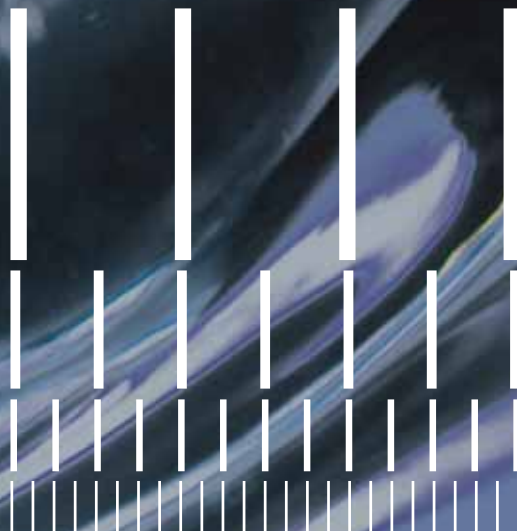


# Planning for technical and vocational skills development

**Kenneth King**  
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UNESCO:  
International  
Institute  
for Educational  
Planning





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Kenneth King and Robert Palmer

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UNESCO: International Institute for Educational Planning

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## Fundamentals of educational planning

The booklets in this series are written primarily for two types of clientele: those engaged in educational planning and administration, in developing as well as developed countries; and others, less specialized, such as senior government officials and policy-makers who seek a more general understanding of educational planning and of how it is related to overall national development. They are intended to be of use either for private study or in formal training programmes.

Since this series was launched in 1967, practices and concepts of educational planning have undergone substantial change. Many of the assumptions which underlay earlier attempts to rationalize the process of educational development have been criticized or abandoned. Yet even if rigid mandatory centralized planning has now clearly proven to be inappropriate, this does not mean that all forms of planning have been dispensed with. On the contrary, the need for collecting data, evaluating the efficiency of existing programmes, undertaking a wide range of studies, exploring the future and fostering broad debate on these bases to guide educational policy and decision-making has become even more acute than before. One cannot make sensible policy choices without assessing the present situation, specifying the goals to be reached, marshalling the means to attain them, and monitoring what has been accomplished. Hence planning is also a way to organize learning: by mapping, targeting, acting, and correcting. The scope of educational planning has been broadened. In addition to the formal system of education, it is now applied to all other important educational efforts in non-formal settings. Attention to the growth and expansion of education systems is being complemented and sometimes even replaced by a growing concern for the quality of the entire educational process and for the control of its results. Finally, planners and administrators have become more aware of the importance of implementation strategies and the role of regulatory mechanisms, including the choice of financing methods and examination and certification procedures. The concern of planners is twofold: to reach a better understanding of the

validity of education in its own empirically-observed dimensions, and to help in defining appropriate strategies for change.

The purpose of these booklets includes monitoring the evolution and change in educational policies and their effect upon educational planning requirements; highlighting current issues of educational planning and analysing them in the context of their historical and societal setting; and disseminating methodologies of planning that can be applied in the context of both the developed and the developing countries. For policy-making and planning, vicarious experience is a potent source of learning: the problems others face, the objectives they seek, the routes they try, the outcomes they achieve, and the unintended results they produce all deserve analysis.

In order to help the Institute identify up-to-date issues in educational planning and policy-making in different parts of the world, an Editorial Board has been appointed comprising professionals of high repute in their fields. The series has been carefully designed, but no attempt has been made to avoid differences or even contradictions in the views expressed by the authors. The Institute itself does not wish to impose any official doctrine. Thus, while the views are the responsibility of the authors and may not always be shared by UNESCO or IIEP, they warrant attention in the international forum of ideas. Indeed, one purpose of this series is to reflect a diversity of experience and opinions by giving different authors from a wide range of backgrounds and disciplines the opportunity to express their views on changing theories and practices in educational planning.

The purpose of technical and vocational education is essential to promote and support the development a country, facilitate transition from school to work for millions of school leavers, and foster equality of opportunity and social cohesion. It also has a key role to play in addressing current problems, such as the fight against poverty (how can we train the poor to make a living and be self-sufficient?), the food crisis (how to increase the productivity of farmers?), and deterioration of the environment (how to preserve water or slow desertification?). As these questions imply, technical and vocational education is meant to provide relevant skills to a great variety of people: those working in the modern sector as well as those in the traditional sector of the economy; those working in

industry, agriculture, and services; and those who are employed, self-employed, or unemployed.

Planning technical and vocational education has been the object of passionate debates among education economists in the past. Can one anticipate the requirements of the labour market and plan education accordingly? To what extent can technical and vocational education facilitate transition from school to work and protect school leavers and adults from unemployment? Where is it best organized – in schools, vocational centres, or enterprises? Who benefits most from it and who should finance it – the state, families, or enterprises?

In the past 20 years, however, technical and vocational education has undergone several reforms that concern its organization, governance, delivery, financing, and monitoring. The time has come to draw lessons from these reforms and identify what works and what does not and in which contexts. Planners and politicians all over the world are eagerly searching for possible solutions. Few would be better placed to do such a review than Kenneth King and Robert Palmer, who have worked in this area for many years and closely followed recent developments. The current booklet concentrates on Asian and African countries.

The Institute is grateful to the authors for this interesting and challenging contribution, and to Françoise Caillods for following it up as General Editor.

Khalil Mahshi  
Director, IIEP

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## Preface

While the world is progressively entering what has been termed a 'knowledge society', technical and vocational education and training constitute a strategic component of any educational policy. In the 1990s, school-based vocational education underwent very severe criticisms, which led to the introduction of multiple reforms affecting its size, organization, financing, and management. Many of these reforms have been long and difficult to introduce. The time has come to draw the lessons from their implementation and to review present policies and strategies in the area.

Governments are traditionally keen to invest in technical and vocational education, which they consider the driving force of modernization. This type of education is expected to provide answers to some of societies' major challenges: to make companies and the economy more competitive, to combat unemployment, to facilitate transition from school to work, and to reduce poverty. Aid agencies, on the other hand, have had much more fluctuating policies in this regard.

Immediately after obtaining their independence, many developing countries invested a great deal in technical and vocational education, with the hope that this investment would accelerate the modernization of their economies and boost economic growth. They did so with the support of many multilateral and bilateral development agencies.

Several years later, the economic crisis of the 1970s and 1980s, together with the rise in unemployment, led to a great deal of disillusion. It became apparent that, in and of itself, technical and vocational education does not create employment, nor does it systematically lead to economic growth. Structural adjustment programmes, and the reduction in the amount of public funds devoted to technical and vocational education, led to rapid deterioration in the quality of the education and training provided and to low skill acquisition. Several aid agencies started reducing their support to the sub-sector, which led to further deterioration in the quality of the training provided.

The collapse in 1989 of the Socialist bloc, which traditionally gave much importance to technical and vocational education, had already challenged the privileged status of this type of education in the policies of a good number of countries. Western countries also started implementing serious reforms to adapt their technical education and training systems to the profound transformations that affected their labour markets as a result of rapid technical change and increasing globalization.

For the developing countries, a landmark has been the publication in 1991 of the World Bank policy paper on ‘Vocational and Technical Education and Training’. The paper largely questioned the quality of the sub-sector’s management and the relevance and efficiency of large-scale public investments in it. It made several recommendations on how to improve the overall effectiveness of the sector. Following the publication of the paper, a large number of international funding agencies reduced considerably their support to technical and vocational education. Many countries – including, but not limited to the most aid-dependent – considerably downsized their school-based technical and vocational education, and some even considered postponing specialization till after the end of secondary education.

The scales had tipped too far the other way. Interestingly enough, most advanced countries and emergent economies of East and South-East Asia did not follow that trend and kept a strong technical and vocational sector, arguably because they needed a qualified labour force and had the necessary resources to support the sub-sector. Several interesting training initiatives, organized by NGOs and vocational training centres, also developed with the support of different ministries to fight against poverty and exclusion.

In 2010, while more and more capital funds and enterprises move from one country to another to take advantage of a qualified and cheap labour force, more attention and support has to be provided to technical and vocational education. Another reason, mentioned by King and Palmer in this booklet, is linked to the success of the Education for All policies: these are potentially creating a problem related to school leavers, as millions of young people graduating from basic education face pressure to continue to further education but have little chance of succeeding. A third reason is linked to the

international commitment of reducing poverty by half by 2015. Appropriate skills development programmes are needed to facilitate the transition of young people to the world of work, to improve the productivity of workers in the formal and informal sectors, and to provide some skills to disadvantaged groups, so as to allow them to earn a more decent income. But which programmes are most likely to do so? How, and by whom, should they be managed and financed? How should they be planned? What can we learn from the reforms and successful programmes that have been implemented in recent years?

The present booklet by King and Palmer is first and foremost a plaidoyer to bring back technical and vocational education and training – and skills development programmes – on the agenda of governments and aid agencies. It addresses the key questions that national planners and policy-makers, but also aid agencies, need to consider when deciding on the resources to be allocated to different skills development programmes. These questions include: Does skills development result in poverty reduction? If so, under what conditions? Does the provision of ‘employable skills’ to youth lead to their employment? If so, under what conditions? Does a public or a private sector investment in the skills of young people or young employees lead to higher productivity? If so, under what conditions?

Having answered these questions, King and Palmer review the major reforms that have been implemented in the past years – concerning ensuring more equity and providing training to the poorest segments of the population; improving quality, management, and governance; increasing skills portability; and developing financing strategies.

The booklet raises many issues and provides many interesting answers on the basis of the authors’ extensive experience. It should prove essential reading for any policy-makers, planners, and agencies reconsidering their policy and strategy in the area of technical and vocational education and training.

Françoise Caillods  
General Editor

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## List of abbreviations

ADB	Asian Development Bank
BMZ	German Federal Ministry for Economic Cooperation and Development
CBT	Competency-based training
CIDA	Canadian International Development Agency
CONFINTEA	International Conference on Adult Education
COTVET	Council for Technical and Vocational Education and Training (Ghana)
DFID	Department for International Development (UK)
EBT	Enterprise-based training
ECA	(United Nations) Economic Commission for Africa
EFA	Education for All
ETF	European Training Foundation
ETVET	Employment and TVET Council (Jordan)
GMR	Global Monitoring Report
GTZ	German Technical Cooperation
ICT	Information and communication technology
IDRC	International Development Research Centre
IIEP	International Institute for Educational Planning
ILO	International Labour Organisation
IMF	International Monetary Fund
KILM	Key Indicators of the Labour Market (ILO)
MDG	Millennium Development Goal
NAVTEC	National Vocational and Technical Education Commission (Pakistan)
NFE	Non-formal education
NGO	Non-governmental organization
NQF	National qualification framework
ODA	Overseas Development Agency (UK)

*List of abbreviations*

OECD	Organisation for Economic Co-operation and Development
SDC	Swiss Agency for Development and Cooperation
SENAI	Brazilian National Industrial Training Service
SIDA	Swedish International Development Cooperation Agency
SSA	Sub-Saharan Africa
TVE	Technical and vocational education
TVET	Technical and vocational education and training
TVSD	Technical and vocational skills development
UIS	UNESCO Institute for Statistics
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNEVOC	UNESCO International Centre for Technical and Vocational Education and Training
UPE	Universal primary education
VET	Vocational education and training
VTC	Vocational Training Corporation (Jordan)
VTI	Vocational training institute
WCEFA	World Conference on Education for All
WEF	World Education Forum
WGICSD	Working Group for International Cooperation in Skills Development

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# Introduction

## *Background and rationale*

The close of the first decade of the twenty-first century seems an appropriate moment to revisit the topic of technical and vocational skills development (TVSD)<sup>1</sup> from an educational planning perspective. Since the fall of the Berlin Wall in 1989, a number of major events have put TVSD firmly back on the education and training agenda of both development agencies and national governments. For one thing, the successful focus on the rights of all children to primary or basic education<sup>2</sup> since the World Conference of 1990, and its reinforcement by the Dakar World Forum and the Millennium Development Goals (MDGs), have meant that unprecedentedly large cohorts of young people are now completing the first cycle of education. In many parts of the developing world, this has put great pressure on still selective secondary schooling and on very small technical and vocational streams. Second, in many transition countries, technical and vocational systems have had to make dramatic adjustments from the planned to the market economy. Third, awareness of the pivotal role of technical and vocational education in the dynamic economies of East and South-East Asia has been growing (Fredriksen and Tan, 2008). Likewise, a significant current of new thinking has arisen in the Organisation for Economic Co-operation and Development (OECD) countries and in Latin America about the role of secondary, technical, and higher education in supporting knowledge economies. An indication of the revival of interest in TVSD is the importance given to Goal Three<sup>3</sup> in the influential Education for All (EFA) Global Monitoring Report (GMR) of 2010. Cutting across all these drivers of a renewed

- 
1. The term TVSD is intended to marry the well-known older terms ‘technical’ and ‘vocational’ with the newer term ‘skills development’.
  2. The success has been more evident in quantitative access than in the quality of achievement and outcomes.
  3. Goal Three: ‘Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life-skills programmes’.

interest in skills development has been a set of assumptions about its connections to the knowledge economy, development, and modernization in an increasingly competitive world.

### *Institutional positioning and modalities of TVSD*

Another substantial change since the beginning of the 1990s, when the World Bank published its policy paper *Vocational and Technical Education and Training* (World Bank, 1991), has been in the institutional positioning of TVSD. A series of reports was produced in the 2000s, including those by the Commission for Africa, the Millennium Project and Summit, new World Bank policies on secondary, higher, and general education and on skills development, as well as the *World Development Report of 2007* on youth (Johanson and Adams, 2004; World Bank, 2005a; 2005b; 2006), arguing that a holistic, integrated, intersectoral approach to education, including TVSD, is crucial. Briefings by the UK Department for International Development (DFID) on secondary, vocational, and higher education, and on technical and vocational skills development (DFID, 2006 and 2007, respectively), make the same point. Sector-wide approaches from the mid-1990s onward exemplified these new priorities of supporting the whole education sector. Increasingly, Poverty Reduction Strategy Papers (PRSPs) will need to reflect this same comprehensive approach. While it is recognized that the treatment of skills development in PRSPs is weak, the World Bank notes that many governments in sub-Saharan Africa (SSA) are beginning to put in place policies that emphasize training both for the formal and for the informal sector. Specialized agencies, such as UNESCO and the European Training Foundation, also acknowledge an increased demand for support and advice from partner countries in the area of TVSD.

One dimension of institutional positioning has been recognition, at least since the early 1990s, of the institutional diversity of TVSD. It has begun to be commonly acknowledged that TVSD provision covers many modalities and locations. These include four types of institutional provision, two in the formal sector and two in the informal or unregistered sector: (1) public school-based technical and vocational education, (2) public vocational training centres, (3) private for-profit, and (4) non-governmental provision

of technical and vocational education and training.<sup>4</sup> In addition, short-duration non-formal training initiatives are being undertaken by many different governments, from Ghana to Pakistan, often linked to the institutional providers mentioned above.

### *Coverage, audience, and outline*

Of course, these modalities are not completely separate ‘silos’; many young people combine several of them in pursuing their pathway to work. Indeed, the well-known German dual system combines apprenticeships in an enterprise with attachment to a vocational school. There are also examples of convergence in the provision of these historically distinct modalities. While we expect that the audience for the present work will perhaps be linked more to ministries of education than to ministries of labour or to industry and small enterprise, we have tried to pay appropriate attention to all the principal modalities of skill acquisition. Since educational planners have to be increasingly aware of cross-sectoral developments, it is important also to cover those modalities not associated closely with a ministry of education.

This work draws its examples from some of the developing countries of SSA and Asia rather than from the OECD countries or the advanced East Asian economies. Some reference is made to the Middle East (Jordan) and to Latin America. We recognize that there are major differences in the history, culture, and tradition of TVSD in different regions, and even among countries within regions. Indeed, ‘context is critical’ is one of the major messages that we seek to put across as we review trends, changes, and reforms.

We are aware that the planning of TVSD also takes place outside ministries of education. It is carried out by TVSD coordinating councils, by industry associations, by private providers, and even by informal sector associations.

*Chapter 1* begins by examining the changing fashions, drivers, meanings, and locations of technical vocational skills development

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4. A case can be made both for and against the inclusion of agricultural education and training in TVSD; however, it will not be covered here, though some relevant references will be offered.

in the international agenda. The international architecture of skills development has been heavily influenced by development agencies, multilateral and bilateral, whose direct impact at the country level has been very different in different regions of the world. Still today, many priorities and fashions in TVSD are powerfully disseminated by such bodies, including skills for poverty reduction and skills for security. This focus means that the present work is more concerned with TVSD in the developing world than in the OECD countries.

*Chapter II* examines in more detail the economic and social dimensions of some of the drivers of technical and vocational skills development. The first section covers, in non-technical language, the current debates about TVSD in relation to poverty reduction, youth employment, and social cohesion, and the role of gender in these relationships. The second section examines current debates about TVSD in relation to productivity, economic growth, job creation, effectiveness, and competitiveness.

*Chapter III* discusses some of the current reform initiatives within the TVSD sector, drawing on international experience of TVSD reform activities in Africa, Asia, the Middle East, and Latin America. It examines a selection of initiatives, including governance reforms; reforms to redirect TVSD's focus from supply-driven to demand-driven systems; reforms relative to training standards, skills portability, training finance, and information systems; reforms relative to non-state providers of TVSD; and reform of school-based TVSD. Many of these reform initiatives are encouraged by development agencies.

*Chapter IV* concludes with a brief summary of the implications for planning for TVSD. An *Appendix* provides a further reading list for those wishing to explore particular aspects of skills development in more depth.

## I. Technical vocational skills development on the international agenda: changing fashions, drivers, meanings, and locations

For many decades, including the period of the colonial regimes present in most regions of the world, the character of TVSD at the country level was imposed by the metropolitan powers, whether French, Portuguese, Spanish, Russian, US, or British. The significant differences today in the approach to TVSD in anglophone versus francophone Africa, or in South Asia versus Central Asia, can in some measure be explained by these metropolitan influences. These have, in turn, been affected and overlaid by development agencies, which since the 1960s have offered different approaches, whether bilateral (German, Swiss, French, Japanese, or British) or multilateral (the World Bank, European Commission, UN specialized agencies, or regional banks). Even in the twenty-first century, many of the latest trends in TVSD, such as national qualification frameworks, competency-based training, and other reform initiatives, are closely associated with, and promoted by, such international agencies.<sup>5</sup>

### *1.1 Development aid and technical vocational education: the early years*

In what is often taken as one of the starting-points of the discussion of development aid in the modern, post-Second World War era, the transfer of technical knowledge from the industrialized to the developing world was at the heart of the agenda.<sup>6</sup> US President Truman in his 1949 Inaugural Address famously stated, ‘I believe we should make available to peace-loving peoples the benefits of our store of technical knowledge in order to help them realize their aspirations for a better life’ (Rist, 1997: 71).

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5. There is a parallel with the role of multilateral agencies in the construction of the global agenda on education; see King, 2007*b*.
  6. De Moura Castro (1995*b*: 11) said that ‘perhaps the most important and misunderstood aspect of training is its potential role in transferring technologies hitherto not mastered by society or by some groups.’

As the developed nations established aid agencies, both bilateral and multilateral, around the great era of political independence at the beginning of the 1960s, it was widely assumed that one of the vehicles for this technical knowledge transfer would be technical and vocational schools and institutes and technological universities. Of course, the colonial era had seen the parallel assumption, that whether through missionary societies or colonial governments the development of skills in the local populations would significantly benefit their lives. Hence what were then called 'trade schools', offering industrial and agricultural skills training, were common. The view held by many colonial and missionary administrators at the time, that there was something particularly appropriate about providing vocational rather than academic skills to politically subject peoples, would form an early contribution to the long-running status problem of technical subjects (King, 1971). In an extreme form of this association of race and vocational provision, the architects of Bantu Education in apartheid South Africa affirmed from the early 1950s that only very basic practical skills were suitable for the majority African population.

The main institutions for the transfer of technical and vocational skills were separate technical or vocational schools, usually operating at the immediate post-primary level (although it should be recalled that in many colonial territories, even after the Second World War, upper primary schooling contained compulsory vocational or technical components). However, the educational level of this transfer was not exclusively upper primary or lower secondary in the late colonial and early independence eras. For instance in India, which gained its independence in 1947, one of the relatively early transfers by Germany, Russia, the United Kingdom, and the United States was a series of highly selective Indian Institutes of Technology. They fitted in precisely with the view of India's first Prime Minister, Nehru, that true independence was inseparable from indigenous technological capacity. Equally, the United States, based on its belief that the land-grant (agriculturally focused) colleges had played a critical developmental role in its own South and West, was ready to transfer this model to the newly independent countries of Asia, such as India.

In other words, the new aid impetus in the 1950s and early 1960s operated at different levels and, naturally enough, involved the transfer of national models of technical and vocational training. Thus West Germany transferred its well-known dual system of training (through apprenticeship in firms combined with training in specialized institutes) to many countries in Latin America and the Near East (Boehm, 1994). France was influential in French-speaking West Africa (Atchoarena and Delluc, 2002), but also in Latin America, as was Switzerland (De Moura Castro, 1995a: 3). Russia transferred its models to the new government in China in the early 1950s. Meanwhile, the UN specialized agencies drew upon mixed models as they offered what was appropriately termed ‘technical assistance’ to the developing world. The International Labour Organisation (ILO) was associated with the development of a series of National Industrial Vocational Training Centres, which encouraged various forms of industrial training and apprenticeship at the country level, but it was typically associated with ministries of labour.

Thus from quite early on in the history of the transfer of technical and vocational education and training to developing countries, initiatives linked with education were associated with the new ministries of education, while those linked with training were associated with the new ministries of labour. This division was reproduced between UNESCO and the ILO, even though from as early as 1954 they had signed a ‘Memorandum of collaboration in matters of technical and vocational education and related matters’ (UNESCO/ILO, 2002). The divide between education and training and between ministries of education and labour was to survive to the present day, though for a number of governments, such as that of Scotland, it was also to be the source of reforms designed to unify and encourage the convergence of these two approaches.

Given the centrality of technical and vocational education to the new development assistance community in the 1960s, it should not be surprising that, in the series of famous regional conferences on education convened by UNESCO in the late 1950s and early 1960s in Karachi, Cairo, Santiago, and Addis Ababa, a role was allocated to technical and vocational education. This was an early instance of the planning of technical and vocational education. In the Addis Ababa Plan for African Educational Development of

1961, ministers of education in Africa were affirming that '[t]he development of technical and vocational education in the light of the economic and social development of Africa must be approached in a spirit of urgency' (UNESCO/ECA, 1961: 48).

Just two years later, the World Bank began lending for education, clearly intending its investments to assist directly in economic development. It assumed that technical and vocational education would increase worker productivity. From its first education project in 1963 in Tunisia right through until 1979, it sought to ensure a significant orientation towards technical and vocational education, through the funding of separate technical schools or by ensuring that academic secondary schooling was 'diversified' (Jones, 1992). Its rationale and assumptions were starkly clear: 'This [general secondary] education is dysfunctional for most types of employment – wage or non-wage – and for playing other roles needed in a developing society ... The observation suggests that the content of education must be re-oriented to relate skills taught to jobs, thereby ensuring that graduates can be employed' (World Bank, 1974: 21–22).

Embedded in this quotation is one of the commonest political justifications for investment in technical and vocational education – that it will in some way relate to jobs, and thus by implication help to deal with the challenge of the educated unemployed. These aspirations for making technical and vocational education directly assist with job creation through employment or self-employment are based on what Burnett calls 'a false belief that unemployment is because of a lack of skills on the supply side rather than a lack of demand' (Burnett, 2008: 8). A full 45 years earlier, in one of the most famous comparative education articles of all time, Foster (1965) had challenged the already widespread belief in the transformative power of technical vocational schools. His work soon became well known among academics and planners concerned with international education, because of its argument that the career ambitions of pupils were driven by their realistic perceptions of the reward system in the economy, not by whether they had been exposed to an academic or vocational curriculum. It was claimed that this article and Foster's position in the Comparative Education Center of the University of Chicago influenced the World Bank, eventually

changing its belief that secondary school investments should be diversified towards some agricultural, industrial, or domestic science curriculum. Planners interested in the relationship between research findings and policy change should note that the Bank did not alter its actual support of secondary school diversification until 1979, 16 years after the critical article had been published in a very influential book of the time, *Education and Economic Development* (Anderson and Bowman, 1963). It is arguable that the article, which was based on detailed research in Ghana, has had virtually no impact on planners and politicians in that country over the 50 years since its independence (King and Martin, 2002; Palmer, 2007).

The research had no influence on the development assistance community either. In the ‘development decade’ of the 1960s, many of the new aid agencies quite naturally assumed, like the World Bank, that support for technical and vocational education was crucially important. Agencies such as Danida (Denmark), the UK’s Overseas Development Agency (ODA), Finnida (Finland), the Canadian International Development Agency (CIDA), the Swedish International Development Cooperation Agency (SIDA), and German Technical Cooperation (GTZ), to mention just a few, had whole sections dedicated to vocational education (King, 1991). Even though UNESCO was not a development agency in the same sense, it too had a substantial section on technical and vocational education, providing countries with technical assistance for the implementation of World Bank projects. In the World Bank itself, there was a significant group of staff whose formal title was ‘vocational educators’; in the ILO in Geneva, one of the largest sections was the Training Department, providing advice and technical assistance to the many national industrial vocational training projects referred to above.

The focus of this widespread support for technical vocational education and training was not simply specialized technical schools or diversified academic schools. It has already been noted that there was also support for higher-level institutes of technology in India, and through Danish aid to India, high-level tool- and die-making institutes were developed that furnished emerging Indian industries with crucial manufacturing components. On the other side of the world, in Latin America, through Swiss and German influence, the

famous Brazilian body SENAI (Serviço Nacional de Aprendizagem Industrial) was established as early as the 1940s. SENAI, in turn, provided a model for much of the rest of South and Central America; it was based not on the school system but on an independent authority, with close links to employers and a source of secure funding through a payroll training levy.

The impact of external actors on national bodies is less commonly referred to in Latin America than in SSA, but it is noteworthy that as recently as 2008 a whole volume was dedicated to *The Role of International Cooperation in Education and Training for Work in Latin America* (WGICSD, 2008).<sup>7</sup>

It is important to acknowledge the role of these international borrowings, or policy transfers, and to note that the key issue is how these external influences are adopted, adapted, and made local. Whether it was Japan searching for and selecting technologies in the time of the Meiji Restoration, or Singapore deliberately encouraging the development of Japanese and German technical schools more recently, or Ethiopia inviting the development of Chinese and German technical colleges today, the critical element is not the borrowing itself but rather the policy learning and local adaptation that make for national ownership.<sup>8</sup>

Apart from formal schools and formal training supported by employers in training centres such as those associated with the ILO and SENAI, the early 1970s brought into the spotlight two further key locations of technical vocational education and training. First, while the informal sector was ‘discovered’ by an academic in Ghana, the concept was dramatically internationalized by the World Employment Mission to Kenya in 1972 (ILO, 1972). This discovery

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7. Weinberg (2008: 46) has commented on these national training bodies: ‘What is more, the success that these organizations have achieved cannot be understood without taking account of the firm backing and financial and technical commitment of international multilateral organizations (mainly the United Nations Development Programme and the ILO), the multilateral banks and bilateral cooperation agencies, above all those in Europe.’
  8. See NORRAG 2009 Conference on Policy Transfer or Policy Learning: Interactions between International and National Skills Development Approaches for Policy Learning. Graduate Institute of International and Development Studies, 25-26 June 2009, Geneva.

was supplemented by the clear evidence that large numbers of young people were acquiring their skills in small and micro-enterprises, as a kind of informal apprenticeship (King, 1977; Hallak and Caillods, 1981). At almost exactly the same time, the first director of the International Institute for Educational Planning (IIEP), Philip Coombs, coined the term 'non-formal education' (NFE) to describe a wide range of education and training provision outside the formal, sequential education and training systems. This new term covered a great deal of structured training, including much that was essentially skills training, provided by non-governmental organizations (NGOs), under national service schemes, by voluntary bodies, and in every conceivable ministry from health to small enterprise development, and from fishing to forestry. Evans (1981) usefully analysed the different strands, meanings, and approaches to NFE.

These two instances illustrate the agenda-setting power of international bodies, the World Employment Programme of the ILO and UNESCO's IIEP. The terms 'non-formal' and 'informal' continue to be used widely. In many countries from South Asia through SSA to Latin America, where the bulk of employment is found in the informal sector, it should not be surprising that upgrading the training systems in the informal sector remains on the agendas of many development agencies as well as of national governments. Thus the French Agency for Development recently issued a book, *Vocational Training in the Informal Sector: or How to stimulate the economies of developing countries?* (Walther and Filipiak, 2007). Many of the national training agencies in Latin America have developed a separate window to encourage training for the informal sector.

For the educational planner, and particularly for the planner of technical vocational skills, NFE continues to be a challenging concept, as its much later definition by UNESCO would suggest: 'adult literacy, basic education programmes for out-of-school children, life skills, work skills, and general culture' (UNESCO, 1997: 41). So much was included under the NFE umbrella, with such differences of purpose, for so many different clienteles, that it was difficult to separate out the specific contribution of non-formal skills provision. Below it will be shown how problematic the EFA GMRs have found its assessment and monitoring.

Beyond school-based training (through ministries of education as well as private bodies), training in vocational training institutions (through ministries of labour as well as private bodies), enterprise-based training in the informal sector, and NFE (much of it private for-profit or non-profit), one further location may be noted: enterprise-based training in formal-sector firms. This can be formal training on the job, but also the informal training employees receive as they move from casual labour to more skilled activities over a period of years. Not all of these will be treated equally in what follows; more attention will be given to those forms of TVSD associated with ministries of education, since one of the main audiences here is educational planners.

Before completing this first section, a word is in order on the crucial matter of terminology. The reader will have noticed that reference has already been made to technical and vocational education, technical vocational skills, technical and vocational education and training, skills training, life skills, work skills, technical education, vocational training, NFE, and skills development, to mention just a few. One major division is that between technical education and vocational training. This division runs through the Romance languages, with a strong distinction between *éducation* and *formation* for example in French, paralleled in the other languages. Planners with access to any of the other languages of the UN system may want to examine this contrast in a comparative context. This distinction also appears in English, of course; but in English the word 'skills' can also readily be attached to both adjectives, technical and vocational, and combined with others to form life skills, work skills, core skills, communication skills, soft skills, and even attitudinal skills. At one level, as defined by the *Oxford English Dictionary*, skills may be thought of as the 'capability of accomplishing something with precision and certainty' and 'the ability to perform a function acquired or learned with practice', but a multiplicity of other usages and nuances exist.

In other words, the term 'skills' is more general than either technical or vocational expertise. Perhaps for that reason a number of funding agencies, including the World Bank and the Asian Development Bank (ADB), have adopted the term 'skills development', which more easily allows coverage of the multiple

locations of training than the term ‘technical and vocational’: see for example the World Bank’s *Skills Development in Sub-Saharan Africa* (2004), or the ADB’s *Education and Skills* (2008). However, many ministries of education continue to think in terms of technical and vocational education (TVE), and ministries of labour continue to think in terms of technical and vocational education and training (TVET), or just vocational training. In continental Europe, including Eastern Europe, the preferred term is ‘vocational education and training’ (VET).

As the principal audience of the present work is educational planners, the terms ‘technical’ and ‘vocational’ will continue to be employed here, but because the perspective is at times broader than formal schools and colleges, ‘skills development’, or just ‘skills’, will also be used. The term ‘competency’ will also appear in later sections. Indeed, the general term ‘technical and vocational skills development’ (TVSD) has much to commend it, as it connects to the traditional usage of planners as well as to the new term that has been adopted in the last ten years in the agency world (DFID, 2007; Swiss Agency for Development and Cooperation, 2007).

## *1.2 TVSD in a time of changing aid architecture and market economics: the 1980s and 1990s*

The economic theories of the Chicago School, foundational to the Thatcherism and Reaganism of the 1980s, centred on a critique of the state and of dependence on state provision. In the case of education and training, this was to lead to encouragement of the private sector, diversification of financing, and cost recovery or cost-sharing by the beneficiaries, both students and trainees. With respect to aid architecture, it ushered in the structural adjustment of many developing economies by the International Monetary Fund (IMF) and the World Bank, and consequent reductions in state expenditure on social services, including education and training. The impact on technical and vocational provision, especially in the financially weaker countries, will be discussed below. Even though these adjustment policies came under fire in due course, especially for their impact on access by the poor to education and health (Cornia *et al.*, 1986), the damage had been done. One of the

global reactions to the education crisis for the poor was a return to a rights-based agenda, through the influential World Conference on Education for All (WCEFA) held in Jomtien in 1990. But this too had an impact on technical and vocational education as well as on higher education. Even though the World Conference had mentioned the importance of ‘training in other essential skills’ (WCEFA, 1990a: 3), the new EFA aid priority in practice was primary schooling. Coupled with a continuing emphasis on the importance of the market when it came to TVSD, this led to a dramatic fall in external aid to technical and vocational schools. Other factors were also at work in different macro-economic contexts, not the least of them concerns about the high cost and sustainability of technical and vocational schools in aid-dependent countries.

At the beginning of this period, in 1979/1980, the World Bank began to rethink its almost 20 years of support to diversified secondary education. It reached the conclusion that there was no solid empirical evidence to show that the diversified curriculum of these schools influenced student aspirations. This position was reinforced by the arrival in the World Bank of new, more research-oriented staff, who were familiar with Foster’s influential work. Unfortunately for technical, secondary, and university education, during the 1980s this cautious attitude to diversified secondary schooling was strengthened by the growing use of cost–benefit analysis, which purported to show dramatic returns in primary education as opposed to secondary and higher education. Quite suddenly the tables had been turned on technical and vocational education, and by the mid-1980s, when countries like Ghana and Kenya were seeking support to make their general secondary education more vocational, World Bank funding became unavailable. These countries nevertheless went ahead, in the teeth of opposition from the Bank. The same thing happened a few years later in South-East Asia, where Thailand insisted on retaining and strengthening its vocational training institutions in the face of World Bank pressure.

The vocational school had become the centre of a controversy within the aid community. SIDA, which had supported a diversified industrial arts curriculum as well as separate technical training institutes, encouraged a debate on strengthening vocational education in the mid-1980s (Lauglo, 1985; Lauglo and Lillis, 1986). But the

World Bank's influential document *Education in Sub-Saharan Africa* (1988) brought its adjustment policies, cost-benefit approach, and support for private enterprise provision of technical education to bear on school-based technical and vocational training. It criticized the high costs and tenuous vocational relevance of much school-based training, and urged instead the development of industrial training centres and training organized by local enterprises.

Just three years later, in 1991, the Bank produced its first ever comprehensive policy paper on the whole field of what it called 'vocational and technical education and training'. This drove the last nail into the coffin of diversified school-based provision, as far as its own lending was concerned. The paper emphasized on its first page what many took to be its key message: 'Training in the private sector – by private employers and in private training institutions – can be the most effective and efficient way to develop the skills of the work force' (World Bank, 1991: 7).

Many agencies and national ministries read the policy paper as critical of public provision, even if a more careful reading showed the recognition of some key roles for the public sector. But coming just a year after the World Conference on Education for All and the Bank's own primary education policy paper, it signalled a retreat by the Bank from the support of technical and vocational education in the public sector. Educational planners should take care to read the whole text of such policy documents, not the headline messages alone. In many ways, this was an excellent review of the whole field of skills development, public, private, formal, non-formal, and enterprise-based. It drew on the work of numerous scholars and the support of key agencies such as GTZ, the Inter-American Bank, the OECD Development Centre, the International Development Research Centre (IDRC), and the ILO. It marked the policy supremacy of the World Bank in this field; its growing confidence in its own policy capacity had led it to terminate its cooperative programme with UNESCO in the late 1980s.

The Bank's message led directly to the reduction of lending to the public sector in this area and to a reduction in its own professional staff of vocational educators. In many other agencies also, the new priority of basic and particularly primary education after the World

Conference in Jomtien had the effect of reducing the number of staff with expertise in this skills development field. The 1990s was mostly a low point for technical and vocational education on the agendas of development agencies.

Some analysts of TVSD, however, felt that the Bank was going too far in its critique of school-based and institute-based provision and its encouragement of job-related training in the workplace, and not paying enough attention to the pattern of technical and vocational provision across the industrialized world. De Moura Castro put this bluntly: ‘The latest World Bank paper says that vocational and technical education is best imparted in the work place’ (1995b: 53).

This may be true, but the 1995 paper should have noted that no industrialized countries – without a single exception – actually follow this World Bank prescription. All industrialized countries, including the US, Germany, and Japan, offer massive quantities of training away from the workplace. It is quite misleading for the Bank to tell developing countries to do something that no developed country has done.

### *1.3 The return of TVSD to agency and national government agendas, 1999–2009*

Although the World Forum on Education for All in Dakar in April 2000, followed by the Millennium Summit in September of the same year, might seem to have confirmed primary education as the key Millennium Development Goal along with gender parity in education, other drivers were shortly to bring TVSD back onto national and agency agendas. *Chapter II* looks at several of these in more detail, but briefly they are: the knock-on effect of investment in primary education; the awareness that high-quality skills are crucial for international competitiveness and for encouraging domestic investment; and the argument that skills are critical for higher individual productivity and hence higher income. Educational planners may wish to map how this has played out at the country, regional, or agency level of professional concern to them; it is a powerful illustration of the effect of different drivers of the TVSD agenda despite the continuing focus on ensuring that all the world’s children get good primary education.

A first straw in the wind was that UNESCO re-emerged from paying relatively little attention to TVE, apart from the emphasis on ‘Learning to Do’ in the Delors Report of 1996, to organizing a major International Congress on Technical and Vocational Education (UNESCO, 1999). Holding it in South Korea, a nation among many in East Asia that had invested substantially in TVE, was significant. Like others in the region, its technical and vocational policies were tied closely to its science and technology policies and its overall industrial development planning.

The pattern in these emerging East and South-East Asian economies was not always uniform. China’s planners were aiming to have as many as 50 per cent of young people in technical schools at the upper secondary stage. Thailand, Indonesia, and South Korea also had strong traditions of secondary technical schooling: Korea, for example, had 47 per cent of its total high school enrolment in TVSD in 1970 (Fredriksen and Tan, 2008: 17). The very element that the World Bank 1991 policy paper had advised against – school-based technical education – seemed to be alive and well in East and South-East Asia.

It was a marker of these changed times for TVE that UNESCO re-issued its *Revised Recommendation Concerning Technical and Vocational Education* in 2001. So much had changed in the global context of TVE, not least in massive changes in information and communication technology (ICT), that the 1974 recommendation was no longer appropriate.

The same thing happened to NFE. Despite the international focus on universal primary education as one of the EFA Dakar Goals, non-formal initiatives had continued to grow and multiply, and the IIEP issued a new conceptual review of the field (Hoppers, 2006).

It may be less despite than because of the international focus on primary education that NFE came back on the agenda. The very success of the EFA initiative in getting 40 million more children into primary school by 2006, compared to 1999 (UNESCO, 2008: 57), made millions of parents and primary school leavers ask the question, ‘After school, what?’ This natural concern with the sequel to general primary education, often of poor quality, has led to an enormous demand for additional education and training, whether

in non-formal skills training, secondary schooling, or technical and vocational schooling. In this sense, EFA has been a key driver of TVSD.

The GMR for 2009 states that of the 513 million students in secondary school in 2006, just 10 per cent were in TVET streams (UNESCO, 2008: 85). This figure is not particularly helpful for planning purposes, since the 513 million covers all secondary levels, while TVET streams are mostly in upper secondary. But even with these inadequate figures, it is an interesting reflection on the World Bank's advice to developing countries in the 1980s that more than 20 years later the percentage in technical and vocational schooling is twice as high in the developed countries than in the developing, and three times higher in the developed industrialized countries than in SSA, where World Bank policy has arguably been most influential: World Bank spending on TVSD actually decreased by 40 per cent in SSA between the 1980s and the 1990s (Johanson and Adams, 2004: 21). In other words, the Bank's advice was most influential in some of the financially weaker states, including in SSA.

But the World Bank, too, has been actively rethinking its skills development policies in the new century. It has produced a series of major reviews, for example in SSA and in South Asia, that cover thoroughly all the different locations of skills development discussed above. Even the treatment of public, school-based training is much more nuanced now, in the recognition that the mantra of making TVSD 'demand-led' is less persuasive when the formal wage employment sector in many parts of Africa has dramatically shrunk, if not collapsed. At the same time it is recognized that making formal TVSD responsive to the needs of the huge informal sector is far from straightforward.<sup>9</sup>

The World Bank has been joined by a series of other agencies in revisiting TVSD. These include the Asian Development Bank (ADB, 2008), the Department for International Development (DFID,

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9. De Moura Castro (1995a: 9) has some valuable comments on demand-led training, including on the challenges of 'Training in times of unemployment and crisis: what to do if there is no demand?'. It should also be recognized that the term 'responsive' has a positive feel to it, while 'supply-driven' has a pejorative tone.

2007; 2008), the British Council, the European Training Foundation (2008), Netherlands (Atchoarena, 2007), France, Germany, Japan, and the ILO (2008).<sup>10</sup> Even UNESCO, which had not accorded TVE as high a priority after Seoul as had been hoped, re-established its International Centre for Technical and Vocational Education and Training (UNEVOC) in Bonn, moved from Berlin after German reunification. In 2008 it also decided for the first time to develop a UNESCO TVET strategy (UNESCO, 2009; King, 2009). For an educational planner seeking to map the many shifts in renewed donor activity in the area of skills development since 1996, the collected papers of the Working Group for International Cooperation in Skills Development (WGICSD) are an invaluable source ([www.norrag.org/wg](http://www.norrag.org/wg)).

As skills development has become more salient in national and agency agendas, the development community has become aware of the need for capacity building within the agencies themselves. The British Council, the World Bank Institute, and the IIEP have all been providing elements of skills development training for the donor community and increasingly for some national planners.

Two further building blocks need to be put in place to complete the reinstatement of TVSD as a high-status, priority issue on national and donor agendas. First, the EFA Dakar Goal Three (on skills) of the Dakar World Education Forum (WEF) needs to receive the same comprehensive level of treatment as the other five goals. Every year between 2002 and 2008, the GMR team has reported that Goal Three is the hardest to define and monitor; yet it is clear that the Dakar Goal of ‘appropriate learning and life skills’ (WEF, 2000: 2) was merely a rephrasing of the suggested Jomtien target of ‘basic education and training in other essential skills required by youth and adults’ (WCEFA, 1990a: 3). Treatment of this vital skills component of the EFA framework would provide a rich opportunity to clarify conceptually and practically the many different kinds of skill that regularly fall under educational planning.<sup>11</sup> At minimum such a ‘skills GMR’ would treat core skills, life skills, work skills,

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10. For more detail on these new TVSD policies, see King, 2007a.

11. For a concise policy history of how the GMR has dealt with the challenge of Goal Three between 2002 and 2007, see King and Palmer, 2008.

soft skills, specific technical and vocational skills, low skills, high skills, and behavioural skills. Like the GMR on literacy, which succeeded in making sense of an enormous range of different national definitions of literacy, a GMR focused on skills would be invaluable to the educational planner faced with many apparently conflicting demands for technical and vocational skills development.

Second, an international conference on TVSD should be held every four or five years, on the model of the successful CONFINTEA (International Conference on Adult Education) in relation to adult education. The Seoul Congress of 1999 and the Bonn Conference of 1994 have provided a good base.

Having traced the shifting fortunes of TVSD on the international agenda over the past 50 years, we may now ask what the educational planner needs to know about the key social and economic dimensions of skills development, not least the interactions between skills development, poverty reduction, growth, and employment.

#### *1.4 Some implications for educational planning*

Issues for planners have been mentioned at various points in this chapter: the following paragraphs are a restatement and amplification of these issues.

The first and most important lesson for planners from the policy history of TVSD over the last 20 and more years is a simple one: history and context matter. It is incumbent on planners to take account of the history, culture, and tradition of TVSD in countries where they may be giving advice. Even our snapshot of the recent past shows that agency policies on TVSD have changed substantially, but have also at times become trapped in routinized practices. It is valuable for planners to know the origins of these developments, whether in national or donor policy documents. The advantage of an awareness of policy history is that planners can be alert to the dangers that the skills agenda may be manipulated. The politics of skills-for-employment, for example, has a long history in many countries, and it is appropriate for planners to be well briefed on the history of schemes driven by this rhetoric. Education, training, and skills development do not produce jobs in the absence of an enabling macro-economic environment (Palmer *et al.*, 2007).

Equally, planners need to be aware that some new approaches to skills development are being competitively marketed by agencies in the industrialized world. Again, there is a need for caution in the face of this kind of dissemination of ‘best practice’.

Second, planners concerned with TVSD at the national or regional level will be advised to understand the local meanings of ‘skill’, ‘competency’, and ‘technical knowledge’, and to find out how these are valued within education and training systems.

Third, it is crucial that educational planners be aware of the different locations of TVSD, in schools, training centres, and enterprises, and their delivery through formal, non-formal, and informal systems in both public and private sectors, even if they are more concerned with provision under the umbrella of a ministry of education.

## II. Technical and vocational skills development: economic and social dimensions

### 2.1 Introduction

In *Chapter I* it was noted that the 2000s have seen a dramatic rise in the salience of TVSD on the global agenda. The ADB, OECD, World Bank, China, India, Pakistan, Australia, and others have generated a series of commissions and analyses of the subject. The renewed interest in TVSD is being driven by a number of different factors:

- The success of universal primary education (UPE) and the challenge of post-UPE provision: agencies (UNESCO, DFID, and others) report rising national pressure for both TVSD and secondary school expansion.
- The concept of skills for competitiveness, enterprise productivity, and individual prosperity: countries perceive the availability of skills as an element in global competitiveness and enterprise profitability.
- The concept of skills for poverty reduction: the provision of skills to individuals is increasingly perceived as a way of helping them out of poverty.
- The politics of skills-for-employment, skills-for-security, and skills-for-social-cohesion: more controversially, skills become linked to the politics of employment creation, to dealing with young people in fragile states, and to combating terrorism.

This chapter examines in more detail the economic and social dimensions of some of these drivers of TVSD. The first section gives a basic account of the current debates about TVSD in relation to poverty reduction, youth employment, and social cohesion, and to the role of gender in all these issues. The second section examines these debates in relation to productivity, economic growth, job creation, effectiveness, and competitiveness.

## *2.2 Skills development in relation to poverty reduction, youth employment, and social cohesion*

Does skills development result in poverty reduction? Does the teaching of so-called employable skills to youth lead to their employment? What is the relationship between skills and social cohesion? And what gender issues are embedded in these relationships?

The renewed interest of many governments in TVSD may be partly due to the assumption that TVSD can help solve problems of unemployment, poverty reduction, and growth, among others, virtually regardless of the quality and relevance of the skills provided or the state of the socio-economic environment in which individuals try to put their skills to use. These assumptions need to be qualified. This section examines some of the debates about skills for poverty reduction, for employment, and skills as a tool to integrate marginal groups into mainstream society (skills for social cohesion).

The provision of technical and vocational skills is often assumed to reduce both poverty and unemployment, the two being of course intimately linked. It is assumed that someone with 'employable skills' will find employment, leading in turn to earned income and a higher standard of living. In other words, the skills-for-poverty assumption is directly linked to the skills-for-employment assumption: both presuppose that work is a primary route out of poverty and that skills must somehow result in work. But there are several dimensions to these assumptions that educational planners need to unpick. While it is not disputed here that decent work<sup>12</sup> is the main route out of poverty (ILO, 2003; World Bank, 2004), there are several basic issues for planners to consider:

- Who gains access to technical and vocational skills? What groups of people are and are not accessing technical and vocational skills (formally or informally acquired)?

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12. The definition of 'decent work' includes productive and safe work (with guaranteed safety and hygiene), respect for labour rights, equity, adequate income, social protection, social dialogue, trade union freedom, collective bargaining, and participation. The ILO strategic areas regarding decent work include employment and labour issues, standards (at the macro level), social protection, and social dialogue (ILO, 1999).

- What does it mean to acquire technical and vocational skills? What if these skills are acquired in low-quality training institutes with broken tools, few training materials, and unmotivated and poorly trained instructors?
- Once technical and vocational skills are acquired, how do they impact on employment, poverty reduction, and social cohesion? In what kind of work are the skills used? Are we talking about work in the formal or informal economies? Wage-work or self-employment? Only decent work? And does all work result in poverty reduction? How does insecure, low-income, low-productivity work in the informal economy reduce poverty? What are the potential non-income benefits of acquiring skills?

***Who gains access to skills? Skills for the poor, the marginalized, and women***

Individuals' access to full and productive employment and decent work is a critical factor in their ability to benefit from economic growth. Access, especially for poor and disadvantaged groups, can be improved, 'firstly through technical and vocational education and training and labour market policy measures ... and secondly by creating new jobs' (BMZ, 2005: 11). If access to full and productive employment and decent work can be improved, at least in part, by technical and vocational skills development, it follows that access to such skills development is critical. Planners should endeavour to find out as much as possible about who is accessing different types and levels of TVSD programmes (TVSD at the tertiary level; school-based TVSD under ministries of education; institution-based TVSD under ministries of labour; private for-profit and private non-profit TVSD; and private enterprise-based TVSD, including apprenticeships), and about who actually completes such training.

Planners hoping to encourage social cohesion through their educational and TVSD systems should be especially aware of the extent to which disadvantaged, marginalized, and vulnerable groups integrate these mainstream systems. Such groups might include, for example, (former) child labourers, children and youth in rural

communities,<sup>13</sup> out-of-school youth in the informal economy,<sup>14</sup> girls excluded from education and training opportunities, ethnic minorities, school dropouts, illiterates, demobilized child soldiers, people with disabilities (see Freedman, 2008), and disenfranchised youth.

A first question, therefore, in any analysis of TVSD for the poor, the marginalized, or women is how far these groups are now included in national TVSD systems. Training can only have a role to play in poverty reduction, social cohesion, and increased employment if the poor, the marginalized, and women actually reach the locations of the skill training system.

But poor, vulnerable, and marginalized groups in general are known to have limited access to all forms of post-basic education and training, including TVSD, although it is also known that many very poor families make enormous sacrifices to secure access to schools and skills. Evidence suggests that the poor and marginalized are not included in the majority of the pathways to TVSD, with the exception of some non-profit NGO programmes. Large numbers of poor people do, however, acquire skills in systems such as those in South Asia, where the majority of employers recruit their skilled labour through selection from casual or unskilled workers, and are reluctant to use graduates of vocational or industrial training institutes (King, 2007c). There is a need for policies promoting more equitable access to mainstream training programmes, such as scholarships and merit-based pathways to skills for youth, especially women, from poor and marginalized families. The current vogue for market-led, demand-driven courses may actually further exclude the poor and marginalized. In addition to better access to mainstream programmes, there is a need for programmes specifically addressed to these groups, helping them to sustain livelihoods and generate income in the absence of growth. In other words, while mainstreaming is crucial, targeted programmes are still needed to ensure faster access to skills and employment by the most vulnerable

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13. See Atchoarena and Gasperini, 2003, for a review of the particular challenges of skills development in rural compared to urban areas.

14. RedEtis ([www.redetis.org.ar](http://www.redetis.org.ar)) has done a lot of work on skills and poverty reduction in Latin America, especially concerning disadvantaged youth.

groups. Some successful micro-level TVSD approaches have in fact managed to target the poor effectively (see Palmer, 2008a).

Crucially in this context, although women make up the majority of the (very) poor, training interventions continue to see them as a marginal and special case. For poor women, gender inequality compounds the constraints of poverty (Mayoux, 2006; Palmer, 2008a; and see *Box 1*). Women are much less free than men to control household resources so as to invest in their own skills for enterprise or career development. Women are generally excluded from informal apprenticeship in more lucrative ‘male’ trades, and if they make it to a vocational training institution (VTI), they tend to cluster in traditionally ‘female’ skills areas. Mainstream enterprise training and interventions rarely discuss gender issues and gender discrimination within value chains and households, despite the serious constraints these pose for industrial upgrading, household poverty reduction, and livelihood development (Mayoux, 2006).

**Box 1. Gender issues in TVSD and employability**

- Low social value is attached to girls’ education. In many developing countries, boys are valued more than girls, who are socialized to accept a lower status. From an early age parents may invest more in their sons’ education than in their daughters’, thus initiating an education gap. Girls are often pulled out of school at an earlier age than boys.
- Skills training courses may not take into account women’s domestic and family obligations, travel limitations, and other cultural constraints. Most training courses do not provide child-care facilities. Because of women’s responsibility for household chores and child-rearing, they have less time to devote to training and economic activities.
- Women tend to be considered as secondary income earners.
- Occupational segregation means that women are denied access to many occupations. Accessible occupations are often those requiring skills related to household work with low productivity, yielding low incomes.
- Due to social and cultural discrimination, women, especially in rural areas, usually have very little knowledge of job opportunities and employment prospects. The result is poorly informed choices,

for example about the types of skill that can realistically be acquired or are the most marketable.

- The content of a particular training course may discourage women or girls from participating unless a special effort is made (the same is true for boys). Curricula and training materials may reflect the stereotypes prevalent in the wider society.
- Women have limited access to and control over resources, including financial resources required for starting income-generating activities.
- Patterns of employment relations and contractual arrangements often favour male workers.

*Sources:* Capt, 2007; Murray, 2008.

*A renewed interest in TVSD for the (very) poor, the marginalized, and women?*

Most international agencies (UNESCO, World Bank, and DFID, to name a few) now underline the importance of TVSD, especially for the informal economy, as one tool in the fight against poverty. The 2000s, as previously noted, have witnessed a resurgence in interest in TVSD among both international agencies and national governments, especially in SSA and South Asia. However, we may ask whether or how far this renewed interest implies a new interest in skills development for the (very) poor, the marginalized, and women. While some countries (notably in Latin America) have a better track record of providing training for the poor (such as Chile Joven and the Servicio Nacional de Aprendizaje, or SENA, in Colombia), in the majority of countries (especially SSA and South Asia) such programmes are not plentiful, and the idea of serving new target groups has been seen as ‘much more problematic’ (King, 1996: 42). In most countries, therefore, poverty targeting and the impact of programmes on poverty have been limited. A 2005 review of 54 Poverty Reduction Strategy Papers (PRSPs) revealed that most PRSPs fail to deal adequately with TVSD for the poor (Samouiller and Capt, 2005). In other words, skills-for-poverty-reduction is another case in which the agenda is being set by international development agencies, including international NGOs.

Another of the drivers of the increased interest by donor agencies in TVSD is what might be called the ‘skills-for-security’ agenda, where skills are linked to dealing with young people, especially young men, in fragile states and those threatened by terrorism. For example, in Pakistan DFID, the European Community, and GTZ are designing a coordinated programme to support TVSD reform (Bähr *et al.*, 2008), and in Afghanistan the World Bank is supporting a TVSD project (World Bank, 2008a). Such projects have multiple agendas, of course, but one of them is providing a skills pathway for the many young people who lack meaningful work opportunities.

### ***What does it mean to acquire skills?***

As will be discussed in *Chapter III*, formal technical and vocational skills provision in many poorer developing countries is usually low-quality; trainees typically have little access to up-to-date equipment and machinery (such machinery as is available is often decades old), training materials are insufficient, and instructors have little idea of actual labour market needs (having rarely had any direct exposure themselves) and are lucky if they get any in-service training. The largest source of TVSD in most countries – the informal system of acquiring skills on the job, via apprenticeships or casual learning – encounters similar problems related to the quality and relevance of the skills provided. For those who do manage to access formal or informal TVSD provision, what does it mean to be learning skills in such an environment? Planners concerned with the links between skills and poverty reduction, skills and employment, and skills and social cohesion need to pay a great deal of attention to the kind and quality of skills being acquired. The issue of skill quality is revisited in *Section 2.3*.

### ***What impact do acquired skills have on employment, poverty reduction, and social cohesion?***

Using skills for employment, poverty reduction, and social cohesion is a critical concern for policy planners. There is, of course, no automatic link between skills and any of these socio-economic outcomes, as is often assumed. TVSD on its own may be a key variable, but it is not a determinant of poverty reduction or job creation any more than it is a determinant of productivity, economic growth, effectiveness, and competitiveness (*Section 2.3*). For TVSD

reforms to have any marked and sustainable impact, they must be complemented by other reform initiatives that result in more effective skills access, acquisition, delivery, and utilization.

*Skills for employment*

If TVSD is to result in what the ILO calls ‘decent work’ (and in the poverty reduction associated with earned income), a central requirement is a dynamic and meritocratic economy that generates sufficient decent employment opportunities. In most developing countries, of course, the majority of new work opportunities are increasingly to be found in productive self-employment and work in the informal economy rather than in formal employment. In the absence of many decent work opportunities, or indeed of formal employment opportunities of any kind, what are the realistic options once someone has acquired skills? Clearly planners need to engage seriously with policies for the informal economy that make it easier to start up and do business in this environment. In many developing countries, most attention is paid to creating an enabling environment for the formal private sector, while less thought is given to policies that support the informal private sector, although it usually makes up the bulk of employment. Planners need to recognize that trainees require pre- and post-training support. Post-training support may be more effectively delivered through the creation of strategic partnerships and networks linking training providers with providers of financial and non-financial post-training support. Furthermore, policies and incentives are needed to support women’s equal role in accessing different types of training and employment opportunities. Disadvantaged, marginalized, and vulnerable TVSD trainees will necessarily require more pre- and post-training support (and support of a slightly different nature, such as empowerment training and social support) than regular trainees (see Palmer, 2008*b*, for some examples).

*Skills for poverty reduction and social cohesion*

Government thinking needs to be reoriented towards more pro-poor growth policies (such as pro-poor employment policies, private sector development strategies, reform of public services, or regulations). From a TVSD-for-poverty-reduction perspective, the wider social, economic, and political environment needs to be made more pro-poor.

More attention should be paid to promoting equitable access, quality training, and an environment in which skills can be productively utilized by the poor (and by the disadvantaged, vulnerable, and marginalized in general). Simply expanding skills systems will not automatically increase access by the poor or other disadvantaged groups, nor will it lead to growth, job creation, or poverty reduction. Not only do the skills acquired need to be high-quality, they need to be produced in a positive (pro-poor) climate (Palmer, 2008a).

TVSD needs to be better integrated with poverty reduction approaches, including PRSPs. Many developing country governments mainly address TVSD from the viewpoint of the demand from the formal labour market, not in terms of the employability of the poor.

Skills development strategies need to identify and incorporate disadvantaged and marginalized groups, for whom education, skills development, and ultimately decent work are often a considerable challenge (Bennell, 1999; Palmer, 2008b). Large numbers of the poor and very poor are excluded altogether from training opportunities, since subsistence self-employment in the informal economy and the household, such as trading, hawking, and food preparation, are usually not covered by training interventions (Bennell, 1999). Some skills development interventions for subsistence self-employment do exist, of course (Broutin, 2006).

There is a strong case to be made for funding specific TVSD interventions for the (very) poor, since they may not benefit from mainstream training programmes and have very specific needs. Such programmes need to be demand-driven, needs-led, and part of an integrated approach. However, if the poor are not to be marginalized further, their participation in mainstream post-basic TVSD options also needs to grow, in particular through merit-based financial support. Facilitating the access of poor, disadvantaged, vulnerable, and marginalized people into mainstream TVSD programmes requires in turn that planners support and promote equitable access to quality basic education. Most VTIs require some degree of formal education from entrants, and programmes that provide a formal educational background before the skills training stage have demonstrated

benefits.<sup>15</sup> For example, in Somalia, the Somaliland Education Initiative for Girls and Young Men (SEIGYM) gives disadvantaged non-literate youth vouchers to pay for literacy and numeracy training before they go on to skills training for employment.

*Implications of the main message of the EFA GMR 2009 for skills development and TVSD*

The report of the EFA GMR for 2009, *Overcoming Inequality: Why governance matters* (UNESCO, 2008), argues that, 'Progress towards the EFA goals is being undermined by a failure of governments to tackle persistent inequalities based on income, gender, location, ethnicity, language, disability and other markers of disadvantage. Unless governments act to reduce disparities through effective policy reforms, the EFA promise will be broken' (UNESCO, 2008: 1). This is an extremely stark message about the massive and in many cases increasing gaps between the rich and the poor within countries. What is true of EFA provision is almost certainly equally true of TVSD provision.

### *2.3 Skills development in relation to productivity, employment, growth, and competitiveness*

Section 2.2 of this chapter examined the relation of skills to poverty reduction, social cohesion, gender, and youth employment, and argued that there are both direct and less direct relations between investing in skills and making impacts in these key areas. In this section, attention is turned to questions that are often at the heart of what may be called the politics of skill development. Does public or private sector investment in the skills of young people lead to higher productivity? Does public investment in technical or vocational schools or streams, or in vocational training centres, have direct or indirect benefits in terms of higher productivity and access to skilled employment, leading to higher growth and increased competitiveness?

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15. For a review of attempts to combine literacy training with vocational skills see Oxenham *et al.*, 2002.

These issues, which as *Chapter I* pointed out existed when development agencies first began investing in skills for the developing world, are still on the educational planner's agenda today. The political question of what to do with the millions of young people who have been encouraged to enter and complete basic primary education has never been more pressing.

The current debates about skills and productivity, economic growth, job creation, effectiveness, and competitiveness will be examined below, not merely from the perspective of an individual, a family, a community, or a nation, but with an awareness of how skills development is affected by globalization, with its impact on migration of capital as well as skilled worker migration. The conclusion that emerges is that supplying skills is insufficient on its own to achieve higher productivity, job creation, and so on, and that an enabling economic environment is essential if the skills acquired are to be effectively used.

***Basic assumptions about skills and productivity, growth, income, and fulfilment***

One assumption about technical and vocational skills is that they make for higher productivity in designated areas of economic activity, as Lauglo (2009) has argued. At a much more general level, in the home, the family, or the community, improved skills in gardening and horticulture, cooking, 'do it yourself' (carpentry, plumbing, painting, and decorating), or the maintenance of equipment, from cars to computers, result in greater satisfaction and appreciation. They can also save considerable sums of money as compared to hiring another skilled professional to do the work. By contrast, unskilled or inexpert approaches, whether to cooking, gardening, or maintenance, can lead not only to dissatisfaction and disappointment but also to a direct loss of money.

An enormous range of skilled work is carried out in the home and in the family, very often by women and girls. It is frequently not monetized, but this does not detract from the fact that, for example, the health of the family depends on skilled family members' production and preparation of nutritious, locally grown or gathered fruits and vegetables. The application of such skills is of course inseparable from the skills of literacy and numeracy, but it is also linked to less

measurable qualities such as feel, taste, flair, trial and error, and innovation. But even these home-based skills are often inseparable from the economic situation of the home. The very poor cannot afford to deploy skills for self-improvement and better welfare, even if they have considerable skills for subsistence survival.

***Four years of education or vocational skill and productivity***

This fundamental assumption that basic skills can make a difference to productivity in the home, the farm, or the household enterprise has informed the research literature of international education for almost 30 years. The finding by the World Bank that '[f]our years of education make a difference to farmer productivity' (Lockheed *et al.*, 1980: 129) is perhaps as well known as Foster's 'vocational school fallacy' (Foster, 1965). The World Bank research addressed core literacy skills, not practical or vocational skills, but the argument it presents is highly relevant to our basic claims about the monetary and non-monetary outcomes of improved skills. Those who cite the Bank's conclusion that four years of education make a difference often fail to note that it is widely misquoted. The actual research found that four years of education made a difference to farmer productivity only in more dynamic agricultural environments. By contrast, in stagnant environments with few inputs such as agricultural extension or relevant marketing, four years of education made almost no difference at all.<sup>16</sup> This finding is central to the argument of the present work that skills in isolation do not make a difference; there needs to be an enabling environment for their deployment.

The other point not discussed at all in the World Bank research is that four years of poor-quality schooling with uncommitted or absent teachers and indifferent parents is also unlikely to make a difference to productivity in later life; that the number of years of schooling alone can have an effect is highly improbable.

This point could be extrapolated to gauge the effect of four years of technical or vocational education. Where the teaching and necessary equipment are high-quality, and the agricultural

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16. Planners wishing to explore this research in detail should consult King and Palmer, 2006.

or commercial environment can utilize and reinforce the skills acquired, whether in employment or self-employment, then higher productivity and income can well be anticipated. But where technical schools have remnants of equipment from some aid project of the 1960s or 1970s, and the teachers are engaged in securing a second income through trade rather than teaching, little can be expected from exposure to a vocational curriculum. No automatic cognitive consequences accrue from four years in a third-rate primary school, and no economic improvement is produced by a school that is technical only in name.<sup>17</sup> To borrow again from the headline message of the EFA GMR 2009, it can be said that good governance is an essential component of what we call the enabling environment. Poor governance has a particularly severe impact on the poor.

### ***Skills and economic growth***

There is a great deal of interest in the relationship between skills and growth, but again the educational planner is advised to ask what assumptions are being made about it. What kind of growth is being discussed? Who benefits from it?

Leaving aside the question just raised about whether schooling or skilling can contribute to productivity in a stagnant economic environment, in what ways could skills affect growth? One obvious way is through migration, both internal and external. Skills acquired in rural areas may contribute to individual income or enterprise development if they are transported to an urban setting. Equally, skills acquired at the expense of one country, for example Malawi, can through migration contribute to income or productivity in South Africa. High-quality skills acquired in Poland can directly contribute to the construction industry in the United Kingdom or Ireland, benefiting house-owners in the UK, who thus avoid the greater costs of locally acquired skills, and providing remittances to families in Poland. Such skilled migration can be interpreted as a search for the enabling environment in which the skills can be profitably used.

Another version of the connections among migration, low wages, high skills, and growth can be seen in China. First, there

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17. For powerful illustrations of the crucial need for high-quality training, see de Moura Castro, 1995a (pp. 14–20).

is massive internal migration from the West of China to its much more industrialized East, resulting in an extensive remittance culture. Second, there has been an enormous migration of capital – or foreign direct investment – to China from OECD countries, so that these countries can directly profit from the high skills, long hours, and much lower wages of Chinese workers. This contributes to profits and growth in the firms that transfer their plants to China, as well as to growth in China itself. Of course it has a much less positive impact on skilled labour in Western countries, which used to manufacture these same commodities. A further dramatic example of the challenge of skills, migration, and growth is the projection that in India by 2020 there will be at least 47 million surplus population of working age. It has been argued that if these could become skilled migrants, they could make a major economic contribution through remittances to their families and communities (Humphries, 2008).

In other words, planners need to be aware when arguing for investment in skills that, in a globalized world, the returns on skilled labour may be multifaceted and need to be viewed over time. Calculating them will not be as simple as showing the immediate local benefit of a technical school in a poor rural environment.<sup>18</sup>

***Approaches to connecting skills with productivity, employment, and development***

In the past five years or so, a number of policy positions have been formulated with respect to drivers of skills development and their relation to decent work, productivity, and growth. These drivers, already mentioned at the beginning of this chapter, will be discussed as they appear in work carried out by the ILO, the World Bank, the Asian Development Bank, and one of the bilateral agencies.<sup>19</sup> From the educational planning perspective of the present work, careful attention needs to be given to the different types of skill concerned and the locations where they are to be developed.

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18. In parts of Gansu Province in the West of China, technical secondary schools actually plan on many or most of their graduates migrating to the eastern seaboard, and in some cases have contracts with enterprises in the east.

19. They could also be cited from the British Council, the European Training Foundation, Denmark's 2009 Africa Commission, or UNESCO's new skills strategy.

The ILO's International Labour Conference in 2008 is a good example of the kind of thinking in question. Its conclusions about skills for improved productivity, employment growth, and development draw powerful contrasts between a 'low-skill, low-productivity, low-wage economy', which it judges to be unsustainable, and what it terms a 'virtuous circle' generated by improved education and training within a larger national or international development strategy. The resulting picture sounds almost too good to be true. The virtuous circle is one in which 'skills development fuels innovation, productivity increase and enterprise development, technological change, diversification of the economy, and competitiveness that are needed to sustain and accelerate the creation of more and better jobs in the context of the Decent Work Agenda, and improve social cohesion' (ILO, 2008: 2).

But how exactly is this version of skills development defined? Again the suggested description is pretty ambitious: continuous and seamless pathways of learning, through initial formal education and later lifelong or continuous education; development of core skills (including communication and problem-solving skills); higher-level skills (professional, technical, and human resource skills); portability of skills (with respect to core skills and appropriate certification systems, so that they can be recognized across occupations and frontiers); and finally employability (which relates to core skills and to psychological aspects such as motivation) (ILO, 2008).

The three recurrent themes here are that skills development has to be an integral part of wider employment strategies; that there must be tripartite social dialogue about commitment to education and training; and that gender equality must be assured (ILO, 2008: viii-ix). Of interest for educational planners in this ILO vision is that skills development is not seen as dependent on having everything else already in place. Rather, skills policies are themselves presented as 'drivers of development', in the words of one chapter title (ILO, 2008: 109). Another chapter argues that 'skills development is one, but just one, of the principal drivers of productivity, growth and competitiveness at the enterprise level' (ILO, 2008: 55). The report goes into valuable detail on the different levels of general and core skills, the scope and structure of general secondary education, and the investment needed in technical,

vocational, and research and development skills. In other words, it includes not only vocational training centres but also the areas of general and technical education that would historically have been the remit of ministries of education and of UNESCO. The report is careful to avoid claiming that skills policies in isolation can lead to productivity, growth, and competitiveness.

The positive take on skills development in the report is possibly related to the reliance on illustrations taken from East and South-East Asia. The picture is very different in the least developed countries, of which two-thirds are in SSA: 'Poorly educated and without marketable skills, most of the labour force cannot find decent and productive jobs in the formal economy' (ILO, 2008: 48).

A not dissimilar, and again very positive, perspective on skills development as it relates to productivity and growth can be seen in the Asian Development Bank's *Education and Skills: Strategies for accelerated development in Asia and the Pacific*. As with the ILO, 'technical and vocational skills are needed for enterprise productivity and profitability, as well as for national productivity and wealth creation' (ADB, 2008: 24). But this is a two-way street, since technological change and economic growth are fuelling a demand for skilled workers; there is even an increasing shortage of technical and vocational skills. Another critically important claim is that technical and vocational skills are 'essential for individual prosperity. Skills enable the individual to increase productivity and income' (ADB, 2008: 24). This is true both in formal employment and in self-employment.

For the educational planner, this report is an unusually valuable compilation of the arguments for and against TVET investments, in different kinds of economies. Its overall message for our concern about TVET and global competition is clear: 'A well-designed and -managed system of skills development can play a significant role in supporting a government's policy of enhancing national global competitiveness by producing a highly qualified and competitive workforce' (ADB, 2008: 26). Again, of course, a wider government policy needs to be in place if a skills development policy is to be effective.

The World Bank's best-known study of TVET in the first decade of this century is based on Africa, not Asia: *Skills Development in Sub-Saharan Africa* (Johanson and Adams, 2004). Like the Asian study just discussed, it clearly states the overall economic message about TVET and productivity: 'Education and training are good investments – good for the individual, the employer and the economy ... Globalisation and competition require higher skills and productivity among workers, both in modern companies and in the micro and small enterprises that support them' (Johanson and Adams, 2004: 15–16).

But because the site of the policy study was the very continent most affected by shifts in Bank lending for TVET, it includes a good deal of honest reflection on the history of donor impact on African skills development that we brought up in *Chapter I* (including the World Bank's 1991 policy paper). This makes the report's first three chapters particularly valuable for an educational planner concerned with the impact of donor policy and donor policy learning. While the overall message above is clear, SSA does not have the array of successful, export-oriented economies with major investments in separate TVET school systems more typical of Asia. More discussion is devoted to the challenge of 'vocalionalizing general education' than to separate school-based TVET provision – evidence of the greater influence of the 'vocalional school fallacy' on donors than on governments.

One reason for the absence of more detailed discussion of technical secondary schooling in relation to productivity, growth, and foreign investment is that 'technical and vocational education generally occupies a small, if not marginal, position in the school systems of sub-Saharan Africa' (Atchoarena and Delluc, 2002: 38). Moreover, TVET systems developed in the 1960s and early 1970s, based on assumptions about growth through import substitution in the modern sector of the economy, witnessed massive layoffs by their target employers; by contrast, these formal TVET systems found themselves unable to respond to the requirements for productivity and higher skills in the informal sector, which now absorbed most of the labour force (Atchoarena and Delluc, 2002: 37). So when Van Adams (formerly of the World Bank) asks, in a global review of youth skills in the transition to work, 'Does TVE pay off?', his

answer does not apply to much of SSA: ‘Good quality TVE that is closely linked with strong employment growth and aligned with the skills in demand in labour markets can pay off for youth’ (Adams, 2007: 4). In other words, strong employment growth is itself part of the enabling environment.

Another analysis of skills, jobs, growth, and competitiveness comes from a bilateral agency, DFID, whose briefing paper (DFID, 2008) is much concerned with growth, one of its latest aid priorities. The paper’s title, *Jobs, Labour Markets and Shared Growth: The role of skills*, suggests its relevance to the focus of this section. But on closer inspection, this paper is not particularly useful for the educational planner because its use of the word ‘skills’ is so general that it cannot really be used to say anything specifically about technical and vocational skills. The closest it comes to a definition of skill is ‘skills and knowledge = learning outcomes’ (DFID, 2008: 3). In other words, skills are not really differentiated from knowledge. Of the 97 times that the word ‘skills’ is used in the DFID document, only once is it linked with vocational training. There is mention of higher-level business skills, cognitive skills, core skills, skills-based technological change, and much else. In other words, the document can give educational planners some salient insights into new ways that the term ‘skills’ is being used, but they will learn virtually nothing about the specific role of technical and vocational skills in promoting growth or productivity. The following two sentences are emphasized in boldface at the beginning of the text: ‘Sustaining, accelerating and sharing these early signs of growth – in a rapidly changing world trade context – is now the challenge. Skills are at the centre of this new challenge’ (DFID, 2008: 1). But ‘skills’ in this key quotation does not mean TVSD.

The DFID document is valuable in its own way because it illustrates that the long and much disputed tradition of rate-of-return studies does not normally even distinguish TVET from primary, secondary, and tertiary education. It is particularly useful in that it was written by economists who here acknowledge what non-economists have known for years – that years of schooling alone are unlikely to correlate positively with income. It is the quality of the schooling that counts. For a planner concerned with the connections between TVSD and growth, probably the most important sentence

in the entire paper is ‘From a cost-effectiveness point of view, therefore, skills training also requires a quality education system’ (DFID, 2008: 11).

The document concludes with a series of recommendations to DFID and other donors, but the one that links specifically to TVSD and skills development is reminiscent of the World Bank’s advice in its TVSD policy paper of 1991. However, there is almost no discussion in the DFID paper itself of technical and vocational skills development. Much more research would be needed to support this recommendation: ‘Promote leadership of technical and vocational education and training (TVET) and skills development by the private rather than the public sector by providing capacity building funds to Ministries of Labour, Training Authorities, etc. and facilitating dialogue with private sector on partnerships for training’ (DFID, 2008: 23).

Before leaving the key topic of the connections of technical and vocational skills with productivity and growth, we might generalize briefly our caveat about the way the word ‘skills’ is used in the DFID paper. Another title in the ‘Fundamentals of Educational Planning’ series, *Globalization and Educational Reform: What planners need to know* (Carnoy, 1999), also applies the term ‘skills’ far beyond the technical and vocational skills that are the principal focus of the present work. One section of Carnoy’s paper sounds germane to our present topic: ‘Globalized markets and the globalization of skills’. But this usage turns out to mean ‘certain kinds of skills, namely English language, mathematics reasoning, scientific logic, programming, associated with higher levels of education’ (Carnoy, 1999: 26). In other words, what Carnoy has in mind is the training of highly skilled scientists and engineers coming out of graduate programmes.

One conclusion of our brief analysis of these agency documents about TVSD’s links to economic growth is that there does seem to be powerful evidence of this link from East and South-East Asia. The case is much more muted for SSA, not least because school-based TVSD systems have been tiny and have been affected by structural adjustment as well as by donor policies. The growth that began to pick up again just before the financial crisis that struck the world in mid-2008 was apparently not driven by targeted investments

in technological innovation or in higher levels of technical and vocational skill. Rather, it was associated with the higher prices then being offered for Africa's material resources. Governments across Africa then recognized that they lacked sufficient numbers of technically trained graduates to profit from the apparently sustained growth, leading to widespread demand for the expansion of technical and vocational education by African ministers of education. With the knock-on effects in Africa of the global economic recession of 2008/2009, questions are certain to be asked about whether there exists, at the end of the decade, an enabling environment for massive skills development. Investing in skills to prepare for the hoped-for return of growth should be a priority.

A second major conclusion to be drawn from this analysis, even though it covers only a small sample of the skills-and-growth literature, is that care needs to be taken with the way the term 'skills' is used in English. The absence of careful conceptual clarification is one reason that there has not yet been a GMR on skills, as noted above at the end of *Chapter I*. The brief discussion here on the different ways the term 'skills' is being used certainly argues for undertaking a major theoretical and conceptual analysis of the topic. It is a task that UNESCO itself could well address, given its longstanding tradition of normative, standard-setting work,<sup>20</sup> and would be complementary to the skills GMR of 2012.

#### *2.4 Some implications for educational planning*

Educational planners need to question the expectations commonly entertained by politicians and senior civil servants about the impacts of investing in TVSD. Planners would do well to reject the assumption that the mere provision or expansion of technical and vocational skills to youth or the unemployed in general will quasi-automatically affect conditions of unemployment, poverty

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20. UNESCO's draft TVET strategy (2009, para. 12) urges precisely such a rethinking of skills: 'As an intergovernmental knowledge organization, UNESCO is uniquely placed to reconceptualize the changing domain of skills and TVET and to propose interpretations of these concepts. UNESCO, including through its UNESCO Institute for Statistics (UIS), will therefore establish a technical advisory mechanism to define different categories of skills, as a starting point for identifying indicators for measuring process.'

reduction, or economic competitiveness; they should ensure that attention is given to the quality and relevance of the skills provided and to the socio-economic and governance environment in which individuals try to put skills to use.

There are several basic issues for planners to consider in this context:

- Who gains access to skills? Planners need to find out much more about who is accessing different types and levels of TVSD programmes. Those hoping to encourage social cohesion through their education and TVSD systems should be especially aware of the extent to which disadvantaged, marginalized, and vulnerable groups are able to integrate this mainstream system. They should support and promote equitable access to quality basic education; without this the poor and vulnerable will be further marginalized from mainstream TVSD programmes, since most VTIs require some degree of formal education.
- What does it mean to acquire skills? Planners concerned with the links between skills and poverty reduction, skills and competitiveness, skills and employment, and skills and social cohesion must attend to what kind and quality of skills people are learning.
- Once skills are acquired, what precisely is their impact on employment, poverty reduction, and social cohesion? The utilization of skills for these purposes is a critical dimension for policy planners.

Educational planners can usefully inquire into what is being assumed about the relationship between skills and growth. What kind of growth is being discussed? What kind, type, and level of skill is linked to this growth? And who benefits from it? In this respect the cogent analysis of educational inequality to be found in the EFA GMR 2009 has many implications for TVSD.

Educational planners should have an understanding of the many new ways in which the term 'skills' is being used. They should be aware of the arguments both for and against TVSD investments, in different kinds of economies, to give skills policies a better chance of working in 'virtuous circles' through their integration into wider economic and technology policies.

### III. Technical and vocational skills development reform initiatives

#### 3.1 Introduction

TVSD reforms are taking place world-wide, as nations seek to improve the performance of TVSD systems to smooth young people's transition to work and to create a more competitive workforce for the global economy (Adams, 2007). This chapter discusses some current reform initiatives, drawing on international experience of TVSD reform in Africa, Asia, the Middle East, and Latin America. The initiatives include governance reforms; reforms to redirect TVSD from supply-driven to demand-driven, responsive systems; reforms relative to training standards; reforms relative to skills portability; reforms of financial provision for training; information system reforms; reforms relative to non-state providers of TVSD; and reforms of school-based TVSD. Lastly, it provides a summary table of various reform initiatives by level and type of training (*Table 3.3*).

The reader will notice throughout the discussion of these reform initiatives that very frequently a bilateral or multilateral development agency is linked to the new approach. This confirms a point made at the outset of the present work, that development partners<sup>21</sup> continue to play key roles in the encouragement of innovation and in the sponsorship and dissemination of new approaches. This is the case even in countries such as China and India, where external aid constitutes a very small fraction of the education and training budget.<sup>22</sup>

Planners should be wary of straight policy borrowing, which assumes that a reform initiative that has worked in a particular place

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21. Donors are now often referred to as 'development partners' (*NORRAG News*, No. 41).
  22. In China, for instance, the World Bank is encouraging the adoption of competency-based approaches in selected provinces, while in India the World Bank is a key partner in the reform of the industrial training institutes.

and time will also work in their country. Rather, they need to assess the context (economic, social, political) within which a particular reform is seen to be working elsewhere to see how that context differs from their own. Planners need to adopt a policy learning approach and critically evaluate the assumptions that underpin many TVET reform initiatives (European Training Foundation, 2008).

### 3.2 Coordination and governance reforms

#### *The issues*

In most developing countries, TVSD is delivered by multiple entities – ministries (for example, education, labour and manpower, agriculture, trade and industry, tourism, women’s affairs),<sup>23</sup> NGOs, and the private sector (including private technical schools and colleges, private vocational institutes and private enterprise-based training schemes in both the formal and informal sectors). Delivery is at various levels and of various types (*Table 3.1*).

**Table 3.1 The multiple sources of TVSD**

Type of training	Source of training
Pre-employment training	<ul style="list-style-type: none"><li>• Public school- and college-based skills training under ministries of education, and vocational training centres under ministries of labour (and other ministries)</li><li>• Private for-profit and private non-profit school- and college- or vocational training centre-based skills training</li><li>• Youth or adult non-formal skills programmes (often short-duration skills training)</li></ul>
On-the-job enterprise-based training	<ul style="list-style-type: none"><li>• Formal private enterprise-based skills training</li><li>• Informal private enterprise-based apprenticeship training</li></ul>

The lack of coordination in many countries has led not only to fragmentation of these providers and broken links between skill provision and skill demand, but also to fragmentation of other

23. It is not uncommon for six, seven, or more ministries to deliver some type of TVSD programme. In some cases as many as 17 ministries are involved.

critical areas related to TVSD: government strategies, policies, and development plans; government programmes; government committees; legislative frameworks; certification and qualification frameworks; information and monitoring systems; financing; and development partner support projects. This often results in the creation of parallel or contradictory policies, programmes, and projects within different ministries or different development partners. It can also mean the absence of a coordinated overall strategy for TVSD; it certainly does not promote the most efficient use of often scarce resources.

At the level of the institution, school, college, and training centre, managers usually have very little autonomy. Decisions on administration, staffing, financing, and courses offered are often determined at the national level rather than at the institutional level or in response to demand from employers. This frequently results in inefficiency and a lack of financial and non-financial incentives to perform well; crucially, it makes it hard for training content to respond to changes in market demand.

### ***The reforms***

Many countries have responded by establishing councils, committees, or apex bodies designed to coordinate their TVSD systems. Such coordinating bodies often have representatives from multiple ministries and from the private sector; examples include the Vocational Education and Training Authority in Tanzania, the Industrial Vocational Training Board in Mauritius, the Council for Technical and Vocational Education and Training in Ghana, the National Skills Authority in South Africa, the Technical Education and Vocational Education and Training Authority in Zambia and Malawi, the Employment and TVET Council in Jordan, the National Vocational and Technical Education Commission in Pakistan, the National Skills Development Council in Bangladesh, the National Technical Training Authority in Bhutan, and the Technical Education and Skills Development Authority in the Philippines. Several of these coordinating bodies are very new (*Box 2*).

**Box 2. New TVSD coordination agencies in Ghana, Jordan, and Pakistan**

**The Council for Technical and Vocational Education and Training (COTVET) in Ghana**

The government of Ghana has taken steps towards coordinating its currently fragmented TVSD system by establishing COTVET, which is backed by an Act of Parliament and mandated to formulate ‘policies for skills development across the broad spectrum of pre-tertiary and tertiary education, formal, informal and non-formal’. COTVET has had a Board in place since November 2007 but has been hampered by the absence of a Secretariat; there have been delays in setting this up, and the Board has recently appointed an Executive Director, who started work in November 2008. Other members of the Secretariat were appointed on a rolling basis during 2008/2009. COTVET’s responsibilities include developing strategic policies for Ghana’s TVSD sector. Its development has been supported by the Japan International Cooperation Agency (JICA).

**The Employment and TVET (ETVET) Council in Jordan**

ETVET was set up in 2008, and puts employment at the centre of the training agenda. It was supported in 2009 by a World Bank-financed Employer Driven Skills Development Project.

**The National Vocational and Technical Education Commission (NAVTEC) in Pakistan**

The creation of NAVTEC in December 2005 was an attempt to create an apex body, able to unify the fragmented TVSD structures in Pakistan. NAVTEC is mandated to ‘facilitate, regulate, and provide policy direction for technical education and vocational training to meet national and international demand for skilled manpower’ ([www.navtec.gov.pk](http://www.navtec.gov.pk)). However, at the time of writing NAVTEC had not yet developed sufficient capacity and credibility to effectively fill the role of a national TVSD apex body.

An effective coordination mechanism is a prerequisite for all other areas of TVSD reform. Without coordination, the challenge of linking skills with productivity increases and poverty reduction is often addressed by a series of ad hoc training schemes, delivered across multiple ministries and through the (for-profit and non-profit) private sector. In developing countries, coordination of skills training

is seen as a way to avoid wasting scarce resources in duplication of programmes. Coordination can also help to remedy gaps in the supply of training (sector-wise and geographically), establish national skills standards, and enable assessment and nationally recognized certification.

However, planners should note that developed countries differ sharply in their degree of commitment to such coordination of training. The Japanese, for example, pay little attention to coordination between ministries, nor is there any strong coordination in the USA. In Sweden, by contrast, coordination has been stressed under one ministry of education. There are quite a number of seemingly successful loosely coupled national systems of vocational skills development, and planners need to look at these to see why this approach is favoured.

Several lessons can be learned from the experience of the TVSD coordinating bodies (ADB, 2008: 37; Johanson and Adams, 2004: 77).

- There needs to be balanced representation of key government and non-governmental stakeholders on the coordinating body; employers from the formal and informal sectors, who represent the demand for skills, should be the key drivers.
- Coordinating bodies must be given real authority and resources to collect, monitor, and analyse TVSD information related to both supply and demand (such as labour market information); to develop strategies and policies; to link training supply with demand; to coordinate public and private providers; to coordinate development partner support; to set priorities, targets, and indicators; and to allocate resources.
- Coordinating bodies should not be involved in the direct administration of individual institutions or in the delivery of education and skills training. Rather, they should focus on macro issues, including policy formation and regulation.

At the institutional level, TVSD reforms in many countries are beginning to introduce more autonomy into public training institutions (to set fees, hire and fire staff, determine curricula and courses offered, choose training materials and pedagogy, and undertake and manage income-generating activities). Stakeholder

boards, with industry participation, handle the governance of such autonomous institutions; in other words, decisions are being taken by those closer to the market, rather than by ministry officials far away. These more autonomous institutions can then be encouraged to perform better by financial and non-financial incentives. For example, as part of the TVSD reform process in Jordan, the Vocational Training Corporation (VTC), whose network of some 40 centres has been governed by the public sector since the 1980s, is now, three decades later, becoming an autonomous entity managed by a board (with majority private sector participation). Likewise, individual training centres under the reformed VTC will have a much higher degree of autonomy. However, planners should not assume that decentralization is always the best approach, but rather look at the actual experience of these reforms.

***Some implications for educational planning***

Good coordination is required in a variety of areas (policies, programmes, projects, providers, legislation, development partners) in order for TVSD reform to be successful and sustainable. Planners must, as a prerequisite to any reform, examine the current state of coordination and look at ways to strengthen it. They may wish to pay particular attention to the capacity and composition of the TVET councils, committees, or other coordinating bodies in their countries. Where these bodies do not exist, a first priority must be to establish them.

Planners should recognize the importance of control over financial resource allocation by coordinating bodies.

Decentralization of decision-making power to the level of the institution, while an important tool for TVSD reform, requires that local managers' capacity be developed; these individuals must learn how to read local market demand for skills and organize resources to meet this demand.

### *3.3 Reforms to redirect TVSD from supply-driven to demand-driven systems*

#### ***The issues***

In many, if not most, developing countries, the provision of skills training through public and private formal TVSD programmes often has little relevance to actual labour market needs. In many cases, TVSD policies and reforms are not based on the actual performance of the systems *vis-à-vis* labour market demand, but tend to reflect government-led supply-side interventions. Formal TVSD is largely directed towards formal rather than informal employment. Yet much formal TVSD provision is out of touch with the needs of formal industry; curricula may be outdated and many instructors have little knowledge of industry needs. Pre-employment educators in schools, vocational training centres, and colleges find it hard to connect with industry, to arrange staff and trainee industrial placements, and to get industry representation on institution boards. TVSD training in many countries is determined by the suppliers or providers of training as opposed to the market. Such supply-driven systems are generally very sluggish at responding to actual or changing market demand.<sup>24</sup>

#### ***The reforms***

Reforms focused on creating closer links to the labour market by shifting the focus of TVSD to demand-driven, responsive training systems are of five major types:

- the introduction of competency-based training;
- seeking greater involvement of the private sector at the level of the institution and upwards;
- allowing institutions and training organizations greater autonomy;
- encouraging TVSD labour market linkages based on incentives and financial measures;

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24. In the 2000s development agencies have strongly tended to regard the demand-driven positively and the supply-driven negatively. Planners will need to adopt a more balanced approach rather than regarding these as absolute dichotomies.

- improving information systems, including those that more accurately identify the skills needs of the formal and informal sectors.

*The introduction of competency-based training (CBT):* CBT gives more emphasis to trainees' ability to master specific practical tasks or competencies than to the level or type of certification, or length of training, they have received. CBT curricula are developed in accordance with the identified skills needs of the private sector (trade and commercial associations, employer associations, and industry) and delivered through assessed modules of different competencies.

*Seeking greater involvement of the private sector at the level of the institution and upwards:* To ensure that the private sector leads the way on skills development and to encourage training to be more demand-driven, TVSD reforms promote greater involvement of private sector employers on institutional boards (see the case of India, *Box 3*), on national TVSD committees, in defining curricula, and in determining which skills are needed. As we shall see below, when the formal private sector is tiny, planners should be cautious about whose private sector demand is leading the way in skills development.

**Box 3. Addressing the demand–supply gap of skills development in India**

India's economy is highly dichotomous and shows signs of becoming more so. Productivity has grown rapidly in the modern sector, led by services, transport, communications, and manufacturing, and the share of employment has been decreasing in agriculture and growing in the service sector. However, employment growth is insufficient to absorb the estimated 12.8 million labour market entrants each year, or to create more productive jobs for the vast majority of workers in the informal economy. There is concern that even vocational training graduates are not highly employable, owing to the mismatch between what they have been taught and what employers need, in both technical and core skills. Expansion, quality, and inclusion are the goals of the Planning Commission's strategy to address the skills gap, make education and training relevant to labour market needs, and improve access by poor and vulnerable people to skills development opportunities.

*Expansion:* India's Five-Year Plan (2007–2012) foresees a tenfold expansion of education and training infrastructure, from some 5,000 to about 50,000 industrial training institutes (ITIs) and industrial training centres under the Ministry of Labour and Employment, to teach relevant skills for industry and the service sectors as well as skills for agricultural and rural employment. 'The challenge ... is to increase the skilled workforce from 5 per cent at present to about 50 per cent. To make our working people employable, we must create adequate infrastructure for skill training and certification and for imparting training. Industrial Training Institutes must keep pace with the technological demands of modern industry and the expanding universe of technical knowledge' (Prime Minister Manmohan Singh at the Indian Labour Conference, April 2007, New Delhi).

*Quality:* Upgrading of training facilities, tools, faculty, and curricula are all targeted. With World Bank assistance, some 500 ITIs are to become 'Centres of Excellence' closely linked to industry. Industry management committees are to be given enhanced financial and programme development autonomy to manage individual ITIs, though State governments will retain ITI ownership and continue to regulate admissions and fees.

*Inclusion:* Over 90 per cent of Indian workers earn a living in the informal economy. Few of them have the necessary skills to improve their productivity and income-earning capacity. The Skills Development Initiative aims to provide 1 million workers with employable skills over the next five years and 1 million workers each year after that. The initiative's public-private partnership combines provision of short-term training courses with certification. The programmes target poor and less well-educated individuals who cannot access mainstream long-term training programmes owing to high entry qualifications and costs. In partnership with the ILO, the Ministry of Labour and Employment is implementing a pilot programme focusing on four clusters: brassware (Moradabad, Uttar Pradesh), glassware (Firozabad, Uttar Pradesh), textiles (Tiruppur, Tamil Nadu), and domestic workers (Delhi). While the programme aims to improve the productivity and competitiveness of enterprises and employability of workers in the clusters, it also pilot tests implementation frameworks and methodologies for skills provision and certification in the informal economy.

*Source:* Ratnam and Chaturvedi, cited in ILO, 2008.

*Allowing institutions and training organizations greater autonomy:* As noted above, governance reforms at the institutional level are designed to give institutional heads and training organizations greater autonomy. This will enable a more flexible supply response to develop, as training institutions and organizations are able to assess (local) markets, set fees, determine the allocation of resources, recognize which courses are in demand, determine the length and type of delivery approach (such as adopting CBT), and determine the timing and nature of the training delivery to best meet the needs of target clientele.

*Encouraging TVSD labour market linkages based on incentives and financial measures:* Most TVSD reforms now emphasize shifting the focus of planners' attention from concern with inputs alone (the provision of more classrooms, workshops, instructors, equipment, books) to outputs (numbers trained, percentage achieving pass rates, and so on) and outcomes (including percentage of TVSD graduates employed at some number of months after completing training). The outcomes of training should indeed be the main focus, not inputs or even outputs: numbers of people trained or percentages obtaining pass rates tell planners relatively little about the performance of TVSD systems, including how well they have managed to link to the labour market. As will be seen below in the section on training finance reforms, there is also an opportunity to link incentives and financing of TVSD providers to their performance, including the employment success of their TVSD graduates. This measure may give providers an incentive to link their training more closely to labour market needs.

*Improving information systems, including those that more accurately identify the skills needs of the formal and informal sectors:* If TVSD is to be more demand-driven, information is essential. Improving information systems on both the supply and demand sides of the equation is thus critical (see the section on information system reforms below).

### ***Some implications for educational planning***

Whose demand counts? In many, if not most, poorer developing countries, where the majority of the labour force is engaged in informal economic activities, educational planners need to scrutinize

the kind of demand they are looking at. Quite often ‘demand-driven’ skills mean skills demanded by the formal sector; but what are the implications of this approach in countries where the informal economy absorbs the bulk of the country’s workforce? Demand is clearly very different in the formal and informal sectors of an economy.<sup>25</sup> Demand-driven training thus ought to respond to the very different demands of each sector. TVSD committees and councils, which often have little or no representation from workers in the informal economy, should be aware of the training demand from that sector. Where a country has a large and dynamic formal private sector and a small informal private one, this issue is obviously less pressing. Planners should also avoid viewing ‘supply-driven’ as necessarily negative; a generous supply of well-trained, skilled young people is often a valuable resource. For young people, skills training can fulfil a personal or social ambition even if there is no immediate labour market demand for it.

*Information:* Demand-side information is often weak or absent in most developing countries. Data that could inform answers to many basic questions are usually inadequate or totally absent: What is the structure of market demand for skills and the economic forces driving it? What is the demand from formal industry? What is the demand from informal micro- and small enterprises? What is the demand resulting from economic development priorities, recent trends in the economy, and economic growth prospects? What do employment and earnings trends tell us about demand for skills? More and better information is needed, and efforts must be made to improve the data collection and analysis capacity of the institutions and organizations best suited to monitoring the demand side of TVSD (see also below on information system reforms).

### *3.4 Reforms concerning training standards*

#### *The issues*

TVSD provision in developing countries is often of poor quality. Formal TVSD institutions, public and private, frequently lack decent infrastructure, tools, and equipment (where present, machinery is

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25. We recognize, of course, that this is never a neat dichotomy.

often decades old). The pre-service training of instructors in formal TVSD institutions tends to focus on theory rather than practical experience, and once they start teaching they often receive little or no in-service training, industry exposure, or performance incentives to improve teaching standards. Informal TVSD – for example, the apprenticeship system – suffers from its own constraints on quality, linked directly to the kind of training provided in micro- and small enterprises: usually the trainer is a master-craftsperson not trained to teach, and the technology used is often outdated. Under these conditions adequate training standards are rarely met. In the case of formal TVSD providers, even where there are training standards in place it can be difficult to enforce them and to impose sanctions on under-performing providers who operate within a highly centralized and rigid system. The fragmented nature of provision in most developing countries makes developing and enforcing training standards more difficult. Setting and enforcing standards for informal skills provision, for example in apprenticeships, are particular challenges.

### ***The reforms***

To ensure quality in TVSD requires training standards, sufficient inputs, and measurement of outputs against the standards (ADB, 2008). Several approaches are in place (see the example of Australia in *Box 4*).

One approach to developing training standards is by way of National qualification frameworks (NQFs), which set the levels that trainees are required to meet in order to attain mastery in a particular competency (but see below for some cautions about these frameworks).

Public and private TVSD institutions ought to be subject to annual accreditation based on their achievement of defined quality standards, and undergo quality audits on a regular (usually annual) basis. Indicators of output (numbers trained and number of examination passes, for instance) and outcome (such as the percentage of graduates in self- or waged employment six months after training) can be measured against the training standards to assess how well the objectives are being met.

**Box 4. Quality assurance system in TVET in Australia**

In 2002, the Australian Quality Training Framework set nationally agreed standards for the TVET system. This quality system defines the registration and accreditation process for training providers and the specifications for the design of training programmes. TVET programmes can only be accredited and qualifications recognized throughout Australia if they are developed in compliance with the national guidelines. Training providers submit evidence of compliance with standards covering staff qualifications and experience, training facilities, and client support services. Many of the learning and assessment programmes in Australia are based on nationally endorsed training packages linked to industry or enterprise-specific performance standards, called competencies, which lead to nationally recognized qualifications. They have been developed and maintained in consultation with industry through industry skills councils. Training packages describe the skills and knowledge needed to perform effectively in the workplace.

*Source: Gasskov, 2006.*

Employers' associations and representatives should be more involved in setting standards. For informal apprenticeships, this approach may be more effective than trying to apply an NQF to improvement of quality and standards. Reforms need to bring employers into this process to improve the relevance and quality of training offered.

Training standards in informal apprenticeship training are summarized below (*Section 3.10*).

***Some implications for educational planning***

Planners should ensure that quality assurance mechanisms are put in place and that ways exist to enforce these quality standards (through sanctions) and to encourage achievement of the required standards (through incentives).

There needs to be a much greater focus on industry exposure during formal TVSD training, pre-service or in-service, for instance through industrial attachments. Adequate incentives are required to encourage such staff attachments (planners should recognize, for example, that instructors may have part-time holiday jobs and may be reluctant to go on attachment).

Managers of formal TVSD institutions should be given greater autonomy to pursue various approaches to achieving the standards and should be held accountable for doing so. Planners should build in incentives (for institutions, for departments, and for individual instructors) to encourage attainment of their standards.

### *3.5 Reforms relative to portability of skills*

#### *The issues*

Portability of skills in many developing countries is inadequate. The ILO defines the portability of skills along two dimensions (Nübler, 2007), both of which require attention in TVSD reforms.

- (1) The transferability of skills. This refers to the degree to which skills are transferable within a country's education and training system (vertical and horizontal mobility of skills) and between different occupations and different jobs. The transferability of skills (both vocational and technical skills and core skills) is a necessary condition for the portability of skills.
- (2) The recognition of skills. There is a need to identify and assess the type and level of skills a person possesses, and then to communicate that information in a credible way to the labour market. If employers are to recognize skills in potential employees, they have to be convinced of the credibility of the information. Too often, assessment systems are heavily weighted towards written examinations, but employers remain unconvinced about the credibility of tests as an indicator of trainee ability. In countries like Ghana and Pakistan, pass rates in TVSD examinations are often quite high, but employers – aware of the poor quality of the training in most formal institutions – are rightly sceptical about what these test scores actually mean.

#### *The reforms*

Numerous countries have taken steps to improve vertical and horizontal skills mobility. For example, many Latin American countries have made it easier for secondary vocational students to continue to higher education, as have Tunisia and South Korea (Adams, 2007).

In many countries, the move towards CBT and the development of NQFs together promise to improve the measurement of competencies and promote skill portability (recognition and transferability). While CBT and NQFs are sometimes designed to relate to both formal and informal TVSD provision, they predominantly relate to the former. As well as trying to integrate informally acquired skills into the CBT and NQF approaches, other methods are being used to enhance portability of these informal skills.

*Competency-based training:* In order for skills to be recognized they need to be evaluated and certified. Such certification should be based on demonstrable competency. CBT has emerged as an approach that gives more emphasis to trainees' ability to master specific practical tasks or competencies than to the level or type of certification received, or the length of training. The CBT approach involves the modular division of training into specific demand-oriented competencies. It represents a shift away from time-bound standardized courses (often of two to four years' duration), where assessment typically occurs at the end of the training, and towards short modules of competency, where each one is assessed separately. Since the CBT approach allows for assessment of distinct competencies, it more easily allows trainees to enter and leave the training system as and when they desire.

*National qualification frameworks:* NQFs are frameworks in which all the qualifications offered in a particular country (or region) are organized according to level. These have predominantly been developed in Anglophone settings, and claim to bring coherence into what is often a bewildering array of academic and vocational qualifications. NQFs show how different qualifications relate to each other and are thus designed to enhance horizontal and vertical mobility within a country's or region's education and training system.

In the European Union, region-wide skills recognition is based on the principle of equivalence and the mutual recognition of qualifications and certifications. Mutual recognition is strongly enforced; countries are obliged under a directive to recognize each other's qualifications unless there is a major difference (the

receiving country has to prove this to be the case, and, if proven, is obliged to provide additional training). In order to provide more transparency in the system, the European Union has now developed a European Qualifications Framework (EQF), which ‘translates’ national qualifications by linking them to a common framework and classification system (Nübler, 2007).

However, while it has been suggested by the ILO (2002) that NQFs are ‘something to aim for’ (p. 105), there is widespread doubt about their suitability for the informal economy or developing and middle-income countries more generally (Grunwald *et al.*, 2004; Young, 2005). Even in developed countries or regions, like New Zealand and Scotland, NQFs have proved difficult to develop and implement and have taken much more than a decade to set up. Rigidity of NQFs is also a common complaint: once defined, it is hard to change a myriad of skills specifications. For developing countries, a key issue is whether building a costly NQF system is likely to be more efficient and effective than other interventions, in particular improvement of the education and training systems.<sup>26</sup> In spite of this, a number of developing countries are pushing ahead with plans to create such a qualifications framework and to integrate informal apprenticeship training into it. But there are other ways to ensure quality and skill recognition than an NQF, for instance traditional approaches to skills recognition (Nübler, 2007).<sup>27</sup>

Skills recognition and documentation are important to support informal sector workers, as is identifying where learning takes place and how people acquire competencies in informal settings. Assessing, certifying, and recognizing skills acquired in the informal economy are, as noted above, more complex matters. But some progress has

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26. Other interventions might include active labour market policies, institutional development, curriculum development, staff development, and industry partnerships.

27. Two such approaches can be identified: (1) government regulation in the vocational education and training systems, and (2) government collaboration with employer associations to set standards and build capacity to assess and certify the training currently provided by informal apprenticeships, so as to arrive at self-regulation or co-regulation in apprenticeship systems (e.g. by chambers of commerce, informal sector associations, trade unions, public authorities).

been made in this regard, for example in Ghana and Cameroon. In Ghana the National Vocational Training Institute has introduced competency-based (proficiency) skills tests that allow illiterate or semi-literate trainees, including those in informal apprenticeships, to submit their skills to practical, non-written evaluation. In Cameroon the Intersectoral Craftworkers Association organizes supplementary training and has introduced a common examination for informal apprentices among its membership. It also awards certificates and is in the process of establishing standards for content and length of apprenticeship training (Walther, 2006).

Given that self-employed workers in the informal economy have only a limited use for certificates, the transferability of skills between different occupations and different jobs is more important than skills recognition per se, given the multiple economic activities of many informal sector workers.

### ***Some implications for educational planning***

Planners should consider developing a CBT approach that engages with formal industry and with the informal micro-enterprise sector. For example, in addition to being used in formal TVSD institutes, the CBT approach can be developed for the upgrading of informal apprentices.

Planners should not rush to develop a complex NQF that exceeds local administrative capacity. There is little solid research evidence yet of the effectiveness of this particular reform.

## ***3.6 Reforms of financial provision for training***

### ***The issues***

Existing financial resources for TVSD are generally not allocated effectively. Moreover, funding needs to be diversified so that the costs are covered by multiple stakeholders.

Public TVSD provision typically uses an input-driven approach to financing; institutions often receive budgetary allocations based on some input-related funding formula (number of instructors, number of trainees, previous year's budget, and so on) that remains the same whether the institution is performing well or not. Financing

is not linked to efficiency, attainment of minimum training standards, outputs, or outcomes. A culture of apathy can develop when there are no incentives to perform well. Instructors and managers get paid regardless of the quality of training delivered or the pass rate of their trainees. Meanwhile, institutions often do not have the autonomy needed to mobilize further resources, for example by raising fee levels to more realistic market rates. Public TVSD institutions also receive little government support for developing additional income streams, for example through setting up production units. Public resources are also typically not used strategically to promote social equity or to redress problems where markets fail to work well.

The financing of for-profit private institutional TVSD provision is market-driven: institutions set their own fees and can engage in additional income-generating activities. Fees are typically higher than in public provider settings and poorer youth are often excluded. Operating effectively as businesses, for-profit institutions are under greater pressure than their public counterparts to attract trainees and deliver adequate training, or else they may go out of business (unlike their public counterparts, some of which operate well below capacity and would fail to break even if they were private). Nonetheless, there is huge variation in the quality of private provision. Non-profit private institutional providers, if financed by an NGO, can sometimes operate in a similar way to public institutions, with financing that is too closely tied to inputs.

The financing of informal apprenticeships largely comes from the trainees or their families (in the form of training fees and/or reduced wages), the market determining what fees are charged.

### ***The reforms***<sup>28</sup>

#### *Resource mobilization options*

- Training levies are taxes on company payrolls, which can be recovered through agreed training expenditures and have become a popular policy option as a supplement to government budgetary allocations. In countries with large informal economies, there may not be a sufficiently broad formal enterprise base to make

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28. See Ziderman, 2007 and 2003, for further details.

such a levy sustainable or viable. Collection of levies can also be a problem; in Jordan, for example, managers of the Training Employment Fund spend about 70 per cent of their time on this task (World Bank, 2008b).

- Cost sharing (with users) may include increases in training fees and the reduction of government subsidies. While this may mobilize further resources, there are clear equity implications related to raising fee levels.
- Institutional income generation operates at the institutional level through the sale of goods and services (often delivered by the trainees during their practicals). It can constitute a useful source of additional funding. Institutions need to maintain a balance between training and production activities so that they can benefit from the additional income generated through production with no negative impact on the quality of the training delivered.
- Increase in private providers may be a way to expand national training systems without massive public funding (see the section on reforms relative to non-state providers of TVSD).

### *Resource allocation*

Financial allocation mechanisms have the potential to make TVSD systems more efficient and responsive to the market. Beyond the mobilization of resources for a TVSD system, a more important issue is the allocation of these resources and the incentives created to encourage and reward good performance. One option is to separate financing from provision, as Chile has done. Chile's national training agency, SENCE, buys training services on the open market from public and private providers (rather than providing them itself), using competition to reduce costs and get the best training for the money spent. In SSA, Mauritius has also adopted this model. However, planners need to be aware that if the financing of TVSD is partially based on performance, those whose performance is to be measured may find ways of massaging the indicator (for instance, teachers and instructors may be more loath to fail candidates when their income depends to some extent on these pass rates). This may especially be a problem when a country suffers from widespread and blatant forms of corruption to begin with.

Performance-based budgeting, competitive procurement of training, and vouchers can all – if adopted appropriately and in a supportive context – improve training institutions’ incentives to perform well (World Bank, 2008c). However, this does not always happen. For example, the Jua Kali project in Kenya showed that training vouchers can become a source of extensive corruption (Haan, 2001; Johanson and Adams, 2004).

Skills development funds, or training funds, have emerged as a relatively new type of financing mechanism. A national skills development fund serves to unify and supplement public financing for TVSD and to facilitate allocation of funds in line with both national socio-economic priorities and specific priorities identified by the TVSD councils or committees. Skills development funds can be used to stimulate innovation and better performance, as in the case of Singapore’s training fund, which has been used to leverage TVSD reforms (ADB, 2008).

Such a training fund can draw on a variety of income sources, including training levies, government budgetary allocation, development-partner funding, and income generated by the fund itself (Ziderman, 2003, 2007). Some guiding principles can be followed in establishing such a fund (*Table 3.2*).

1. The objectives and operation of the fund must be clearly stated, and must be agreed upon at the highest level. The activities to be supported by financial allocations must be clearly defined. For example, in the Jordanian training fund, allocations from the fund can be made for (1) financing the needs of TVSD institutions for equipment, raw materials, teaching materials, and wages of trainers, (2) developing training and retraining programmes for public and private companies, (3) scholarships based on the financial needs of eligible students, (4) vocational awareness campaigns in the media, and (5) training needs surveys (ETF/World Bank, 2006). There should also be a clear statement about who can benefit from the fund, for example both public and private institutes as well as private enterprise-based training. The fund’s mission statement needs to clarify the relationship between pre-employment and continuing training, and the degree to which informal skills

training will be supported, perhaps through cross-subsidization (Box 5; Walther and Gauron, 2008).

**Table 3.2 Key conditions for training fund success**

Key condition	Justification
Security of income	Ensure adequate, sustainable, and stable training fund incomes
Autonomy and control	Secure decision-making autonomy of management board and its control over budget allocations
Stakeholder ownership	Foster ownership through substantial board representation of major stakeholders, particularly employer groups, where training levies are in place
Activities and disbursements	Ensure that training fund policies and disbursements are targeted according to national training needs only, and avoid extraneous activities
Avoidance of conflict of interest (the training fund manager is not also a training provider)	Limit subsidies and preferential treatment to training centres if run (and financed) by a training fund, lest they distort training markets and inhibit movement toward an open, competitive training system
Decision-making transparency	Keep decision-making open and make sure the basis for fund allocation is known and understood

Source: Ziderman, 2003: 81.

**Box 5. The four main destinations for fund disbursement (funding windows)**

1. Core funding to training institutions for pre-employment skills development, aimed largely at formal sector employment
2. Training incentives to enterprises in the formal sector where initial training (including apprenticeship) or continuing training is deemed insufficient
3. Training courses for the unemployed and other disadvantaged groups
4. Meeting the training needs of micro-enterprises and the informal sector where conventional private markets fail to respond.

Source: Ziderman, 2003.

2. Quality management and governance of the fund are critical. The fund must be sector-neutral, affiliated with the specific TVSD council or committee, and not controlled by any single ministry. Membership in the fund's board must be broad-based to avoid conflict of interest. Extensive employer involvement in managing the fund is also essential. Capacity building within firms and industry groups is needed to enable them to articulate their skills needs.
3. Allocation mechanisms must help develop a demand-driven approach, not perpetuate a supply-driven one. The allocations from the fund must be linked to effective demand-driven training delivery. For example, instead of giving funds directly to training providers, allocations could be made to businesses, employer organizations, or individuals who would then decide which training provider to hire, thus promoting healthy competition among public and private providers. In turn this competitive process would enhance the quality and relevance of training provision in both the public and private sectors (ETF/World Bank, 2006). Training institutions' financial allocations could be linked to performance, for which benchmarks and indicators would have to be developed and monitored. Old funding mechanisms, based on inputs provided (facilities, equipment, training materials, and instructors), should be dismantled and replaced with new funding formulas based on inputs, outputs, and outcomes (Johanson and Adams, 2004). In Bangladesh's TVSD reform, a new financing instrument will be piloted that will create a level playing field for both public and private providers to access public financing. This new instrument will tie their performance to industry standards and test their resilience in the face of changing market demands.
4. Attention needs to be paid to the medium- and long-term sustainability of a skills development fund that is launched, or initially heavily supported, by development partners.

***Some implications for educational planning***

Planners should assess each element required to establish a training fund (as listed above) and ask how they can be adapted to their own country. They should examine the experience of the national training funds in Zambia and Tanzania, set up around the turn of the

twenty-first century, to see how well these are working and which factors may have aided or hindered them.

Planners should be aware that the tensions that can arise between skills development policies for competitiveness and those intended to improve social cohesion also extend to TVSD financing. For example, there can be tensions related to achieving both effectiveness and equity or social cohesion, or to combining market principles with redistribution principles.

Where reforms are introduced in the area of resource mobilization, planners should aim to mitigate potentially adverse impacts. For example, a reform that results in increased training fees may mean that poorer groups are marginalized further. In this case, planners may opt for targeted scholarships or loans.

Where industry levy systems are set up, planners must ensure that levies are not diverted at the point of transfer to the government treasury and used for general budgetary expenditures, but are handed over to the skills development fund managers.

Budgets should not be drawn up regardless of performance. Planners should shift to a partially performance-based financing approach, driven not only by inputs but also by outputs and outcomes. They must also be aware that such a shift requires giving institutions greater autonomy; greater opportunities for managers to develop their capacity through in-service management development programmes therefore become crucial (ADB, 2008).

However, planners also need to consider how to assess performance in a reliable and valid way, especially when it is known that resources are tied to particular measures. For example, if an institution is funded based on the number of trainees who complete a course using a voucher scheme, how can planners ensure that the trainees actually did complete the course and did not barter with the training provider? Or, if an institution is funded on the basis of the number of former trainees subsequently placed in (self-) employment, how can this be reliably monitored once it becomes known that this forms part of the basis for financing?

A shift towards a more performance-based financing system would also require capacity building, and monitoring, of institutional managers.

### *3.7 Information system reforms*

#### *The issues*

In most developing countries, key TVSD stakeholders (including TVSD councils, governments, public and private training providers, employers, and potential entrants to the labour market) largely operate without access to useful and timely information on which to base their choices. TVSD information systems, including monitoring and evaluation of supply, demand, and financing, are often woefully inadequate.

While some data on public, formal, school-based technical and vocational education are often collected and collated, the emphasis is on supply-side (input and output) information, with little or no data on outcomes. There is a dearth of information on TVSD modalities outside ministries of education (private provision, TVSD under ministries of labour, enterprise-based TVSD, and so on), and especially on skills delivered in the informal economy.

With basic supply, demand, and financing information lacking or inadequate, planners often design policies based on anecdotal evidence and, more often than not, on long-held assumptions for which there is usually little evidence. The result is that evidence-based planning is very difficult for most TVSD planners. (As noted above, the information situation is usually slightly better with regard to TVE under ministries of education, but still not with respect to demand-side issues.)

On the supply side, available information on TVSD provision often only relates to numbers of institutions, of trainees (by gender), and of instructors. There is usually little information about the quality of the training, despite the fact that there is an increasing body of evidence about the relationship between quality of education and economic growth (DFID, 2008). Equality issues are important in the monitoring process, yet are frequently overlooked. There is a tendency to look at equality of access in terms of gender equality

alone, but other types of unequal access merit attention – for people with disabilities, ethnic minorities, rural populations, and others.

The lack of data on the demand side – what skills are being demanded by employers – creates information asymmetries in the skill–industry relationship and ultimately skill mismatches. Without basic information on the performance of TVSD systems, it is very difficult for planners to make the critical policy decisions required for running and sustaining a high-quality system.

### ***The reforms***

#### *Assessing and monitoring TVSD internationally*

Internationally comparable data in national TVSD systems are only available in limited cases (King and Palmer, 2008). For example, UNESCO reports on TVSD only for public TVE under ministries of education, and then only covering enrolment figures (see the UNESCO Global Monitoring Reports, various years 2002–2008, and UNESCO-UNEVOC/UIS, 2006). The OECD/UNESCO World Education Indicators programme also focuses only on formal skills development and entirely excludes enterprise-based skills development (UIS/OECD, 2005). The ILO’s Key Indicators of the Labour Market (KILM) provide labour market information and are useful for defining the context of technical and vocational skills development.<sup>29</sup> However, none of these indicators is directly related to skills development.

This absence of information at the international level is in part understandable: it is complex, if not impossible, to compare different national TVSD systems, given the diversity of TVSD provision both within and between countries, and the absence of internationally agreed terminology (thus what might be counted as TVSD in one country may not be in another, even though they might be identical activities). But the absence of international data also relates directly to the paucity of data at the national level. There are a number of

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29. For the labour market, see the new indicators for MDG 1 connected to the target of achieving full and productive employment and decent work for all: <http://unstats.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm>

ways that national data can be improved over the short and medium to long terms (see more on this below).

There is a tendency in the literature to look at skills only with respect to the supply side. However, a survey instrument developed by the World Bank is generating (limited) data relative to the demand for skills. The World Business Enterprise Surveys are the next evolution of the Investment Climate Surveys that the Bank has been involved with. This instrument is designed to look at the demand side of training, and includes firm-level surveys in approximately 90 countries, including 20 from Africa. Eighteen skills and education questions are included, five of them related to labour demand (Robin Horn, World Bank Education Sector Manager, cited in Palmer, 2009). The education and skills modules in this survey instrument need improvement, and it needs to be expanded to cover much smaller employers (the focus at present is largely on the formal sector). Also, the questions related to workforce skills require careful interpretation, as they do not specifically mention technical and vocational skills. For example, one of the questions asks firms whether ‘labour skill level’ is a constraint. When firms respond to this question, it is not clear what type or level of skills they have in mind; as seen in *Chapter I*, the concept is very broad and can include everything from foundation skills (reading, writing, and arithmetic), to core and soft skills, technical, vocational, and entrepreneurial skills, among others.

#### *Assessing and monitoring TVSD at the national level*

Education monitoring information systems have been created by some developing countries’ ministries of education to collect education-related supply-side data such as enrolment, transition, and survival rates. These also usually collect information on TVE under ministries of education, again with a supply-side focus. In some countries, like Ghana, these systems have started to collect data on formal TVSD, public and private, both within and outside ministries of education. This has begun to produce some useful information that can assist policy formation. However, in Ghana’s case, the lack of communication both within the Ministry of Education and between the Ministry of Education and other ministries and other TVSD stakeholders means that little is known about these new data

on formal public and private TVSD within the ministry coordinating the data collection. In other countries, the collection of TVSD data outside the ministry of education may be even less developed.

As well as enrolment data, several countries are also collecting data related to social equity in participation in and quality of formal TVSD. For example, Jordan is developing an equity indicator that monitors the participation in TVSD of youth (aged 15–24) by sex, socio-economic situation, and type of TVSD.<sup>30</sup> Also in Jordan, but under a separate initiative, the World Bank-supported Employer Skills Development Project (2008–2013) is collecting data on the satisfaction of employers with the availability, quality, and relevance of pre- and in-service training. Similarly, GTZ has completed the screening of the indicators used by a number of German TVSD programmes, in the context of development cooperation (Castañer *et al.*, 2007). One such indicator relates to the views of employers on preparedness of trainees and appropriateness of training contents (also measured by the time needed to get new employees ‘operational’); another relates to youths’ (or parents’) views on information received about the labour market and career counselling, after a certain period of time (King and Palmer, 2008).

Data on the effectiveness of TVSD are collected more carefully in some countries than others (see King and Palmer, 2008, for details). In the European Union, indicators have been developed to monitor the impact of vocational training, including:

- rate of unemployment by group (or by level of training);
- percentage of participants who have started, and successfully completed, a vocational training scheme (by VET type<sup>31</sup>);
- destination of trainees six months after training;
- use of acquired skills or expertise in the workplace, from the employer’s and the employee’s point of view;
- ability of existing mechanisms to adapt VET to changes in labour market requirements (European Training Foundation, 2007: 21).

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30. Personal communication with Jordanian Ministry of Education officials, Amman, 24 June 2008.

31. A number of European organizations prefer to use VET rather than TVET or TVSD.

However, planners obviously need to take context into account when determining which indicators to use, or how to adapt them. For example, in countries with large informal economies, defining who does and does not have a 'job' can sometimes make unemployment rates somewhat meaningless. Similarly, tracer studies to determine employment outcomes following training are rarely done and can require massive (and expensive) effort.

There is no doubting the difficulty of collecting accurate TVSD finance data at the national level. Nonetheless, a report done jointly by the IIEP (Paris) and the Philippines' Technical Education and Skills Development Authority (Péano *et al.*, 2008) is an interesting indication of what can be done to set up a national TVSD account.

### ***Some implications for educational planning***

#### *Developing national information systems<sup>32</sup>*

At the national level, collecting data on formal, informal, and non-formal provision of skills is a prerequisite for efficient and effective skills policies. Without such information and the monitoring of both the diverse provision of skills and the demand for them, planners will continue to rely on often long-held but inaccurate assumptions about what skills can and cannot do for individuals and for the economy. Collecting and analysing more and better national information must be a priority area for educational planners. Without such national level data, comparable data at the international level can only be a secondary objective.

Education monitoring information systems need to be further developed at national levels and to cover formal TVSD more effectively than at present. Such monitoring systems could then be gradually extended to include skills outside formal settings, though they should not be limited to the non-formal. However, agencies and governments should recall that in many countries the predominant mode of technical and vocational skills acquisition is outside the formal system. Delaying the development of an adequate monitoring system for these skills is therefore ill-advised.

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32. This section draws on Palmer, 2009.

Despite the challenges associated with monitoring the skills domain (King and Palmer, 2008), a number of areas may merit priority attention.

*Getting more and better data on formal TVE(T) provision*

Given the current paucity of national data on technical and vocational skills in general, it may only be possible in the short term to focus on getting better information on school- and college-based technical and vocational skills. Available data on school- and college-based TVE, as reported in the UNESCO GMRs for example, could certainly be improved. For example:

- Such data can often be confusing for analysts when the GMR data differ from those recorded in a country's own official reports.
- The GMR data on TVE refer to enrolment in TVE at the secondary level, but it is not clear what proportion of TVE is taking place at the lower versus the upper secondary levels.
- It would be useful to disaggregate other dimensions of school-based TVE, for example by providing data on specialized TVE schools as compared to TVE streams within a more general curriculum.
- At the tertiary level, the GMRs contain no information on post-secondary technical colleges or polytechnics, but only on students' field of study (engineering, manufacturing and construction, agriculture, and so on).

All these missing elements are important and probably not too hard to research at the country level.

After expanding the data collected from formal school- and college-based TVE providers, greater attention could be paid to formal provision delivered through ministries of labour as distinct from ministries of education. More information should also be obtained about formal private institutional providers.

*Using household and labour-force surveys*

Given the diverse nature of skills provision, it could be argued that the most effective monitoring approach is via household and labour force surveys. This would capture the one place where all the skills

actually reside: the individual. Planners should look at ways to improve the technical and vocational skills sections of labour-force and household-based surveys so that they can provide more data from which to develop indicators. Such surveys could be used more effectively to capture data not only on formal provision but also on non-formal and informal skills. However, planners must also recognize that survey administrators may be averse to adding more detailed questions to a particular module in a questionnaire.

*Analysing monitoring approaches currently used, and those used in the past*

There may be some merit to compiling an inventory of the survey instruments used to gather skills information at the international, national, programme, or project level, and identifying which have worked well or not so well, and why. For example, UNESCO's new Non-Formal Education Management Information System, discussed below, may be one useful approach to explore (UNESCO, 2005).

*Developing the monitoring capacity of institutions at the national level*

Developing institutional capacity is clearly vital if the monitoring of skills at the national level is to improve. Planners and development partners should pay particular attention to such capacity development. Agencies like the European Training Foundation (ETF) are already undertaking valuable work in this area in countries in the Middle East and North Africa (King and Palmer, 2008). Capacity development efforts should focus not only on ministries of education but also on ministries of labour and other public ministries that deliver TVSD programmes. The monitoring and evaluation capacity of the TVSD councils or committees should be strengthened.

*Improving labour market information*

The labour market situation of TVSD graduates needs to be analysed in order to build a case for investing in TVSD, by providing evidence of the cost-effectiveness of training. While assessing the economic outcomes (such as income) is important, assessing the non-economic outcomes of TVSD (transmitting values, building citizenship, and social capital) is equally important, but remains a challenge. Planners need to improve the quality and availability of

labour market information, especially as it relates to TVSD. They need to learn how to set up information-gathering systems capable of being implemented repeatedly, rather than relying on expensive one-off studies.

*Shifting the planning focus from inputs to outcomes*

Planners should focus on capturing data on the impact and effect of education and training rather than focusing on inputs. To assess the relevance and usefulness of skills programmes, governments and other investors should monitor not only the outputs – the successful completers – but also the outcomes – the proportion of completers who actually find employment where they can put their skills into practice.

### *3.8 Reforms relative to non-state providers of TVSD*

This section and the following one draw on a paper prepared by King and Palmer (2007) for the UK National Commission for UNESCO Education Committee, the Education for All Working Group, and the British Council.

#### *The issues*

Non-state private training providers, both institutional and enterprise-based, have an important role to play in expanding TVSD in many countries; if informal enterprise-based training is included, non-state private training usually outnumbers – significantly in some cases – public TVSD providers.

Private non-profit skills providers, for example NGOs, often target those not reached by public or private for-profit training providers, such as the poor in urban slums or rural areas, refugees, people living with HIV or AIDS, or those with special needs. They often provide integrated skills packages with post-training support and sometimes access to credit. They can be useful for testing new approaches, which are valuable even if they usually cannot be scaled up. However, there are often obstacles to sustainability and to expanding small, successful NGO projects precisely because the chemistry of staff leadership and staff commitment is so hard to generalize.

Provision of skills through private for-profit vocational-technical institutes can help to reduce pressure on public spending for skills development. At the top end, private provision tends to be better than public provision; this is particularly true for for-profit providers who are essentially selling a service (secretarial, business, languages, commerce, and computer training) and who would go out of business if the market deemed their services inferior. However, heavy reliance on private provision can further marginalize the poor in rural and urban areas who cannot afford the fees. The quality of private provision is extremely variable, and many countries have large numbers of unregistered and unregulated private vocational-technical institutes of very doubtful quality.

In many countries (such as Japan, South Korea, and Singapore), formal enterprise-based training (EBT) has been crucial to improving the skills of the workforce along with phased industrialization. Formal EBT has also been shown to raise the productivity of the workforce in manufacturing firms in several countries in SSA. Formal companies pay for the training, and can sometimes be stimulated to do more through levy-grant schemes. There is widespread evidence of formal firms' readiness to invest in training, especially in East Asia and SSA. However, it is usually the better-educated employees who benefit from this form of training, and larger firms, including those with foreign investment, that are more likely to train. A much lower proportion of medium-sized and small firms trains in the Middle East, North Africa, and South Asia; in India, for example, only 7 per cent of such employees overall receive training in a given year.

Private informal apprenticeships and other private training in the informal economy form the majority source of TVSD in Africa, South Asia, and even Latin America, and are emerging in importance in countries in Central Asia; the informal or unregistered economy is responsible for between 80 and 90 per cent of employment in much of SSA and South Asia, and for over 50 per cent of employment in Latin America. These private informal training modalities are hugely varied; there is considerable regulation within the apprenticeship systems in West Africa, but in many other countries training in the informal economy can be much less regulated or organized. Not all training in the informal economy is delivered in the apprenticeship mode, of course. This sort of on-the-job training is highly relevant

to the world of work but is often of low quality and can perpetuate outdated technologies.

### ***The reforms***

The private sector needs to be encouraged to enter the training market and expand provision of services. Government has a key role to play in creating an enabling environment, with government subsidies, grants, or non-monetary incentives to private providers.

Private training institutes can be encouraged through government subsidies of staff, or through grants. Formal enterprise-based training can be encouraged through tax rebates or a levy-grant mechanism. 'To offset a lack of capital resources, especially for high cost industrial and technical courses, governments may offer development loans or subsidies, particularly in strategic skill areas, to assist these firms in their start-up phases' (Ziderman, 2007: 6). For example, Thailand's Skill Development Promotion Act (2002) encourages and offers incentives for enterprises to provide training and skills upgrading to employees. Where firms are not training or do not recognize lack of skills as a constraint, planners should determine why this is and design appropriate policy responses.

Private training institutions need quality assurance mechanisms, and resources need to be allocated to monitor and assess them. Government should set and assess standards, accredit private institutions that achieve them, and give accredited institutions grants and/or salary subsidies. Many private institutional providers operate below capacity. Government efforts to expand formal TVSD opportunities might include assistance to formal private training providers to enable them to increase enrolment and reach capacity.

Attention should be paid to upgrading informal apprenticeship training, but great care is needed to ensure sustainability and system-wide (positive) impacts. Interventions should focus first on upgrading the skills of master craftworkers through pedagogical and technical training, giving apprentices supplementary literacy and numeracy training, regulating quality, and ensuring certification of skills. Skills training should be seen as only one component of support to be extended to informal micro- and small enterprises. More attention should be paid to the role that NGOs and informal

sector trade associations play in delivering training to those in the informal economy.

***Some implications for educational planning***

Non-state training providers, both institutional and enterprise-based, have an important role to play, and planners should seek ways to encourage their contribution to the training market, while ensuring that the training offered is of good quality.

***3.9 Reforms relative to school-based TVE***

***The issues***

Vocational and technical education is widespread in all OECD countries. Vocational subjects can be desirable on general grounds, as part of a well-rounded education. Some vocational subjects – such as commerce, computing, accounting, business studies, and entrepreneurship – are no more costly than the regular academic curriculum. The orientation towards TVSD in general secondary schools is very different from that of specialized technical and vocational schools. The former tend to have good links to the knowledge economy. Technical education can be more intensive when conducted in separate technical secondary schools. Though the costs are much higher, the exposure to technical expertise can be much more complete, as in South Korea and Taiwan. In many countries, including much of the former Soviet Union, students from poorer families have been able to benefit from the social and labour market benefits of this kind of widely distributed school-based technical education. In OECD countries especially, there have been numerous attempts to change the ‘dead-end’ image of TVSD by increasing the general education content of separate technical schools and creating flexible pathways to further education and training. A good example of such pathways are China’s higher vocational colleges.

However, school-based TVE in its more intensive, specialized modality can be many times more expensive than general education. The labour market effectiveness of this diversified secondary schooling has been questioned by the World Bank for the last 20 years in Africa and Latin America, and more recently in India, though it was supported by the Bank for the previous 20 years.

While there are methodological concerns with rate-of-return studies, the returns on general education usually appear higher than those on diversified education, though there are some exceptions to this. Although school-based TVE is held by politicians to encourage self-employment, there is little firm evidence of this. Vocational courses are naturally concerned with gaining qualifications, and hence can become skewed towards theory-based learning at the expense of practical training. In many cases the inadequacy of tools, equipment, and training materials – in addition to the lack of practical experience of many instructors – contributes to the theoretical overemphasis in training.

### *The reforms*

School-based TVE reforms usually hinge on two main issues: when should vocational content be introduced, and how much vocational content should there be?

A pattern across regions and countries is the deferral of vocational specialization until upper secondary education. Advanced countries introduce vocational content later, at the post-secondary level. By starting vocational content later, students are able to build a solid basic education foundation and are less pressured to make premature career choices (Adams, 2007).

How much vocational content?<sup>33</sup> Where the curriculum contains only a small fraction (typically less than one-fifth) of vocational content, TVE is unlikely to help youths enter employment. The belief shared by many educators that packaging a small amount of vocational subject-matter with general education will improve options for employment is largely unproven. This strategy of ‘vocationalization’ of secondary education is not found to facilitate the transition to employment in advanced or developing countries. The introduction of limited vocational competencies has a high opportunity cost in time that cannot be spent on general education subjects. More success is achieved with full-time TVE, where the goal is to improve chances for employment. A stronger case may be made for vocationalizing the curriculum when the goal is to increase students’ interest in school and improve overall educational

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33. This paragraph draws on Adams, 2007 (p. 34).

attainment. Where vocational content has broad learning and occupational applications, as in the case of ICT skills, the impact is largely different. ICT skills are becoming a necessary form of vocationalization in secondary schools, and computer applications are increasingly integrated into general education in the way that typing once was.

***Some implications for educational planning***

Discussions of vocationalization often confuse a minor orientation towards vocational subjects with technical education as an entirely separate stream of secondary education, as in much of Latin America, francophone Africa, Europe, and many parts of East and South-East Asia. These are two very different modalities, with different costs, philosophies, and cultures. However, whatever the type of school-based technical or vocational education, the transition of graduates to the labour market is going to be much easier when economies are growing and job growth is sustained, as in South Korea, China, and Mozambique. Deliberate mixes of minor and intensive orientation might be a good policy response to a political demand for wholesale vocationalization (King and Palmer, 2007).

***3.10 Reform initiatives by level and type of training***

Table 3.3 outlines some reform initiatives relevant to different levels and types of TVSD provision.

**Table 3.3 Types of training and related reform initiatives**

<b>Level and type of training</b>	<b>Reform initiatives</b>
<b>Pre-employment training</b>	
Public school- and college-based skills training under ministries of education, and vocational training centres under ministries of labour (and other ministries)	<ul style="list-style-type: none"><li>• Training should be more strategically focused, covering gaps not filled by the private sector (such as addressing equity issues or providing training in demand-oriented areas not covered by private providers).</li><li>• Poorer youth should have a chance to access tertiary-level skills training through targeted scholarships or loans. The problem here has always been the difficulty of setting up a system, and efficiently and equitably administering it.</li></ul>

<b>Level and type of training</b>	<b>Reform initiatives</b>
	<ul style="list-style-type: none"><li>• Diversified secondary schooling is costly and may be difficult to implement; another route may be to teach entrepreneurial and business skills in schools and to link students to the labour market through work-experience programmes.</li><li>• Technical secondary schools (where the main focus of the course is TVE) should not be treated by planners in the same way as general or diversified secondary schools.</li><li>• Competency-based training should be adopted for both tertiary and pre-tertiary public training providers.</li><li>• The financing of public institutions should divert its focus away from inputs and towards the adoption of composite funding formulas that consider inputs, outputs, and outcomes. A performance-based approach should predominate.</li><li>• Incentives (financial and non-financial) should be offered to institutions, departments, and individual instructors or managers to encourage better performance and higher training standards. Chile uses both collective (school-wide) and individual incentives to improve performance, an approach planners may wish to adapt to their own countries.</li><li>• Greater autonomy should be given to both tertiary and pre-tertiary public training providers (with respect to staffing, fee levels, course delivery, course choice, and so on).</li><li>• The quality of training provision should be improved through setting and enforcing standards.</li><li>• Emphasis should be on consolidation of existing public providers before any expansion.</li></ul>
Private for-profit and private non-profit institution-based skills training	<ul style="list-style-type: none"><li>• Private training providers need to adopt quality assurance mechanisms and resources need to be allocated to monitor and assess them.</li></ul>

<b>Level and type of training</b>	<b>Reform initiatives</b>
Youth and adult non-formal skills programmes	<ul style="list-style-type: none"> <li>• The private sector needs to be encouraged to enter the training market and expand its provision of services. Government has a key role to play in creating an enabling environment; this may include subsidies, grants, or non-monetary incentives to private providers.</li> <li>• ‘To offset a lack of capital resources, especially for high cost industrial and technical courses, governments may offer development loans or subsidies, particularly in strategic skill areas, to assist these firms in their start-up phases’ (Ziderman, 2007: 6).</li> <li>• National-level TVSD reforms should recognize the emerging innovative practices some NGOs use to deliver non-formal skills programmes. Such innovations include flexible training delivery that responds to the needs of hard-to-reach groups, or the integration of skills training with other measures to empower weaker groups and give them post-training support.</li> </ul>
<b>On-the-job enterprise-based training</b>	
Formal private enterprise-based skills training	<ul style="list-style-type: none"> <li>• This should be encouraged through tax rebates or a levy-grant mechanism.</li> <li>• Where firms are not training, or do not recognize lack of skills as a constraint, planners should determine why this is and design appropriate policy responses.</li> </ul>
Informal sector training	<ul style="list-style-type: none"> <li>• Attempts to redirect formal TVSD provision to meet the needs of the informal economy have proved difficult, but some successful cases exist, for example the National Vocational Training System (NVTS) project in India (see Palmer, 2008b).</li> </ul>

<b>Level and type of training</b>	<b>Reform initiatives</b>
	<ul style="list-style-type: none"><li>• Skills training should be seen as only one component of support to micro- and small enterprises. Other interventions are required.</li><li>• More attention should be paid to the role of NGOs and informal sector trade associations in delivering training in the informal economy.</li><li>• Attention should be paid to upgrading informal apprenticeship training, but great care is needed to ensure sustainability and system-wide (positive) impacts. Interventions should focus first on upgrading the skills of master craftworkers through pedagogical and technical training, giving apprentices supplementary literacy and numeracy training, regulating quality, and ensuring certification of skills.</li></ul>

*Sources:* ADB, 2008; Johanson and Adams, 2004; Palmer, 2008*b*; Ziderman, 2007.

### *3.11 Concluding comments on TVSD reform*

After reviewing these different types of reform initiative, planners should explore any particular approaches that interest them, to learn from what has been done before and perhaps to adapt the approach to their own countries. Planners may also wish to ask how far these reform initiatives are based on evaluative or empirically based analysis, and what particular assumptions they may be based on. It could be argued that all these approaches need more and better corrective feedback on how they work out in practice. One problem is the lack of easily available evaluative documentation on nearly all these reforms. Planners need to pay particular attention to the issue of context, and acknowledge that reforms may not work out the way they were intended.

The range of reforms considered here, including governance reforms, is broad. Yet if TVSD is to address satisfactorily the concerns about access and equality of provision for poor and disadvantaged members of society, then, it can be argued, another type of governance reform is called for. Much more attention will

need to be given to the wide and underlying disparities within TVSD systems, parallel to those that the GMR 2009 shows exist within basic education. What may be needed are not the quantitative targets associated with the MDGs and with most of the EFA Dakar Goals, but targets associated with equity goals to promote equal access to quality TVSD.

Planners should be aware of the importance of complementary reforms; TVSD reform is not enough in itself. They should be wary of assuming that TVSD alone will reduce unemployment (unless, of course, a country's unemployment problem is structural in nature<sup>34</sup>). Unemployment is more likely caused by other factors such as lack of job creation; in this case, TVSD is unlikely to be successful unless coupled with complementary reforms (Adams, 2007). Such complementary reforms might affect technology, the macro-economy, trade and investment, and the labour market (for instance, to make 'doing business' easier in both the formal and informal economies and tackle gender-biased patterns of employment).

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34. That is, jobs already exist, but people do not have the necessary skills to fill them; in this case individuals need (re)training in skills to take up the jobs.

## IV. Conclusion: planning for technical and vocational skills development

This final chapter summarizes this work's main implications for educational planning.

### *4.1 Technical vocational skills development on the international agenda*

The most important lesson for planners from this policy history of TVSD since the 1990s is simple: history, context, and culture matter. First, planners should be aware of the history of TVSD in situations where they may be giving advice. It can be seen even from this snapshot of the beginning of the twenty-first century that agency and national policies have changed substantially. It is valuable for planners to know the origins of these changes, either in national or in donor policy documents. An awareness of policy history can make them alert to the dangers of the manipulation of the skills agenda. The politics of skills-for-employment has a long history in many countries, and planners need to be well briefed on the history of schemes that have been driven by its rhetoric.

Second, planners concerned with situating TVSD at the national or regional level need to understand the local meanings of 'skill', 'competency', or 'technical knowledge', and to perceive how these are valued within education and training systems.

Third, it is crucial that they be aware of the different domains of TVSD in schools, training centres, and enterprises, and their delivery through formal, non-formal, and informal systems in both public and private sectors, even if they are more concerned with provision under the umbrella of the ministry of education.

#### *4.2 Technical and vocational skills development: economic and social dimensions and implications for planners*

Educational planners need to question the expectations commonly entertained by politicians and senior civil servants about the impacts of investing in TVSD. Planners would do well to reject the assumption that the mere provision or expansion of technical and vocational skills to youth or the unemployed in general will quasi-automatically affect conditions of unemployment, poverty reduction, or economic competitiveness; they should ensure that attention is given to the quality and relevance of the skills provided and to the socio-economic and governance environment in which individuals try to put skills to use.

##### ***Who gains access to skills? Skills for the poor, the marginalized, and women***

A first question for planners in any analysis of TVSD for the poor, the marginalized, or women is how far these populations are actually represented in national TVSD systems. Those hoping to encourage greater equity through their education and TVSD systems should be especially aware of the extent to which disadvantaged, marginalized, and vulnerable groups are able to integrate it. These groups include (former) child labourers, children and youth in rural communities, out-of-school youth in the informal economy, girls excluded from education and training opportunities, ethnic minorities, school dropouts, illiterates, demobilized child soldiers, people with disabilities, and disenfranchised youth.

Planners should ask whether a renewed interest by their government in skills development implies a new interest in skills development for the (very) poor, the marginalized, and women.

##### ***What does it mean to acquire skills?***

Planners concerned with the links between skills and poverty reduction, skills and employment, and skills and social cohesion need to pay a great deal of attention to the kind and quality of skills being acquired.

***What impact do acquired skills have on employment, poverty reduction, and social cohesion?***

Policy planners should be concerned not only with skills acquisition policies but also policies that enable the utilization of skills for employment, poverty reduction, and social cohesion. They need to promote policies for the informal economy that make starting and doing business in this environment easier. They should also recognize that trainees need to receive pre- and post-training support.

Government thinking needs to be reoriented towards more pro-poor growth policies (such as pro-poor employment policies, private sector development strategies, reform of public services, or regulations).

There is a strong case to be made for funding specific TVSD interventions for the (very) poor, since they may not benefit from mainstream training programmes, have very specific needs, and require quality, relevant training. However, if the poor are not to be marginalized further, their participation in mainstream post-basic TVSD options also needs to grow, in particular through merit-based scholarships and cash transfer schemes, though these have proved difficult to administer fairly in some contexts. Facilitating the access of poor, disadvantaged, vulnerable, and marginalized people into mainstream TVSD programmes requires in turn that planners support and promote equitable access to quality basic education. Without this, the poor and vulnerable will be further marginalized, since most VTIs require some degree of formal education from entrants.

The EFA GMR for 2009, *Overcoming Inequality: Why governance matters* (UNESCO, 2008), makes a major contribution to this issue, arguing that ‘Progress towards the EFA goals is being undermined by a failure of governments to tackle persistent inequalities based on income, gender, location, ethnicity, language, disability and other markers of disadvantage. Unless governments act to reduce disparities through effective policy reforms, the EFA promise will be broken’ (UNESCO, 2008: 1). This is a stark message about the massive and in many cases increasing gaps between the rich and the poor within countries. What is true of EFA provision is almost certainly equally true of TVSD provision.

***Skills development in relation to productivity, employment, growth, and competitiveness***

These issues lie at the heart of what may be called the politics of skills development. What can and cannot be expected of an investment in skills development in terms of job creation, productivity, and competitiveness? The planner is encouraged to think about such investments in a holistic way, and to be critical of the view that skills development in isolation can somehow translate directly into jobs. The notion that some number of years of technical and vocational education can produce higher productivity or decent work in the absence of an enabling environment has been critically analysed above.

The idea that years of technical and vocational schooling will translate into job creation or higher productivity, even in an enabling environment, also calls for reassessment. It is essential that attention be paid to the quality of the TVSD experience; little by way of positive outcomes can be expected from poor TVSD provision.

Another key element is the difference between the mere acquisition of skills, even high-quality ones, and their utilization. One reason vocational educators have begun to pay more attention to demand-led rather than supply-led provision is that the demand-led approach is much more directly responsive to the labour market. We could say that the emphasis on demand-led provision is another way of acknowledging the importance of the labour market for skills utilization. At the same time, planners need to guard against a facile dichotomy between (bad) supply-responsive and (good) demand-responsive.

Planners need to learn to analyse critically the kinds and levels of skill that politicians expect will translate into jobs. Review of some of the relevant donor literature on these key relationships shows clearly that context matters. Where there is a 'virtuous circle' of skills development, active labour market policies, and supportive technology and trade policies, then skills pay off.

### **4.3 *Technical and vocational skills development reform initiatives: implications for planners***

#### ***Coordination and governance reforms***

Good coordination of TVSD is required in a variety of areas (policies, programmes, projects, providers, legislation, development partners) in order for reform to be successful and sustainable. Planners must, as a prerequisite to any reform, examine the current state of coordination and look at ways to strengthen it. They may wish to pay particular attention to the capacity and composition of the TVET councils, committees, or other coordinating bodies in their countries. Where these bodies do not exist, a first priority must be to establish them.

#### ***Reforms to redirect TVSD from supply-driven to demand-driven systems***

In many, if not most, poorer developing countries, where the majority of the labour force is engaged in informal economic activities, educational planners need to scrutinize the kind of demand they are looking at. In other words, whose demand counts?

Training that is truly demand-driven should accommodate the very different demands of the formal and informal economies. Planners should ensure that TVSD committees and councils have adequate representation from workers, or their associations, in the informal economy. They also need to strengthen the availability and quality of demand-side information about TVSD.

#### ***Reforms concerning training standards***

Planners should ensure that quality assurance mechanisms are put in place and that ways exist to enforce these quality standards (through sanctions), and also to encourage achievement of the required standards (through incentives).

Managers of formal TVSD institutions should be given greater autonomy to pursue various approaches to achieving the standards and should be held accountable for doing so. Planners should build in incentives (for institutions, for departments, and for individual instructors) to encourage attainment of their standards.

***Reforms relative to portability of skills***

Planners should consider developing a CBT approach that engages with both formal industry and the informal micro-enterprise sector. If this is not done, only the narrowly defined needs of industry may be accommodated.

Planners should not rush to develop a complex NQF that exceeds local administrative capacity.

***Reforms of financial provision for training***

Planners should be aware that the tensions that can arise between skills development policies for competitiveness and those intended to improve social cohesion also extend to TVSD financing. For example, there can be tensions related to achieving both effectiveness and equity or social cohesion, or to combining market principles with redistribution principles.

Where reforms are introduced in the area of resource mobilization, planners should aim to mitigate potentially adverse impacts. For example, a reform that results in increased training fees may mean that poorer groups are marginalized further. In this case, planners may opt for targeted scholarships or loans.

Where industry levy systems are set up, planners must ensure that levies are not diverted at the point of transfer to the government treasury and used for general budgetary expenditures, but are handed over to the skills development fund managers.

Budgets should not be drawn up regardless of performance. Planners should shift to a partially performance-based financing approach, driven not only by inputs but also by outputs and outcomes. They must also be aware that such a shift requires giving institutions greater autonomy; greater opportunities for managers to develop their capacity through in-service management development programmes therefore become crucial.

Skills development funds can be powerful instruments for reform in other areas of a TVSD system. For example, the shift from input-oriented to output- or outcome-oriented systems can be promoted using performance-based financing approaches.

### ***Information system reforms***

Collecting and analysing more and better national information must be a priority area for educational planners.

Education monitoring information systems need to be further developed at national levels and to cover formal TVSD more effectively than at present. Such monitoring systems could then be gradually extended to include skills outside formal settings, though they should not be limited to the non-formal. However, planners should recall that in many countries technical and vocational skills acquisition happens predominantly outside the formal system. Delaying the development of an adequate monitoring system for these skills is therefore ill-advised. For example, planners could expand the education and skills modules of household survey instruments used in their countries to gather data on all types of skills, formal and informal. Planners should give particular attention to developing the capacity of institutions to collect demand-side information.

### ***Reforms related to non-state providers of TVSD***

Non-state private training providers, both institutional and enterprise-based, have an important role to play, and planners should seek ways to encourage their contribution to the training market, while ensuring that the training offered is of good quality.

Planners in Africa, South Asia, and even Latin America should recognize that private informal apprenticeships and other private training in the informal economy are, in many countries, the majority source of TVSD; this training modality needs to be supported with care so as to build on the strengths of the existing system.

### ***Reforms related to school-based TVE***

School-based TVE reforms usually hinge on two main issues: when should vocational content be introduced, and how much of it should there be?

Global trends suggest introducing vocational content at the upper secondary (or even post-secondary) level. Discussions of vocationalization often confuse a minor orientation towards vocational subjects with technical education as an entirely separate

stream of secondary education, as in much of Latin America, francophone Africa, Europe, and many parts of East and South-East Asia. These are two very different modalities, with different costs, philosophies, and cultures. The vocationalization of secondary education is not found to work well in facilitating the transition of youth to employment in advanced or developing countries; more success is achieved by full-time TVE. This said, the acquisition of ICT skills is becoming a necessary form of vocationalization in secondary schools.

#### *4.4 Concluding comment*

This work began with the statement that the end of the first decade of the twenty-first century seems a particularly appropriate time to be reassessing the planning of technical and vocational skills development, as we are almost two-thirds of the way to the deadline of 2015, when the world community has pledged itself to deliver on the Millennium Development Goals, and in particular to have cut world poverty in half. There is of course no MDG relating explicitly to TVSD, any more than there is a goal relating to secondary or higher education. But we hope that enough has been said about skills and poverty, skills and growth, skills and gender parity, and skills in relation to a sustaining environment to demonstrate that basic and further skills development will be an essential accompaniment of the achievement of the MDGs. Just as no single MDG – such as primary education – is likely to be reached in isolation from investment in securing the other goals, no pursuit of any single aspect of the education and training sector, such as primary schooling, will be successful without a holistic vision of human resource development, including skills development. The essentially intersectoral character of the MDGs is paralleled by the crucial intersection of skills with labour market policies, technology policies, and trade policies, and, above all, with policies on governance that lead to the achievement of human potential for all.

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## Appendix 1. Further reading

This reading list is an updated version of the one that appeared in the appendix of King and Palmer, 2007. Where appropriate, items in the list of References reappear here.

### ***History of skills development***

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## Appendix 2. Glossary of TVSD terminology

**Academic–vocational divide:** Used especially in anglophone contexts to describe attempts to develop ‘unified’ systems of academic and vocational education.

**Competency-based training:** Training that gives more emphasis to trainees’ ability to master specific practical tasks or competencies than to the level or type of certification, or length of training.

**Demand-driven training:** Determined by whether there is a labour market demand for particular skills. This approach has come into favour with vocational educators in recent years, and is frequently compared favourably with supply-driven training (see below).

**Dual system:** A method for training apprentices combining attachment to an enterprise with regular periods in a vocational school; common in Germany, Austria, and Switzerland.

**Diversified secondary schools:** General secondary schools with some degree of coverage of more practical subjects, such as commerce, domestic science, and agriculture.

**Enterprise-based training (EBT):** On-the-job training, whether in formal sector firms or in the informal sector.

**Informal sector:** The large micro- and small enterprise economy in urban and rural areas, outside the formal sector, often unregistered and untaxed.

**International Development Targets (IDTs):** Six targets developed by the Development Assistance Committee of the OECD, out of the series of World Conferences.

**Knowledge economy:** Indicates a relationship between language, information technology (IT) skills, and other ‘soft skills’ and the new jobs produced by globalization, such as call centres.

**Millennium Development Goals (MDGs):** Eight goals very similar to the IDTs, confirmed and elaborated by the UN after the Millennium Declaration of 2000.

**National qualifications frameworks:** Predominantly developed in anglophone settings, designed to bring coherence into what is often a bewildering array of academic and vocational qualifications, but difficult to implement.

**Non-formal education and training:** A range of structured programmes outside the regular, sequential schooling or training systems.

**Non-state provision:** Either of two kinds of private provision of skills, non-profit and for-profit.

**Off-the-job training:** Sending trainee employees to institutions outside the firm for upgrading, and especially for the theory related to their trade.

**Poverty Reduction Strategy Papers (PRSPs):** Involve the systematic targeting of poverty reduction measures in many sectors, and have become almost a condition for agreement on external financing by the World Bank and many bilateral donors.

**Public-private partnerships (PPPs):** The public and private sectors working together to achieve important educational, social, or economic objectives.

**Rate-of-return studies:** Attempt to estimate the returns to the individual and to society of investing in the different levels of education, much criticized on grounds of methodology.

**Sector-wide approach:** Affirms the importance of looking at national policies across the whole domain of education or health, not just focusing on a sub-sector like primary education.

**Skill:** Ability to accomplish something with precision and certainty and to perform a function acquired or learned with practice; can include life skill, work skill, communication skill, core skill, soft skill, and so on.

**Skills development:** Acquisition of practical competencies, know-how, and attitudes necessary to perform a trade or occupation in the labour market, either through formal public or private schools, institutions or centres, informal, traditional apprenticeships, or non-formal semi-structured training.

**Social cohesion:** Not easy to define, but the following is a useful attempt: ‘Social cohesion refers to two broader intertwined features of society: (i) the absence of latent conflict whether in the form of income/wealth inequality; racial/ethnic tensions; disparities in political participation; or other forms of polarization; and (ii) the presence of strong social bonds – measured by levels of trust and norms of reciprocity; the abundance of civic society associations and the presence of institutions of conflict management (i.e. responsive democracy, an independent judiciary, an independent media).’<sup>35</sup>

**Supply-driven training:** determined by the suppliers or providers of training as opposed to the market.

**Technical education:** Used of school-based preparation for technicians, usually in institutions associated with ministries of education.

**Technical vocational education (TVE):** Sometimes used (e.g. by UNESCO) to refer to those elements of technical or vocational education taught at secondary or post-secondary levels under ministries of education.

**Technical and vocational education and training (TVET):** Used very widely to cover both the technical and vocational education offered principally by ministries of education and the technical and vocational training offered principally by other ministries such as labour or by the private sector.

**Technical and vocational skills development (TVSD):** Intended to marry the well-known older terms ‘technical’ and ‘vocational’ with the newer term ‘skills development’.

**Traditional apprenticeship:** Informal enterprise-based skill acquisition, most well-known in West Africa.

**Training levy; levy-grant schemes:** Taxes on the salary bill of company employees, which can be recovered through agreed training expenditures.

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**Vocational education and training (VET):** Commonly used, especially in Europe, along with TVET, to cover the whole skills training system, whether in schools or in training centres.

**Vocational school fallacy:** Term coined by Philip Foster in the mid-1960s, the fallacy of assuming that introducing vocational subjects into a school curriculum would direct the aspirations of youth towards manual work, whereas in fact the labour market acts as the largest determinant of youth aspirations.

**Vocational education:** School-based preparation for craftspeople, usually in institutions associated with ministries of education.

**Vocational training:** The preparation of craftspeople, often in institutions associated with ministries of labour.

**Vocationalization:** Technical schooling within a diversified educational system, in anglophone contexts.

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## The book

The position of skills development on the agenda of policy-makers and development agencies improved markedly around the turn of the 21st century. This book tracks the ways skills have gained importance both in the developing and the more industrialized world. It analyses critically the multiple 'drivers' of skills development and the linkages of skills to the knowledge economy, growth, and employment in an increasingly competitive world. It also acknowledges the many modalities and delivery systems for skills development, arguing that this institutional diversity, often spread across several ministries and training authorities, has made it more difficult to give a national account of the skills development sector.

The re-emergence of skills has triggered many reform initiatives associated with TVSD, some of which have become almost 'fashions' and are in danger of being adopted without sufficient evidence of their effectiveness. This work provides cautionary advice and fresh insights that planners will find rewarding.

## The authors

**Kenneth King** is Emeritus Professor of International and Comparative Education at the University of Edinburgh and Editor of *NORRAG News*. His research has focused on aid policy towards all sub-sectors of education, training in the informal sector, skills development, knowledge policies, and changing aid modalities in education. Since 2006, he has been studying patterns of China–Africa cooperation, and has completed work in support of a Technical Vocational Education Strategy for UNESCO.

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