           | 15.3                            | NA  |
|                          | 1990 | 7.4                           | 15.6                            | NA  |
| Mexico                   | 1990 | 4.1                           | NA                              | 6.6   |
|                          | 1991 | 4.5                           | NA                              | 6.5   |
| Costa Rica               | 1990 | 4.6                           | 20.8                            | 5.6   |
|                          | 1991 | 4.5                           | 25.2                            | 7.0   |
| United States of America | 1988 | 5.2                           | 12.4                            | NA  |
|                          | 1989 | 5.3                           | 12.4                            | NA  |
| <u>South America</u>     |      |                               |                                 |   |
| Argentina                | 1989 | 1.5                           | 8.0                             | 11.8  |
|                          | 1990 | 1.5                           | 10.9                            | 12.6  |
| Chile                    | 1990 | 2.9                           | 10.4                            | 7.2   |
|                          | 1991 | 3.0                           | 10.0                            | 6.8   |
| Colombia                 | 1990 | 2.7                           | 12.4                            | NA  |
|                          | 1991 | 2.3                           | 10.9                            | NA  |
| Equador                  | 1989 | 2.8                           | 19.1                            | 9.2   |
|                          | 1991 | 2.6                           | 17.5                            | 9.3   |
| Uruguay                  | 1990 | 3.1                           | 15.9                            | 10.8  |
|                          | 1991 | 3.1                           | 16.6                            | 10.7  |
| <u>Asia</u>              |      |                               |                                 |   |
| Bangladesh               | 1989 | 2.2                           | 10.5                            | 2.1   |
|                          | 1990 | 2.0                           | 10.3                            | 2.4   |
| China                    | 1989 | 2.3                           | 12.4                            | 2.8   |
|                          | 1991 | 2.3                           | NA                              | NA  |
| India                    | 1988 | 3.1                           | NA                              | NA  |
|                          | 1989 | 3.1                           | NA                              | NA  |
| Indonesia                | 1980 | 1.7                           | 8.9                             | NA  |
|                          | 1988 | 0.9                           | 4.3                             | 10.3  |
| Israel                   | 1989 | 6.0                           | 10.4                            | 15.4  |
|                          | 1990 | 8.9                           | NA                              | NA  |
| Japan                    | 1988 | 4.7                           | 16.2                            | NA  |
|                          | 1989 | 4.7                           | 16.5                            | NA  |
| Jordan                   | 1990 | 4.3                           | 8.5                             | NA  |
|                          | 1991 | 3.9                           | 9.2                             | 1.5   |

| Country        | Year | Total educational Expenditure |                                 | Vocational                                  |
|----------------|------|-------------------------------|---------------------------------|---|
|                |      | As % of GNP                   | As % of total govt. expenditure | As % of public current expend. on education |
| Malaysia       | 1990 | 5.5                           | 18.3                            | 2.6   |
|                | 1991 | 5.6                           | 18.0                            | 3.2   |
| Nepal          | 1981 | 2.1                           | 13.6                            | NA  |
|                | 1985 | 2.8                           | 10.8                            | 1.3   |
| Pakistan       | 1986 | 2.8                           | NA                              | 9.7   |
|                | 1987 | 3.2                           | NA                              | 10.3  |
| Philippines    | 1990 | 2.9                           | 10.1                            | NA  |
|                | 1991 | 3.0                           | 10.5                            | NA  |
| Singapore      | 1987 | 3.9                           | 11.5                            | 5.4   |
|                | 1988 | 3.4                           | NA                              | NA  |
| <u>Europe</u>  |      |                               |                                 |   |
| France         | 1990 | 5.4                           | NA                              | 11.4  |
|                | 1991 | 5.8                           | NA                              | 11.5  |
| Germany        | 1989 | 4.1                           | 8.8                             | NA  |
|                | 1990 | 4.1                           | 8.6                             | NA  |
| Norway         | 1990 | 7.9                           | 14.6                            | NA  |
|                | 1991 | 8.2                           | 14.8                            | NA  |
| Sweden         | 1989 | 7.3                           | 13.1                            | NA  |
|                | 1990 | 7.7                           | 13.8                            | NA  |
| United Kingdom | 1989 | 4.7                           | NA                              | NA  |
|                | 1990 | 4.9                           | NA                              | NA  |
| <u>Oceania</u> |      |                               |                                 |   |
| Australia      | 1989 | 5.1                           | 12.7                            | NA  |
|                | 1990 | 5.4                           | 14.8                            | NA  |
| Fiji           | 1986 | 6.0                           | NA                              | NA  |
|                | 1989 | 5.0                           | 15.4                            | 2.8   |

Source: UNESCO, 1993. Statistical Yearbook.  
Key: NA = not available

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## ABBREVIATIONS

|        |  |
|--------|--|
| CONET  | - National Council for Technical Education, Argentina                  |
| INACAP | - National Institute for Training, Chile                               |
| NGO    | - Non-Government Organisation  |
| OTE    | - Technical Execution Organisation, Chile                              |
| SENA   | - National Training Service, Colombia                                  |
| SENAEM | - National Employment Secretariat, Chile                               |
| SENAI  | - National Service for Industrial Training, Brazil                     |
| SENATI | - National Service for Apprenticeships and Industrial Employment, Peru |
| SENCE  | - National Service for Training and Employment, Chile                  |
| VET    | - Vocational Education and Training                                    |
| VTI    | - Vocational Training Institute  |