TVET Development in Small Countries:

Global alliances, strategic planning and integrated regional development.

Leonie Shore, Senior Project Manager,
Australian National Training Authority.

The views expressed are those of the author and not necessarily those of the Australian National Training Authority.

In the broadest sense a TVET authority may regard the UNEVOC themes as a charter. The themes include the changing demands of the 21st century; improving systems providing education and training throughout life; innovating the education and training process; TVET for all; changing roles of government and other stakeholders, and enhancing international cooperation. However the educational and economic circumstances unique to each country will shape the way the charter is approached. This paper draws on experience in Bhutan and Australia to develop a framework within which to identify how global alliances can support TVET development in small countries.

TVET development

Initially schooling in the "basics" educated people for participation in community life and for "work readiness". This was before vocational education and training was established. The development of an individual's trade skills occurred under the sponsorship of their employer, and a relatively small proportion of individuals went on to university to study.

As the need for skills supporting manufacturing and building industries increased, school leavers were able to gain a trade education through the technical and vocational education and training system. They commenced work with an employer and, over a period of four years, attended part time at a training institution and part time with their employer. At the completion of this "apprenticeship" a trade certificate was awarded. The view was that this education was sufficient for employment within the area of their trade, and further learning would occur in the workplace.

During the last two decades industries delivering value-adding services have emerged. These industries have shown increasingly rapid changes in skills and technology. They are sometimes referred to as the new economies, and are marked by highly skilled employees who regard the international market as their training and employment environment. In these developing industries skills must be upgraded regularly.

Given this brief historical perspective, three distinct stages of TVET development, driven by government objectives to achieve broader human and economic goals, can be identified. The initial stage delivers access to basic schooling, and work skills are the province of the workplace. In the second stage, after basic schooling, work skills are developed through a TVET system designed along similar lines to a schooling system, with the additional involvement of an employer. This stage offers certification at the completion of training lasting several years. The third stage offers learning related to life and work, skills in demand by individuals and industries, to people of all ages. It is delivered by a system modeled on business principles, with many stakeholders and funding agreements based on partnership models.
The challenges for Small Countries

In 1999 the United Nations released the Human Development Report, summarising ten years of such reports by 120 countries. The report recognised the marginalisation of small countries as a development challenge. In doing so it identified performance against five indicators as indicative of a small country. The indicators are "share of GDP; share of exports, goods and services; share of direct foreign investment; and share of Internet users" (UNDP 1999, OVERVIEW). These indicators effect the capacity for human development, and one challenge is to develop strong and coherent policies to enable small countries to manage their integration into a rapidly changing global economy.

Global developments impact on small countries with the result that in some cases rural communities and new economies exist side by side. In light of exposure to global influences, but not necessarily in opposition to them, many suggest that the fabric of community life must be preserved. It is strengthened by a sense of national identity, kinship, language, culture, environment and governance, and we are cautioned against development at the cost of these distinctive features of small countries.

Another challenge for small countries is to evolve approaches to development which give these features a central place, in programs and in approaches to community involvement and governance. For example in Bhutan 2020, A Vision for Peace, Prosperity and Happiness provides an integrative framework for approaching development in Bhutan, identifying values, goals, resources and accountability principles as a guide to the way forward for the people of Bhutan. In it the Bhutanese government recognises that "the pace of change is so great it seems to propel us into the future. But the future cannot be what it brings to us, it must be how we want it to be". His Majesty King Jigme Singye Wangchuk is acknowledges "that the process of transformation has remained anchored in the values and beliefs held for centuries and which continue to give meaning and direction to our lives" (Bhutan 2020, 1999, Dedication).

TVET development in small countries is confronted by these challenges, and by the need to achieve a balance between them.

TVET and community development

Leadership for broader community education issues, expectations about literacy, the nature and purpose of employment, government support for changing lifestyles and changing gender roles, may be essential to achieving TVET development objectives. Although a country may be small and have a national language, TVET development is made more difficult by the absence of a common language, but rather a number of regional dialects exist, with no particular language understood by everyone. Local communication systems have contributed to the degree to which discrete language practices have been able to be sustained. These local communication systems may also serve to convey religious and cultural values and beliefs. The introduction of mass media, communications and transport developments brings advantages, and with them, the threat of undermining valued traditional languages and cultural values.

The three indicators of the Human Development Index, longevity, education and income per head, are indicative of the complex relationship between TVET and community development in small countries. For example, improvements to health and mortality are causing population increases that are reflected in adolescent and adult populations. As young people mature in regional and rural areas there is a tendency for them to migrate to the cities creating pressure for education, employment and housing and having a demographic impact that cannot be ignored.
Another consequence is that traditional rural communities are left without the assistance of young people and labour intensive food production in rural communities is left to aging parents. The patterns of migration, increased demand for education by the younger generation and increased life expectancy, suggest that initiatives will be necessary to bridge the widening education gap between people in rural communities and the young people who have migrated from those communities to the cities.

Pressures for infrastructure in the way of housing, transport and communications match the need for employment in cities. These needs create significant agendas for TVET in terms of basic trade training for example in bricklaying, building, tiling, carpentry, plumbing and wiring, as well as in more general areas of preparation for training, employment or self-employment. Mobility between employment settings may require the transfer of skills from one job site to another or new skills may be required in emerging industries.

Promoting TVET to adolescents in a situation of changing culture and lifestyles may be an appropriate and necessary role. The TVET authority of Bhutan developed and published its values charter, bearing in mind the flow on effect, through schools and colleges to young people growing up in times of marked social change. It identified and promoted five values of that country, and provided an opportunity for discussions about how those values are lived in changing situations.

The contribution of education systems

The capacity of the education system is an important factor to assess when considering the scope of TVET development. The education levels, availability of teachers, courses and learning materials, which underpin the education system, and the availability of buildings, transport and communications cannot be assumed in formulating objectives for TVET development.

In 1999 the Summary Human Development Report noted that between 1990 and 1997 gross primary and secondary enrollments rose from 7%, and adult literacy rose 12%. However, 260 million children remain out of school at the primary and secondary level. Furthermore, 850 million adults do not have adequate literacy skills. (UNDP, 1999, Balance Sheet of Human Development).

TVET initiatives to develop generic and technical skills will be underpinned by community education levels, resources and opportunities, and the perceived need for adult education. The level of primary and secondary education, and adult literacy has a significant effect on formulating TVET programs. Access to education is not the same as government legislation for compulsory attendance and we can’t assume that because access to schooling is available that the majority of the school age population will have schooling to that level. For example, a country may have achieved 100% access to primary education and 100% access to the first year of secondary education, 30% access to remaining levels of secondary education and 5% higher education in technical colleges and universities (including international universities).

The flow of skills to jobs that the profile of schooling and school leaving provides is important in determining the levels of TVET development that are necessary. For example, in addition to basic literacy and numeracy, additional skills such as problem solving and people skills, competence with information technology, and more recently, self employment are increasing in importance as employment opportunities change. Generic skills for the world of work may be delivered through schooling, and/or on entry to the TVET system, and as part of work place education.

Government policies may result in a combination of basic education, education for work in particular industries, and education for those without work. The most recent developments acknowledge that the pace of change to the nature of work in the 21st century is such that many
skill changes will be required and "life long learning" is a necessity. This highlights the importance of ensuring that the population use and value their opportunities for access to education as a foundation for access to the workplaces of the future.

The requirements of the vocational education and training system to develop and deliver "Life and/ or work skills are constantly being extended. Strategic plans to support training will necessarily involve an understanding each community, its educational standing and employment opportunities.

**TVET and economic development**

The management of development to improve human development will address areas of development which can positively impact on the previously mentioned indicators: share of GDP; exports goods and services; direct foreign investment and share of Internet users. Partnerships between government, industry and community can work together to build a system which optimizes the human and economic benefits to the community. Many small countries are acutely aware of their finite resources and the search for sustainable industries whether agricultural; manufacturing or business sector, is an area where research and cooperation can support longer-term goals.

Planning by government may identify shifts in the proportion of primary, secondary and tertiary industries that offer improvements to the income of the community, through adding value to local resources, developing niche export markets, or increasing the services available to the community. The management of development objectives between agricultural and rural industries, manufacturing and service industry skills according to the resources and needs of the community provides a simple framework within which governments can manage skills development in relation to changes in the broader community, and over a period of years.

Government priorities for industry development will have a significant impact on partnerships developed between education, industry and community sectors. Mechanisms can be established between education, employment, industry development, treasury and local and regional development councils. There is a wide range of TVET methodologies supported by industry partners for on and off the job training which encourage flexible TVET responses. These may involve budget allocations flowing to education, industry and local government sponsors for their role in local infrastructure projects.

Strategic planning will consider how these initiatives fit within a national work culture and are in keeping with a national plan to develop a distinctive form of TVET that is cognizant of the differences between rural and urban regions, and between particular forms of training. A system in which industry demand for training is matched by the vocational education and training system response is currently the market driven preference of the economic sector in Australia.

Training Institutions, Training companies, Local Businesses and Local Councils or Governments are all able to play a role in identifying projects, delivering training and completing infrastructure projects all to stimulate local economies. In the absence of business investors or some of the initiatives mentioned above TVET Boards may establish a training company which can undertake major projects and deliver training. Such companies have been successful in winning government tenders and completing significant projects with the aim of encouraging trainees to establish their own businesses at the completion of the project over several years.

This model may be of relevance in communities where new work cultures are emerging and require skills for which there are few existing examples in the community or country where they are being developed. Education and training in work practices for particular industries, for example building and construction, may be necessary to establish a basic level of shared knowledge and expertise about the construction or production process.
Models of TVET for these circumstances must be developed. They are unlikely to be suited by education and training which assumes a base of knowledge and experience quite different from what exists in the community where the skills and industries are to be developed. Where work place knowledge and experience may be limited, we cannot assume that work practices, work team practices and production methods of industries established in one country can be transferred to another. The development process should include local knowledge, resources and expertise into work practices to optimise the potential of the employees and the industry in each context.

TVET course development and delivery, certification and recording systems, teacher development and quality assurance can provide a systematic vocational education and training underpinning for broader community and economic development initiatives.

Global alliances and Strategic Planning for TVET development

The TVET authority through its relationships with key stakeholders will play a key role in integrating education, community and industry change. The staff responsible for TVET development will require management skills to apply in a broad range of community industry and education program areas as well as advocacy skills suited to the style of governance in their country.

TVET authorities inform government decision making, implement government policy and assess the most effective strategies to meet the TVET development needs of their country in any given timeframe. When considering TVET development in small countries, there is therefore, a case to address the establishment, skills and staffing of the TVET authority. What ministry does it answer to, and what legislation enables it to operate? What role and responsibilities does it have? What funding arrangements underpin its operations? It is also relevant to consider the number of staff and the skill profile of staff engaged for managing TVET development if government objectives are to be realised within an anticipated timeframe. From the time it is established, the office may grow in size and mandate such that after a five-year period the staff numbers ten, (seemingly five times as many people, but ten times as many tasks!) After a further five years the office may have achieved a staffing level of twenty.

For the purposes of discussion, it may be possible to align the skill requirements for TVET authorities to the three stages of TVET development identified at the beginning of this paper. In the first stage access to a schooling system is available and a TVET officer may be located within that system. In a small country, in a "start up" phase the TVET development task may fall to two people, possibly located within and reporting through the department of education.

In the second stage the TVET authorities will be engaged primarily with managing the delivery of TVET in an educational model, educational administration skills may be needed. The programs will be focussed on support services to one or two training institutions, course and materials development, student services, recording and certifying student achievement, and rewarding excellence.

In the third stage, the management task requires partnerships to be established with a wider range of community, business and industry leaders to develop a system of partnerships based on business principles. More complex management and team work skills are required to develop a TVET system to this level. TVET authorities will want to develop policies to engage community and industry in development opportunities that are cost effective and responsive to local needs; ways that are smarter, faster, and cheaper, without sacrificing the broader objectives. The possibilities that shape the development and delivery of education and training are expanded by developments in information technology, which create opportunities for government, business and industry to do things differently. There are many opportunities for alliances, partnerships and collaboration to share resources and innovations, however the expression "make sure you define
the problem before applying the solution applies. TVET strategic planning will involve an assessment of the potential of innovation and technological advances to meet goals without becoming an end in themselves.

At the outset I said that a TVET authority may well regard the UNEVOC themes as its charter and some possible areas for cooperation are listed below within those themes. Many of them are expanded in *A Bridge to the Future Australia's National Strategy for Vocational Education and Training 1998-2003* (ANTA 1998).

The changing demands of the 21st century can be supported by identifying skills for work in industries in that country, designing training to meet the skill needs of industry and individuals, and developing relevant benchmarks for the effectiveness of the system in the short and long term.

Improving systems providing education and training throughout life will require high quality support services to training providers, ensuring the quality of training, the development of standards for training institutions and supporting innovation by training institutions. Encouraging development through professional associations and identifying and rewarding excellence also contribute to improving education and training systems.

Innovating the education and training process may focus on managing the supply and demand of training, determining the funding arrangements and how the contributions of government, communities, industries and individuals to the costs of TVET development and delivery will be made.

TVET for all will be addressed by developing partnerships with schools, engaging communities in design and delivery of training and ensuring policies for access to education and training bear results in terms of literacy numeracy, generic work skills and an orientation to life long learning.

Changing roles of government and other stakeholders can be pursued by increasing community governance, including stakeholders in strategic planning for TVET development, and ensuring the utility of TVET Resources.

The strategies listed are worthy of consideration for their ability to contribute to achieving government objectives, however at this time, the nature of global alliances that can support the development and implementation of strategic planning for TVET development in small countries warrants close attention. TVET development for small countries may occur over a timeframe of many decades and the value of global alliances can increased by longer term commitments to development priorities and partnerships to work together to achieve them. Longer term strategic planning must contribute to a quality of life for communities and employees that is consistent with the overarching goals small countries have for their human, cultural and economic future.

If this is to be achieved, it is timely to consider that a wider range of opportunities for alliances is needed to promote links between TVET authorities at the global level. Models based on links between agencies established for a minimum of three to five years under a memo of understanding could support relationships which parallel the strategic planning timeframes. Models for Global alliances should therefore focus on areas of strategic priority, and be able to accommodate a broad range of activities which can address the exchange of experience which is needed to develop and apply the management skills needed to develop TVET systems in this modern world. To achieve this a range of approaches to funding is needed to support management scholarships and staff exchanges, and "fit for purpose" projects.

Global alliances offer opportunities to work together, to consider the implications for technical and vocational training in a country which has different proportions of primary, secondary and tertiary industries to ones own, to experience different forms of government and governance, and to address shared problems.
Acknowledgements

I want to acknowledge the many conversations with my colleagues in the Australian National Training Authority and in the National Technical Training Authority of Bhutan, without whose inspiration the paper could not have been written. While the views are my own these colleagues have been a source of inspiration.

