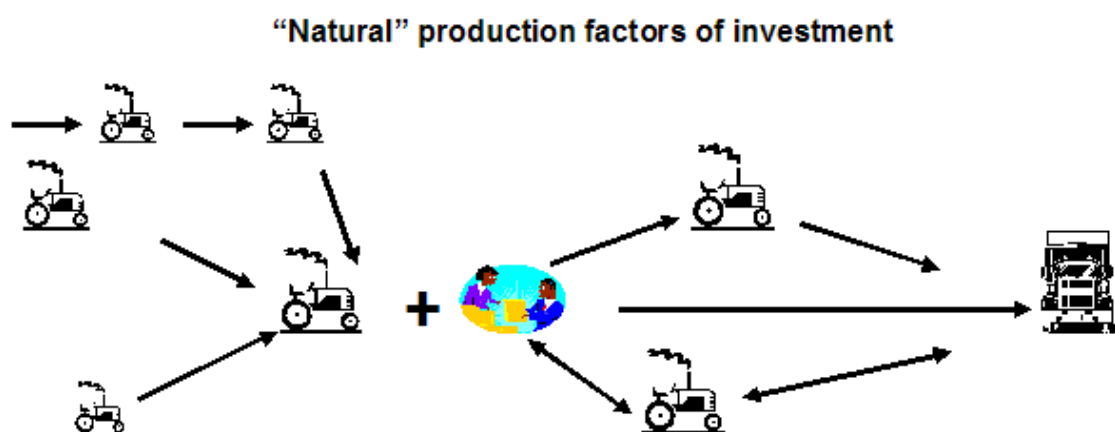


HUMAN RESOURCES DEVELOPMENT FOR THE MOZAMBICAN DEVELOPMENT CORRIDORS

FINAL REPORT



12/2003

Index

Executive Summary	4
1. Demand versus supply of manpower in Mozambique	4
2. Demand versus supply of qualified manpower in Mozambique	4
3. How far improved skills development for different target groups enhances their growing prospects of employability?	5
4. What is the effective demand for more qualified/skilled manpower?	7
5. SDI approach and relevance of the human resources development	8
6. The Strategy for human resources within the Mozambican Development Corridors	8
 PART I: VISION	 119
1. Introduction	Error! Bookmark not defined.
2. Statement of the problem	22
3. Objectives and Purposes of the Study	Error! Bookmark not defined.
4. Methodology	26
4.1. How this study has been carried out?	26
4.2. Theoretical background to strategic choices in the Mozambican SDI	26
4.3. SDI Approach and Relevance of HR Development	30
 PART II: DIAGNOSIS	 32
5. Business Environment and Investment in Mozambique	32
5.1. Background	32
5.2. Technological Performance of Industry and its Consequences for Mozambican Investment Promotion	35
5.3. Entrepreneurship, General Investment Trends and Labour Market	37
6. Demand and Supply of Qualified Manpower in the Corridors	45
6.1. The Determination of Manpower Demand	46
6.2. General Trends on Manpower Demand	50
6.2. Anchor Projects and Delivery of Professionals in the Corridors	52
6.3. Significance for the Supply Side of Manpower	71

1.1.1

7. Education and Training in Mozambique – a Brief on the Supply Side	72
7.1. Formal Education and Training Provision	72
7.1. Non-Formal Education and Training Provision	79
8. Main Bottlenecks for Matching Demand and Supply of (Qualified) Manpower	81

PART III: STRATEGY..... 83

9. Why a Country needs a Qualified Work Force ?.....	84
10. Policy, Regulations and Enforcement.....	86
11. Public Private Partnerships	104
12. Project Profiles for Immediate Implementation.....	112
13. References	125
14. ANNEXURES	127

Executive Summary

1. Demand versus supply of manpower in Mozambique

In 2002, Mozambique had an estimated population of about 18 million inhabitants, of which some 50% can be regarded as economically active and 44% as directly engaged in the subsistence and self-employed activities.¹ Assuming that the Mozambican population is growing at an average growth rate of about 2% per year, around 350.000 people are added every year to Mozambique's population. This natural population growth can be seen has the ceiling of the annually natural or potential new job seekers in Mozambique.

In reality, most of such potentially new job seekers do not bother to seek for a job because they know that they would hardly find any even if they wanted to. They are generally left with no better alternative then working for themselves, as self-employed, either for subsistence or, in some cases, for business, or even both.

According to one of the most recent surveys released by INE (2003), more than three million households depend on self-employed work, as opposed to less than 50 thousand formal economic entities, (31.735 enterprises, 12.196 public entities, and 4.217 non-profit organisations). This means that only around half million (521.207) persons are engaged in the formal economy, which represents about six percent of the Mozambican economically active population: 58% are employed in the private and parastatal formal economy, 33% in the public administration and 9% in the non profit organizations.

In 1996/97, the official unemployment rate (formal wage-earning employment) was estimated at around 69%. This figure is, as pointed out above, almost the same as the total number added to the Mozambican population every year, most of which are by definition not regarded as unemployed simply because they do not actively seek for job or employment.

In any case, it is worthwhile to stress this startling situation of the Mozambican population. While, on the one hand, Mozambique has about 350.000 people assumed to be unemployed in the formal economy, on the other hand, every year the subsistence and the informal economy add up almost the same number of people to its existing economically active effective.

Against this rather high demand for work opportunity, either through job employment or through own employment, over the past five years or so, less than 200 new investment projects have emerged in Mozambique annually. Such a modest investment generate about 35.000 new jobs per year, which means a satisfaction of not more than 10% both of the existing natural demand for new work opportunities in the subsistence and informal economy, and the estimated unemployment level directly associated with the formal economic.

2. Demand versus supply of qualified manpower in Mozambique

As far as the work force training, Mozambican private and public vocational and higher educational institutions supply five to six thousand qualified people per year. This is about 15% of the 35.000 new job created annually and less than two percent of the directly people seeking work and wealth creation opportunities. In other words, almost 99% of the directly available manpower for work and job opportunity creation has low qualifications and job skills.

¹ This is according to INE's 1999 projections. Other projections, including those provided by INE et al. (2000) taking into consideration expected AIDS impact, or those undertaken by the US Bureau of Census (2003), provide relatively different estimates. For the purpose of this work the INE's (1999) projections are the ones taken into account.

In these circumstances, it is remarkable, if not paradoxical, that a recent study on *Mozambique Industrial Performance and Climate Assessment* (Nasir et al., 2002) found a relatively high ambivalence towards worker training among the firms comprised in the survey. When asked whether government incentives for worker training has an impact on their business, and how important is worker training to (slowing) their business growth, in both cases firm's responses fell equally across three categories: a third ranked worker training as having no impact, a third as low impact, and a third as high impact. Moreover, an overwhelming majority of responding firms cited inability to define or prioritize training needs as a constraint for not undertaking worker training in their firms. As Nasir et al. (2002: 25-26) conclude, this may be indicative of lack of awareness of the benefits of investing in worker training, which is also supported by the fact that nearly 44% of the respondents claimed that there was no need for training – workers just learn on the job. However, as still Nasir et al. (2002: 26) pointed out, such responses reflect that most firms in Mozambique are using antiquated production methods that require little training to attain a minimum level of efficiency.

At the onset of the present study it is important to put its subject matter and objective within the broader context of the existing employment opportunities and human resources development in Mozambique.

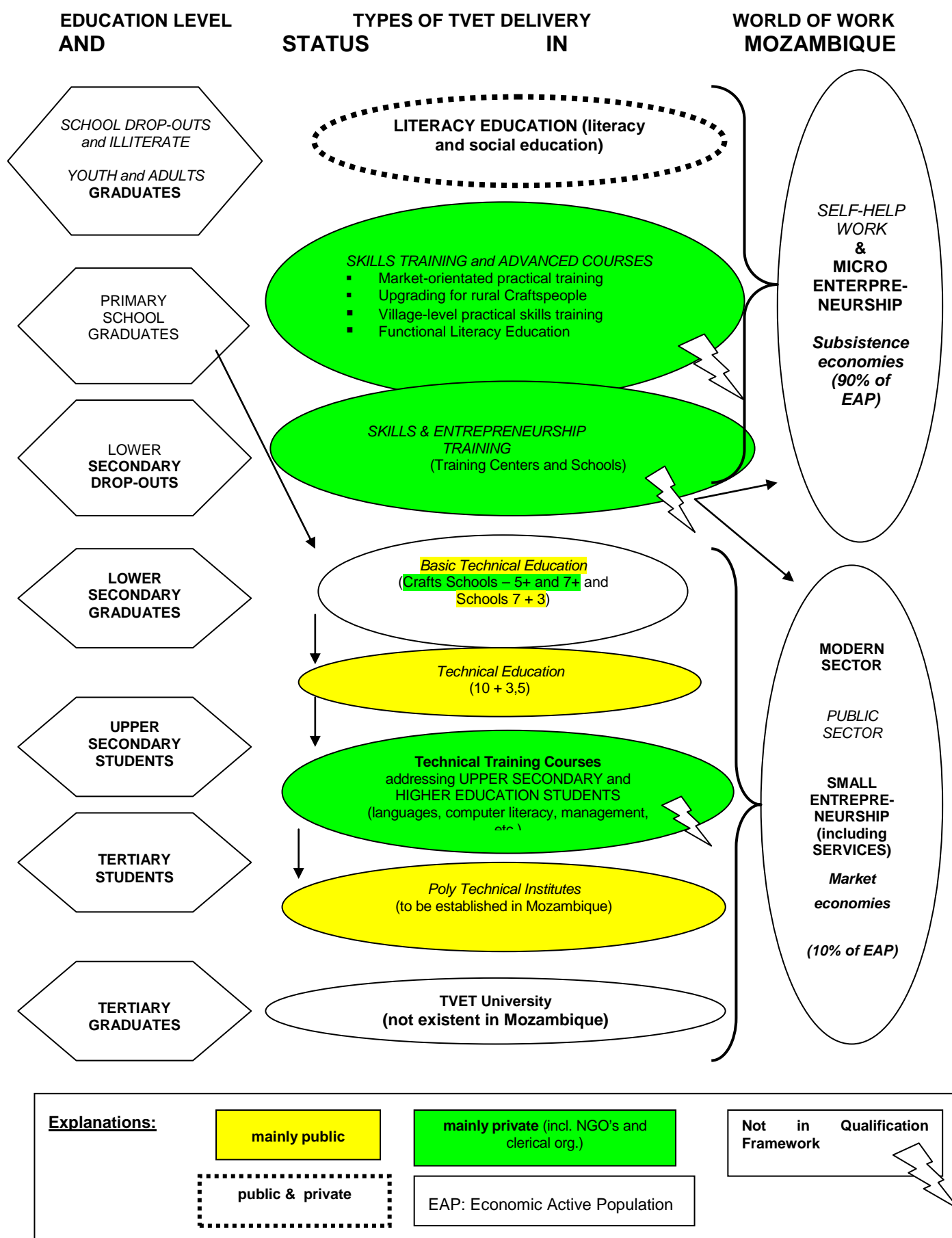
3. How far improved skills development for different target groups enhances their growing prospects of employability?

Generally, all kind of training provision in Mozambique is welcome, as still the demand for general education and more advanced general education and TVET is not yet satisfied by capacity (physical and number of qualified teachers and trainers). Undoubtedly, a sound general education (at least 7 years of schooling) is the best preparation to begin a TVET training program. Still, about 85% of the respective age group of pupils does not reach the seventh grade. Therefore the pressure on the educational system and on the subsystem of TVET lies on the challenge to create supply for target groups dropping out of the mainstream. Only 15% of pupils of the respective age group finalize grade 7 and only almost 3% reach grade 10. By Labour Legislation, employees above the age of 16 are allowed to work on a production line and according to ILO principles (also ratified by Mozambique), 18 year old workers are allowed to fully be engaged in an industrial process. As all programs need to have a very strong emphasis on practical exercise, apprenticeship schemes and field work, young students of upper primary Arts and Crafts Schools and sometimes lower secondary schools are impeded to join practical exercises at industry. This means, that industrial trades should be delivered systematically from grade 10 onwards. As well, fewer highly equipped technical schools and training centres will generate a much higher impact than many badly equipped, thus much more with a character of a general education school rather than a technical school.

As to the figure on the following page, the green marked training products are not yet recognized by the Qualification Framework, although the short term programs turn out to be the most important for the majority of population. It has to be stressed that a country and its institutions should be prepared to allocate resources and supervise them according to investment trends and employment opportunities, not regarding to which institution one is belonging to. To employers and even to students and trainees it is indifferent, where skills have been delivered. The most important is to “know to do” and to “be able to construct on one's abilities, skills, competencies and qualifications”.

It is imperative to begin to constitute the concept of “learning pathways” in Mozambican trade reform.

FIGURE: Components and Gaps of the TVET System in Mozambique (2003)



4. What is the effective demand for more qualified/skilled manpower?

Independent of the job, at all levels job seekers need to fulfil specific requirements which can be summarized as follows:

- Unlike the degree of responsibility of the job, every person engaged in a profitable organization is measured against its personal productivity.
- The scope of all jobs require managerial competencies(organization, leadership, time management, etc.), personal competencies (communication, awareness, making decisions, being responsible, etc.) and professional / technical competencies (in the field of work) which tend to be more complex, the higher the degree of responsibility within the organization.
- In profit organizations, salary is paid according to productivity of the whole organization and according to productivity of staff at all levels.
- Well organized profit organizations offer a career pathway to professionals in order to retain the best within their organization (this implies reduced costs of recruitment and on the job training) and in order to rise the output per employee.

The number of jobs rises, where transformation of inputs occurs (throughput) and where high labour intensity is required either by input factors, by production process or by sophistication of product variation (garment industry, shoe industry, other manufacturing industry). Industries which are directly connected to inputs from agricultural activities (cashew nut and tobacco production, crop production and transformation, food & beverages industries, meat production, etc.) tend to create more jobs (at community level) than the transformation of goods merely dependent on extraction or imports of raw materials (aluminium production, extraction of minerals, etc.).

The same applies to communities or organizations at local level, which aim to contribute for better life conditions of the population by supplying goods and services to investment projects.

The effective demand of all 12 anchor projects analysed in the Development Corridors will not exceed 3000 direct jobs associated with an improved skills level of the job seekers. Considering a distinction of job profiles and occupations according to the level of responsibility and complexity, managers and supervisor (management level) positions will amount to less than 10% of total, supervisor and foremen (operations) will make about 20% of total, whereas the majority (more than 70%) will consist of shop floor workers. Indirect job occasions and income opportunities due to investment projects might arise for between 15.000 to 25.000 potential self-employers and employers in associated businesses.

The demand for short term programs will be in future much higher than for longer training programs, due to increasingly literate youth, seeking for business start-up training and orientation before capitalizing on self-employment opportunities.

It is therefore crucial for policy, to decide on a much more flexible training delivery system like suggested in figure above. Independently, where a person is engaged in, it has to have the opportunity to upgrade skills wherever the person is settled in its life and economic activity.

5. SDI approach and relevance of the human resources development

The SDI approach represents a big opportunity to TVET system building processes. The promotion of businesses and the enhancement of downstream and upward linkages by public and private institutions are to date the most important window for Mozambique to access new technologies, new work organization schemes and methods and normally under these circumstances new ideas for other businesses arise.

Undoubtedly, the main instrument to access know-how, and to learn about and with new quality standards, is the establishment of partnerships between technical schools, training centres, universities and communities and investors.

Generally the identified impediments to initiate and keep alive a partnership are due to lacking technical competence in (public) training provision, either in technical schools and institutes or in training centres or due to expectations which have not been articulated to the business partner from very beginning of partnership. Many times, investors are reluctant because of very slow decision making processes and not managerial time management and resource allocation methods.

There are other reasons which make partnerships necessary:

The main challenges for a relevant training provision arise in having updated, technically skilled trainers (instructors and teachers) in place. As well the methodological and theoretical background of new learning methods (in teamwork, in partnerships) are almost totally absent. Apart from these two points related to the “resources gap”, many investors don’t have the access to information from the relevant (public) bodies about updated trade related questions and statistics. This is either because of a missing marketing or even disinformation and disinterest from either the provision or the demand side of qualified manpower.

Another important item is the weak financial situation of VE schools or VT centres. Finally, still information and know-how sharing are undoubtedly obstacles for getting projects at district or local level pushed forward. In most cases, personnel commitment to successfully promoted partnerships between (public) training provision and potential employers and investors is much more a motor towards building up partnerships, rather than institutional arrangements and intentions at central level.

6. The Strategy for human resources within the Mozambican Development Corridor

An innovative environment and know how transfer are main drivers to, strategically enhance in the long run a better matching of skills demand and supply. From a strategic point of view, Human resource development in the Corridors has to intervene on policy level and on the level of “making things happen”: The following recommendations refer to:

- Enabling environment with regard to policy, regulation and enforcement of public and private institutions (strategic level of TVET system)
- Partnerships to make skills available and respective project profiles (operational level of TVET system)

The success, to strategically improve the delivery of more skilled manpower to investors and entrepreneurs and to create an environment which fosters entrepreneurial spirit, depends strongly on the innovation capacity and quality of the institutions and the willingness to enhance the capacity building at more decentralized levels within the TVET system and the Higher Education system. A strong driver for success could play well established private-public partnerships at all levels of innovation: training programs and delivery, teacher training, standard setting bodies, international quality standards, management of technical schools and training centres, etc.

This potential of (internal) know how transfer has to be coordinated with programs of technical assistance, in fields where generally private sector is unable or unwilling to share costs or to invest.

Information sharing and update

A thorough information sharing and coordination of action among the public bodies (3 line Ministries dealing with HR Development issues), investment promotion bodies (specifically Investment Promotion Centre (CPI), the Confederation of Business Associations of Mozambique (CTA) and other business associations (either bilateral chambers of commerce or Mozambican associations, such as AIMO, ASEANA, etc.) and the Programme of the Development Corridors in Mozambique is crucial with regard to HR development issues.

Especially information related to the status of investment in the provinces of Mozambique and issues related to technologies, their applications and lessons learnt have to be made of access to the decision makers of Technical Education and Training in Mozambique and thoroughly shared amongst their institutions and shared with managers at operational level within their institutions (such as district directors or school/training centre directors).

Recommendations:

An information-sharing network, based on a homepage, but also institutionally of access for everybody interested in the information is one step towards building consciousness for technology and science in the country.

Regular registration of information on manpower :

In case of a new investment in Mozambique, the business either is registered via Investment Promotion Centre or via support services (private consultancy, lawyers, other private institutions) for its registration with relevant public institutions (generally the line ministries, depending on services or products to be produced or submitted to production and / or commerce). Reinvestments and investments by already settled investors in Mozambique, are centrally registered by the Ministry of Planning and Finance through the provincial departments getting access to information via tax and income statements. Generally, investors do not need to inform either CPI, or other bodies about their labour requirements. In case of a new investment, the only information the investor is supposed to give is about the number, category and salaries for national and expatriate staff.

Recommendations:

The information required by the investors upon registration of investment should be detailed in a way that further HR related questions can be considered, such as: scope and duration of employment during different phases of investment (construction, operation under 50% capacity and under full capacity) and possible manpower needs in accordance to occupations/qualifications or skills levels. **Information provided by investors in a more detailed way and shared by public institutions would be beneficial for the investor and all interested parts of public and private training provision and will contribute to a better**

matching of resources. The database would even support extrapolations of future manpower needs by historical data analysis and would strengthen the reliability of scenarios at macro level of planning and allocating scarce (public) resources for investment in training.

These information should be as well of access to the public, where demand of manpower could be met by provision or by services.

Information sharing could lead to the set up of Quality Assurance Bodies:

At present, the most valuable information on technological requirements and standards for investment projects is not being used in institutional building processes with regard to HR related issues in Mozambique. Technology transfer has to be promoted at all levels of intervention in order to generate spill over effects to institutions and people.

Recommendations:

Investors should be invited by public bodies to suggest how they will cope with manpower requirements in their project. From time to time, CPI should invite the representatives of the 3 main public bodies responsible for HR development issues within their line Ministries (INEFP, DINET and responsible department in Ministry of Higher Education, Science & Technology), the responsible department for quality and national standard setting issues of the National Institute of Norms and Quality (INNOQ), and private providers of training to learn from shared suggestions by highly motivated investors. In several cases specific training needs can be assessed and suggestions could lead to concrete projects and partnerships. In a further step, such kind of “workshops” could be organized together with business associations, thus contributing not only to more awareness about the subject but as well creating first “work groups” which could lead to the establishment of Education and Training Quality Assurance Bodies (in the South African terminology: ETQAs (see: <http://www.saqua.org.za>). These bodies predominantly act to promote quality of education and training, accredit providers, certificate learners, register assessors (examination), facilitate moderation between the parties, monitor the provision of education and training, undertake audits, etc. In Mozambique, where on the one side highly skilled professionals for different industry product and services standards are scarce and, on the other side, public bodies are rarely prepared to cope with international standards, this kind of working groups will necessarily need to invite foreign investors to introduce high standards of science and technology into the Mozambican economy and TVET system.

Recommendations:

The following recommendations refer to strategic aspects, how training can be delivered, which frameworks should be developed and to which extend institutions are important to investors to promote the development of its human resources.

The creation of learning pathways

Like a National Qualification Framework (NQF) suggests, there are many different ways in which a person may gain skills and a national qualification. The achievement of competence is what matters, not the way how it is achieved.

Learning pathways are individual options of courses and learning situations, selected by candidates to achieve a qualification. The creation of such opportunities of learning is inherent to whether a “culture of learning” shall be of national priority or whether a learning opportunity is linked to the income situation of individuals.

In the socio-economic context of Mozambique, the total exposure of the nations human resources to regular learning and training is very low. Additionally, only a very small portion of

the students is involved in regular practical work conditions and a minority in occupations which refer to their qualification.

Under these conditions, the known concepts and approaches to “learning pathways” in anglo-phone TVET systems have to be considered with special attention to Mozambican general conditions.

Under Mozambican conditions, possible pathways of learning are as follows:

- Assessment-only pathway (through learning and training situations delivered either by institutions, work situations or other relevant experiences)
- Combination of on-the-job training and institution based training
- Institution-based training
- On-the-job training

Recommendations - Legal Framework

The establishment of a new VE and VT diploma (not necessarily a law), considering the interfaces to the most important regulations of subsystems of education and training (Law of Higher Education, Diploma of Private Education, Diploma of Private VT, etc) under elimination of regulations and diplomas of aspects considered in the new regulation, will generate to the public a better understanding of VT and VE and by which instruments it is ruled and promoted in Mozambique.

Necessarily the diploma needs to clarify and define the following aspects, such as:

- Definitions and terminology
- Institutional responsibilities and duties (accreditation, certification, assistance, etc.)
- Qualification Framework and equivalences
- Management and finance
- Partnerships (making training relevant, curricula development, examination boards, teacher training, etc.)

Recommendations – raising relevance of training

All the three subsystems of TVET in Mozambique, the VE system under auspicious of Ministry of Education, the VT system under auspicious of Ministry of Labour and the newly designed higher education poly technical VE² include practical training contents in their learning programs. Whereas the VE are predominantly vocational and teachers, even from the practical training division, do not have a strong entrepreneurial background nor are technology wise updated to state of the art, presently VT lacks in theoretically grounded practical background. Structural challenges to offer more relevant programs to seekers of high quality TVET have to be overcome. At operational level, this refers especially to adverse attitudes from existing teachers and instructors towards new technologies and new training environments which could be set up with support of external expertise. As one of the most important steps towards overcoming the reaction of threatened teachers and instructors by new environments of training is to leverage their potential by creation of partnerships, managed and designed by equal partners in a partnership between Technical Schools and Training Centres and interested business partners.

To improve the overall quality of practical training in the TVET system some key referential items should be:

² As the Poly technical Higher Education Institutes still are not running, the further comments do not refer to this new TVET subsystem.

- Practical training within an occupational group or a profession should not differ between its provision by Technical Training Centres (TTC) and Vocational Schools or Institutes (VSI).
- Learning materials, equipment and teachers should be interchangeable between both, TTC's and VSI's always if the practical training is of similar level or complexity of competency.
- There shouldn't be any different treatment (payroll) between so-called "trainers-monitores" under payroll of Ministry of Labour and other line Ministries working in TTC's and "teachers of practical subjects-professores das práticas pré-profissionais" under payroll of Ministry of Education and other line Ministries, if definitely the character of practical training is of similarity and the trainer is equally competent.

From legislation's point of view, Labour Law offers an integration of job seekers and new employees either by apprenticeship contract or by a clause³, referring to the article in Labour Law and legalized by the line Ministry, in this case Ministry of Education.

Such an amendment gives the opportunity to job seekers to encourage employers according to a negotiated integration to company openness to gradually integrate the job seeker into the envisaged job profile or position.

As view recent graduated pupils and students from VE schools and institutes and less pupils and students from secondary schools (and having upgraded by personal initiative their skills through short training programs) have had the opportunity to get any professional experience, the suggested structure to get more employable by existing regulation could be as follows:

First:

Practical exercise contract with VE school and / or institute and future employer during the last 12 months of VE program according to Labour Law and regulation of practical exercises by the respective line Ministry (in this case: Ministry of Education). The same applies to the vocational training programs, usually of much shorter duration.

Second:

Apprenticeship contract with employer just after graduation according to Labour Law.

Third:

Work contract with employer according to Labour Law.

Recommendations – Public-private partnerships

- A clear commitment of relevant public bodies of VE and VT to interface with other relevant entities (such as National Statistics Institute, employers and employees organizations, civil society), in order to create a wider basis for the future relevance and sustainability of the whole TVET system.
- Is advisable that INEFP were able to effectively represent all the public training providers, in order to standardise procedures and other relevant aspects;

³ Regulamento das Práticas pré-profissionais (Ministry of Education) under preparation for approval by Minister of Education (verbal information from National Directorate of Technical Vocational Education – August 2003).

- As stated in the Governments Five Year Program (Resolution n. 4/2000 of March 22), stressing the need for a National Qualification Framework enabling the raise of an equivalence system between education and training, referring the need for “*coordination with the social partners*”, with strong participation of private partners.
- Making use of potential of some juridical figures such as the apprenticeship contract (*articles 174 and 175 of the Law 8/98*) and the internship regulation (12 months duration) within the 4 years VE program of Public Administration (Ministry of State Administration).
- Making use of fiscal benefits within special economic development zones and outside of those zones.
- Establishment of a scheme of fiscal benefits to all companies that train employees and/or apprentices (either formally, by apprenticeship or internship contract, or informally, by in-house-training) and which are formally registered (either through income tax registration number and/or national social security system – INSS).

Project profiles in the Development Corridors:

All Development Corridors

Project profile 1: “The Mozambican Training and Skills Matching Village” homepage

Motivation:

Information about either employment opportunities, job seekers, training products and services and official documents and regulations regarding human resources development issues are disperse and not generally available to the public.

Vision:

The homepage will be a unique product in Mozambique to offer information, products and services of training suppliers. Moreover it will support individual placement efforts of job seekers (without payment) and be a forum to receive latest information on HR issues in Mozambique and the region. Links to other information sources can be as well incorporated. The homepage will be open for sponsorships in order to cover operational expenses to maintain the homepage updated.

Objectives:

- to set up a homepage with four main services
- to contribute to match skills in Mozambique
- to create an information source of high standard with valuable information for the public
- to offer public (it would be the first attempt in Mozambican history) and private training providers a space for publicity and information on their products and services
- to contribute with the dissemination of using computer technology in Mozambique
- to offer links to other homepages and information sources
- to disseminate information about topics of national concern (e.g. HIV/AIDS)
- to offer sponsorship to interested partners

Maputo Development Corridor

Project profile 2: Training Centre of the Beluluane Industrial Free Zone

Motivation:

The Industrial Free Zone of Beluluane is a determined geographical area where special concessions are given to investors. Main criteria are a) exposure to export markets (minimum 85% of total added value in the free Zone), b), etc.

There is a need to recruit and retain qualified manpower to guarantee the raising demand of multi skilled professionals to the associated companies.

Vision:

The associated companies import, add value and export different products. The Training Centre of the Industrial Park could be an educational affiliate with the main focus on all HR related questions, like

- recruitment and selection,
- screening and career planning,
- qualification and assessment and,
- upgrading and training.

Objectives:

With focus on special needs of associated companies, in future the Park's training center could cater for and deliver a), b), c) and d). These functions currently are attributed to the HR administrations and departments of each associated company. The upgrading and training can be developed as a agreed upon tool for all associated companies (with regard to training needs) and as an instrument to deliver expertise to other companies and/or institutions. In order to support the very weak " training of technical trainers and professionals" in Mozambique, a special upgrading and training could be developed in order to:

- facilitate the technology transfer to teachers of (public run) training institutes and schools,
- facilitate the continuous improvement in learning and teaching methodologies and
- strengthen linkages to potential employers for students of the targeted participants of the learning programs.

Besides the above mentioned activities, major activities of the Training Center could include in future:

- Promoting and /or managing an annual Training Fair, working with government agencies on a large variety of (industrial) training issues,
- producing a series of educational seminars
- engaging in an ongoing quality standards and safety assurance program (together with INNOQ, MINESC, and other partners)
- seeking for high added value by setting up partnerships with regionally and internationally validated (quality standards) centers and institutes
- establishing of sponsorships to maintain the Training Center of fame,
- providing special services and trainings for smaller companies
- creating added value for members by provision of special services together with business associations (compiling industry statistics, conducting a full communications and public information program, etc.)

Limpopo Development Corridor

Project profile 3: Small Business Promotion – Services and products for Corridor Sands Ltd

Motivation:

Big business opportunities will arise especially for the services sector linked to transport and communication, food and accommodation as well as to agricultural diversification of crops and products for an increasing and more sophisticated demand at local and regional level. The mine itself may employ between 900 to 1100 workers. About three times more jobs for related services to and from the mine will be created. By completion of urbanization, Chibuto might employ direct and indirectly more than 8000 people (public and private services). Technical schools and training centres in the region could play a crucial role as facilitators of the promotion of (small) businesses and should identify as soon as possible their strengths to capitalize on large opportunities arising from the Corridor Sands investment.

Vision:

Community based provision of services to the Corridor Sands Ltd in the Limpopo Development Corridor, involving the districts of Chibuto and Chókwe in the Gaza Province in southern Mozambique and provision of practical exercises for students of the technical schools of Chokwe (agriculture), Xai-Xai (community development / public administration skills at community level) and Moatize Geological and Mining Institute in province of Tete (geology and mining).

The district departments of education from Chokwe and Chibuto work together in order to establish concrete activities of community development related to the investment project. Several instruments (Centros de orientação profissional – professional orienteering centres and fields for training activities) have been summarized in a study. Instead to try to establish a variety of training centers run at village level with the intention to deliver in different occupational fields skills, the focus on providing training should be on the following products.

Products:

- 1) Enhancing local acceptance of the investment project by strengthening the enabling environment: Core element is to promote effective governance and organization in the newly developed town of Chibuto which will change in all aspects: urbanization and services of setting up a functional structure of a town will need interventions in a variety of areas.
- 2) Provision of specific products and services to the Corridor Sands Ltd, promoting income opportunities to associations, technical schools, etc in and around the concession area, thus facilitating the creation of off-farm incomes nearby the concession area and the province of Gaza.
- 3) Provision of young professionals from technical schools and secondary schools, in a first step on internship and apprenticeship basis and eventually, in a second step for employment.

Beira Development Corridor:**Project profile 4:**

Non formal or formal education and training program seeking to improve the productivity of meat production after introduction of technical progress

Motivation:

Livestock are an important component of the farming system in Mozambique. Almost all households have some form of livestock and at least 20% of the agriculturally active households have cattle. Cattle are an important aspect of the social obligation to provide produce for social functions such as weddings and funerals.

Cattle kept by small farmers in herds of 1-5 animals usually require minimal capital investment and management. The larger more commercially oriented cattle owners typically invest in fencing, water supply, pasture development, stock handling facilities and transport.

Vision:

The project seeks to complement the current extensive cattle rearing system with intensive cattle fattening units. Young steers will be finished with silage and grain. This method of intensive cattle fattening raises the efficiency of total livestock production by eliminating weight loss during the dry season. The system increases cattle off-take by 20% and meat production by 50%. The enhanced quality of the meat produced will allow for the production high quality beef for the domestic market decreasing the reliance on imported meat. In a second step even export markets can be supplied.

Objectives and implications for training and training provision (either non formal or formal):

This concrete project aims to rise currently low quality meat production reaching high meat quality standards for supply of domestic and export markets. High quality value chains are being established and especially the productivity of farmers has to increase by improving sanitary conditions, calving rates and off-take.

Products:

A learning program (either provided by Agricultural Technical Institute of Chimoio or other partners) with the coverage of mainly the following technical areas:

- Improvement of herd management by:
- Improvement of the breeding stock:
- Better control of internal and external parasites:
- Nutrition improvement:

Zambezi Valley:

Main business opportunities arise from investment in mining and agriculture (rice and fruit production and processing and timber harvesting and processing). Specific identified anchor projects have not yet started up, due to missing transport infrastructure (SENA line) making for instance Moatize mine operation less feasible. It is most probable that, after completion of SENA railway rehabilitation, Moatize coal mine will be explored soon by a big international mining company in Mozambique.

Project profile 5:**Internships for students and graduates of National Institute of Geology and Mining of Moatize****Motivation:**

The main provider of technicians in mining and geology is located in Moatize at National Institute of Mining and Geology. Besides the general technical education program, the Institute promotes technical training courses in small scale mining. Annual output of graduates does not exceed 20 students. In general, the 4 year program (equivalence to 12th grade of general education system) counts with more than 4400 hours. Out of total, one third of program is covered by general disciplines, whereas two third of the program is made by subjects and disciplines related to geology and mining (each of them separated programs). About 700 hours (15% of total) is spent for practical exercise and internship purposes, normally being used from students to prepare the thesis for completion of graduation.

Generally, the Mining Institute does not have direct access to foreign investors to promote actively the products and services and to establish partnerships. This reduces internship opportunities for students and somehow reduces relevance of VE and VT programs.

Therefore, the Mining Institute is highly interested to be involved in occasions where Mozambican public sector is dealing with potential investors in the country in order to sort out how investment in the field of mining and geology is about to take place. Foreign investors will have the advantage to get some insight to HR related questions, setting up partnerships with the National Institute of Mining and Geology in Moatize.

Vision:

The National Institute of Mining and Geology in Moatize is a known partner to potential investors in Mozambique. From case to case, decisions are taken in how far a partnership can raise benefit to both of the partners. Students and graduates realise internship programs with companies investing in mining industry and, eventually both take this opportunity to establish apprenticeship or even work contracts. Ideally, this type of placement instrument can be successfully replicated in other trades.

Products:

- A homepage with all relevant information about National Institute of Mining and Geology in Moatize. (The Institute already possesses a Computer Centre).
- Proposals to industry with support of Investment Promotion Centre (CPI) / Confederation of Business Associations (CTA) / provincial government and relevant governmental bodies of VE and VT.
- Partnerships with industry for a) promoting placement to students, b) get access to technological data for improvements in own programs delivery, c) offer more relevant services to other potential clients.

Nacala Development Corridor:

Especially in Cabo Delgado, the tourism industry will be one of the outstanding sectors for promoting employment and income opportunities. Pemba Beach Hotel has been identified to be an important partner to set up a training partnership between several private and public partners.

Project profile 6:**Vocational Education and Training to prepare manpower for tourism industry.****Motivation:**

At present, hospitality industry and tourism development in general rely mostly on HR not qualified to an occupation in the tourism field. The only programs that exist to cover a growing demand of higher skilled professionals is the Higher Education Vocational Education through Catholic University , with an output of about 100 graduates in 2004/5.

Vision:

The proposed project profile has to be considered as an attempt to promote training in partnership of public and private partners for occupations in the hospitality and services field to satisfy a growing demand of qualified manpower (expansion of investments in the hospitality industry and possible establishment of the International Airport of Nacala).

Objectives:

- Training provision in strategic occupational fields of hospitality industry, such as “table attendants, housekeeping, food & beverages administrators, receptionists”.
- Set up of VT programs in the fields of transport, logistics and community development in order to prepare qualified manpower for jobs in related fields of hospitality industry, like transport, game, crafts, markets (drivers, guides, Arts & Crafts shop operators & managers, car rental, promoters of local food and products, etc).
- Making use of experiences from the partnership between Pemba Beach Hotel and Catholic University for establishment of new programs in VE and VT (Commercial School in Pemba and possibly VT centers, run by public sector and/or clerical organizations.

Products:

- Learning programs in place and provided by providers like Commercial School of Pemba together with private partners. Such a learning program should develop on following units (example: table attendant).
- A partnership between business and training provision (either public or private) in place that could be an instrument to establish quality standards and control mechanisms.
- Finally, establishment of a VE scheme, such as providing students of the 10 th grade (entry requirement) with a 2 to 3 year occupational VE program relevant to the labour market. Subsequently, these students can continue their “learning pathway” with enrolment in higher education (Faculty of Tourism of Catholic University), probably in a “work-study-shift”, on the one side being professionally involved in a Hotel/Lodge/etc. and, on the other side in continuation of the respective studies.

PART I: VISION

1. Introduction

This report develops and details a spectrum of activities at strategic and operational level related to qualification and employment opportunities of manpower and community development in the Mozambican development corridors. It pays special attention to the Technical Vocational Education and Training (TVET) system, its structure, readiness and responsiveness to the labour market needs in Mozambique. The report details the character and development of investment and business development in different economic sectors within the development corridors and confronts the demand on qualified manpower in different sectors with the supply side. It suggests how HR development could be implemented jointly between private and public partners taking into account several elements like legislation, financial sources and qualification and skills development. It outlines which major actions could be pursued at different intervention levels and how supply and demand of HR could match better in future in order to facilitate the employment, the self employment and the training of manpower and a higher benefit for communities by the investments.

Finally, the report outlines project profiles ready for implementation within the five development corridors in Mozambique.

The report relies on information from studies undertaken and projects ready for implementation (pre feasibility) within the Development Corridors. As well, secondary data review has been carried out on reports, strategies and documents from other sources (business associations, Ministry of Education, Ministry of Labor, Ministry of Higher Education, Science and Technology, other Ministries, NGO's, other institutions). Interviews have been undertaken with key representatives of public sector institutions (4), with 35 private investors in all 5 development Corridors and, finally, with representatives of foreign aid agencies (9), representatives of national and international NGO's (8) and representatives of business associations (4). All data has been thoroughly analysed and it was assured to the interviewees that the information would be treated confidentially and were not subject to publication.

Special attention has been paid to approach methodologically the Mozambican SDI Program to the topic. It has been clearly identified that three major investment trends in the country will have to be satisfied by qualified manpower in future:

1. Huge capital-intensive investment projects as a driver for the development of surrounding businesses with the ambition, under full operation, to clearly enhance and set up structured downstream and upward linkages;
2. Labor-intensive investment projects, mainly in the sectors of agriculture and services (including tourism and hospitality industry) with downstream and upward linkages mainly at local or regional level but commercially linked to domestic and international (export) markets and to its standards.
3. Isolated investment projects with different profiles (either capital-intensive or labor-intensive) in different sectors of the economy, in a first stage of operation mainly considering strong linkages to the markets (either local, domestic, regional or international) and not yet ambitious for setting up structured downstream and upward linkages.

The report is divided in three parts: The first part introduces to the “why” of this study and gives a small background on how HR development matters in an approach of developing corridors in Mozambique through the Spatial Development Initiative (SDI). The second part “Diagnosis” introduces to the main bottlenecks of matching demand with supply of skills in Mozambique in general, and furthermore related to investment projects in the Corridors. The third and final part “Strategy” gives answers “how” the skills gap could be mastered by several measures and investments (monetary and

non-monetary) at different levels of intervention. Success stories and potential for replication and sophistication are outlined (see in the boxes) and at several stages of the report. Specific recommendations are formulated and project profiles are outlined and ready for implementation. In all cases, special attention is given to involving public and private partners through partnerships in order to settle for more sustained action. Finally, several annexes regarding information gathering (questionnaires) and more detailed in view to specific questions are attached to this report.

2. Statement of the problem

The strategy for HR Development in the Development Corridors Maputo, Limpopo, Beira, Zambezi Valley and Nacala under the Spatial Development Initiative (SDI) aims to establishing the baselines for a Human Resources Development Program along the Corridors, offering to investors during preparation and initiation of their investment in Mozambique more specific information and recommendations on HR Development issues.

Especially new investors in Mozambique are not or rather partially aware of the following aspects:

- Information on Labour regulations and institutions which respond for labour and manpower related questions (mediation committees, courts, recruitment centres, training providers, quality awarding bodies, standards and certification awarding bodies)
- Support in financial and other terms for job creation, employment and training of manpower and community development and/or the set up of infrastructure
- Potential for partnerships, either with the public sector or with private partners to recruit, develop and promote human resources in order to rise productivity
- Awareness of the importance to create and establish a confidential and solid partnership with the population around the investment site guaranteeing a more productive and successful investment.

In the past, along the Mozambican development corridors according to data of National Investment Promotion Centre and according to sources from the Ministries of Education, Labour and Higher Education, Science and Technology the main problems where:

- The character of investments in the last years did not contribute to a substantial job creation and the new investment projects did not employ sufficiently qualified manpower.
- The main part of the investment profiles of the Mozambican Development Corridors did not yet take into account the challenge of hiring and engaging manpower at different qualification and competencies levels.
- The small number of manpower engaged in productive employment environments and the low level of innovation in the Mozambican economy are expression for a weak private sector, mainly engaged in wholesale and retail trade.
- The training provision either in industry, commercial or agriculture related trades and qualifications is not prepared to qualify manpower according to international quality standards.
- Entrepreneurship promotion training hardly exists in Mozambique. The few existing programs are not linked with instruments supporting start up businesses (credit lines, securities, etc.). Very few initiatives target the group of young professionals recently graduated from different education and training subsystems.

- A promising industrial training partnership between MOZAL Ltd and the public sector did not generate outcomes of long duration due to the scope of partnership and due to divergence of objectives.
- Due to the lack of training supply and due to high costs of training provision, the majority of the employed manpower in the provinces of Mozambique has no access to training.
- The major part of economic active population in Mozambique has no access to upgrading within the education system of Mozambique, as vocational training is not part of the Mozambican Qualification Framework and the capacity of education system is at its upper limit. To the same extend, this part of the population has rather any opportunity to improve salary, as still a substantial part of employment opportunities are within the public sector, where remuneration levels are in line with academic level of qualification.
- Three main subsystems of training (Higher Education - HE, Vocational Education – VE and Vocational Training – VT) are not sufficiently connected to one another and leak significantly of profile.
- Latter applies especially to the subsystems of HE, where research and scientific lecturing are not strategically defined and in place at the universities. Vocational education still has the character of a vocational secondary education rather than a trade related training and preparation for employment.

Apart from these problems several opportunities at operational level arise for investors in Mozambique especially when the importance of the integration of the community is of investors agenda.

During set up and construction phase the main challenges are:

- The employment of local staff, frequently speaking only Portuguese and the local language and normally unaware of labour regulations and contracts.
- The dealing of labour contracts in order to be prepared of labour inspection services from provincial level.
- The beginning of informal training measures which are of highest success if multipliers at local level are engaged as “interpreters” of operation.
- Upgrade skills of Mozambicans at operational and supervision level.

To attract investment for the development corridors it is crucial to reduce the absence of qualified labour force, which is hampering the settlement of new investors and the growth of existing investment projects.

A highly skilled labour force can constitute an additional incentive to investors for the following reasons:

- They minimize or eliminate the need of the investor to develop skills;
- Investors' costs are reduced, limiting the need to hire foreigners.

At the country's point of viewed, skilled labour force present the following advantages:

- They take advantage of the upstream and downstream opportunities of projects installed;
- They are better prepared for decision making on self-employment;
- The base for collection of taxes is broader.

3. Objectives and purposes of the Study

This study will contribute to the answer of the very practical questions, in how far improved skills development for different target groups enhances their growing prospects of employability and in how far effective demand for more qualified / skilled manpower exists. It will give some recommendations to key issues related to skills development and available labor force for investors considering legal and financial questions and analyzing in how far partnerships will enhance the availability of more skilled labor force.

Considering the experiences of running and identified anchor projects within the Corridors, the main purposes of the study are to identify and propose a strategy how:

- mismatches of demand and supply of qualified Mozambican labor force can be reduced in future;
- the leakage of scarce qualified Mozambican labor force can be reduced by establishing partnerships;
- backward and forward linkages of investment can enhance and promote income generation at community level.

And considering that investors operating in Mozambique face a general leakage of information regarding HR questions, the study will be an element of creation of enabling environment for investments in Mozambique, addressing in its strategic part the following key elements and factors:

- legislation
- financial sources
- qualification and skills
- partnerships

Besides these main elements, the study as well addresses issues related to the significance of expatriates in the investors workforce, questions related to selection procedures of Mozambican workforce, skills gaps at different stages of investment, training initiatives and its lessons learnt, issues related to recruitment and, finally, in how far HIV/AIDS is a relevant issue for investors to cope with during different stages of investment.

The study will not be able to answer the question, in which way the overall economic environment of Mozambique can contribute to more job creation. It will be possible to suggest some specific measures out of the study which might be conducive for more job creation in several sectors of Mozambican economy.

In the following section, several aspects related to the Mozambican Corridor program have to be analysed giving the right input for the methodology outline of this study.

The study can be seen as a starting point to establish a Human Resources Development Program along the Corridors, offering an additional benefit to investors during preparation and initiation of their investment in Mozambique.

The study considers identified ongoing investment projects and projects ready to start within the development corridors.

The study shall give a strategic consideration to several key elements and factors (legislation, financial sources, qualification and skills, partnerships) which have to be taken into account in order to reach the objectives and purposes.

Specifically, the study shall address to the following objectives:

- Mozambicans capitalize on employment opportunities generated by investors and employers;
- Key elements for partnerships between the investors and the community are identified in order to ensure a maximal benefit for communities by enabling direct and indirect income generation.

The main purposes of the study are three-fold:

- Diagnosis and proposals how mismatches between demand on and supply of qualified Mozambican labour force can be reduced and investors supported (according to existing legislation and regulations) to employ Mozambicans.
- Diagnosis on in how far investors and employers know about training provision (private and public).
- Strategy and proposals for implementation of partnerships for Human Resource Development to overcome the leakage of scarce qualified Mozambican labour force and enabling income generation for communities.

The study shall as well address to the following issues:

- The significance of expatriates in the investors workforce
- The selection procedures of Mozambican workforce
- Gap of skills at begin of investment and current stage of investment
- Training initiatives and its lessons learnt
- Higher and fire and headhunting - consequences and lessons learnt
- HIV related questions

There is little doubt that high and growing unemployment represents one of the most important social and economic problems facing Mozambique today. The official unemployment rate (formal wage-earning employment) persists with 69,4 percent in 1996/97 on a high level⁴. On the other side, the net job creation rate (by formal businesses) in Mozambique per year is far not in pace with the natural population growth rate of Mozambique. Latter estimates suggest a 2% (plus) annual growth rate

⁴ According to inquiry to the families on the livelihood conditions done between 1996-97 by the Ministry of Planning and Finance (IAF 1996/97).

(at least 350.000 new job seekers per year⁵), which might not be satisfied by less than 200 new investment projects annually in Mozambique⁶.

For evidence, high unemployment and still growing employment of Mozambicans in the informal economy results from generally high factor costs⁷ in Mozambique which make necessary comparatively high internal rates of return (IRT) in order to attract investors seeking for manpower. Further, very low domestic saving rates (in 2002 under 5% of national GDP), an almost 50% internationally subsidized Government spending of Mozambique's State Spending and comparatively high interest rates for commercial borrowing still hamper more private investment.

As still a lot of qualified manpower is professionally linked to services (consulting, organizations and institutions) predominantly financed by foreign donations and not necessarily stand a market test, resources are allocated – from an economic point of view – where (subsidized) high rates of return exist and not, where (possible) high rates of return could arise after investment.

On the other side, high unemployment and underemployment results due to several reasons from a lack of skills in the labor force but also from the low priority given to training in general by especially small and medium sized employers. This adverse attitude towards productivity promotion within once business is still deeply spread under Mozambican firms, still using antiquated production methods that require little formal training to attain a minimum of efficiency⁸.

A recently study carried out indicates that several companies of different size in the sectors agriculture, manufacturing, services, tourism and hospitality invest annually more than USD 1000 in different types of training (upgrading, specialization, retraining, etc.) of their manpower. Target groups within companies are mainly professionals, semi-skilled and skilled technicians. As an important amount of managerial manpower is from abroad, training at that level of administration is restricted to some Mozambican "high potentials" in the companies. Un-skilled manpower receives very few attention to their training needs, as that occupational category is considered by the major part of the companies as "changeable" and too less qualified for more structured training provision⁹.

Thousands of workers in formally state companies did not receive on a regular basis technical training and many times this training was not relevant to new technological and organizational requirements of industry needing to compete on the regional or world market. In the nineties, the public training provision system (technical vocational education and training – TVET) was not on the first agenda of Mozambican Government (resource allocation always favored the public spending in primary education, rather than TVET) due to the overwhelming burden of worldwide highest levels of illiteracy and primary education drop-out rates under the population.

As underlined in the Government's Five Years Plan¹⁰ and according to PRSP¹¹, TVET development has gained much more attention and several steps forward to linking up the existing structures of TVET to a system have been pursued. Still the most

⁵ Estimating the natural growth rate of whole population of 2% and the number of economically active population (age group 15 to 45)

⁶ Investment Promotion Center Mozambique (CPI), 2003.

⁷ Taking into account productivity of capital, labor and other assets.

⁸ John Nasir, etc. : Mozambique Industrial Performance and Climate Assessment 2002. Regional Program on Enterprise Development (RPED). Africa Private Sector Group. Worldbank.

⁹ Farida Muhamad. Rapid Appraisal of Labour Market. Study, commissioned by National Directorate of Technical Education (DINET), Ministry of Education and coordinated with National Institute of Employment and Training (INEFP/Ministry of Labour) with support of the Worldbank. July 2003.

¹⁰ Programa Quinquenal do Governo 2000-2004 / Resolution 4/2000.

¹¹ Poverty Reduction Support Program, PARPA (2001-2005).

challenging questions remain. How high quality standards can be implemented and how training actually can be more relevant to the labor market needs.

4. Methodology

4.1. How this study has been carried out?

First, more than 50 studies, reports, papers, bills, statutes and laws about HR development related issues in Mozambique have been identified, studied and analysed. In a second step, more than 40 interviews with partners from business, public sector, international and national agencies working in the context of economic and social development have been carried out. A small workshop, gathering inputs from representatives of public and private institutions and organisations has been organized in order to get a feedback to the work yet outlined from the consultants. Project profiles have been designed together with inputs from investors and public partners from district and central level. This report is an instrument to either, from an investor's point of view, get profound information about HR related issues in Mozambique and, on the other side, to be able to take decisions on how to invest in the field of HR development in Mozambique taking advantage of existing project profiles ready for implementation.

4.2. Theoretical background to strategic choices in the Mozambican SDI

According to Michael E. Porter¹², a nation's competitiveness and wealth (standard of living) is determined by the productivity with which it uses its human capital, its assets in natural and physical resources and its financial capital. From a microeconomic perspective, productivity depends both on the value of products and services (e.g. quality) as well as the efficiency with which they are produced. This applies to both, a favourable general economic environment a country offers to an investor (macroeconomic factors), and a favourable set up of strategic production factors where its performance and standards are crucial for the investor's choices and success.

As example, the African Growth and Opportunity Act (AGOA¹³) is such an macroeconomic instrument of growth stimulus which applies to Mozambique due to its successful transition to multi-party democracy and a market-oriented economy. It enhances the set up of so-called footloose industries, relying on little capital assets, but on cheap and efficient labour. Compared to the neighbouring countries, one of Mozambique's biggest assets lies in its huge labour force, ready to be engaged in labour-intensive industries like textile (fiber, yarn, garment, confection), shoes and accessories, toys, sportswear, wood processing (cutting, reforestation, carving, furniture), simple mechanical and agricultural processing, food processing, etc.

To foster growth in a regional or geographically delimited economic context, highest returns on investment can be achieved where several basic conditions of economic development are in place. From the investor's production view, this refers particularly

¹² See: Michael E. Porter: The Competitive Advantage of Nations (The Free Press, 1990).

¹³ See: www.agoa.com. AGOA applies to Mozambique because it fulfills several political criteria and customs criteria favorable for business.

to infrastructure like access to water, electricity and a road network ideally linked to a domestic or international market¹⁴.

In a second step, value chains emerge, linking up necessary inputs for production (suppliers, specialized consulting and infrastructure suppliers, government agencies with information and hints for business improvement, institutions providing specialized training, channels for commercialisation and exportation) guaranteeing the access to both the domestic and the international markets for the end-products.

In a third step, clusters can be systematically established or emerge from an own endogenous dynamics, in order to facilitate the best total factor mobility within the geographically determined economic context, catering for backward and forward-linked value chains with a variety of services and products.

Under this concept, a cluster is “a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities”¹⁵. Depending on their depth and sophistication, clusters take varying forms. In a first stage of their consolidation, they emerge from a single investment (of a large firm) or a concentration of like firms including end-product or service companies. In a more sophisticated sense, clusters include end-producers of products and services, suppliers of specialized inputs, components and machinery, financial institutions, and firms in related industries. They then have achieved their full scope of downward and upward linkages, setting up favourable linkages in an extremely competitive business environment, endogenously being the driver for further technological improvement and progress.

Mozambique's cluster development still is in between of the first and second stage, described above. Many efforts all of the five Development Corridors have been undertaken to stabilize the supply of the basic infrastructure in development areas with high potential of natural resources (mineral extraction, products (game, landscape, water) for tourism development, agro processing, food production and processing, etc.).

In order to attract more foreign investments, special attention has been given by the Government in the last five years to improve the road network (main west-east connections and the north-south connection are either National Routes or Principal Trunk Roads), the port infrastructure (e.g. concession to the Maputo Port Company, rehabilitation of the Beira and Nacala port), to increase the electricity supply (still under 10% of the Mozambican population are connected to electricity¹⁶, to improve and expand the telecommunication infrastructure (telephone network, mobile phone network, etc.), and to improve Governmental and other services to potential investors (Investment Promotion Centre and branch offices, one-stop-shops in Inhambane, Niassa, Manica and Sofala, business incubators in Maputo, Sofala and Niassa). As well, several Business Associations have emerged in the last 2 years in several provinces. The strongest representations are in Sofala (ACISO¹⁷), in Nampula (ACIANA), ACM (Maputo) and many others, all under the umbrella of the Confederation of Business Associations of Mozambique (CTA).

¹⁴ See: 1) Michael E. Porter: An Economic Strategy for America's Inner Cities: Addressing the Controversy. In: Review of Black Political Economy. Vol. 24, no. 2-3.

2) Michael E. Porter: Location, Competition and Economic Development. Local Clusters in a Global Economy. In: Ec. Dev. Quart. 14, no.1 (Feb.), 15-34.

¹⁵ See: Michael E. Porter: The Competitive Advantage of Nations. Chapter “Clusters and Competition”. P. 199. (The Free Press, 1990).

¹⁶ As Mozambique has together with Bhutan, Laos and Chad one of the lowest urbanization rates, still one of the biggest challenges of the National Electricity Company is to reach disperse population in remote areas.

¹⁷ See: www.acisofala.com

As theory says, there is no general rule of origin of a cluster promoting or cluster enhancing element. Generally a set of factors have to be in the right time at the right place. It is true that for instance the Dalmann Furniture production close to Beira¹⁸ can be pointed out as one of the most outstanding examples of business diversification and sophistication in Mozambique's manufacturing industry development, as the main production inputs are not imported and value chains have been established in order to satisfy customer needs and according international standards (certified raw material, sustainable wood cutting and reforestation program).

Box 1: The case of Dalmann furniture production in the Beira

Development Corridor

Dalmann Hardwood Furniture is an exclusive range of hardwood furniture produced in Mozambique by TCT Forestry Industries. TCT is a Mozambican company specialized in the preparation of quality hand crafted furniture items, produced by skilled local craftsmen. The company's dedication to the care and management of Mozambique's unique forest reserves ensures that acquiring any piece in their range is not only an investment in a lovingly crafted unique piece of African art, but also an investment in the maintenance of a fragile ecosystem.

All furniture is hand made by local craftsmen from timber produced in TCT's concession area, just south of the Zambezi River. TCT Forest Industries is the forest management section of Mozambican furniture producer Dalmann Furniture.

TCT is currently pioneering the development of reforestation and sustainable forest management techniques, designed specifically to preserve and maintain the unique ecosystems found in native Mozambican forests. In their concession area just south of the Zambezi River, TCT is leading the way in developing techniques which will ensure a healthy future for the country's indigenous flora and fauna. While the types of tree harvested in the area are unique to this particular area of Mozambique, the concession area is also home to many endangered species of wildlife, which the company also helps to protect.

The help of local communities has been enlisted in the collection of seeds which are propagated in experimental seed beds. All data collected is recorded, since no studies have yet been done on these unique tree species. Once they have been measures and recorded, saplings are planted in the forest, and marked so that their growth can be monitored. As the only company currently undertaking reforestation in Mozambique, the results of such research are vital to the preservation of the indigenous forest. All data is shared freely with government bodies and the national university and TCT is actively involved in advising on the development of new legislation aimed at regulating the forestry industry in Mozambique.

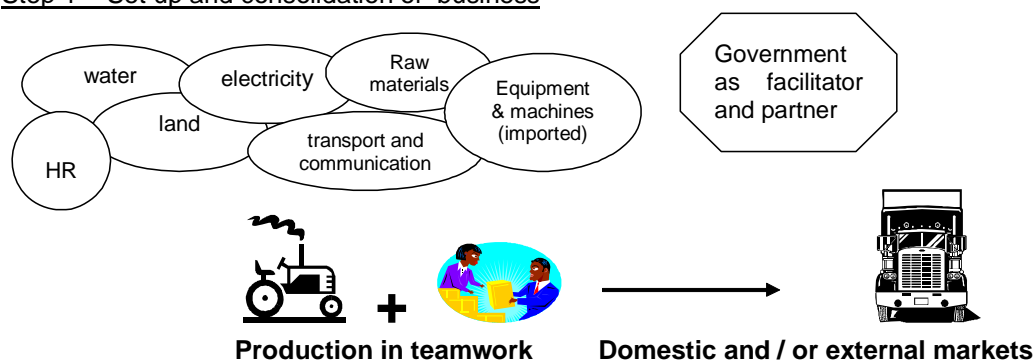
Source: www.acisofala.com/tct.htm and www.dalman.com

The following illustrations might summarize the logical structure of a value chain development in the Mozambican Development Corridors in the last years:

¹⁸ See: www.acisofala.com/tct.htm and www.dalman.com

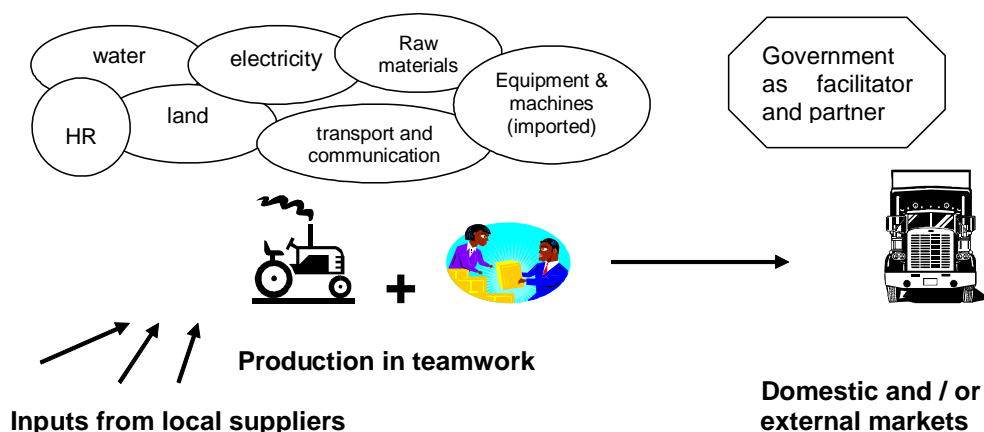
Box 2: Scheme of Value Chain Development in the Mozambican Development Corridors

Step 1 – Set up and consolidation of business



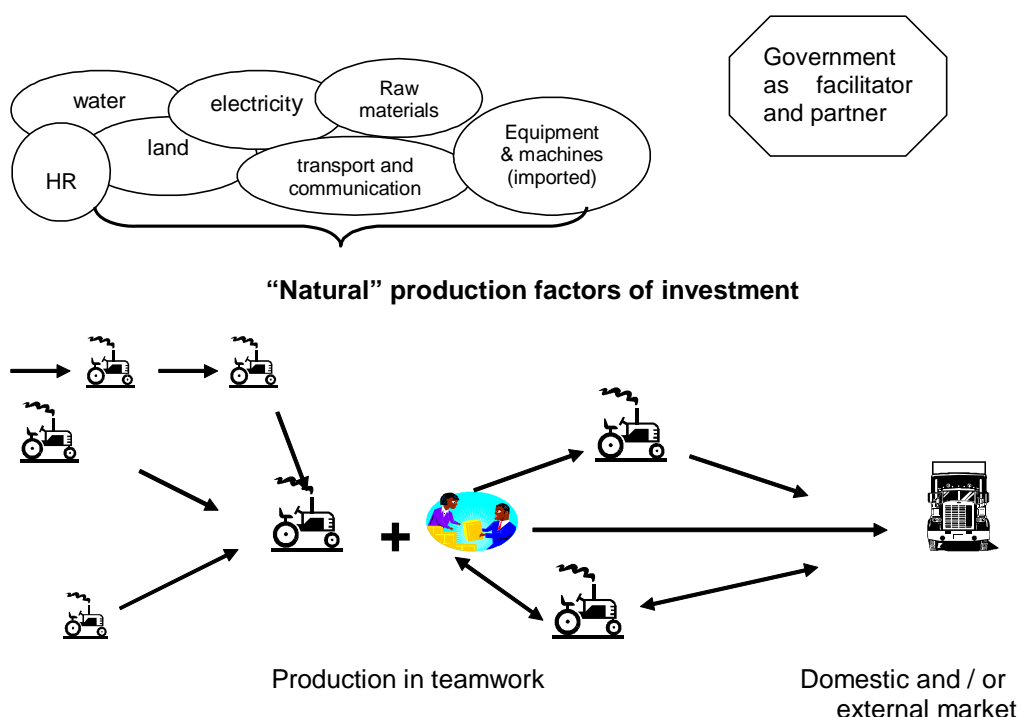
All available factors are introduced into the production process. By-products and/or secondary products are not yet used by other businesses. Weak linkages to other industries exist, as the main efforts consist in setting up the business and tackling domestic and/or export market share. As still several obstacles to businesses have to be overcome (labor regulations, customs, export procedures, etc.) all resources are spent to consolidate the investment.

Step 2 – Expansion of business and creation of value chain



All available factors are introduced into the production process. By-products and/or secondary products are used by other businesses or the own business. Linkages to other industries are being established in order to reduce dependency of importations. Ideally, upstream linkages with national suppliers are set up. Expansion of domestic and/or export market share lead to more sophisticated requirements to quality of products and services (downstream linkages with special attention to transport and sales channels), reflecting need for more qualified HR. Ideally, local or regional training provision can supply short term trainings and/or more qualified manpower can be recruited (substituting unproductive or to expensive (international) manpower).

Step 3 – The business as a part of a developed cluster



All available factors are introduced into the production process, either supplied like from the very beginning of the business or from other suppliers.. By-products and/or secondary products are used and upgraded by other businesses or the own business. Upstream and downstream linkages to other industries and services (including research, governmental services, training provision, etc.) are set up in order to increase overall productivity. All actors of the value chain “cluster” have already passed a market test and build on local differences and sources of uniqueness where possible, turning them into strengths.

Inefficiencies that impede cluster productivity and innovation are being and / or have been removed. Constraints include those of human resources, infrastructure and regulation. Private initiatives have successfully reduced obstacles.

Government policies and institutions addressed important obstacles (lacking infrastructure, market orientated education and training policies, market distortions, etc.) and approach their “industrial policy” towards the fundamentals of “cluster theory”, that is: enhancing competition among firms and locations based on the growth of productivity via interconnections and spillovers within a cluster, rather than via subsidiaries and technology grants, giving main importance to economies of scale in hope of trickle down effects.

4.3. SDI Approach and Relevance of HR Development

According to the SDI¹⁹ approach, impediments to growth shall be identified and overcome by pronounced activities which enhance economic growth and stimulate a business.

In his foreword to the annual publication on the regional Spatial Development Initiative Support Program²⁰, Tomaz Salomão, Minister of Transport and Communications from Mozambique emphasized as one of the major issues the “building of our human resources” to meet the challenges all actors of Development Corridors in Mozambique face.

¹⁹ Spatial Development Initiative (see: www.africansdi.com)

²⁰ See: Creating New Wealth in Southern Africa. December 2001 and www.africansdi.com

According to Mr Salomão, one of the main drivers to overcome such obstacles were partnerships between the public and private sectors and communities. Among many reasons for this is the fact that finance available to the public sector is limited.

In the following section, some basic obstacles but also opportunities to enhance partnerships for HR development are roughly identified according available data from publications of public bodies and other sources of information.

Generally the identified impediments to growth are due to lacking technical competence in (public) training provision, either in technical schools and institutes or in training centres.

The main challenges arise in having updated, technically skilled trainers (instructors and teachers) in place. As well the methodological and theoretical background of new learning methods (in teamwork, in partnerships) are almost totally absent. Apart from these two points related to the “resources gap”, many investors don’t have the access to information from the relevant (public) bodies about updated trade related questions and statistics. This is either because of a missing marketing or even disinformation and disinterest from either the provision or the demand side of qualified manpower.

Another important item is the weak financial situation of VE schools or VT centres. Finally, still information and know-how sharing are undoubtedly obstacles for getting projects at district or local level pushed forward. In most cases, personnel commitment to successfully promoted partnerships between (public) training provision and potential employers and investors is much more a motor towards building up partnerships, rather than institutional arrangements and intentions.

Therefore, main focus in the respective Development Corridors will be given towards partnership building opportunities between already established providers of training (public and private) and identified business partners already in preparation for operation or in full operation (see: anchor projects and recently approved investment projects by National Investment Promotion Center – CPI)²¹.

²¹ See: Annexure, 9.5.2. List of approved investment projects in 2002 (CPI) in this Inception Report.

PART II: DIAGNOSIS

5. Business Environment and Investment in Mozambique

5.1. Background

Mozambique has successfully undertaken a highly ambitious program of economic reforms. As a result, the overall macro-economic environment is favourable. Inflation decreased (down from 17 percent in 1996 to effectively between 5 and 7% in 2001²² and 2002 as a result of tight fiscal and monetary policies) the exchange rate stabilized, and food production increased. Also, the Government implemented an ambitious structural reform program: price controls were eliminated, non-tariff barriers were lifted, and the exchange rate became market determined. In the financial sector, the central bank was restructured and state-owned banks were privatised resulting in more effective monetary controls, a more diversified and competitive system, and the availability of basic banking services. Several micro-finance institutions (SOCREMO, GAPI, Novo Banco, etc.) emerged and offer their services in several provinces. With the privatisation of over 800 enterprises (out of 1250), public enterprises' share of industrial output fell from over 65% in 1990 to below 25% by 1997. Successes in Mozambique's economic reform program since 1987 are evidenced by real GDP growth of over 10% annually in each of 1997 and 1998 and 7,3% in 1999 having dropped to 3,8% in 2000 due to the consequences of the floods.

During the privatization process, companies recognized the importance to improve quality, standards, services and products in order to survive in the open market. As companies trim costs they are laying off employees at a high pace. Especially in transition countries, where enterprises' share of industrial output was high, new investors are aware of the risky situation and only are willing to invest in competitive assets. Naturally, process re-engineering, organizational and structural changes in management (total quality management) and downsizing measures lead to plant and store closings, slowdowns, and cutting payrolls. After recovery, when returns of investment are highly positive and all the resources to the investment program were successfully reallocated, a long term business perspective is established. Under this circumstances, key characteristics of quality improvement programs are to establish total system approaches (organization and management), involve employees at all levels of the organization, establish customer-driven standards and encourage and commit employees at all levels of organizations.

This general scenario of an economies' enterprise lifecycle, requires education and training systems highly adaptive to new market conditions, specifically producing graduates with high command of technical skills, problem solving skills and practical background acquired by apprenticeships, practical exercises or case studies in a relevant economic or productive field²³.

Mozambique's difficult historical legacy (long-term historical legacy of colonial domination, central planning and civil war) is evident both in the unpropitious structure

²² See: Per-Åke Andersson and Boo Sjöö: O Sucesso Moçambicano no Controle da Inflação durante a Transição para uma Economia de Mercado (1991-1996). In: A Economia Moçambicana Contemporânea. Ensaios. Gabinete de Estudos. MPF. Maputo. Moçambique. 2002.

²³ See: M. Hammer and J. Champy: Reengineering the corporation. New York. Harper Business. 1993. In this sense, learning programs deliver "business skills", "technical skills", "communication skills" and other skills relevant for the respective occupation both, theoretically and by practical exercises.

of its domestic private sector fragmentation, small size, and inward-orientation – and in continuing micro-level obstacles to doing business²⁴.

It is in this overall economic context, where the Corridor Program of Mozambique and the South African SDI Initiative is one important element in order both to sustain rapid economic growth, and to broaden the base of private sector participation. It supports Government's efforts to address a wide variety of continuing weaknesses in its business environment. These include: further simplification of the regulatory environment, increased investment in infrastructure (achieved in part by increasing the role of private sector in the provision of infrastructure services²⁵); continued efforts to promote and facilitate foreign as well as domestic investment into Mozambique; renewed efforts to access, in market-friendly ways, to finance, technical services and technical education and training services by different firms and partners.

5.2. Technological performance of industry and its consequences for Mozambican investment promotion

A variety of studies undertaken in Mozambique²⁶ point out that productivity of Mozambican workers is in comparison to the average of sub-Saharan Africa low, and emphasize the low average educational level (between 3 to 5 schooling years in the manufacturing industries) that is undermining significantly the country's competitiveness. Other statistics related to technological performance in the economy (number of scientists and technically prepared habitants among one million habitants, I&R spending by public sector or by companies, amount of exportations of products with high value added domestically, number of patents registered per year, etc.) underpin this worrying scenario of being worldwide under the technologically 5 less developed countries. Without a substantial increase in the attainment of further technical education and training (retraining, upgrading, etc.) and secondary and tertiary education in the Mozambican work force, and without substantial support (either by incentives or by huge donations favouring real technology transfer) the competitiveness of domestic firms will be handicapped for years and the attraction of new investors will be hampered due to lack of qualified labor and due to an almost adverse economy to technological progress. In several segments of Mozambican economy, the increased productivity of human capital has resulted in fiercer competition for skilled labor pushing up wages and the value of the production of graduates, especially of higher education levels. Especially in professions and occupations like executive secretaries, IT maintenance and engineering, lawyers and specialized internationally competitive consulting services, wage increases during the last 12 years have been in some cases more than five fold of wages in more common occupations and profession which do not require high formal education levels. However, the high level of drop outs and unemployment, common to all educational levels, impairs the sector's contribution to the economy. A study on the technological level of production in Mozambique considered the technological performance of the most important economic sectors in the country, like agriculture and fishing industry, mining and manufacturing industry (food & beverages, paper, wood & furniture,

²⁴ See: José Luís Macamo: Barreiras Administrativas ao Investimento em Moçambique: Lições Aprendidas da Experiência de Investidores Recentes. In: A Economia Moçambicana Contemporânea. Ensaio. Gabinete de Estudos. MPF. Maputo. Moçambique. 2002.

²⁵ For example in the Maputo Corridor: Private-Public Partnership with TRAC (Maputo-Witbank Tollroad).

²⁶ Ministry of Higher Education, Science and Technology (2003): Nível Tecnológico do Sector Produtivo em Moçambique. Estudo baseado em documentos desde 1995. Volume I: Texto Principal do Relatório (versão final). Janeiro 2003. (see also: www.mesct.gov.mz) and Ministry of Higher Education, Science and Technology (2002): Estudo sobre cenários de ciência e tecnologia nos currículos. Agosto 2002. (www.mesct.gov.mz). John Nasir, etc. : Mozambique Industrial Performance and Climate Assessment 2002. Regional Program on Enterprise Development (RPED). Africa Private Sector Group. Worldbank.

chemical industry, petroleum industry, metallurgical industry, industries for equipment and machinery).

Generally, from the study's outcomes, there are two main statements with regard to HR demand from industries and its implications:

The industries physical assets are obsolete and industries' operations in most cases are over staffed with manpower, generally not used either to new technologies or to new types of work organization and management structures.

With rare exceptions²⁷, due to several internal factors which hamper innovations in Mozambique²⁸, hardly any Mozambican companies emerge to offer products or services related to new production and transformation techniques of goods or services. The most part of emerging companies provide commercial services or services which involve managerial and organizational performances, rather than the introduction of new products or technologies into an industry, a segment of industries or an economic sector.

To point out the main obstacles for improves technologies by the far major part of economic active population in Mozambique, productions in subsistence economies operate isolated from any monetary production or commercialisation circle and are hampered to innovate products or processes due to leakage of knowledge, information and opportunities²⁹. To turnabout this situation, main inputs have to arise from technology poles in the provinces that might be in many cases technical schools, training centres and universities and their branches, mostly considered by district and local governments one principle agent for bringing new ideas in local or regional economic development.

To a certain extent, predominantly in Maputo city, internet and communication by cellular phone are emerging information technologies either for suppliers or for users. The introduction of these new communication tools into the economy have been a powerful engine for boosting job creation. Estimates range between 2000 to 5000 new jobs, solely with regards to Mcel company (cellular phone) and seven companies providing internet services. The access to communication channels even for less wealthy population has improved quality of life and in many cases the working conditions (especially for public services in the provinces), mainly in districts where fixed telephone services hardly exist. Nowadays, in Mozambique there are about 400.000 cell phone users. Recent investment announcement of VODAFONE company in Mozambique with an estimated total investment of over 500 million USD in the next 10 years for new cell phone services will generate around 1.400 direct and indirect jobs and will contribute to a more competitive market³⁰. Already after announcement of this new investment, new products and services emerge at more competitive prices than before.

Several efforts to boost usage of computer technology and internet services at provincial level through different donor funded programs, promoted by public and non-governmental organizations (school network, HIV/AIDS information and treatment terminals, one-stop shops for business promotion) are promising attempts to establish

²⁷ First Mozambican Technology Fair (1^a Mostra Moçambicana de Ciência & Tecnologia – 11 a 14 de Novembro de 2003, Ministry of Higher Education, Science and Technology))

²⁸ For students and young professionals: access to technology related literature, access to business circles and associations and access to risk capital are still very difficult in Mozambique.

²⁹ Comprises access to capital and other assets which could generate further value.

³⁰ Notícias 5.12.2003. Supplement "Economia & Negócios".

access points to technology infrastructure in a merely rural life reality, mostly without access to electricity, health services, water pipes and transport infrastructure for the major part of Mozambican population.

5.3. Entrepreneurship, general investment trends and labour market

Mozambique is undergoing a transformation process which affects all social areas and is far from being concluded or stabilised. Although Mozambique could be categorized in macroeconomic terms as a country of high workforce growth with a relatively high-growth development (in terms of high annual growth rates of GDP), low employment growth for the major part of employment segments is prevailing.

Special attention has to be paid to the Mozambican structure of economy. Its domain is still the subsistence economy throughout Mozambican territory, either in urban, peri urban or rural contexts.

According to latest (preliminary) data of the most detailed enterprise survey realized in the latest 10 years in Mozambique³¹, more than 3 million family households predominantly focussing economic activities in the sense of "self help work" stand against about 50 thousand formal economic organizations (31.735 enterprises, 12.196 organizations of public administration and 4.217 non profit organizations) employing 521.207 persons and 12.196 public entities with more than 173 thousand employees. The statistics include all officially registered units. The rubric "enterprises" includes 811 limited companies, 4052 shareholder companies and more than 25 thousand (individual) entrepreneurs. More than 65% (20.400) of the almost 31 thousand companies in Mozambique are concentrated in Maputo, Gaza and Sofala provinces. Wholesale and retail trade (17.776 - 56% of all registered companies), Hotels and restaurants (5.984 - 18,9% of all registered companies) and real estate, renting (including security services) and business activities (680 - 2,1% of registered companies) are the main activities of registered companies in Mozambique. They amount to almost 78% of all companies and offer more than 52% of all dependent employment opportunities in private sector of Mozambique.

Only about 15% (4.500 companies) contribute to any kind of transformation of products, either in the sectors of agriculture, hunting and forestry (2,3% - 741 companies), manufacturing (10,1% - 3.220 companies), construction (1,1% - 345 companies) or fishing industry (0,5% - 153 companies). This is even almost the same amount of organizations (4.217) which legally are ruled under non profit status, in major part represented by associations and foundations (3.754 organizations in Mozambique) employing about 46.567 persons, almost 75% the number of employees of nearly 26 thousand small companies.

Companies sizes and their turnovers are compared to other sub Saharan African countries very small (see table below).

³¹ CEMPRE (Censo de Empresas) 2003. Resultados preliminares. Maputo, Setembro 2003. Instituto Nacional de Estatísticas. Moçambique.

Table: Enterprise profile (formal private & parastatal economy), subsistence production profile and work force profile in Mozambique (in 2003)

<u>SIZE OF COMPANY</u>	<u>Number of persons per company</u>	<u>Number of companies</u>	<u>Number of companies (of total)</u>	<u>Number of employees</u>	<u>Number of employees (of total)</u>	<u>Company turnover (of total)</u>
<u>SMALL</u>	<u>(0 to 9)</u>	<u>25.853</u>	<u>89.5 %</u>	<u>60.149</u>	<u>20.0 %</u>	<u>24.0 %</u>
<u>MEDIUM</u>	<u>(10 to 99)</u>	<u>2.621</u>	<u>9.1 %</u>	<u>69.076</u>	<u>22.9 %</u>	<u>17.5 %</u>
<u>BIG</u>	<u>(100 to 999)</u>	<u>365</u>	<u>1.3 %</u>	<u>92.662</u>	<u>30.8 %</u>	<u>58.5 %</u>
<u>BIG</u>	<u>(more than 1000)</u>	<u>31</u>	<u>0.1 %</u>	<u>79.258</u>	<u>26.3 %</u>	
<u>TOTAL (private & parastatal formal economy)</u>		<u>28.870</u>	<u>100 %</u>	<u>301.145</u>	<u>100 %</u>	<u>100 %</u>
<u>TOTAL (public administration)</u>		<u>Number of entities (12.196)</u>	<u>Number of entities from total of formal organizations (25.3 %)</u>	<u>173.495</u>		<u>Number of employed in formal economy (0.52 Million)</u>
<u>TOTAL (non profit organizations)</u>		<u>Number of organizations (4.217)</u>	<u>Number of organizations from total of formal organizations (8.8%)</u>	<u>46.567</u>	<u>Estimation on unemployment rate (70% of 0.52 Million)</u>	↓
<u>TOTAL (subsistence sector)</u>		<u>Number of households (3 million)</u>		<u>Number of persons engaged in subsistence sector (8 Million)</u>		
						<u>Economic Active Population (almost 9 Million)</u>

Sources: CEMPRE 2003 preliminary results. INE 2003. Maputo;
PARPA 2001-2005. Mozambique.

Labour force and its engagement in the Mozambican economy can be characterized as follows:

- The economic active population (persons aged over 15) of Mozambique amounts almost 9 Mio persons, with an annual increase of almost 2% of total population (18 Mio persons).
- Annually, more than 300.000 new job seekers are looking for employment and income opportunities.
- Almost 90% of economic active population (almost 9 Mio persons aged 15 or older) in Mozambique is engaged in subsistence economy.
- Only smartly more than 520 thousand persons earn their money either in private, parastatal or non profit registered organizations.
- Almost 170.000 employees are engaged in more than 12.000 organizations (25% of total) of public administration.
- Almost 90% of private companies (25.800) employ 20% (60.000) of the total number of employees engaged in private sector (300.000), even less than the 31 biggest companies (79.000 employees).
- Almost 400 companies employ 172.000 persons (57% of total) contributing to almost 60% of turn over of all private and parastatal registered organizations in Mozambique.

Estimates on unemployment rate (70 % of EAP in formal economy³²) are merely academic, as the labour market is highly informal. The exact determination of work force number being in conditions of unemployment or underemployment in Mozambique is not possible and depends on the parameters used for statistical purposes.

An outlook for employment patterns in the Mozambican economy is determined by following general trends and conditions, such as:

The distribution of population by age is extremely skewed to the younger population groups, reducing significantly the average age of workforce. On the one hand this results in a surge of inexperienced and unskilled job seekers, as the public and private capacity of skills provision (number of VE schools, VT centres, universities) will continue in the coming years with estimated 6.000 graduates annually far beyond the brut demand of training.

The remainder of employment was, and still is, agricultural, with a continuously more sizeable informal urban sector³³. It still absorbs the large annual additions to the labor force by demographic growth of economic active population, estimated in average at 350.000 per annum³⁴. Although Mozambique is estimated to have the world's seventh highest AIDS/HIV infection rate and data from 1998 suggest that almost 17% of all

³² According to inquiry to the families on the livelihood conditions done between 1996-97 by the Ministry of Planning and Finance (IAF 1996/97) / Ministry of Labour, Mozambique, 2003.

³³ Internationally and in comparison to average of sub Sahara Africa, Mozambique still is at begin of a "urbanization decade". World wide it is amongst the countries of lowest urbanization rates (less than 25%), like Bhutan and Laos.

³⁴ 2% annual natural growth rate of total population (18 Mio), including scenarios about consequences of AIDS/HIV to the demographic growth rate.

Mozambicans aged 15 to 49 were infected³⁵ and prevalence still tends to increase especially among the age group of 21 to 35, the increase of above mentioned growth rate of new job seekers still will be by far higher than the net job creation rate per annum in Mozambique. The high AIDS prevalence is above the average for teachers and instructors. This very preoccupying data obliges to allocate much more resources to teacher and instruction training than under normal conditions.

Compared to other countries in the SADC region, the ratio of entrepreneurs³⁶ per thousand habitants in Mozambique is still very low and to take the risk to invest in a business is still very high. It shows that, at microeconomic level, the economic responses in form of promoting competitiveness, productivity and employability still do not satisfy the outstanding amount of jobs which have to be created annually in order to sustain the prevailing spirit in Mozambique of deepening economic and social reforms and implementing at all levels of Government programs to reduce poverty.

Until recently, public administration employment and employment in parastatal companies dominated the formal labour market. According to public sector reform program of Mozambique³⁷, public administration employment tends to rise only in few sectors. Mainly in the sectors of education (especially primary and secondary education teachers) and in the next five years in municipal and district governments.

As economic theory suggests, main opportunities for employment arise from (foreign direct) investment (FDI) whilst combined with identified opportunities for investors and communities seeking to improve the living conditions of the population from the host country of direct investment and guaranteeing high returns on investment.

From a historic perspective, general investment trends in the coming years can be slightly explained after analysing the basic data in the tables below.

³⁵ Ministry of Education of Mozambique (November 2000): Assessment of the Impact of HIV/AIDS on the Education Sector in Mozambique. Prepared by Verde Azul Consult Lda, Maputo, Mozambique.

³⁶ Entrepreneurs (formalized), who generate a business, create jobs, pay salaries and taxes.

³⁷ See in: José Jaime Macuane e Bernhard Weimer (eds): Governos Locais em Moçambique. Desafios de Capacitação Local. Comunicações do Seminário Internacional, realizado em Maputo (18 a 20 de Fevereiro de 2002). Maputo 2003.

Table: Foreign Direct Investment (FDI) its concentration in MAPUTO (city and province) and direct job creation in Mozambique – formal economy (1990 -2002)

SECTOR	FDI (in billion USD) 1990-2002	Number of projects 1990-2002	Number of direct jobs created 1990-2002	MAPUTO FDI (in billion USD) 1990-2002	MAPUTO Number of direct jobs created 1990-2002
Agriculture, Hunting & Forestry	1.200	330	108.609	0.415	11.686
Fishing	0.198	101	5.862	0.045	833
Mining and quarrying	1.485	22	> 359 ⁴⁾	0.157	> 17
Manufacturing & Industry	3.791 ¹⁾	479	42.260	3.230	25.120
Construction	0.480	128	16.647	0.424	13.637
Wholesale and retail trade, repair, personal and domestic goods, others	0.443	297	16.995	0.398	15.469
Hotels, restaurants & tourist industry	1.538 ²⁾	165	10.751	0.317	3.529
Transport, storage & communication	0.549	176	8.350	0.389	6.128
Financial intermediation	0.407	39	495	0.402	468
TOTAL	10.09 ³⁾	1.737	210.288	5.777	76.887
Remarks: Without the planned ENRON investment in Maputo steel production (03.06.2001). Including 1 huge investment in Cabo Delgado (Pemba Beach – Wildlife and Marina Ressort / 12.04.2001). Excluding 1). The about 1.000 direct jobs which will be created by Corridor Sands Lda. are not registered in the statistics of Investment Promotion Centre.					

Source: Investment Promotion Centre, Mozambique (October 2003).

Table: Foreign Direct Investment (FDI), the 5 biggest FDI's per sector and direct job creation in Mozambique – formal economy (1998-2002)

SECTOR	FDI (in billion USD) 1998-2002	Number of projects 1998-2002	Number of direct jobs created 1998-2002	5 biggest FDI (in billion USD) 1998-2002	5 biggest FDI (approximate number of jobs created) 1998-2002
Agriculture, Hunting & Forestry	1.200	330	108.609	0.352	10.500
Fishing	0.198	101	5.862	0.034	500
Mining and quarrying	1.485	22	> 359	1.327	> 1.500
Manufacturing & Industry	3.791 ¹⁾	479	42.260	1.205	4.200
Construction	0.480	128	16.647	0.254	5.960
Wholesale and retail trade, repair, personal and domestic goods, others	0.443	297	16.995	0.085	730
Hotels, restaurants & tourist industry	1.538 ²⁾	165	10.751	1.070	3.300
Transport, storage & communication	0.549	176	8.350	0.230	2.150
Financial intermediation	0.407	39	495	0.273	> 45
TOTAL	10.09 ³⁾	1.737	210.288	4.83 ⁵⁾	28.885
Remarks: 1) Without the planned ENRON investment in Maputo steel production (03.06.2001). 2) Including 1 huge investment in Cabo Delgado (Pemba Beach – Wildlife and Marina Ressort / 12.04.2001). 3) Excluding 1). 4) The about 1.000 direct jobs which will be created by Corridor Sands Lda. are not registered in the statistics of Investment Promotion Centre. 5) The FDI of the 45 biggest projects between 1998-2002 amounts to almost 50% of total FDI in Mozambique (1990-2002) and creates 13 % of estimated direct jobs by FDI (1990-2002).					

Source: Investment Promotion Centre, Mozambique (October 2003).

As to the data from the tables, it can be stated as follows:

- Total FDI between 1990 and 2002 is concentrated in 4 economic sectors, namely agriculture, manufacturing & industry, mining & quarrying and hotels, restaurants & tourist industry.
- Since 1990, the total FDI amounted to more than USD 10 billion, where the major part flew into the manufacturing sector (more than USD 3,8 billion and where more than 42000 direct jobs have been created).³⁸
- Only three big projects (Mozal smelter – 2.2 billion USD in Maputo province, Corridor Sands – 1.2 billion USD in Gaza province and Pemba Beach – Wildlife and Marina Ressor – almost 1 billion USD in Cabo Delgado province) amount to more than 40% of total FDI between 1990 and 2002 in Mozambique.
- Maputo province could cater for more than 55% of total FDI between 1990 and 2002, and almost 40% of jobs created by FDI.
- The total amount of jobs created by FDI (1998-2002) is 210.288, where the highest job creation yields (absolutely) by FDI's are in the sectors of agriculture (108.609), manufacturing & industry (42.260), construction (16.647) and wholesale and retail trade (16.995).
- The 45 most capital-intensive FDI's, totalling 4.83 billion USD only create more than 28 thousand jobs.
- The most job-intensive FDI's are in the sectors of agriculture (11.000 USD per direct job), fishing (33.000 USD per direct job), construction (28.000 USD per direct job), wholesale and retail trade (26.000 USD per direct job) and hotels, restaurants & tourist industry (55.000 USD per direct job)³⁹, whereas the less job-intensive FDI's are in the (industrial) mining and quarrying (> 500.000 USD per direct job), in capital-intensive manufacturing & industry (> 500.000 USD per direct job) and in financial intermediation (> 500.000 USD per direct job).⁴⁰

Since CPI does not deal with foreign investments of less than USD 50.000 (and those projects are not centrally registered), certainly more investments have been undertaken in Mozambique and each of them has generated direct jobs. Given the fact that smaller investments generally generate relatively more direct jobs per USD spent, than bigger projects, perhaps another more than 200.000 direct jobs have been created in Mozambique due to formal private business initiatives⁴¹ from 1990 until 2002.

By historical trend analysis and considering the experiences of neighbouring countries⁴², it can be observed that labour intensive projects in sectors such as agro processing, maintenance of infrastructure and development and running of facilities in the tourism industry (hospitality, transport, leisure, game reserves, etc) tend to generate in Mozambique in the medium and long run high returns to communities and population not yet absorbed by the formal economy. They do not only represent a layer for directly employed citizens but also increase opportunities of other population groups capitalizing on a better general social and economic environment enhanced by the investment. Estimates in Mozambique on indirect job creation by investments

³⁸ An Investment Guide to Mozambique, Opportunities and Conditions, June 2001, ICC and UNCTAD (editors). New York and Geneva. CPI (August 2003) – Database: Direct Investment Projects from 1990 until 2002.

³⁹ Without considering 1 huge investment of USD 1 billion (creation of 3300 jobs).

⁴⁰ This data refers especially while setting up whole services structure. During operation, less costs might arise to create one new job.

⁴¹ In short time the results of a detailed enterprise registration (CEMPRE/national Institute of Statistics) will give a more profound overview to data regarding enterprise statistics.

⁴² See: 1) Foreign Direct Investor Perceptions in Sub-Saharan Africa. UNIDO Pilot Survey in Ethiopia, Nigeria, Uganda, Tanzania. UNIDO. Vienna 2002; 2) John Nasir, et.: Mozambique Industrial Performance and Climate Assessment 2002. Regional Program on Enterprise Development (RPED). Africa Private Sector Group. Worldbank.

range from 5 to 10 additional jobs by one direct job created (mining industry, manufacturing industry, tourism & hospitality industry), and in agriculture and fishing industry even this ratio can be higher.⁴³

From this perspective, the annual number of direct jobs created by either registered and not registered FDI in Mozambique (figures from the past 12 years) can be estimated at 34.000. In addition to that, it can be estimated that between 170.000 to 340.000 indirect jobs have been created by FDI annually.

Considering an annual (natural) supply of job seekers of about 350.000 and almost 5.000 graduates either from VE or Higher Education (additionally about 2.000 finalists of VT courses can be considered to be qualified labour force) seeking for employment opportunities, by far the formal TVET does not satisfy the demand of qualified labour force. Non-formal types of training and companies in-house training activities (even on an non-formal basis) continue to be the most important vehicles for the majority of the work force and economic active population to learn something “by doing”.

5.4. Identified Business Opportunities in the Development Corridors

Even though the general scenario of job creation in Mozambique is not very promising, in the Development Corridors still the main question has to be: “What are drivers for employment or income generation in an economy which allocates, from a general overview of employment in Mozambique, its employed and, in average of the country, its more skilled human resources in comparatively unproductive activities, such as services and sales (wholesale, hotels, restaurants and security) and in public administration. Unproductive activities means under this consideration, value added to goods and services is marginal and in comparison to that still the major part of export products of Mozambique are raw materials or marginally transformed products (such as cigarettes, flowers, roasted cashew nuts or prawns “ready for the consumer’s table” using cheap manpower.

Mozambique’s cluster development still is in between of the first and second stage of its “value chain development”, described in the first part. Still emerging questions for investors remain in having the basic infrastructure for business operation in place (electricity and water supply, telecommunication, connection to transportation network, storage facilities). Until now, many efforts have been undertaken by Mozambican government to stabilize the supply of the basic infrastructure in development areas with high potential of natural resources (mineral extraction, products (game, landscape, water) for tourism development, agro processing, food production and processing, etc.).

In the 5 Corridors, the main businesses identified are within four sectors and areas for linking up the investment initiatives and opportunities to their markets:

- Agriculture and agro processing (mainly sugar, rice, tobacco, coco nut, fruits and vegetables, flours and cattle rising and meat processing)
- Tourism and hospitality industry (mainly hotels and lodges, game parks, links to products and services for tourists)

⁴³ See interviews: Mr Ventura (Manager Beluluane Industrial Park), Mr Pereira (Irrigation Investment in Chokwe, Gaza), Mr Thomson (Corridor Sands Lda, Maputo/Chibuto, Gaza), Mr Monteiro (RANI Group, Pemba Beach Hotel).

- Mining industry (caving, processing and transportation of resources in Gaza, Tete and Nampula)
- Services and businesses for downstream and upward linkages
 - Agriculture and agro processing: storage, transport, irrigation, crop disease control, etc.)
 - Tourism and hospitality industry: catering, take-away, transport, crafts shops, hair dressers, cultural events, organized excursions, etc;
 - Mining industry: food & beverages, safety guards, transport (e.g. from and to work sites), all functional services of a small town (school, health center, etc.).

Due to the still very little expression of services industries which link up the products to the consumer markets, a strong opportunity for income generation especially for communities lies in all kind of supporting services or products which do not necessarily require a high international standard of quality. This refers particularly to activities which arise naturally from concentration of assets and people in a region where investors act as suppliers and purchaser of goods and services. Additionally, every person employed by an investor becomes a potential purchaser of every kind of product at local level. Bakeries, hairdresser, bars, shops, car workshops and other kind of services have a huge potential to emerge and offer income opportunities. With regard to attraction of future investments, Mozambique can play an important role for special manufacturing projects and initiatives. Its role, on the one side, to benefit from special international commercial agreements (AGOA, preferential treatment within the APC-EU environment) with regard to access of consumer markets in NAFTA, MERCOSUR and EU, and on the other side the existing and ongoing trade disputes between emerging industrialized countries (China, Taiwan, Korea, Iran, Malaysia, Indonesia, Thailand, etc.) and the most important consumer markets for world production (USA, Canada, EU) offer to Mozambique to offer to special industries a very quick answer to overcome trade barriers.

Considering very recent explanations for increase of EURO/USD exchange rate⁴⁴, main business opportunities in the next months might arise from special benefit to Mozambican manufacturing companies seeking for exports to the main export markets for garment industry (USA and EU).

⁴⁴ Analysts point out, that USA is preparing to impose import quota to Chinese garment export industry to protect the national garment industry. Out of preferential manufacture and export regime (AGOA), Mozambique could step into this niche by offering to Chinese investors its favorite business environment.

6. Demand and Supply of Qualified Manpower in the Corridors

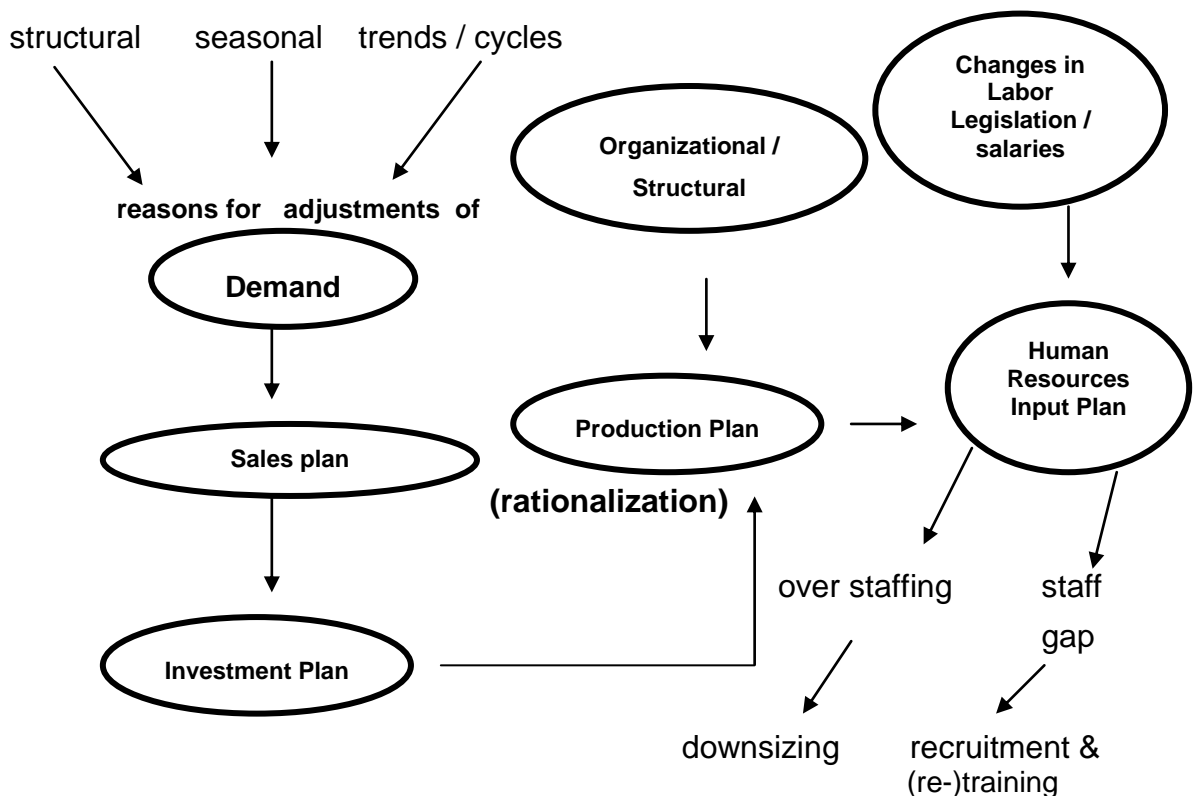
6.1. The determination of manpower demand from the investors perspective

In the world of work there are two main drivers of change: those arising from a more competitive overall economic environment due to more open markets, globalisation and technology, and others being generated from within enterprises.

In terms of economic theory, the open market economy enhances total factor mobility (the importation and exportation of production factors) accruing factors to the investors production function with more competitive prices as they derive from exposure to more competitive markets than in a closed economy. On the other hand, the more sophisticated input of factors in an investor's production function automatically causes organisational, functional and structural changes in an investment. Successful and profitable enterprises are obliged to build up their culture and spirit of making their business more profitable. Changes derive and are explicit while total factor mobility is generated endogenously.

From business point of view (see figure below), investors realize their projections on manpower demand due to different external and internal factors. Externally, changes arise from modification of fundamental parameters, such as modifications in market volume, exchange rates, interest rates, input factor distortions, seasonal and other factors for possible adjustments in demand. The sales plan is decisive for investment and production planning defining about inputs and decisions for further adjustments.

Figure: Planning of workforce demand in industry (from demand to personal input)



According to the availability of qualified manpower on the labour market, companies take strategic decisions with regard of investments in the development of their human resources.

The production plan determines whether HR inputs has to be downsized or increased. The increase can occur either by recruitment, its combination with training or solely by training of existing staff.

Investors (FDI) are seeking for professionals according to job profiles (see box below) which match the willingness of payment for a certain occupation (cost of manpower) with the character of the job (attributes) and with the ability of the job seeker to fill the position. Therefore, no specific explanations can be given in which occupations and at what level future investments will seek for professionals.

Box: Some explanations on job profile and scope of qualification / occupation

Generally an occupation requires a set of qualifications. These qualifications have 3 types of character:

- ✓ Technical knowledge and competencies about the professional area
- ✓ Interpersonal competencies to deal in and with organizations (companies, administrations, etc.)
- ✓ Managerial and organizational competencies to deal with people, activities, budgets, in a certain time within specifications, etc.

These 3 main fields make the qualification / occupation of a professional and are in substance similar to all economic activities.

Main differences in scope and profile of the qualification / occupation arise from:

- ✓ The level of responsibilities a person is committed to in an organization and/or administration
- ✓ The profile of the job (specific, range of elements, operational, administrative, managerial, investigative, scientific, etc.)

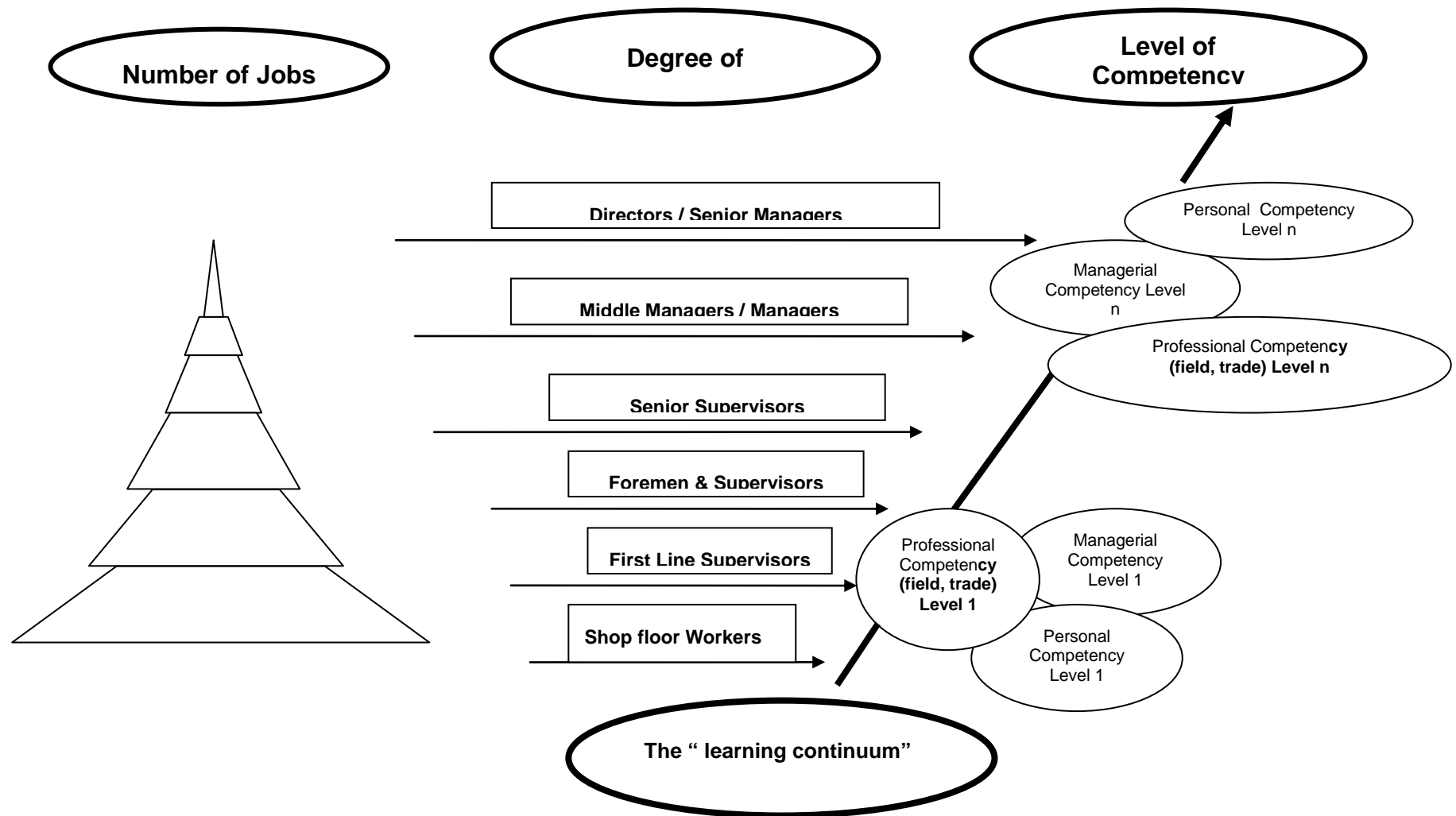
According to these divisions, certain job profiles can be deduced and confronted to qualifications needed to fill the job profile.

Subsequently, the training needs assessment is a tool for HR development within the company or an organization. It includes the determination of required skills according to job profiles and competencies in place by employees, the evaluation of capacity to deliver in-house training and the evaluation whether and to what extent a partnership / cooperation with public and private partners is considered worthwhile to implement HR development.

This is to ensure the overall goal to reach the highest possible return on investment.

Generally, in a company the number of jobs (see figure below) is by far lower at managerial and strategic level of investment projects / and in companies than the number of jobs at the level of the companies throughput (transformation of goods and services) and sales.

Figure: Staffing, pay rolling, career development and the “learning continuum” as principles for HR development



Independent of the job, at all levels job seekers need to fulfil specific requirements which can be summarized as follows:

- Unlike the degree of responsibility of the job, every person engaged in a profitable organization is measured against its personal productivity.
- The scope of all jobs require managerial competencies(organization, leadership, time management, etc.), personal competencies (communication, awareness, making decisions, being responsible, etc.) and professional / technical competencies (in the field of work) which tend to be more complex, the higher the degree of responsibility within the organization.
- In profit organizations, salary is paid according to productivity of the whole organization and according to productivity of staff at all levels.
- Well organized profit organizations offer a career pathway to professionals in order to retain the best within their organization (this implies reduced costs of recruitment and on the job training) and in order to rise the output per employee.

The number of jobs rises, where transformation of inputs occurs (throughput) and where high labour intensity is required either by input factors, by production process or by sophistication of product variation (garment industry, shoe industry, other manufacturing industry). Industries which are directly connected to inputs from agricultural activities (cashew nut and tobacco production, crop production and transformation, food & beverages industries, meat production, etc.) tend to create more jobs (at community level) than the transformation of goods merely dependent on extraction or imports of raw materials (aluminium production, extraction of minerals, etc.).

The same applies to communities or organizations at local level, which aim to contribute for better life conditions of the population by supplying goods and services to investment projects.

Positive indirect job effects have been observed in the last years by investment projects in the Development Corridors due to various businesses fuelled by more sophisticated (quality aspect) and more voluminous (quantity aspect) demand at local level. More demand induced by investments and investors leveraged the potential of income generation at community level. This phenomena can be observed after several investments like in Marromeu (sugar plant), Mafambisse (sugar plant), Xinavane (sugar plant), Mozal (Beluluane Industrial Park and Matola town development) but as well by smaller investments:

In the case of the construction of abattoirs in the Beira Corridor (Catandica Ranch / district of Catandica in Tete province and Rennie Ltd at district of Gondola in Manica province) the production and supply of building material by communities to investor's construction sites are conducive elements to promote income opportunities and to induce technology transfer at local level. The same applies to the privatised port facilities of Beira (Cornelder Ltd.) and Maputo (Maputo Port Company), where the surrounding areas of the ports upgraded continuously by gaining further attention for investors of smaller businesses.

Taking into account a typical life cycle (number of persons employed per 1000 USD turnover) of an formally state owned business which recently has been privatised, generally the HR stock at begin of privatisation is still high (due to restrictions for dismissals), but steadily is declining especially at operational level. Reorganization

leads to new structural and functional set ups, where even new professionals are recruited. With regard to such organizational changes, formally state owned businesses and since recently under (partial) private ownership (Maputo Port Company, TRAC, investments in telecommunication) and different investors in Mozambique (Delta Trading Corporation, Unilever Ltd, different companies from the Industrial Park of Beluluane, Pestana Group, RANI Group, State Electricity Company) tend to reduce their cost burden on staff by selection of the best and promoting productivity by in-house training and reallocation of staff.

In this environment, human resources development can be seen as forming part of both the economic and social responses to those drivers for employment. The labour supply – either formal systems of training or informally organised – has to be prepared to cope with and induce technological changes in business environments exposed to market economy. As well it has to be responsive to the demand of basic community services and infrastructures (health care, food security, water management, civil services, etc.) and their potential for linking up with investment projects.

6.2. General trends on Manpower Demand

Mozambican total population amounts to almost 18 million habitants, where almost 9 million is 15 years or older and forms the potential work force of the country.

As to the following table, only less than 40.000 students are enrolled in the vocational education and the higher education of Mozambique (2002). Assuming a yearly growth rate of 10% (Vocational Education) and 20% of Higher Education in total number of enrolled students from 2002 until 2005, the trend is to have about 58.000 students enrolled by 2005. Assuming the optimistic growth rates of the ratio “number of graduates per year/total of students enrolled per year” within VE of 13% (10 th grade) and 14% (12 th grade) and the same figure in higher education with a growth rate of 8% “plus”⁴⁵, the total of graduates amounts to about 3.744 (Vocational Education) and 2.375 (Higher Education) by 2005.

The following table gives an overview of the number of people enrolled and estimative numbers of graduates in different educational subsystems. These future job seekers amount to the potentially most qualified population of Mozambique:

⁴⁵ The opening and expansion of several higher education supply in the provinces has been considered in this trend calculation (2005). The opening of the 3 poly technical Higher Education Institutes by February 2005 (Manica, Tete and Gaza) will not affect this trend calculation.

Table: Output of Mozambican education subsystems (1999-2002) and trend (2005)

Education sub systems	1999		2001		2002		Trend (in 2005)	
	Enr.	Grad.	Enr.	Grad.	Enr.	Grad.	Enr.	Grad.
Secondary Education (8-10 th grade)	~ 70.000	~ 11.000	~88.000	~13.000	~ 92.000 (from begin of grade 8)	15.056 (from 115 schools)	~ 135.000	~20.000
Secondary Education (11-12 th grade)	~10.000	~3.000	~ 12.800	~ 3.500	~14.000 (from begin of grade 11)	4.054 (from 27 schools)	~20.000	~ 5.500
Vocational Education (10 th grade equivalence)	14.294	1.724	16.720	2.248	17.960	~ 2.350	~ 23.900	~3.100
Vocational Education (12 th grade equivalence)	3.149	450	3.633	527	3.461	~ 510	~ 4.600	~ 644
Higher Education (Bachelor and Master)	~12.800	721	~ 14.500	~ 1.150	17.189	1.269	~29.700	~2.375
TOTAL	~110.000	~17.000	~135.000	~20.500	~145.500	~23.400	~215.000	~31.500

Sources: Ministry of Education (Planning Department) 2003; Ministry of Higher Education, Science and Technology 2003, Ministry of Labour 2003.

Disaggregating the total figures, only one quarter of graduates are professionally prepared in natural sciences and engineering. The major part of students at all levels of TVET and higher education are seeking for a career in occupations related to

human sciences (economics, business administration, commerce, social sciences, pedagogy, legal sciences and literature).

The students of VT courses are predominantly prepared to cover basic competencies of an occupation. Due to the inferior reputation of VT in Mozambique, and because of its still persistent character to, predominantly be an option for low income groups and socially marginalized population, training focuses on acquisition of fast results by selecting job and task related contents rather than being methodologically and theoretically complex in the sense of preparation according to an occupational profile or even a set of occupational profiles. The very important role of short term training is neglected by the formal TVET system, as all the training either offered by a number of public training centres of different line Ministries or supplied by more than nationwide 70 private providers are not part of the Qualification Framework. Short term training is not recognized by an academic level and so, in terms of remuneration, not interesting to several target groups aiming to raise the academic level rather than to “learn by doing”. Still academic education gives a higher status and VT can’t compete with its programs where “hands use to get dirty while being trained on site”. As still many enterprises relate their remuneration packages to the public sector schemes, still in Mozambique remuneration is much more institutionally linked than based on productivity parameters. As almost 35% of formal workforce is paid according to its post within the institutional hierarchy and according to the academic level of formal education, a crucial aspect of public sector reform is to implement transparent career development combined with packages to motivate the most productive part of work force. One of the most important aspects would be to raise general salary levels of public sector employees, financed though by significant reduction of beneficial payments for employees (per diems, etc.) while travelling and due to status.

In Mozambique, there is not yet developed any occupational profile and training pathway which would allow to students to upgrade during life according to a subsequent offer of formal training (from different subsystems of training) leading from basic knowledge and competency level to an expertise within an occupation with the whole range of competencies (see further on the chapter “Learning Pathways”).

6.1. Anchor Projects and Delevery of Professionals in the Corridors

Special attention has been paid to approach methodologically the Mozambican SDI Program to the topic. It has been clearly identified that three major investment trends in the country will have to be satisfied by qualified manpower in future.

Huge capital-intensive investment projects as a driver for the development of surrounding businesses with the ambition, under full operation, to clearly enhance and set up structured downstream and upward linkages;

Labor-intensive investment projects, mainly in the sectors of agriculture and services (including tourism and hospitality industry) with downstream and upward linkages mainly at local or regional level but commercially linked to domestic and international (export) markets and to its standards.

Isolated investment projects with different profiles (either capital-intensive or labor-intensive) in different sectors of the economy, in a first stage of operation mainly considering strong linkages to the markets (either local, domestic, regional or

international) and not yet ambitious for setting up structured downstream and upward linkages.

In the following section, the three main functional divisions of Human Resources within an organization which transforms goods and services into sub products or end consumer goods is briefly analysed from the perspective of availability of labour force in Mozambique.

The main divisions are:

- Managers and supervisors (management level)
- Supervisors and foremen (operations)
- Shop floor workers (operations) and casual staff

Management and supervision

Certainly job seekers tend to look at positions where highest yields from occupation can be achieved. Generally those positions (0% - 1% of total of direct jobs generated by the investment project) are limited to high potential professionals who have the full managerial responsibility of the business and who have been trained through other tasks or projects with similar responsibilities. These positions in the identified anchor projects are usually held by expatriates. But, in the long term, companies are keen on hiring Mozambican professionals for these positions, as secondary costs (security and social insurance packages, house rental, tuitions for children, etc.) are cost burdens of companies working with expatriates, generally much higher than those for nationals.

Generally, the main obstacles to have currently Mozambicans in senior management posts are related to scarce availability of senior managers who combine a state of the art quality management systems proficiency with a professional career record on high level technology applications within engineering or other “hardware sciences”. This is especially due to three factors: a) little state of the art higher education opportunities in Mozambique, b) brain drain of Mozambican high potentials and senior managers (South Africa, Brazil, USA, England, Australia, Portugal, etc.), and c) low level of innovation and high tech applications in Mozambique.

Especially latter factor provokes more brain drain to countries which offer a set of opportunities for scientists and investigators.

Supervisors and foremen

In many industrial applications, the operations tend to be technologically more sophisticated responding to international quality standards at all level of operation. In most cases, Mozambican technicians and foremen don't have access to such learning, either not having been exposed in such businesses or because there is no training provision all over the country which includes in its training program issues like ISO 9000, work safety standards (ISO 8000), etc. Therefore, the informal in-house learning environment brought into the market by investors (MOZAL, five star hotels, UNILEVER, Parmalat, Maputo Port Company, etc.) are important investments from the training perspective. Although at begin of operations, investors need to import highly skilled labour force at supervision level to keep up with the quality standard levels, continuously Mozambican labour force can be integrated. In many cases, Mozambicans in South Africa have been exposed to high tech working environments and have gained expertise in industrial operations (especially in the mining and manufacturing industry).

Shop floor workers and casual staff

In general, Mozambican workers are highly motivated to give the very best to their employers. An overwhelming physical preparation of the workers is much over expectations of (foreign) investors, often struggling because of very rigid manpower plans while construction and preparation of operations. In many cases, the key to establish a motivated engaged team of workers is to empower the best workers to be the future foremen of the investments staff. The employment of casual workers is due to the high number of job seekers easy. The most difficult part is to base one's decision making process for recruitment on transparent procedures in understandable language. This requires from the investor not only a feeling for the culture. As well the fast integration of local employees with leadership competencies leads to a better understanding of the investors interests by the community. Investors can be drivers for their own success by setting up, together with the communities, activities in direct benefit for communities (schools, health posts, etc.). The return on investment is generally high, as especially in the more remote areas within the Corridors, the population still is lacking basic infrastructure services.

In this section the identified anchor projects in the respective Development Corridors are described under the following aspects:

- State of implementation of the project
- Demand of workforce (quantitative and qualitative aspects)
- Availability of manpower and training provision
- Recommendations for implementation

In each Corridor, so far the anchor projects (in pre feasibility or feasibility status) and aspects related to training provision have been so far identified, as follows:

Maputo Development Corridor

TABLE: INVESTMENT PROJECTS AND ISSUES RELATED TO TRAINING IN THE MAPUTO DEVELOPMENT CORRIDOR

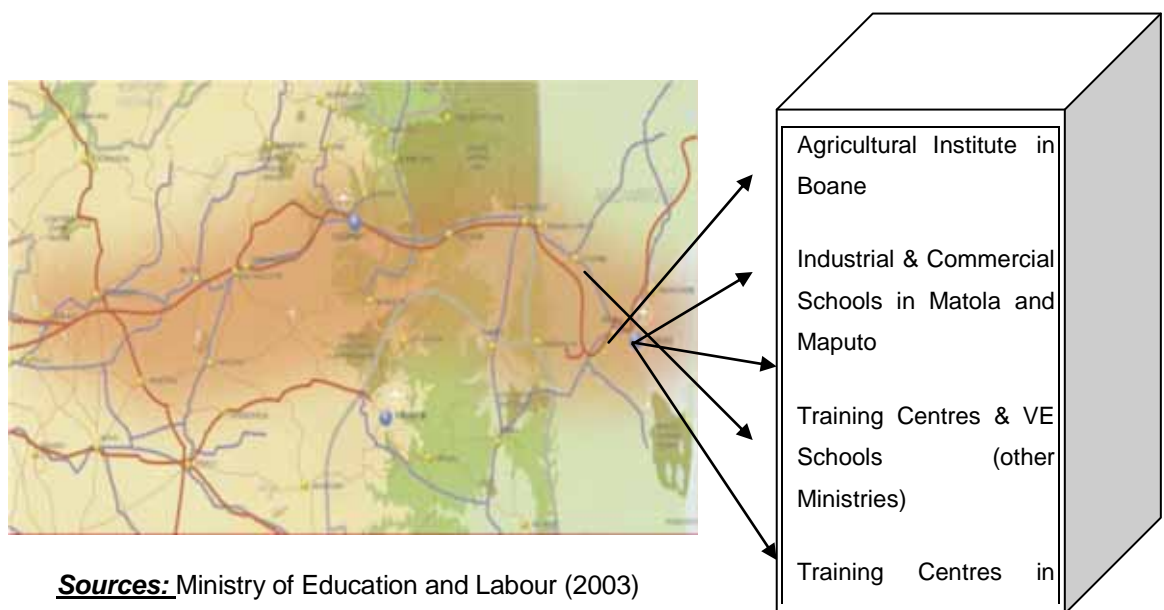
PROJECTS	STATUS	Demand of workforce and identified training need	Availability of manpower / training provision in required occupational fields	Recommendations for implementation
GAS EXPLO- RATION PROJECT (Pande line).	Imple- mented	More than 150 welders (structural weld) and pipe fitters have been trained according to international welding standards (to guarantee the construction of the pipeline). For maintenance purposes, less staff will be needed.	Short term courses have been set up and training occurs at Vilankulos Training Centre. A lot of experienced but outdated workers are available. The main part of trainers (welding) are from abroad.	Lessons learnt of partnership between SASOL and Ministry of Labour should be made available for other partnerships of training. In order to retain know how in public training provision, information and data should be available to interested partners.
CATEMBE/ MAPUTO CROSS	Pre feasibility	Labour intensity is due to products and services foreseen and can't be specified at moment. Short term specific training (on products and services) has to be outlined and implemented. All workforce engaged in the Maputo/Catembe cross has to be trained in safety and lifeguard standards.	Special attention has to be paid to introduce into workplaces already active population in the fields of transportation and services, regardless their qualifications.	The School for Maritime Sciences (Escola Nautica de Maputo) could be engaged to give some general input. Specific private provision needs to be hired on in order to guarantee training contents which are in line with international standards. Training should take place in at least 2 training locations (on site – 70%, theoretical and practical exercise in a school/training centre)

PROJECTS	STATUS	Demand of workforce and identified training need	Availability of manpower / training provision in required occupational fields	Recommendations for implementation
RESSANO GARCIA /LEBOMBO BORDER AND CUSTOMS	Implemented	<p>Labour intensity is due to products and services foreseen and can't be specified at moment.</p> <p>Short term specific training (on products and services) has to be outlined and implemented.</p> <p>All workforce engaged in the Maputo/Catembe cross has to be trained in safety and lifeguard standards.</p>	<p>Special attention has to be paid to introduce into workplaces already active population in the fields of transportation and services, regardless their qualifications.</p>	<p>Considering the future of an unique boarder post (not only in Ressano Garcia), a training initiative should first be organized in 2 learning environments with use of both languages, Portuguese and English:</p> <p>on site (70%, mixed classes, very practical);</p> <p>at training centre / school of each country</p> <p>In a further step, a bilateral Technical School / Training Centre could be established in order to prepare customs officers for a unique border post.</p>

PROJECTS	STATUS	Demand of workforce and identified training need	Availability of manpower / training provision in required occupational fields	Recommendations for implementation
BELULUANE INDUSTRIAL FREE ZONE	Implemented (the Industrial Free Zone by itself)	<p>Training has focussed so far on strengthening the competencies of existing customs officers. The number of workforce needed will raise from two shifts to a at least three shifts (when border opens 24 hours – assuming still 2 separate boarder posts between Mozambique and RSA).</p> <p>Training has to focus on all issues of client relations, knowledge of products and specifications (especially on dangerous goods), legislation, English (Portuguese) and computer proficiency.</p> <p>Associated companies to the Industrial Free Zone need to ensure a continuous supply of qualified manpower mainly in the industrial field (electricians, mechanics, etc.) create a mechanism of recruitment and re-training staff before employment build up a “buffer stock” of man-power to fill unforeseeable manpower leakages capitalize on a shared value for money out of training supply (programs and experiences), financed by the more powerful private sector and co financed / supported by other partners.</p>	<p>Well skilled manpower is rare and generally the fluctuation rate of customs officers is very high.</p> <p>Training provision is not yet very practical and still not updated (as the trainers are not enough prepared with new training methodologies and learning material).</p> <p>Presently, there is not sufficient qualified manpower “ready for jobs in industry”.</p> <p>Recruited manpower (either graduates or headhunted) need a strong support via in house training in order to cope with international standards.</p> <p>Main occupations needed: (industrial electricians and engineers, mechanical engineers, technicians and engineers for Auto CAD and CAD, foremen in several operations)</p> <p>Training needs:</p> <ul style="list-style-type: none"> a) Specific, occupational related high tech standards, b) Management of resources (time, material, stock, people, money, etc.) , c) Communication (English, computer, teamwork, etc.) d) Working culture (responsibility, reliability, etc.) 	<p>In association with the companies of the Beluluane Industrial Free Zone, the managing Company of BIFZ sets up a privately run Training Centre, financed by associated partners. Companies train existing staff (upgrading) according to training needs assessment. A recruitment scheme to be set up will actively use the Training Centre to screen new entrants and to set up apprenticeship contracts with job seekers. Trainers (from associated companies) will offer courses to other providers (training of trainers), thus setting up partnerships of the Training Centre with other providers. This establishes linkages which enable job seekers a better integration into a job / apprenticeship scheme.</p>

The main concentration of training provision in Mozambique is within the Maputo Development Corridor. Out of several public VE schools and institutes, there are more than 5 private schools (elementary and basic level) and about 65 VT centres, offering mainly commercial related disciplines and subjects. Out of these VT centres, only about 10 are officially accredited. None of them offers training programs which are in line with international industry standards like ISO, BS, etc.

Figure: Training Provision in the Maputo Development Corridor



Sources: Ministry of Education and Labour (2003)

Limpopo Development Corridor

The following table gives an overview on the status of an identified (anchor) project in the Limpopo Corridor and initiatives within the agricultural and tourism sectors where, in future qualified manpower will be needed and investors-community partnerships could lead to benefits for both partners. According to the available information, training related questions and topics as mentioned in the respective (pre) feasibility studies are summarized in the table, as follows.

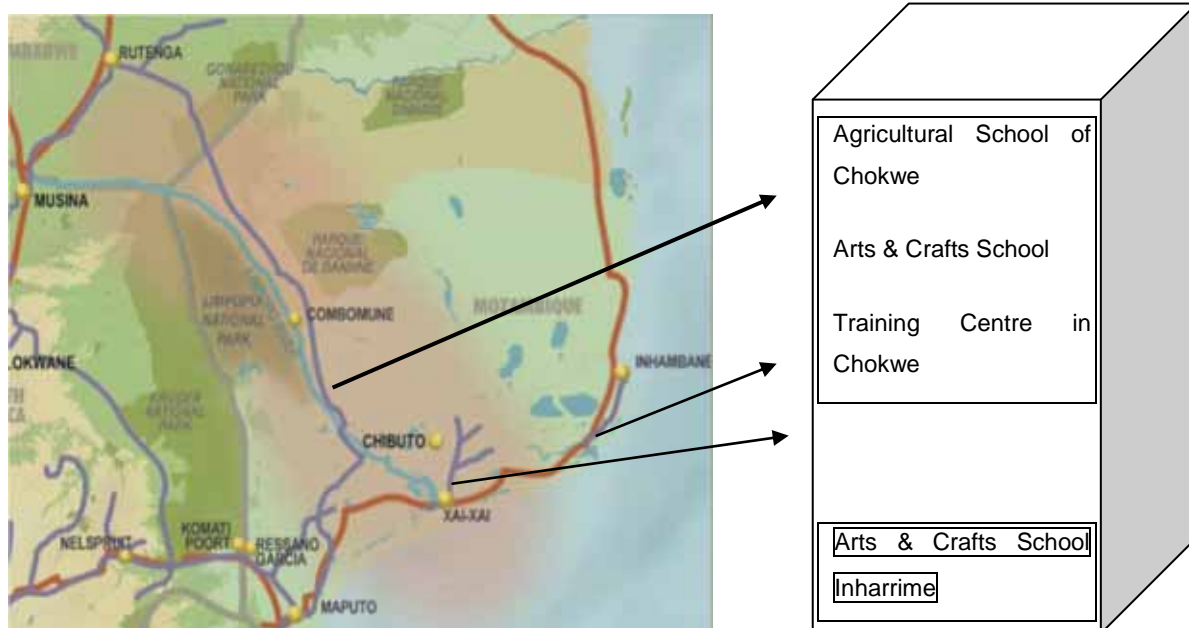
Table: INVESTMENT PROJECTS AND ISSUES RELATED TO TRAINING IN THE LIMPOPO DEVELOPMENT CORRIDOR

PRO-JECTS	STATI	Demand of workforce and identified training need	Availability of manpower / training provision in required occupational fields	Recommendations for implementation
Sector: AGRI-PROCESSING Product REHABILITATION, MODERNISATION AND PRODUCT DIVERSIFICATION OF THE CONHANE RICE DEHUSKING FACTORY	Pre feasibility	Short term training for farmers, workers, administrative staff, salespersons and other relevant professionals. For all projects not more than 20 (management and supervision level) employees and 300 (operations) direct jobs will be created. The creation of indirect jobs is dependent on size and regional impact of the projects. Probably more than 10 fold is the number of indirect jobs per direct job created by investment.	Farmers must be informed and trained to use the machinery correctly and in the proper use of chemicals / fertilizers.	Existing expertise by some investors should be combined with training efforts undertaken by Agricultural School in Chókwe. NGO's (Caritas, Oxfam) and funds from Proagri can be used for such private public initiatives. Employment of farmers (contract farming) can generate more stable income to those farmers associated to the investment projects and generate more stable input to the investors.
Product CHILEMBENE TOMATO FACTORY Product COCONUT PRODUCTION Inhambane / Maxixe	Pre feasibility Pre feasibility		Short term training has to be set up according technology used by the investor. Generally, the technological standards are low and operations can be realized by local staff (without schooling). Local management and supervision employees have to be retrained several times. Training has to be very practical and related to typical problems and challenges of a local industry, thus at least 70% on site.	c) Higher yields and income can be generated by additional services in place, such as extension services to the farmers, services for certifying origin, etc.

PROJECT	STA-TUS	Demand of workforce and identified training need	Availability of manpower / training provision in required occupational fields	Recommendations for implementation
MINING INDUSTRY – Corridor Sands Ltd (Chibuto)	Feasibility (preparation of operations from 2004 onwards)	<p>Almost 900 skilled and unskilled staff will be needed for the core caving and processing operations and for transport and logistics.</p> <p>About 5% of staff will be either internationally or nationally recruited for management and supervision posts. The main part will be engaged for operations.</p>	<p>Due to vast experiences of Mozambicans (operations level) in mining industries (Mozambique, South Africa, Angola, Congo), skilled manpower is available.</p> <p>Training has to focus on safety standards, quality management and special (technology related) training (generally provided by international expertise and accredited providers)</p> <p>Partnerships with community:</p> <p>a) land use plans and management,</p> <p>b) allocation of resources (land, products, infrastructure)</p> <p>c) establishment of social infrastructure in partnerships with local partners</p>	<p>1) Creation of a local management committee for definition, decision and implementation of</p> <p>a) alternative land use within the concession area and surrounding areas,</p> <p>b) urban development areas of Chibuto town and its surroundings (water, sewage, waste, streets, commercial areas, housing areas for staff, recreation areas, etc.)</p> <p>c) concessions to local groups (associations, population organised in committees and other types of associations)</p> <p>d) projects promoting improvement of social infrastructure.</p> <p>2) Set up of partnerships with</p> <p>a) National Training Institute of geology and Mining in Moatize (practical exercises for technicians and associate professionals)</p> <p>b) Technical School in Xai-Xai (practical exercises for technicians and associate professionals) and Agricultural School in Chokwe (support of rural extension work to families which have been removed and to farmers)</p>

PRO-JECTS	STA-TUS	Demand of workforce and identified training need	Availability of manpower / training provision in required occupational fields	Recommendations for implementation
TOURISM INDUSTRY	Ongoing study identifying most appropriate investments in tourism industry	<p>Staff directly related to products and services:</p> <p>a) Hospitality industry (table attendants, housekeeping, food & beverages, receptionists, etc)</p> <p>b) Transport, Game, Crafts, markets (drivers, guides, Arts & Crafts shop operators & managers, car rental, promoters of local food and products, etc)</p> <p>Staff indirectly related to tourism industry:</p> <p>fuel stations, car workshops, shops, first aid services, security services, telecommunication, bakeries, etc</p> <p>Training required:</p> <p>a) Skills related to high standard products and services in all occupational fields.</p> <p>b) Skills related to communication and intercultural aspects of communication</p> <p>c) skills related to general education and personality (all occupational fields)</p>	<p>Availability:</p> <p>Senior Officials and Managers and associated professionals are nationally difficult to find.</p> <p>Clerks (F&B controllers, receptionists and concierges) are available but need to be trained for at least 9 months.</p> <p>Service workers (housekeepers, chefs, waiters, bar staff, cooks – national food) are available and need to be trained.</p>	<p>1) Set up a partnership with the mobile training unit of National Institute of Training and Employment / Ministry of Labour and hire additionally expertise from national or international recommended consultants to run trainings (ideally at future work places of staff)</p> <p>2) Seek for information and evaluate existing partnership between the Pemba Beach Hotel and the Catholic University (Faculty of Hotel Sciences) in Pemba / Cabo Delgado. Potential for recruitment of students of Higher Education in hotel Sciences as first graduates will leave University by 2004.</p> <p>3) Establish partnership with Higher Education Hotel School in Inhambane and offer apprenticeships for students interested in practical exercises.</p>

Figure: Training provision in the Limpopo Development Corridor



Source: Ministry of Education and Ministry of Labor (2003)

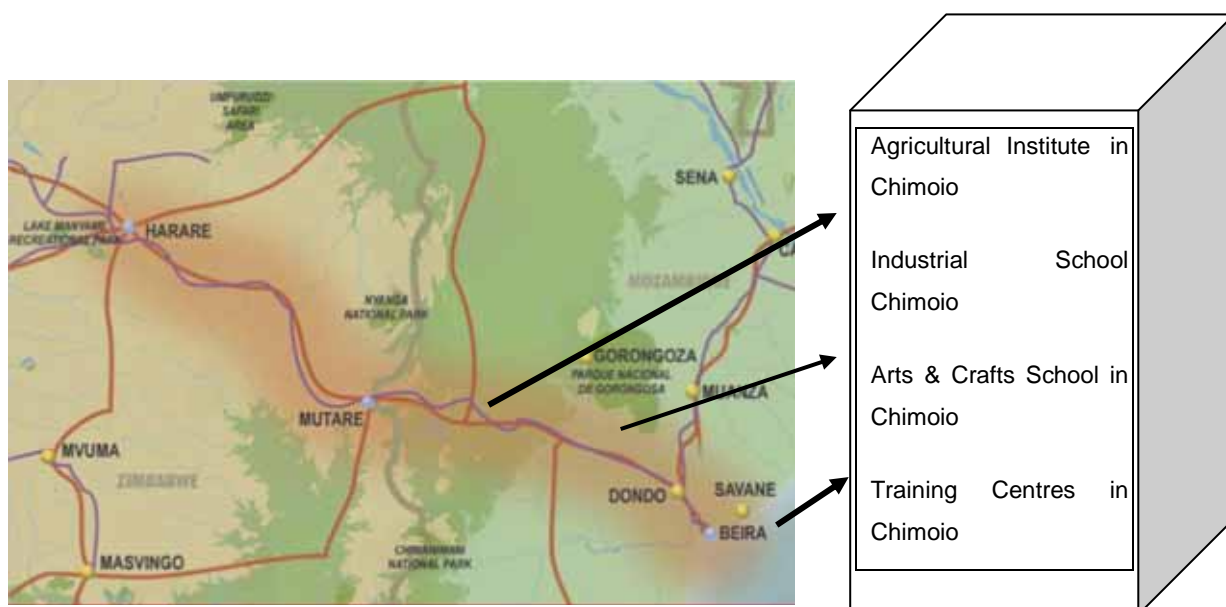
Beira Development Corridor

Table: INVESTMENT PROJECTS AND ISSUES RELATED TO TRAINING IN THE BEIRA DEVELOPMENT CORRIDOR

PROJECTS	STATUS	Demand of workforce and identified training need	Availability of manpower / training provision in required occupational fields	Recommendations for implementation
Rice production (feasibility study completed)	Pre feasibility	<p>Short term training for farmers, workers, administrative staff, salespersons and other relevant professionals.</p> <p>For all projects not more than 20 (management and supervision level) employees and 300 (operations) direct jobs will be created.</p> <p>The creation of indirect jobs is dependent on size and regional impact of the projects.</p> <p>Probably more than 10 fold is the number of indirect jobs per direct job created by investment.</p>	<p>Short term training has to be set up according technology used by the investor. Generally, the technological standards are low and operations can be realized by local staff (without schooling).</p> <p>Local management and supervision employees have to be retrained several times.</p> <p>Training has to be very practical and related to typical problems and challenges of a local industry, thus at least 70% on site.</p>	<p>Existing expertise by some investors should be combined with training efforts undertaken by Agricultural Institute in Chimoio. Employment of farmers (contract farming) can generate more stable income to those farmers associated to the investment projects and generate more stable input to the investors.</p> <p>Higher yields and income can be generated by additional services in place, such as extension services to the farmers,</p> <p>services for certifying origin, etc.</p>

PROJECT	STATUS	Demand of workforce and identified training need	Availability of manpower of / training provision in required occupational fields	Recommendations for implementation
Slaughter house and beef fattening units (feasibility study completed; slaughter house in Gondola district operational from 01/2004; 1 fattening unit in preparation).	Implemented	<p>Construction of slaughterhouses:</p> <p>Locally available manpower during construction. Construction material locally produced and available (blocks, etc.)</p> <p>Operations:</p> <p>Each slaughter house will need about 15 permanent staff (capacity of 50 heads/day). Staff can be trained on-the-job.</p>	No training provision by any public or private provider in Mozambique available. Training occurs on-the-job and is under management of the respective company. No public accreditation of acquired skills / training provision in place.	In order to guarantee a value chain between the family sector cattle raisers and the slaughter houses, beef fattening units are being established offering several veterinary and quality assurance services to the cattle raisers. Especially students from Agricultural Institute of Chimoio can associate to the Chimoio based Association of Agricultural Professionals (COTA-Manica) to start to gain entrepreneurial skills while joining the investment within an internship. Later, according market development, support to establish further fattening units can be given to students / young professionals for starting up their business.

Figure: Training provision in the Beira Development Corridor



Sources: Ministry of Education and Ministry of Labor (2003)

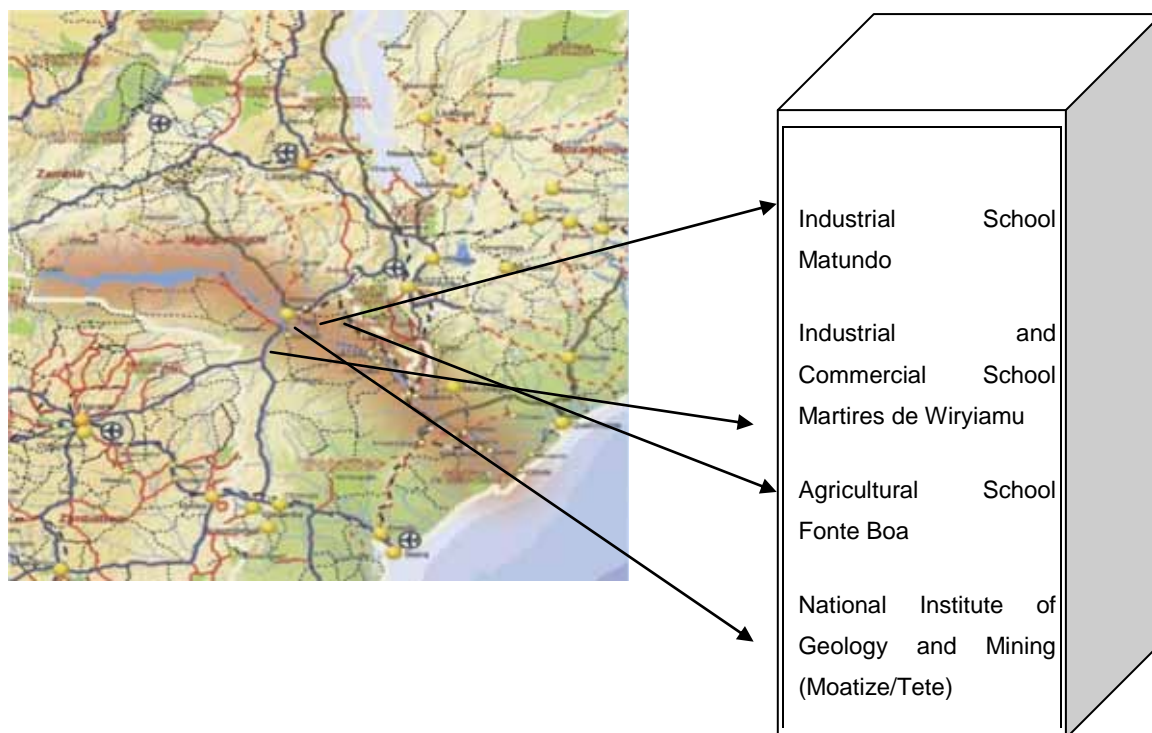
Zambezi Valley Development Corridor

Table: INVESTMENT PROJECTS AND ISSUES RELATED TO TRAINING IN THE ZAMBEZI VALLEY DEVELOPMENT CORRIDOR

PROJECT	STATUS	Demand of workforce and identified training need	Availability of manpower / training provision in required occupational fields	Recommendations for implementation
Mineral exploration	Feasibility (fully acknowledged after completion of SENA line)	<p>Almost 1000 skilled and unskilled staff will be needed for the core caving and processing operations and for transport and logistics.</p> <p>About 5% of staff will be either internationally or nationally recruited for management and supervision posts. The main part will be engaged for operations.</p>	<p>Due to vast experiences of Mozambicans (operations level) in mining industries (Mozambique, South Africa, Angola, Congo), skilled manpower is available.</p> <p>Training has to focus on safety standards, quality management and special (technology related) training (generally provided by international expertise and accredited providers)</p> <p>Partnerships with community:</p> <p>a) land use plans and management,</p> <p>b) allocation of resources (land, products, infrastructure)</p> <p>c) establishment of social infrastructure in partnerships with local partners</p>	<p>1) Creation of a local management committee for definition, decision and implementation of</p> <p>a) alternative land use within the concession area and surrounding areas,</p> <p>b) improvement of urban development of Moatize town</p> <p>(water, sewage, waste, streets, commercial areas, housing areas for staff)</p> <p>c) concessions to local groups (associations, population organised in committees and other types of associations)</p> <p>d) projects promoting improvement of social infrastructure</p> <p>2) Set up of partnerships with</p> <p>a) National Training Institute of Geology and Mining in Moatize (practical exercises for technicians and associate professionals)</p> <p>b) Technical School in Tete (practical exercises for technicians and associate professionals)</p>

PROJECTS	STATUS	Demand of workforce and identified training need	Availability of manpower / training provision in required occupational fields	Recommendations for implementation
Fruit production and processing	Pre feasibility	<p>Short term training for farmers, workers, administrative staff, salespersons and other relevant professionals.</p> <p>For all projects not more than 20 (management and supervision level) employees and 300 (operations) direct jobs will be created.</p> <p>The creation of indirect jobs is dependent on size and regional impact of the projects.</p> <p>Probably more than 10 fold is the number of indirect jobs per direct job created by investment.</p>	<p>Farmers must be informed and trained to use the machinery correctly and in the proper use of chemicals / fertilizers.</p> <p>Short term training has to be set up according technology used by the investor. Generally, the technological standards are low and operations can be realized by local staff (without schooling).</p> <p>Local management and supervision employees have to be retrained several times.</p> <p>Training has to be very practical and related to typical problems and challenges of a local industry, thus at least 70% on site.</p>	<p>Existing expertise by some investors should be combined with training efforts undertaken by Agricultural School in Chókwe and the Agricultural institute in Chimoio.</p> <p>Employment of farmers (contract farming) can generate more stable income to those farmers associated to the investment projects and generate more stable input to the investors.</p> <p>c) Higher yields and income can be generated by additional services in place, such as extension services to the farmers, services for certifying origin, etc.</p>

Figure: Training provision in the Zambezi Valley Development Corridor



Sources: Ministry of Education and Ministry of Labour (2003)

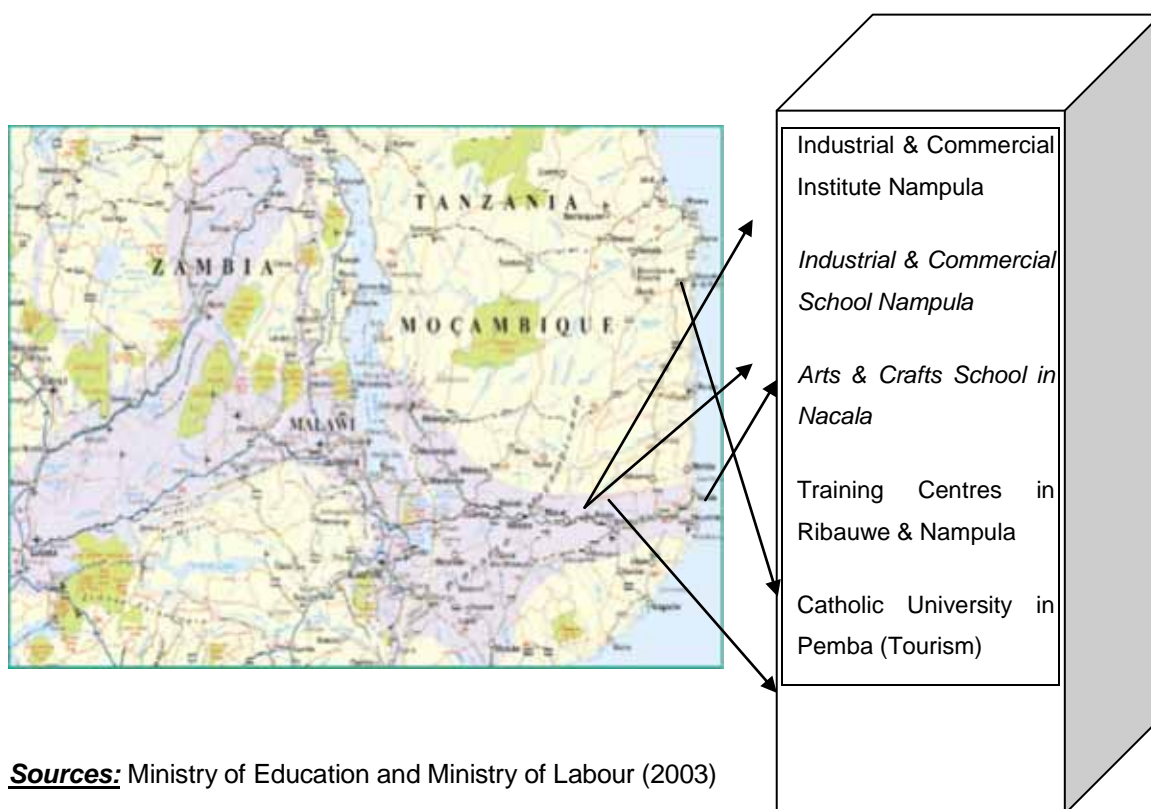
Nacala Development Corridor:

Table: INVESTMENT PROJECTS AND ISSUES RELATED TO TRAINING IN THE NACALA DEVELOPMENT CORRIDOR

PROJECTS	STATUS	Demand of workforce and identified training need	Availability of manpower / training provision in required occupational fields	Recommendations for implementation
Mineral exploration (studies to be completed)	Feasibility	<p>Almost 600 skilled and unskilled staff will be needed for the core caving and processing operations and for transport and logistics.</p> <p>About 5% of staff will be either internationally or nationally recruited for management and supervision posts. The main part will be engaged for operations.</p>	<p>Due to vast experiences of Mozambicans (operations level) in mining industries (Mozambique, South Africa, Angola, Congo), skilled manpower is available.</p> <p>Training has to focus on safety standards, quality management and special (technology related) training (generally provided by international expertise and accredited providers)</p> <p>Partnerships with community:</p> <p>a) land use plans and management,</p> <p>b) allocation of resources (land, products, infrastructure)</p> <p>c) establishment of social infrastructure in partnerships with local partners</p>	<p>1) Creation of a local management committee for definition, decision and implementation of</p> <p>a) alternative land use within the concession area and surrounding areas,</p> <p>b) improvement of urban development of Moma town (water, sewage, waste, streets, commercial areas, housing areas for staff)</p> <p>c) concessions to local groups (associations, population organised in committees and other types of associations)</p> <p>d) projects promoting improvement of social infrastructure</p> <p>2) Set up of partnerships with</p> <p>a) National Training Institute of Geology and Mining in Moatize (practical exercises for technicians and associate professionals)</p> <p>b) Technical School / Institute in Nampula (practical exercises for technicians and associate professionals)</p>

PROJECTS	STATUS	Demand of workforce and identified training need	Availability of manpower / training provision in required occupational fields	Recommendations for implementation
International Airport of Nacala (Special Economic Zone)	Under preparation	<p>Character of staff directly related to products and services:</p> <p>a) Hospitality industry and travel agents, (table attendants, housekeeping, food & beverages, receptionists, information desk operators, etc.</p> <p>b) Transport, Crafts, markets (drivers, porters, guides, Arts & Crafts shop operators & managers, car rental, promoters of local food and products, etc.</p> <p>Staff indirectly related to tourism industry:</p> <p>Shop attendants, fuel station, car workshops, shops, first aid services, security services, telecommunication, bakeries, etc</p> <p>Training required:</p> <p>a) Skills related to high standard products and services in all occupational fields.</p> <p>b) Skills related to communication and intercultural aspects of communication</p> <p>c) skills related to general education and personality (all occupational fields)</p>	<p>Availability:</p> <p>Senior Officials and Managers and associated professionals are nationally difficult to find.</p> <p>Clerks are available but need to be trained for at least 9 months.</p> <p>Service workers are available and need to be trained.</p> <p>Training provision:</p> <p>In part nationally available (most common hospitality related trades and training with regard to airline industry (LAM training centre).</p> <p>International safety standards and quality control mechanisms in place have to be provided, together, by national and international provision.</p>	<p>1) Set up a partnership with the mobile training unit of National Institute of Training and Employment / Ministry of Labour and hire additionally expertise from national or international recommended consultants to run trainings (ideally at future work places of staff)</p> <p>2) Seek for information and evaluate existing partnership between the Pemba Beach Hotel and the Catholic University (Faculty of Hotel Sciences) in Pemba / Cabo Delgado. Potential for recruitment of students of Higher Education in Hotel Sciences as first graduates will leave University by 2004 - Pemba and Inhambane – 2005</p> <p>3) Establish partnership with Technical Schools and Training centres and offer apprenticeships for students interested in practical exercises.</p>

Figure: Training provision in the Nacala Development Corridor



Sources: Ministry of Education and Ministry of Labour (2003)

6.3. Significance for the Supply Side of Manpower

As to the anchor projects and to the general trends of investment in Mozambique, several types and modes of Vocational Education and Training have to respond as a whole to needs of investments, sectors and target groups. It is therefore important to understand TVET as a nationwide task of different providers and suppliers, in order to approximate job seekers and professionals to the income opportunities, either by employment or self-employment.

It is crucial that Mozambique establishes a system of TVET offering programs to respond to the needs of different economic environments. The characteristics of the dualistic structure with, on the one side a dominant sector of “self help work activities” – subsistence economy and, on the other side, a small but steadily growing “modern” sector will persist in the next decades.

After a short training needs assessment of several anchor projects and taking into account investment trend analysis, training environments have to be targeted to:

- Economic Active Population (presently or in future) without link to the formal economy and with an average literacy of under 3 years (about 8 million people of economic active population - EAP) with a need to be upgraded in basic skills like reading and writing, problem solving and basic life sciences (nutrition, hygiene, water management, food storage techniques, etc).
- Economic Active Population (presently or in future) engaged in formal economy activities, either independently or contracted by employers, in average with less than 10 schooling years (more than 0,5 million of EAP) and with a need of upgrading programs in several fields.
- unemployed and either engaged in the so-called urban informal economy or in the subsistence economy with in average less than 10 schooling years with a need of upgrading programs in several fields.

At first view, there is a very strong need in Mozambique to establish short term VT programs at all levels and in nearly all occupational fields. Furthermore, there is a strong demand for quality to present general education subsystem at all levels, but particularly at the level in between of primary education and post primary education, as many investors within the Corridors demand literate workforce with an academic level of at least 5 to 7 years of schooling.

Beside the technical skills within an occupation, higher skilled employees have to be well prepared in English and local languages, computer operations, and have to be professionally prepared to work under pressure, to work in teams and to be focussed on results.

7. Education and Training in Mozambique – a Brief on the Supply Side

As responsibility of training provision in Mozambique is shouldered among at least 3 institutional drivers⁴⁶ and several other players⁴⁷ a consistent implementation has to be designed according needs assessment, suitability of sights of training and practicability of implementation regardless institutional responsibilities. Practicability means especially, the allocation of resources and budgets in a country where resources are scarce.

The forthcoming chapter will analyse how responsive the delivery side of training currently is to the demand.

7.1. Formal Education and Training Provision

In Mozambique, formal education and training is usually provided by state run schools, institutes and training centres. The main public players are Ministry of Education (Vocational Education), Ministry of Labour (Vocational Training) and the Ministry of Higher Education, Science and Technology (poly technical education). Additionally, all more than 20 Ministries run technical education and/or training schools and/or centres.

Vocational Education (VE):

Mozambique state run technical schools and institutes under the auspices of the Ministry of Education (VE) are spread all over the country, with a focus on the capital Maputo and the provincial capitals of the 11 provinces (including the metropolitan area of Maputo). Generally, there can be distinguished three (academic) outcome levels of students from technical education before seeking for admittance at university. The elementary level (equivalent to 7 years schooling after its completion), followed by the basic level (equivalent to 10 years schooling after its completion) and followed by the medium level (equivalent to 12 years schooling after its completion and giving the opportunity to candidate for university admission). Except the medium level (generally 3½ years), the duration of the other levels is equivalent to the general basic and secondary education. The technical education stream within the whole education system counts for approximately 40 state run schools and institutes and about 6 schools (elementary level) run by religious organizations and NGO's with all together almost 35.000 students.

Legal Mainframe – Scope, objectives and institutions:

The National Education System (SNE) principles is the framework for all subsystems of education (excluding vocational training and higher education). The Law 6/1992 (Education law) rules Vocational Education in the articles 13 to 19, describing it as an educational system being *“the principal instrument of professional training of the*

⁴⁶ Ministry of Education (Adults Education, Technical Vocational Education), Ministry of Labour (Technical Training, Retraining and Practical Skills Training), Ministry of Higher Education, Science and Technology (Higher Vocational Education and Training).

⁴⁷ At least each line Ministry is head of a Vocational Education School or Training Centre.

qualified labour force needed to the countries economic and social development” (art. 13). The articles 13 to 19 of the aforementioned legal diploma, describe VE as “the principal instrument to the professional training of the qualified labour force needed to the country’s economic and social development” (art. 13).

Institutionally, VE is represented at central level (Ministry of Education) by the National Directorate of Technical Professional Education (DINET) and at provincial level by one section (generally one representative) within the Provincial Department of Education. As to the preamble of the *Ministerial Diploma n. 25/93*, DINET arises with the extinction of the State Secretariat of Technical Professional Education (*Presidential Decree 21/91 of February 22*). From that point forward, it was the Ministry of Education to congregate all its functions “(...) with the exception of vocational training (VT), which was integrated in the Ministry of Labour (...)”. Additionally, it has to be noted that the State Secretariat for Social Action is now a fully fledged Ministry of Women and Social Action.

VE is divided in three levels (elementary, basic and medium) with its objectives as follows:

- To ensure the preparation for professional life (*art. 14/1*);
- To develop basic personality skills and attitude towards the work (*art. 14/2*);
- To develop competencies in terms of analysis and synthesis, investigation and innovation, organization and scientific work management (*art. 14/3*).

The following section describes in how far these statements are reflected while promoting VE from an institutional point of view.

Legal Mainframe – linkage to the world of work :

According to Education Law, (*art. 30*), Vocational Education “(...) is jointly tutored by the Ministry of Education, the Health Ministry and the State Secretariat for Social Action and, when necessary, by the state organism specially linked to the activity where the talent is revealed (...)” (*art. 30/3*).

Other important public and private partners for promoting VE in a coordinated approach are kept aside, especially concerning the anchor between education and work. The exclusive clause to merely concentrate on VE thwarts the opportunity to continuously improve relevancy and quality of VE within the national TVET system. VE is regarded in reality much more an education instrument within the education system, rather than an instrument to prepare young professionals for the world of work.

However, within VE so-called pre-professional practices (internships) are part of programs. One of the most recent examples for such a regulation is the regulation for internships within the advanced VE program of public administration (*Diploma Ministerial no. 137/2001*)⁴⁸ ruled by Ministry of State Administration.

Curious is the fact that the juridical figure of internships is referred by the article 176/5 of the Labour Law (*Law 8/98 of July 20th*) as admissible, even if until today without any further development or specific regulation. As an entry point to the labour market, its regulation seems to be to the competence of the Labour Ministry. On the other side,

⁴⁸ Regulamento do estágio do Curso do Ensino Técnico Médio Profissional em Administração Pública e Autárquica.

within a perspective of an educational completion to the desirable professional adequacy, it's perfectly plausible that seems fit to VE to rule on this subject.

Vocational Training (VT):

State run technical training under auspices of the Ministry of Labour is delivered by 8 training centres, 3 of them in Maputo province, and 1 in Lichinga (Niassa), Beira (Sofala), Chimoio (Manica), Maxixe and Inhambane (Inhambane). Almost 5000 students (2002) have attained in general up to 6 month training in different subjects and occupations. The graduates of the training centres are prepared for very basic outcomes within the respective occupation and after completion receive a certificate of training which has no value for neither the general (academic) education band nor the technical education band. Training is often job or task related and has no systematic approach on preparing participants for a determined occupation. Public technical training provision addresses mainly a) adults with little or no schooling levels (programs in industrial trades, secretary, accountancy, sewing, etc.), b) dismissed workers in skills upgrading programs, c) youth (drop-outs from General Education System) in specific occasional programs. Main occupational fields are carpentry, mechanics, refrigeration, mechanics, plumbers, civil blacksmiths and masonry. Other programs cover basics of type writing, accountancy, sewing and stitching and basics of technical drawing.

Legal Mainframe – Scope, objectives and institutions:

The national authority for both employment promotion and vocational training is INEFP – National Institute for Employment and Vocational Training, a semi-autonomous organism under supervision of Ministry of Labour. Created by the Decree 37/92 of October 27th it's objective is the “(...) *application, control and evaluation of the national employment policy (Resolution 6/87 of March 4th), translated into the promotion of employment opportunities, the development of orientating and vocational training actions and, specifically, those committed to the respective central and regional structures*” (art. 2).

INEFP's attributions can be summarized as it follows: analysis and information of the national employment situation, connecting it with the work force needs and availability; creating free services of employment placement and promotion, information and professional orienteering, vocational training and placement; co-operating with other organisms and countries in the domains of employment, professional orienteering and training.

Under this circumstances, the role of INEFP is much more to promote training than properly to operate training centres. It happens that the vast majority of the line Ministries has its own training centres with a vocation for its specific area needs. It's the case, among many others, of Public Works, Health, State Administration and Education, Tourism, as well as other institutes, such as the autonomous National Roads Administration or the Telecommunications Institute, as part of the national telecom company (TDM).

A specific government law (Ministerial Diploma) creates that type of training centres, leaving INEFP completely out of this circuit, which is somehow difficult to understand viewing its own national incumbencies. Moreover, these diplomas are undersigned by the respective line Ministry always with the participation of the Ministry of Education and the Ministry of Plan and Finances. The role of Ministry of Labour is therefore reduced to a representative in its Management Council, where Education didn't show up.

It has to be pointed out that foreign employment is also a matter of INEFP jurisdiction (Decrees 25/99 and 26/99, both of May 24th) together with the National Customs Authority. The same applies to the licensing of private employment agencies (Decree 6/2001, of February 20th) in order to promote placement.

Legal Mainframe – linkage to the world of work :

Despite the evident needs and much talk, the fact is that vocational training didn't deserve yet the attention it needs from the employers. Costs and some lack of interest and even believe thwarts its full development. From the first inquiring we've made, administrations aren't so keen to expend money in training, preferring to invest in technology with the argument that quality will be further strengthen this way, instead of enhancing its own manpower costs.

Truthfully, no great incentives are being dispensed to vocational training if we except its VAT exemption and the benefits conceded by the Code of Fiscal Benefits (Decree 16/2002 of June 27th) in its article 18. These benefits can be resumed to a deduction up to a maximum of 5% of taxable income within the first five years of the approved project (art.18/1). The amount will increase up to 10% if the training is for use of technologically advanced equipment (art. 18/2). However, these clauses are only applicable to training itself, and not to training equipment and other assets used in training (art. 18/4).

Lack of training equally diminishes success concerning the employment rates. The contractors hesitate to admit new personnel without qualifications because they will need training and the contractual types they use are very limited. Labour Law (Law 8/98 of July 20th) stipulates two main contract types: by determined time and by undetermined time (art. 9/1). The first one is medium duration employment (until the maximum of 4 years with one renovation included) but it must fall under one of three conditions: non-durable specific tasks, or seasonable activities or substitution of another worker, regardless the motives.

This is very strict and most of the employers needs fall way out of these requirements, also because the allowed test period is only 30 days at the most. Nevertheless, some still employ this contractual type to different ends rather than those prescribed by the Law.

The undetermined time contract is a long haul bond, allowing 90 days of probe period. The problem is that productivity is a matter of the outmost relevance to any modern employer and most often people without qualifications or only minimal ones took longer than three months to learn and eventually show their real potential.

However, Law 8/98 offers some other options until now disregarded by both employers and Labour Ministry/INEFP. These are the apprenticeship contract fixed in the articles 174 and 175, and also the professional training contract (art. 176)⁴⁹. If the latest one is mainly designed to regulate the course conditions between training entity and trainee, the apprenticeship contract is far more interesting from our point of view.

This contract (art. 174) allow the companies to admit apprentices “(...) *to work related with its professional occupation and field* (...)” with a variable duration, related to the profession usage. This apprenticeship is a compromise from formal training “(...) *in*

⁴⁹ In this context it is important to note that Vocational Education programs foresee a practical training period for the pupils/students within the last 3 months before conclusion of a respective education level (Technical Education Schools and Technical Education Institutes). It is known that the Public Services Technical Education Institute has a specific regulation for practical exercises within the learning programs. Whether such a regulation exists for all other VE schools and institutes is not yet known.

collaboration with other entities (...)” with the so-called on-the-job training provided by the company itself in truly workable conditions (art 175/1). This kind of contract is formally regulated (art. 175/2) and presents the advantage of requiring only the allowance of a training bourse.

This can reduce financial costs to the company allowing some reasonable duration lengthening and also the possibility to effectively verify the apprentice aptitude to fulfil its work post, without falling into some doubtful legal practices. Moreover, this type of contracts allows the celebration of the so-called promised labour contracts (art. 175/3), ensuring the worker that a good performance will be rewarded with a full labour contract.

We took the liberty of discussing this still rare contract type with INEFP’s employment sector representative, which assure us that this could well be a form to increase workability and led employers to a greater proximity with its training duties.

These and other contractual aspects susceptible of enhancing human resources development – such as the ones connected to the formal education sector – will be developed in the next work stages.

As well attention will be given to work regimes under Industrial Free Zone Regulation and whether this regulation could be a driver to promote more jobs.

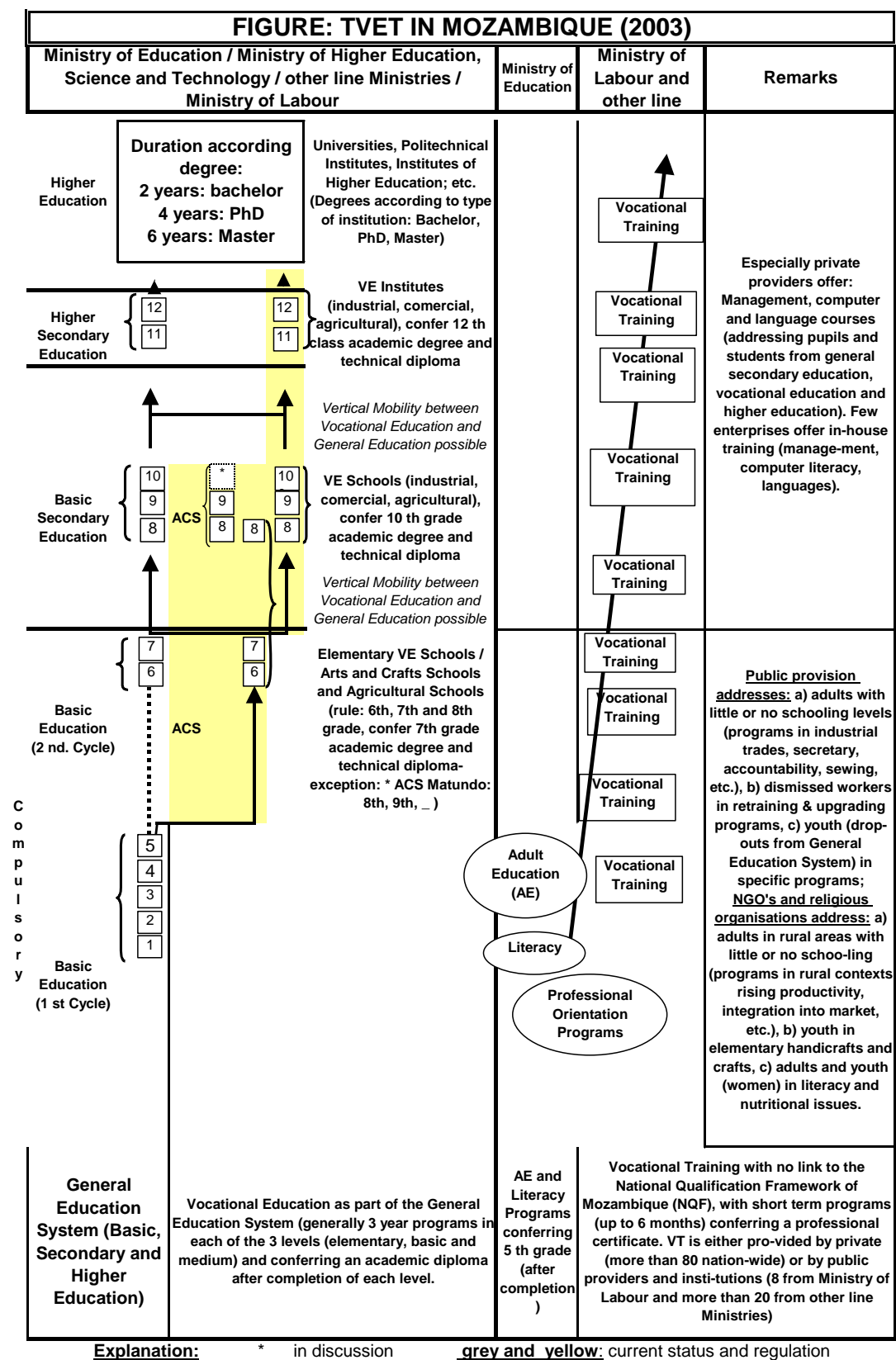
As in Mozambique up to date 4 companies are ruled under IFZ Regulation without being geographically adopted to such a special development zone, this issue has to be followed up.

Poly technical (higher) education and training:

By 2005, in order to guarantee a 100% coverage of Higher Education at all provinces in Mozambique, three poly technical higher education institutes will be introduced with strong public support fuelled by IDA credits and donations. As to a feasibility study⁵⁰, 3 to 4 year agricultural sciences and geological and mining sciences programs shall be offered to a overwhelming demand of secondary education graduates in the Provinces of Gaza, Manica and Tete, currently seeking for scarce university places in the capital Maputo. Still, there are very few opportunities for students to acquire practical skills in a scientific field at higher education level. Some very promising examples are the bachelor degrees for dentists (ISCTEM), health sciences and nutrition offered by privately run institutions.

⁵⁰ Ministry of Higher Education, Science and Technology (2003): Feasibility Study on Higher Education Poly Technical Institutes in Mozambique (2003). Government of Mozambique. (see also: www.mesct.gov.mz)

FIGURE: TVET IN MOZAMBIQUE (2003)



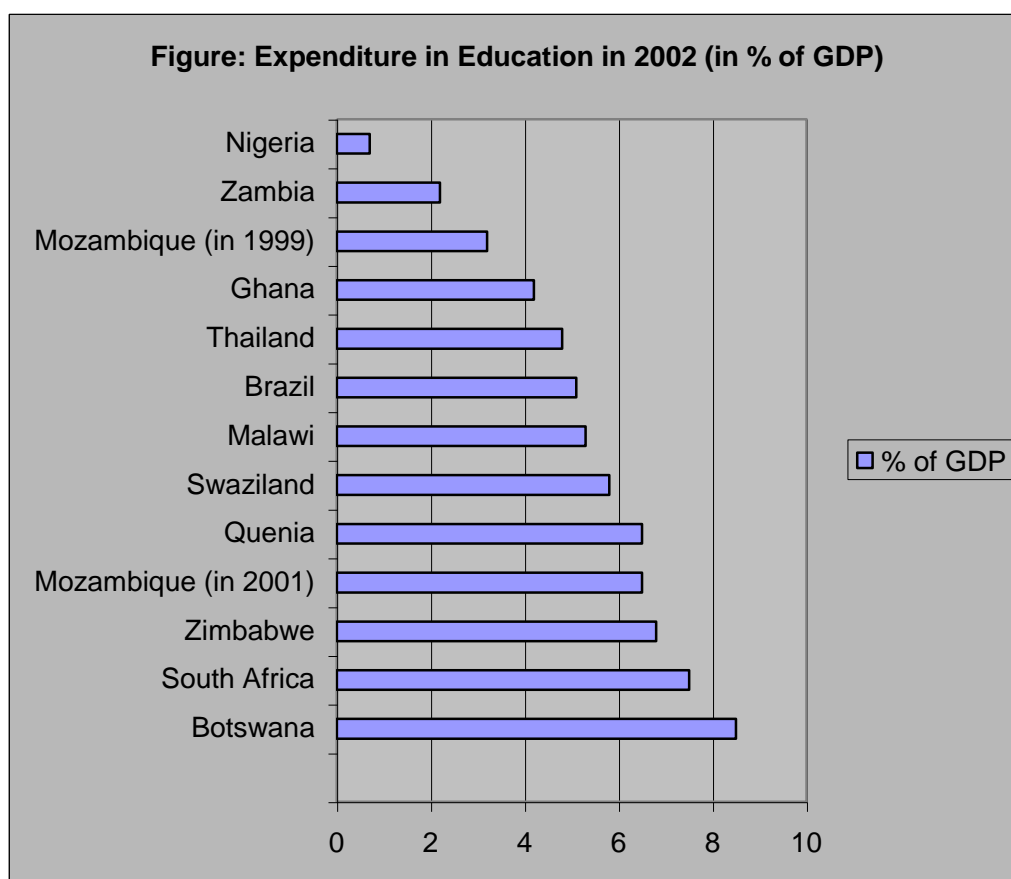
Sources: Ministry of Education, Ministry of Labour, Ministry of Higher Education, Science and Technology

Private education and training provision:

As far as private VE provision is concerned, licensing is due to Private Education Ministerial Diploma (no. 126/94 of October 6). Private provision of VT is licensed by INEFP (Decree 31/2001 of November 6th) which defines the requisites and administrative steps to create and recognise all vocational training centres, regardless the occupational field. The compliance will grant the private provider with a letter-patent that should be mentioned in all its certificates. Private training provision by small companies and specialized consulting services target high income groups seeking for high quality preparation and skills upgrading in commercial issues (management, computer literacy and languages). From nationwide around 60 providers, more than 80% are settled in Maputo Province. Until October 2003, roughly 20% of the known private providers are accredited by public bodies (INEFP/Ministry of Labour). NGO's and clerical organisations address: a) adults in rural areas with little or no schooling (programs in rural contexts rising productivity, integration into market, etc.), b) youth in elementary handicrafts and crafts, c) adults and youth (women) in literacy and nutritional issues. More than 5 different clerical organisations (Methodists – Industrial School in Maxixe, Salesians – Arts and Crafts School in Moamba, Industrial School in Inharrime, Comercial School in Languene, Franciscan, Jesuits, Sta. Maria, etc.) and more than 5 NGO's (ADPP – Escola Básica Nhamatanda, Escola Básica de Nacala, Weltfriedensdienst – Industrial School in Montepuez, etc.) offer to more than 3000 students Vocational Education and Training recognized by either Ministry of Education or Ministry of Labour.

Financing education and TVET:

In financial terms, Mozambican expenditure in education (budget) has at least doubled from 3.2 % of GDP in 1999 (almost USD 120 million) to 6.5% of GDP in 2002 (almost USD 240 million). This is above the average of other South African countries.



Source: Indicadores de Ciência e Tecnologia em Moçambique 2002-2003 (MESCT)

The share of recurrent domestic spending on education on total recurrent government spending remained in the late nineties stable at about 16%. Similar to overall government spending, nearly half of total education spending (mostly for capital expenditure) was financed from external sources⁵¹.

Still, the major part of investment is channelled to (primary) general education. This trend might remain in the coming 5 years due to several factors like:

- a large number of incomplete primary schools (approximately 25% of total),
- low survival rates (almost 85% of students don't make it until grade 7 and the average of years of schooling in Mozambique remains with 4,6 years per pupil still very low)
- the need to expand enrolment opportunities (school construction, teacher training) at higher primary and lower secondary education levels.

⁵¹ The International Bank for Reconstruction and Development / The World Bank (2003): Cost and Financing of Education. Opportunities and Obstacles for Expanding and Improving Education in Mozambique. Africa Region Human Development. Working Paper 26699. July 2003. (www.worldbank.org).

7.2. Non Formal Education and Training

Maybe the non formal education and training is as old as human mankind. It is strongly related to and reflected by the social and environmental context of livelihood and life of people and communities. In Mozambique more than 80% of population lives in rural areas and more than 85% is strongly related to rural living conditions, even though living in periurban areas closely to urban centres. Generally the access of young students and adults who are seeking for further (academic/formal) education and training to the formal schooling and education system is very difficult due to several reasons . For many Mozambicans these phenomena were persisting in Mozambique since generations and may last for the next 10 to 20 years. From that point of view, non formal education is a key for many people who just want to learn anything useful for improving performance in several occupations and activities related to rural living. The project profile (Beira Corridor) in chapter 10 gives a practical example of how new technologies brought into the country can introduce upward linkages to public agricultural extension services, public training institutions (here: Agricultural Technical Education Institute in Chimoio) and other beneficiaries of the value chain.

From the view of an economy being strongly dominated by the “modern” sectors, every human being has already been exposed to non formal education and training. The acquisition of computer knowledge by “learning by doing”, or the simple fact to be able to ride a bicycle after having been introduced to it by relatives are only few examples which characterise non formal education and training. It is part of “lifelong learning” and its integration to a daily part of life of every human being is strongly dependent on pace of technological changes penetrating a given social environment. In fact the technological circumstances in which a human being lives, grows up and acts (adds value to a good, service, etc.) determines the scope of informal learning.

Micro economic based theory for explaining technological changes and technical progress in a given macro economic context is basically due to mostly private investments (in this case “external shocks”) seeking for productive applications and operations in a given environment (Schumpeter economy). Normally under such circumstances of induced technological changes non formal education and training and formal education and training turn to be delivered at same time, because either it goes to the market (public and private providers offer their products and certify achieved (academic) degrees and levels), or it is delivered “in households” through “learning by doing”.

In the case of Mozambique, the smallest 26 thousand companies (accounting for 89% of all companies) employ in average 2 employees (total number of employees: 60.149, or 20% of total), and are potentially the deliverers of new contents or technology to the employees. In most cases, the companies are working under obsolete technological and managerial conditions, hardly being the introducer to new technologies or working organisation.

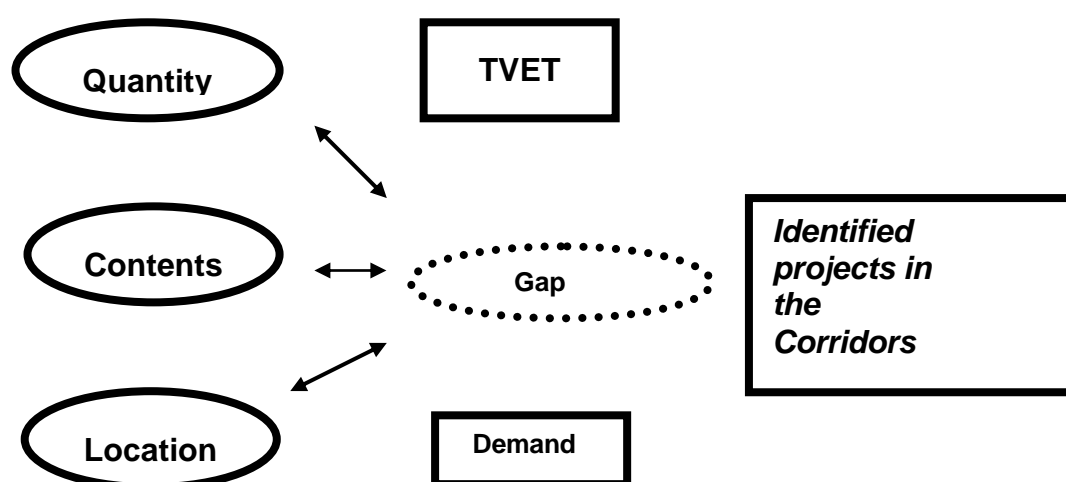
Companies with 25 or more staff, according Labour Law (8/98, article 20) are obliged to draw up internal work regulations such as rules of organisation and discipline of work, terms of employee social support schemes and rules on the use of enterprise's premises.

Special attention has to be paid to this potential of “informal training provision”, which could increase the capacity of training provision in Mozambique significantly. Given the number of almost 2000 companies employing more than 25 persons, there is a huge potential to introduce incentives for those who establish apprenticeship contracts with technical schools and / or training centres or even who offer internship to young professionals or formally unemployed workers.

8. Main Bottlenecks for Matching Demand and Supply of (Qualified) Manpower

The figure further down gives a brief resume to all aspects yet analysed within the Development Corridors related to HR Development.

Figure: TVET delivery, demand and main bottlenecks



The main bottlenecks for matching demand and supply of (qualified) manpower are particularly linked to issues related to the general set up of TVET and other education subsystems in Mozambique and how institutions are organised, financed and managed to deliver economically and socially efficient programs and instruments.

In most cases it was detected that the TVET system does not contribute significantly to promote economic growth, it does not provide the skills needed for the labour market (either the formal and informal economy) and its programs do not yet foster an entrepreneurial spirit, an industrial culture or, to some extend, a professional ethos. Often, learning programs of occupations are outdated and pedagogically and from a perspective of training methods old fashioned and not reliable for FDI. Huge efforts have to be undertaken to create some basic occupational profiles, corresponding learning programs assuring their implementation.

At operational level, several questions to enhance a smooth and beneficial partnership between investors and its employees were raised.

At district level, there is a huge potential and openness of local institutions and organizations to promote investment. In many cases, industrial culture is not present and the low socio-economic background and the very small amount of persons already in contact with “formal economy” are hindering arguments for such a partnership. On the other side, opportunities to access the population at local level are overwhelming, as generally areas outside the provincial capitals are often not part of agenda from politicians and government bodies, still concentrated with their resources and time spending in the respective capitals.

PART III: STRATEGY

9. Why a Country needs a Qualified Work Force?

From a microeconomic perspective (principles of “classic theory of production”) the production factors of any production (services, agriculture, manufacturing, etc.) are employed according to the “law of investment”, this is: the optimum combination of production factors is where the marginal increase of output is at least equal to the marginal increase of production factors in order to create this output. This applies to all productions, either monetarily valued or not, like subsistence production systems. Under normal production conditions, the limiting production function (Leontieff – production function) is the most common. This is, where at least one production factor is limiting the optimum combination of factors, thus limiting the output. In the case of three production factors (e.g. financial assets, land and workforce), and assuming an abundant existence of financial assets and land and assuming workforce limitations, three cases of limitations can be characterized as follows:

- quantitative limitations of workforce
- qualitative limitations of workforce
- both, quantitative and qualitative limitations of workforce (according to different skills levels).

Commonly, the third case is the most likely to happen all over the world, especially where production of goods and services are in strong transitions or economic branches and sectors are under total technological and organizational changes.

In Mozambique, only 10% of the economic active population (workforce) is under pressure of coping with technological progress or changes. The majority is hardly connected to the national labor market under rules of a market economy. The majority is engaged in subsistence production, mostly not connected to any commerce (even to domestic markets and far less to external markets) and not submitted to adapt to technological changes or standards.

This general panorama is crucial for the design of instruments which are supposed to facilitate the reduction of factor limitations, limiting output either in quantitative or in qualitative terms. From the workforces perspective, coming back to our example of Leontieff production function, main areas of economic intervention in Mozambique face an abundant leakage of skills. Hardly any training offered responds to occupational needs and very often the low level of general education hinders the specialization of workforce in state of the art businesses or standards (e.g. five star hotels in Maputo hardly consider their staff “five star staff”).

This general observation leads us to general questions and, throughout this report, to some considerations and recommendations how to close this gap of “skills leakages” in Mozambique.

A key question increasingly asked by countries in different stages of economic development is the role which education and training can play in meeting the challenges of competition, either between regions in a country, either between countries in a regional context of a continent (SADAC) or even at global level.

Especially the question matters, in what way does skill development affect a nation's economic performance in the (global) market place, with regard to attracting foreign investment, creating jobs and income generating opportunities and growth of exports.

Further questions in the concept of making a country more prepared to foreign investors are, to what extent is increased investment in education and training a necessary condition for transition from a labor-intensive stage of production (without contractual arrangements between the supplier of labor and the demand side of labor) to a labor-intensive up to a higher value-added manufacturing and service providing and what is its role in successful adjustment in the face of economic shift to market economy.

An innovative environment and know how transfer are main drivers to, strategically enhance in the long run a better matching of skills demand and supply. From a strategic point of view, the focus will be on two issues:

- Enabling environment with regard to policy, regulation and enforcement of public and private institutions (strategic level of TVET system)
- Partnerships to make skills available and respective project profiles (operational level of TVET system)

Several recommendations for investors and for policy makers will be outlined to enhance a better matching of their demand with the supply side of HR either via public private partnerships or by individual approaches.

10. Policy, Regulations and Enforcement

The success, to strategically improve the delivery of more skilled manpower to investors and entrepreneurs and to create an environment which fosters entrepreneurial spirit, depends strongly on the innovation capacity and quality of the institutions and the willingness to enhance the capacity building at more decentralized levels within the TVET system and the Higher Education system. A strong driver for success could play well established private-public partnerships at all levels of innovation: training programs and delivery, teacher training, standard setting bodies, international quality standards, management of technical schools and training centres, etc.

This potential of (internal) know how transfer has to be coordinated with programs of technical assistance, in fields where generally private sector is unable or unwilling to share costs or to invest.

10.1. CREATION OF AN INFORMATION-SHARING NETWORK BETWEEN PUBLIC PARTNERS AND PROGRAME OF DEVELOPMENT CORRIDORS IN MOZAMBIQUE

Information sharing and update

A thorough information sharing and coordination of action among the public bodies (3 line Ministries dealing with HR Development issues), investment promotion bodies (specifically Investment Promotion Centre (CPI), the Confederation of Business Associations of Mozambique (CTA) and other business associations (either bilateral chambers of commerce or Mozambican associations, such as AIMO, ASEANA, etc.) and the Programme of the Development Corridors in Mozambique is crucial with regard to HR development issues.

Especially information related to the status of investment in the provinces of Mozambique and issues related to technologies, their applications and lessons learnt have to be made of access to the decision makers of Technical Education and Training in Mozambique and thoroughly shared amongst their institutions and shared with managers at operational level within their institutions (such as district directors or school/training centre directors).

Recommendations:

An information-sharing network, based on a homepage, but also institutionally of access for everybody interested in the information is one step towards building consciousness for technology and science in the country.

Without any doubt, the homepage of the Ministry of Higher Education and Technology already provides a wide range of studies to the public and could integrate such an information network by creating an additional link. As the homepage is steadily updated, the capacity of integrating new information exists and could be as well supported by other institutions (sharing of resources for this specific purpose). Without any doubt, such an activity could perform in such a professional way that even sponsor partners of this homepage link could be mobilized to invest some money for publicity purposes (like for instance the homepage of the “European training village”

(<http://www.trainingvillage.gr>). Such a homepage could either integrate a “job search and supplier machine”, an information link to all existing training providers with a small description of scope and contents of courses and trainings offered together with the contact information and, could provide information on different training issues in the country and region (workshop information, strategy papers, news, etc).

Regular registration of information on manpower :

In case of a new investment in Mozambique, the business either is registered via Investment Promotion Centre or via support services (private consultancy, lawyers, other private institutions) for its registration with relevant public institutions (generally the line ministries, depending on services or products to be produced or submitted to production and / or commerce). Reinvestments and investments by already settled investors in Mozambique, are centrally registered by the Ministry of Planning and Finance through the provincial departments getting access to information via tax and income statements. Generally, investors do not need to inform either CPI, or other bodies about their labour requirements. In case of a new investment, the only information the investor is supposed to give is about the number, category and salaries for national and expatriate staff.

Recommendations:

The information required by the investors upon registration of investment should be detailed in a way that further HR related questions can be considered, such as: scope and duration of employment during different phases of investment (construction, operation under 50% capacity and under full capacity) and possible manpower needs in accordance to occupations/qualifications or skills levels. **Information provided by investors in a more detailed way and shared by public institutions would be beneficial for the investor and all interested parts of public and private training provision and will contribute to a better matching of resources.** The database would even support extrapolations of future manpower needs by historical data analysis and would strengthen the reliability of scenarios at macro level of planning and allocating scarce (public) resources for investment in training.

These information should be as well of access to the public, where demand of manpower could be met by provision or by services.

Information sharing could lead to the set up of Quality Assurance Bodies:

At present, the most valuable information on technological requirements and standards for investment projects is not being used in institutional building processes with regard to HR related issues in Mozambique. Technology transfer has to be promoted at all levels of intervention in order to generate spill over effects to institutions and people.

Recommendations:

Investors should be invited by public bodies to suggest how they will cope with manpower requirements in their project. From time to time, CPI should invite the representatives of the 3 main public bodies responsible for HR development issues within their line Ministries (INEFP, DINET and responsible department in Ministry of Higher Education, Science & Technology), the responsible department for quality and national standard setting issues of the National Institute of Norms and Quality (INNOQ), and private providers of training to learn from shared suggestions by highly motivated investors. In several cases specific training needs can be assessed and suggestions could lead to concrete

projects and partnerships. In a further step, such kind of “workshops” could be organized together with business associations, thus contributing not only to more awareness about the subject but as well creating first “work groups” which could lead to the establishment of Education and Training Quality Assurance Bodies (in the South African terminology: ETQAs (see: <http://www.saqua.org.za>). These bodies predominantly act to promote quality of education and training, accredit providers, certificate learners, register assessors (examination), facilitate moderation between the parties, monitor the provision of education and training, undertake audits, etc. In Mozambique, where on the one side highly skilled professionals for different industry product and services standards are scarce and, on the other side, public bodies are rarely prepared to cope with international standards, this kind of working groups will necessarily need to invite foreign investors to introduce high standards of science and technology into the Mozambican economy and TVET system.

High emphasis is being laid on this aspect of creating an information sharing network, as all issues related to curricula planning, teacher training and resources allocation (either financial or infrastructures) will necessarily depend on the success of such sort of organizations – bodies which arise from information sharing and will be use full “think tanks and action tanks” for establishment of more relevant education and training.

10.2. CREATION OF HORIZONTAL AND VERTICAL INTEGRATION BETWEEN THE MOZAMBIKAN SUBSYSTEMS OF TVET AND HIGHER EDUCATION – AN APPROACH FROM INVESTMENT

Demand and quality

Specifically with regards to availability of qualified manpower, investors face the main challenge in recruitment of professionals, technicians and associate professionals with a full range of skills related to a qualification (see Box below) that reflect at the same time “theoretical” knowledge (related to the field of qualification), “social context and communication” knowledge (languages, technological & life science related outcomes) and “knowledge of specialization” (related to other qualifications or areas of learning). At the level of clerks and much more service workers mainly a minimum of writing and reading skills are rare, due to the low general educational level (literacy) of the professionals.

Furthermore, skills like “readiness to learn” and competencies related to the field of customs relations (to know to communicate and how to communicate, awareness of the client’s needs, awareness of one’s appearance and aesthetics besides the well pronounced need of communication skills (computer literacy and languages) can be considered other important competencies candidates should bring with when seeking for a job. Specific, industry related skills many companies are about to deliver in-house, either by sending staff to providers outside Mozambique or by hiring on trainers from branches or head offices in Africa or overseas.

Box : The basic shape of a qualification – a planned combination of competencies

According to international TVET qualification standards, a qualification must have a component ...

- Of FUNDAMENTAL LEARNING, providing a secure set of generic skills that support the technological, or occupational demands of the main thrust of the qualification (e.g. – use of mathematical, technological & life science related outcomes, communication & languages, use of “life skills”, such as the ability to learn, use of generic cognitive and affective capabilities, etc.),
- Of CORE LEARNING that ensures the relevant theoretical base and applied capabilities that are acquired in the core learning components (e.g. – the context of the qualification in the economy, in the structures of the work, etc.)
- Of ELECTIVE LEARNING that ensures room for specialized learning and/or optional learning, but still relevant.

More precisely a qualification is a cluster of a set of competencies related to a determined occupation / occupational field.

By using the example of an “administration officer”, dealing with clients and general administration duties, one has to ask, “What must he/she be able to do” regarding:

- conceptual framework, theory, ideas and innovative thinking
- people and relationships
- systems of all kinds
- processes that are typical of the discipline and/or the occupational area
- resources and materials in identified roles for identified purposes at the level that applies

One might be able to link up the components of the qualification with these very specific questions. In Mozambique, yet the learning areas have not been conceptualized in so-called “fundamental learning”, “core learning” and “elective learning”. Learning contents are conceptualized like general education subjects with hardly any respect to the reality of “world of work”.

Source: Ian Bellis: Skills Development. A Practitioner’s Guide to SAQA, the NQF and the Skills Development Acts. First published in 2000. Knowledge Resources. Johannesburg.

Recommendations:

The following recommendations refer to strategic aspects, how training can be delivered, which frameworks should be developed and to which extend institutions are important to investors to promote the development of its human resources.

a) The creation of learning pathways

Like a National Qualification Framework (NQF) suggests, there are many different ways in which a person may gain skills and a national qualification. The achievement of competence is what matters, not the way how it is achieved.

Learning pathways are individual options of courses and learning situations, selected by candidates to achieve a qualification. The creation of such opportunities of learning is inherent to whether a “culture of learning” shall be of national priority or whether a learning opportunity is linked to the income situation of individuals.

In the socio-economic context of Mozambique, the total exposure of the nations human resources to regular learning and training is very low. Additionally, only a very small portion of the students is involved in regular practical work conditions and a minority in occupations which refer to their qualification.

Under these conditions, the known concepts and approaches to “learning pathways” in anglo-phone TVET systems have to be considered with special attention to Mozambican general conditions.

Under Mozambican conditions, possible pathways of learning are as follows:

- Assessment-only pathway (through learning and training situations delivered either by institutions, work situations or other relevant experiences)
- Combination of on-the-job training and institution based training
- Institution-based training
- On-the-job training

In the following figure, the concept of learning pathway is analysed under the framework of a determined set of “sub fields” of learning, referring to the main competence areas.

The competence areas are made of a set of components (FUNDAMENTAL LEARNING, CORE LEARNING and ELECTIVE LEARNING) and provide the learner with the range of skills according to the level of responsibility within a given occupation.

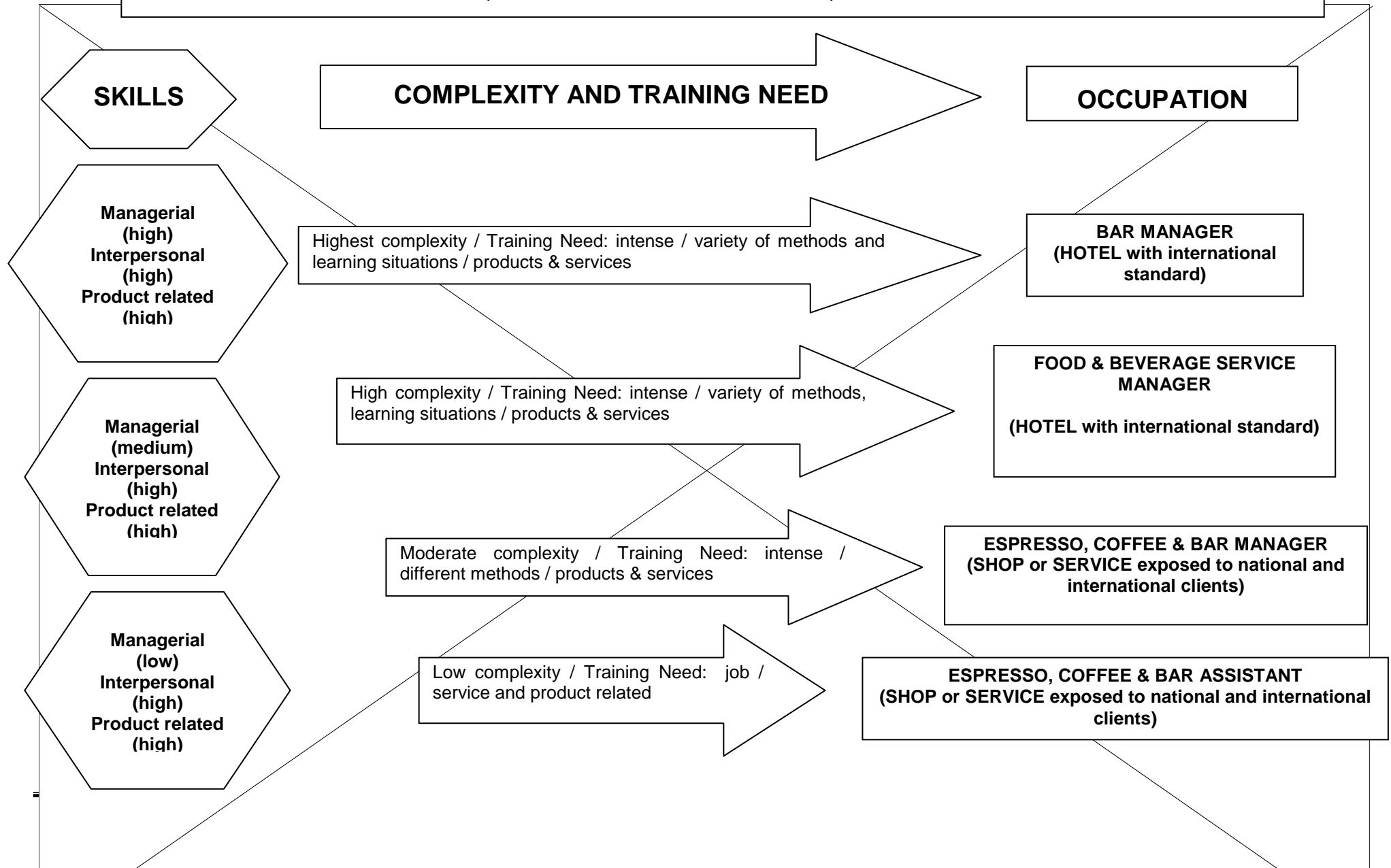
Training provision in any type of program should consider: professional (technical) competencies, managerial competencies, and, finally personal & communication competencies. The following example is a structure of learning within a job cluster presently realized in the field of hospitality & tourism in bar attendants training in Portugal.

The training is provided in partnership of training providers under real work conditions (hotels, restaurants and clubs) and a technical school. The German-Portuguese Chamber of Commerce and Industry in Lisbon is monitoring together with the representations of the Ministry of Education (Portugal) and Ministry of Education, Science and Technical Education and Training (Germany) the quality of training (participation in examination board, issues related to curricula and teacher training, etc.). Other trades are as well trained in such structured and monitored programs.

Generally, in-house training activities and “on-the-job training” are structured according to the specific needs of the company / organization and are not equivalent to learning programs offered by (public) training provision. Therefore, the examination board made by public and private participants and professionals guarantees more standardized learning outcomes and improves the innovative capacity of the system: the “multipurpose” examination board as well serves to exchange information and improve the training delivery according to newest technological changes.



Figure: Example of a JOB CLUSTER and its LEARNING PATHWAY / TVET in the Hospitality Industry /
Field: Tourism Industry - Hotel & Catering / Sub field: Restaurant / Coffee Shop / Bar
Scope: International Standards / Standard profile: 1 to 5 stars





b) The formalization of learning pathways – The Qualification Framework

Considering the importance of lifelong learning, each subsystem of education and training in a country necessarily has to offer to seekers of education and training a structured opportunity for its individual pathway of learning.

The Qualification Framework is a national set of different learning spaces making it possible (in an ideally constructed articulation between the existing subsystems of education and training) for students to follow and pursue individual pathways of learning. Individually the level of entry and exit is determined by instruments like “recognition of prior learning” and different occupational levels usually set as minimum standards after a certain period of practical and professional exercise, apprenticeship or work experience.

The inexistence of articulation (formal connection between different qualifications within a Qualification Framework) between the technical education band and the training band is one of the strongest reasons for students, seeking for the “academically” more valued technical education qualification. The connection of technical education band with the general education band overvalues the general education subjects and does not prepare sufficiently the students of technical education for the world of work.

In general, a National Qualifications Framework (NQF) ensures that qualifications don’t stand alone, but link to other qualifications at different levels. The table shows that in Mozambique in 2003 the qualifications of General Education (GE) and the qualifications of Vocation Education (VE) lead to credit towards Higher Education. The Vocational Training (VT) and Non Formal Education do not link to any subsystem of education within the NQF.

This is one reason why students generally seek for admission to GE or VE. Hardly any value is given to VT.

Table: The Mozambican Qualifications Framework (2003)

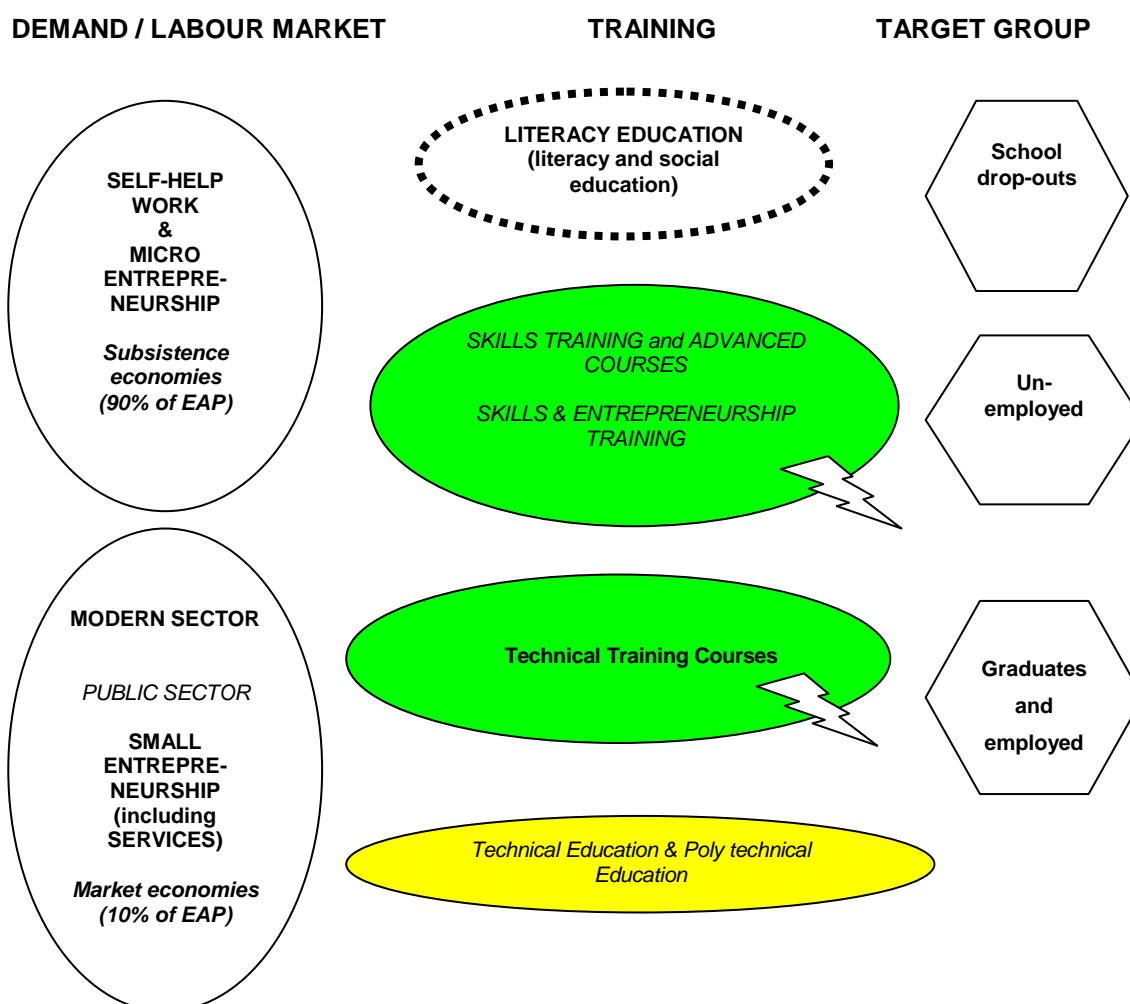
MINISTRY OF EDUCATION AND MINISTRY OF HIGHER EDUCATION, SCIENCE AND TECHNOLOGY			Ministry of Labour and other line Ministries	Ministry of Higher Education, Science and Technology
Non-formal Education	General Education	Vocational Education	Vocational Training	Higher Education
				Masters Degree
				Graduate Diploma
				Graduate Certificate
		Polytechnic		Advanced Diploma
		Polytechnic	Certificate	Diploma
	Senior Secondary Diploma of Education (pre university)	Senior VE Diploma	Certificate	
	Basic Secondary Diploma of Education	Basic VE Diploma	Certificate	
	Basic Diploma of Education	Elementary VE Diploma	Certificate	
Certificate			Certificate	
Certificate			Certificate	
Certificate				

c) Contents, qualifications and its linkage to the Labour Market

In the following figure, existing training provisions are confronted within the character of economic active population (EAP) and the target groups for training. The reality shows that main resources by public and donor spending is channelled to “formal” education subsystems, mostly prepared to deliver general education. Those (grey/green) subsystems marked with a symbol (VT) are ruled by Ministry of Labour and are not part of the National Qualification Framework but important for the major part of economic active population (EAP) in Mozambique to access at least fundamental skills in several occupational fields. Generally all the curricula of VT are founded on very narrow theoretical background. VE curricula, on the other side, are fundamentally based on secondary education structure and contents (technical subjects/subjects of specific occupational field) are mostly irrelevant to the needs of FDI.

Generally the formal TVET delivery is poor in quality of curricula and learning contents at technical schools and training centres. Hardly any technical education pedagogy is applied in the context of learning. A planned combination of competencies for a sound foundation of a qualification does not exist.

Table: Economic Active Population (EAP) and Training Programs in Mozambique (2003)



Recommendations:

The foremost objective of a system of TVET has to be the training of skilled workers and middle-level manpower for industry, commerce and services. Training programs have to be established according to general trends of investment and foreseeable jobs and profiles.

Methods and structures of training delivery are secondary, unless strong practical base of training in combination with high standard theory is secure to make up the full range of competencies according to occupation or the corresponding job profile.

Initiatives should integrate entrepreneurs, investigators and public bodies in order to create best practises. Best practises shall lead to training standards, promoted and awarded by bodies which assure quality standards and continuous improvements according to technical progress. Regardless to the (institutional) provision of TVET, investors seek for the best and highest yields out of investment in training. The same refers to recruitment practises. To the investor it is indifferent whether he recruits somebody from a technical school, a training centre or a school of general education. What matters is how skilled is the candidate to time of recruitment! Where unnecessarily high bureaucratic burdens persist to implement trainings either by public provision or by public-private partnership schemes, no investor will be willing to cooperate.

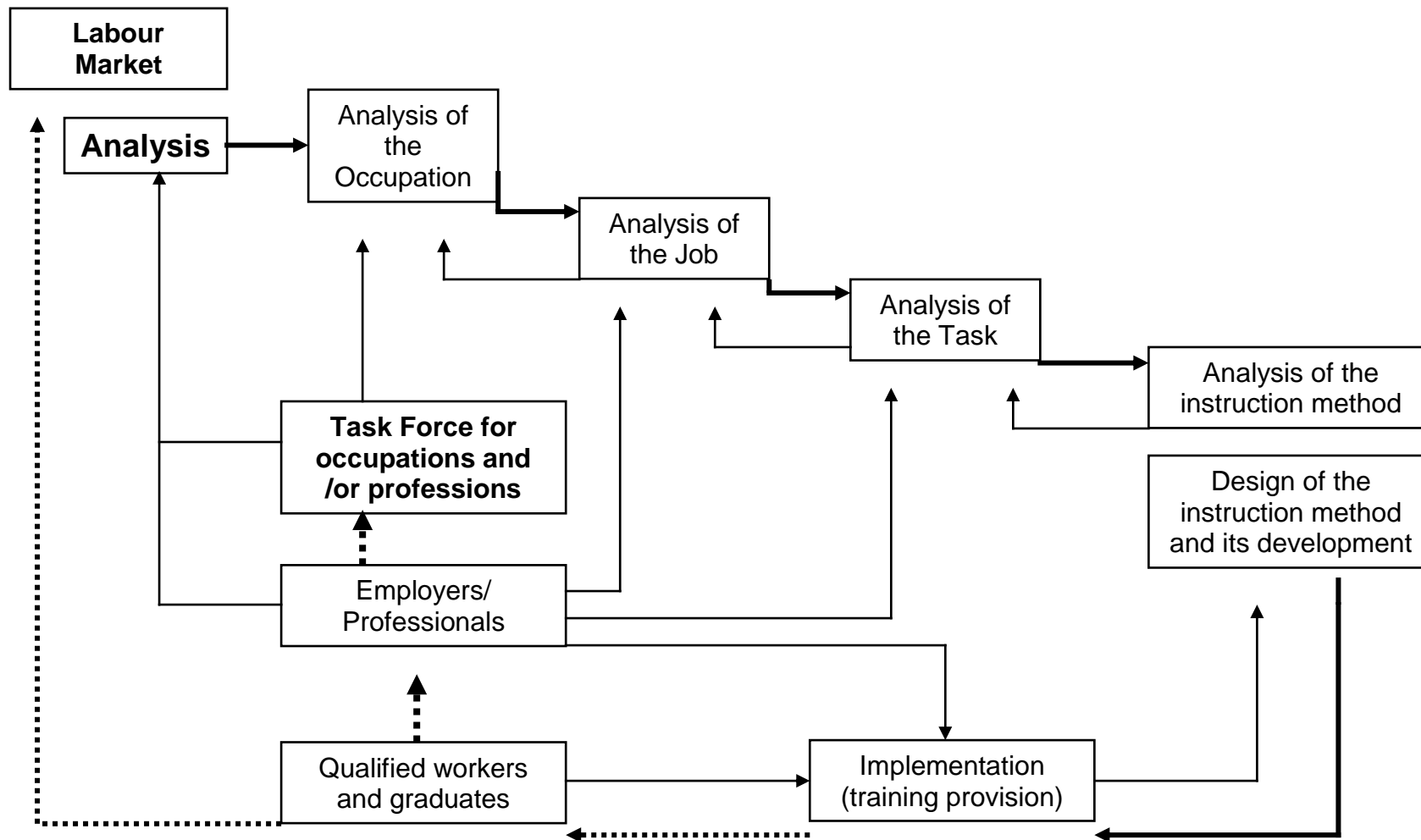
Undoubtedly, the understanding of this principle for creation of a partnership between demand of skills and provision of skills (either by placement services or by training and retraining providers) is one of the most challenging tasks in Mozambique.

From business point of view, investors realize their projections on manpower demand due to different external and internal factors. Externally, changes arise from modification of fundamental parameters, such as modifications in market volume, exchange rates, interest rates, input factor distortions, seasonal and other factors for possible adjustments in demand. The sales plan is decisive for investment and production planning defining about inputs and decisions for further adjustments. The pre requisite of an undertaking to create a training provision which meets international standards or which is in line with needs of skills at community level (e.g. the building of low cost houses) is to identify "high potentials" within existing training provision (schools, centres, trainers, teachers, public partners and representatives). The relationship to those partners has to be strengthened in order to design concrete proposals with easily achievable milestones.

The first task is a training needs assessment, which could be carried out like suggested in the following figure. Generally investors have undertaken such an assessment but do not consider the outcomes of professionals from different levels of education in the country of investment, normally expected to be of similar scope from experiences in home countries. Therefore, a careful assessment together with partners of the investment country is an appropriate step to succeed in investment.

To assess needs in an economic sector or in an occupational field it is necessary to assess the character of economic activity (technologies used, quantity of investors and businesses, scope and scale of production, relation to sub sectors and services, trends on technological changes, etc.). Due to the leakage of specific technological know how in industry processes, new technologies demanding organizational set ups and standardisation procedures (industrial operations), external assistance to assessing training needs is desirable. As many industrial operations, even in smaller scales need to pass through environmental and other inspections, the assistance of specialized national consulting services is recommended.

Figure: Assessment of Training Needs and Decision Making via Task Force to respond to high standards in Occupational Qualification
(adapted from: NOSS Malaysia 1999)



After the training needs assessment, investors and public partners generally gain the experience that specific technological requirements are out of access to Mozambican scope of training.

The same applies to the availability of alternative instruction and/or teaching methods. Generally, investors rely on in-house training, supported by external providers or provision of instructors and materials at headquarters of company. Others invest in sending appropriate staff to headquarters or other training provisions outside Mozambique. Only few training attempts are known, where investors establish partnerships with Mozambican training providers. Only one training private public partnerships is known.

In most cases of training development by public sector, resources are allocated to curricula reforms, in fewer times to the purchase of materials, but in the most seldom cases, there are resources earmarked or available for the (highly expensive) teacher upgrading and training combined with management of the whole product set up.

In order to guarantee products and services while developing a training (see figure on the next page), the foremost objective of the partners who develop the system has to be to train skilled workers and manpower for industry, commerce and services. The output of the training program has to be a highly motivated graduate seeking for his professional opportunity either being employed or self-employed.

This profile of graduate only can be achieved by encouraging positive attitudes towards manual work and by preparing school leavers or trainees to settle on their own account. The terminal character of vocational education and training has to be strengthened by additional or integrated short term programs to the traditionally long and theoretically overburdened learning programs and teaching methods.

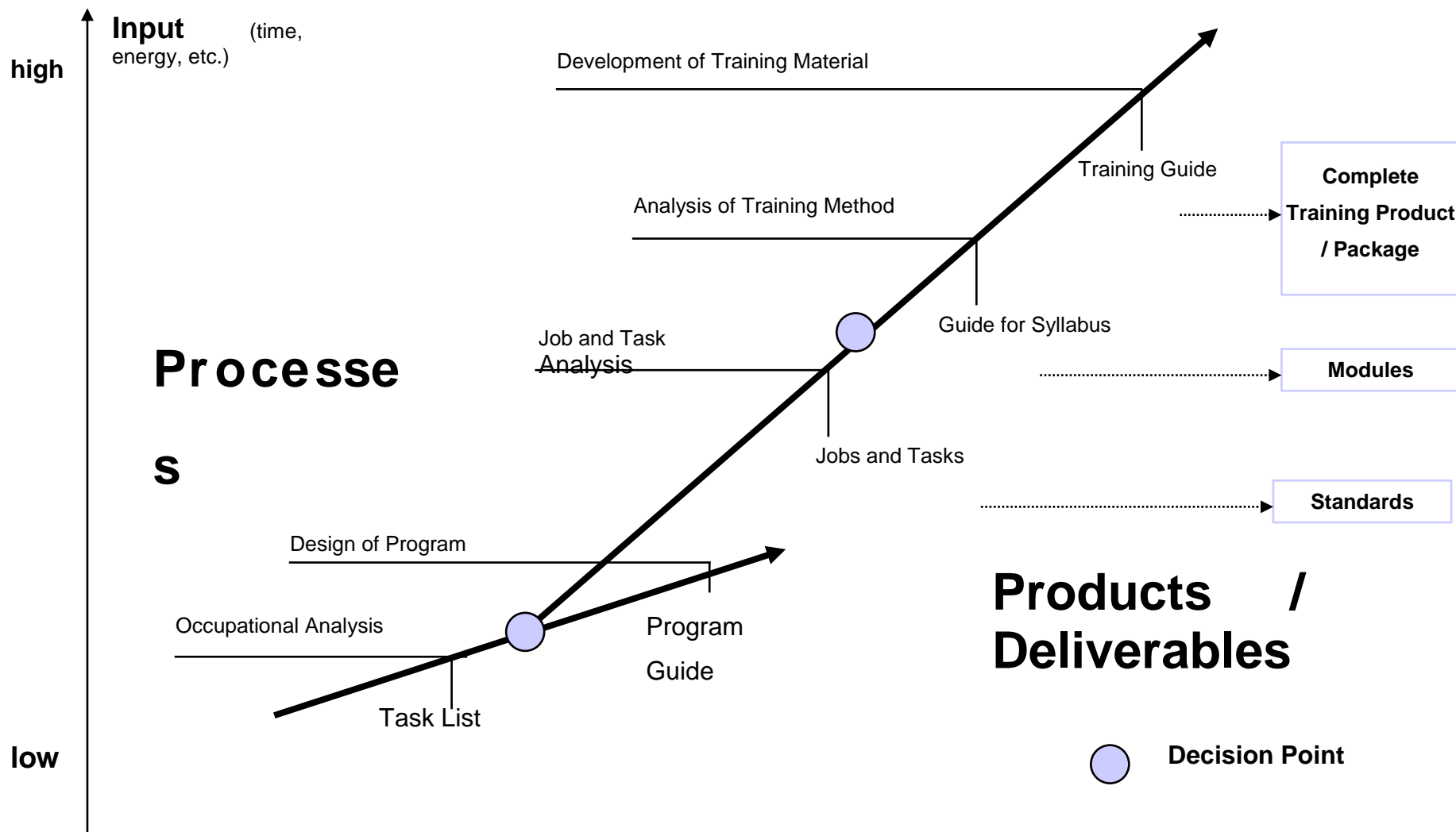
According to the occupation and to the scope of technology, the complete training package varies (see figure on following page). It is evident that according to the emphasis laid on each of the requirements of occupations, the structure, organisation and the mode of delivery of the TVET system has to be quite different.

From an operational point of view, training programs in place in Mozambique for receptionists in guest houses in the Limpopo Development Corridor have to focus on other competency ranges than training for receptionists in a five star hotel environment in Maputo. Latter will additionally to the highly demanding interpersonal skills for both positions need to have an excellent proficiency in computer skills due to much more demanding technological set ups in a five star environment. In order to build up a learning culture in Mozambique, and for supporting the establishment of standards within training products and services, every provider of training, either a training school or centre, or companies and other economic active organizations should be accredited suppliers of training. A financial reward system could support the very necessary attempt to value human resources in the Mozambican economy.

The mechanism of refunding training activities could be either via existing income tax system or by the social security payment mechanism⁵².

⁵² Nearly 13.000 registered companies with about 135.000 contributors to the pension fund finance about 420.000 inactive pensioners. Source: National Institute of Social Security (INSS – Mozambique).

Figure: Development of Training – Processes and Products (adapted from: J. Collum "Curriculum Development for Occupational Skills Formation" Darmstadt 1999)



d) Managing training of quality

The following table gives an overview on current managerial and organisational schemes of technical schools and training centres in Mozambique.

Table: Ownership and operation of VE Schools

Ownership	Regulation	Management	Payroll of teachers and trainers	Equipment and materials
State	Education Law 7/92	State and donor supported	state	State and donations
State	Not yet identified	mixed	state	State and donations
State	Not yet identified	mixed	private	private
Private (concession)	Private Education Regulation 126/94	private	private	private

Public training providers under governmental ownership and management are merely dependent on public budgets or money donated by foreign agencies of technical or financial aid. Several projects of technical assistance have been carried out in Mozambique in the last years. In general terms, all efforts have been fruitful while operational expenses of supported TE schools have been provided by foreign aid. After closure of the projects, either due to foreseeable closures or due to sudden cut offs of money flow, hardly any TE school could manage to maintain its standard⁵³. Even the most important VE schools and institutes in the country⁵⁴, and in much precarious situation the public VT centres, are suffering from money shortcuts. This even is the case in Maputo, and worsens in remote areas of Mozambique. It happens, that monthly allocations from Ministry of Education to VE schools and institutes does not cover basic operational expenses, such as electricity, water and communication infrastructure. Whereas in 1997 the whole TVE system received in 1995 more than 8% of Ministry of Education's budget, in 2000 it smelted to only 5%⁵⁵.

Recommendation:

Even though exact numbers from public VT provision have not yet been of access, the overall conclusion to enhance PPP's for getting few existing resources, either at financial but also at technical (teachers, instructors, professionals) level, better allocated, is crucial to succeed in promoting higher quality of management and more deliverables in TVET system in Mozambique.

⁵³ As examples: Commercial and Industrial School of Quelimane, Pedagogical Institute of Umbeluzi, Commercial and Industrial Institute of Beira, Industrial School of Maputo.

⁵⁴ Such as: Industrial Institute of Maputo, Commercial Institute of Maputo.

⁵⁵ See: Estratégia do Ensino Técnico-Profissional em Moçambique (2002-2011). "Mais Técnicos, novas Profissões e melhor Qualidade". Aprovada pelo Conselho de Ministros. 20.12.2001.

No private partner will share resources, if there isn't a minimum of decision power allocated to the private partner! Therefore, financial responsibility or the responsibility to share cost burdens has to go hand in hand with organizational and managerial obligations. It is imperative that technical schools and training centres, as well as the new poly technical higher education institutions are structured as profit centres where private sector (partly or entirely) performs service deliveries or administrative functions which formally were associated to the public sector. Especially the cost intensive industrial training laboratories are unsustainable while funded solely by public efforts.

e) Legal Framework to promote training

The legal mainframe show some signs of time passing by, and it seems no longer the most adequate instrument to the current needs of the general system and, in particular, to the VE sub-system;

The existing legal framework has a strong predominance of administrative contents instead of a more conceptual approach, dominant nowadays in every modern educational system; The need for a renewed legal mainframe is epitomised by new realities – such as polytechnic education – which at that time wasn't considered, and now in the fringe of implementation. The point is that, without proper system integration of VE, VT and Higher Vocational Education and Training, these sub-systems will superpose and its efficiency will certainly be hampered by some lack of human resources when quality teaching is concerned.

Some grey zones still persist – particularly those that imply some degree of inter ministerial articulation in particular between Education and Labour.

Recommendations - General Framework

The establishment of a new VE and VT diploma (not necessarily a law), considering the interfaces to the most important regulations of subsystems of education and training (Law of Higher Education, Diploma of Private Education, Diploma of Private VT, etc) under elimination of regulations and diplomas of aspects considered in the new regulation, will generate to the public a better understanding of VT and VE and by which instruments it is ruled and promoted in Mozambique.

Necessarily the diploma needs to clarify and define the following aspects, such as:

- Definitions and terminology
- Institutional responsibilities and duties (accreditation, certification, assistance, etc.)
- Qualification Framework and equivalences
- Management and finance
- Partnerships (making training relevant, curricula development, examination boards, teacher training, etc.)

Already now, rules and duties applied to private provision can be applied to public training providers (VE and VT), such as the obligation of communicating its training curricula, the conception of an internal centre regulation with its apprenticeship evaluation norms, trainers profile and, last but not the least, the model of its certificate (art. 5/3 of private VT regulation).

This seems to be a potentially useful matter in the sense that could pave the way to a future national accreditation system. The aforementioned regulation states (art. 8) all the requirements to produce and deliver the final course certificate, such as the obligation of mentioning the specific training contents in the certificate backside. There is a concrete

opportunity to standardise all the certificates, regardless whom produces it, allowing each and every training provider, private or public, to have a similar certificate content.

If this procedure is coupled with INEFP (VT) or DINET (VE) seal in all public and private providers, this will not only enhance the centre external prestige, but will also allow each graduate a public warrant that, regardless the institution and training course, its certificate will be recognised anywhere in the country.

Recommendations – raising relevance of training

All the three subsystems of TVET in Mozambique, the VE system under auspicious of Ministry of Education, the VT system under auspicious of Ministry of Labour and the newly designed higher education poly technical VE⁵⁶ include practical training contents in their learning programs. Whereas the VE are predominantly vocational and teachers, even from the practical training division, do not have a strong entrepreneurial background nor are technology wise updated to state of the art, presently VT lacks in theoretically grounded practical background. Structural challenges to offer more relevant programs to seekers of high quality TVET have to be overcome. At operational level, this refers especially to adverse attitudes from existing teachers and instructors towards new technologies and new training environments which could be set up with support of external expertise. As one of the most important steps towards overcoming the reaction of threatened teachers and instructors by new environments of training is to leverage their potential by creation of partnerships, managed and designed by equal partners in a partnership between Technical Schools and Training Centres and interested business partners.

To improve the overall quality of practical training in the TVET system some key referential items should be:

- Practical training within an occupational group or a profession should not differ between its provision by Technical Training Centres (TTC) and Vocational Schools or Institutes (VSI).
- Learning materials, equipment and teachers should be interchangeable between both, TTC's and VSI's always if the practical training is of similar level or complexity of competency.
- There shouldn't be any different treatment (payroll) between so-called "trainers-monitores" under payroll of Ministry of Labour and other line Ministries working in TTC's and "teachers of practical subjects-professores das práticas pré-profissionais" under payroll of Ministry of Education and other line Ministries, if definitely the character of practical training is of similarity and the trainer is equally competent.

From legislation's point of view, Labour Law offers an integration of job seekers and new employees either by apprenticeship contract or by a clause⁵⁷, referring to the article in Labour Law and legalized by the line Ministry, in this case Ministry of Education.

⁵⁶ As the Poly technical Higher Education Institutes still are not running, the further comments do not refer to this new TVET subsystem.

⁵⁷ Regulamento das Práticas pré-profissionais (Ministry of Education) under preparation for approval by Minister of Education (verbal information from National Directorate of Technical Vocational Education – August 2003).

Such an amendment gives the opportunity to job seekers to encourage employers according to a negotiated integration to company openness to gradually integrate the job seeker into the envisaged job profile or position.

As view recent graduated pupils and students from VE schools and institutes and less pupils and students from secondary schools (and having upgraded by personal initiative their skills through short training programs) have had the opportunity to get any professional experience, the suggested structure to get more employable by existing regulation could be as follows:

First:

Practical exercise contract with VE school and / or institute and future employer during the last 12 months of VE program according to Labour Law and regulation of practical exercises by the respective line Ministry (in this case: Ministry of Education). The same applies to the vocational training programs, usually of much shorter duration.

Second:

Apprenticeship contract with employer just after graduation according to Labour Law.

Third:

Work contract with employer according to Labour Law.

In how far such a stepwise approach could be a promising instrument of approaching job seekers to employment should be analysed in every initiative which seeks to improve quality of TVET.

11. Public Private Partnerships

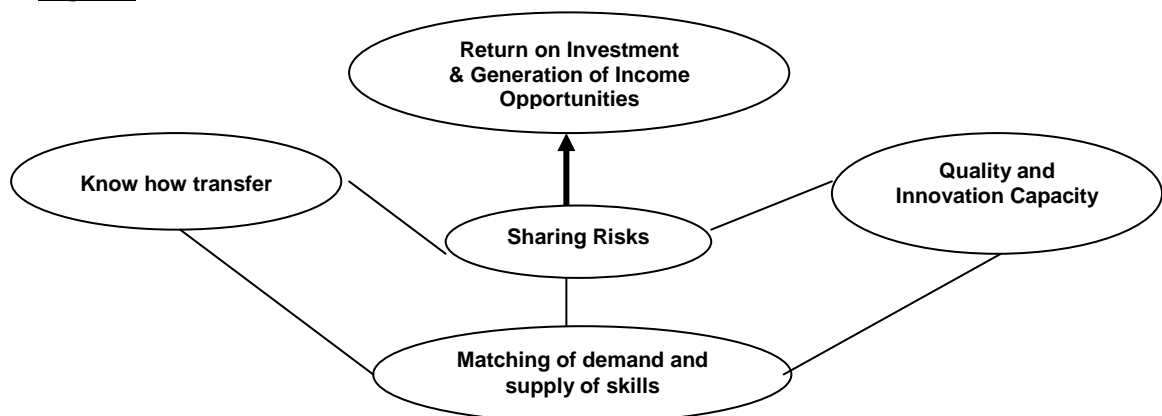
11.1. Definitions and Approaches within a Framework of Training Promotion

Public-Private Partnerships (PPP's) should be understood as an opportunity, both to the public sector and the private sector to manage change together. As identified in the chapters 5 to 9, only an approach that relies on dialogue and negotiation while promoting more relevant VE and VT can be a response to improve the TVET system for target groups on a highly polarised labour market:

- Highly skilled manpower for high performance jobs: mostly export-exposed companies and companies that work with products and services competing on international markets, need to achieve an international quality recognition benchmark such as ISO 9000 with all implications for skill development and training.
- Qualified manpower to fill special tasks and requirements: Companies that want to improve technological performance because new domestic and international markets offer return on investment, need to introduce flatter hierarchical structures, need to put growing emphasis on teamwork by workers with a solid general education supplemented by specialised multiple skills developed through continuous learning.
- Highly flexible manpower and self-employed: income generation with high returns.

Therefore PPP's have to address simultaneously how innovation capacity and quality of all partners can be improved and which types of know how transfer could be promoted in order to match demand and supply of skills. In the end, return on investment has to improve for investors and the economically engaged communities and population in order to raise income either directly or indirectly (see figure below). The role of the public partner has to concentrate on enhancing this to happen. It is by supporting actively the integration of private partners in all questions related to access and quality of education and training. In many cases schools and training centres can improve their managerial performance through such a partnership, as the cost burden of materials, equipment and human resources can be shared among the partners.

Figure: Innovation and know-how transfer as drivers for matching skills and raising incomes



Know-how transfer comprises at first, to make one understandable and to try to understand the partner's role and its responsibilities and duties. In many cases,

due to leakage of language skills (either proficiency of Portuguese by investors or English by Mozambican public employees) a first barrier of misunderstandings and communication problems has to be broken. Usually, investors don't act without any Mozambican partner and within public sector institutions either at central or at provincial level, always somebody is available to communicate in English. With regard to communication challenges, from the very beginning the articulation between both partners has to be very clear and open. The definition of small steps forward in partnership – considering the different time horizons of planning and implementing tasks between the partners - is one important element to guarantee success.

Other aspects of know how-transfer refer to specifications from the private partner of learning contents, material, equipment and methods for job related training. On the other side the public partner registers and accredits training provision in order to feed the national framework with information and standardized VE and VT programs, regardless of geographical location or provision of training. This is to assure quality standards at national level under continuous improvement of training. As in Mozambique training provision according to international standards is still delivered by a handful of providers, public innovation capacity has to settle on very selected examples of training provision.

The innovation capacity and the performance (quality) of the partners is strongly related with the motivation to achieve commonly set goals by allocating both resources to the project. Both partners are motivated if tangible results according to internal planning and projections (private partner: return on investment; public partner: priority activities according to governmental planning and policy) arise from the partnership.

To achieve the objectives in a partnership, the risk burden (costs associated with the project risks) is shared among the partners. This means that funds, assets and resources are managed together. For both a win-win situation arises, as generally the public partner have easier access to capital (either granted by donations or with very low financing costs)⁵⁸ than private partners. On the other side, the risk of incompleteness of investment (e.g. due to delays with construction of a training center, or with regard to the procurement of adequate training material) can be reduced involving competent private partners. From the capital lenders point of view, generally risk analysis takes into account in how far the lenders are prepared to manage funds. Tendency appoints to incur less costs associated to risk, when partners can proof their competency to manage funds thoroughly. Generally a better management performance of funds is considered, where private interests (motivation of return on investment) are associated with the realization of the partnership to achieve the goals within the time horizon associated with the project.

Financial aspects:

Financially, the technical schools and training centers still depend from the central financial departments of the line Ministries. Hardly any money is available for teaching materials. Money rather is used to finance the running administration, communication, water and

⁵⁸ IDA credits normally have an interest rate of 0.75% / year with at least 30 years grace period.

electricity expenses of public technical education schools and training centers (about 50 nationwide)⁵⁹. Some of the schools even don't have access to regular communication infrastructure. At provincial level, the Technical Education sections within the Provincial Directorate of Pedagogical Affairs in the Provincial Education Department are represented in all provinces by only one person without any budget (management competence) nor with an institutionally strong set up. Mainly the function consists to support in crucial times of school calendar (examinations, admission, graduations, etc.) school supervision and management brigades from central level. As there is no linkage between central level and school level, schools are structurally under represented with regard to institutional reform discussions. Real support to elementary needs of VE schools and VT centers is hardly given by central level as the overwhelming problems arise from all sides.

Yet no significant attempt has been done to try to decentralize power and include stake holders at provincial level in questions related to needs analysis, curricula reform, teacher training, PPP's and other instruments to overcome the desperate situation in TVET.

In the next 2 years changes may arise in financial terms to VE (Ministry of Education) and VT (Ministry of Labor) as main donors (Germany, Portugal, Italy, Spain, Finland, Sweden and Brazil) are significantly present with Technical Cooperation and less with financial means. Latter instrument is supposed to increase in the next years (Ministry of Education) as the intervention of WB might increase in this sector significantly after completion of a broad sector study (by June 2004) with a possible creation of a funding mechanism (VE – Ministry of Education) from June 2005 onwards.

This financial bottleneck urges the creation of alternative mechanisms of financing training. Private engagement for training has to be supported by incentive mechanisms (see example of Mauritius in the box) or by other means. In several countries like Colombia, Venezuela, Peru, Costa Rica, Chile, Ecuador, Paraguay, Honduras, Brazil, Guatemala and Panama⁶⁰ exist Vocational Education and Training Institutions independent of the regular education system (but as a complementary system to formal education), financed by a training levy ranging from 1 to 2 percent of the payroll but with major difference that these were directly administered by the government with the participation of the employers and workers. Initially, the institutions focused on the training of new workers at skilled and semi-skilled levels, via the apprenticeship system, mainly for the most common occupations in the manufacturing, though later giving more attention to commerce and services and, to a lesser degree, agriculture.

Box : Training Incentives for Industry – the case of Mauritius

⁵⁹ Average budget in schools with between 500 to 1000 students doesn't exceed USD 2000 per month in the provinces and USD 4000 per month in Maputo. The situation with regard to the training centers is even worse. In 2000, the average of operational expenses of all public VE schools and institutes per student/year did not exceed USD 170.

⁶⁰ SENA (Colombia 1957), INCE (Venezuela 1959), SENATI (Peru 1961), INA (Costa Rica 1963), INACAP (Chile 1966), SECAP (Ecuador 1966), SNPP (Paraguay 1971), INFO (Honduras 1972), FOMO (Brazil 1972), INTECAP (Guatemala 1972) and IFARHU (Panama 1973). See: M. Ducci: training and retraining in Latin America (Geneva, ILO Employment and training Department, Training Policies and Systems Branch, 1996)

The Industrial and Vocational Training Board, which has been set up under the IVTB Act No. 8 of 1988, has, inter alia, been vested with the responsibility to administer, control and operate training schemes. In order to encourage employers to provide training to a maximum number of employees, the IVTB offers grants as incentives. Employers can recover up to 75% of training costs irrespective of the tax rate. This includes the IVTB grant and tax rebate. The training may either be run in-house, or externally by training institutions registered with the IVTB. Grants awarded by the IVTB are based on a cost-sharing principle, i.e., grants will meet only part of the costs incurred for training by employers since they are not intended to be a subsidy.

Eligibility for grants

1. Only employers contributing monthly to the levy will be eligible.
2. Only training courses and programmes which have received the prior approval of the IVTB will qualify. The training has to be job-related and must lead to acquisition of new skills.
3. As the objective of the Board is to upgrade the local workforce, grants are restricted to trainees who are Mauritians or Permanent Residents of Mauritius.

For more information, see: <http://ncb.intnet.mu/ivtb/tgv.htm>

In general, above described tax concession systems need as pre-requisites broadly based system of corporate taxation and a broadly developed number of strong and profitable enterprises⁶¹. In the case of Mozambique, this training incentive instrument might not be applicable due to known general weaknesses of the major part of companies in the country and due to recent introduction of VAT schemes and corporate taxation, still of major challenge in its implementation both, for the public and private institutions and organizations.

Fiscal benefits related to education and training:

If a company X intent to create its own business outside the so called Special Economic Zones (ZEE) or Industrial Free Zones (ZFI) and decide to develop its own training program the only benefit that can be expected is the VAT exemption of its training expenditure.

In plus, all the payments disbursed to the trainees – such as food or transport subsidies, and the scholarship eventually paid as referred to in the article 174 of the Labour Law – are tax exempted, according to the article 6/c of the income tax code (IRPS - Decree 20/02 of July 20th).

To a similar Y company that decided to install its business inside one of the already mentioned ZEEs or ZFIs, in plus to these benefits, applies the Code of Fiscal Benefits (Decree 16/2002 of June 27th). As refers to article 18, it allows the so-called company Y to deduct up to a maximum of 5% of taxable income within the first five years of the approved project (art.18/1). The amount will increase up to 10% if the training is for use of technologically advanced equipment (art. 18/2). However, it has to be stressed that these allowances are only applicable to training itself, and not to training equipment and other assets used in training, according to the article 18/4.

Taking a practical example, where both X and Y companies will invest 100.000 US dollars in the training of its own Mozambican staff and that its taxable income after the first year will be of 500.000 US dollars.

Table: Fiscal benefits of companies investing in training inside and outside

⁶¹ Adrian Ziderman: Financing Vocational Training to Meet Policy Objectives: Sub-Saharan Africa. Bar-Ilan University, Israel. Paper prepared for the World Bank. Revised November 2001.

a Special Economic Zone (SEZ) and a Industrial Free Zone (IFZ)

Type of Benefit on 100.000 USD invested in Training	Company X outside any ZFI and ZEE	Company Y inside one ZFI or ZEE
VAT (17% = 8.500 USD)	Training is VAT exempted	Training is VAT exempted
Amounts disbursed to the trainees	IRPS exempted	IRPS exempted
Deduction of training expenses on taxable income (1)	None	5% of 500.000 US dollars, equal to <u>25.000 US dollars</u>
Deduction of high tech training expenses on taxable income (2)	None	10% of 500.000 US dollars, equal to <u>50.000 US dollars</u> . Obs.: This is not cumulative with the previous deduction
Total Amount of Fiscal Benefits (tax exemptions)	8.500 USD	33.500 USD (1) 58.500 USD (2)

Even if these investments are also submitted to the special requirements of the Investment Law (Law 3/93 of 3 July), Mining Law (Law 14/2002 of 26 June) and Petroleum Law (Law 3/2001 of 21 February), this chart clearly shows that action has to be taken regarding relatively low training fiscal exemptions to companies outside those special zones for economic development.

Already now, companies geographically outside such an special zone, such as Mabor (a rubber and tyre manufacturer) managed to be included in the special development zone of Beluluane, on the Maputo outskirts.

Considering that deductions to the taxable income are the more expedite way to process it, in order to increase training investment and therefore the workforce skills companies outside those zones could have, let's say it, half of the benefits. This means 2,5% deduction of training expenses on taxable income, which will increase for 5% when high tech training skills are developed.

A levy-grant scheme for the tourism and hospitality industry might be introducible in Mozambique, as already fundamental instruments exist and could be further developed, like the National Tourism Fund and a National Tourism Board, with the duty to promote the tourism in Mozambique.

Other schemes of training incentives (direct subsidies) are being used through various initiatives financed by donors and World Bank (PODE, business challenge funds, specific projects) and should be combined with small business development initiatives on a basis of systemic intervention together with initiatives at community level within the Development Corridors and addressing to community needs in proximity to anchor projects. Specific

training needs assessment and the matching of demand of and supply for training should be financially supported (mostly up to 50% of total costs) in order to continue to stimulate the constitution of a training market in Mozambique and to promote the development of (smaller) businesses. Still, few companies invest significantly in establishment of systematic training programs nor create work skills plans for the employees. Special funds for such an undertaking should be made available. On the supply side of training market, very few Mozambican suppliers are professionally and financially prepared to meet the companies'

needs of setting up broad training programs (needs assessment, change management and organizational reengineering, etc.).

Business Linkages Challenge Fund (BLCF) – opportunity for private companies in Mozambique:

Since several years, in Mozambique companies with a proven high professional management capacity and with an outstanding company record have the opportunity to apply for cost sharing grant schemes through the so-called Business Linkages Challenge Fund (BLCF). Generally, bidders contributions are

- to demonstrate their commitment and belief in the viability and sustainability of the project,
- to secure the investment of significant private sector resources in the areas that meet the objectives of the BLCF (further information: www.challengefunds.org)
- to ensure ownership of the project by bidding organisations and their commitment to implementation.

On average the bidders contributions are at least the equivalent of the BLCF grant. Contributions have to be either by new cash invested in the project (expenditure prior to the actual commencement of the project and cash generated through project implementation does not count). As well, bank loans can be considered as part of the bidders contribution provided that such loans are not contingent upon receiving the BLCF grant.

In-kind contributions are as well acceptable, such as non cash resources provided by the bidding organisations which can be valued in cash terms (e.g. the value of staff time allocated to the project – the rate charged for the staff time must be justified based on salary and overhead costs; capital equipment (machinery, vehicles) allocated to the project). Intellectual capital invested in the development of the project does not count as an in-kind contribution. Normally projects can be considered eligible for the BLCF panel with a total investment cost of between USD 500.000 and USD 4 million and after several evaluations realised by the panel. (Further information: www.challengefunds.org).

11.2. How to Approach Partners at Local Level

An investor only will be successful with his project if he gets buy-in from the region's communities, such as non-profit development organizations, associations and cooperatives, chambers of industry and commerce, local governments, representatives of communities

with an outstanding appreciation by communities, schools, training centres and other groups.

First of all, investors have to identify major partners in the development corridor, or in a geographically limited region where special business opportunities exist and where infrastructure is (about to be) in place, to sustain the partnership for training or to be able to employ the most qualified manpower by affordable costs.

In order to connect the investment project with the communities, generally the first key partners are at district level the District Directorates of Education (Ministry of Education) and the District Directorates of Labour (Ministry of Labour) or in the case of municipal government the respective municipal directorates of education and labour. Generally these organizations know about the status of HR development issues in their district, normally focussing their sectors (top down sequence from the line ministries) approach. Workforce information exists for some areas, data describing the size of employment, unemployment rate, educational level, cost of labour, and occupations in the region is available in some regard from the employment centres (Centro de Emprego), normally located in the capitals of provinces and major towns. In general, local economic trends or business cycles can be approached by either the District Directorate of Industry and Commerce or, by important business men at local or regional level, mainly by personal interviews. Data on educational level of the area population and the workforce generally is available by the Directorate of Education. The better way to get an impression of availability of workforce is to address oneself to the directors of technical schools, secondary schools or training centres in surrounding areas of the investment project. Here, by tracing back placement opportunities for young graduates, the general opportunities for employment or self employment in the region can be assessed.

As well, in some development corridors one-stop shops for business purposes exist (Nakossa in the capital Lichinga of Niassa province; Inhambane, capital of Inhambane province, Nampula, capital of Nampula province and Chimoio, capital of Manica province). They provide investors with information on other investment projects. Investors than can capitalize on better data and even could allocate together resources with respect to HR recruitment and development.

The province departments of Education (Direcção Provincial de Educação) and Labour (Direcção Provincial de Trabalho) and the regional offices of the National Employment and Training Institute (Instituto Nacional de Emprego e Formação Profissional) possess detailed data on schools and training centres.

11.3. Lessons Learned from Public Private Partnerships in Mozambique

In Mozambique, so far some PPP's have been realized or have just been implemented.

One PPP between a public authority (National Employment and VT Institute - INEFP) and a private company (MOZAL) has been established in the field of industrial training delivery. Main objective was to fill the urgently needed Mozambican labour force especially for the construction phase of MOZAL I: The MOZAL – INEFP-partnership (financed by the Mozal Trust for Community Development) upgraded the Machava Training Centre (Maputo), purchased new training equipment and materials and supported the (job related) skills upgrading of more than 2000 trainees. Nevertheless, no substantial system building of TVET (learning pathways, learnerships, trade profiles, etc.) has been promoted neither was of priority of the partnership.

Another PPP has been initiated between INEFP, Sort Moz Ltd and TMA Ltd to create a HR database and to promote VT according to needs of several investment projects.

Other PPP's comprise affords to create more access to VE and to improve quality of training delivery. In very few cases, organizational and managerial risk sharing is clearly defined between the partners, as traditionally VE is under state control. Several examples of sharing costs of VE between clerical institutions, NGO's and business partners on the one side, and public sector (Ministry of Education) on the other side, can be cited are as follows:

- Crafts School in Songo – partnership HCB/MINED
- Crafts School in Moamba – partnership Salesian Order/Ministry of Education
- Industrial School in Gurué – partnership clerical organization/Ministry of Education
- Comercial and Hotel trades School in Nacala – partnership ADPP/Ministry of Education
- Crafts School in Nhamatanda – partnership ADPP/Ministry of Education
- Agricultural School in Bilibiza – partership NGO/Ministry of Education
- Industrial School in Ribawe – partnership clerical organization/Ministry of education

No substantial partnerships has yet been established between a Business Association and either a Training Center or a VE school in Mozambique like they are known in European or Latin American countries (especially Colombia, Brazil, Chile and Argentine) to be fruitful for promotion of business environment. As an example in Mozambique, the Nampula Business Association (ASEANA) has offered several trainings to associated companies and individuals (preparation for tax reform, export and import duties, etc.) being a facilitator to businesses and overall promotion of economic environment. Other business associations have not yet targeted training related issues together with associate companies in order to give some needed inputs for TVET system building in Mozambique.

A very interesting initiative between a private company (Pemba Beach Hotel in Pemba) and the Faculty of Tourism of the private Catholic University of Mozambique is being implemented to secure better quality of vocational education and training at higher education level (see box).

Box: Training through partnership: Pemba Beach Hotel and Catholic University in Cabo Delgado, Mozambique – Nacala Development Corridor

“The Pemba Beach Hotel currently has 54 students from the Universidade Católica de Moçambique undertaking training placements throughout all its sectors on a rotational basis. The training placements are for an initial 3 month period and commenced at the beginning of September 2003. They are supervised by the Universidade. The students are appraised on a 2 weekly basis and every week the Hotel management meets with the universities supervisor to feedback progress. To date the programme has been viewed very successfully by all parties i.e. the Hotel, the students and the Universidade.

This vocational training programme was developed by the Universidade in conjunction with the Pemba Beach Hotel.”

Ana Fernandinha – Manager - Pemba Beach Hotel, Cabo Delgado, Mozambique (Oct. 2003)

The initiative is one very strait response to turn programs more relevant and to respond to an immediate need of one of the most important employers in the tourism sector in the region.

11.4. Recommendations for Implementation of Private-Public Partnerships

- A clear commitment of relevant public bodies of VE and VT to interface with other relevant entities (such as National Statistics Institute, employers and employees organizations, civil society), in order to create a wider basis for the future relevance and sustainability of the whole TVET system.
- Is advisable that INEFP were able to effectively represent all the public training providers, in order to standardise procedures and other relevant aspects;
- As stated in the Governments Five Year Program (Resolution n. 4/2000 of March 22), stressing the need for a National Qualification Framework enabling the raise of an equivalence system between education and training, referring the need for “*coordination with the social partners*”, with strong participation of private partners.
- Making use of potential of some juridical figures such as the apprenticeship contract (*articles 174 and 175 of the Law 8/98*) and the internship regulation (12 months duration) within the 4 years VE program of Public Administration (Ministry of State Administration).
- Making use of fiscal benefits within special economic development zones and outside of those zones.
- Establishment of a scheme of fiscal benefits to all companies that train employees and/or apprentices (either formally, by apprenticeship or internship contract, or informally, by in-house-training) and which are formally registered (either through income tax registration number and/or national social security system – INSS).

12. Project Profiles for Immediate Implementation

The following information is based on an idea which could generally promote a culture of learning and awareness for HR development issues in Mozambique. It could be a catalyst for placement of job seekers and an instrument for the creation of linkages of training providers and the “world of work”. Moreover, it could provide useful information with regard to HR issues.

Project profile 1: “The Mozambican Training and Skills Matching Village” homepage

Motivation:

Information about either employment opportunities, job seekers, training products and services and official documents and regulations regarding human resources development issues are dispersed and not generally available to the public.

Vision:

The homepage will be a unique product in Mozambique to offer information, products and services of training suppliers. Moreover it will support individual placement efforts of job seekers (without payment) and be a forum to receive latest information on HR issues in Mozambique and the region. Links to other information sources can be as well incorporated. The homepage will be open for sponsorships in order to cover operational expenses to maintain the homepage updated.

Objectives:

- to set up a homepage with four main services
- to contribute to match skills in Mozambique
- to create an information source of high standard with valuable information for the public
- to offer public (it would be the first attempt in Mozambican history) and private training providers a space for publicity and information on their products and services
- to contribute with the dissemination of using computer technology in Mozambique
- to offer links to other homepages and information sources
- to disseminate information about topics of national concern (e.g. HIV/AIDS)
- to offer sponsorship to interested partners

Product:

Homepage “The Mozambican training and Skills Matching Village”

Services:

- Job search / matching engine (fed by job seekers without payment), giving into a fixed window CV information, with different scope of detail. Employers can access

(by payment) profiles of job seekers (according to a certain number of elements paid for).

- Group 1: age, years of work experience, qualification
- Group 2: like group 1 plus: gender, studies abroad, language proficiency
- Group 3: like group 2 plus: e-mail contact of job seeker.
- Engine to access all kind of training provision (public and private) in the country. Information details: occupations, disciplines, length of training / technical education, entry requirements, requirements for enrolment, tuition, fees, accommodation opportunities, etc
- Documents Centre: download opportunities of documents, information on where documents, regulations, etc can be assessed.
- “black board” with information on coming events, workshops, etc. (in Mozambique, in SADC, worldwide – links to UNESCO, UNEVOC, ILO, WB, ETF, CEDEFOP, BIBB, etc.)

In the following section, several project profiles in the five Development Corridors are outlined. Some of them give an immediate response to investors needs to fill the skills gap. All efforts are promising to strengthen private public schemes to promote HR development in the Development Corridors in Mozambique according to intervention areas of identified anchor projects. All profiles can be drivers for private public partnerships enabling win-win situations for all partners.

Maputo Development Corridor

The idea to set up of a “technical school” or a “training centre” within the Beluluane Industrial Park (BIP) has been presented by the manager of the BIP (Mr. Ventura). A brief follow up meeting has identified some key intervention fields for training and linkages needed to be met with public sector. A brief project profile is described in the following section. Possible funding mechanism have been identified and the project can be submitted to the Business Challenge Initiative of DFID (Department for Foreign Investment Development - UK). General objectives of this initiative are: a) to prepare recently recruited staff for specific needs of companies associated to the Industrial Park, b) to retrain and upgrade staff of associated companies, and 3) to offer trainings for the public (e.g. training for instructors, etc.)

Project profile 2: Training Centre of the Beluluane Industrial Free Zone

Motivation:

The Industrial Free Zone of Beluluane is a determined geographical area where special concessions are given to investors. Main criteria are a) exposure to export markets (minimum 85% of total added value in the free Zone), b), etc.

There is a need to recruit and retain qualified manpower to guarantee the raising demand of multi skilled professionals to the associated companies.

Vision:

The associated companies import, add value and export different products. The Training Centre of the Industrial Park could be an educational affiliate with the main focus on all HR related questions, like

- recruitment and selection,
- screening and career planning,
- qualification and assessment and,
- upgrading and training.

Objectives:

With focus on special needs of associated companies, in future the Park's training center could cater for and deliver a), b), c) and d). These functions currently are attributed to the HR administrations and departments of each associated company. The upgrading and training can be developed as a agreed upon tool for all associated companies (with regard to training needs) and as an instrument to deliver expertise to other companies and/or institutions. In order to support the very weak " training of technical trainers and professionals" in Mozambique, a special upgrading and training could be developed in order to:

- facilitate the technology transfer to teachers of (public run) training institutes and schools,
- facilitate the continuous improvement in learning and teaching methodologies and
- strengthen linkages to potential employers for students of the targeted participants of the learning programs.

Besides the above mentioned activities, major activities of the Training Center could include in future:

- Promoting and /or managing an annual Training Fair, working with government agencies on a large variety of (industrial) training issues,
- producing a series of educational seminars
- engaging in an ongoing quality standards and safety assurance program (together with INNOQ, MINESC, and other partners)
- seeking for high added value by setting up partnerships with regionally and internationally validated (quality standards) centers and institutes
- establishing of sponsorships to maintain the Training Center of fame,
- providing special services and trainings for smaller companies
- creating added value for members by provision of special services together with business associations (compiling industry statistics, conducting a full communications and public information program, etc.)

The Training Center has to be recognized by government and clients as a voice of a high standard training provision in Mozambique. In the medium and long run this only will happen, if the centers' services and products really meet the expectations of industry.

Products:

- High standard training delivery and recruitment schemes according to needs of companies associated to the Training Center. Main goal is to build up in a medium term internationally awarded training provision according to standards like ISO (International Standards Organization), BSI (British Standard Institute), API (American Petroleum Institute), etc.
- High standard provision of upgrading and specialization programs for individuals and institutions outside the Park. A special partnership could be set up with the public sector (either at central, provincial or school/training center level) to establish "training of trainers schemes". Positive side effects will arise either for the

Training Center establishing closer links to other not so specialized training providers. The public partners will have access to high standards and technology inducing different levels of competencies to the teachers being trained in the BIFZ-TC. These trainers than are the key multipliers of skills at technical school / training center level.

Organization and financing:

PPP elements will be particularly the setting up of a validated privately run Industrial Training Center according to Mozambican regulation and political orientation (Ministry of Labor) and amendments of Ministry of Higher Education, Science and Technology (MESCT) and the National Institute of Norms and Quality (INNOQ). With regard to the “teacher training scheme”, a new standard will be established and could be made available to public bodies to generally improve the teacher training in Technical and Vocational Education and Training.

The initiative will be in part privately financed (associated companies to the BIFZ-TC). Funding mechanisms could either be through a grant or sponsorship system (see: Business Linkages Challenge Fund). Companies can benefit from existing incentive schemes from Industrial Free Zone regime. Sponsorships can be considered as an additional source of funding when other funds were made available.. The subsidized (by the private partners) improved training environment will be an asset for the public partners. After their training in the “state of the art training environment”, teachers will need to meet similar, but at least improved, conditions in their technical schools / training centres. External funding (either grants or credits) will have to be earmarked to guarantee that the initiative will have its continuum for the teachers in their “teaching environment” to fulfil their multiplier role.

Limpopo Development Corridor

The proposed heavy mineral sands mine in the Chibuto region (Corridor Sands), with an extension to Chongoene and the ocean (jetty port), will cause due to its integrated development planning for the region a significant demand of workforce in a variety of fields and occupations. Different operations (core mineral business: processing plant, smelter) and, in future, a changed role of the town of Chibuto and surrounding villages (due to a significant provision of housing for the construction workers and the permanent staff) will need the provision of bulk services (water and power supply, sewer reticulation, roads, runway, etc.) and utilities to the whole region.

Project profile 3: **Small Business Promotion – Services and products for Corridor Sands Ltd**

Motivation:

Big business opportunities will arise especially for the services sector linked to transport and communication, food and accommodation as well as to agricultural diversification of crops and products for an increasing and more sophisticated demand at local and regional level. The mine itself may employ between 900 to 1100 workers. About three times more jobs for related services to and from the mine will be created. By completion of urbanization, Chibuto might employ direct and indirectly more than 8000 people (public and private services). Technical schools and training centres in the region could play a crucial role as facilitators of the promotion of (small) businesses and should identify as soon as possible their strengths to capitalize on large opportunities arising from the Corridor Sands investment.

Vision:

Community based provision of services to the Corridor Sands Ltd in the Limpopo Development Corridor, involving the districts of Chibuto and Chókwe in the Gaza Province in southern Mozambique and provision of practical exercises for students of the technical schools of Chokwe (agriculture), Xai-Xai (community development / public administration skills at community level) and Moatize Geological and Mining Institute in province of Tete (geology and mining).

The district departments of education from Chokwe and Chibuto work together in order to establish concrete activities of community development related to the investment project. Several instruments (Centros de orientação profissional – professional orienteering centres and fields for training activities) have been summarized in a study. Instead to try to establish a variety of training centers run at village level with the intention to deliver in different occupational fields skills, the focus on providing training should be on the following products.

Products:

The products identified are all subject for more detailed analyses together with the investor. It does not make sense to train students in short programs at village level in industrial trades (sewing, bricklaying, etc.) if no link to a market is established. The Corridor Sands project gives the opportunity to community based training and income generation activities to create an internal finance scheme. Otherwise, again the training activities are dependent exclusively on foreign aid funds (NGO's, bilateral technical assistance, etc.) in the end providing valuable inputs, as long as cash flow is guaranteed. Whether students are placed in local or regional economic activities then gets secondary, as the main scope would be "to get people to school" rather than providing people with relevant skills.

Therefore, this is an attempt to strategically place new training and income generating activities at community level in a new economic environment, which will undoubtedly be generated by the huge impact of Corridor Sands investment.

Three main products can be drivers for a partnership between community based training and income generation and the investor.

- 4) Enhancing local acceptance of the investment project by strengthening the enabling environment: Core element is to promote effective governance and organization in the newly developed town of Chibuto which will change in all aspects: urbanization and services of setting up a functional structure of a town will need interventions in a variety of areas:
 - a. strengthening of local public administration (information office, security, clearance of goods and services (airport), etc.
 - b. defining secure rights to access of land and its use in order to cope with land saturation, pressure, competition, fragmentation and inheritance problems: indemnisation schemes to smallholder agrarian livelihoods and
 - c. establishing functionality of the town: transport and communication facilities, filling stations, commerce and supermarkets, medical (first aid) services, post office, restaurants and accommodation,
- 5) Provision of specific products and services to the Corridor Sands Ltd, promoting income opportunities to associations, technical schools, etc in and around the concession area, thus facilitating the creation of off-farm incomes nearby the concession area and the province of Gaza.

- a. fresh agricultural products (vegetable, fruits, meat, etc.) to meet the need of the companies needs to serve of more than 1000 dishes a day to the employees.
 - b. Security services for the concession area and for special departments and operational units of the companies project
 - c. Work uniforms for the employees (sewed locally), washing and ironing services to the companies department of staffing and work equipment.
 - d. Supply of drinking water
 - e. Language training programs for staff and families of staff
 - f. Recreation and cultural events programs to staff and families (companies social centre with access for the public for events)
- 6) Provision of young professionals from technical schools and secondary schools, in a first step on internship and apprenticeship basis and eventually, in a second step for employment.

Organization and funding:

Similar to the Mozal Community Development Trust, a fund for community development could be established by the company, as well fuelled with financial resources of NGO's and other organizations. Necessarily, the fund management has to be shouldered among several partners. The steering committee should be aware of different operational planning each partner is submitted to, without losing the principal objective of the partnership: to be an instrument for the company to have the earliest possible the expected return on investment, and to contribute (goal of the public partners in the region) substantially to the development of the region.

Beira Development Corridor:

As part of an anchor project in the Beira Development Corridor, a real supply chain is about to be set up: key is a slaughterhouse with associated emerging beef fattening units in Gondola (Manica) and Catantica (Tete) districts, linking up the subsistence family sector of animal rising with an investment which is very confident in delivering quality meat products first to domestic, and in future, to export markets. From January 2004 onwards, the organized delivery of fattened beef to the slaughterhouse will be strongly supported by an Association of Agriculture technicians and professionals (COTA-Manica) in Chimoio, involving students from the Agricultural Institute in Chimoio for extension works. Yet not formalized arrangements to involve on a regular basis students could be turned to a formula for future apprenticeship contracts. Technology transfer and sophistication of cattle rising using standardized methods of cattle farming and fattening are some elements of an additional "learning environment" for students in the region. After start up and having reached full capacity, the slaughterhouse itself will employ direct or indirectly more than 50 workers (involving the supply chain management to final customers). In future, more fattening units are supposed to develop after start up of the value chain. This is an opportunity for self-employment of graduates not only from Agricultural College in Chimoio.

Project profile 4:

Non formal or formal education and training program seeking to improve the productivity of meat production after introduction of technical progress

Motivation:

Livestock are an important component of the farming system in Mozambique. Almost all households have some form of livestock and at least 20% of the agriculturally active households have cattle. Cattle are an important aspect of the social obligation to provide produce for social functions such as weddings and funerals.

Cattle kept by small farmers in herds of 1-5 animals usually require minimal capital investment and management. The larger more commercially oriented cattle owners typically invest in fencing, water supply, pasture development, stock handling facilities and transport.

Vision:

The project seeks to complement the current extensive cattle rearing system with intensive cattle fattening units. Young steers will be finished with silage and grain. This method of intensive cattle fattening raises the efficiency of total livestock production by eliminating weight loss during the dry season. The system increases cattle off-take by 20% and meat production by 50%. The enhanced quality of the meat produced will allow for the production high quality beef for the domestic market decreasing the reliance on imported meat. In a second step even export markets can be supplied.

Taking into account the increase in stock numbers and a bigger role in the market of the private slaughter house from January 2004 operational (near Gondola) , the daily capacity based on 250 days per year of processing can be approximated at 100 cattle, 640 goats and 340 pigs.

The feeding will be based on maize – legume (Lablab or Mucuna) silage, and can be supplemented with residues from the beer production plant in Beira (Cervejas de Manica which is actually giving away these residues free), molasses from the sugar factory at Maffambise and maize grain that can be bought cheap before it reaches full maturity.

Both the investor and farmers will benefit from technological improvements that increase the production and quality of cattle. The participation of agricultural extension services in the commercialization process will ensure greater dedication from the assistants and more attention from the farmers. That is, farmers will want to take full advantage of a service that will be partially financed by cattle commercialization. The extension services, in turn, will be accountable to the farmers.

Objectives and implications for training and training provision (either non formal or formal):

This concrete project aims to rise currently low quality meat production reaching high meat quality standards for supply of domestic and export markets. High quality value chains are being established and especially the productivity of farmers has to increase by improving sanitary conditions, calving rates and off-take.

Products:

A learning program (either provided by Agricultural Technical Institute of Chimoio or other partners) with the coverage of mainly the following technical areas:

Improvement of herd management by:

- increasing the proportion of females by selling males early;
- controlling calving time; and
- preferential grazing during the dry season of some cattle such as cows with calves and young heifers.

Improvement of the breeding stock:

Ideally young males sold to the investor will not be castrated before a 4-6 month fattening period. During this period the males will be closely monitored to estimate growth rates. Growth rate is an estimate of the efficiency for producing meat. The top 5% with higher growth rates will, after veterinary inspection, be sent back to the farmers to be used as bulls. This approach will provide a selection system that is based on objective measures.

Better control of internal and external parasites:

Farmers can be trained to identify and treat common diseases and parasites. According to the Regional Tsetse and Trypanosomosis Control Programme report, only 11% of the farmers buy drugs to treat diseases affecting their cattle. Nearly 30% of those who do not buy them have indicated that they do not know which drugs to buy. Venereal diseases will be also identified and affected animals culled. This will improve the calving rate.

Nutrition improvement:

Nutritional problems associated with the dry season are due to the poor quality of the feed rather than its availability. Dry pasture is composed of mainly cellulose and the lack of proteins and vitamins limits its ingestion and digestibility. The production of limited areas of legumes such as siratro, soya beans and especially leucaena, can improve the ingestion and digestion of the dry grass. Feeding the more vulnerable cattle on legumes will do much to improve cattle performance.

Leucaena, planted in rows 2-3 meters apart is being used in West Africa. It is cut at the end of the dry season and the stalks remain in the inter lines for 2 or 3 days until they shed their leaves which serve as fertilizer. Then maize, beans and other food crops are planted in the inter-rows. The stalks serve as firewood for cooking. In Mozambique this system has been tested by the Animal Production Institute and the extension services in Gorongosa.

As the potential exists to establish more beef fattening units, according to market development (demand of meat), graduates or students from the Agricultural Institute will need to learn as well at different learning places “on-the-job” (extension work with cattle raisers, marketing of cattle to the slaughter houses, etc) how to manage such a business with success.

Source: Summary of feasibility study “Meat production and cattle fattening units” – Beira Development Corridor, 2002.

Zambezi Valley:

Main business opportunities arise from investment in mining and agriculture (rice and fruit production and processing and timber harvesting and processing). Specific identified anchor projects have not yet started up, due to missing transport infrastructure (SENA line) making for instance Moatize mine operation less feasible. It is most probable that, after completion of SENA railway rehabilitation, Moatize coal mine will be explored soon by a big international mining company in Mozambique.

Project profile 5:

Internships for students and graduates of National Institute of Geology and Mining of Moatize

Motivation:

The main provider of technicians in mining and geology is located in Moatize at National Institute of Mining and Geology. Besides the general technical education program, the Institute promotes technical training courses in small scale mining. Annual output of graduates does not exceed 20 students. In general, the 4 year program (equivalence to 12th grade of general education system) counts with more than 4400 hours. Out of total, one third of program is covered by general disciplines, whereas two third of the program is made by subjects and disciplines related to geology and mining (each of them separated programs). About 700 hours (15% of total) is spent for practical exercise and internship purposes, normally being used from students to prepare the thesis for completion of graduation.

Generally, the Mining Institute does not have direct access to foreign investors to promote actively the products and services and to establish partnerships. This reduces internship opportunities for students and somehow reduces relevance of VE and VT programs.

Therefore, the Mining Institute is highly interested to be involved in occasions where Mozambican public sector is dealing with potential investors in the country in order to sort out how investment in the field of mining and geology is about to take place. Foreign investors will have the advantage to get some insight to HR related questions, setting up partnerships with the National Institute of Mining and Geology in Moatize.

Vision:

The National Institute of Mining and Geology in Moatize is a known partner to potential investors in Mozambique. From case to case, decisions are taken in how far a partnership can raise benefit to both of the partners. Students and graduates realise internship programs with companies investing in mining industry and, eventually both take this opportunity to establish apprenticeship or even work contracts. Ideally, this type of placement instrument can be successfully replicated in other trades.

Objectives:

- National Institute of Mining and Geology in Moatize creates its own homepage and creates a link to the “TVET training village”
- Whenever possible, National Institute of Mining and Geology in Moatize and Investment Promotion Centre (CPI) / Confederation of Business Associations (CTA) keep in close contact to one another in order to prepare proposals to potential investors, how part of HR related questions of investment project can be worked out and solved in partnership.

- National Institute of Mining and Geology in Moatize offers to young professionals and students in the final stages of their studies more opportunities of practical exercises and apprenticeship in companies.
- Apprentices feed back information and experiences to National Institute of Mining and Geology in Moatize, in order to improve continuously learning programs and output.
- In a further step, National Institute of Mining and Geology in Moatize qualifies for providing more relevant and technologically more sophisticated courses to other potential clients in the region or even nationwide.

Products:

- A homepage with all relevant information about National Institute of Mining and Geology in Moatize. (The Institute already possesses a Computer Centre).
- Proposals to industry with support of Investment Promotion Centre (CPI) / Confederation of Business Associations (CTA) / provincial government and relevant governmental bodies of VE and VT.
- Partnerships with industry for a) promoting placement to students, b) get access to technological data for improvements in own programs delivery, c) offer more relevant services to other potential clients.

Nacala Development Corridor:

Especially in Cabo Delgado, the tourism industry will be one of the outstanding sectors for promoting employment and income opportunities. Pemba Beach Hotel has been identified to be an important partner to set up a training partnership between several private and public partners.

Project profile 6:

Vocational Education and Training to prepare manpower for tourism industry.

Motivation:

At present, hospitality industry and tourism development in general rely mostly on HR not qualified to an occupation in the tourism field. The only programs that exist to cover a growing demand of higher skilled professionals is the Higher Education Vocational Education through Catholic University , with an output of about 100 graduates in 2004/5.

Vision:

Until now, a countrywide unique approach to make VE more relevant has been undertaken. Both partners, the business partner interested in employment of qualified manpower (Pemba Beach Hotel) and the provider have set up an internship program, where students stay the most time at workplace in several functions. Monitoring of training outcomes is realized together and happens twice a month. Examinations and test are jointly realized and the whole curriculum is about to be reformulated out of this experience.

The objective is to turn the higher education program in the tourism field more relevant and support through the partnership the placement of graduates and students.

From an economic point of view, resources are spent inefficiently for gaining qualified manpower at technician and associated professional level or even at clerks level. From an economic perspective, the placement of job seekers with a lower academic level (between

10th and 12th grade) for corresponding job profiles in addition to the supply of graduates from higher education could lead to a more efficient resource allocation.

Under this perspective the proposed project profile has to be considered as an attempt to promote training in partnership of public and private partners for occupations in the hospitality and services field to satisfy a growing demand of qualified manpower (expansion of investments in the hospitality industry and possible establishment of the International Airport of Nacala).

Objectives:

- Training provision in strategic occupational fields of hospitality industry, such as “table attendants, housekeeping, food & beverages administrators, receptionists”.
- Set up of VT programs in the fields of transport, logistics and community development in order to prepare qualified manpower for jobs in related fields of hospitality industry, like transport, game, crafts, markets (drivers, guides, Arts & Crafts shop operators & managers, car rental, promoters of local food and products, etc).
- Making use of experiences from the partnership between Pemba Beach Hotel and Catholic University for establishment of new programs in VE and VT (Commercial School in Pemba and possibly VT centers, run by public sector and/or clerical organizations.

Products:

Product 1:

Learning programs in place and provided by providers like Commercial School of Pemba together with private partners. Such a learning program should develop on following units (example: table attendant).

Table attendant (personal management and work situations)

- Dealing with customers
- Processing incoming and outgoing information (all type of communication media)
- Verbal and written communication
- Team work and effective working under different working circumstances
- Work security and safety
- Maintaining health, hygiene and a professional appearance
- Perform basic calculations
- Manage resources and stocks
- Develop self within job profile (career and learning pathway)

Table attendant (managing tools and work situations)

- Maintain and develop data in a computer
- Prepare and clear areas for table service
- Provide a table service
- Provide a table drink service

- Provide a buffet service
- Provide a silver service
- Serve bottled wines
- Provide a room service
- Maintain quality control at work

The learning program has to be linked necessarily to the labour market (needs assessment) and be in line with available resources. It is suggested to proceed like described from page 70 onwards in this document in order to link “contents and qualifications” to the labour market.

Product 2:

A partnership between business and training provision (either public or private) in place that could be an instrument to establish quality standards and control mechanisms.

Product 3:

Finally, establishment of a VE scheme, such as providing students of the 10 th grade (entry requirement) with a 2 to 3 year occupational VE program relevant to the labour market. Subsequently, these students can continue their “learning pathway” with enrolment in higher education (Faculty of Tourism of Catholic University), probably in a “work-study-shift”, on the one side being professionally involved in a Hotel/Lodge/etc. and, on the other side in continuation of the respective studies.

Latter product, is the tentative to seek for a more systemic approach on offering a TVET structure which is in accordance to different job profiles and standards. It is probably the only way, to give substance to a National Qualification Framework, where the “learning pathway” is formalized. As well, the idea to integrate different subsystems of TVET (VE, VT and higher education VE and VT) at different levels is given substance, in efficiency terms and in terms of supplying Mozambican labour force with training opportunities that respond to the different labour market segments.

Funding:

With a strong private investor, a proposal could be submitted to the Business Linkages Challenge Fund seeking to improve training provision in a systemic way contributing with an innovative approach for more productivity of Hotel businesses.

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14. Annexures

14.1. Terms of Reference

Consultancy on strategy for HR Development in the Development Corridors Maputo, Limpopo, Beira, Zambezi Valley and Nacala under the Spatial Development Initiative (SDI).

Introduction and background

As an integral part of social and economic development within the SADC, since 1980 Mozambique has been developing its transportation and communication infrastructure.

The Mozambican Government has joined the Spatial Development Initiative (SDI) programme (introduced by South Africa's Department of Trade and Industry in 1996), in order to create an enabling environment:

- attracting foreign and domestic direct investment;
- promoting public and private sector partnerships;
- acting as a catalyst for socio-economic growth and job creation.

Following the priorities of economic and social development, Mozambique has established the following development corridors:

- Maputo Development Corridor
- Limpopo Development Corridor
- Beira Development Corridor
- Zambezi Valley Corridor
- Nacala Development Corridor

Since the starting point of their establishment, the Development Corridors have been attracting a large number of mostly capital-intensive FDI projects like MOZAL, Corridor Sands, SASOL Pipeline, etc.

Also several more job intensive investments were undertaken in industry, agriculture, agro-processing, transport and communication infrastructure and tourism.

Experience shows that most of these projects settle themselves along the Corridors, due to the availability of resources (energy, port infrastructure and services, mineral deposits etc).

The promotion of a political stability atmosphere associated with the adequate legislation of investment is also a factor that makes the investors locate their projects along Corridors.

According to data from CPI, most of the large projects are capital intensive and have a little impact on providing new jobs. The MOZAL Aluminium Smelter project serves as one example, where the job creation impact was much less than expected. Training provision at Machava Training Centre (Maputo) was generated within a Public-Private-Partnership. The provision of training has been designed mainly in order to satisfy the need of manpower for the construction time of MOZAL I and II. The required manpower has been trained in few weeks time in order to satisfy simple jobs

on the construction site. Nowadays the majority of the manpower is unemployed and unable to supply services related to specific trades.

After all it is possible to note (capital intensive projects) that:

- In the construction phase these projects employ many people, especially the less qualified;
- The investors spend money on training, especially to secondary level education (upgrading managerial skills in order to create a Mozambican mid management);
- In the operation phase the projects employ mostly foreign employees, especially to the supervision and leadership positions.

Projects with higher job generating characteristics (investments in tourism, agro-industries, manufacturing, mineral resource beneficiation) tend to:

- Employ local labourers in the construction phase;
- Establish labour relations to communities (not always respecting the legislation);
- Upgrade skills of Mozambicans at operational and supervision level.

To attract investment for the development corridors it is crucial to reduce the absence of qualified labour force, which is hampering the settlement of new investors and the growth of existing investment projects.

A highly skilled labour force can constitute an additional incentive to investors for the following reasons:

- They minimize or eliminate the need of the investor to develop skills;
- Investors' costs are reduced, limiting the need to hire foreigners.
- At the country's point of view, skilled labour force present the following advantages:
 - They take advantage of the upstream and downstream opportunities of projects installed;
 - They are better prepared for decision making on self-employment;
 - The base for collection of taxes is broader.

Objectives and purposes

The study can be seen as a starting point to establish a Human Resources Development Program along the Corridors, offering an additional benefit to investors during preparation and initiation of their investment in Mozambique.

The study considers identified ongoing investment projects and projects ready to start within the development corridors.

The study shall give a strategic consideration to several key elements and factors (legislation, financial sources, qualification and skills, partnerships) which have to be taken into account in order to reach the objectives and purposes.

Specifically, the study shall address to the following objectives:

- Mozambicans capitalize on employment opportunities generated by investors and employers;
-

- Key elements for partnerships between the investors and the community are identified in order to ensure a maximal benefit for communities by enabling direct and indirect income generation.

The main purposes of the study are three-fold:

- *Diagnosis and proposals* how mismatches between demand on and supply of qualified Mozambican labour force can be reduced and investors supported (according to existing legislation and regulations) to employ Mozambicans.
- *Diagnosis* on in how far investors and employers know about training provision (private and public).
- *Strategy and proposals for implementation* of partnerships for Human Resource Development to overcome the leakage of scarce qualified Mozambican labour force and enabling income generation for communities.

The study shall as well address to the following issues:

- The significance of expatriates in the investors workforce
- The selection procedures of Mozambican workforce
- Gap of skills at begin of investment and current stage of investment
- Training initiatives and its lessons learnt
- Higher and fire and headhunting - consequences and lessons learnt
- HIV related questions

Methodology

Primary sources data will be made available by the managers of the development corridors and investors and other stakeholders.

The study includes a survey using the most appropriate methodology for gathering other important data and information.

Scope

The study will be conducted along the Development Corridors and will be based on priorities defined under the five years Programme of the Government of Mozambique, the Investment Policy and Guidelines, and taking into consideration the strong need for the development of a private sector in Mozambique.

The study will consider mainly identified existing and proposed investment projects, conducted by sectoral analyses of each Corridor.

Desired results

Specifically, the study shall address to the following outcomes:

- Inception report
- Diagnosis report
- Strategy report

By end of the study, at least an investment project in each Corridor shall capitalize on partnerships , which in future provide a more skilled workforce and can offer income opportunities to the local community.