

Namibia
Financing and Funding
Vocational Education and Training

GOPA study VET
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Abbreviations

DVET	= Department of vocational education and training (Ministry of Education)
EU	= European Union
ISC	= Industrial Skills Committee
NTF	= National Training Fund
NTA	= National Training Authority
PMU	= Project Management Unit
P	= cost per trainee per year
Q	= number of trainees enrolled
SOE	= State Owned Enterprises
SSC	= Shared Service Centre
SME	= Small and Medium Sized Enterprises
VTC	= Vocational Training Centre
VET	= Vocational Education and Training
VTP	= Vocational Training Provider
WVTC	= Windhoek VTC

Executive summary

The system of financing and funding¹ of vocational education and training has been reviewed. A 5 year financial forecast has been made based on a projected expansion in the number of trainees with some of the expansion being made through efficiency gains.

Rules and regulations

Each VTC is virtually a unique institute, regarding the duration of the annual training program, division of training hours among theory, practice, general subjects, job-attachments, employment conditions of instructors and trade test pass rates. A coherent system of rules and regulations should be imposed on VTCs and enforced by the Ministry of Education/NTA. A precondition for any transparent and equitable funding system is a coherent system of rules and regulations.

Expansion of VET

The number of trainees (depending on government funding) could be doubled between 2009 to 2014 partly through efficiency gains. Starting from 2011 it is assumed that KAYEC and NAMwater VTC will be funded by the Government. As the planned Government financing of VET over the next 5 years will be constant it will be necessary to fund the expansion in trainee numbers through a 1% training levy imposed on companies which will provide the additional funds required to balance expenditures and revenues.

1% levy-scheme

The 1% levy imposed on companies could generate about N\$ 78 million per year for the National Training Fund by 2013. Included in the levy scheme will be private companies having more than 10 employees. A precondition for the functioning of the levy scheme is that an major part of the revenues (50%) are channeled back to the private sector, through the Industry Skills Committees for the financing of skills upgrading. The levy scheme must be operational by 2011, and be fully operative by 2013 if the financing model proposed here is to work.

Dynamic funding model

It is recommended that a dynamic funding model is introduced. This model is a coherent system of: (1) input and output funding for initial vocational training, and (2) tender procedures for funding of initial and continuous vocational education and training.

It is demonstrated that the dynamic funding model is financially feasible. Revenues and expenditures are balanced. The VET-system is based on multi-funding: government, donors, the 1% levy-scheme, and money generated by commercial activities. Performance indicators and financial incentives are incorporated to steer the training activities of training providers.

Components of the dynamic funding model

Lumpsum funding derived from $P \times Q$

- It is proposed that the funding of initial vocational education and training is based on a formula derived from P (unit cost per trainee) \times Q (performance based on results of the trade tests) which introduces a financial incentive to vocational training providers that

¹ Funding is the distribution of money, while financing reflects to how money is raised.

improve their trade test pass rates. The results of the overall trade testing are valued as follows:

Q for year t = 110% if the pass rate is between 80 – 100% for year t -1

Q = 95% if the pass rate is between 70 - 80%

Q = 90% if the pass rate is less than < 70%

Promoting commercial activities of training providers

Incentives for promoting commercial activities and income by training providers. It is expected that training providers will generate at least 5% of their budget (lumpsum, P x Q) through commercial activities. The incentive will be 150% of the revenues generated by commercial activities. This match funding incentive scheme will be administered by the relevant Industrial Skill Committee and financed from the 1% levy (National Training Fund).

Promoting continuous vocational education

Continuous vocational education and training. Any training provider may opt for a contract to execute these training course. The Industrial Skill Committee will administer the training courses for skill upgrading and funds skill upgrading. The funds will be obtained from the 1% levy (National Training Fund).

Allowances for job-attachments

Allowances to promote job-attachments of trainees. The allowances are funded from the 1% training levy (National Training Fund). The Industrial Skill Committee administers the allowances for job-attachments in its own occupational sector.

1. Introduction

This report is about the financing and funding of vocational education and training (VET) in Namibia. The report starts with a financial review of the existing system. The results of the review have been used to make a forecast for the future financing and funding of VET.

Specific elements covered in this report include:

- Transparency and equity
- Unit cost per trainee per year.
- Internal efficiency of different types of training providers
- Ratios of trainees to instructor
- Performance indicators
- Forecasting number of trainees and the impact on the budget for VET
- Multi-funding or cost-sharing
- Potential shortfall in funding
- Predicting the year in which there is a shortfall of funding
- Revenues from the 1% levy
- Distribution of the revenues from the levy among stakeholders
- Incentives to enhance the quality and functioning of training providers

Finally, all elements are being used to construct a coherent system of financing and funding in order to equip and prepare the VET system for the challenges of the knowledge-based economy. The coherent system proposed in this document for financing and funding is called **Dynamic Funding Model**.

Recommendations comply with the following preconditions:

- Transparent and simple
- Easy to implement
- Acceptable to stakeholders
- Stable and predictable funds to finance initial vocational education and training

To get an understanding of the functioning of the system in practice the following sites were visited: Windhoek VTC, Okakarara VTC, NIMT, KAYEC trust, COSDEC Swakopmund, NAMwater VTC, Namport, Namfi VTC for seafarers and fishermen

References on CD Rom:

- CD-Rom 1: (1) Report on financing and funding VET (Word file)
(2) Unit Costing Model (Excel file)
(Chapter 2)
(3) Budget forecast (Excel document)
(Chapter 5, 7, 8)
(4) 1% levy (Excel document)
(Chapter 6)
- CD-Rom 2: Background data (Excel document)
(1) Chapter 3
(2) Chapter 4

2. Unit Costing Model

The Unit Costing Model is used to calculate the average cost per trainee per year.

The aims of the Unit Costing Model are:

- To have a reference point to evaluate the cost per trainee per year based on the actual costs incurred by vocational training providers to train and accommodate one trainee for a period of one year.
- To have a reference to evaluate the cost of training as a pivotal part of forecasting costs to train and accommodate trainees.
- To have a reference figure to evaluate the unit cost per trainee allocated by the Ministry of Education to semi-autonomous training providers (Windhoek VTC, NIMT).
- to establish the basis of unit funding based on $P \times Q$ (P = cost per trainee per year, and Q = number of trainees enrolled).

Basis of the Unit Costing Model

The model is based on two separate cost centers:

1. The cost directly related to the cost of delivering the training related to the annual training program. This traces the cost associated with the required teaching time to be delivered by the instructors of the VTC.

Example:

Suppose, (1) an annual training program encompasses 1200 instructional hours per year, (2) an instructor has 8 contact hours per day, and (3) the instructor has 1700 working hours per year. The required teaching time is 1200 divided by 1700 or 71% of the instructor time. Next, 0.71 multiplied by a salary gives the cost of training. In practice it is a bit more complex and requires differentiation among different training providers. So, the Unit Costing Model is fine-tuned by taking into account the ratio of trainees to instructors, preparation time and contact hours per day, distribution of teaching hours among theory, practice, general subjects and job-attachments.

2. The cost related to the overheads and operation of the VTC. These are the costs for management and administration, equipment and materials, stationary, fuel, site running costs, etc. Totaled and divided by the number of trainees actually trained (excluding trainees on job- attachments) makes up the cost per trainee attributable to these overheads.

These operational overheads have been arrived at through comparison with those derived from international experiences². The results have been cross-checked with the accounting system of Windhoek VTC). The results of Unit Costing Model are consistent with the accounting system of Windhoek VTC (used as the reference VTC).

² Experiences of André Peer, countries: Hungary (wine sector), Romania (shipyard sector), Serbia, Syria, Republic of Moldova, The Netherlands. The experiences are underpinned by the English system of unit costing of vocational education and training.

The Unit Costing Model has been used as a reference for the review of the costs per trainee for the following VTCs:

- Windhoek VTC
- Government VTCs
- NAMwater VTC
- KAYEC trust

A pivotal element of the review is the cross-check of the results from the Unit Costing Model with the available accounting documents of VTCs. The review is based on the similarities and differences between the cost stated by the reference model and the actual cost incurred by VTCs. The above mentioned VTCs, authorized the use of their financial documents for the review.

The Unit Costing Model has been used for:

1. Reviewing the system of vocational education and training (chapter 3 and 4, review of VET financing at micro and system level).
2. Calculating the cost of expanding the VET-system by a planned increase of the number of trainees (Chapter 5: Budget planning and budgeting).

Comment: The Unit Costing Model has been applied on the ongoing system of vocational training of trainees for level 1, level 2 and level 3. However, this traditional system is gradually being replaced by a modular, competency-based system.

The Unit Costing Model can be easily adapted to the new system:

- The unit cost per trainee based on the teaching hours per level will **not** change the structure of the Unit Costing Model. The calculation of the cost is based on the average hours of a teaching program. This may be one year, but can be shorter as structured in the competence based and modular training system.
- Using the Unit Costing Model to calculate the cost of trainees will be different for a competency based training system.. Here the unit cost per trainee will determined by the indicative hours of training required to achieve a certain level of skills competency to a certain level.

3. Review of VET Financing at the Micro Level

Findings

The internal efficiency of the VET - system has been reviewed. The review is based on analyzing the cost per trainee per year. The cost per trainee per year is derived from two sources:

1. Based on a Unit Costing Model (see chapter 2)
2. Based on the budget of the VTC

The Unit Costing Model is based on deriving costs from cost centres. The first is related to the cost of instruction, and the second is related to the operational costs for the VTC.

The instructional costs are based on:

- Annual teaching hours and division of hours among lessons for: theory, practice, general subjects, and job attachments.
- Conditions of employment of the teaching staff: working hours per year, working hours per day, contact hours, and salary.
- Ratios trainees per teacher for theory, practice, general subjects.

The cost per trainee per year based on the budget of the VTC is derived from:

- Operational expenditure of the VTC.
- Actual number of trainees in the VTC. The trainees on job-attachments are excluded from the cost per trainee per year since they do not incur costs in the VTC. Moreover, trainees on job-attachment have limited formal contact with the VTC during the practical work in the company.

The review of the efficiency of VET - system has been undertaken for the following types of VTCs:

- Government VTCs (Okakarara, Rundu, Zambesi, Valombola).
- Windhoek VTC and NIMT³
- NAMwater VTC
- KAYEC trust

Government VTCs are funded directly via the Ministry of Education. The government VTCs are not managing their budget themselves. Any expenditure has to be approved and made to suppliers by the Ministry of Education.

Windhoek VTC and NIMT are autonomous legal entities. The Government owns the shares of Windhoek VTC (through the National Vocational Training Board); and a board of trustees governs NIMT. Windhoek VTC and NIMT are funded by an annual allocation of N\$ 16,000 per trainee per year from the Ministry of Education (2007 -2008). A part of N\$ 16,000 is directly allocated to the VTC N\$ 10,500; the other part N\$ 5,300 is an indirect allocation via a loan (arranged by the Ministry) to the trainee of N\$ 5,300.

NAMwater VTC is part of the state owned enterprise NAMwater. The government owns the shares. The SOE NAMwater subsidizes NAMwater VTC. Nevertheless, trainees have to pay a

³ At this stage of the review, the financial figures of NIMT were not available. A crosscheck between the Unit Costing Model and the actual financial situation of NIMT was not possible to execute. Therefore, NIMT is not included in the analysis.

fee of N\$ 2,700 per year (level 1), N\$ 3365 per trainee per year (level 2), and N\$ 2244 per trainee per year (level 3).

KAYEC trust is a faith-based organization (Anglican Church). KAYEC relies heavily (95% of income), on donor funding (EU). The rest of the budget is covered by a trainee's fee ranging from N\$ 600 to N\$ 800.

- **Transparency and equity**

There is no coherent system of financial rules and regulations applicable to VTCs and enforced by the Ministry of Education. A precondition for any transparent and equitable funding system is a coherent system of rules and regulations.

Each VTC is virtually unique e.g. the duration of the annual training program, division of training hours among theory, practice, general subjects; job-attachment; employment conditions of teachers and trade test pass rates. This situation reflects the different history of each centre in relation to its (1) foundation, (2) (past) relationships with donors, and (3) cooperation with the business community. See Annex 1 for key parameters for each of the different types of VTCs.

For the purposes of this review, it is assumed that the annual training plan for all governmental VTCs have the same structure, time scale, and teaching hours.

- **Ratio trainees to instructor**

The average ratio of trainees per teacher is as follows:

Figure 3.1: ratios trainees to instructor

2007	Gross ratio	Net ratio
Governmental VTC	1 : 13.5	1 : 9
Windhoek VTC	1 : 20	1 : 15.5
NIMT		
NAMwater	1 : 25	1 : 25
KAYEC trust		1 : 15

Definitions:

Gross ratio: total number of trainees divided by the available instructors.

Net ratio: trainees in the VTC – excluding trainees on job-attachments - divided by available instructors. Available instructors are the number of instructors actually employed in the VTC – excluding vacancies.

- **Job-attachments**

The number of trainees enrolled in a VTC, but on job-attachment are about 33% (1/3rd of the trainees) of the total trainees enrolled. However, not all trainees are on formalized job-attachments. The actual number of trainees on job-attachments fluctuates. Okakarara VTC and NAMwater VTC have around 30% of the trainees on job-attachment at any one

time. Trainees not having a formalized job-attachment, have to find an attachment for themselves in the informal sector.

- **Remuneration of teaching staff**

Unique to each VTC is the remuneration of the instructional staff. Remuneration of the instructors is a major cost element of the unit cost of each VTC. The following figure 3.2 gives an overview:

Figure 3.2: full time remuneration for staff in different VTCs

VTC	salary package “Weighted average” teaching staff N\$ p.c.m
KAYEC trust	5,300
Government VTCs (4)	10,500
Windhoek VTC	13,237
NAMwater VTC	14,167
NIMT	18,800

- **Cost per trainee per year based on the unit costing Model for the four Government VTCs.**

The following figure⁴ gives an overview of the cost per trainee for government VTCs. (Okakarara, Zambezi, Valombola, and Rundu).

Figure 3.3: cost per trainee per year based on the budget and Unit Costing Model

2007 - 2008 Government VTCs Current expenditures	Code no.	Gov. VTCs N\$
Full salary package	1,2,3	15,269,000
Domestic	21	640,000
Stationary / goods	22	1,318,000
Transport / fuel	23	
Communication	24,25	2,119,000
Upgrading / catering	27	3,570,000
Other	41, 42	
Fund	43	
Equipment (capital)	101,103	900,000
Other	44	
Scholarships		
Total budget governmental VTCs		23,816,000
Total no. of students		1,162
Cost per student per year		20,496
Unit Costing Model		17,525
Unit allocation to Windhoek/NIMT		16,000

⁴ Financial statements of income and expenditures of centres funded by the government 2007- 2008, Ministry of Education.

The cost per trainee based on the budget prepared by the Ministry of Education is N\$ 20,496 per trainee (for government VTCs). However, the Ministry of Education must authorize spending. Budgeting is not more than a forecast of the budget to be allocated by the government. Actual spending could be much lower.

The cost per trainee per year (average over 3 years) derived from the Unit Costing Model is N\$ 17,525 per year for a government VTC. The unit cost allocated by the VET Directorate to fund the semi-autonomous VTCs (Windhoek VTC and NIMT) is N\$ 16,000 per trainee per year.

Based on these figures (N\$ 17,525 compare to N\$ 16,000), it may be concluded that the annual budgeting of the VTCs is based on an annual incremental increase. It seems not to be based on an accurate annual re-assessment of the real financial needs of a VTC.

- *Overview of cost per trainee (figure 3.4)*

The benchmark used for setting the cost per trainee per year is Windhoek VTC and NAMwater VTC. Both, VTCs are well organized. The cost per trainee per year is N\$ 16,700.

Figure 3.4: overall cost per trainee per year

2007 - 2008 N\$ Cost per student per year	Unit Costing Model level 1, 2, 3	Based on actual budget
Governmental VTC	17,525	20,547
Windhoek VTC	16,724	16,945
NIMT		
KAYEC Trust	11,166	11,866
Namwater TC	16,048	16,957

Related to the kind of curriculum (distribution of hours among theory, practice, and the importance of general subjects) and the conditions of employment at Windhoek VTC and NAMwater are organized according an European-type of training model.

One issue to mention is, that the average number of trainees per instructor should be 15. This average is based on the real number of trainees in the VTC, excluding the trainees on job-attachments⁵. But actually, this ratio is not achieved as it is closer to 9.

- KAYEC⁶ is an exception among the other VTCs. It is a very lean organization, with low overhead and on-site running costs. Moreover, the salaries of the teaching staff and other staff are low compare to the average in other VTCs. For example, the average full-time salary package of an instructor employed by KAYEC is about N\$ 5,300 per month. This is low compared with the full-time average salary package of an instructor in Windhoek VTC (about N\$ 13,237 weighted average), or compared to a government VTC (about N\$ 10,500).

⁵ On average 1/3 (33%) of the trainees are on job-attachment or out of the VTC (and should be on job-attachment).

⁶ KAYEC Trust is a faith-based organization related to the Anglican Church. KAYEC relies heavily, for 95%, on donor funding. The rest of the budget is covered by a trainee's fee of about N\$ 600 to N\$ 800.

- **Cost per trainee per trade training area**

Each type of VTC has its own unique annual training program, regarding the total annual teaching hours, division of hours for theory, practice, general subjects, and days for job-attachment. This training program is the same irrespective of the trade training area. All trainees, in the different trades have the same costs.

- **Justification of the unit costing of Windhoek VTC by the Government (figure 3.5)**

Windhoek VTC is used as the basis for calculating the benchmark unit cost per trainee. The calculated cost per trainee per year (Unit Costing Model) corresponds with the outcome of the budgeting process of Windhoek VTC. The difference in the unit cost of N\$ 16,000 allocated by the Ministry of Education and the calculated cost per trainee per year N\$ 16,724 (Unit Costing Model)

Figure 3.5: Unit Costing for Windhoek VTC

2007 - 2008 N\$ Windhoek VTC (calculated / modelling)		Cost per student per year
Cost per student per year		16,724
Contribution government		16,000
Financing deficit per student		724
		x
Number of students		600
		=
Running deficit	N\$	434,400
Actual annual deficit 2007	N\$	509,375

The unit cost of N\$ 16,000 per trainee allocated by the Ministry of Education to fund Windhoek VTC is less than the actual cost which means that the Windhoek VTC is running a deficit of N\$ 509,375 (2007).

- **Justification of the trainees' fee levied by Windhoek VTC**

In addition to the loan that trainees take out they are charged an extra annual fee by Windhoek VTC. The policy of Windhoek VTC seems that the supplementary fee should cover the cost of instruction and not of the overhead. See the following figure 3.6.

Figure 3.6: Windhoek VTC, justification for the trainees' fee

2007 - 2008 N\$ Windhoek VTC	Cost per student per year N\$			
	Level 1	level 2	level 3	average
Cost of teaching time	8,054	8,005	5,718	7,259
Student loan	5,300	5,300	5,300	5,300
Financing deficit	2,754	2,705	418	1,959
Windhoek VTC				
Extra annual contribution students	2,800	2,400	2,000	2,400
Cost covering				-441

Windhoek VTC charges trainees a supplementary fee ranging from N\$ 2,800 to N\$ 2,000 per trainee per year. This fee charged by Windhoek VTC nearly covers the gap between the income from the trainees' loans and the actual cost of teaching. In this respect, the policy of Windhoek VTC is defensible.

- **Distribution of costs among different cost-items (see figure 3.7)**

Again Windhoek VTC is used as the baseline (benchmark) for calculating the distribution of costs between teaching and goods & services: 64 % for staff and 36% for goods & services.

Figure 3.7: percentage of expenditures for full-time staff salaries and goods and services

2007 - 2008 N\$ Current expenditures	Code no.	Okakarara VTC	Rundu VTC	Valombola VTC	Zambesi VTC	Windhoek VTC
Full salary packets	1,2,3	67%	64%	70%	65%	64%
Domestic	21					
Stationery / goods	22	29%	31%	27%	30%	29%
Transport / fuel	23					
Communication	24,25					
Upgrading / catering	27					
Equipment	101,103	4%	4%	3%	5%	7%
Total budget governmental VTCs		100%	100%	100%	100%	100%

Valombola VTC has a much higher percentage of staff costs compared to the benchmark⁷. In addition, the staff costs of Okakarara VTC vary from the benchmark.

- **Differences between fixed and variable costs**

The budgets of the government VTCs do not detail the variable and fixed costs:

- (1) Variable costs are the costs directly related to the teaching process.
- (2) Fixed costs are the overhead and centre operational costs (management and administration, utilities, laborers, hostel, etc.)

The distinction between fixed and variable costs is important:

Variable costs gradually change with the increase of the number of trainees.

Fixed costs are much more independent from the number of trainees. For example, a VTC does not need proportionately more managers and administration if the number of trainees goes up.

The budget of the VTC can be distinguished in two parts: one part is related to the costs of the teaching process, and the other part is related to the costs of overhead. Any substantial increase of the budget for VTCs should be based on the distinguish between variable and fixed costs. If not, there is no any certainty that the teaching process will benefit from the increase in the budget. Moreover, this uncertainty is enhanced by the lack of a regulating framework for VTCs and enforced by the Ministry of Education.

⁷ The benchmark is set by Windhoek VTC and NAMwater VTC. The actual cost for teaching staff of Windhoek VTC and NAMwater VTC corresponds with the calculated cost of teaching staff based on the Unit Costing Model.

- **Cost of instructors**

The costs of instructors cannot easily be extracted from the budget of the VTCs. The actual costs of instructors has been calculated by using the staffing lists and the average weighted salary. The cost of instructors can be accurately calculated using the Unit Costing Model. See the following Figure 3.8 for the differences between the actual cost of instructors and using the Unit Costing Model.

Figure 3.8: cost of instructors

2007 - 2008 N\$	Number students	Unit costing model		Actual	
		Average	Instructors	Total Budget	Cost of full time Teaching staff (as % budget)
Okakarara VTC	340	14,706	35%	5,845,000	45%
Governmental VTC	1,162	17,525	35%	23,876,000	45%
Windhoek VTC	600	16,724	43%	10,166,787	42%
NAMwater VTC	210	16,048	36%	1,190,000	33%

The calculated cost (Unit Costing Model) and the actual cost of instructor staff for Windhoek VTC and NAMwater VTC are very similar. Therefore, Windhoek VTC and NAMwater VTC set the benchmark.

It seems that the government VTCs are overstaffed. According to the calculation based on the Unit Costing Model 35% of the government VTC budget should be for instructor costs. The actual cost is closer to 45%.

Windhoek VTC benefits to a limited extent from the economies of scale. This is reflected by the lower percentage of teaching cost (42%) as part of the total budget of the VTC (see figure 3.8).

- **Internal efficiency**

Potential efficiency improvements could be gained through:

1. Improving efficiency by an increase of the pass rate of trade testing.
2. Improving efficiency by full use of available instructor time (more classes).
3. Improving efficiency by an increase instructor/trainee ratio (bigger classes).

The efficiency improvements are expressed as a potential increase in the number of trainees to utilize the full capacity of the VTC.

First, the results of the efficiency calculations (figure 3.9).

Figure 3.9: results of the efficiency calculations

Efficiency improvement of government VTCs	Increase of trainees		% efficiency improvements
Number of students enrolled		1,364	
Increase of the passing rates of test trading	139		10%
Full use of redundant teaching time of available teachers	128		9%
Increase of ratio students to teacher, from 9 to 15 students per teacher	420		31%
Efficiency improvement	687		50%

The efficiency calculations are based on an enrolment figure of 1,364 students. Total enrolment is derived from the highest number of trainees in the two preceding years.

Based on the efficiency calculations: the capacity of the government VTCs is seriously under utilized. The governments VTCs are operating at 50% of their capacity and available resources for the remuneration of instructor staff. The government VTCs could absorb 1,987 trainees, instead of the actual number of 1,364 trainees. This is an increase of 687 trainees.

This increase is related to: (1) full use of available instructor time, (2) increase in the number of trainees per instructor, and (3) increasing passing rates of trade testing. The efficiency increase makes full use of instructor capacity.

However, such an increase in trainee numbers effects other cost-items:

- An increase in the cost of the physical infrastructure of the government VTCs: classrooms and workshops.
- An increase in the material costs, equipment, tools and textbooks.
- An increase in the cost of accommodation of the trainees.

Improving efficiency by increasing the pass rate of trade testing (at all levels)

See annex 2 for a full overview of the figures explaining the efficiency improvements by improving the NTTC trade test.

The average number of trainees failing trade testing at level 1, 2 and 3 is 38%. Included are Windhoek VTC, Government VTCs, NAMwater, and NIMT. The lowest failure rate for trade testing is 22% (NAMwater); the highest failure rate for trade testing is 42% (government VTCs). See the following figure 3.10.

Figure 3.10: failure rate trade testing VTCs

N\$	students	failrate	failing
		trade test	
Governmental VTCs	729	42%	306
Windhoek VTC	399	40%	160
NAMwater	153	22%	34
NIMT	83	25%	21
Total number of students:		1,364	
Students failing to pass trade testing, level 1, 2 and 3:			520
Average failrate:			38%

NAMwater VTC sets the benchmark: 22%.

The average failure rate for government VTCs: 41%.

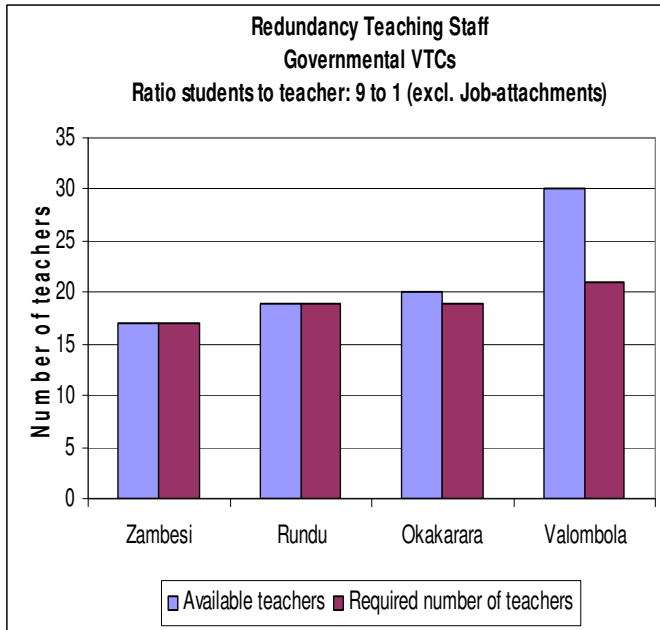
Bringing down the failure rate of the Government VTCs and Windhoek VTC from 41% to 22% implies an additional 170 trainees passing the trade testing.

The government VTCs should provide 139 trainees of these 170 trainees.

Improving efficiency by full use of available instructor time

First, there are huge differences in the efficient use of available instructor time among government VTCs (Figure 3.11). All this is based a ratio of on average nine trainees per instructor. Zambezi VTC and Rundu VTC are operating with the 9:1 ratio whereas. Okakarara VTC and Valombola VTC have a surplus of instructor time.

Figure 3.11: redundant teaching time of staff



On average, there is 9% oversupply of instructor time for all four government VTCs. Increasing the efficient use of instructor time would allow an increase of 128 trainees. Valombola VTC would adsorb the biggest part of the increase of 128 trainees.

Improving efficiency by an increase of the number of trainees per teacher

The average number of trainees per instructor for government VTCs is nine trainees per teacher. This ratio is based on the number of trainees, which are at any moment in the VTC for training. Excluded is the number of trainees on job-attachments. Increasing the ratio of trainees to instructor, from 9:1 to 15:1 has a huge effect on the growth of the number of trainees while the increase in costs is small. Increasing the ratio trainees per instructor to 15 : 1 would allow an increase of 420 trainees. This increase should be proportionally spread over the four government VTCs.

Included in the results of the efficiency gain, is a planning friction of 20%. The planning friction reflects the difference between the calculated internal efficiency and the practical problems of organizing the trainees according to the annual training program. Based on the expert’s experience⁸, a functioning VET centre could achieve an internal efficiency of 80%.

⁸ Experiences André Peer, in the following countries: The Netherlands, Serbia, Syria, Armenia, and sectoral experiences in Hungary and Romania.

- ***Hostels***

The Unit Costing Model shows that the cost of accommodation can vary between 2% and 5% of the budget of a VTC. For a limited facility, just offering accommodation (and not more) the cost is about 2% of the cost per trainee per year. For a better-equipped hostel, having sufficient staff, the cost can be up to 8.5% of cost per trainee per year. In both cases, trainees have to pay for their meals.

The cost of accommodation, adequately staffed, is about N\$ 1,300 per trainee per year (excluding the cost of food and maintenance of the building).

Review of the VET System at micro level: conclusions and recommendations (Chapter 3)

Conclusions

- Each VTC is unique regarding the duration of the annual training program, division of training hours among theory, practice, general subjects; job-attachment; employment conditions of instructors and passing rates of trade testing. This situation reflects the different history of each centre in relation to its (1) foundation, (2) (past) relationships with donors, and (3) cooperation with the business community.
- The ratio trainees per instructor in Government VTCs on average is 9 : 1. The ratio trainees per instructor in Windhoek VTC, NAMwater, and KAYEC is 15:1. These ratios are excluding trainees on job-attachment. On average, the number of trainees on job-attachment is 33% of the total number of trainees enrolled in a VTC.
- *Cost per trainee per year:*
The calculated cost per trainee per year based on the Unit Costing Model is N\$ 16,700 based on trainees to instructor ratio of 15:1.

Comments by type of VTC:

- NAMwater and Windhoek VTC: the actual cost per trainee based on the budget for Windhoek VTC and NAMwater VTC corresponds with the outcome of the Unit Costing Model. The trainees to instructor ratios are 15 : 1.
- KAYEC Trust: for KAYEC the calculated cost per trainee per year (Unit Costing Model) and the actual cost per trainee based on the budget is about N\$ 11,500. The differences between the cost per trainee results from a different instructor salary (full time salary for KAYEC N\$ 5,300 whereas Windhoek VTC N\$ 13,237 per month).
- Government VTCs: for government VTCs the cost per trainee per year based on the Unit Costing Model is N\$ 17,525 and based on the budget N\$ 20,496. On average, the ratio trainees to instructor are 9 : 1.
- *Internal efficiency of VTCs:*
The efficiency improvements are expressed as a potential increase of the number of trainees to utilize the full capacity of the VTC.
- Potential improvements of the internal efficiency could be gained through:
 1. Improving efficiency by an increase of the pass rate of trainees taking the NTTC tests
 2. Improving efficiency by full use of available instructor time
 3. Improving efficiency by an increase instructor/trainee ratio

Based on the efficiency calculations, the capacity of the government VTCs is seriously under utilized. The governments VTCs are operating at 50% of their capacity and available resources for the remuneration of instructor staff.

The government VTCs could adsorb 1,987 trainees, instead of the actual existing number of 1,300 trainees. This is an increase of 687 trainees.

1. Increasing the pass rates for trade testing from 55% (failure rate 45%) to the benchmark of 78%⁹ passing rate could enroll an extra 139 trainees.
2. Full use of instructor time by using all available instructor time efficiently could add another 128 trainees per year. Effectively, running more classes, but still based on trainees to instructor ratio of 9 : 1.
3. Improving the efficiency by an increase instructor/ trainee ratio. This could add another 420 trainees. The ratio trainees / instructor should raise from 9 : 1 to 15 : 1.

Windhoek VTC and NAMwater: Windhoek VTC and NAMwater have a high internal efficiency. They use the full capacity of the teaching staff to train a maximum number of trainees.

Recommendations

- A coherent system of rules and regulations should be imposed on VTCs and enforced by the Ministry of Education. A precondition for any transparent and equitable funding system is a coherent system of rules and regulations.

A coherent system of rules and regulations should comprise at least:

- A salary system,
- Number of annual training hours per year,
- Ratio trainees to instructor,
- Minimum and maximum level of lessons for general subjects,
- Minimum and maximum number of days per level for job-attachment,
- Number of annual working hours of teaching staff,
- Number of contact hours of teaching staff,
- Work load of trainees,

Windhoek VTC could set the benchmark. The annual training program, ratio trainees to instructor, division of teaching hours between practice and theory, contact hours of teaching is reflecting an European influence.

- The Government contribution of N\$ 16,000 per year per trainee is too low. It should be N\$ 16,724 per trainee per year. Therefore, an increase to N\$ 17,869 (including inflation: 7%) for the year 2008 – 2009 is required.

The budgets of the government VTCs do not differentiate between variable and fixed costs:

- (1) Variable costs are the costs directly related to the teaching process.
- (2) Fixed costs are the cost of overhead and the cost to run the school-site (management and administration, laborers, hostel, etc.)

The distinction between fixed and variable costs is important:

Variable costs gradually change with the increase of the number of trainees.

Fixed costs are much more independent from the number of trainees. For example, a VTC does not need more managers and administration if the number of trainees goes up.

⁹ The benchmark is set by NAMwater. NAMwater has a failure rate of 22% (level 1, 2 and 3).

Any increase in the budget for VET by the Ministry of Education should be justified by:

- A coherent system of rules and regulations to regulate the internal teaching and organizational process of a VTC. First, under utilization of the capacity of the government VTCs should be tackled.
- A coherent system of monitoring progress and the efficient use of the allocated budget to a VTC.
- A clear distinction between variable and fixed costs to run a VTC. Increase of the budget for training should be for the benefit of the teaching progress (variable costs), and not to foster the fixed costs.

4. Review of VET at the System Level

Findings

The budget for the VET system as a whole has been reviewed. The period reviewed was 2004-2008. The aims of the review were:

- To have an understanding of the full costs of running the Government funded VET system. Included in the review are all centres which are providing initial vocational education training, but are not funded by the government.
- To analyze the relationship between the budget and the growth of the number of trainees,
- To identify the unit cost used for composing the budget.

Information from different resources has been collected and used to establish the full budget for the VET-system financed by the Ministry of Education. Some conflicting information was obtained regarding the different components of the budget. However, the resulting budget is was a good reflection of annual budgets over the period.

The budget review covers initial vocational education and training. However, two other VTCs, not included in the vocational training budget of the Ministry of Education, but which provide initial vocational training are taken into consideration. These two VTCs are NAMwater VTC which is operated by the state owned company NAMwater. 75% of the trainees are trained for the labour market, and 25% of the trainees are vocationally trained specifically for NAMwater needs.. NAMwater VTC is funded partly by income from trainee fees but the majority the costs are subsidized by the Company. The contribution made by the trainees is made up of their loan (N\$ 5,500) and a private fee varying between N\$ 2,700 (level 1), N\$ 3,365 (level 2), and N\$ 2,244 (level 3) per trainee per year.

KAYEC trust operates without Government funding. A part of the budget income is from the trainee fee (between N\$ 600 and N\$ 400 per level), the rest of the budget (95%) is donor funding (currently EU).

Full costs of initial vocational education and training

The following figure 4.1 gives an overview of the full costs of running the VET system.

Figure 4.1: full costs of running the system of VET

N\$ x 1000	2004	2005	2006	2007
Full budget TVET system:				
Budget for staff	19,167	21,307	21,109	24,790
Goods & services	23,546	10,448	16,987	25,590
Subsidies (VTCs + individuals)	16,503	20,227	20,227	21,312
Equipment	482	1,349	160	161
Construction & renovation	4,616	7,500	10,027	6,000
Budget, Government Min. of Education	64,314	60,831	68,510	71,853
(1) Government VTCs				
(2) NIMT				
(3) Windhoek VYC				
(4) COSDECs				
(5) Other small centres				
Budget NAMwater VTC				2,634
Budget KAYEC trust				10,679
Total budget Vocational Education and Training				85,166

The net operational costs of the VET system (2007) are N\$ 65853. See Figure 5.3, for the link with forecasting expenditures and revenues of VET.

- The full costs of operating the Government-aided VET - system can be divided in two parts:
- The full costs for the Ministry of Education to finance VET are N\$ 71.853 million in 2007 -2008. This includes the costs for construction and renovation.
 - In addition, KAYEC and NAMwater VTCs provide initial vocational education and training. If their operating costs are included then the total costs are N\$ 85 million.

See also Annex 3 for a detailed overview of the costs for VET provided by the Ministry of Education.

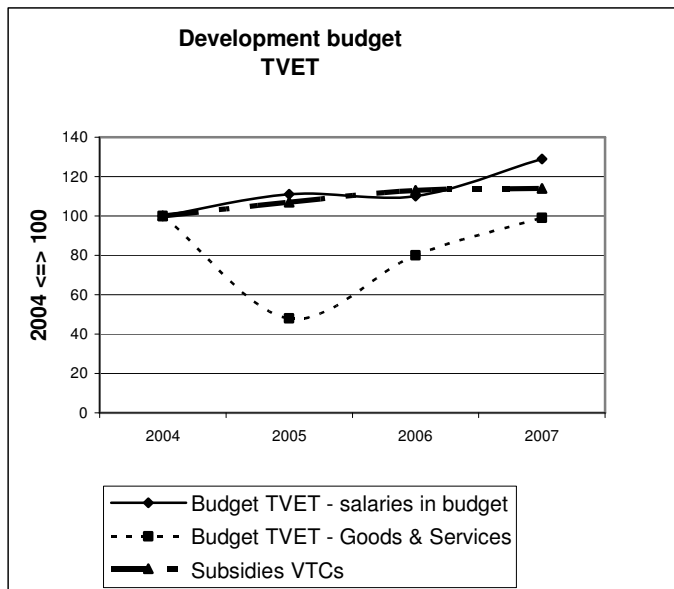
Analysis of the different components of the Ministry budget for VET

Analyzed are the following components of the budget provided by the Ministry of Education:

- Salaries
- Goods & services
- Subsidies (Windhoek VTC, NIMT, COSDECs and other small VTCs)

The following figure 4.2 gives an overview of the development of two main components of the budget. The base year is 2004 and subsequent years are compared with this base year.

Figure 4.2: analysis of the ministerial budget for VET

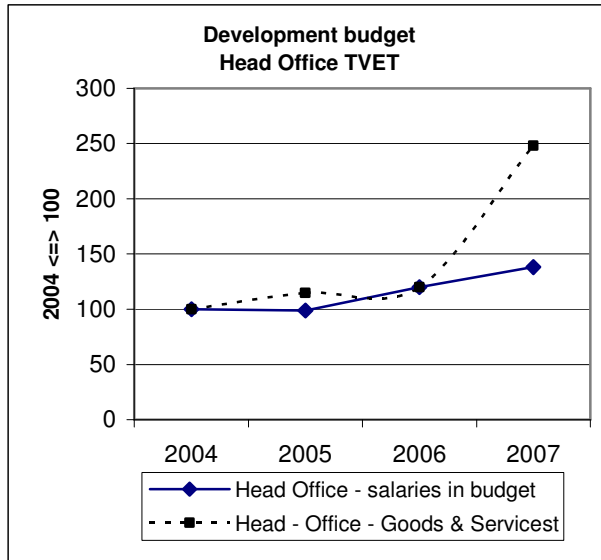


Subsidized VTCs are Windhoek VTCs, NIMT, COSDECs, and some other small VTCs. From the analysis the following conclusions can be drawn:

- After 2005, the budget for the subsidized VTCs (NIMT and Windhoek VTC, COSDECs) stabilized. In the same period the number of students enrolled by NIMT, WVTC and COSDECs increased from 1,544 to 1,810 trainees. The number of trainees increases by 17% with no extra funding.

- The costs for salaries increased between 2005 and 2007 – 2008 by 18%. In the same period, the total budget increased from N\$ 60.83m to N\$ 71.85m million. This is also an 18% increase (excluding construction and renovation).
- The budget for goods & services decreased between 2004 and 2005 by 50%. The reason is unknown. However, after 2005 until 2007 the budget for good and services doubled. The increase in the budget for goods and services can be explained by looking at a more detailed review of the budget for the NTA. See figure 4.3.

Figure 4.3: budget components head office VET



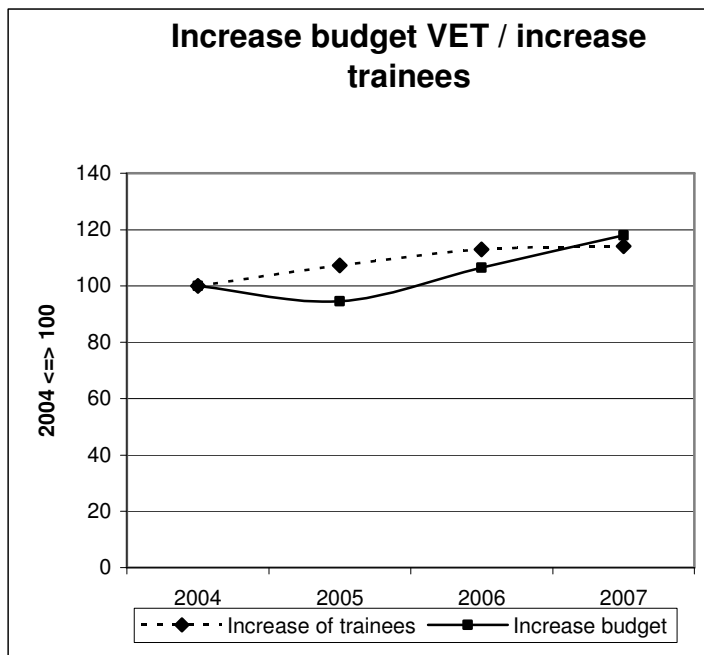
The component for salaries increased between 2004 and 2008 by 38%. This period covers the establishment of the NTA PMU. However, the component for goods & services increased in the same period by almost 250%. This steep rise can probably be explained by the contracting of external consultants.

VET budget and the number of enrolled trainees

The following figure 4.4 gives an overview of the relationship between the budget for VET and the enrolment of trainees. The budget for VET covers the running costs excluding the costs of funding the NTA. Included are all trainees directly funded by the budget of the Ministry of Education and the trainees of WVTC, NIMT, COSDECs and the small VTCs.

Between 2004 and 2007, the number of trainees increased gradually by 14% representing an increase in trainees from 2,593 (2004) to 2,961 in 2007-2008. In the same period, the budget increase was 18% (excluding construction and renovation). The following can be concluded:

Figure 4.4. relationship of the VET budget with enrolment of trainees



The unit cost per trainee derived from the budget

The last step in the analysis is to calculate the unit cost per trainee from the VET budget. See figure 4.5.

Concluded can be:

- The overall average cost per trainee is N\$ 24,500 in 2007-2008.
Based on:
Running costs of VTCs, and the costs of the NTA PMU and the costs for construction and renovation.
- The average cost per trainee based on the running cost of all VTCs is N\$ 18,500 in 2007-2008.
Based on:
Running costs of VTCs.
- From 2005 to 2007-2008 the cost per trainee has increased by 25%.
- 25% of the cost per student per year is for the financing of overheads. This percentage was stable for the full period from 2004 to 2007-2008.
Overheads include NTA and construction and renovation. About 75% of the overhead is for financing of the NTA.

Figure 4.5. Trainee Unit cost of calculated from the VET annual recurrent budget (excluding construction and renovation budget)

Grant Budget TVET					
N\$ x 1000		2004 - 2005	2005 - 2006	2006 - 2007	2007-2008
Total government budget for TVET		59,698	53,331	58,483	71,853
Number of students		2,593	2,782	2,931	2,961
Cost per student per year (total budget)		23.0	19.2	21.1	24.5
Running costs VTCs		17.7	14.8	16.3	18.5

N.B. Not included are NAMwater VTC and KAYEC. Running costs: full costs, minus costs NTA costs, and minus costs construction and renovation.

Review of VET at the system level: conclusions and recommendations (Chapter 4)

The financing of VET at the system level has been reviewed. The period of the review was 2004/5 to 2007/08. Concrete financial figures were available up and including to 2007-2008.

Information from different resources have been collected and used to re-construct the full budget for the VET-system financed by the Ministry of Education. Some conflicting information was obtained regarding the different components of the budget and the enrolled number of trainees. However, the resulting analysis of the MoEs annual VET budgets over the period 2004-08 fairly reflects funding of the Government-aided VET system.

Conclusions

- The 2007 -2008 annual budget for vocational education and training provided by the Ministry of Education is N\$ 72 million (excluding NAMwater VTC and KAYEC). The budget increased from N\$ 60 million in 2004-2005 to N\$ 72 million in 2007-2008.
- The annual budget for initial vocational education and training including NAMwater VTC and KAYEC is N\$ 85 million p.a..
- The costs of salaries rose 18% between 2005 and 2007 – 2008. In the same period, the total budget increased from N\$ 60.83m to N\$ 71.85 million. This is also an increase of 18% (excluding construction and renovation).

The overall average cost per trainee p.a. is N\$ 24,500 in 2007-2008 (this includes the running costs of all VTCs, costs the NTA and costs for construction and renovation)

- Over 3 years the cost per trainee (from 2005 to 2007-2008) has increased by 25%.
- 25% of the full cost (running costs, overhead, construction and renovation) per student per year is for the financing of overheads. This percentage has remained stable for the full period from 2004 to 2007-2008. Overheads encompass the costs of the NTA PMU and the construction and renovation. About 75% of the overhead is for financing of the NTA.

Recommendations

- For 2007 -2008:

The cost per trainee based on the Unit Costing Model is N\$ 16,700¹⁰. The overall average cost per trainee derived from the running costs of the VET budget is N\$ 18,500.

This overall average is derived from: (1) the total operating budget for VTCs¹¹, and (2) the total number of trainees enrolled in government VTCs, Windhoek VTC, NIMT, COSDECs and some small VTCs.

- To implement a transparent funding system based on enrolled trainees and derived from the formula $P \times Q$ (cost per student \times number of trainees) the cost per student should be

¹⁰ Not included in the Unit Costing Model are the costs for the NTA and construction and renovation

¹¹ Does not include the DVET operating costs

harmonized. Therefore, a coherent system of rules and regulations should be imposed on VTCs and enforced by the Ministry of Education. A pre-condition for any transparent and equitable funding system is a coherent system of rules and regulations applicable to all VTPs and related to agreed performance outputs (pass rates at accredited standard etc)

A coherent system of rules and regulations should comprise at least:

- A salary system
- Number of annual training hours per year,
- Ratio trainees to instructor,
- Minimum and maximum level of lessons for general subjects,
- Minimum and maximum number of days per level for job-attachment,
- Number of annual working hours of teaching staff,
- Number of contact hours of teaching staff,
- Work load of trainees,

Such a coherent system of rules and regulations should be the basis for setting the cost per trainee. One benchmark could be Windhoek VTC since Windhoek VTC has a coherent system of rules and regulations reflecting European (German) influences.

5. Budget planning and forecasting

Findings

A forecast has been made of the VET budget for the five year period of 2008-2009 to 2013-2014..

The purpose of the producing a 5 year forecast is:

- To estimate the costs of expanding the VET sector.
- To incorporate in one budget an overview of the financial revenues and expenditures of different VTCs, which have: (1) a different legal entity, and (2) different formal relationship with the Ministry of Education.
- To estimate the costs of a VET system that is financially strong enough to cope with the challenges of a knowledge-based economy.
- To estimate the additional financing needed to (1) finance the full expansion of the VET sector, and (2) to finance the upgrading of the VET system,
- To estimate the financial impact of the 1% training levy on companies to the VET system

Budget forecasting for expanding the VET System

The expansion of the VET -system is based on an increase in the number of trainees enrolling from 2008-2009 to 2013-2014. The number of trainees is based on the following planning assumptions (see figure 5.1):

- Government VTCs.
An annual compound increase in trainees of 7% is assumed. This growth forecast is based on the fact that the governments VTCs are being run below capacity. The underutilized capacity is about 50% (see Chapter 3). 7% growth of trainees gradually fills up the under utilized capacity.
- Windhoek VTC.
An annual increase of 3% is projected. Windhoek VTC is already operating at full capacity. In recent years it has shown a strong increase in the number of trainees.
- NIMT.
An annual estimated increase of 3% at the Arandis site and 10% at the new Tsumeb site is based on the capacity offered by the existing facilities and the widely acknowledge quality of training provided by NIMT.
- COSDECs.
An annual increase of 30%. This ambitious increase is based on the strategic plan of the COSDEC which includes expansion of existing centres and establishing new centres.
- Small VTCs centres.
An annual increase of 3%. This increase is based on historical growth figures.
- KAYEC Trust: annual increase of 3%. KAYEC is now fully dependent (95%) on donor funding. More trainees would require new donors. 3% increase could be managed by the existing organization and funding streams.
- NAMwater VTC.
An annual increase of 1%. The NAMwater SOE subsidizes NAMwater VTC, although most of the trainees are trained for the external labour market. If a new source of financing

(for example by the Ministry of Education) is not found the centre may need to close At the end of the year.

Achieving the planned enrolment would require a rise in the number of trainees from 2,961 trainees (2009) to 7,245 (2014). This represents a 250% increase over the 5 year planning period.

Figure 5.1: overview of the percentage of growth per type of VTC.

Planned increase of students		
Government VTCs		7%
Windhoek VTC		3%
NIMT	Arandis	3%
	Tsumeb	10%
NIMT	Arandis	3%
	Tsumeb	10%
COSDECs		30%
Small VT-centres		3%
KAYEC trust		3%
NAMwater VTC		1%

See Figure 5.2 (end of chapter) for full overview.

Assumptions underpinning the budget forecast

Based on the projected planned increase in trainee numbers the costs of vocational education and training have been estimated and calculated. The budget forecast is structured along the following lines:

Two groups of VTCs:

- (1) VTCs providing initial vocational education and training, and which are Ministry of Education institutions (4) or funded directly (Windhoek VTC, NIMT, COSDECs, and some small VTCs).
- (2) VTC providing initial vocational education and training and are NOT on the budget of the Ministry of Education: KAYEC Trust and NAMwater. Both centres are providing initial vocational education and training and it is recommended they are funded by the Ministry of Education. KAYEC Trust is very dependant on donor funding and donors are slowly withdrawing on the basis that VET funding is the responsibility of the Government. NAMwater VTC is heavily subsidized by NAMwater and they have indicated that this they will not continue to do this since most of the trainees are trained for the external labour market.

The unit cost per trainee per year used is as follows:

- (1) Government VTCs, NIMT, Windhoek VTC, and NAMwater: N\$ 17,869 p.a.
Base year used is 2009: therefore the unit cost for N\$ 16,700 plus inflation of 7%¹² (total N\$ 17,869). The subsequent years are based this 2009 baseline.
- (2) Unit costs of KAYEC, actual costs: N\$ 8,403 (2009)
- (3) Unit costs of COSDECs, actual costs: N\$ 11,866 (2009)

Base year is 2009; expenditures and revenues are based on price level in 2009/10.

¹² 7% is the expected inflation 2008

- Part of the budget is the costs of construction of new premises and renovation of existing school buildings. These costs are based on comparisons with work done in other countries¹³. The costs for renovating and constructing are cross-checked with the planned estimates for the construction and renovation of VTCs, like Zambesi VTC, Rundu VTC, Eehnama VTC, Gobabis (new VTC), and Keetmanshoop (new VTC).
- Incorporated in the budget forecast are some costs items, which are: (1) under estimated because of a lack of sufficient financial means, and/or (2) costs, which are still being disputed, and waiting for a formal decision to be taken. However, these cost items are indispensable to for training programmes that support the growth of a knowledge-based economy.
These items are:
 - (1) Upgrading of trade equipment, new investments and replacements
 - (2) Upgrading of teaching staff
 - (3) Providing of sufficient and up-to-date learning material for trainees.
- The cost of running the (proposed) Shared Service Centre (SSC).
It is proposed that the Shared Service Centre is responsible for handling the financial affairs of the vocational training centres affiliated to it. The SSC will be operated on behalf of the Government VTCs and some other small VTCs. Granting semi-autonomous status to Government VTCs implies the decentralisation of the budget and control over the spending of the budget. To maintain the quality and economies of scale over the financial management and accounting, the centres would be required to affiliate or buy into the SSC. The affiliated VTCs would pay an annual fee to finance the activities of the Shared Service Centre.

The Shared Service Centre (SSC) would be operated on a commercial base. Initially the VTC would be obliged to be affiliate to the SSC. After a period of five years, when the VTC has developed in house knowledge and skills it could opt out. The SSC should make use of existing local experts and expertise concerning financing and funding of VTCs by outsourcing it to NIMT or Windhoek VTC on a commercial basis. The budget includes an annual fee charged by the Shared Service Centre to the affiliated VTCs of N\$ 591 per trainee per year (see for calculation CR-ROM 1: Report financing and funding).
- The increase in expenditures and revenues is expressed in nominal dollars. The forecast of revenues and expenditures is based on a price level of 2009. The prime objective of this study on financing and funding of VET is to analyze the impact of expanding training activities on the budget. Therefore, inflation is excluded and figures are presented in nominal dollars.

See CD-Rom 1: Report financing and funding for inflation adjusted figures.

Figure 5.3: Overview of 5 year forecast of expenditures and revenues for VET system (see figure 5.3 at the end of this chapter).

See for full detailed overview of all components CD-Rom 1: Report financing and funding.

¹³ As observed by André Peer in Syria, Serbia, Republic of Moldova, Bosnia & Herzegovina, Hungary, the Netherlands.

Five year budget forecast based on two scenarios

The budget forecast is based on two scenarios:

Scenario 1 is the budget forecast to continue with the existing level of activities and use of materials

Scenario 2 is the budget forecast to expand and diversify training provision in line with the needs of a knowledge-based economy.

The following figure 5.4 gives an overview of the similarities and differences between the two scenarios.

Figure 5.4: similarities and differences between two different budget scenarios.

	Budget Scenario 1	Budget Scenario 2
Planned increase of numbers of trainees	same	same
Types of VTCs	Government VTCs Windhoek VTC NIMT COSDECs small VTC centres	As scenario 1 + KAYEC trust NAMwater
Budget of the head office	same	same
Budget for construction and renovation	same	same
Budget for equipment	-	(1) Basic set of tools per trainee (2) A fairly advanced set of equipment per 15 trainees
Budget for upgrading staff	-	(1) An average of 3 weeks of retraining per instructor year; practical training in companies as part of a retraining program (2) Acquiring a problem solving approach in the use of equipment
Budget for a Shared Service Centre	-	(1) Shifting financial responsibility to VTCs (2) Cooperation among VTCs to use financial means as efficient as possible
Budget for learning materials for trainees	-	(1) For each student a basic text book (2) Distribution of papers related to trade learning among trainees

Balancing expenditures and revenues of the VET budget forecast

Figure 5.3 gives an overview of the expenditures and revenues of the VET budget forecast. The projected expenditures and revenues are illustrated in figure 5.7.

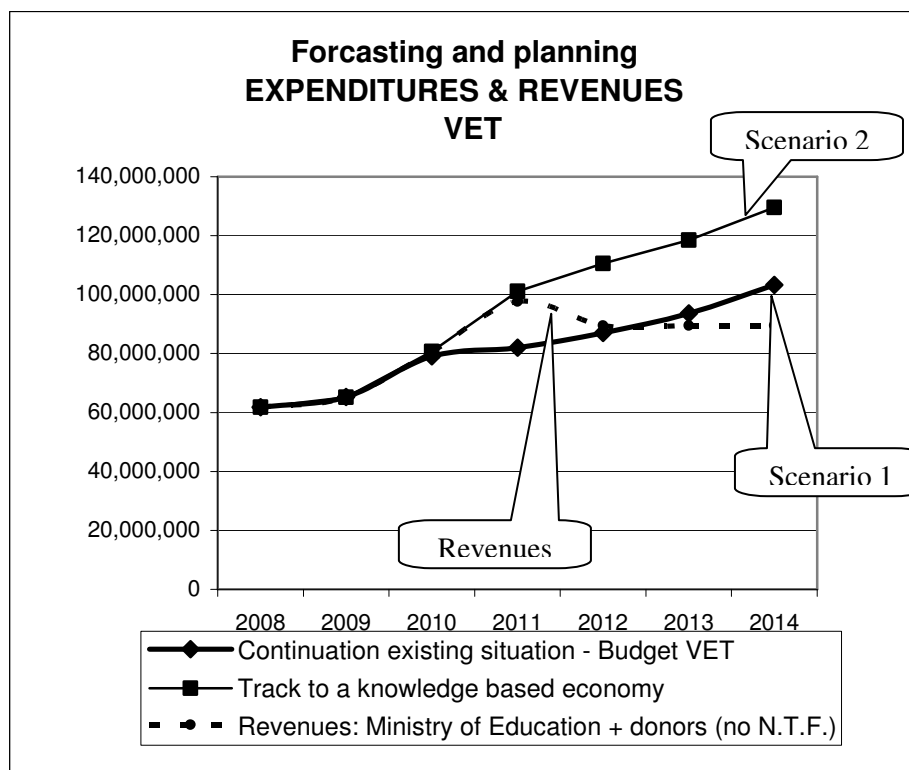
Scenario 1, as expected, will be less expensive than scenario 2. The “jump” in expenditure of around N\$ 20 million occurs in 2010-2011 increasing to N\$ 30 million in 2013-2014.

Expenditures:

There is a shortfall of income over expenditure for both scenarios but which occur in different years.

There is a gap of about 25% between (1) the forecast of the budget of the existing programme of activities and use of materials, and (2) the forecast of the budget to catch up with modern developments on the programme to support skills training needed for a knowledge economy. It is 25% more expensive to finance scenario 2.

Figure 5.7: expenditures and revenues for the VET budget forecast.



Revenues:

Revenue, to cover the expenditures of the VET system, is currently provided by the Ministry of Education and donors.

The money provided by the Ministry of Education and donors (including ETSIP) are projected to increase until 2011 and thereafter decrease and stabilized around N\$ 89 million p.a.

The expected revenues from different resources are (see figure 5.3):

- The annual financial allocation of the Ministry of Education from 2008-2009 to 2010-2011 about N\$ 35 million and thereafter is decreased and stabilized at around N\$ 27 million.

- Donors are expected to donate N\$ 44 million in 2009-2010, thereafter it increases and then stabilizes at around N\$ 51 million p.a.
- MCC donates total N\$ 51 million to fund the expansion of the COSDECs. This is projected to be N\$ 12 million p.a. until the year 2013-2014..

Balancing expenditures and revenues:

The revenues are NOT sufficient to cover the expenditures of the VET-system for the full planning period from 2009 to 2014.

Balancing the budget forecast with income from the 1% training levy:

Both scenario 1 or scenario 2 will require an additional source of revenue to balance income and expenditure in 2011 or 2012 (depending on the scenario, see figure 5.7). In 2011 this additional financial resources must come on stream. It is proposed that the 1% training levy will provide this new source of revenue.

Budget planning and forecasting: conclusions and recommendations (Chapter 5)

A forecast has been made of the VET budget for a five year period from 2009 to 2014.

The forecast for the increase in trainees is based on the following assumptions:

- A specified increase of trainees per type of VTC. The increase of trainees is based on strategic plans (COSDEC, 30% increase), historical experiences (KAYEC 3% increase, NAMwater 1% increase, Windhoek VTC 3% increase), using of under utilized capacity (government VTCs, 7% increase), planned increase of capacity (NIMT, Arandis 3%, Tsumeb 10%).
- The assumption is that the Ministry of Education should in future fund KAYEC and NAMwater, since both centres are providing initial vocational education and training which VET policy indicates is a Government responsibility.
- That capital financing is available to adjust and improve the physical infrastructure of VTCs. In order to accommodate the increase in trainees a lot of construction work is needed, renovation of existing premises, and new and upgraded equipment.
- Additional means for upgrading of teaching staff and providing sufficient and qualified learning material for trainees.
- The establishment of a shared service centre (SSC) to act on behalf of the affiliated VTCs to arrange the bookkeeping and other financial affairs.

The planned increase would mean a 250% rise in the number of trainees between 2009 and 2014.

The forecast of the budget is based on two scenarios:

Scenario 1:

Scenario 1 is the budget forecast to continue with the existing programme of activities and use of materials,

Scenario 2 is the budget forecast for a skills training programme to support the development of a knowledge-based economy.

Conclusions and recommendations

- The annual budget forecast for scenario 1 will gradually increase from N\$ 65 million (2009) to N\$ 103 million in 2014.
The annual budget for scenario 2 will gradually increase from N\$ 65 million (2009) to N\$ 123 million in 2014.
- There is a gap of about 25% between income and expenditure for Scenario 1 and it is 25% more expensive to finance scenario 2.
- The revenues provided by Ministry of Education and existing donors are NOT sufficient to cover the proposed expansion and related expenditures of the VET system for the planning period from 2009 to 2014. For Scenario 1, the breaking even point is 2012 -2013. After 2013, there is insufficient revenue to cover the costs of the VET system with the existing financial resources.

For Scenario 2, the budget shortfall occurs in 2010 – 2011.

- To bridge the gap between expenditure and revenue to balance the budget, the additional the revenue from the 1% training levy imposed on companies is required.
- For the expansion of the VET system (in quantity and quality) income from the training levy should come on stream for the financial year 2010 – 2011.
- In order to expand the VET system in quantity and quality it is recommended that Scenario 2 is adopted. This would result in a 250% rise in trainee numbers, construction and renovation work to accommodate this increase, further investment in equipment, learning materials and in upgrading instructors..
- As part of the move towards Government VTCs achieving semi-autonomous status, their financial management and administration should be provided by a Shared Service Centre. The VTCs should be required to use this service for the first 5 years to ensure financial and administrative efficiency and probity. For the services rendered by the SSC, the VTC would pay an annual fee which should be an integrated part of the unit cost per trainee per year.

Figure 5.2: Overview of the percentage of growth in trainees per type of VTC.

Year Planning		0 2007-2008	1 2008-2009	2 2009-2010	3 2010-2011	4 2011-2012	5 2012-2013	6 2013-2014			
	Students										
	% growth										
Government VTCs	997	7%	997	students	997	1,067	1,141	1,221	1,307	1,398	
Windhoek VTC	600	3%	560	students	600	618	637	656	675	696	
NIMT	NIMT	600									
	Arandis		3%	600	students	600	618	637	656	675	696
	Tsumeb		10%		students	0	480	528	581	639	703
COSDECs	595	30%	595	students	595	774	1,006	1,307	1,699	2,209	
Small VT-centres	169	3%	169	students	169	174	179	185	190	196	
KAYEC trust		3%		students		1,042	1,073	1,105	1,139		
NAMwater VTC		1%		students		203	205	207	209		
Total initial VET	2,961										
Total initial TVET	2,961		2,921	Students	2,961	3,730	5,372	5,884	6,498	7,245	

Figure 5.3: Overview of expenditure and revenue of the VET system by year

Year Planning	0 2007-2008	1 2008-2009	2 2009-2010	3 2010-2011	4 2011-2012	5 2012-2013	6 2013-2014
Expenditures							
Full budget required to finance initial vocational education and training							
Total budget running costs initial TVET	N\$	47,278,054	58,813,375	78,368,983	83,033,251	88,587,216	95,269,500
Budget head office	N\$	14,000,000	14,000,000	12,000,000	10,896,319	10,896,319	10,896,319
Budget for renovation, construction, supervising							
Budget for new constructions	N\$	1,800,000	4,050,000	5,400,000	7,668,431	9,223,000	11,946,264
Budget for renovation	N\$	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	3,000,000
Budget new equipment	N\$	0	0	315,000	447,325	538,008	653,311
Replacement of obsolete equipment	N\$	0	0	630,000	894,650	1,076,017	1,306,623
Budget for upgrading teaching staff	N\$	0	0	1,145,995	1,255,046	1,386,204	1,545,472
Budget for Shared Service Centre	N\$				2,720,000	3,004,253	3,349,426
Budget for learning material students	N\$	0	0	984,938	1,078,663	1,191,389	1,328,273
Full budget for TVET	61,802,200 N\$	65,328,054	79,113,375	101,094,916	110,243,686	118,152,406	129,295,188
Revenues							
Ministry of Education	10,000,000	35,210,000	35,210,000	35,210,000	26,880,000	26,880,000	26,880,000
Donor funding	14,000,000	44,000,000	44,000,000	50,443,000	50,660,000	50,660,000	50,660,000
ETSIP / MCC for funding COSDECs		1,500,000	1,500,000	12,000,000	12,000,000	12,000,000	12,000,000
Extra contribuion government	10,000,000						
Dificit head office, transferred to 2008 -2009	-15,504,800	-15,504,800					
National Training Fund				3,500,000	21,000,000	29,000,000	40,000,000
Total revenues		65,205,200	80,710,000	101,153,000	110,540,000	118,540,000	129,540,000
Balanced budget (revenues & expenditures)		-122,854	1,596,625	58,084	296,314	387,594	244,812

See for full detailed overview of all components accompanying digital memory disk.

6. The Training Levy and the National Training Fund

Findings

The establishment of the training levy is enshrined in the new 2008 Vocational Education and Training Act. It is expected that the introduction of a 1% training levy, imposed on companies should generate sufficient stable revenue to cover the cost of the expansion of the VET-system.

The success of a training levy scheme is dependent on the following:

- It is important that the levy is not seen by companies as an additional tax burden. Therefore, a substantial proportion of the levy revenue should be channeled back to support the training and human resource development needs of the various industry sectors and related companies and their workers.
- Industry Sector organizations, representing the employers and workers in certain sectors of the economy, should be responsible for redistributing the revenues, and setting priorities for the financing of continuous vocational training.

When industry sector organizations are responsible for the redistribution of the levy revenues they are more likely to promote the levy scheme amongst employers for the training of workers.

The Industrial Skills Committees (ISCs) could assume the responsibilities of the sectoral organizations. The Industrial Skills Committees are responsible to the Board of Directors of the NTA. It is planned that 5 committees ISCs covering all sectors of the economy will be established.

The revenue generated by the 1% levy scheme has been calculated based on the following assumptions (see figure 6.1)¹⁴:

- The Government, as the main employer, is excluded from the levy scheme.
- Small companies having less than 10 workers are also excluded from the scheme. This is having a practical reason. The cost of collecting the levy will exceed the revenues gained by the levy.
- 20% of the levy will be uncollectable for several reasons such as unreliable staffing lists, "tax" evasion, etc.

10% of the levy will be the administrative cost of collecting the levy from the companies (about N\$ 8 million per year). It is proposed that the Social Security Commission will be contracted to collect the levy.

The incorporation¹⁵ of small companies (however, companies < 10 workers are excluded, see figure 1) could be justified for the following reasons:

¹⁵ The calculations set up by, Namibian Economic Policy Research Unit (see report: The Establishment of a Vocational Training Levy in Namibia, January 24, 2005) excludes companies having less than 20 employees.

- The revenues of the 1% levy should also be used for financing the training of workers in the informal sector.
- Associations of small companies should be represented in the board of the sectoral organizations.
- The industry sector (ISCs) organizations will be responsible for redistributing the revenues of the levy for financing training and they should have sufficient financial resources to promote the 1% levy scheme and the use of the National Training Fund among small companies.
- About 80% of employers have less than 20 employees. By excluding all small companies from the levy scheme would result in a much reduced revenue base for the introduction of a levy scheme.

Figure 6.1: calculation of the National Training Fund revenues from the 1% levy

Revenues from the 1% for the National Training Fund					
<i>Resource: Namibian labour market survey 2000</i>					
Active population:			541,447	workers	
Size of the formal sector:	<i>minus</i>		67%		
Number of workers taken into consideration:			362,769	employees in the formal sector	
Number of public servants	<i>minus</i>		92,000	not included in the 1% levy scheme	
Number of workers in the private sector			270,769		
Number of workers in SMEs, 10 < employees	<i>minus</i>		120,000	not included in the 1% levy scheme	
Number of employees covered by the levy scheme			150,769		
Average salary:	N\$		6,000	per month	
Total wage sum:	N\$		10,855,403,280	per year	
1% levy	N\$		108,554,033	per year	
Feasible revenues from 1% levy	<i>minus</i>		20%	Tax evasion, lack of information, weak staffing lists, "forgetfulness",	
In practice, to be received:	N\$		86,843,226	per year	
Administration, campaigning, compliance	<i>minus</i>		10%	for collecting 1% levy, "social fund"	
			8,684,323		
In practice, available for TVET:	N\$		78,158,904	per year	
Distribution among stakeholders:					
(1) Initial training TVET sector			50%	N\$	39,079,452 per year
(2) Companies, training of workers			30%	N\$	23,447,671 per year
(3) NTA, administration NTF, and for innovation			10%	N\$	7,815,890 per year
(4) Administration Industrial Skill Committees			10%	N\$	7,815,890 per year
			100%	N\$	78,158,904

Remarks:

- Not included in the calculation of the levy revenues for the National Training Fund is the current annual contribution from the government of N\$ 500,000.
- The National Training Fund is already operating. As at 7 April 2008, the fund stood at N\$ 812,276.
- The average salary used to calculate the revenues of the 1% levy is estimated at N\$ 6,000 p.c.m. The average should cover all workers ranging from the big industries (mining), to small service oriented companies (architects, tourism), to small and big retailers.

Elasticity of the 1% levy scheme

- Revenue generated by the 1% levy scheme could raise N\$ 78m p.a. based on the following assumptions: (1) average national salary of N\$ 6000 per month, and (2) number of workers covered are 150,769
-
- Elasticity of the revenues generated by the 1% levy scheme:
 - (1) Average overall salary is N\$ 5000 per month, and number of workers covered 180.000; revenues are again N\$ 78 million per year.
 - (2) Average overall salary is N\$ 4000 per month, and number of workers covered 225.000; revenues are again N\$ 78 million per year.

The revenue from a fully operational levy scheme would be around N\$ 78 million per year. The distribution of the revenues among the stakeholders is recommended as follows:

- Initial vocational education and training: 50 %
- Companies: 30%
- NTA 10%
- Industrial Skills Committees: 10%

Recommendations on the proposed distribution scheme for the National Training Fund:

- Allocation of 50% of the revenues of the 1% levy scheme to the financing of initial vocational education and training could cover the shortfall in financial means caused by the planned increase in the number of trainees from 2009 until 2014. Without the input of the revenues of the 1% levy scheme, there would be a serious shortfall in revenue for financing the VET system around the period 2010 – 2011.
- 40% of the fund will be channeled back to the businesses. 30% should be used to finance continuous vocational education and training. In addition, 10% should be allocated to finance the cost of running the Industrial Skills Committees for taking responsibility for the developing policy for the use of funds to train workers, and informing and promoting the use of the National Training Fund.
- The NTA will get 10% of the annual revenues for managing the National Training Fund and for financing innovations in the area of vocational education and training.

Training Levy and the National Training Fund: conclusions and recommendations (Chapter 6)

Conclusions

- The revenues from the 1% levy imposed on companies for the financing of vocational education and training is estimated at about N\$ 78 million per year when fully operational by 2013-2014.
- This level of levy revenue can only be collected if all private companies having more than **10 employees** are included in the levy scheme.
- Preconditions for the collecting of the levy include: (1) 40% of the levy should be channeled back to the businesses to finance their continuous vocational education and training, and (2) the sector should be fully involved in developing policy regarding the redistribution of the levy revenue to companies. The main body to represent the companies in their own sector will be their Industrial Skills Committee.
- 50% of the revenues of the levy scheme (c. N\$ 40 million p.a.) should be used for the financing of initial vocational education and training. The allocation of 50% from the National Training Fund would be enough to finance the shortfall in VET system annual budget resulting from the expansion of initial VET.
- 10% of the levy (N\$ 8 million) is for NTA activities.

Recommendations

- The levy scheme should be applied to all private companies excluding SMEs having less than 10 workers.
- *Initial VET*
50% of the revenues from the 1% levy scheme should be used as an additional revenue resource (N\$ 39 million per year) to finance initial vocational education and training. The levy scheme should be implemented as soon as possible (2009). Year-by-year revenues should increase in order to cover at least the shortfall in the VET budget of N\$ 39 million in 2014. Projected annual levy income targets (see figure 5.3, chapter 5) are:
 - (1) 2010 – 2011: revenues N\$ 3.5 million
 - (2) 2011 – 2012: revenues N\$ 21 million
 - (3) 2012 – 2013: revenues N\$ 29 million
 - (4) 2013 0 2014: revenues N\$ 39 million
- *Continuous VET*
About 30% of the revenues from the 1% levy scheme should be channeled back to the business society. The revenues should be redistributed to finance continuous vocational education and training. Redistribution and the priorities for funding of training should be organized and set by the Industrial Skills Committee.

The 30% of the revenues from the 1% levy scheme should be distributed among 5 Industrial Skills Committees. The distribution should be based on the assessment of

number of workers covered by a specific Industrial Skills Committee having contributed to the National Training Fund by the 1% levy.

10% of the revenues should be used to finance the activities of the Industrial Skills Committees itself. The distribution should be based on the assessment of number of workers covered by a specific Industrial Skills Committee and having contributed to the National Training Fund by the 1% levy.

- *NTA*

10% of the revenues from the levy should be used NTA for: (1) administering the National Training Fund and (2) to finance innovation of vocational education and training.

7. Costs of promoting job-attachments with employers

Findings

Job-attachments are a core element of the training program of vocational education and training. However, it seems to be quite difficult for a vocational training provider to arrange sufficient places for job-attachments at companies. Some providers¹⁶ indicate that often they are able to arrange only work placements for 50% of the trainees who are eligible.

To promote job-attachments a formal allowance scheme should be introduced:

- (1) to provide a training allowance for trainees, and
- (2) to make payments to companies willing to offer job-attachments.

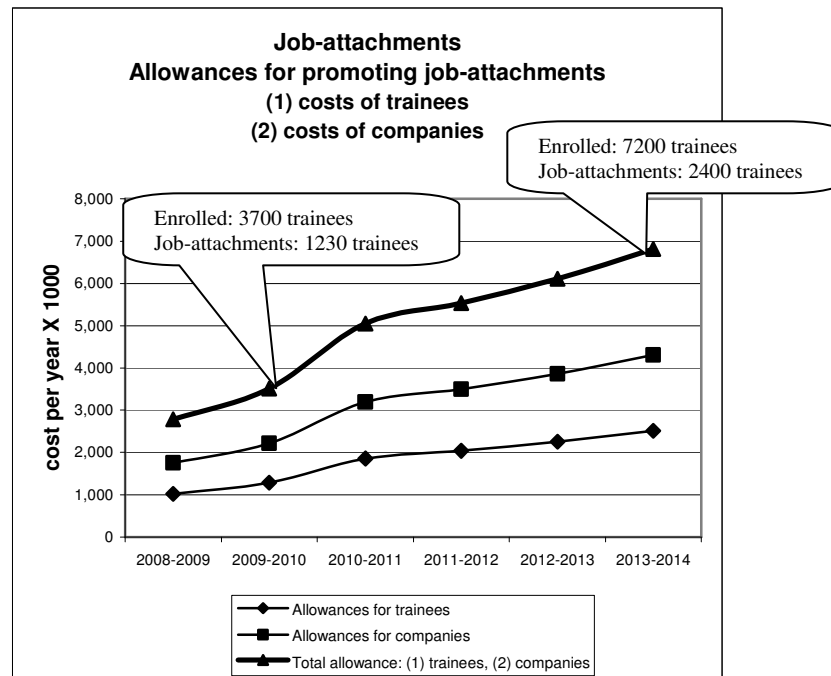
The parameters to calculate the allowances for trainees are (see Figure 7.1):

- 33% of the trainees are on job-attachments for a total period of 9 months.
- The duration of a job-attachment is 3 months.
- The trainee allowance is N\$ 350 per month (transport, food, etc.)

The training allowance for companies is based on the assumption that a company has a trained supervisor for supervising the trainees on placement in the company. The parameters to calculate the allowances for companies are (see figure 7.1):

- A trained supervisor needs 0.5 day per week for supervising the trainees
- A company has 3 successive trainees for a period of 10 months per year
- The allowance is based on the salary cost of 0.5 day per week of the supervisor

Figure 7.1: costs of allowances for trainees on job-attachments and for companies



See Annex 4 for a full overview of the calculations regarding job-attachments.

¹⁶ NAMwater VTC: 50% of the trainees having job-attachments (2008), Okakarara VTC 50% of the trainees having formal job-attachments (2008).

Costs of promoting job-attachments: conclusions and recommendations (Chapter 7)

Conclusions

Introducing a scheme to promote job-attachments is based on two elements:

- (1) allowances for trainees
- (2) allowances for companies to finance the cost of supervising of trainees

The total cost of introducing a scheme to promote job-attachments:

- (1) allowances for trainees: N\$ 350 per month, costs in 2009-2010: N\$ 1.3 million
- (2) allowances for companies: N\$ 600 per month for 9 months per year, costs in 2009 - 2010: N\$ 2.2 million
- (3) Total costs 2009 – 2010: N\$ 3.8 million.
- (4) The total costs for allowances will increase from N\$ 3.8 million in 2009/10 to N\$ 6.8 million in 2013-2014. In the same period the planned number of trainees will increase from 3,700 to 7,200 trainees

Recommendations

- A scheme of allowances to promote job-attachments should be introduced in order to enhance the quality of vocational education and training.
- Trainees should get an allowance of \$ 350 per month (base level in 2009).
- Companies having job-attachments and a trained supervisor should get N\$ 600 per month per trained supervisor for a period of 9 months per year.
- The cost of the allowance scheme should be funded by the related Industrial Skills Committee. The Industrial Skills Committee will get sufficient funds from the 1% levy scheme via the National Training Fund.
- It is recommended that the Industrial Skills Committees will get 30% of the revenues generated by the 1% training levy imposed on companies.

Introducing the allowance scheme for promoting qualified job-attachments would mean that the Industrial Skills Committees must spend about 1/3 of their budget funding job-attachments.

- The allowance scheme for job-attachments should be gradually introduced following the implementation of the 1% levy scheme. Full introduction of the allowance scheme is scheduled for the year 2013 – 2014.

8. Commercial income generated by vocational training providers

Findings

A viable system of vocational education and training should be based on different sources for financing it. Important sources are: (1) financing by the government, (2) financing based on a training levy imposed on companies, and (3) commercial income generated by the training provider.

There are several ways to provide incentives to promote income generation by vocational training providers:

1. Through improved understanding of the commercial environment and markets by management and instructors.
2. Bridging the gap between the training provider and the skills needed by the labour market. The VTPs skills training programme will benefit from a close relationship between the provider of training and the labour market.
3. Efficient use of equipment (computers, welding equipment, etc.) outside the normal opening hours of the training facilities. Facilities and equipment should be used for upgrading of workers instead of being under utilised as they are now in most cases.
4. Trainees should learn-by-doing the discipline of the market regarding demand and quality for products produced in the workshops.
5. Creating of an additional source of income to supplement the budget provided by the Ministry of Education.

The commercial income generated by vocational training providers will differ from provider to provider. The budget of Windhoek VTC is supplemented by an additional 5% of turnover from commercial activities like production and upgrading of skills. NIMT supplements its budget by 30%¹⁷ from commercial activities (upgrading of skills).

Experiences from other countries¹⁸ show that 5% of the operating budget can realistically be generated by commercial activities initiated by vocational training providers.

Incentive for promoting commercial activities

However, to achieve a 5% supplement (provided by the National Training Fund) to the budget through revenues from commercial activities an incentive should be introduced.

The incentive should be provided by the Industrial Skills Committee from the revenues generated by the 1% levy imposed on companies. The Industrial Skill Committee represents all the companies in the sector and a strong economic sector is to the benefit of the country, all sectoral companies and workers. Therefore, training providers should get an incentive from the Industrial Skill Committee to train workers.

The incentives to promote commercial activities are:

¹⁷ NIMT figures

¹⁸ Andre Peer: Hungary, Serbia, Bosnia and Herzegovina, The Netherlands.

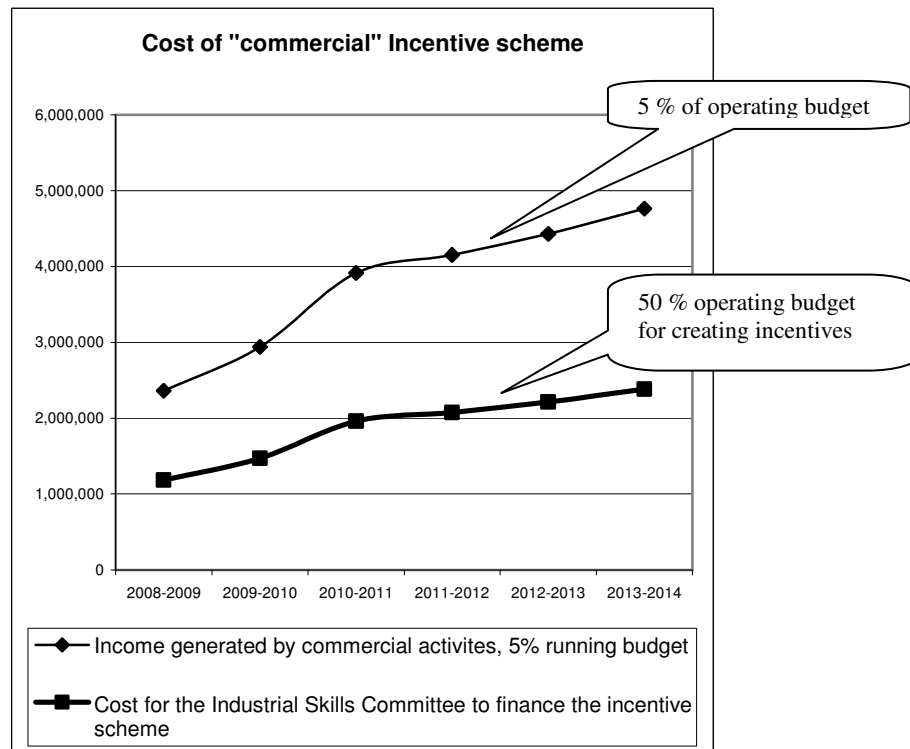
- A vocational training provider gets matched funding of 150% of the revenues generated by commercial activities from the Industrial Skills Committee.
- It is up to each Industrial Skills Committee to set the priorities for matched funding. For example to promote certain training programs for skills upgrading or products to be sold in the market. The rules for this funding should be regularly published (size of co-matching, skills upgrading courses, products). The role of the Industrial Skills Committee will be also to avoid unfair competition between private companies and training providers.

Excluded from matched funding are the fees charged to trainees (for training, meals and accommodation).

The cost to the Industrial Skills Committee of the matched funding incentive scheme

It is assumed that 5% of the operating budget of a vocational training provider is generated from the commercial activities. The following Figure 8.1 gives an overview of the cost to run the commercial incentive scheme.

Figure 8.1: cost of commercial incentive scheme



The cost of running this incentive scheme:

- Costs range from N\$ 1.5 million in 2009-2010 to N\$ 2.4 million in 2013 – 2014.
- It is recommended that the Industrial Skills Committees will get 30% of the revenues generated by the 1% training levy imposed on companies. Introducing the commercial incentive scheme for promoting the commercial activities of training providers would mean that the Industrial Skills Committees must spend about 10% of their revenues for funding of commercial activities of vocational training providers.

The commercial income scheme should be gradually introduced following the implementation scheme of the 1% levy. Full introduction of the scheme will be in 2013 – 2014.

Commercial income generated by vocational training providers: conclusions and recommendations (Chapter 8)

The cost to the Industrial Skills Committee of the matched funding incentive scheme:

- It is proposed that each vocational training provider generates from commercial activities at least 5% of their annual operating budget. Commercial activities encompass skill upgrading and commercializing product production by the VTPs. Excluded from match funding are the fees charged to trainees (for training, meals and accommodation).
- It is recommended that the incentive to promote commercial activities of training providers is match funding of 150% of the commercial revenue generated by the training provider. This will be provided by the Industrial Skill Committee from the revenues of the 1% training levy.
- Introducing an incentive scheme to promote commercial activities of training providers could be financed by the 30% of the revenue generated by the 1% training levy and which is allocated to the Industrial Skills Committee.
- The total cost of introducing an incentive scheme to promote commercial activities ranges from N\$ 1.5 million in 2009 – 2010 to N\$ 2.4 million in 2013 – 2014.
- It is recommended that the Industrial Skills Committees will get 30% of the revenues generated by the 1% training levy imposed on companies.

Introducing the incentive scheme for promoting commercial activities of training providers would mean that the Industrial Skills Committees must spend about 10% of their revenue for matching the commercial income of training providers.

- It is up to each Industrial Skills Committee to set the priorities for match funding. For example to promote certain training programs for skills upgrading or products to be sold in the market. The rules for match funding should be regularly published (size of co-matching, skills upgrading courses, products). The role of the Industrial Skills Committee will be also ensure that the subsidy does not create unfair competition between private companies and training providers. Excluded from co-matching are the fees charged on trainees (for training, meals and accommodation).

9. Performance indicators

Findings

It is recommended that the budget for a vocational training provider is based on a simple and transparent funding formulae (see Chapter 4). The elements of the funding formulae are enrolment of trainees (Q) multiplied by the cost per trainee (P). The funding formulae $P \times Q$ determines the lump sum to be allocated to the training provider.

However, this simple and transparent funding formulae should also be performance related.

Performance related elements in the funding formulae are needed to increase the flexibility and the quality of the VET-system. Areas of performance are: (1) number of trainees entering the VET –system, and (2) the passing rates of leavers (graduates) who have taken the trade test (to be replaced by the competency based system).

A performance indicator should meet the following requirements:

- Simple and transparent formula
- Clear impact and predictable income for the training provider
- Guarantees stable funding
- Benefits qualified training providers in terms of quality and quantity

In the context of VTPs recommended performance indicators are:

1. *Planned enrolment of trainees for a certain school year.*

The planning of trainees should be based on a long term forecast (5 years) and adjusted at the short term for each following school year. The planned number of trainees for the start of a running school year is the performance indicator. The planned number for a running school year is Q.

2. *The quality provided by the vocational training provider.*

The quality of performance could be based on the output of the vocational training provider. The quality of the output is measured by the overall results from the trade testing of all trades provided by a vocational provider in the foregoing year. The factor Q in the unit cost funding of $P \times Q$ is adjusted by the overall results of the final trade test of all trades provided by the training provider.

Adjustments of Q are:

- 80 – 100% overall passing rate all trades, for going school year => Q = 110%
- 70 - 80% overall passing rate => Q = 95%
- < 70% overall passing rate => Q = 90%

Comment:

- The performance funding will only work if the vocational training provider has semi-autonomous status. The semi-autonomous status indicates that training provider has full management responsibility for financing, funding, and management accounting.
- The first step for achieving semi-autonomous status for government VTCs is the establishment of Shared Service Centre (SSC). It is proposed that the Shared Service Centre will provide all financial administration on behalf of the four VTCs for at least the first 5 years of their semi-autonomous status. (see chapter 5).

Possible impact of the performance indicators:

- It provides a strong financial incentive (“carrot”) for accredited training providers to reduce the failure rate in trade tests. The factor Q could increase to 110% (lumpsum is based on $P \times Q$) of the planned and settle number of trainees.
- It is a financial penalty (“stick”) for training providers having a low overall passing rate. The factor Q would decrease to 90% of the income based on the standard unit cost per trainee..

In practice the performance formula $P \times Q$ would be applied thus:

- Starting point is the planned numbers of trainees in a certain school year (Q). The planned number of trainees is derived from a medium to long term planning forecast and finalized when the next annual budget is prepared. Funding to each VTP is asset out in a contract between the NTA and the vocational training provider.
- At the start of the school year, the Q of the budget will be based on the results of the overall trade test of the forgoing year. A training provider could be upgraded to 110% of Q, or by a low performance degraded to 90% of Q.
- The P of the performance funding formulae is based on the unit-costing model (see chapter 2).

The proposed system of performance related funding could be applied to the vocational trade training programs of which are becoming obsolete as there is little demand for these skills from employers.

- It is up to the Industrial Skills Committee to determine whether a specific training programme provided by a training provider is redundant and outdated. When a trade training course is determined to be outdated, the training provider gets 90% of the related Q and has the obligation to phase out the trade within 3 years. After 3-years, there will be no funding at all for this specific trade training course.

Performance indicators: conclusions and recommendations (Chapter 9)

1. Recommended performance indicators are:

- Achieving planned enrolment of trainees for a certain school year. The planning of trainees should be based on a long term forecast (5 years) and adjusted annually for the following year.

- The quality provided by the vocational training provider. The factor Q in the unit cost funding of $P \times Q$ is adjusted by the overall results from the final trade test of all the trades provided by the training provider.

Adjustments of Q are determined by the formula:

- 80 – 100% overall passing rate all trades, for going school year => $Q = 110\%$
- 70 - 80% overall passing rate => $Q = 95\%$
- < 70% overall passing rate => $Q = 90\%$

10. Dynamic funding model: an integrated system of financing of initial and continuous VET

Findings

The dynamic funding model outlines a system of financing and funding¹⁹ of vocational education and training that will meet the challenges of a knowledge based economy. The proposed dynamic funding model is a coherent system of: (1) input and output funding for initial vocational training, and (2) competitive financing procedures for funding of initial and continuous vocational education and training.

Why dynamic funding? (see Figure 10.1):

- *Coherent system of funding*

Dynamic funding is a coherent system of financial resources derived from 4 resources: Ministry of Education, donors, 1% training levy applied to companies, and revenues generated from VTPs' commercial activities.

- *Combined system of input and output funding for vocational training providers*

The main and basic funding of initial vocational education and training is based on a lump sum derived from $P \times Q$:

P: unit cost per trainee per year

Q: planned and settled number of trainees enrolled at a training provider (year: t), adjusted by the overall results of the trade testing (year: t -1).

The results of the overall trade testing are valued as follows:

Q for year t = 110% as the passing rate is between 80 – 100% for year t -1

Q = 95% as the passing rate is between 70 - 80%

Q = 90% as the passing rate is less than < 70%

Well-operating training providers having a low overall failure rate of trade testing will benefit from the funding. On the other hand, the system will stimulate training providers to improve the quality of training.

The proposed system of $P \times Q$ is a combination of input and output funding. This system will guarantee a stable funding (input funding, at least 90%), at the same time the training provider will have an incentive to increase the quantity and quality of the output (incentive of 110%).

- *Incentive for promoting commercial activities of training providers*

Commercial activities of a vocational training provider will be encouraged by introducing an incentive on the revenues generated by commercial activities. Commercial activities are defined as training courses for skill upgrading and cash sale of products produced by trainees.

It is expected that training providers have at least 5% of their budget (lumpsum, $P \times Q$) generated by commercial activities.

The incentive will be 150% of the revenues generated by commercial activities. The co-match of the incentive scheme will be administered by the related Industrial Skill Committee and financed from the 1% levy (National Training Fund). The Industrial Skills

¹⁹ Financing refers to identifying sources of finance, and funding to the distribution of these funds for vocational education and training.

Committees are setting the rules for the incentive scheme and for the priorities of skill upgrading.

Training courses for skill upgrading are subjected to tender procedures.

- *Continuous vocational education and training*

An integrated part of the financing and funding is continuous vocational education and training of workers. Training courses for skill upgrading are subjected to tender procedures. Any training provider may opt for a contract to execute the training course. The Industrial Skill Committee administers the training courses for skill upgrading and is funding the skill upgrading. The funds will be obtained from the 1% levy (National Training Fund).

- *Allowances to promote job-attachments of trainees*

The quality of vocational education and training relies heavily on a well-established system of job-attachments. Trainees on job-attachments will get an allowance to cover the costs (travel, accommodation, food), and companies having job-attachments will get an allowance for a trained in-company supervisor. The allowances will be funded from the 1% training levy (National Training Fund). The Industrial Skill Committee administers the allowances for job-attachments.

A company is eligible for an allowance as: (1) the company has a trained supervisor registered by the related Industrial Skills Committee, and (2) contributes to the 1% levy.

Incentives incorporated in the dynamic funding model:

1. 110% of P x Q when a vocational training provider has an overall passing rate of trade testing between 80% and 100%.
2. Promoting of commercial activities of vocational training providers. A co-match of 150% of the revenues generated by commercial activities.
3. A big part (40%) of the 1% training levy imposed on companies will be channeled back to companies to encourage upgrading of skills of workers.
4. The revenues from the 1% levy imposed on companies have created a commercial market for skill upgrading. Vocational training providers may opt for executing the training and by doing that they: (1) create additional financial means for the centre, and (2) are eligible for the incentive of the co-match of 150% generated by commercial activities.

1% training levy imposed on companies

A pre-condition for financing the expansion of the VET –system and the functioning of the dynamic funding model is generating sufficient financial means by the 1% training levy. It has been calculated that full functioning of the 1% levy could generate N\$ 78 million per year. Full functioning will be achieved in 2013 – 2014.

The parameters for calculating the revenues are:

- 151,000 employees are covered by the scheme
- Excluding public servants
- Including private companies having > 10 employees
- Average salary (all sectors, all regions) N\$ 6000 per month
- Leakage 20% of potential revenues

The calculations of the revenues are a conservative estimation.

Remark:

Even if the main parameter – average salary – will be not N\$ 6000 but N\$ 4000 per month, the revenues will be N\$ 52 million at full implementation. Even in that case it will generate enough revenues to cover all the issues of the dynamic funding model. However, the funds for financing continuous vocational education have to be adjusted from 40% to 30% of the expected revenues.

The success of the levy depends very much on the involvement of the business society in running the scheme. Therefore, the Industrial Skills Committees are playing a pivotal role in the whole system of the proposed dynamic funding model. The Industrial Skills Committee will get a part (10%) of the revenues from the 1% levy to promote skill upgrading and to entice companies to take part in the levy scheme. This will be important especially for the SMEs having between 10 and 20% workers on the wage list.

Full implementation of 1% levy takes 4 years. Starting 2010 -2011, and full functioning in 2013- 2014.

Stakeholders of the dynamic funding model

Stakeholders in the dynamic funding model are:

- *Industrial Skills Committee*

The Industrial Skills Committees are the pivotal bodies in the dynamic funding model. The Industrial Skills Committee represents the companies in the sector.

On behalf of the companies, the Industrial Skill Committee promotes skill upgrading, convincing companies of the necessity of the 1% levy, setting priorities for trade training, setting rules for tender procedures, registering trained in-company supervisors for supervising trainees on job-attachments, funding allowances of trainees on job-attachments and companies having trainees.

- *Vocational training provider*

The vocational training provider provides initial vocational education and training. Well-operating training providers will benefit the most from the incentives incorporated in the dynamic funding model.

A performance indicator is introduced based on P x Q and the overall results of trade testing. Basic element is the long term planning of enrolment of trainees and short-term adjustments to the planning. An authorized plan by the NTA forces the training provider to enroll the planned number of trainees.

Vocational training providers should stay in close contact with the business society in order to increase the quality of vocational training. Therefore, the dynamic model is promoting commercial activities of training providers.

- *Companies*

Companies are obliged to pay the 1% levy on the full wage sum. In return, they will be reimbursed by the costs for:

- (1) training courses for skill upgrading
- (2) cost of a trained in-company supervisor to supervise the trainees on job-attachments

- *Trainees*

The trainees will be better trained and prepared for work in the commercial work. A main element is the allowance for job-attachments.

The trainees' loan of \$ 5,300 per year is not subject to change by any recommendations based on the dynamic funding model.

- *National Training Authority (NTA)*

The role of the NTA in the dynamic funding model is:

- (1) Setting the P x Q lump sum for the training providers
- (2) Monitoring the overall results of the trade testing and processing the result in the P x Q lumpsum funding.
- (3) Administering the revenues of the 1% levy and the National Training Fund.
- (4) Redistribution of the revenues of the NTF among the stakeholders
- (5) Providing secretarial support to the Industrial Skills Committees.

Dynamic funding model: conclusions and recommendations (Chapter 10)

Dynamic funding model, an integrated system of financing of initial and continuous VET (chapter 10)

The dynamic model is a coherent system of: (1) input and output funding for initial vocational training, and (2) tender procedures for funding of initial and continuous vocational education and training.

All elements of the dynamic funding model are financially underpinned and are related to each other. The dynamic funding model prepares the system of vocational training and education for the challenges of the knowledge based economy.

The elements of the dynamic funding model are:

- A combined system of input and output funding of vocational training providers. The main and basic funding of initial vocational education and training is based on a lumpsum derived from $P \times Q$. Q is adjusted for the overall results of trade testing.

P : unit cost per trainee per year

Q : planned and agreed number of trainees enrolled at a training provider (year: t), adjusted by the overall results of the trade testing (year: $t - 1$).

The results of the overall trade testing are valued as follows:

Q for year $t = 110\%$ as the passing rate is between 80 – 100% for year $t - 1$

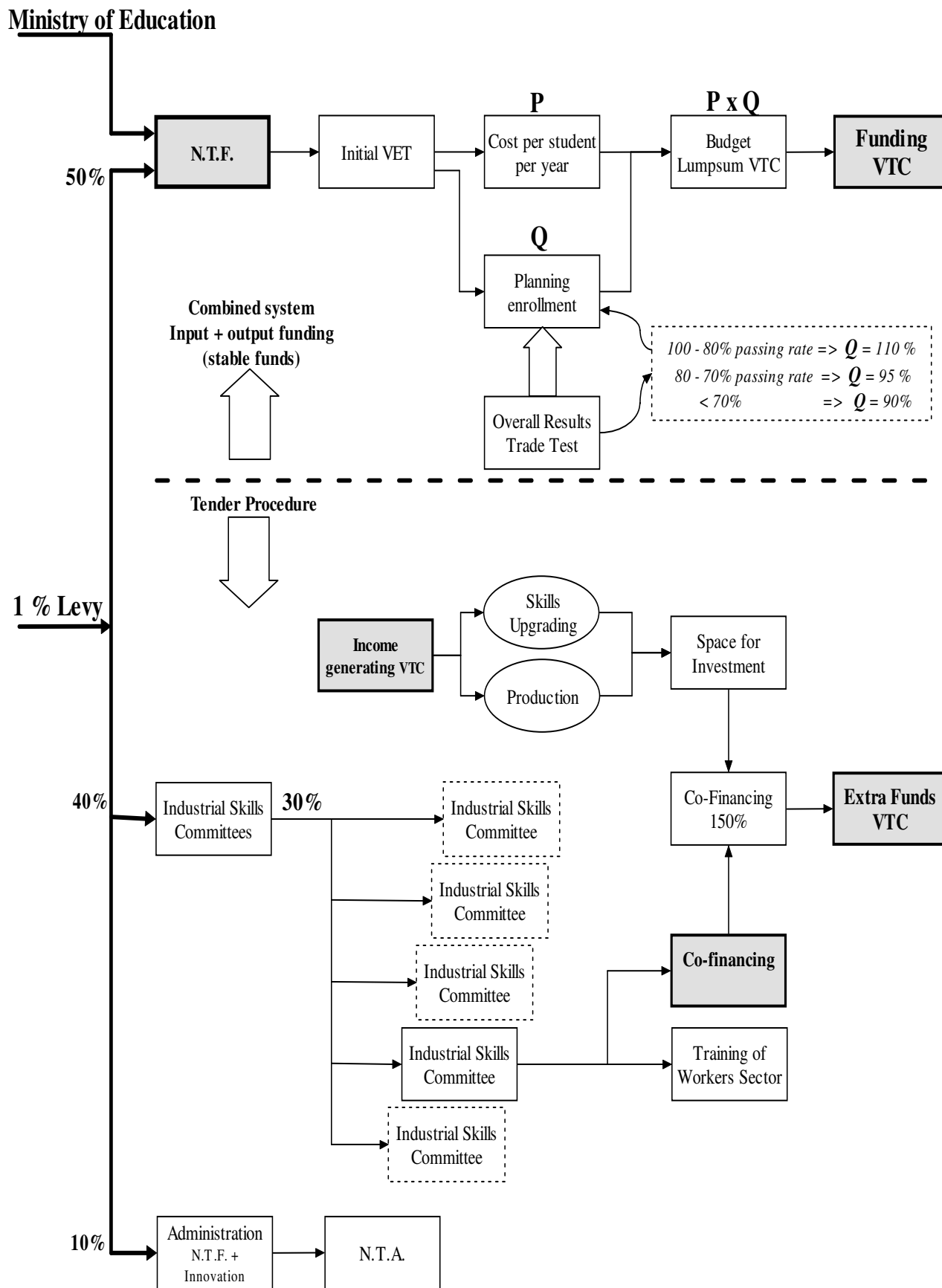
$Q = 95\%$ as the passing rate is between 70 - 80%

$Q = 90\%$ as the passing rate is less than $< 70\%$

- Incentive for promoting commercial activities by training providers. It is expected that training providers will have at least 5% of their budget (lumpsum, $P \times Q$) generated by commercial activities. The incentive will be 150% of the revenues generated by commercial activities. The match funding of the incentive scheme will be administered by the sector Industrial Skill Committee and financed from the 1% levy (National Training Fund).
- Continuous vocational education and training. A part of the financing and funding is for continuous vocational education and training of workers. Training courses for skill upgrading will be subjected to a competitive tendering procedure. Any accredited training provider may compete for a contract to execute the training course. The Industrial Skill Committee will administer and fund the training courses for skill upgrading. The funds will be obtained from the 1% levy (National Training Fund).

Allowances to promote job-attachments of trainees. Trainees on job-attachments will get an allowance to cover the costs (travel, accommodation, food), and companies having job-attachments will get an allowance for a trained in-company supervisor. The allowances will be funded from the 1% training levy (National Training Fund). The Industrial Skill Committee administers the allowances for job-attachments.

Figure 10.1: Dynamic Funding Model



11. A coherent VET financing system: conclusions and recommendations

Each VTC is virtually a unique institute, regarding the duration of the annual training program, the division of training hours among theory, practice, general subjects, job-attachment; employment conditions of teachers and trade test pass rates. This situation reflects the different history of each centre in relation to its (1) foundation, (2) (past) relationships with donors, and (3) cooperation with the business community.

A coherent system of rules and regulations should be imposed on VTCs and enforced by the Ministry of Education. A precondition for any transparent and equitable funding system is a coherent system of rules and regulations.

A coherent system of rules and regulations should comprise at least:

- staff pay and conditions,
- Number of annual training hours per year,
- Ratio trainees to instructor,
- Minimum and maximum number of lessons for general subjects,
- Minimum and maximum number of days (per level) on job-attachment,
- Number of annual working hours of teaching staff,
- Number of contact hours of teaching staff,
- Work load of trainees,

Windhoek VTC could be considered as a benchmark.

Their annual training program, ratio of trainees to instructor, division of teaching hours between practice and theory, contact hours of teaching is reflects an European practice.

Efficiency and utilization of the capacity of Government VTCs

Potential improvements of the VTCs internal efficiency could be gained through:

- Improving efficiency by an increasing the pass rate of trainees (at all levels)
- Improving efficiency by the full use of available instructor time
- Improving efficiency by an increase instructor/trainee ratio

Windhoek VTC and NAMwater: These both have a high internal efficiency. They use the full capacity of the teaching staff to train a maximum number of trainees.

The capacity of the government VTCs is seriously under utilized. The governments VTCs are operating at 50% of their available teaching capacity and available resources for the remuneration of teaching staff.

The under utilized capacity of the four government VTCs represents at least 687 trainees per year. This figure could be achieved by :

- Increasing the pass rate (at level 3) from 55% (failure rate 45%) to the benchmark of a78%²⁰ pass rate

²⁰ NAMwater sets the benchmark. NAMwater has a failure rate of 22% (level 1, 2 and 3).

- Full use of instructor time by using all available teaching time efficiently could add another 128 trainees per year.
- Improving the efficiency by an increase instructor/ trainee ratio. This could add another 420 trainees. The ratio trainees / instructor should rise from 9:1 to 15:1 for theory and workshop practice and for general subjects from 18 to 30 trainees.

Forecasting and planning for an increase in trainees

The expansion of the VET system is based on an estimate of the annual number of trainees entering a VTC until 2013 – 2014. The estimate is based on the following assumption and planning:

- Four Government VTCs: annual net growth of 7%. This growth estimate is based on the fact that the Governments' VTCs are currently being run well below capacity. The under utilized capacity is about 50%. A 7% growth of trainees will take up the under utilized capacity over the forecast period..
- Windhoek VTC: an annual increase of 3%. Windhoek VTC is already operating under full capacity. Moreover, in recent years it has already shown a strong increase in the number of trainees.
- NIMT: an annual increase of the VTC in Arandis of 3% and for Tsumeb of 10%. This is an estimate. Based on the capacity offered by the existing facilities, and the widely acknowledge quality of training provided by NIMT.
- COSDECs: annual increase of 30%. This ambitious increase is based on the strategic plan of the COSDEC which includes expansion of existing COSDECs and the opening of new ones.
- Small VTC centres: an annual increase of 3%. This increase is based on historical growth figures.
- KAYEC Trust: an annual increase of 3%. KAYEC is now fully dependent (95%) on donor funding. More trainees would mean a strong additional effort to find new donors. 3% increase could be managed by the existing organization.
- NAMwater VTC, an annual increase of 1%. NAMwater subsidizes NAMwater VTC, although most of the trainees are trained for the external labour market. With no additional sources of external financial support (for example from the NTA/Ministry of Education) it could mean the closing of the centre.

The above increases would mean a projected rise in the number of trainees between 2009 and 2014 from 2,961 trainees to 7,245 in the year 2014. This would represent a planned increase in trainees of 250% ($2.5 \times 2,961 = 7,303$ trainees) some of which would be achieved through internal efficiency gains.

Forecasting planning and budgeting

A forecast has been prepared for the financing of VET budget for the period 2009 to 2014 (5 years).

The VET budget forecast is based on the following pre-conditions:

- A specified increase of trainees per type of VTC. The increase of trainees is based on strategic plans (COSDEC), historical experiences (KAYEC, NAMwater, Windhoek

VTC); using of under utilized capacity (four government VTCs) and a planned increase of capacity (NIMT).

- The assumption is that the Ministry of Education will fund (on a unit costing basis) KAYEC and NAMwater as both centres provide initial vocational education and training.
- Financial investment to renovate and improve the physical infrastructure. In order to accommodate the increase in trainee numbers a substantial construction programme is needed, renovation of existing premises, and re-equipment/new equipment.
- Additional means for upgrading of instructional staff and providing sufficient and qualified learning material for trainees.
- The establishment of a shared service centre (SSC) to act on behalf of the affiliated VTCs to provide accounting services and other financial planning and management services. It is proposed that the SSC is funded by annual fee per trainee per year paid by the users (VTCs) who are participating in the scheme..

The VET budget forecast is based on two scenarios:

Scenario 1:

- For scenario 1, the budget forecast is based on the continuation of the existing programme of activities and use of materials.

Scenario 2:

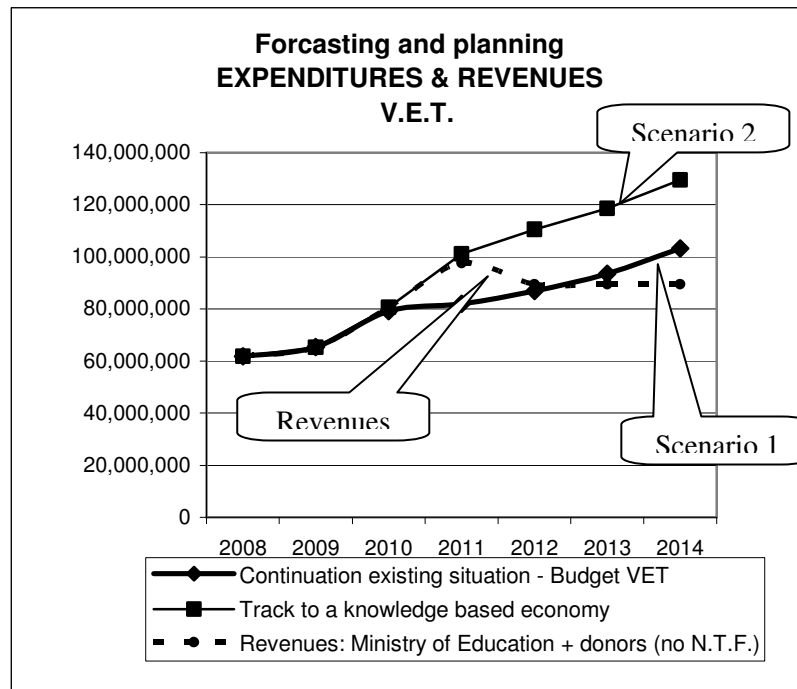
- For scenario 2, the budget forecast is based on additional the requirements needed to meet the challenges of a knowledge-based economy.

The budget for Scenario 1 will gradually increase from N\$ 65 million (2009) to N\$ 103 million in 2014.

The budget for Scenario 2 will gradually increase from N\$ 65 million (2009) to N\$ 123 million in 2014.

There is a gap of about 25% between (1) scenario 1, the budget forecast for the existing programme of activities and use of materials, and (2) scenario 2, the budget forecast for the requirements needed to meet the challenges of a knowledge-based economy. It is 25% more expensive to finance Scenario 2.

The revenues provided by the Ministry of Education and committed by existing donors are NOT sufficient to cover the expenditures of the VET-system for the full planning period (2009 to 2014) as shown by the figure below (from Section 5, Figure 5.4):



For Scenario 1, the breaking even point is **2013**. After 2013, there will NOT be sufficient revenue to cover the costs of the VET-system with the existing financial resources. Scenario 1 is the 'as is' budget to continue with the existing VET programme of activities and use of materials.

For Scenario 2, the budget needed by the VET system to meet the challenges of a knowledge-based economy, will be in deficit by **2011**.

Balancing the budget forecast with the 1% training levy imposed on companies

Whatever policy decision will be the made regarding scenario 1 or scenario 2, in the short term there are is insufficient income (revenue and development/capital funding) to meet projected costs whether it is Scenario 1 or Scenario 2.

The critical year is 2011 or 2012 (depending on which scenario is used - see Figure 5.7). In 2011 an additional source of finance will need to be available and fully operational. It recommended that this additional source of finance should be the 1% training levy imposed on companies and redistributed by the National Training Fund.

1% levy and the National Training Fund

The full revenues from the 1% levy imposed on companies for the financing of vocational education and training is projected to be about N\$ 78 million per year by 2013. This will be achieved if all private companies having **10 or more** employees participate in the levy scheme.

A precondition for the collecting of the levy is: (1) 40% of the levy should be channeled back to employers to finance their continuous vocational education and training, and (2) the sector should be fully involved in the redistribution of the 1% levy to the companies through their respective representative Industrial Skills Committee.

Distribution of the revenues of the 1% levy among stakeholders

- *Initial training / vocational training providers*
It is proposed that 50% of the levy revenue (N\$ 40 million p.a. is feasible by 2013 - 2014) should be used for the financing of initial vocational education and training.
- *Continuous vocational education and training*
About 30% of the 1% levy revenues should be channeled back to the employers. The revenues should be redistributed to finance employer-led continuous vocational education and training. Redistribution and the priorities for funding of training should be organized and set by the Industrial Skills Committee and based on sound labour market intelligence.
- *Industrial Skills Committees*
10% of the revenues should be used to finance the activities of the Industrial Skills Committees itself. The distribution should be based on the assessment of number of employers covered by a specific Industrial Skills Committee and having contributed to the National Training Fund through the 1% levy.
- *The NTA*
10% of the revenues from the levy should be used for the management and administration of the National Training Fund by the NTA; and to finance developments and innovations in the vocational education and training system.

Allowances for job-attachments

NTA plans to introduce a scheme to promote job-attachments (work placements) and it will be based on two elements:

- allowances for trainees
- allowances for companies to finance the cost of supervising of trainees

The total cost of introducing a scheme to promote job-attachments is based on:

- allowances for trainees at N\$ 350 per month. would cost in 2009-2010 N\$ 1.3 million
- allowances for companies at N\$ 600 per month for 9 months per year would cost in 2009 - 2010 N\$ 2.2 million
- Total costs 2009 – 2010: N\$ 3.8 million.
- The total costs for allowances will rise from N\$ 3.8 million in 2009/10 to N\$ 6.8 million in 2013-2004. In the same period the planned number of trainees will increase from 3,700 to 7,200 trainees.

The cost of the allowance scheme should be funded by the related Industrial Skills Committee. They will get sufficient funds from the 1% levy scheme via the National Training Fund. Introducing the allowance scheme for establishing and managing qualified job-attachments would mean that the Industrial Skills Committees would required to spend about 1/3 of their revenue for funding job-attachments.

Commercial income generated by the vocational training provider

It is expected that each vocational training provider generates from commercial activities at least 5% of their annual operations budget. Commercial activities encompass skill upgrading courses and commercializing products produced at the centre of the provider. Excluded from proposed matched funding are the fees charged to trainees for training fees, meals and accommodation.

It is recommended that as an incentive to promote commercial activities by training providers their commercial revenue is matched with a grant of 150% of the eligible income generated by the training provider. This grant of 150% will be provided by the Industrial Skill Committee from the revenues of the 1% training levy.

The total annual cost of introducing an incentive scheme to promote commercial activities is estimated to range from N\$ 1.5 million in 2009 – 2010 to N\$ 2.4 million in 2013 – 2014.

Introducing the incentive scheme for promoting commercial activities of training providers would mean that the Industrial Skills Committees must spend from their own revenues (allocated by the National Training Fund) 10% for match funding the commercial activities of training providers.

It is up to each Industrial Skills Committee to set the priorities for match funding. For example to promote certain training programs for skills upgrading or products to be sold in the marketplace. The rules applying to match funding should be regularly published (size of co-matching, skills upgrading courses, products etc). The role of the Industrial Skills Committee will be also to avoid unfair competition between private companies and training providers.

Performance indicators

The recommended performance indicators are:

1. *Planned enrolment of trainees for a certain school year.*
Enrolment forecasts for trainees should be based on a long term plan (5 years) and adjusted annually for the following year. The actual number of enrolled trainees at the start of a year is used as the basis for setting the performance indicator (Q).
2. *The quality of training provided by the vocational training provider.*
The quality of the output is measured by the overall results of the trade testing of all trades provided by a vocational provider in the preceding year. The factor Q in the unit cost funding formula of $P \times Q$ is set by the overall results of the final trade test (all levels) for all the trade training provided by the training provider.

The value of Q is set by the following formula:

- 80 – 100% overall pass rate in all trade tests gives Q a value of 110%
- 70 - 80% overall pass rate in all trade tests gives Q a value of 95%
- Less than a pass rate of 70% gives Q a value of 90%

Comment: The performance funding incentive will only work if the vocational training providers has semi-autonomous status. The semi-autonomous status indicates that training provider has the full management responsibility for financing, funding, and bookkeeping.

- The first stage in achieving semi-autonomous status for government VTCs is the establishment of shared service centre (SSC). It is proposed that the Shared Service Centre will handle all financial and accounting transactions on behalf of the VTC (see chapter 5).

In practice the performance funding formulae ($P \times Q$) will be set by the actual trainees enrolled (as forecast by the 5 year enrolment forecast) and the trainee unit cost (based on the Unit Costing Model in Section 2) set for that year.

Dynamic Funding Model

The dynamic model is a coherent system of: (1) input and output funding for initial vocational training, and (2) tender procedures for funding of initial and continuous vocational education and training.

The elements of the dynamic funding model are:

- A combined system of input and output funding of vocational training providers. The funding of initial vocational education and training is based on a lump sum derived from $P \times Q$. Q is adjusted for the overall results of trade testing (according to the formula set out above).
- Incentive for promoting commercial activities of training providers. It is expected that training providers have at least 5% of their budget ($P \times Q$) generated by commercial activities. The incentive will be 150% of the eligible revenues generated by commercial activities. This matching funding available through the incentive scheme will be administered by the related Industrial Skill Committee and financed from the 1% levy (National Training Fund).
- Continuous vocational education and training. An integrated part of the financing and funding is continuous vocational education and training of workers. Training courses for skill upgrading would be subjected to competitive tendering. Any accredited and registered training provider can compete for a contract to deliver a training course. The Industrial Skill Committee will administer the training courses for skills upgrading and will provide the funding for the skills upgrading course. The funds will be obtained from the 1% levy (National Training Fund).
- Allowances to promote job-attachments for trainees. Trainees on job-attachments will get an allowance to cover the costs (travel, accommodation, food), and the companies providing approved job-attachments will get an allowance to cover the costs of the trained in-company job attachment supervisor. The allowances will be funded from the 1% training levy (National Training Fund). The Industrial Skill Committee will administer the allowances scheme for job-attachments.

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Annex 1:

Key parameters of Windhoek VTC, Okakarara VTC and the Government VTCs

Parameters Training		Number Students total	Number Students in-VTC	Number teachers	Total [hrs / yr]	theory [hrs / yr]	practice [hrs / yr]	general subjects [hrs / yr]	Job-attachment [hrs / year]	Training Student [hrs / day]	hours Instructor [hrs / day]	Student / teacher V.E.T.	Student / teacher Gen. Subjects
Windhoek V.T.C.	Level 1	557	372	24	1,080	486	486		108	6	6	15.5	
	Level 2				1,380	483	483		414	6	6		
	Level 3				1,380	345	345		690	6	6		
Okakarara V.T.C	Level 1	340	227	18	1,632	348	486	798		8	8	12.8	28.0
	Level 2				1,632	158	250	424	800	8	8		28.0
	Level 3				1,632	143	200	329	960	8	8		28.0
Governmental VTC	Level 1	1,300	858	86	1,632	348	486	798		8	8	9.0	18.0
	Level 2				1,632	158	250	424	800	8	8		
	Level 3				1,632	143	200	329	960	8	8		

Annex 2:

Improving efficiency by having a lower failure rate for trade testing

2007 N\$	Total number students	Candidates for testing	Overall failrate trade test	cost per student	Contribution government	Other private resources	Donor funding	Private contribution student	Public de-investment	Private de-investment	Total cost of training
				[average]				[average]			
Governmental VTCs	1,300	729	42%	16,000	16,000			0	4,898,880	0	20,800,000
Windhoek VTC	600	399	40%	16,951	16,000	951		2,400	2,553,600	151,780	10,170,600
NAMwater	176	153	22%	16,951	5,300	11,651		2,770	178,398	392,173	2,983,376
NIMT	1,400	83	22%	25,000	16,000	9,000		1,500	292,160	164,340	35,000,000
KAYEC Trust	900		22%				11,866	700			
N\$ Weighted average cost per student				19,837							68,953,976
N\$ Public de-investment because of failrate									7,923,038		
N\$ Private de-investment										708,292	
N\$ Total de-investment										8,631,330	
% Total percentage de-investment										13%	

Remarks:

NIMT: data obtained from NIMT information brochure; fee for governmental trainees N\$ 1,500
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Remark:

NIMT: Total number of students enrolled is 1,400; candidates for trade testing 83; official figures NTTC, Nov-Dec 2007

Increase efficiency all VTCs:

Cost of failrate actual situation	8,693,580
Cost of fail rate, benchmark 22%	5,143,359
Annual financial loss	3,550,221
Number of students	179

Increase efficiency WVTC, Governmental VTC

Cost of failrate actual situation	7,604,260
Cost of failare, benchmark 22%	4,054,830
Annual financial loss	3,549,430
Cost per student per year	20,896
Number of students	170

Annex 3: Overview of the VET budget

Grant Budget TVET		2004 - 2005	2005 - 2006	2006 - 2007	2007-2008
Head Office					
	Full salary packets in budget	6,200	6,115		8,525
	Rest of the budget	3,400	3,913		8,433
	Scholarships	1,000	1,000		1,000
	Trade testing centre	1,127	1,127		
	ETSIP				7,084
	Total	11,727	12,155	14,200	17,958
Government VTCs					
	Full salary packets in budget	15,091	15,074	15,110	15,269
	Rest of the budget	6,109	6,522	6,990	8,607
	Total	21,200	21,596	22,100	23,876
Windhoek VTC			1,206		
	Full salary packets in budget	3,660	3,774	6,565	6,506
	Rest of the budget	2,118	2,216	3,240	3,660
	Total	5,778	5,990	9,805	10,166
NIMT VTC					
	Total	6,313	6,313	6,200	9,200
COSDECs					
	Total	4,000	4,172	5,000	6,000
Others					
	Total	1,140	1,140	640	409
Recurrent costs		50,158	51,366	57,945	67,609
Upgrading & development		2,000	2,000	4,000	5,000
Total government budget TVET		59,700	53,366	61,945	72,609
Budget for staff		19,167	21,307	21,109	24,790
Goods & services		23,546	10,448	16,987	25,590
Subsidies (VTCs + individuals)		16,503	20,227	20,227	21,312
Equipment		482	1,349	160	161
Total government budget for TVET		59,698	53,331	58,483	71,853
Number of students		2,593	2,782	2,931	3,400
Cost per student per year (total budget)		23	19	21	21
Cost per student per year (minus head office and minus upgrading & captial investment)		17.7	14.8	16.3	16.1
Total government budget for TVET		59,698	53,331	58,483	71,853
Construction, renovation, supervision		4,616	7,500	10,027	6,000
Total budget		64,314	60,831	68,510	77,853

Annex 4 Job attachments: allowances for trainees and companies

Year Planning	2007-2008		1 2008-2009	2 2009-2010	3 2010-2011	4 2011-2012	5 2012-2013	6 2013-2014
Total initial TVET		Students	2,961	3,730	5,372	5,884	6,498	7,245
Trainees:								
Trainees on job-attachments	33% population of trainees		977	1,231	1,773	1,942	2,144	2,391
Allowance per month	350 N\$							
Period of job-attachments	3 months per trainee							
Cost of allowances for trainees:			1,025,987	1,292,570	1,861,532	2,038,673	2,251,724	2,510,436
Companies having job-attachments:								
Number of companies, having job attachments, full year, 3 successive students			326	410	591	647	715	797
Allowance for companies having job-attachments:			1,758,834	2,215,834	3,191,198	3,494,868	3,860,099	4,303,604
(1) supervisor, time	0.5 day per week, supervising							
(2) average salary N\$	6,000 per month							
(3) cost of supervising	600 per month							
(4) period job-attachments	9 months / year							
Total costs of promoting job-attachments			2,784,821	3,508,404	5,052,730	5,533,541	6,111,823	6,814,039
Total costs of promoting job-attachments		x 1000	2,785	3,508	5,053	5,534	6,112	6,814
Cost of allowances for trainees		x 1000	1,026	1,293	1,862	2,039	2,252	2,510
Cost of allowances for companies		x 1000	1,759	2,216	3,191	3,495	3,860	4,304