

# NICHE strategy on Technical and Vocational Education and Training (TVET)



Netherlands organization  
for international cooperation  
in higher education

## 1. INTRODUCTION

NICHE (Netherlands Initiative for Capacity development in Higher Education) is a Netherlands-funded development cooperation programme aimed at strengthening capacity in post-secondary education and training institutions in 23 countries (Afghanistan, Bangladesh, Benin, Bhutan, Colombia, Egypt, Ethiopia, Ghana, Guatemala, Indonesia, Kenya, Kosovo, Mozambique, Nicaragua, Rwanda, South Africa, South Sudan, Suriname, Tanzania, Uganda, Vietnam, Yemen and Zambia). One of the special policy requirements of the programme is to support capacity development activities that have a strong consideration for the needs of the local labour market. Technical and Vocational Training and Education (TVET), at both secondary and tertiary education levels, is especially focused on producing readily-employable skilled personnel for the labour market. As such, during the capacity needs identification phase of the NICHE Programme, interventions in TVET get explicit attention in order to develop a substantial TVET portfolio within the programme.

This document aims to provide all actors within NICHE with background information on TVET and insights on the strategy on TVET within NICHE. This strategy incorporates the experiences and lessons learned by Nuffic Programme Administrators in the MHO<sup>1</sup>, NPT<sup>2</sup> and NICHE programmes.

Though not exhaustive, this memo provides insight into a number of issues or aspects that are considered to be crucial in the understanding of TVET in the global context and which are important to incorporate within the NICHE Programme. The memo is setup as follows:

- In section 2, the definition and forms of TVET as they are known internationally are discussed;
- This is followed by a summary of the role of TVET in national development in Section 3;
- Section 4 extends the discussion in Section 3 by summarizing the role and response of TVET to rapidly changing trends and demands in the global context of education and the labour market;
- Various aspects of the TVET sector in developing countries (such as the state and organisational context) are discussed in Section 5. Regional differences are discussed where they exist;
- Section 6 presents the experiences and lessons learned by Nuffic staff members over the years in administering TVET projects in the MHO and NPT programmes and the identification of TVET interventions in the NICHE programme.
- Finally, the memo concludes with an outline of the strategy which is followed by the Nuffic in giving TVET a central place within the NICHE Programme. The choices which are made in selecting interventions and intervention areas, the process which is followed in making the choices, and motivation for the choices are discussed.

## 2. DEFINITIONS AND FORMS OF TVET

The 2001 UNESCO and ILO 's General Conference on Technical and Vocational Education and Training referred to TVET as "those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge related to occupations in various sectors of economic and social life." (UNESCO and ILO, 2002). In recent years, the term 'skills development' has emerged in the development world for a concept that is synonymous with this broad definition of TVET (Netherlands Ministry of Foreign Affairs, 2009). In these definitions, TVET - sometimes also known as Vocational Education and Training (VET) or Career and Technical Education (CTE) - can be regarded

<sup>1</sup> MHO (Medefinancieringsprogramma voor Hoger Onderwijssamenwerking, 1993-2004) was a capacity building programme of the Dutch Ministry of Foreign Affairs administered by the Nuffic.

<sup>2</sup> NPT (The Netherlands Programme for the Institutional Strengthening of Post-secondary Education and Training, 2002-present) is the follow-up programme to the MHO. The programme is currently being phased out and has been superseded by the NICHE programme.

as a means of preparing for occupational fields and effective participation in the world of work. It also implies lifelong learning and preparation for responsible citizenship. In its broadest definition, TVET includes technical education, vocational education, vocational training, on-the-job training, or apprenticeship training, delivered in a formal and non-formal way (Table 1).

**Table 1:** Modes of TVET delivery

	<b>Technical</b>	<b>Vocational</b>
<b>Formal</b>	Academic technical education	School-based vocational education, vocational training
<b>Non-formal</b>	Work-based training Non-school TE providers	On-the-job training Non-school VT providers

*Adapted from Loo, [n.d.], TVET Issues and Debates, World Bank Institute (website accessed in February 2010)*

Technical education mainly refers to theoretical vocational preparation of students for jobs involving applied science and modern technology. It emphasizes the understanding of basic principles of science and mathematics and their practical applications, rather than the actual attainment of proficiency in manual skills as is the case with vocational education. The goal of technical education is to prepare graduates for occupations that are classified above the skilled crafts but below the scientific or engineering professions.

Vocational education and training prepares learners for jobs that are based in manual or practical activities, traditionally non-theoretical and totally related to a specific trade, occupation or vocation, hence the term, in which the learner participates. Vocational education is usually considered part of the formal education system, and usually falls under the responsibility of the Ministry of Education. On the other hand, vocational training is better linked to the labour market and employment development system, and usually falls under the responsibility of the Ministry of Labour and Social Affairs. TVET is often offered at secondary and post-secondary levels.

### 3. THE ROLE OF TVET IN NATIONAL DEVELOPMENT

All nations in the world are faced with the challenge of improving the capacity of their workforce to respond to their own national development needs and to the demands of a rapidly changing, more globally competitive world. The future success of nations, but also of individuals, enterprises and communities increasingly depends on existence and possession of transferable and renewable skills and knowledge. Many, both in the developed and developing world, recognize the important role that TVET plays in equipping individuals with relevant skills and knowledge, hence enabling people to effectively participate in social, economic and technological innovation processes.

TVET was regarded as a core component of the national development strategy in the international community prior to the 1980s, but gradually lost funding and support as the 21st century and modernization approached. However, the 21st century's need for new skills to match advances in information, communication and technology has initiated the return of TVET to the international agenda (Joo, [n.d.], World Bank Institute, website accessed in February 2010).

The programmes for universal primary education launched following the Jomtien and Dakar conferences are now leading to rapid increases in the number of young people completing primary school in developing countries. There is already enormous pressure on secondary and vocational systems, which are still very small in many countries. International experience shows that accommodating an increasingly diversified student population calls for the provision of a variety of learning pathways, including in technical and vocational subjects (Netherlands Ministry of Foreign Affairs, 2009).

The globalisation process, the knowledge economy, advances in technology and increased competition due to trade liberalisation are major forces driving change in the world of work. They have important implications for the demand for skills, human resource development and training. The use of new technologies, especially ICT and the introduction of new manufacturing processes, and new modes of work organisation have led to skills intensification and an increase in the demand for higher order skills and productivity<sup>3</sup>.

Nowadays TVET is regarded as an instrument in creating new employment opportunities and income-generating activities in the formal and informal sectors of the economy, the need for which has become more acute due to the financial crisis. TVET can play an important role in economic development and poverty reduction if due attention is given to customizing or targeting education and training provision to local needs.

#### 4. TVET IN A CHANGING WORLD

TVET is extremely well-positioned to contribute to global development, participation and interaction. It is especially flexible in nature (which, for example, allows broad participation of people requiring skills training) and is greatly oriented to the labour market (which allows appropriate adaptation to changing trends in the local, national and global labour market and economic sectors). In the following text, some important global societal trends are highlighted in which TVET is particularly suited to facilitate adaptation and which are important for national progression:

- Socio-economic development and Millennium Development Goal (MDG) achievement: TVET is extremely suitable for contributing to national socio-economic development and meeting the MDGs through human resource development. Skills development provides individuals with a better chance to obtain productive and profitable employment thereby sustainably increasing their earning power and access to a quality life through being able to afford quality health care, food, clothing and shelter (MDG 1<sup>4</sup>; UN, 2010). This is particularly crucial in developing countries where the majority of people currently live in poverty. The formal sector in developing countries is small and has a low job growth, so that it cannot absorb all school leavers and graduates who seek employment. When TVET curricula are focussed on creating “job-creators” (self-employed workers) rather than “job-seekers”, unemployment in developing countries can be reduced, thereby allowing developing countries to get closer to meeting the MDGs. This is particularly true for combating unemployment among youth who graduate from secondary school, but do not proceed to the tertiary level. Furthermore, when TVET provision is gender-balanced and focussed on strengthening the sustainability and profitability of private enterprises, it can foster additional economic development since in developing countries females form approximately half of the labour active population (US Census Bureau, 2010) and are usually self-employed.
- Global Competitiveness: Not only can TVET support the socio-economic welfare of individuals, but it can also increase international competitiveness. Currently, technological changes are taking place at an extremely fast pace in a fast globalising world. The gap in knowledge and ownership of advanced technologies between developing and developed countries has always been large, with developing countries often adopting technologies and solutions innovated elsewhere and lacking the capacity and resources to adapt most of the technologies to the local context. Transfer of technical knowledge through TVET, coupled with creative skills and career guidance, can raise the innovative capacity of developing countries, allowing them to innovate quality technological solutions for their own context and for export and to keep up with the developed world. Without such interventions, the development gap will widen even more and reduce the competitiveness of developing countries in the global economy.

---

<sup>3</sup> Ibid.

<sup>4</sup> The targets of MDG 1 (Eradicate extreme poverty and hunger) are to halve the proportion of people who suffer from hunger and those whose income is <\$1 a day by 2015, and to achieve full and productive employment and decent work for all, including women and young people.

- *Career mobility in an increasingly dynamic employment market:* Along with changes in economies and world markets, new concepts have emerged in the field of TVET, such as that of “employability” and “competence-based training (CBT)”. Employability refers to an individual’s capability to move self-sufficiently within the labour market through the knowledge, skills and attitudes which they possess, the way they use these assets and present them to employers, and application of these qualities in the variable contexts within which they seek work (Hillage and Pollard, 1998). Employability somewhat erodes the traditional employment model which was characterized by continuous careers, in the form of an employment of unspecified duration with the same company throughout one’s working life. The observed global trend is an increasing career mobility and, as such, TVET is no longer merely expected to provide learning opportunities for skills development, but also to enable employees to proof themselves to be flexible under new working conditions due to a broad individual competence profile. TVET is in a position to facilitate appropriate human resource development within the context of this shift from a one-job-for-life culture to higher career mobility through focussing on competence development as opposed to just knowledge acquisition. Competency is the application of knowledge and skills relative to an industry standard of performance and focuses on what is expected of an employee in the workplace (technically but also socially), rather than on the just knowledge acquisition. It embodies the ability to transfer and apply skills and knowledge to new situations, disciplines and environments. The CBT approach which is increasingly being adopted by TVET institutions, therefore, facilitates the creation of an adaptable workforce.
- *Flexibility and robustness in qualifications recognition:* There is a growing recognition that the methods of developing a competence are varied and that knowledge and know-how can also be acquired through means other than simply following a training course, and in different settings other than the formal classroom. The places and role of the various actors of the training process have become fuzzy and new articulations between learning and working are developing. This is particularly true for TVET which has a strong orientation to the labour market. Furthermore, the concept of “qualification pathways” has become a central point for many TVET systems. This calls for the design and implementation of a qualification framework which validates what has been acquired by (professional) experience in addition to education. These developments greatly increase the reach of education to participants who fall outside the formal education system, but have access to other learning environments and experiences. Greater participation in TVET means a better skilled labour force, greater participation in profitable labour and improved socio-economic conditions for the working public.

Many developing countries are increasingly realising the potential role that TVET can play in national development and international competitiveness and are creating national TVET strategies that take the above societal trends into account. The Dutch Ministry of Foreign Affairs also recognizes the role that TVET can play in the development of its partner countries in the South and is financially supporting capacity building efforts in this sector, through the NICHE programme.

## 5. THE TVET SECTOR IN DEVELOPING COUNTRIES

TVET delivery systems in developing countries operate in challenging socio-economic environments and contextual frameworks, which urgently need to be addressed if the potential for TVET to contribute to national development is to be realised. Although the state of TVET in most developing countries is largely comparable, geo-political differences do exist in some of the challenges faced and the level to which they are faced, with differences being noted between the African, Asian and South American contexts. Regional differences also exist in the organisational structures for TVET. In the following text, the general state of TVET in developing countries is summarised, based on long-term Nuffic experiences in its programme administration duties in developing countries. Where particular exceptions occur, these are highlighted with examples, mentioning where and when they occur:

- Quality and number of students: In most developing countries, science education at the pre-tertiary level is too poor to provide students with a solid knowledge foundation. As a result, the number of students at the secondary school level, who have the necessary background to enable them to pursue scientific and technical programmes at tertiary level, is inadequate. In some countries, policy arrangements cause this poor scientific background of students entering higher education. For instance in Ghana, students applying to enter secondary school are required to already make a choice for either the sciences or the humanities (Duodu, 2006). However, since TVET in Ghana (and elsewhere in the developing world) suffers from a poor image (partly due to poor performance in the past) most students opt for the less technical programmes. This choice of study option is made too early in the lives of the students and since it is irreversible, the practice precludes potential science talents from partaking in scientific learning, innovation and development in their future. The labour market misses out of valuable manpower with practical technical skills. This situation could be addressed by introducing flexibility into the educational system so that students have the possibility to change their minds about their choice of study options at a later level (e.g. through offering compulsory mathematical, computer science and general science subjects even in general secondary schools (Addy, 2008)). Furthermore, upgrading of teachers, training facilities and curricula improvements would improve the image and quality of TVET, draw more students and provide a solid technical manpower base for the nation.
- Quality and number of educators: In most developing countries, there are not enough specialised TVET teachers at both secondary and post-secondary levels. This has repercussions on the quality of students that are produced. Furthermore, most of the educators do not have direct contact with the labour market (through short-term) periodic secondments which would modernise and upgrade their practical knowledge on the actual technologies being employed in the workplace, as well as offer them insight into the actual practical needs of the labour market. This knowledge could then be incorporated into lessons or be passed on to colleagues through peer-mentoring.
- Quality and image of TVET: In most developing countries, TVET is limited in scale, scope, quality and relevance. The programmes are not relevant to the needs of the local labour market, the curricula and syllabi are outdated and the institutions lack the tools and equipment necessary for a practical education. Where present, the equipment in workshops and laboratories is often outdated, bearing little resemblance to the technologies currently used by industry. Insufficient training equipment leads to trainee overcrowding during practical demonstrations, with most of the students only observing the demonstration and not having the opportunity to get some hands-on practice. Due to the fact that the institutions are poorly resourced, the education and training remains theoretical and the graduates are not considered more skilled than their academic counterparts by the labour market. The institutions thereby acquire a poor image, and produce graduates with lower employability.

However, with the growing national and donor attention on TVET as discussed earlier in this memo, the image of TVET in developing countries is also improving by the day. Developing countries which previously had immature, fragmented TVET strategies are now focussing their foreign aid on creating a solid national TVET strategy, focussing on producing manpower that meets the personnel needs of the local labour market (e.g. Ghana, Mozambique, Ethiopia, Rwanda, Lesotho and Malawi). In Latin America, the attitudes towards TVET are still mixed and differ per country. For instance, in Bolivia professional training and technical education are looked upon with disdain and considered as unacceptable for social mobility while in Colombia the educational programmes offered by the National Apprenticeship Service are well appreciated and although bureaucratic, the organization co-ordinating the apprenticeship service is even considered by the public as being the most reliable government organization in the country (SENA, 2008).

- Quality and number of TVET institutions: In most developing countries, TVET institutions are fewer in number and have lower enrolments and graduates than their academic counterparts. Although more and more developing countries wish to increase their ratio of sciences-to-humanities manpower base, the enrolments remain heavily skewed towards the social sciences. This is partly due to the poor societal image of TVET and to the fact that TVET education is more

expensive to provide than education programmes in the humanities. In addition, due to insufficient training facilities, particularly at the tertiary level, TVET institutions have a small student absorption capacity and often have to refuse entry to many applicants, since overcrowding would compromise the standard of education being offered. Qualified students who applied to study in technical fields but did not get admitted often switch to the humanities, and that is a waste of talent to the technical field. Analysis of annual sector performance reports of Ministries of Education in various developing countries shows that most developing countries are doing their best to stretch the education budget that they have available to them to adequately provide for the needs of both general education and TVET. However, the budgets and investments remain small, relative to the work that needs to be done in order to improve the state of education, particularly TVET. A large share of the ministerial budgets (~80% on average) covers necessary recurring costs.

- Relevance to the labour market and traineeships: Close collaboration between TVET institutions and the local labour market is important in order to align the curricula with skills needs of the labour market. However, most TVET curricula in developing countries are supply-driven, and have little input from the labour market. When there is collaboration due to improvements in the TVET system, the labour market does not have enough places to accommodate student trainees, which causes overcrowding during traineeships (e.g. during the training of medical staff in hospitals). Students end up not getting enough hands-on experience and supervisors sometimes become impatient when students are slow to learn and there is a lot of other work to be done (e.g. in manufacturing industries).
- Gender balance: Females comprise half of the youth and labour active population in developing countries (US Census Bureau, 2010). Yet TVET in these countries is mainly attended by male students. Considering that females in these countries often end up self-employed in the informal market, TVET can play an important role in imparting trade and entrepreneurial skills to females which would give their economic activities sustainability and profitability through professionalisation. Career guidance at entry points into secondary and tertiary education levels could remove stereotypes about TVET and provide students with objective knowledge on the advantages of TVET.
- Other issues: TVET in most developing countries is often the responsibility of the ministries responsible for education or technical education and labour or employment, although some specialized vocational training programmes (e.g. agriculture, health, transport, etc.) fall under the supervision of sector ministries. Private sector provision of TVET is also increasing with time and in some countries outnumbers public TVET institutions. Exceptions occur in some countries (e.g. Vietnam) where private education is not permitted at the primary and secondary level, with the exception of four specific government established special upper secondary schools for gifted and talented students from all over the country. In countries where they are allowed to operate, private sector TVET providers in developing countries include for-profit institutions, NGOs, and churches. Most of these providers face the same challenges as their public counterparts.

In Vietnam, an additional problem is faced by all TVET providers since the country has changed from a socialist planned economy to a market economy, while still maintaining its socialist orientation. The growing private sector and international trade requires the Vietnamese education system to adapt and cater to the needs of the labour market. However, this has not been successful in all instances, with graduates often having to follow 6-12 months of pre-employment training in their new jobs. Most international businesses in Vietnam acquire their highly skilled labour from outside the country. The teaching methods in educational institutions are mainly aimed at imparting theoretical knowledge rather than practical skills and creativity. Students are used to focus their attention to the material that appears in examinations and often do not seek to develop critical thinking skills. Most teachers stick to their teaching methods and materials for many years and due to the centralized management system in higher education, education programmes are changed only very marginally. Universities are not allowed to adapt programmes and subjects to the changing academic environment and labour market which makes most of the programmes outdated.

In Latin America TVET has historically existed in two modalities Technical Education on the one hand and Vocational Training on the other. Technical education was traditionally organized by Ministries of Education and was associated with formal secondary schooling whereas Vocational Training was often organized by tri-partite organizations (*i.e.* government, employers and employees) and was associated with the world of work, being informal and flexible in nature. This landscape changed with the advent of structural adjustments programmes in the 1990s which required integration and transformation of the two education systems. The education systems were extremely bureaucratic and not swift in their response to demands by the market. This, coupled with the growing importance of education at the national level (*i.e.* improving productivity of labour, increased competitiveness and economic growth) and individual level (*i.e.* competitiveness and social inclusion), resulted in educational reforms in a vast majority of countries on the continent. These reforms involved integration of technical education and vocational training through enhanced dialogue and co-ordination between the organizations involved in organizing the education. The concepts of Competence Based Education and Training and quality assurance also permeated the pedagogical agendas (Briasco, 2008; Cinter/ILO, 2001).

The reforms led to a number of positive and negative outcomes. Positive outcomes include the extension of the reach of training to new target groups; quality improvements in various cases; increase in the involvement of social stakeholders in training matters; sophistication of the evaluation culture, and; transformation of institutional management. Negative outcomes include initial weakness of the transformed education system, specifically as a result of the renewed institutional arrangements. The emergence of Ministries of Labour led to a declining role of Ministries of Education in training matters, which resulted in weakened education-labour market interactions. Fragmentation of education provision was in the initial phases the norm and short term horizons predominated. The capacity for research, planning and curricular and pedagogical development within the Ministries of Labour are weak. Furthermore, articulation between education and training remains inadequate and issues of certification are unresolved. Nonetheless, although collaboration between providers has yet to fully develop, examples are emerging in which some providers successfully engage in public private partnerships. There are also good examples of formal sector training that has become more technology and competency oriented. Although programmes for disadvantaged youth have reached many they still need to be expanded to achieve more inclusion. Furthermore, such programmes need to include youth in programme design, management and evaluation (Briasco, 2008; Working Group For International Cooperation in Skills Development, 2000).

## **6. GIVING TVET A CENTRAL PLACE IN CAPACITY BUILDING PROGRAMME'S: DOS AND DON'TS**

The Nuffic has a long history in administering capacity building programmes in higher education in developing countries on behalf of the Dutch Ministry of Foreign Affairs. The organisation has, therefore, acquired a lot of experience and understanding with regard to the TVET sector in different contexts. These lessons learned are shared here and are categorised according to key aspects of capacity building programme management and content. They have been incorporated in the NICHE strategy on TVET which is presented later in Section 7.



**Table 2:** Issues to consider when incorporating TVET in capacity building programmes in developing countries.

<b>ISSUE: SUSTAINABILITY</b>
<ul style="list-style-type: none"> <li>• It is important to assess the extent to which the receiving government explicitly supports and is fully committed to the development and expansion of TVET at the national level and to the strengthening of TVET links with the labour market. This commitment must be reflected in the country's national development strategies and education sector plans, with a substantial budget for TVET or at least formalized plans to increase the budget over time.</li> <li>• Furthermore, the government should encourage practical and competence based training.</li> <li>• TVET institutions which have weak operational and financial management should only receive support which involves improvement of these management capabilities.</li> <li>• Staff training should be an important element of all TVET interventions, and preferably incorporated in the projects. The trained staff members should return to their posts after completing their studies and serve as academic reinforcements.</li> </ul>
<b>ISSUE: NEEDS IDENTIFICATION</b>
<ul style="list-style-type: none"> <li>• During identification it may become apparent that capacity needs need to be tackled at the system level rather than, or in combination with, strengthening the capacities of organizations. In such cases, <i>flexibility</i> must be exercised. It may be necessary to incorporate interventions which go beyond the bilateral sectors which have been chosen as focal areas for the implementation of the programme in that particular country. For example, when the bilateral sectors focus on water and health, interventions could still be carried out in the education sector if it becomes clear that improvements in health and water education are key to supporting both short- and long-term capacity building in the water and health sectors.</li> <li>• Experience shows that needs identification and demand articulation in cases where TVET occurs in a fragmented regulatory system is very challenging. When the regulation of the TVET sector is under shared responsibility of various ministries and projects are only implemented in one sector (e.g. water) it is important to consult relevant stakeholders across the sectors and keep them informed on the progress of programme implementation.</li> <li>• Programme interventions in TVET should always consider system issues like quality standards, quality assurance, regulation of professional education, improvement of TVET teaching methods and strengthening of the training of teachers for the TVET sector. They impact on all underlying processes, institutions and professional categories.</li> </ul>
<b>ISSUE: DEMAND ARTICULATION</b>
<ul style="list-style-type: none"> <li>• TVET institutions are often weaker than universities in terms of their capability to analyse the institutional and organizational capacity problems and in writing project proposals. They need extra support in articulating their needs.</li> <li>• The TVET projects should find a good balance between management training, theoretical education and practical technical and vocational training.</li> <li>• Attention should be given to attitudes and perceptions which (may) influence collaboration between partners. One area is that of (perceived) status. Southern institutions may not like to be partnered with a provider which it considers to be of a lower educational level. If the outcome of the tender evaluation process nevertheless results in such an arrangement, steps must be taken to bridge this potentially damaging attitude.</li> <li>• It is very important to encourage and secure the Southern ownership of projects during this phase since lack of ownership greatly obstructs efficient and effective implementation of the projects as well as transfer of learning to staff levels below the management level. Effort should be made to include motivated and enthusiastic individuals in all the project teams and to create a broad organizational commitment.</li> </ul>

<p><b>ISSUE: RELEVANCE</b></p> <ul style="list-style-type: none"> <li>• The nature of the capacity building programmes managed by the Nuffic is best suited to supporting polytechnics and formally registered and existing institutions which provide professional education at the diploma level. Institutions at a lower educational level can also be supported in situations where higher professional education is (almost) non-existent, for instance in some long-term fragile states or in countries where the technical secondary education is of a high quality and exemplary (for instance in Benin).</li> <li>• Interventions at the system level provide the greatest impact of capacity building programmes (e.g. interventions in developing accreditation mechanisms, standardisation, quality assurance and assessment, regulation of professional education and the introduction of innovative training methods in TVET).</li> <li>• Private companies in partner countries offer courses on competencies that are relevant for their own (production) processes. These companies should be approached more often to become involved in the capacity development activities conducted by TVET organisations. This would particularly strengthen the link and co-operation between the TVET sector and the labour market.</li> <li>• During the identification and demand articulation phases, experiences and trends in neighbouring countries with regard to the establishment and improvement of TVET should be considered. Best practices from the region could be a source of inspiration for local interventions.</li> <li>• Dutch higher education institutions are not the best match when it comes to non-formal and non-accredited professional education. These levels of training are best served by NGOs.</li> <li>• Many Southern partners often “see” the labour market as being represented by large companies only. When developing curricula or study programmes, the focus is placed on educating students for employment in large companies in the formal sector. Awareness needs to be increased by the educators that the education should also focus on creating job creators and not only job seekers since the medium and small companies dominate the economies of developing countries and absorb the largest share of human resources. Furthermore, current curricula which are developed or implemented for instilling entrepreneurship skills are too standard. These need to be strengthened in terms of relevance of content.</li> </ul>
<p><b>ISSUE: IMPLEMENTATION (EFFECTIVENESS AND EFFICIENCY)</b></p> <ul style="list-style-type: none"> <li>• It is important to provide intensive support to Southern institutions which provide technical and vocational education at the secondary diploma and certificate levels in the implementation of their projects. Their implementation and project management capacity is often much weaker than that of polytechnics and universities. For example, in one country where the project management capacities of the institutions were generally low, the Nuffic commissioned a common secretariat to manage all the projects awarded to that country. This secretariat has been very successful in streamlining project administration and even organises common trainings for the project partners.</li> <li>• There is a lot of potential for better co-ordination of programme plans with other donors active in the TVET sector in the southern countries. Possible synergies are currently not being fully exploited. In the NICHE programme co-ordination gets due attention.</li> <li>• It is encouraging to see that not many projects completely fail. If problems occur they are often related to delays. Project delays are often caused by insufficient experience of the implementing parties in international programmes; insufficient capacity of the implementing parties; and project objectives which were too ambitious for the available capabilities and capacities of the implementing parties.</li> </ul>
<p><b>ISSUE: MONITORING AND EVALUATION</b></p> <ul style="list-style-type: none"> <li>• During monitoring and evaluation, it is important to timely interview stakeholders from the labour market (e.g. employers, professional associations, regulators etc) on their views regarding the progress booked and results achieved in the TVET projects.</li> <li>• The staff members of Southern TVET institutions often have difficulties in understanding the rules and regulations regarding the financial management of projects. These staff require extra support from their Dutch counterparts, a semi-permanent presence and involvement of more experienced Southern colleagues, and from the Nuffic, with regard to explanation of the stipulations in the project documents as well as in conducting the monitoring itself.</li> </ul>

ISSUE:	IMPACT
	<ul style="list-style-type: none"> <li>Measuring the impact of capacity building activities should be done in collaboration with the labour market. Tracer studies are a very important tool for judging how the learnt competencies and skills are aligned with the needs of the labour market.</li> <li>Impact will remain limited when only a few individual TVET institutions are supported. It is, therefore, better to support the system level issues (such as the regulation of TVET and quality control mechanisms) or a cluster of related TVET institutions. Nevertheless, it should be mentioned that certain interventions in individual TVET institutions have been successful in some instances where the institutions started being seen as models or examples for similar interventions in other institutions (e.g. in Rwanda and Benin).</li> <li>The attention for gender issues differs per country. Some do better than others. Rwanda has a proactive attitude towards women and is systematically addressing the gender balance in its NICHE projects. In Benin, some TVET institutions have done well in the recruitment of female students into their programmes. It is important to keep encouraging project partners to articulate their plans for addressing gender balance problems in their sectors during the demand articulation phase.</li> </ul>

## 7. NICHE TVET STRATEGY

In the text below, the strategy which is followed by the Nuffic in giving TVET a central place in the NICHE programme is outlined. The choices which are made in selecting interventions and intervention areas, the process which is followed in making the choices, and motivation for the choices are discussed.

### 7.1 Selection criteria and considerations in TVET planning

- Learning Setting: The NICHE Programme focuses on strengthening education and training capacity in the *formal learning setting*. To be eligible for participation, the institutions which offer the education or training need to be classified as post-secondary education and training providers. The trainees may also include employees who lack secondary education qualifications, but are accepted for in-service training courses.
- Level of intervention: In principle, the level of education and training which will be targeted by the NICHE Programme is that of formal tertiary level TVET. However, exceptions can apply in some situations which call for flexibility in the NICHE Programme requirements, for example in situations where formal tertiary training capacity does not or hardly exists. An example of such a situation is fragile countries where the tertiary education and training system is usually very challenged. In such cases, the scope can be broadened to include formal pre-tertiary TVET beyond the junior secondary school level and which encompasses the group of youngsters aged 14 years old and above, a group that ends up in the labour market and forms a major share of the middle-level workforce in the NICHE countries.
- Receivers of support: Support will be provided to training institutions as well as regulatory agencies which influence the legal, financial and educational context in which the training institutions function. Both public and private TVET providers are eligible for support. Assistance to TVET related regulatory bodies stems from the desire to support improvements in the institutional context. Possible areas for support at the institutional level could among other interventions, consist of: establishment of overseeing structures (policy, quality assurance, assessment, funding), development of national quality frameworks, strengthening linkages with the labour market, and development of competency profiles.
- Types of support: NICHE can support staff development, curriculum development, development of student attachment programmes, strengthening of linkages with the labour market, mainstreaming of ICT in TVET, infrastructure development, etc. With regard to infrastructure developments, a maximum 20% of total project budget may be used for this purpose. This limit of 20% for investment applies to all NICHE interventions, including those outside the TVET system and focuses the NICHE Programme on the soft aspects of capacity development.

- Applicable Sectors: The programme will strive to align the project choices with local development policy and priorities. Interventions, also those aimed to at strengthening TVET capacities, will focus on - and contribute to - sectors of bilateral agreement. Selection of specific interventions will be done in co-operation with Dutch embassies in the respective NICHE partner countries and with relevant national authorities.
- Linking education levels: NICHE support to post-secondary education in a certain sector in one country provides the ideal opportunity to support development of the education for a certain sector at various levels of technical, vocational and academic education. As an example: support to Integrated Water Resources Management not only at BSc and MSc levels (university), but also at Diploma level (polytechnic).
- Co-ordination with other programmes: The Nuffic will seek to co-ordinate and harmonise NICHE Programme interventions with the interventions of other donors as much as possible, in accordance with the official Dutch commitments to international harmonisation agreements such as the Paris Declaration and Accra Agenda for Action (Nuffic, 2010).
- Special Policy Considerations: The Netherlands Ministry of Foreign Affairs has predetermined that the NICHE Programme should pay special attention to gender balance in participation in the programme and to labour market issues.
  - Gender: Whereas many girls in developing countries currently integrate the wider education system, many might continue to suffer from lower success rates than boys because of numerous gender related constraints and the impoverished quality of general education. TVET provides a very good opportunity for females to enter the formal/informal labour market. In TVET many trades or vocations are very often considered as being typical male and typical female. NICHE interventions will challenge such traditional stereotyping. Training programmes that will be developed shall be gender sensitive to account for the specific needs and conditions to improve female participation. NICHE TVET interventions will favour equality of chances for girls and boys in education and training.
  - Labour market: Current TVET programmes in Africa are not demand driven. They are not developed to meet observed or projected labour market demands (Konayuma, 2008). There is need for skills provision according to economy and labour market needs (ARCADIS BMB, 2004). Work-experience integrated into the TVET courses in various forms influences in particular the speed of professional insertion, the wage level, and offers some security against the long-duration unemployment that quite often affect young people when entering the labour market. This is why, in many EU countries, efforts have been made to “co-produce” competencies jointly by the education system and the production system (Kirchberger, [n.d.] , World Bank Institute, website accessed in February 2010). In developing countries it is a challenge to develop individual’s competencies relevant to industrial needs and secure labour force with high productivity and competitiveness (JICA, 2006). In the globalized world young people should be equipped with skills that are flexible and relevant to the needs of a constantly evolving labour market (Atchoarena *et al.*, 2007). NICHE TVET interventions shall therefore allow for strong linkages between TVET providers and the world of work so to ensure matching of demand and supply.
- Fragile States: Although the field of educational planning and reconstruction in emergencies is still young, there is growing donor commitment to supporting education in fragile and conflict-affected states (see Brannelly *et al.*, 2009 and Penson and Tomlinson, 2009). Vocational training is uniquely positioned to meet the demands of youth and broader goals of economic reconstruction in post-conflict areas (Columbia University, 2008). The NICHE programme provides opportunities for TVET contribution to creating a peace dividend and supporting the professional framework necessary for economic development over the mid-to-long term. The focus of the TVET interventions shall be shaped by taking into account the following specific challenges associated with capacity-building in fragile states, including:
  - pressure to quickly restore basic facilities and safety;
  - limited capacity to build upon;

- the high risk of failure when executing activities (due to the lack of mutual trust, institutional obstruction, etc.);
- major uncertainties regarding the sustainability of results; and
- an over-politicized environment.

## 7.2 The Process Followed when Planning Interventions in TVET

The overall NICHE process (Nuffic, AO NICHE, 2009) is also applicable in situations where TVET is particularly central to the programme in a given NICHE country. All five steps of the overall process are respected and concurrently followed (Table 3). Particular emphasis is put on step 1 (Identification phase), step 3 (Matching demand and supply phase) and step 4 (M&E phase) as detailed in Table 3.

**Table 3:** The Process Followed when Planning Interventions in TVET

Steps	Emphasis
<b>Step 1: Needs identification</b>	<ul style="list-style-type: none"> <li>• TVET is top priority in discussions between embassy, national authorities and Nuffic regarding NICHE plans</li> <li>• Focus is exclusively on support to formal TVET at the post-secondary level</li> </ul>
<b>Step 2: Demand articulation</b>	<ul style="list-style-type: none"> <li>• Project outlines contribute directly or indirectly to TVET capacity building in support of selected sectors</li> </ul>
<b>Step 3: Matching demand and supply</b>	<ul style="list-style-type: none"> <li>• Dutch TVET related institutions (mainly HBO/MBO) are encouraged to submit bids</li> <li>• Bids assessed critically on their potential to ensure sustainable linkages with the world of work</li> </ul>
<b>Step 4: Project implementation</b>	<ul style="list-style-type: none"> <li>• Project implementation involves close collaboration with and consultation of the labour market and relevant stakeholders</li> </ul>
<b>Step 5: Monitoring and evaluation</b>	<ul style="list-style-type: none"> <li>• Nuffic reports on: the number of TVET projects; their achievements in terms of new programmes, number of graduates, percentage of employability of graduates (male/female), linkage with employers, etc.</li> </ul>

- In the identification of TVET interventions relevant information will be gathered and analysed on the situation of TVET provision in a sector or country. Analysis of documentation and interviews with relevant stakeholders by the Nuffic or a commissioned consultant provides this insight. Depending on the sectors which are selected for intervention the Nuffic decides whether an analysis of the entire TVET sector will be made or whether only the TVET framework applicable to the individual sector selected for intervention will be analysed. For instance, when interventions are being considered in cross cutting sectors (e.g. ICT) and at cross-cutting levels (e.g. institutional level or organisational level), the entire national TVET framework is analysed. On the other hand, when interventions are selected in stand-alone sectors (e.g. health), the national TVET framework for the provision of professional education in the health sector is analysed.
- The actual selection of TVET interventions is guided by the sectors selected in NICHE, consultations of involved ministries and other actors.
- Nuffic reports at country and programme level about the actual involvement at the (various levels) of TVET.

## 8. REFERENCES

- Addy, M.E., **2008**, *Educational Reforms and the Sciences*, Legon Observer, Vol 2 (1), 14-18.
- ACE Europe, **2008**, *Evaluation of the TVET Policy and Practice of ICCO, Woord en Daad, EDUKANS*
- ARCADIS BMB Management Consultants, **2004**, *ABMB Brief "Vocational Education and Training"*
- Atchoarena, D. and Philipps M., Holmes K., **2007**, *Strengthening Technical and Institutional Aspects of Technical & Vocational Training (TVET) in the Netherlands Partners Countries*, Dutch Ministry of Foreign Affairs.
- Brannelly, L., Ndaruhutse, S., Rigaud, C., **2009**, *Donors' Engagement: Supporting Education in Fragile and Conflict-affected States*, UNESCO Institute for Educational Planning, ISBN 9789280313307
- Briasco, **2008** - *Organización de Estados Iberoamericanos : ¿Hacia dónde va la educación técnico profesional en América Latina?*
- Cinterfor/ILO, **2001** *Modernization in Vocational Education and Training in the Latin American and the Caribbean Region*, Montevideo
- Columbia University, School of International and Public Affairs, **2008**, *Market Assessment Toolkit for Vocational Training Providers and Youth: Linking Vocational Training Programs to Market Opportunities*, ( prepared for Women's Commission for Refugee Women and Children)
- Duodu, A., **2006**, *TVET in Ghana: A Case Study*, Ministry of Education and Sports Report (Ghana Education Service, Technical and Vocational Education Division), Accra.
- Hillage, J. and Pollard, E., **1998**, *Employability: Developing a Framework for Policy Analysis*, Department for Education and Employment (DfEE) Research Report. no RR85, London.
- JICA, **2006**, *Vocational and Industrial Human Resource Development Through TVET in Africa: Changing Assistance Environments and Demands Needs*, National Graduate Institute for Policy Studies  
[http://www.jica.go.jp/english/publications/reports/study/topical/tvet/.../tvvet\\_1.pdf](http://www.jica.go.jp/english/publications/reports/study/topical/tvet/.../tvvet_1.pdf)
- JICA, **2006**, *JICA's Cooperation on Vocational and Technical Education and Training (TVET)*  
[http://www.jica.go.jp/activities/issues/education/pdf/TechnicalE\\_E.pdf](http://www.jica.go.jp/activities/issues/education/pdf/TechnicalE_E.pdf)
- Joo, L., [n.d.], *Development of TVET International Agency Policy from 1970*, World Bank Institute  
[http://info.worldbank.org/etools/library/latestversion\\_p.asp?objectID=243577](http://info.worldbank.org/etools/library/latestversion_p.asp?objectID=243577)  
 (website accessed in February 2010)
- Joo, L., [n.d.], *TVET Issues and Debates*, World Bank Institute  
<http://info.worldbank.org/etools/docs/library/.../bTVET%20delivery%20modes.pdf>  
 (website accessed in February 2010)
- Kirchberger, A., [n.d.], *21<sup>st</sup> Century and TVET Trends*, World Bank Institute.  
<http://info.worldbank.org/etools/docs/library/243573/b21st%20century%20and%20TVET%20trends.pdf>  
 (website accessed in February 2010)
- Konayuma, G., **2008**, *Policy Frameworks: Major Policy Issues in TVET in Africa*, IVETA Conference.
- Netherlands Ministry of Foreign Affairs (Development Cooperation Division), September **2009**. *Know-how for Skill: Reference Document for Dutch Embassies in Supporting Skills Development & Technical and Vocational Education and Training (TVET) in Partner Countries*, The Hague.
- Nuffic, **2010**, *Implementation of International Aid Harmonisation Agreements by Organisations Administering Higher Education and Capacity Building Programmes in Developing Countries*, Proposal for the establishment of an international activities harmonisation network, The Hague.
- Penson, J, Tomlinson, K., **2010**, *Rapid Response: Programming for Education Needs in Emergencies*, UNESCO Institute for Educational Planning, ISBN 9789280313253
- SENA, **2006** *Primer lugar de favorabilidad entre los colombianos'*  
<http://www.mineducacion.gov.co/cvn/1665/article-115387.html>
- SENA, **2008** *'El Sena, la entidad más apreciada por los colombianos'*,  
<http://web.presidencia.gov.co/sp/2008/noviembre/24/09242008.html>
- UN (United Nations), [n.d.], *Millennium Development Goals*,  
<http://www.un.org/millenniumgoals/bkgd.shtml>,  
 (website accessed in February 2010)

UNESCO and ILO, **2002**, *Technical and Vocational Education and Training for the Twenty-first Century: UNESCO and ILO Recommendations*, UNESCO-UNEVOC Publications

<http://unesdoc.unesco.org/images/0012/001260/126050e.pdf>

US (United States) Census Bureau (Population Division), *International Database (IDB)*,

<http://www.census.gov/ipc/www/idb/informationGateway.php>,

(website accessed February in 2010)

Working Group For International Cooperation In Skills Development, **2000**, *Poverty, Growth And Skills Development: A Focus On Latin America*, Washington DC