TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING
IN PALESTINE: A NATIONAL STRATEGY

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TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING IN PALESTINE: A NATIONAL STRATEGY

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1. Aims and objectives of the Palestinian Technical and Vocational Education and Training (TVET) system.

This paper sets out the strategy for the development of a Palestinian Technical and Vocational Education and Training (TVET) system.

The need for development

The world has experienced an unprecedented and ever increasing rate of technological development.

Technology, and information technology in particular, have changed the perception of distance and time; the world has become a closely connected village.

Not only is financial capital flowing freely around the world, but so are natural resources. The market is dominated by large corporations which decide freely where to invest and thus create jobs and wealth.

In deciding where to invest, the main factors of importance are the efficiency of the local labour force (the produced output per salary unit), the political stability of the concerned region, and the political environment for investment (taxation, infrastructure etc.)

Thus, as a consequence of the internationalisation of capital, the wealth of a nation depends to an unprecedented degree on the qualifications of its labour force.

The PNA has inherited a run down system of TVET designed to train low skill workers for the Israeli labour market, a TVET system that is teaching according to curricula that are at least 25 years old, or according to no curricula at all, that
utilise equipment and buildings that are vastly outdated or obsolete, and based on teachers and trainers who have received little training, in pedagogic and in vocational skills, and which only have the capacity of training 3% of the student population in any given year.

Thus there is no doubt that the system is in serious need of development, if it is to produce graduates who will contribute to the national wealth of Palestine.

**Aim and Objective of the strategy**

The aim and objective of the strategy is to create a TVET system that is: Relevant, Flexible, Effective, Efficient, Accessible, Sustainable, and which fulfils its general obligations towards the Palestinian society.

**Relevance**

The TVET system should be relevant, in the sense, that it should provide training that corresponds with the needs of the labour market, i.e. a system that is demand driven. Relevance, thus, is ensured through a system of labour market monitoring, for instance in the form of employer surveys and student tracer studies.

Although the system should primarily be demand driven, it should also serve as a catalyst, in providing a small excess pool of qualified trained persons. This decision is based on a number of arguments: It is realised that training does not create jobs, but a pool of skilled excess labour might attract investment, which in turn will result in jobs. And as trained persons are better equipped to compete for jobs, and as Palestinians hold a long tradition of working in neighbouring labour markets, training will assist those who wish to obtain a job outside Palestine.

**Flexibility**

In order to ensure a system that truly contributes to national development, i.e. a system that is demand driven, it will be necessary to create a system that is flexible, and has a high rate of participation of all concerned parties. This is true for two reasons; a) The demand for skills is difficult to predict, as technology
develops at an ever increasing rate, and some skills accordingly become obsolete, and others in more demand, and b) The political situation facing Palestine is very unstable, making it very unsure whether or not it will be possible to count on employment of Palestinians in neighbouring labour markets.

Thus flexibility of the system becomes paramount. The system must be capable of quickly adapting itself to the changing demands of the labour markets, if it is to remain relevant.

Flexibility is obtained through modularization of the system, as small modules can easily be changed, abolished or developed in accordance with the perceived needs.

Effectiveness and efficiency

As resources are scarce, effectiveness and efficiency will be important. The effectiveness of the system, or the extent to which training outputs correspond, especially in terms of quality, to what is intended to produce, is ensured through comprehensive and continuous teachers training and curricula development, and through the adaptation of a system, that focuses on exposing students primarily to practical work shop exercises in an industry like environment, rather than chalk and talk lectures. The efficiency of the system, or the relationship between inputs and outputs, will be improved by making better use of the existing training institutions, and by integrating the vocational education institutions currently under the authority of the Ministry of Education and the vocational training institutions currently under the Ministry of Labour, and by improving the link between the TVET system and the Community Colleges. Both changes will reduces the present fragmentation of the educational system, and thus improve efficiency.

Sustainability

Any training system that is relevant, flexible, effective and efficient will be sustainable, as long as sufficient financial resources are available. The financing of the Palestinian TVET system will be based on five sources of income:
Government funding, a levy/tax on employers, payments from students, income generating activities and donations and grants.

Accessibility

Although it has been decided to create a demand driven system, it is realised, that the system has a responsibility towards the weaker groups of society, therefore a system of quotas will be established, giving preference to some students from disadvantaged groups.

General obligations towards society

The TVET system, as the rest of the educational system, holds an obligation to assist in the preparation of its students towards life in a democratic society, and towards the contribution to the economy of that society. Accordingly, emphasis will be put on instilling certain values in the students who contributes to that end: Critical and independent thinking, self reliability, pride in being Palestinian and in obtained vocational skills, and finally a set of professional ethics, such as precision, reliability, high quality, and honesty.

Main Characteristics of the TVET system

In accordance with the above the TVET system will hold the following characteristics:

- A unified national vocational education and training system
- Demand driven, albeit producing a small excess pool of skilled labour
- Based on labour market monitoring
- Participatory; involving all concerned, especially the social partners
- Emphasis on practical learning rather than talk and chalk lectures
- Students with the wish, the ability and which fulfil the requirements may continue to Community College or University after graduation.
- The target groups of the TVET system are:
  - Graduates of the Compulsory General Education system
• Drop-outs from the General Education system
• Adults in employment (training and/or retraining)
• Adults in unemployment (training and/or retraining)
  o The training provided will aim primarily at the Palestinian labour market, but also at neighbouring labour markets.
  o The system will be modular
  o The system will provide primarily job specific modules, but also generic modules
  o The financing of the system will be based on:
    • Government financing
    • Levy/tax on employers
    • Payments from students
    • Income generating activities
    • Grants and donations from national and international sources

Financing TVET.

It is considered of utmost importance to establish a sustainable mode of financing the system of TVET.

It is recognised that the needs for financing will increase vastly in the coming years, as the capacity of the system will have to be increased manifold, and as the system is in great need of development.

There are five sources for financing the PNA TVET system:

Government contributions to financing.

This issue is closely linked to the quality of training. The government has a major interest in the labour market being supplied with trained people to match the quantitative and qualitative demands of employers.
Consequently, the government should contribute to financing the TVET sector from its annual budget, and should regulate the supply of other sources of finance, such as employers and trainees.

Justification for public funding of the TVET sector is based on a number of assumptions: It promotes industrial growth and development, it promotes employment, and it provides continued education for school drop-outs etc. The participation of employers in the financing is considered important. A training levy system will be established, which will channel funds from employers to the National Training Fund. The levy system will be based on employers turn over, or on the payroll. The government will offer deductions in these contributions as incentive in relation to training carried out by employers.

The participation of employers in financing of the TVET system is important, as this stresses industry’s interest in, and responsibility towards, the training system, and thus strengthens the link between industry and the training system.

The participation of the beneficiaries in the financing of the system is considered important

The trainees will be requested to pay a small token course fee. However if the trainees/parents are unable to pay fees, the government will offer assistance in the form of revolving training loans or scholarships. In rural programmes, local communities will, where possible, contribute materials and labour for the construction of institutions (self-help). The skills upgrading activities currently carried out will be expanded, and course fees charged, covering all costs and a profit, thus contributing to the financing of the system.

The areas offered as income generating skills up-grading courses will be expanded to semi high-tech areas, such as ABS systems and fuel injection in the car maintenance sector. The equipment needed for these types of training can be financed through the fees charged, but might also be used in the ordinary training activities for non-paying students.

Income generating activities in training institutions will be regarded as means of reducing government fund allocations to the TVET sector

Income generating activities will be regarded as a source of income that will reduce government fund allocations to the TVET sector.
However, in developing and executing income generating activities, the following guidelines must be observed:

- Income generating activities may never impair the training objective of the TVET institutions and courses taught.
- Income generating activities may not impose unfair competition on the local or national industry.
- Income generating activities may not finance more than 50% of any given course, or 20% of the total running costs of any TVET institution.

The TVET institutions may trade directly with consumers, or may act as a subcontractor to other suppliers. This in itself will be part of the efforts to direct training towards self-employment.

As a method for decreasing the chance of the production objective impairing the training objective, the TVET centres may separate into a production centre and a training centre, and thus having two different entities: -The training entity in which trainees spend the first section of their training period. The training entity should be staffed with trainers and teachers, who have the goal of transmitting all the necessary skills, and where only exercises are executed. The second entity - the production entity, where students spend the second section of their training period, should be staffed by master craftsmen, and have profit as a goal. The trainees here work in a simulated, but almost true firm, which besides producing a profit that can contribute to the costs of training, also conveys to trainees; punctuality, quality awareness, the ability to co-operate, and to work fast and efficient.

**National and International grants and donations.**

Despite the availability of the four sources of income, it is foreseen that it will be difficult to cover the running expenses of the TVET system, as well as the expenses of expanding and developing the system.

The government thus welcome all national and international grants and donations.

Grants and donations may be earmarked to any training institution, whether
private or public as wished by the donor, as long as it is in compliance with the established national priorities. Grants and donations may also be given to the National Training fund for the general use of the TVET system.

National Training Fund

The government will establish a National Training Fund (NTF). The NTF will receive all funds collected for the use of the TVET system, and allocate this funding according to the decisions of the Council on Technical and Vocational Education and Training.

2. The structure of the new Palestinian TVET system, interrelations with the rest of the educational system, and management of the revised system.

The present system

At present there is no unified system for Vocational Training and Vocational Education, as these types of training are carried out in separate types of institutions, run by respectively the Ministry of Education and the Ministry of Labour.

Fragmentation

In fact the vocational education and training system in Palestine is highly fragmented, and there are a large number of training providers besides the PNA. The system is small, yet has several sponsors and displays a variety of formats. All in all, there are more than 230 institutions in the West Bank and Gaza
providing short and long term training programmes. These include vocational secondary schools, vocational training centres, cultural centres, societies and charitable organisations, and agricultural and economic development centres. In addition to that, comes the 23 Community Colleges providing post secondary education.

These institutions are run by several bodies: The Ministry of Education, The Ministry of Labour, The Ministry of Welfare and Social Affairs, UNRWA, several international philanthropic associations, and a large number of religious and profit organisations.

A person can train to become a carpenter in more than twenty institutions that offer this training. One can become a carpenter in 9 months, 11 months or 24 months. A person may train for carpentry in vocational secondary schools, or in a training Centre, run by UNRWA, or The Ministry of Labour, or the Ministry of Welfare and social affairs, or quite a number of private institutions, and each time using different curricula.

**Consequences of fragmentation**

Fragmentation leads to duplication and seriously impairs efficiency, due to the fact that the presence of so many unconnected and uncoordinated training institutions, means duplication in development of curricula, methods for training of staff, establishment of administrative systems, and employers possibilities of having a clear concept of the qualifications of the potential employee is very poor - the system becomes non-transparent. Thus the system becomes inefficient and costly.

Fragmentation also leads to a training policy which is diffuse and uncoordinated. In fact it will not be possible to have a national training policy, as there is no single or even identifiable agency that speaks for training in the economic policy and planning process, co-ordination between industrial and other types of economic policy on one hand, and training on the other hand becomes impossible, or at least very difficult. Finally, with a fragmented system, employers find it difficult to interact with the training system at a national or regional level.

**Vocational Education vs. Vocational Training**

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The question of whether to separate or integrate the vocational education and the vocational training system is one that has taken many careful considerations in all parts of the world. As seen above there are plenty of reasons for a unified system.

It is in general perceived that there are fundamental differences between vocational education (VE) and vocational training (VT), and especially between the objectives of the two systems.

However the current trend is clearly that VE and VT are converging. This is primarily due to the below mentioned fact that production technology and innovation is developing at an ever increasing speed. This means that the concept of obtaining vocational qualifications at the level of skilled worker, and afterwards not having to be retrained, is becoming increasingly invalid. Instead one has to accept the idea of life-long education, and thus not only unskilled but also skilled workers have to be involved in continuous retraining, and as a result the differences between VE and VT, and also between skilled and unskilled workers become ever increasingly blurred.

A unified system

As the differentiation between VE and VT thus becomes still more irrelevant, it seems only reasonable to combine the two systems in the West bank and Gaza at this point, where the PNA has taken over responsibility for the training institutions, and where a major revision of the system thus is under way in all circumstances.
Figure 2: The revised system.

A unified system, under the auspices of the PNA will look like fig. 2:

The system in figure 2 contains a number of characteristics: The earlier mentioned problem of fragmentation of the present TVET system is removed by unifying the two streams of respectively Vocational Education and Vocational Training, and by creating a strong link between the VET system and the present community colleges, thus making it a real TVET system, comprising the all the tasks that are traditionally found in/carryied out by respectively Vocational Education, Vocational Training and Technical Education (hence the term TVET - Vocational Technical Education and Training).

Furthermore it is noted that students that wish to obtain further education after obtaining certification as skilled workers (the present VET centres), may directly continue their education to obtain a degree as technicians (the present Community Colleges).

Persons holding a degree as technicians will also have the possibility to continue to University, without taking the Tawjihi.

These options for continued studies should however not obstruct the main point of the revised system, namely to produce skilled workers, such as carpenters, plumbers, car mechanics, electricians etc. Consequently some form of numerical limitation on the possibility of continued studies will be necessary, ensuring that...
only the very best graduates continue their studies, while the rest join the Labour market.

It is noted that the Voc/Tec Colleges are divided into an A and a B stream. First it has to be realised that the system will be modular (please see below). This allows the system to cater for both retraining/training to the level of semi skilled and for training to skilled worker, utilising one or more of the individual modules for the first purpose, and utilising the full range of modules in any given specialisation for the second purpose. This also means that students that join the system and take only one or a limited number of modules after which they join/rejoin the Labour market, may come back at a later point in time in order to take the remaining modules in their line of specialisation, after which they will obtain diploma as skilled workers.

**Target Groups**

The system will, in accordance with the comments made above, be able to provide retraining/training for adults.

The system will be catering for the graduates of the General Education system. Finally the system will be able to cater for school drop-outs, a group which presently counts between 11,000 and 18,000 persons annually.

The system will be able to deliver training at the following levels:

- Semi skilled worker
- Skilled worker
- Technician

**Modularization**

The unification of the VE and VT systems will be achieved through a modularization of the two systems. A modular curriculum furthermore ensures a curriculum that is flexible, and thus can be adapted to the changes that Palestine might face, and a curriculum that can serve initial training as well as upgrading.

Modular training is the combination of different training elements (modules) on the building block principle. Each module provides a qualification in a specific job. The modularization of vocational training has two aspects: 1) A large number of ways of varying the module combination and thus a wide degree of
adaptability to different needs. The individual student can arrange the modules horizontally for obtaining broad basic training, or vertically to obtain a highly specialised qualifications profile. Combining modules which fit together horizontally and vertically results in a profile of qualifications which very much resembles that of high quality long term training. 2) The possibility of standardising small, self contained learning packages, and thus of quick adaptation to industrial and economic change.

Modularization will thus enable students to either participate in short training programmes (one or two modules) for 2-8 weeks, or longer training by combining a whole series of modules, enabling a student to move from completely unskilled to skilled worker.

In this manner there will be no reason for differentiating between VE and VT, and thus between the vocational institutions of the Ministry of Labour and the vocational institutions of the Ministry of Education, and the curricula, teachers training and other developmental work of the two types of institutions can be unified.

The modularization will comprise not only the job-specific skills, but also generic skills, allowing students to combine the two, or to only take job-specific modules. Some of the more specialised job-specific modules within certain occupational
branches may also have as a prerequisite one or more of the generic modules. For instance, a module in advanced electronics may have modules in math as a prerequisite. The modular structure of the system thus will look like fig. 3.

Management of the unified system

As it is accepted that the new type of institutions will be identical, no matter which system they originally stemmed from, there is no clear answer whether to place the institutions under the Ministry of Labour or the Ministry of Education or the Ministry of Higher Education. Consequently a Council of Vocational Technical Education and Training will be established. The council members will be experts from the three Ministries and the Ministers of the three Ministries. The Ministers will take turns, one year each, chairing the Council.

Furthermore the Council will be expanded with members from third party ministries, when the council is discussing questions that affect other ministries, such as training in the tourism sector (Ministry of Tourism) or the training of paramedical (Ministry of Health) or the co-ordination of industrial policy and training policy (Ministry of Industry/Planning). The Council of TVET will be responsible for managing the new unified centres, at the strategic/policy related level.

To execute the policy and strategic decisions of the Council, a Directorate for TVET should be established which will also be responsible for the day to day management and development of the system.

In order to ensure a close link between the TVET system and the rest of society - especially the Labour market an advisory committee on TVET will be established. The membership of the committee is to be decided upon by the TVET council, but could resemble the ones participating in the present advisory council of vocational training. In an initial phase, a development branch may or may not be placed outside but closely linked to the Council.

Finally a training fund, providing the funding of the system (the TVET directorate and the centres) will be established. Consequently the system may look as Fig. 4

3. Target groups
It has already been established, that the revised and unified TVET system should be catering for: Training/retraining of adults, training of graduates from the General Education system, and training of school drop-outs. This does how-ever not address the question of whether all persons wanting should have access to training, and if not so, should certain groups (woman, disadvantaged, ex-political prisoners, school drop-outs etc.) be given priority.

Demand vs. Supply driven Training

The basic question that needs to be addressed is whether the system should be demand or supply driven. International experience shows, that:

- Training does not create jobs
- Trained people holds a competitive advantage over untrained people in competing for jobs
- Skills get rusty if not used
- A pool of trained people may attract investment, which will create jobs

Thus it is recognised that supply driven training almost certainly will result in giving to many students the wrong (unemployable) skills, and thus result in training for unemployment, which not only is wasting students time, but also an in-efficient use of government funding. An efficient training system is not achieved if trained persons do not use and benefit from their skills. Efficiency in turn is a prerequisite for equity. Economically and socially disadvantaged citizens do not benefit from training unless the skills learned increase their productivity in employment.

Demand driven training therefore will form the basis for the PNA TVET system.

Labour Market Monitoring

As a consequence the training system must establish some form of labour market monitoring, and close co-operation with the employers and trade unions, in order to establish what the skill requirements of the labour market are. In establishing the demands of the labour market, it is realised, that a) training is always for the future demands, and accordingly the system should forecast the
future demands and b) the size of local labour markets is often overestimated, in
the sense that geographical mobility of employees often is low (and especially so
on the West bank and in Gaza), thus it is not very relevant to establish a lack of
skilled welders in the West bank in general, if this deficit is placed in Ramallah,
as this is only relevant to training institutions in the Ramallah area, so one has to
be very careful of the geographical aggregation of data.

Training as a Catalyst

As unemployment is presently very high in both Gaza and the West bank the
training system will be given a catalyst role, training somewhat more people
than what is actually presently required, in a hope that the future will show
improving economic conditions, and in a hope that a pool of qualified labour
might contribute to the attraction of increasing investment in industry and
production. It follows that the overproduction of graduates must be at least
partially placed in economic sectors, that are pinpointed by the PNA as strategic
areas of development. Furthermore the slight overproduction of students is also decided upon, as
Palestine has a historic tradition for exporting labour to neighbouring labour
markets, and as trained people hold a competitive advantage over untrained
people in competing for jobs, the training received may help the graduates in
their competition for jobs in foreign markets. A final reason for the mentioned
slight overproduction is social reasons, as it will give students an opportunity to
improve their employability, if not give a guarantee of a job subsequent to the
receipt of training. However it is realised, that with the acceptance of such an overproduction the
training system, has entered a route that contains the dangers of the supply
driven training system, and thus the amount of students will have to be
constantly and closely monitored.

Marginalised Groups

Having chosen the route of a demand driven system, albeit with a slight
overproduction this does not preclude some form of quotas for marginalised
groups, such as woman, handicapped, ex-political prisoners, school drop-outs.
For social reasons some preference will be given to these and other relevant
disadvantaged groups.

Guidance and Counselling
Finally a comprehensive system of guidance and counselling must be established, assisting potential students in choosing occupations that suit their abilities and preferences, but also match the demands of the labour market system, thus increasing the chance of employment after graduation.

4. **Training of nationals to work outside Palestine**

It is realised, that for obvious strategic and economic reasons, it is preferable if all Palestinians can be employed in the national labour market. However, looking strictly at the available labour market statistics of the West bank and Gaza, the high unemployment rates, and the low participation in the labour force seems to indicate that in the short and medium term, there is not much choice, but to include both the Israeli and the Arab labour market as potential places of employment for Palestinians, enabling these persons to contribute to the wealth of the nation. In the long term, it is envisaged that the Palestinian economy/industry will be sufficiently strong to absorb the entire Palestinian labour force, and the Government is dedicated to support a development of the Palestinian economy, which will achieve this. Having accepted, that the Palestinian TVET system should also train for outside markets, two points has to be made: It must be avoided, that the needs of the Palestinian labour market gets crowded out, by those of the neighbouring labour markets, due to higher pay or any other reason. This danger should be avoided by supplying sufficient amounts of qualified labour. Furthermore, history has shown that a too heavy dependency on the Israeli labour market may be dangerous, as closures unilaterally imposed by the Israeli government will substantially hurt the Palestinian economy. As it is accepted, that the Palestinian TVET system should also train for outside labour markets, and as it is accepted, that the TVET system should be demand driven, it follows logically, that the monitoring of the labour market needs for skills should include the needs of the outside labour markets.

5. **The roles of Government, Local community based organisations, foreign NGO's, the private sector and UNRWA, in providing training.**

The PNA recognises the role of NGO's, UNRWA and others in providing training to the Palestinian people during the past decades. The PNA recognises the value of the training provided, and the expertise gained by these institutions during the past years, and welcomes a close co-operation with the mentioned institutions, in order to utilise the mentioned experiences, in the development of a national TVET system. Already at this stage it is clear that the capacity of the
revised training system will have to be increased vastly, and as resources are scarce, it only makes sense to encourage all other training providers to continue offering vocational education and training.

However, it is important that all training provided leads to qualifications that are recognised nationally, in order to ensure a transparent training system. This means that the government should involve all training providers in developing curricula and testing and validation measures. Once these are developed, all training providers will be offered the use of the curricula and admission to the national testing system. The involvement of the other providers in the development process means that this process will benefit from all resources available not only those of the government. This is particularly important in the case of UNRWA which has benefited from extensive external support ever since the establishment of its centres.

6. Implementation

It is acknowledged that the system described in this strategy is very ambitious, and that it will take large amounts of resources, both in the form of time and money, to implement.

It will be a prerequisite for a successful implementation of the strategy, that the implementation is executed in an orderly and well planned manner to avoid, that duplication, confusion, lack of funding, etc. impairs the process. The PNA realises that it does not hold the financial means required for implementation, and calls on the international donor community for assistance.

To ensure that all internal, external, national and international contributions to the implementation is utilised efficiently, an action plan on the implementation will be drawn up immediately after the adoption of the strategy. The action plan will outline the different elements in the implementation, and their interconnection with each other. The action plan will prioritise the different activities, and determine the order in which they are to be dealt with.

References

3.