Initial Internship Report

Skills Development Funds:

Country Experiences and Implications for South Asia

Eunbi Song

Summer Intern at SARD/SAHS
PhD Candidate in Economics
Korea University
eunbisong56@korea.ac.kr

Primary supervisor:
Xin Long
Economist at SARD/SAHS
xlong@adb.org

Alternate supervisor:
Shamit Chakravarti
Senior Social Sector Specialist at SARD/SAHS
schakravarti@adb.org

15 December 2016

This report was prepared by Eunbi Song under constructive support from her supervisors, Xin Long and Shamit Chakravarti at SARD/SAHS of the ADB. This draft presents a work in progress and is not for citation.

I wish to express my sincere gratitude to Sungsup Ra, Director, SARD/SAHS and my supervisors Xin Long and Shamit Chakravarti for their guidance and encouragement in carrying out this research. Special appreciation to Brajesh Panth, Eiko Izawa, Fabian Patrick Mayr, Kelly Hattle, Leah Guiterrez, Lynnete Perez, Belinda Smith, Muhammad Aziz, Santosh Mehrotra and Tom Norton for their insightful interviews, discussions and advice, which greatly helped and improved the report. Comments received from the presentation workshop participants were also instructive for finalizing the report.

Contents

Tables

Figures

Boxes

Abbreviations

ADB	Asian Development Bank
BTEB	Bangladesh Technical Education Board
CTVET	Council for Technical Education and Vocational Training
DGT	Directorate General of Training
DTE	Directorate of Technical Education
HRD	human resource development
HRDF	Human Resource Development Fund
ILO	International Labour Organization
ITC	Industrial Training Centre
ITI	Industrial Training Institute
LGU	Local Government Unit
NEET	not in education, employment, or training
NGO	non-governmental organization
NSDA	National Skill Development Agency
NSDC	National Skills Development Corporation
NSDF	National Skills Development Fund
NSQ	National Skills Qualification
MoF	Ministry of Finance
MoL	Ministry of Labor
MSDE	Ministry of Skill Development and Entrepreneurship
MYASD	Ministry of Youth Affairs and Skills Development
PESO	Public Employment Service Office
PPP	public-private partnership
TSLC	Technical School Leaving Certificate
TVEC	Tertiary and Vocational Education Commission
TVET	technical and vocational education and training
SDF	skill development fund
SDF	Skill Development Fund (Singapore's)
SDFL	Skill Development Fund Limited
SLQF	Sri Lanka Qualification Framework
SME	small and medium enterprise
SSCs	Sector Skills Councils
VTP	vocational training provider
VTPF	Vocational Training Promotion Fund

EXECUTIVE SUMMARY

This report explores the experiences of skills development funds (SDF) in Asia and draws out policy implications for South Asia. In this regard, five country cases are selected – Malaysia, Republic of Korea (henceforth Korea), India, Sri Lanka and the Philippines – for the investigation. This report highlights rationales behind the establishment of such funds, especially in South Asia, and suggests policy implications with a brief roadmap to present how South Asian countries could formulate and design their SDFs at different stages of their national skills level.

It is well known that corresponding to the economic development and transformation from agriculture to non-agriculture-based-economy, South Asia encounters a shortage of skilled labor, which might hinder its further development. To deal with this challenge, policymakers in this region began to recognize the importance of technical and vocational education and training (TVET) and place more emphasis on how to improve its TVET system. In general, TVET enables both existing and future workforce to be equipped with lifelong and technical skills that are required from the employers. In the context of South Asia, TVET aims to improve opportunities not only for its existing labor force, but also for its large volume of youth joining the labor force to improve productivity and employability.

Correspondingly, a large volume of financial resources is highly demanded to foster a more responsive and relevant TVET system for South Asian countries, which is generally considered expensive. Setting up a dedicated fund for skills development, known as skills development fund (SDF), is one of the TVET-financing methods. Given its advantages, quite a number of developed as well as developing countries have established their own SDFs to trigger development of TVET system and foster skills development of the labor force.

Not surprisingly, the concept of SDF is not brand new to South Asian countries. Sri Lanka set up its Skills Development Fund Limited (SDFL) in the 1990s, which did not function in the way as it had intended to. In India, the counterpart fund was established in 2009 to mobilize private sector involvement in training. In Bangladesh and Nepal, establishing such a fund was included in their respective national skills development policies, but not embodied yet.

Against this backdrop, the report has an objective of drawing out rationales and policy recommendations for building up or reforming such a fund in South Asia. Under this main objective, the report first overviews current TVET landscape in four targeted South Asian countries – Bangladesh, India, Nepal and Sri Lanka where setting up 'training-related fund' has been practiced or discussed. The brief description reports that TVET sector in South Asian countries is small and underdeveloped and identifies constraints and challenges that the existing TVET system encounters for meeting the evolving skills demands from the industry. These constraints and challenges include restricted capacity in both quality and quantity in providing skills trainings, limited access by and coverage of potential beneficiaries, lack of resource mobilization, little private sector participation and lack of a dynamic labor market information system.

Nevertheless, policymakers in South Asia began to promote the TVET sector development by creating a new separate ministry specifically for skills development in India, incorporating and prioritizing skills development into national development plan in Bangladesh and encouraging active participation from the stakeholders all around.

To our knowledge, this report is the first attempt to explore this topic exclusively in Asia. For less developed Asian countries, it is important and useful to learn from how relatively advanced Asian economies such as Malaysia and Korea design and operate SDFs as well as how economically similar neighbors such as India and Sri Lanka have done related to SDFs, to gather experiences from various aspects, successful, failed or in test. In addition, this report suggests an alternative way to support TVET using a country case of the Philippines.

In this light, the report analyzes each country case from an operational angle. The analysis consists of such SDF's contextual backgrounds, objectives and functions, delivery mechanism and track-records. In addition, it also attempts to assess each SDF experience under the framework of relevance, effectiveness and efficiency.

- Malaysia: Malaysia's Human Resource Development Fund is one of the widely cited best practices together with Singapore's SDF. It collects levies from the specific employers in manufacturing and services sectors and provides financial assistances to the contributors (i.e. the employers who pay levy). It has evolved in terms of coverage and training schemes in line with the national economic development status.
- Korea: Korea has reformed its skills development approach by transforming the funding mechanism from levy-exemption from firms to levy-grant to firms as the former failed to incentivize private sector to provide training to the workforce, which was deemed more costly than the amount of levy to be exempted. Under the levy-exemption scheme, Korea utilized resources, collected from firms who paid "fines" to avoid extra burdens of engaging trainings, to support skills trainings through public channels.
- India: India's National Skills Development Fund (NSDF) is a financing vehicle of the National Skills Development Corporation (NSDC). It is funded by the government and provides funds to the NSDC, which further finances training providers. Compared with other countries' longer experience, it has only been 7 years since the establishment so still too early to fully unfold.
- Sri Lanka: Among the country cases in this study, Sri Lanka was the first in South Asia to set up a training-related fund. However, as stated in many previous studies, Sri Lanka's Skill Development Fund Limited (SDFL) failed to function as it was aimed when established. However, this case is worth further examination for useful learnings.
- Philippines: The Philippines' JobStart is a program that attempts to increase employability of the youth out of school but unemployed. As this program has so far achieved evidenced effectiveness, the government decides to roll it out nationally.

Based on the analyses of the TVET landscape in four-targeted South Asian countries and the SDF experiences in Asia, this report provides policy recommendations for those countries in South Asia that would like to reform or set up a SDF (Section IV) as described in a roadmap (Table IV.2). The roadmap highlights the main tasks and concerns that the policymaker should consider at different stages of a nation’s skills levels and also stresses the importance of active private sector engagement.

South Asian countries need to implement pragmatic approaches to establishing and operating the SDF, to ensure quick and solid step-by-step results especially at early start-up stage, which would give a positive impact to the involved participants and trigger further participation from wider scope of interested stakeholders. This is critical to progress for further development of TVET system in South Asia.

Based on our analysis, for South Asian countries, it is recommended to start with a program or a sector-based fund for initial trial to obtain solid experience and to examine its short-term effectiveness. To set up a program or a fund, close coordination from various domestic stakeholders as well as support from the international development community are necessary, under the lead of a supreme ministry (such as the Ministry of Finance or Prime Ministry’s office or a ministry that is missioned and able to coordinate in budgetary as well as in functional role). Once the fund settles down and operates stably, the supreme ministry can transfer this fund to education/skills related ministry such as Ministry of Skills Development or Ministry of Labor and Employment.

During the launch of the fund, major funding sources are desired from the government and donor/development partners given a prevalent informal sector and a large share of micro-enterprises in the private sector. Development partners are willing to invest in such funds in South Asia. The policymakers need take into account that given their nature (time-bound and limited), these contributions are better to be utilized as initial resources to kick off and trigger the fund’s activities for early effectiveness.

Besides collecting resources from the government and donor/development partners, the fund needs to generate its revenues to support specifically targeted beneficiary groups and to enhance its financial sustainability. Relying only on public sources poses a risk as resources from donors/development partners are time-bound and budget allocation from government is subject to budget cycles and to defined activities which do not necessarily accommodate the actions needed for responding flexibly to market needs.

Further discussions on relevant tasks and how to operate such funds are needed. Also, more studies need to be conducted to thoroughly design a SDF for individual countries in South Asia given that each county has its different constraints, challenges and institutions to deal with this issue.

I. OVERVIEW

A. Introduction

1. South Asian countries face a challenge in human capital, which is known as a shortage of skilled labor. South Asian economies are in the process of structural transformation from agricultural based economy to manufacturing and services-based economy (non-agricultural economy). However, over half of employment is still in agriculture and in informal sector. For policy makers in South Asia, it is important to educate and train the labor force to meet the fast-evolving demands for skills from the industry and to support its economic transformation and development.

2. In addition, for the next three or four decades, the South Asian countries will continue enjoying demographic dividend, meaning a large supply of young workforce in the labor markets. However, the youth underemployment rate in this region is already high. The enlarging young workforce would have a low human capital and low labor productivity, if the education system would not respond rapidly to the changing industry requirements.

3. For these countries to deal with the challenge, more emphasis must be placed on technical and vocational education and training (TVET). For the existing workforce, TVET enables them to equip with lifelong skills and/or advanced technical skills that are required from the employers. In many developing countries, TVET aims to train young adults left out of standard educational system. Although effects of skills training are mixed and somewhat not strongly proven yet (Appendix 2), governments in developing countries as well as advanced countries attempt to promote TVET system in order to address skills mismatches and youth unemployment and underemployment.

4. In this regard, South Asian countries would require large resources for skills development as TVET is expensive (Majumdar, 2011). There are several ways to finance TVET by directly targeting training providers – offering subsidy, exempting taxes and setting up a dedicated TVET fund, known as skills development fund (SDF) (ICF GHK, 2013). Among these options, many countries attempted to establish a SDF besides the routine public expenditure on TVET through TVET or education apex bodies. By setting up a SDF, a nation can augment and mobilize financial and technical resources from different funding sources, encourage involvement from private sector and foster TVET ecosystem. As national training funds vary across regions and countries and in terms of goals and institutional settings, it is important to make the design appropriate and relevant to the country specific (Johanson, 2009; Ziderman, 2003).

5. The concept of 'establishing training-related fund' has been practiced to different extent in South Asian countries. Sri Lanka set up its Skills Development Fund in the 1990's as the earliest mover. However, it did not function as it had intended, and the government in 2003 requested its transformation into a new fund – Human Resource Investment Fund and Human Resource Endowment Fund, which was turned down due to the then government's turnover. In India, the counterpart fund was established in 2009 for the purpose of mobilizing private sector involvement in training. However, until now the capital contribution to the fund has been solely from the government. In Bangladesh and Nepal, establishing such a fund was included in their respective national skills development policies, but not realized yet, whereas the government of Bangladesh moves on faster by working towards institutionalizing the National Human Resources Development Fund with the development

partners' support. Henceforth, for South Asian countries, it is important to learn from the experiences of the skill relevant funds in other countries in order to reform or develop the existing fund or build up a new fund. As the experiences from other Asian countries, considering the 'peer pressure' and close geographical distance, are more demonstrative than those from the well-established European countries or from the remote Latin American and certain African countries, the study is focused on the selected Asian countries, each of which represents specific aspects for detailed analysis.

B. Objectives and Organization of the Report

6. In this light, the report aims to analyze SDFs in Asia and to derive policy implications for South Asia. Under this main objective, there are three steps for the analysis: (1) to overview a current TVET landscape in four targeted South Asian countries – Bangladesh, India, Nepal and Sri Lanka; (2) to explore experiences of SDFs in Asian countries – Malaysia, Singapore, Korea, India and Sri Lanka; and (3) to draw policy implications for South Asian countries by incorporating the others' experiences. Due to lack of quantitative data, the study on the experiences of SDFs largely adopted qualitative methodologies which include conducting interview with skills experts and specialists and reviewing publications (i.e. legal documents and annual reports of respective training funds, reports and books).

7. This report is organized as follows: Section II overviews a current TVET landscape in four targeted South Asian countries using labor force surveys of the respective country. Section III is consisted of country studies, where skills development funds in Malaysia, Korea, India and Sri Lanka are introduced and examined under the framework of relevance, efficiency and effectiveness. Section IV provides policy implications and recommendations for South Asian countries by drawing experience and lessons learned. In addition, to facilitate common understandings of the topic among readers from different backgrounds, the general aspects of SDFs are introduced and described in Appendix.

II. TVET LANDSCAPE OF TVET IN SOUTH ASIAN COUNTRIES

8. This section overviews a current TVET ecosystem in four targeted South Asian countries – Bangladesh, India, Nepal and Sri Lanka – by beneficiary individuals (trainees), training providers, non-government contributors, and the government. Based on the overview, it also briefly discusses constraints and challenges that the existing TVET system encounters in South Asia for meeting the skills demand and the changing requirements of training up to the technology and workplace needs of industry and community.

A. Beneficiary Individuals

9. The TVET sector is relatively small in South Asian countries in terms of training participation rates by individuals. As reported in ADB (2014a), TVET enrollment in relation to general education at the secondary level is 2.4% in Bangladesh and less than 1.0% in Nepal and India as of 2011. This enrollment is much lower than East and Southeast Asian countries: PRC (20.8%); Japan (11.8%); Korea (10.8%); Malaysia (6.8%); and Singapore (11.7%, an average enrollment rate between 2006 and 2010). As shown in Table II.1, labor force surveys in each country report that only a small fraction of the workforce has participated in any kind of trainings: 9.93% in Bangladesh, 9.20% in Nepal, 9.70 % in Sri Lanka and 7.80% in India. This pattern can also be found in other studies. For example, in India, as of 2010, only 2% of India's workforce had acquired any form of formal vocational training, and an additional 8% of the workforce had acquired vocational training informally on the job (Mehrotra et al 2014). In other words, only 10% of the workforce and 20% of the non-agricultural workforce had acquired vocational training of any sort, formal or informal kind (Mehrotra et al 2014).

Table II.1: TVET Participation in Targeted Countries in South Asia

Country	Training participation rate (%)		
	Total	Formal employment	Informal employment
Bangladesh (2013)	9.93	23.71	7.23
Nepal (2008)	9.20	20.21	6.71
Sri Lanka (2014)	9.70	26.71	15.21
India (2009-2010)	7.80	-	-

Sources: Bangladesh Labor Force Survey (2013), Nepal Labor Force Survey (2008), Sri Lanka Labor Force Survey (2014), and Employment and Unemployment Survey of India (2009-2010).

10. There are several reasons for the observed low training participation rates by the individuals. First, considering that in South Asia most of the formal vocational education and training target those who have already attained basic general education (i.e. grade 8), most of the potential beneficiaries face lacked or limited access to skills training. As displayed in Table II. 2, average years of total schooling in South Asia, except Sri Lanka, is very low: 5.91 years in Bangladesh, 6.24 years in India and 4.23 years in Nepal in 2010. In addition, those without any educational background account for more than 30% of the labor force. In short, as stated in ADB (2014a) and ADB (forthcoming), access to formal trainings is restricted to those who satisfy the minimum basic general education requirement, which acts as a barrier for the early school dropouts who desire skills development.

Table II.2: Educational Attainment in South Asia

Country	Year	No	Highest level attained	Average

		schooling	Primary		Secondary		Tertiary		years of total schooling
			Total	Completed	Total	Completed	Total	Completed	
			(% of population aged 15 and over)						
Bangladesh	2005	38.7	20.9	19.8	36.7	21.5	3.8	2.1	5.24
	2010	31.9	22.3	21.4	41.7	25.0	4.1	2.3	5.91
India	2005	38.0	17.5	15.2	36.9	21.8	7.7	4.4	5.63
	2010	33.2	16.8	15.2	41.5	25.0	8.5	4.9	6.24
Nepal	2005	44.6	27.2	15.2	25.4	10.2	2.8	1.8	3.55
	2010	36.2	31.1	18.9	29.8	12.6	2.9	1.8	4.23
Sri Lanka	2005	6.4	15.6	10.4	63.4	35.7	14.6	8.6	10.31
	2010	4.4	16.8	11.4	64.6	17.9	14.2	8.5	10.06

Source: Barro and Lee's Educational Attainment Dataset (http://www.barrolee.com)

11. Second, like in many other countries, low TVET participation is partly due to poor public perception that those in TVET have less academic ability; negative projections about its financial payoff; a negative association between training and manual labor; a lack of vertical articulation; and restriction on upward mobility (Dundar et al. 2014). Thus, TVET is perceived as a last-choice or back-up option. In addition, due to poor "brand" and its irrelevance with the industry, as reported in the referenced labor force surveys, a significantly large proportion of the labor force in South Asia responded that they do not need any training: 82.21% in Bangladesh, 82.99% in Nepal and 97.21% in Sri Lanka. In case of Sri Lanka, 20.52% of the workforce responded "Does not feel the need of having such training to find a job" and 58.60% responded "Does not feel the need". Nevertheless, it is also somewhat true that the labor force in South Asia recently began to recognize the importance of skills trainings and its job placement effects; hence the demand of training is increasing. For example, a study conducted by Campaign for Popular Education (CAMPE, 2013) found in 2013 that two third of young people in Bangladesh expressed interest in participating in TVET and an overwhelming proportion preferred a short course.

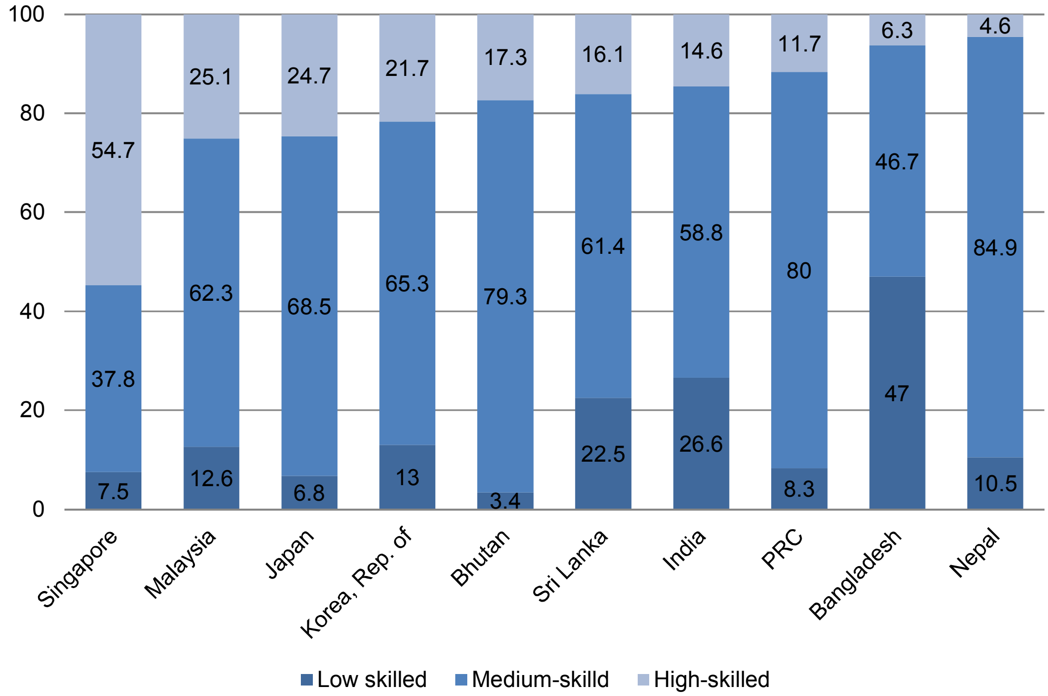
12. Third, for the potential training beneficiaries, especially from low-income households, training cost might be too high that the returns cannot compensate. The cost comprises real financial cost for skills training such as registration fees as well as opportunity cost of working and earning income. Though it is very small, 4.91% of the labor force in Sri Lanka found financial difficulties to get a suitable form of training.

13. A supply of skilled workers is limited as Figure II.1 reports that most of the workers in South Asia are medium- and/or low-skilled. For example, in Bangladesh, 47% of the workers are low-skilled; another 46.7% are medium-skilled and remaining only 6.3% are considered as high-skilled. This implies that the low educational attainment and the small portion of workforce getting training have led to the averagely low labor productivity. As stated in many reports (Dobbs et al 2012), South Asia is forecasted to experience tremendous skills shortages in the coming decades. In fact, it is already happening. The World Bank's Enterprise Surveys report that "inadequately educated workforce" ranked 6th in Bangladesh (2013), 10th in Nepal (2013), 7th in Sri Lanka (2011), 10th in India (2014) among the 15 business environment obstacles.[1] Among 9,281 firms in India, 3.4% responded that

[1] Business Environment Obstacles: Corruption, Electricity, Tax rates, practices of the informal sector, access to finance, labor regulations, access to land, tax administration, political instability,

skill shortage is one of the main business obstacles. These statistics may indicate: 1) poor quality of TVET trainings and/or 2) increase in graduates with skills that are not relevant to the industry.

Figure II.1: Skilled Employment Share in Asia (%)



Notes: High-skilled employment share is defined as number of persons employed in occupations with tertiary education requirements as a percentage of the total number of employed people. Medium-skilled employment share is defined as number of persons employed in occupations with at least secondary education requirements as a percentage of the total number of employed persons.

Source: World Economic Forum (WEF) (2015). Human Capital Outlook Report 2015.

B. Training Providers

14. ***Bangladesh.*** Training providers in Bangladesh comprise public providers, publicly-financed/affiliated private providers, private providers and non-government organizations (NGOs). Private providers are a dominant player, accounting for 95% of training institutions and 75% of enrollments (ADB 2015a). As stated in ADB (forthcoming), the number of private institutions is 10 times larger than that of public institutions at secondary level. However, it is notable that many of them are not affiliated or accredited by the Bangladesh Technical Education Board (BTEB), a responsible body for quality assurance under the Ministry of Education. This implies that capacity and quality of technical trainings provided by these private providers are mostly untested. The public providers are basically under 20 ministries and departments including Ministry of Education (Department of Technical Education),

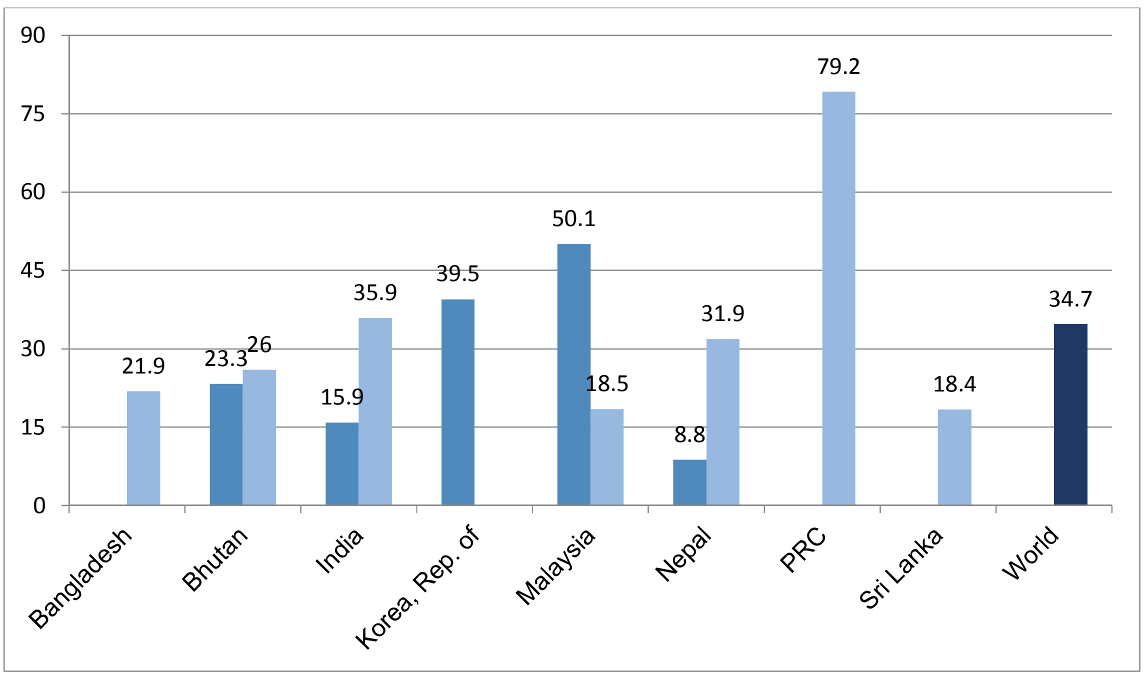
inadequately educated workforce, business-government relations, infrastructure and services, sales and supplies, degree of competition and crime.

Ministry of Expatriates' Welfare and Overseas Employment (Bureau of Manpower Employment and Training), Ministry of Industry and Ministry of Youth and Sports (Department of Youth Development). NGOs and government agencies such as the Ministry of Women's and Children's Affaires offer a variety of training courses to poor and underprivileged people.

15. The formal TVET system in Bangladesh is consisted of (i) a basic course of less than 360 hours; (ii) a vocational program at secondary school certificate level; higher secondary certificate in vocational of 2-year duration; and (iii) a 4-year diploma at polytechnics and mono technical institutions. In addition, non-formal trainings outside the school system are also structured, have organized learning objectives and duration and are provided with learning supports. Most of the trainings last 1-12 months and cater to the capacity-building needs of target groups and those who wish to start their careers either at home or abroad (ADB 2015a). Housekeeping is one example of a short course, which lasts 21 days and attracts rural people who intend to work abroad.

16. Enterprise-based training is relatively low in Bangladesh. According to the World Bank's Enterprise surveys, only 21.9% of the firms in the formal sector provided trainings to their employees (Figure II.2). Considered the small portion of formal sector employment in total non-agriculture workforce (17.5% as reported in Bangladesh Labor Survey 2013), it is consequential that in-firm training would be accessible for only a limited share of the workforce.

Figure II.2: Firms Offering Formal Training by Country (% of Firms)



Notes: Bangladesh (2013); Bhutan (2009, 2015); India (2006, 2014); Korea, Rep. of (2005); Malaysia (2007, 2015); Nepal (2009, 2013); PRC (2012); Sri Lanka (2011); The World (Average)

Source: World Bank's Enterprise surveys

17. ***Nepal.*** Among the training providers in Nepal,[2] the Council for Technical Education and Vocational Training (CTVET) plays a critical role. It acts as a regulator as well as a training provider. As stated in ADB (2015b), the CTVET operates a variety of programs including Diploma, Technical School Leaving Certificate (TSLC) and short-term vocational trainings in the field of agriculture, health and others through 24 CTEVT-owned institutions and 30 annex schools.3 In case of the private institutions, the number has significantly increased from 3 in 1991 to 450 in 2013 (ADB forthcoming). Among them, there are 329 CTEVT-affiliated private institutions (i.e. technical schools, technical colleges, and polytechnics) and 53 training providers licensed by CTEVT providing short-term vocational training courses. Many of the remaining are not regulated or affiliated, while offering short-term trainings. One should note that although private institutions are more in number, the CTEVT remains as a main training provider given its role as an apex body for TVET system in Nepal.

18. Nepal's TVET system is consisted with three levels: i) short-term vocational program (up to 1 year); ii) upper secondary technical certificate program (around 2 years); and iii) post-secondary certificate and diploma program (3 years). In addition to technical schools, polytechnics and institutes, public vocational schools called 'annex schools', which are formerly regular secondary schools, with additional physical facilities like equipment tools, offer TVET programs before and after school hours (ADB 2014a). In addition to formal skills trainings, informal trainings are offered in various forms (on-the job, apprenticeship, etc.), timing, and environments. Almost 90% of skilled workers learned their skills through informal trainings (ADB 2015b).

19. As can be seen in Figure II.2, despite a significant progress from 8.8% in 2009 to 31.9% in 2013, compared to other developing countries in East and Southeast Asia, Nepal should strive more to promote in-firm trainings. Like the other South Asian countries, owing to a large informal sector and informal employment, a share of the firms providing in-firm training must be much lower.

20. ***Sri Lanka.*** In Sri Lanka, the TVET system does not provide vocational education at the secondary level. There are around 2,077 registered training providers in Sri Lanka, including 291 government institutes, 648 other institutes and 1,138 non-government vocational training providers (ADB 2015c). Despite an increasing number of service offerings from private providers and NGOs (fee basis and well established), the public sector is a dominant player in the provision of TVET services, enrolling 70% of the total trainees, in contrast to 19% for private and 10% for NGOS (ADB 2015c). The NGOs including many religious and voluntary organizations offer craft-level training targeting unemployed youth, rural women, school leavers and semi-skilled or unskilled workers.

21. Among the programs offered by the training providers in Sri Lanka (ADB 2015c), about 90% of them are at the certificate level, 8% are at the diploma level and the remaining 2% cover short-term programs of less than 2 months. Computer and IT, and finance and management courses account for about 44% of enrollment. Full-time course programs

[2] TVET providers in Nepal comprise the Council for Technical Education and Vocational Training, Private Institutions, Other government agencies, technical institutions of the universities, secondary school (Annex Schools) and NGO/INGO.
[3] Annex schools include polytechnics, institutes, and public vocational schools (with additional physical facilities like equipment and tools and offering TVET programs before and after school hours).

account for 77% of the total enrollment. Given the large number of Sri Lankan workers abroad, both public (Sri Lanka Bureau of Foreign Employment) and private institutes offer trainings for those who seek foreign employment. Private providers account for about 93% of these programs, which last from 3 to 25 days, mostly at certificate-level and targeting employment in the Middle East (training around 15 days).

22. As illustrated in Figure II.2, employees in Sri Lanka are less likely to receive trainings at work. Only 18.4% of the firms offer trainings to their employees, which is much lower than the countries in East Asia and even lower than the other South Asian countries in recent years.

23. ***India.*** In India, skills development occurs through technical education as a part of formal education system and vocational training outside formal education system. Vocational training can be offered through Industrial Training Institutes (ITIs) and privately operated Industrial Training Centres (ITCs). The Industrial Training Institutes are basically operated by the Ministry of Skill Development and Entrepreneurship (MSDE) recently created in 2014. There are about 2000 public ITIs as well as additional 10,000 private ITIs regulated by the MSDE. Private sector participation began to rise in recent years, but public sector remains dominant. Informal training on the other hand refers to experiential skills acquired on the job (KAS 2015). For informal sector employees and employers, the associations such as the National Alliance of Street Vendors in India (NASVI) usually provide trainings (World Bank 2014).

24. There are a rapidly growing number of formal vocational training providers (VTPs) that are being incubated by the National Skill Development Corporation (NSDC) after 2010, based on a for-profit business model, though subsidized by the government. However, a very large number of private VTPs, whose number is impossible to precisely estimate, are still not registered with any government body, thus unregulated or unrecognized by the government. Their continual mushrooming in whichever sector implies their profitability for investors.

25. The proportion of firms providing in-service training doubled from 15.9% in 2006 and 35.9% in 2014 in India, highest among the South Asian countries, although the rate remains lower than that in East Asian countries. Large corporations such as Toyota and TATA are actively engaged in in-service trainings for their own employees (ASI 2015).

C. Governance of the TVET System

26. ***Bangladesh****.* TVET system in Bangladesh is managed by the Ministry of Education. Two separate bodies under this ministry, the Bangladesh Technical Education Board (BTEB) and the Directorate of Technical Education (DTE), are responsible for quality assurance and administration of government's TVET institutions and programs, respectively. In particular, the BTEB attempts to ensure quality of TVET programs and providers by means of examination, certification and approval of private training providers. The National Skills Development Councils (NSDC) is a policy making body at the national level, which is headed by the Prime Minister (ADB 2014a) and comprises agencies from government, industry and civil society.

27. Bangladesh's National Skills Development Policy in 2011 (Ministry of education, Government of Peoples Republic of Bangladesh 2011) is one of the representative national plans concerning skills development. It aims to establish demand driven, flexible and responsive training delivery mechanism in order to meet the needs of local and overseas employers and workers. It aims to a) improve access to skills for various groups including women and people with disabilities and b) encourage participation in skills development by industry organizations, employers, and workers. To achieve this, structural reforms will be implemented to ensure that government, industry, and social partners can a) clearly assess the skills needs of industry; b) deliver recognized qualifications; and c) deliver quality skill outcomes for employability, increased productivity, and higher standards of living. This plan sets its own target of increasing the proportion of TVET students from 3% to 20%, increasing TVET enrollment by 50%, and boosting female enrollment to 60% (Economist EIU 2013).

28. ***India.*** TVET system in India is managed by the MSDE, which has been established to fulfill the vision of a "Skilled India" where human resources development is the primary focus (Ministry of skill development and entrepreneurship (MSDE) 2015). It is conceived to encompass all other ministries to work out a unified wage, set common standards, as well as coordinate with different organizations. Under the MSDE, there are institutions including National Skill Development Agency (NSDA), NSDC and Directorate General of Training (DGT).[4]

- NSDA: The NSDA is working with the State governments to renew and synergize skilling efforts in the States. It is responsible for quality assurance through operationalizing National Skills Qualification (NSQ) Framework and for a removal of disconnect between demand and supply of skilled labor by implementing the National Labour Market Information System. In addition, as stated in MSDE (2015), it will also focus on policy research as a think-tank for the MSDE.
- NSDC: The NSDC is a public-private partnership (PPP) organization which aims to provide viability gap funding to private sector in order to scale up training capacity and create and foster the skill ecosystem. It has set up sector skills councils (SSCs) to bring and ensure representation of key stakeholders (i.e. industry, workforce and academia) and to extend financial support to operationalize them. The SSCs also undertake research initiatives, pilot projects, and conduct skill gap studies to create a knowledge base for the sector.

29. The National Policy on Skill Development was first formulated in 2009 to empower the workforce with the required skills, knowledge and qualifications to improve global competitiveness. It has set its own target of skilling 500 million people by 2022, by increasing the capacity and capability of skill development programs (Economist EIU 2013). In 2015, the government has upgraded its policy and introduced a National Policy on Skill Development and Entrepreneurship. The policy aims to provide a comprehensive framework to skill related activities carried out within the country to align them to common standards and link skill development activities with the demands. In addition to laying down the objectives, it aims at identifying various institutional arrangement frameworks to back up the efforts for reaching the expected outcomes.

---

[4] The NSDC will be also discussed in Section III. (33 Sector Skill Councils (SSCs) as well as 187 training partnership registered with the NSDC.)

30. ***Nepal.*** As mentioned previously, the CTVET is the national TVET coordinating body responsible for formulating policies, ensuring quality, coordinating all TVET stakeholders and facilitating the preparation of the human resources required for the nation's economic development (CTVET 2005 cited in Majumdar 2011). Specifically, it regulates and upgrades the standard of TVET; maintains among different agencies/stakeholders providing TVET programs; produces qualified instructors and develops curriculums for TVET institutions; and issues certificates (ADB 2015b). Also, the CTEVT has strived to implement the policy directives for TVET, focusing on expanding services throughout Nepal (Economist EIU 2013). There has been increasing number of training providers from about 50 in 2000 to more than 450 in 2014/2015. However, one should note that its roles as a regulator as well as a training provider may cause a conflict of interest.

31. Nepal's TVET policy (2012) aims to build an inclusive and equitable TVET system by focusing on youth and adult workforce who have no work and/or educational experience or have not obtained any kind of skills (i.e. illiteracy). In addition, it also attempts to ensure access to the disadvantaged group (i.e. women, ethnic groups and deprived communities across the country) who are unable to afford trainings due to the cost by providing them financial assistance. It sets a target of expanding training opportunities by fourfold over 10 years. In addition, it plans to provide appropriate, contextual and quality TVET that meets the demands from the domestic and international labor market (Economist EIU 2013). It aims to provide and increase skill- and market-oriented TVET. Lastly, it plans to improve Nepal Vocational Qualification system, which is currently managed by the National Skills Testing Board.

32. ***Sri Lanka.*** The TVET system in Sri Lanka is mainly managed by the Ministry of Youth Affairs and Skills Development (MYASD).[5] The ministry serves as a comprehensive umbrella for the TVET system as it covers from policy planning and coordination to implementation and development of the TVET. It provides advice/guidelines on curriculum and course material, promotes equity in accessing TVET, and attempts to sustain the quality of TVET by training teachers and issuing National Vocational Qualification (NVQ) standards in consultation with the employers.

33. Under the MYASD, there is Tertiary and Vocational Education Commission (TVEC). This is an apex body where the private sector participates as members, contributing to its relevance with the industry. It has acted as TVET regulator, facilitator and standard setter (TVEC 2012). Main tasks of the TVEC is to prepare and implement TVET plans for growing industry sectors, to register/accredit training providers and courses based on national training standards; and publish labor market information and forecasts.

34. In 2012, Sri Lanka's Cabinet approved the Sri Lanka Qualification Framework (SLQF), but it has not yet been implemented. It integrates NVQ framework and presents flexible pathways for lateral mobility between vocational and higher education. It also provides a basis for recognizing prior learning and credit transfer between the two systems (Ministry of Higher Education, 2012).

---

[5] It embraces 11 training agencies including the Department of Technical Education and Training, the National Apprentice and Industrial Training Authority, the Vocational Training Authority and the UNIVOTEC, and fosters private sector involvement.

D. Constraints and Challenges of Existing TVET System for Meeting the Skills Demand in South Asia

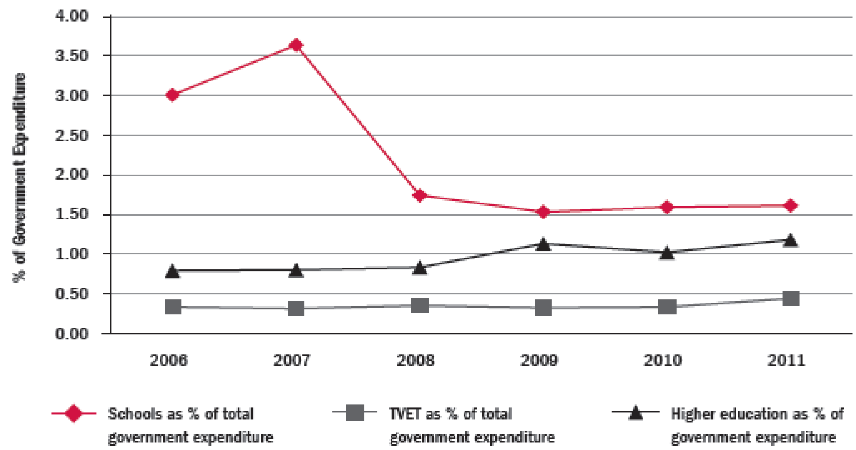
35. Based on the overview and extensive reviews, one can draw a conclusion that the existing TVET system in South Asia is relatively small and underdeveloped. In this light, the policymakers in South Asia began to develop its capacity in recent years, including creating a new separate ministry specifically for skills development in India, incorporating and prioritizing skills development into national development plan in Bangladesh and promoting active participation from targeted beneficiaries, training providers and enterprises all around.

36. South Asian countries must continue its efforts towards building up a TVET system which is market-driven, inclusive, relevant and responsive, so as to reap demographic dividends in the coming decades. Thus, we will explore what are the constraints and challenges of the current TVET system for the following paragraphs:

- **Limited capacity of TVET**: Capacity of TVET remains limited, in terms of both quantity and quality. As for the quantity, South Asia needs to increase both public and private provisions in order to make the youth equip skills that are required from the industry and employers, and transform the current TVET system into market-driven and inclusive. As for the quantity, there must be more training providers to provide trainings to the new labor market entrants in the coming decades. For example, Mehrotra et al. (2014) estimate that there will be additional 300 million people to be skilled between 2012 and 2022. Poor quality of training programs/institutions must be addressed. Many studies found out low employability of graduates of public and private institutions in South Asia countries and also indicated weak relevance between training courses and jobs found (ADB forthcoming). One study found out that only 9% were employed and 46% were unemployed. Also in Sri Lanka, a study in 2005 showed that although three fourths of trainees were employed after training, 27% of trainees thought that training was not helpful in finding a job (ADB forthcoming).
- **Limited coverage of TVET:** As repeatedly mentioned, access to TVET remains limited. Most of the TVET programs offered by both public and private providers aim at those with at least 8 years of schooling. However, given high dropout rates and low educational attainment of the workforce, millions of the workforce is excluded from entering TVET, since 8 years of schooling is a common pre-requisite. Against this backdrop, most of the beneficiaries accessing formal TVET consist of young males who can afford more education, but have strong white collar job aspirations. Hence these people are not interested in acquiring a vocation skill. Thus, in short, partly due to limited coverage of TVET as well as high cost of TVET participation and public poor perception, TVET enrollment rate in South Asia is low. In addition, as stated in ADB (forthcoming), the groups that have been most likely not to complete 8 years of schooling are the ones who are most excluded from TVET, although they are the ones who need it most: the poor, the girls and the rural population.
- **Limited resource mobilization:** The financial contribution that the governments in South Asia make is not adequate. TVET received 2.6% of the education budget in Bangladesh and 0.4% of the total government budget in Sri Lanka (Figure II.3). In case of Nepal where more than 90% of vocational skills training programs are

financed by public sources, TVET received 1.2% of the Ministry of Education budget and 0.2% of the government budget.

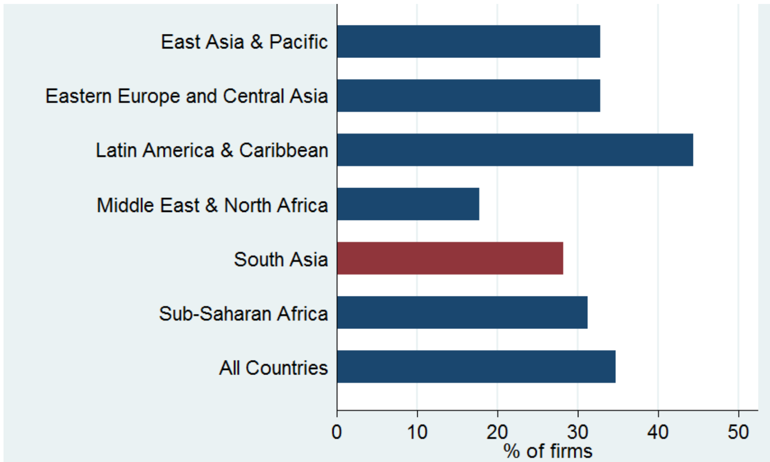
Figure II.3: Government Expenditure on TVET in Sri Lanka



Source: ADB (2014a)

- **Little private sector involvement**: As mentioned earlier, the role of private sector in South Asia's TVET system is limited. Given potentially large gains in productivity (ADB 2014a), employers/firms who are the ultimate beneficiaries of technical and vocational training underinvest in their employee's skills upgrading and development. As can be seen in Figure II.4, South Asia recorded the second lowest following the Middle East and North Africa, and its share of the firms offering formal training, 29%, is much lower than the world average. Figure II.4 further sheds a light on the reasons why firms do not provide formal trainings to their employees. It is partly due to a poaching issue resulted from market failures that the enterprises are reluctant to offer trainings to their employees. However, informal sector and small and medium enterprises (SMEs), which undertake large portion of the firms in the subcontinent's economies, have limited capacity (i.e. equipment) and knowledge on providing trainings. As an ultimate beneficiary, enterprises are expected to play an active role in TVET system by offering trainings to their employees and by engaging in a decision-making body with the government (i.e. CTVET in Nepal; SSCs in India) to turn the TVET system more relevant and responsive to the market needs.

Figure II.4: Firms Offering Formal Training by Region (%)



Source: World Bank's Enterprise Surveys

Figure II.5: Ranking of Reasons for Not Providing In-service Training across the World

Source: World Bank (2008) using data from World Business Environment Survey.

- **Poor TVET environment to address market failures:** To make sure whether training programs are relevant to the industry and the labor market and whether training programs are effectively delivered, it is necessary to establish and/or equip the followings:
    - Labor market information: None of the countries in South Asia have a labor market information system in place. In India and Sri Lanka, for example, there have been on-going discussions on establishing the labor market information system that provides information to both potential employees and employers and help potential employees to obtain skills that are relevant to the industry and to get better quality jobs.

- Quality Assurance: Poor quality of training across South Asian countries is partly due to the lack of qualified technical teachers. There are two main constraints: 1) the lack of capacity to train instructors; 2) slow and bureaucratic process to recruit new teachers; and 3) low salary. In addition, there have been significant increases in the number of private training providers. Despite the governments' and the skill agencies' efforts to register and accredit them, many of them remain unorganized and unmanaged. Finally, some of the South Asian countries have already established its national vocational qualification frameworks (NVQFs); however, the implementation is still in process to assure quality of trainings provided by various players.

III. EXPERIENCES OF SKILLS DEVELOPMENT FUNDS IN ASIA

37. This section will discuss experiences of SDFs in selected Asian countries. Many countries in Asia have already implemented skills/training-related funds despite its variety (Johanson 2009, ILO 2016, ADB 2009). For example, Japan and Korea collect levies in a form of employment insurance to support up-skilling and re-training of the labor market participants. Southeast Asian countries such as Singapore, Malaysia, Thailand and Cambodia have implemented SDFs to offer training programs to the existing workforce by encouraging private sector participation. Relatively under-developed countries including Papua New Guinea have established such funds with the support of the donors.

38. Different stories can be told about these funds being successful or not (yet) to achieve their originally planned goals. Among these experiences, four country cases are selected for the analysis – Malaysia, Korea, India and Sri Lanka. Each of these cases varies in terms of the fund's financing sources, focused beneficiaries, operational instruments and socioeconomic contexts as well as the implementation / completion status, thus can be representative for analysing the examined aspects relevant to the design and operationalization of the fund which largely account for the success or failure of the fund. In Asia, Singapore's Skills Development Fund (SDF), although standing as a successful story, is hard accessible for the needed information and data for this study despite outreach efforts by the author and supervisor, henceforth it is not included for the study. However, the key factors concerning the Singapore's SDF for study can be examined through the other available country cases, such as the relevance and contribution to economic transition, the mobilization of non-public resources, and the measures encouraging private sector participation. Moreover, this section also discusses a skill-related program in the Philippines as an alternative of establishing a fund. Each case will be examined within the framework of relevance, efficiency and effectiveness (Appendix 3.2).

- Malaysia: Malaysia's Human Resource Development Fund is one of the widely cited best practices together with Singapore's SDF. It collects levies from the specific employers in manufacturing and services sectors and provides financial assistances to the contributors (i.e. the employers who pay levy). It has evolved in terms of coverage and training schemes in line with the national economic development stage.
- Korea: Korea has reformed its skills development approach by transforming the funding mechanism from levy-exemption to levy-grant to the firms as the former failed to incentivize private sector to provide training to the workforce, which was deemed more costly than the amount of levy to be exempted. Under the levy-exemption scheme, Korea utilized resources, which were collected from firms who pay "fines" to avoid extra burdens of engaging trainings, to support skills trainings in public channels.
- India: India's National Skills Development Fund (NSDF) is a financing vehicle of the National Skills Development Corporation (NSDC). It is funded by the government and provides funds to the NSDC, which further finances training providers. Compared with other countries' longer experience, it has only been 7 years since the establishment so still too early to fully unfold.

- Sri Lanka: Among the countries cases in this study, Sri Lanka was the first in South Asia that set up a training-related fund. However, as stated in many previous studies, Sri Lanka's Skill Development Fund Limited (SDFL) failed to function as it was aimed when established. However, this case is worth further examination for useful learnings.
- Philippines: The Philippines' JobStart is a program that attempts to increase employability of the youth out of school but unemployed. As this program has so far achieved evidenced effectiveness, the government decides to roll it out nationally.

A. Evolution of Malaysia's Human Resource Development Fund (HRDF)[6]

39. Malaysia's Human Resource Development Fund (HRDF) is one of the widely cited best practices in Asia as well as in the world. It has been well-functioning for more than 20 years since its inception in 1993. The HRDF adopts levy-grant scheme as its funding mechanism and provides various financial supports for skills trainings of the workforce.

Context

40. It was the late 1980s and early 1990s when Malaysia was shifting from an agricultural economy to an industrial economy. Policymakers in Malaysia recognized the importance of worker retraining and skills upgrading for industry to move toward higher value-added and more capital- and technology-intensive production. Given that public training institutions had a limited capacity, it was essential to encourage private sector involvement in skills development. As evidenced in several surveys in the 1980s and the early 1990s, enterprises regardless of their size underinvested in skills development of their employees. A study conducted by the Ministry of Labor in the 1980s found that enterprise-based training in the country was disorganized, particularly for SMEs. In addition, a survey of 2,200 firms conducted by the World Bank in 1994 indicates the following reasons for lack of training: mature technology, high training costs, lack of information about training sources, and the availability of skilled workers from schools and other firms (Gill, Fluitman and Dar 2000). In this light, the government decided to launch the HRDF and adopt a levy-based scheme to encourage private sector to play a greater role in meeting their own skill demands, while solving market failures.

Objectives and Functions of the Fund

41. The HRDF was established with collection of a human resource development (HRD) levy for the purpose of promoting training and skills development of employees, apprentices and trainees through administration of the umbrella specific-purpose funds. Given its socioeconomic context, the Fund's mission is stated as "to enhance the knowledge and skills of the workforce in order to achieve a high income economy based on knowledge and innovation" (HRDF website).

---

[6] Malaysia also established "Skills Development Fund" in 2000 under the Skills Development Funds Act to provide a window to those who are not covered by the HRDF. Mainly, they provide loans to individuals such as school leavers, graduates and others who are interested in pursuing skills-related certificates (Abdullah, Rose and Kumar 2007). It is also under the charge of the Ministry of Human Resource.

42. The Fund primarily aims to encourage employers to provide in-service trainings to their employees and thus promote skills formation and increase productivity of the existing workforce in both manufacturing and services sectors. It also provides financial assistance to employers for skills training and capacity development. Besides supporting skills trainings to the workforce, its other innovative training schemes include a training window to the retrenched group (i.e. unemployed, housewives with relatively high education and apprenticeships) and to the workforce in other sectors on an approval of the Minister.

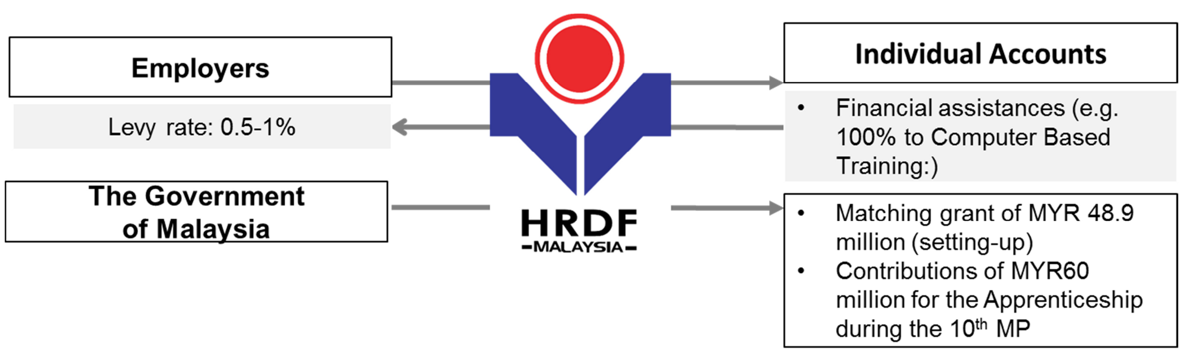
Structure of the Fund

43. It is supervised and administered by the Pemganguana Sumber Manusia Berhad (PSMB), an agency under the Ministry of Human Resources. The PSBM Act established the Board of Directors on which the number of employer representatives prevails. It is composed of a) 10 persons representing employers, b) 3 persons representing the Government and public sector agencies which are responsible for manpower development of training, c) a representative of the Ministry of Human Resources, and d) a representative of the Ministry of Finance. There are six regional offices that are responsible for employers' training grant reimbursement and the other department that covers fund allocation to the trainings for the retrenched.

Delivery Mechanism – Financing Source and Coverage[7]

44. The HRDF has a unique fund channeling mechanism. There are two sources of the funds, one from the employers and the other from the Government of Malaysia, each of which is utilized for different purposes. The employer levies are used solely to finance trainings in firms and for firms. The other costs not directly linked to the trainings by contributing enterprises, are financed by the government grants to HRDF in the form of various dedicated funds (ILO 2016).[8]

Figure III.1: A Brief Description of the HRDF's Delivery Mechanism



45. The current HRDF adopts levy-reimbursement scheme as its funding mechanism, meaning payroll levies collected from the employers (with 50 employees and above) are a main source of the fund. The principal rule is a levy rate at 1 percent, but levy rate may vary

[7] From 1987 to 1993, the Government of Malaysia had operated the training tax incentive scheme, which was widely acknowledged to be relatively ineffective (Tan 2001).

[8] These include Apprenticeship Fund, SME Training Incentive Fund, National Human Recourse Center Development Fund, Human Resource Certification Body Fund, SME Skill Upgrading Fund and other funds.

by allowing SMEs with fewer employees to pay 0.5 percent of payroll levies, and by reducing the general levy rate in the aftermath of the 2008 global financial crisis. The uniqueness about the HRDF's funding and financing mechanism is that contributing enterprises have their own individual account rather than putting their levies into a Consolidated Fund (i.e. Singapore's SDF).

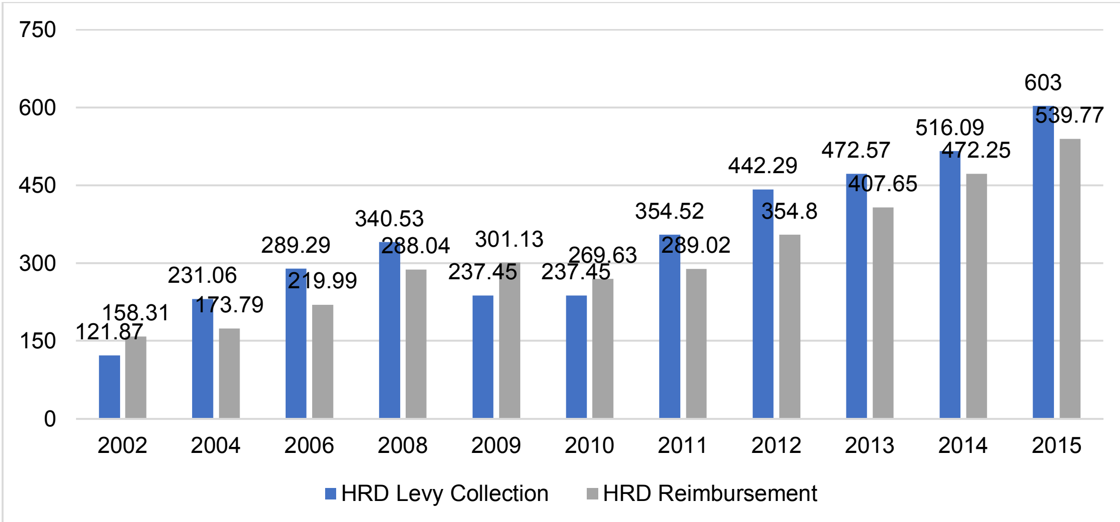
46. Besides a HRD levy as the main source, the government contributes to the Fund from time to time in order to train specific/identified groups such as graduates, housewives and SMEs.[9] As evidenced in 1993, the HRDF was implemented with a matching grant of MYR48.9 million from the government, which was an expected amount to be collected for the Fund's first year operation (Hirosato 1998). The government additionally contributed a sum of MYR16.3 million per year for a period of three years with its implementation from 1993. During the recent implementation of the Tenth Malaysia Plan (10th MP), the HRDF received MYR60 million for the Apprenticeship Scheme, which will be used to cover course fees for apprentice TVET training.

47. With an expansion of the Fund's coverage, the total amount of levy collection also increased at an annual growth rate of 23 percent from 2002-2004 (Awang, Ismail and Noor 2010). Despite the slump during the 2008 global financial crisis and its aftermaths until 2010, the levy collection continued to increase and reached MYR603 million in 2016 (see Figure III.2).

48. In the early implementation under the HRD Act 1992, the HRDF only covered employers with 50 and above Malaysian citizen employees in the manufacturing sector. However, effective from January 1995, the coverage was extended to employers with 10 to 49 employees and paid-up capital of MYR2.5 million and above (HRDF 2005). In 2007, there was an additional sector covered, the Commercial Land Transport Sector. Additionally, in 2014, the First Schedule of the PSMB Act, 2001 was amended to expand the coverage to 19 new sub-sectors of manufacturing/services industries. With this change, the Fund has increased its coverage by 43 percent to reach out a total of 63 sub-sectors (HRDF 2014). As stated in HRDF 2014, this expansion aims to include high-priority sub-sectors (e.g., information service) in the services sector and two sub-sectors in the mining and quarrying sector, while tapping opportunities to catalyze human capital development for the growth of these sectors.

[9] The intervention from the Government is deemed a necessary action to develop the nation's human capital particularly for the target beneficiary groups.

Figure III.2: Funding and Financing of the Human Resource Development Levy (MYR Million)



Source: Awang, Ismail and Noor (2010), HRDF annual reports (2015, 2012)

Table III.1: Comparison of HRDF Coverage between 2010 and 2014

Economic Sector	2010	2014
Mining and quarrying	-	2
Manufacturing	23	23
Services	21	38
Total	44	63

Source: EPU Malaysia (2015)

Delivery Mechanism – Financing Instrument & Program/Service offerings

49. Since its inception, the HRDF has not only expanded its provision of financial and technical assistances but also its number of training schemes from 3 in 1993- 1994 to 14 in 2014. As stated in its presentation at Regional TVET Conference 2014, against poor perception towards skills training, it has adopted many training schemes in accordance with needs and flexibility. Noting that the Fund was mainly established in the purpose of encouraging enterprise-based trainings and increasing productivity and skills of the existing workforce, the three initially introduced basic training schemes include (Tan 2001; Hirosato 1998):

- Program Latihan Yang Diluluskan (PROLUS) or Approved Training Programme (ATP) Scheme: Employers can freely send employees for approved training courses offered by registered training providers without prior approval of the HRDF, and submit claims on completion of the course.
- Skim Bantuan Latihan (SBL) Scheme: Employers submit plans to HRDF for prior approval of in-plant or external training course offered by non-registered training providers. These plans must include specific objectives, areas of training, duration, number of trainees, instructors, and means of assessment.

- Pelan Latihan Tahunan (PLT) Scheme: It is designed for firms with long-term and predictable training needs. Employers submit detailed annual training plans covering at least 10% of the company's workforce and 15% of junior level employees (Tan 2001). Under this scheme, employers must undertake systematic training needs analysis to ensure that training is conducted on a need basis and in line with their business plans and level of technological adaptations. The training courses can be conducted either on-the-job, off-the-job or even a combination of both so as to suit the requirements of enterprises. Training can be carried out either by their own trainers or by external trainers if there is a lack of internal expertise. Apart from this, local enterprises can also engage and recruit qualified trainers from abroad if local expertise is insufficient or unavailable.

50. In 1995-1996, the HRDF added several additional schemes, many with a focus on the needs of smaller companies that did not appear to respond to the above training incentives (Tan 2001). After the amendment of the Act 2001, it kept expanding its coverage and adding more schemes to increase the supply of skilled workers by supporting the retrenched including housewives with higher educational attainment, graduates who lack work experience, and apprentices. According to Belinda Smith in ADB (2014b), the program Recognition of Prior Learning (RPL) is one of the innovative schemes. The Fund also has attempted hard to provide skills training to the NEET (not in education, employment, or training) through apprenticeship. Currently, 13 training schemes are available:

Table III.2: A List of Training Schemes by Purpose[10]

Continue to retrain and upgrade the skills, knowledge and capabilities of the workforce (7)	Increase the supply of skilled workers (4)	Increase ICT training programmes (2)
SBL Scheme SBL-KHAS Scheme Annual Training Plan Scheme Juruplan Scheme (Consultancy services) Joint Training Scheme SME Training Partners (SMETAP) Scheme SME On-The-Job Training Scheme Recognition Prior Learning Scheme (RPL)	Apprenticeships Future Workers Training Scheme Industrial Training Scheme Housewives Enhancement and Reactive Talent (HEARTS)	Computer-Based Training Scheme Information Technology and Computer-Aided Training Scheme

Source: Author's description based on HRDF's presentation and HRDF's website.

51. Financial assistances that the HRDF offers vary across training schemes. In other words, firms are able to claim all or major portion of the "allowance costs" under the retraining and skills upgrading programmes undertaken by employers.11 Under the scheme called "Purchase of Training Equipment and Setting Up of Training Room Scheme", firms can claim 100% of reimbursements from their own accounts, wherein the funds are only

[10] Please refer to http://www.trainingmalaysia.com/kiosk/tgm8chap5.php for the details of the training schemes.

[11] Please refer to http://www.hrdf.com.my/wps/portal/PSMB/MainEN/Corporate-Profile/About-HRDF

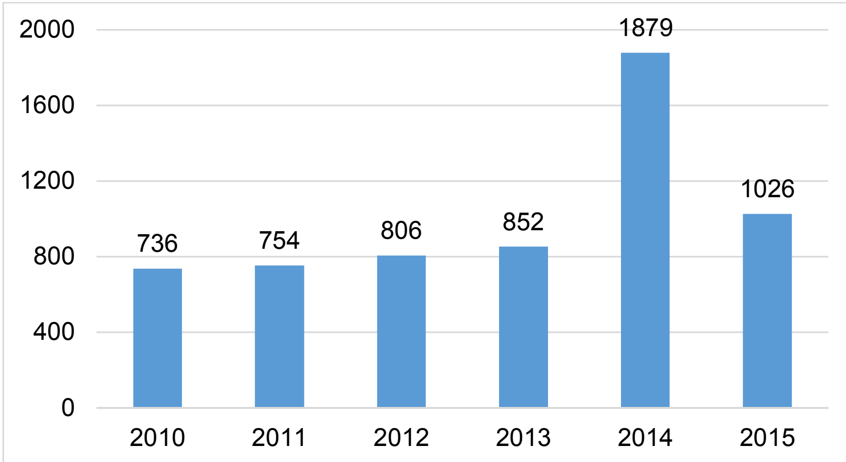
available to the contributing firms. As emphasized in the HRDF's annual report (HRDF 2015), the HRDF is by rule based on cost-sharing scheme, but on a subsidy scheme for the retraining and skills upgrading of workers by employers, in which the government subsidy tops up part of the training costs.

52. As graphed in Figure III.2, HRDF reimbursement (i.e. disbursement of training grants) has been increasing in line with the increased levy collection. The reimbursement has increased by MYR129.73 million, or 81.9% within 6 years (from MYR158.31 million in 2002 to MYR288.04 million in 2008). One should note that, in 2009-2010, the amount of training grants surpassed that of levy collection. This might indicate a **counter-cyclicality** of skills/training funds (Noonan 2016).

Eligibility Conditions and M&E

53. Eligibility of employers: Employers who have registered with PSMB and contributed to the HRDF are eligible to access their levy payments by claiming reimbursements through various training schemes that are implemented by PSMB. Since the HRDF's inception, there are 16,569 registered employers – 7,056 employers (42.6 percent) in the manufacturing sector, 9,464 (57.1 percent) in the service sector, and 49 (0.3 percent) in the mining and quarrying sector. By size of the firms, large employers constitute 19.15% (3,173), whereas SMEs make up 80.84% (13,396). As shown in Figure III.3, there was a jump in new employer registration in 2014, when 1,879 new employers registered with HRDF (including 1,607 or 85.52 per cent from the service sector, 247 or 13.15 per cent from the manufacturing sector and 25 or 1.33 per cent from the mining and quarrying sector), representing an increase by 120.54 per cent from 852 employers registered in 2013 (HRDF 2014). Despite a decrease in overall new employer registration in 2015, among the 1,026 new employers, the service sector constitutes 84.3% whereas the manufacturing accounts for 13.4% and the mining and quarrying sector 2%. The latest concentration in service sector enterprises registration may evidence that the HRDF's expansion of coverage in 2014 to service sector has well fit in the needs for skills development of the workforce in this sector. Also, the share of newly registered SMEs (85.09%) in latest years is much higher than the overall share of SMEs registered with the HRDF, compared to the 14.91% of large enterprises in the new employers, which is lower than its overall ratio. It might imply that more and more SMEs realize the importance of training their workforce and are willing to do so through HRDF. The causes behind this phenomenon should be further analysed; however, it is out of the scope of the current study and hence is not discussed here.

Figure III.3: Trend for Registration of New Employers (2010-2015)



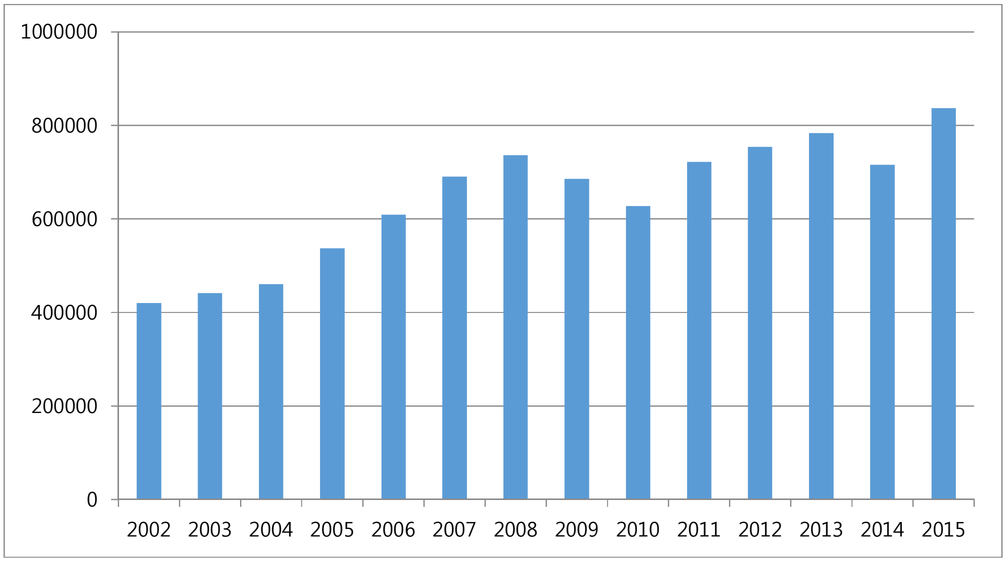
Sources: HRDF annual reports (various years)

54. Eligibility of training providers: In order to be registered, training providers should apply for the certification of registration. Since 2014, the registration and renewal of the training providers are on a three-year cycle. Training providers who provide training services to HRDF Registered Employers are urged to register with HRDF as registered training providers. By being registered training providers to HRDF, training providers gain recognition as the approved training providers, thus, expediting the training grant applications for all HRDF Registered Employers. Registered training providers are also recognized as HRDF's preferred venders and partners in implementing various training schemes. As stated in HRDF's annual report 2014, registering and maintaining training providers under the HRDF benefit the delivery of quality training and ensuring adequate responses to external changes for skills development. As in 2015, according to the annual reports, there are a total of 2,568 registered training providers, comprising of training companies, colleges, universities, TVET centres and others.

Experience to Date

55. Figure III.4 shows an enlarging number of approved trainings placed by the HRDF. This increase is somewhat obvious due to the increase in the newly registered employers. The total number of approved training places reached 836,468 in 2015, almost doubled from 2002, while the total approved Financial Assistances amounted to MYR539.77 million in 2015, increased by 12.51% up from 2014.

Figure III.4: Number of Approved Training Places (2002-2015)



Sources: HRDF annual reports (various years)

Assessment of the Fund: Relevance, Efficiency and Effectiveness

56. **Relevance:** Malaysia's HRDF is both socially and economically relevant. As mentioned earlier, given Malaysia's strong desire to transform its economy from agricultural to manufacturing and its low private sector involvement in training employees in the late 1980s, the policymakers set up the HRDF to enhance the role of the private sector in skill development while complementing the government's policy to facilitate the existing workforce to absorb and promote advanced technology (Ritchie 2010). With its strong commitment, the HRDF has evolved in terms of its coverage and training schemes to align with the economic growth, resulting in an increasing trend of service sector firms registered with the HRDF.

57. In general, SMEs are less able to offer in-firm trainings to their employees due to lack of capacity including facilities, knowledge and trainers who can share and transfer advanced knowledge to the employees. It is evidenced in the lower reimbursement rate of SMEs than that of large enterprises. In this light, the HRDF adds schemes such as "Train the Trainers" and provides not only financial but technical assistances to SMEs. Moreover, since the introduction of the modified HRDF in 2001, the HRDF has attempted to expand its coverage to the retrenched (i.e. apprentices and housewives, graduates) that were not able to benefit from the HRDF before.

58. The role of the Fund is critical in Malaysia's TVET system. It not only encourages private sector involvement in this field but also bridges up enterprises with reliable and quality training providers, identifies skills supply and demand under the training schemes and provides financial and technical assistances for setting up and improving training infrastructure.

59. **Efficiency:** Based on the levy-reimbursement mechanism, placing the collected levies in the individual account of each contributing enterprise is a unique characteristic of

the HRDF, which increases ownership and security and avoids the free-rider problem, so improving efficiency.

60. The HRDF has been functioning well since its inception with minimized risk of unsustainability, thanks to its levy-based scheme as well as the government's contribution. In addition to the financial mechanism, a trust and interaction established among the HRDF, training providers and employers creates a sustainable institutional environment for the Fund and TVET system. As stated in several studies (Johanson 2009, de Ferranti et al 2003), active employer involvement in the governance and training committees and reduced bureaucracy are recognized as critical success factors. For instance, in the Board of Directors, representatives from the private sector (i.e. employers' association) outnumbered those from the public sector.

61. **Effectiveness:** Considering the main objective of the HRDF when it was established, the HRDF can be evaluated 'effective' in promoting private sector involvement and encouraging firms to increase in-service trainings. This can be found in a significant increase in the number of training places and the amount of reimbursement.

62. There have been only a few researches examining effectiveness of the HRDF in promoting the private sector involvement and/or contributing to the skills upgrading of the existing workforce in the Malaysian labor market. To summarize, the following studies at least provide evidence that the Fund has a positive impact.

- **Tan (1994)** addresses whether training levies are effective in promoting enterprise-based training and in increasing productivity growth of the existing workforce by using three different datasets (1988, 1994 and 1996). Combining these datasets, he provides strong panel evidence that the HRDF played an instrumental role in encouraging firms to provide in-service trainings, in particular medium size firms. As also stated in the paper, the overall contribution of the HRDF to inducing enterprise training was larger than that of the technological change. However, the effects were not strong in case of the small companies. The regression results confirmed that an increase in training investment will result in productivity increases.
- **Awang, Ismail and Noor (2010)** estimates an impact of the training program on employees' job performance including knowledge, skills, works behavior and job performance using data collected from self-survey of 1200 employees at hotels, resorts and ICT companies in four Malaysian states. They report that 73% of their sample registered and attended the HRDF's training programs. The estimation results provide evidence supporting that trainings have an positive impact on job performance except cognitive competence.
- **The World Bank (SME, Government of Malaysia 2014)** estimates to what extent the HRDF has an impact on labor and economic development using the data from 1998-2009. The study found that training programs by HRDF resulted in: i) 3.2% increase in total factor productivity, ii) 2.4% increase in labor productivity, iii) about 8% increase of investment in machinery and equipment and capital intensity, and iv) 3.8% increase in value-added.

B. Abolishment of Republic of Korea's Vocational Training Promotion Fund (VTPF)

63. Korea had established a skill/training-related fund, known as Vocational Training Promotion Fund (VTPF) in 1976, in order to expand the private sector involvement in TVET and to raise TVET funds in addition to general government expenditures and contributions from the international community. However, as the economy developed rapidly in tandem with a rapid human capital accumulation, the Fund was no longer operative and was abolished.

Context

64. As can be seen in Box 1, Korea experienced a rapid industrialization and economic transformation from agriculture to light manufacturing based industry in 1960s and from light industry to heavy and chemical industry in 1970s. During these transitions, Korea encountered high demands for skilled labor from the industry as well as demands for financing TVET correspondingly. To deal with a high demand for skilled labor, the government of Korea implemented the Basic Law for Vocational Training in 1963 to oblige large enterprises to offer a certain amount of in-plant trainings to their employees and the Vocational Training Promotion Fund Law in 1976 to collect levies from these enterprises and to support various TVET measures (both public and private). Using the Fund, the government attempted to be responsive to the evolving demand for highly skilled labor and train and up-skill semi-skilled and skilled labor into high skilled technicians (Glasskov 1994). However, due to its inefficiency and irrelevance to Korea's modern industry focusing on knowledge and information and labor market conditions where 80% of the high school graduates entered college and university, the VTPF was abolished in 1997 and in turn, its functions were transferred to the Employment Insurance (Box 2).

Box 1. Evolution of Vocational Training Policies at Each Stage of Economic Development

65. Korea is well-known for its virtuous cycle between education and economic development (ADB forthcoming), indicating that it had incorporated educational policies into its national economic development plans during its rapid economic growth period where higher level of education offered higher returns. Table III.3 describes how Korea has changed its vocational training system at different stages of its economic development. Ways to finance TVET system can be largely divided into two stages: VTPF for the years from 1960s to 1980s and Employment Insurance since the 1990s. During a period of fast economic growth from 1970s to 1980s, Korea implemented the VTPF to catalyze private sector involvement and to train skilled labor in order to meet increasing demand for skilled workers. Particularly, the government attempted to reshape the working labor force to fit in the transition from light industry to heavy and chemical industry-focused economy. During this period, education system was more focused on building general skills (i.e. literacy and numeracy), whereas TVET system offered specific-industry related skills.

Table III.3: Changes in Vocational Training System at Each Stage of Economic Development

	VTPF			**Employment Insurance**	
	1960s	**1970s**	**1980s**	**1990s**	**2000s**

Economic development stage	1st and 2nd five-year economic development plans	3rd and 4th five-year economic development plans	5th and 6th five-year economic development plans	Moderate growth; Low unemployment; Economic crisis of 1997	Entry to globalized economy; Fall in economic growth
Key reform priorities	Building the foundation for industrialization; Export-led growth driven by light industry	Deepening industrialization; Export-oriented growth driven by heavy and chemical industries; Macroeconomic stability; Promotion of technology-intensive industries; Balanced, export-oriented growth	Macroeconomic stability; Fostering knowledge and information industries; Balanced, export-oriented growth; Fostering competition; Increasing economic openness;	Transition to low-cost, high-efficiency economy	
Enactment and revision of legislation	Vocational Training Act (1967)	Vocational Training Special Measures Act (1974), Basic Vocational Training Act (1976) and Vocational Training Promotion Fund Act (1976)	4th amendment to Basic Vocational Training Act (1987)	Employment Insurance Act (1995) and Workers Vocational Training Promotion Act (1999)	Workers Vocational Skills Development Act (2004)
Changes in workforce demand and response strategy	Increasing demand for simple skilled workers due to the economic transition from agricultural to light industry focused economy → Supply of skilled workers mainly through school education, establishment of vocational training system, introduction of	Increasing demand for skilled workers and serious shortages of skilled workers resulting from Korea's shift to heavy and chemical industry-focused economy → Unlimited supply of unskilled workers caused by mass migration from	Falling demand for in-plant vocational training; reinforcement of public vocational training: establishment of Korea Vocational Training Management Agency (1982) Introduction of high-level vocational training courses (master	Falling demand for new skilled workers and growing need to raise incumbent workers' skill levels, incentive for voluntary vocational training by employers; Training as social safety net for unemployed people	Flexible labor market, building of lifelong vocational training system, strengthening of training for vulnerable groups

	vocational training subsidy system	rural to urban areas, establishment of vocational high schools, expansion of public vocational training, implementation of obligatory training system, introduction of training levy system	craftsman courses)		

Source: Korea Research Institute for Vocational Education & Training (TRIVET) (2012); Ryu and Moon (2013)

Objectives and Functions of the VTPF

66. According to Vocational Training Promotion Fund Act (1976),[12] the Fund aimed to stimulate vocational trainings by efficiently managing and utilizing the levies collected from the private enterprises based on the Basic Vocational Training Act (1963). To spell out, the Fund adopted levy-exemption scheme where levies are imposed to the employers in case of lower training outputs than the target set by the Ministry of Labor (MoL). By implementing this Act in 1976, the government attempted to promote the private sector involvement in trainings as well as to augment the financial resources to foster TVET ecosystem in Korea.

Organization of the VTPF

67. The VTPF was a government-administered fund, which collected financial resources from the private sector as well as the government. It was solely managed under the MoL and was installed under the account of the VTPF at the Central Bank of Korea. As stated in the Law (1976 and 1981), there was no representation from employers or workers on the Fund's Board. Unlike other countries' funds for skills development, it seems that this fund was not institutionalized.

Delivery Mechanism – Financing Sources and Program/Service Offerings

68. The Fund was sourced from the private enterprises and the government and it also generated revenues by offering TVET-promoting activities. Under the levy-exemption scheme, levies were waived if the enterprises had provided their employees trainings at least at its compulsory level, as based on the MoL's annual estimate of national needs (ILO, 1994). In another word, it was compulsory for the companies to offer in-plant skills training to a targeted percentage of firms' work force. The levy rate was calculated individually for each firm and the measures were initially based on the fixed share of employees for training, but later were transformed to various types of training and the training expenditure per trainee as a share of total wage in 1987 (Glasskov 1994, Ra and Shim 2009). On the other hand, if a

[12] Please refer to http://www.law.go.kr/lsInfoP.do?lsiSeq=2101#0000 (in Korean).

firm spent its resources more than the compulsory level, it would request its reimbursement or a certain deduction from the following year's levy obligation (Glasskov 1994).

69. The Fund also generated its own revenues by offering loans to private companies and authorizing public and private TVET institutions to support capacity building of the TVET system/program. As stated in Glasskov (1994), the loans were offered on the condition that at least 90% of the loans were used for purchasing equipment and/or improving TVET facilities.

Delivery Mechanism - Program/Service Offerings

70. As can be seen in Table III.3, Korea's VTPF not only fostered in-plant trainings by encouraging private sector involvement, but served as a trigger for TVET development in Korea such as supporting public TVET institutes and directing skills development for certain groups of workers.

71. By setting levy-rate based on various types of trainings, the Fund aimed to drive the private enterprises to provide both theoretical instruction and practical training. As stated in Glasskov (1994), the Fund offered incentives for the companies to provide a greater share of practical training to their employees. This aligned with the nation's training policy which highlighted the importance of practical training, such as in its planning of two-year training courses – one year for theoretical learning in TVET institutions and one year for on-the-job trainings. In addition, activities such as building training centers and institutions were also encouraged.

72. One of the main services offered by the Fund was to develop the public vocational training (Ra and Shim 2009). Due to relatively high cost of TVET trainings and facilities, the Fund provided subsidies for establishing public vocational training institutions and training the workforce including those employed in the nation's prioritized sector and those who were unemployed.

73. Additionally, the Fund ensured the qualified expenditures on various purposes, including entrusted training expenses, training allowances, accidental costs, compensation, survey and research projects, education and publicity activities (KRIVET 2012).

Eligibility Conditions and Operations

74. Levies were only imposed to large enterprises with more than 300 workers in 1989. Later on, the levy-exemption scheme expanded its coverage to enterprises with 150 employees in 1991 and further to SMEs.

Experience to Date

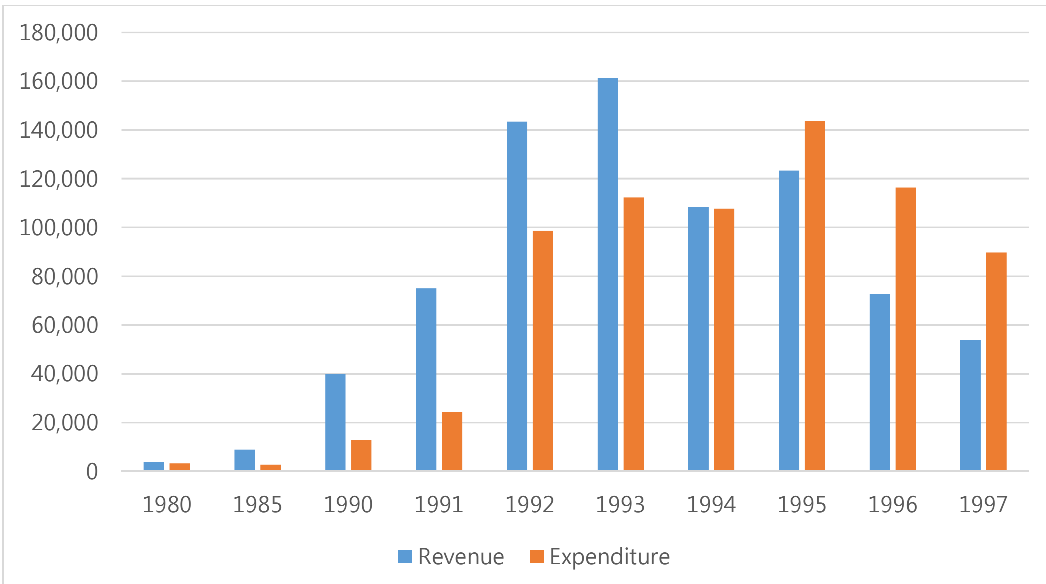
75. The VTPF was abolished in 1997 as it was no longer an effective tool to push employers to offer in-plant skills training. One of the major reasons was that employers were more willing to pay levies in the 1990s due to the higher cost of conducting in-house training resulted from the increased skills levels of employees, than the amount of levies. Reasons for the abolishment will be discussed in next section (i.e. "Assessment of the Fund").

76. Figure III.5 and Table III.4 report how the financial resources were collected and utilized for the VTPF. Since its inception, the Fund had been able to accumulate its revenue over its expenditure until 1993 and from 1995, the Fund over spent its resources to promote

TVET activities. Sudden jumps in the Fund resources in the 1990s resulted from the expansion of the levy-exemption scheme's coverage.

77. Looking at the expenditure in Table III.4, most of the financial resources were utilized for establishing and improving vocational training facilities (i.e. joint training institutes, and public training management body in the 1980s) (KRIVET 2012), followed with skilled manpower training. This indicates that the Fund successfully secured funds for public training of redundant workers and skilled workers in certain areas and was able to address the shortage of skilled labor by supplying workers through external training institutions.

Figure III.5: Utilization of Vocational Training Promotion Fund (KRW Million)



Source: KRIVET (1998)

Table III.4: Financial Status of Vocational Training Promotion Fund (KRW Million)

	Revenue		Expenditure					Surplus	
	Total	Levies collected	Total	Skilled Manpower Training	R&D	Vocational Training Facilities	Others	In this year	Accumulated
1980	3,916	3,181	3,219	2,040	806	–	373	697	4,181
1985	8,860	6,878	2,747	2,008	543	–	196	6,113	21,922
1990	39,994	29,557	12,848	4,299	1,332	6,855	362	27,146	89,243
1991	74,996	61,044	24,317	4,422	1,450	17,575	870	50,679	139,922
1992	143,515	116,590	98,686	8,893	1,806	86,058	1,929	44,829	184,751
1993	161,285	129,881	112,233	18,149	1,916	88,900	3,268	49,052	233,803
1994	108,356	69,812	107,638	16,892	2,364	81,168	7,214	718	234,521
1995	123,318	82,030	143,707	21,347	2,718	113,519	6,123	20,389	214,132
1996	72,764	41,635	116,343	22,962	3,258	83,851	6,272	43,579	170,553
1997	53,925	32,324	89,699	41,688	3,056	37,070	7,885	35,774	134,799
Total	883,368	642,456	748,589	164,166	26,470	520,318	37,635		134,739

Source: KRIVET (1998)

Assessment of the Fund

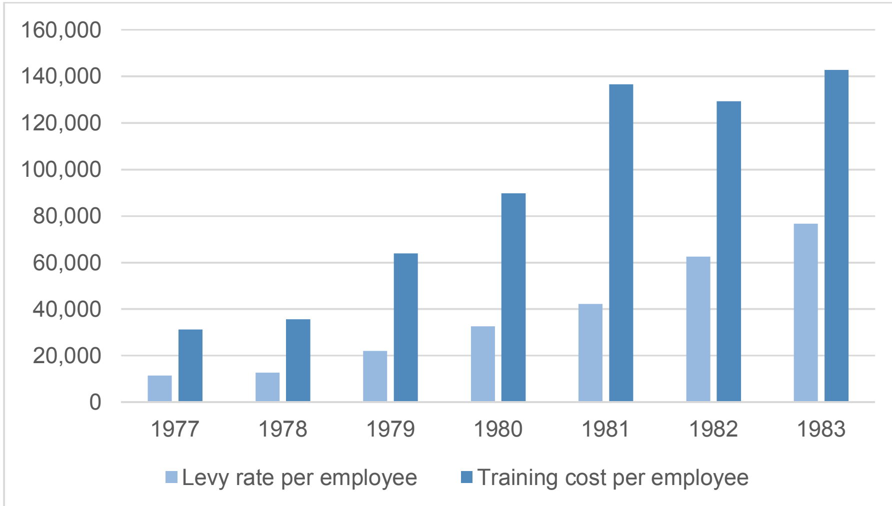
78. **Relevance:** Korea's VTFP was initially relevant to the industry's demands and labor market conditions, but it was limited to be responsive to the rapid changes in the late 1980s and early 1990s. For the first five years since the Fund's inception, there had been an initial expansion of training with the number of trainees reaching 90,000 by 1979. However, from then on, the number of workers who had ever received training dropped significantly due to higher cost of in-plant trainings compared to levy rate (Figure III.6), slow process for approving training schemes, heavy government training prescriptions and inefficient bureaucratic system (Glasskov 1994, Johanson 2009).

79. The expansion of its coverage to SMEs did not address skills shortage issues in Korea that was prevalent in the early 1990s (Glasskov 1994). Companies preferred to recruit workers who were already skilled and trained, rather than to offer trainings to their employees. Also, SMEs were not prepared to conduct in-plant trainings as they had limited financial resources and knowledge on trainings. In this regard, they were more likely to pay the levy. According to the survey in 1989 conducted by the Korean Chamber of Commerce and Industry (Glasskov 1994), a half of the surveyed firms claimed that the training prescriptions set by the MoL were burdensome and should be relaxed, and also one-third of them argued that the incentives/benefits that the levy-exemption brought were highly limited. Rather, they perceived training levies as additional tax that could undermine their competitiveness (KRIVET 2012).

80. **Efficiency:** The Korea's VTFP became inefficient due to its inflexible management system and its relatively higher cost of in-plant training than the levy rate imposed on the enterprises. Figure III.6 shows that the standard training levy per person constituted only 33% -53% of actual training costs (KRIVET 2012). Thus, the enterprises were more willing to pay levies, rather than to provide in-plant training. As evidenced in Glasskov (1994) only 509 out of 2,595 companies provided in-plant training, whereas the remaining 81% paid the levy.

81. The studies argued that the VTFP undermined the enterprise's willingness to pay the levies due to inefficient and inflexible government system. As the VTFP was solely administered and managed by the MoL, it was not responsive to the rapidly evolving skills demand from the industry facing shortened lifecycle of products. Thus, KRIVET (2012) argued that there was an oversupply of skilled workers in certain areas resulting from the unnecessary obligations set by the MoL for the enterprises. Additionally, the system was inflexible in calculating exemption, reduction and deduction of training levies and its quality assurance mechanism was also limited (KRIVET 2012).

Figure III.6: Levy Rate and Unit-cost of In-plant Training (KRW)



Source: KRIVET (2012)

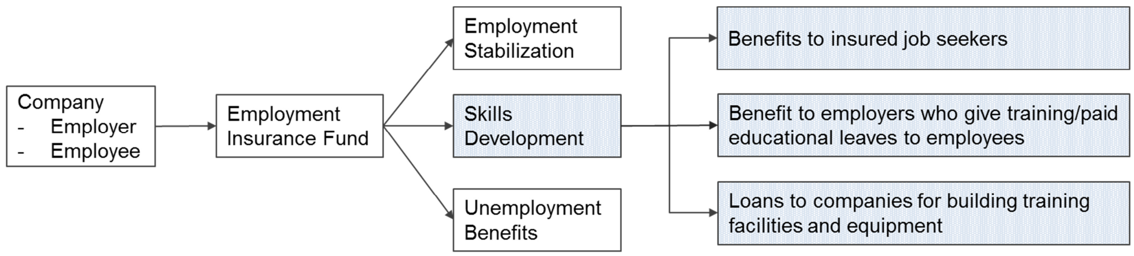
82. **Effectiveness:** As discussed above, the Fund was ineffective to promote private sector involvement and its inefficiency accumulated over its operation period from 1977 to 1997. It was limited to expand the number of authorized private TVET institutions and the number of voluntary in-plant trainings. Despite its underlying problems, the VTFP was effective in strengthening public vocational training. The Fund offered financial resources (i.e. subsidies) to establish numerous public training institutions (Ra and Shim 2009) and to operate all 80 public TVET institutes. The Fund mobilized financial resources to establish a public training management body and a college for training instructors in the 1980s. It also cooperated with the private sector to establish the Joint Training Vocational Institute in 1990 which aimed to promote private sector-led vocational training with the firms (KRIVET 2010).

Box 2. Introduction of Employment Insurance in 1994

Since 1995, levy-grant system has been adopted under the Employment Insurance system. Under this new system, all enterprises regardless of their number of workers and of their wage bills were enforced to pay training levies as part of the employment insurance system and reimbursed for training expenses. As in other countries, it has offered an incentive for the companies to invest in trainings of their employees either in-plant or at training institutions outside (Ra and Shim 2009). Especially for the SMEs, their reimbursement was set to be higher than their actual training expenses.

Figure III.7 briefly presents how the Employment Insurance serves as a financial channel for skills development. As mentioned earlier, all employers and employees were obliged to pay an insurance premium and were eligible to receive unemployment benefits and skills development programs offered by the Employment Insurance Fund, including Employment Stabilization Program, Skills Development Program and Unemployment Benefits Program. The contribution rates to the former two programs are integrated between 0.25% and 0.85% of the total payroll depending on the firm size (ILO 2016). These contributions would be used for skills trainings of job-seekers and insured employees as well as for setting up training facilities and purchasing equipment.

Figure III.7: Brief Description of Employment Insurance System



Source: ILO (2016)

C. India's National Skill Development Fund (NSDF): A Catalyst for Capacity Development in TVET

83. India's National Skill Development Fund (NSDF) is a financing vehicle of the National Skill Development Corporation (NSDC) officially launched in October 2009 with a mandate to skill 150 million people by 2022 by fostering private sector participation. The NSDF is mainly financed by the Government of India, but it is envisaged to attract bilateral, multilateral and private funding.

Context

84. As discussed in Section II, given socioeconomic conditions in India, skill development has become a key policy issue. The government is well aware of human capital challenges and considers skill development as a national priority as evidenced in the various actions including the establishment of a National Development Council, chaired by the Prime Minister as well as the establishment of a dedicated Ministry of Skill Development and Entrepreneurship (MSDE) in 2014.

85. One of the key interventions to create training capacity is facilitating private sector participation in skills development. NSDC was launched in 2009 aiming at institutionalizing public private partnership in skills development. The funds for meeting the funding requirement are made available to the NSDC through NSDF, which is fully owned by the Government of India and was set up with an initial corpus of INR995.1 crore received from the Government as the repository funds for NSDC. The NSDF is aimed at mobilizing more resources from private sector, bilateral/multilateral and other agencies /donors to top up support to NSDC.

Objectives and Functions of the Fund

86. As a financing vehicle for the NSDC, the NSDF is tied up with the NSDC's objectives of increasing the skill training capacity in the country by fostering sector initiatives and its mandate, which is to skill/up-skill 150 million people by 2022. Under this objective, the Fund has three key roles:

- **Funding and incentivizing**. Reduce risk by providing patient capital (i.e. equity / grants).
- **Enabling support services**. Support and create a viable TVET system required for skill development through setting up employer-led sector skill councils, enhancing

quality assurance, building skills gap information system, strengthening TOT with industry exposure, and introducing National Occupation Standards to guide trade-linked training courses.

- **Shaping/creating**. Proactively catalyze creation of large and quality vocational training institutions.

87. In addition to its role as a financing vehicle that raises and collects funds from the Government, bilateral/multilateral, donor/development partners and the private sector, it is responsible for monitoring, supervising and regulating the NSDC. The NSDC is required to submit all the documents and information sought by the NSDF from time to time which include annual work plan, yearly audited accounts, budgets for the upcoming year, utilization certificates of the funds and performance report (Ministry of Finance (MoF) and Ministry of Skill Development and Entrepreneurship (MSDE) 2015).

Organization of the NSDC/NSDF

88. The NSDF as well as the NSDC were set up under the Prime Minister's National Development Council, reflecting the Prime Minister's strong commitment. By incorporating human capital development into its national development plan, India created its first-ever MSDE in 2014, responsible for skilling and upskilling potential trainees including current and future labor force considering the increasing trend of labor market entrants. Since then, both NSDC and NSDF were transferred from Department of Economic Affairs to the newly created MSDE. The NSDF is currently led by a joint secretary at MSDE as Chief Executive Officer.

89. The NSDC has a tiered structure – a 14-member Board and the NSDF. It is managed by the Board of Members which consists of 8 nominees from the private sector and 6 nominees from the Government, including the Chairman of NSDC and the Secretary from, MSDE, Ministry of Small and Medium Enterprises, Ministry of Labour and Employment and Government of Gujarat.[13]

Delivery Mechanism – Financing Sources and Coverage

90. As for the NSDC, it was created with a capital of INR10 crore (51% equity stake by industry and 49% by the Government of India), and packed with the NSDF. As a financing vehicle of the NSDC, the NSDF acts as a receptacle for financial contributions by government / government entities, multilateral/bilateral and private sector, while the initial corpus of INR995.10 crore was received from the Government of India.

91. In contrast to its initial plan that INR15,000 crore would be obtained from various sources for the promotion of skills development, until 2015 the Government of India is a sole contributor to the NSDF (MSDE 2015). Since its inception in 2008, it has received INR3,300.74 crore from government sources, basically collected from taxes (Table III.5). As for the NSDC, the government sources (i.e. the NSDF) account for 99.78% of the INR2,368

---

[13] Currently, 8 representatives from the industry are National Association of Software and Service Companies, Confederation of Indian Industry, Society of Indian Automobile Manufactures, Federation of Indian Chambers of Commerce & Industry, Confederation of Real Estate Developers Associations of India, Gems and Jewelry Export Promotion Council, Council for Leather Exports, The Associated Chambers of Commerce and Industry of India.

crore funds that the NSDC received (INR10 crore as equity and INR2,358 crore from NSDF) as of 31 March 2015.

Table III.5: Funds Received by the NSDF and Made Available to the NSDC (INR Crore)

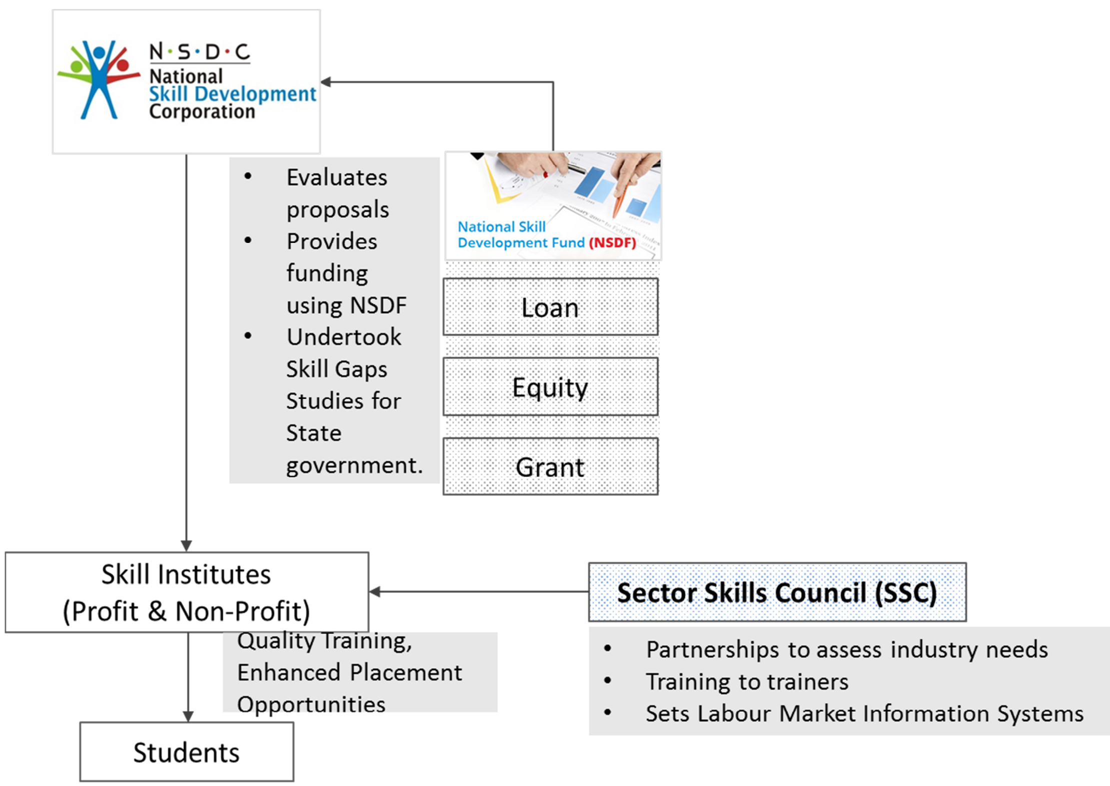
Year	Funds received in NSDF from government sources	Funds made to the NSDC
2008-09	998.10	203.00
2009-10	Nil	Nil
2010-11	Nil	Nil
2011-12	502.28	104.95
2012-13	Nil	290.90
2013-14	1,311.60	1,073.99
2014-15	488.76	690.06
Total	3,300.74	2,362.90[14]

Source: MoF and MSDE (2015)

Delivery Mechanism – Financing Instruments & Program/Service Offerings

92. As evidenced in the three key roles, the NSDC consists of a comprehensive package for fostering a TVET system that is required for skills development in the whole nation. Figure III.8 illustrates the delivery mechanism of funding and tasks of NSDC/NSDF.

Figure III.8: Delivery Mechanism of NSDC/NSDF



Source: Author's description

[14] Fund disbursement of INR2,358 crore and equity contribution of INR4.90 crore.

93. NSDC's function is not restricted to providing patient financial assistance to training providers in the private sector. It has also facilitated setting up Sector Skill Councils (SSC) across 38 sectors which have representation from industry members, industry associations, business leaders, training providers and government bodies. There are approximately 450 corporate representatives in the governing councils of these SSCs. Set up as autonomous industry-led bodies, SSCs have been tasked to define the entire skill map for their sectors as well as National Occupation Standards (NOS) and Qualification Packs (QP) which detail out the roles, responsibilities, and knowledge and skill requirements for all trades in a sector. As of 2015, about 8310 unique NOS and 1508 QPs have been created across 31 sectors, of which 921 QPs have been requested as National Standards.

94. To support its various initiatives, NSDC is aimed at enabling environment by developing a robust research base for skilling. It conducts studies to understand the region and sector wise skill requirements and on various subjects that can influence and enable the skilling environment in India. In FY2014-15, NSDC released update reports on human resource and skill requirements across twenty-four high priority sectors.

95. As recognized as one of the main roles, the NSDC solicits and funds training organizations (i.e. for-profit and non-for-profit entity; of the investment requirement/project cost, 75% [85%] would be funded by the NSDC and the remaining by training partners [not-for-profit partners]). The funding would be provided in the form of loan, equity and grant. NSDC prefers to provide funding in the form of loan, which is usually at 6% interest rate per annum. The duration for the loan would be maximum 7 years. NSDC's funding is mainly for skills infrastructure and/or working capital requirement for skills development activity for the first three years.[15] Table III.6 shows that fund utilization by 2015 reached 68%. However, there is not yet record of the recovery of loans lent to the training partners.

Table III.6: Status of Funds at NSDC (INR Crore)

Year	Opening balance	Funds received	Interest earned	Total funds available	Fund utilized	Closing balance	Percent utilization (%)
2008-09		200		200	0.25	199.75	0.12
2009-10	199.75	0.00	4.40	204.15	11.53	192.62	5.65
2010-11	192.62	0.00	9.55	202.17	59.59	142.58	29.47
2011-12	142.58	104.95	12.57	260.10	147.61	112.49	56,75
2012-13	112.49	289.00	21.04	422.52	154.11	268.41	36.47
2013-14	268.41	1073.99	52.16	1394.56	376.90	1017.66	27.03
2014-15	1017.66	690.06	122.82	1830.54	1011.30	819.24	55.25
Total		2,358.00	222.54				
		2,580.54			1,761.29		68.25

Source: MoF and MSDE (2015)

Table III.7: Financial Assistance and Service Offerings Provided by the NSDC

Year	Financial assistance				Funded partners/projects				
	Loan	Grant	Equity	Total	Training	SSCs	Innovation	Special	Total

[15] Please refer to the NSDC's funding guidelines (2016) for the details (http://www.nsdcindia.org/sites/default/files/files/NSDC-Updated-Funding-Guidelines.pdf)

					partners		projects	projects	
2009-10	4.99	2.16	0	7.15	2	0	0	0	2
2010-11	45.19	6.88	1.1	53.17	13	0	0	2	15
2011-12	113.65	12.94	10.25	136.84	13	4	0	0	17
2012-13	98.14	31.45	1.4	130.99	16	6	1	0	23
2013-14	234.51	63.16	7.63	305.3	38	7	4	1	50
2014-15	135.78	33.32	3.49	172.59	40	10	4	0	54
Total	632.26	149.91	23.87	806.04	122	27	9	3	161

Source: MoF and MSDE (2015)

Box 3. Case Studies of India's NSDC and NSDF:

Successful and Unsuccessful Cases

As stated in India annual report (2012), Basix Academy for Building Lifelong Employability (B-ABLE) is one of the successful NSDC-supported training partners. It aims to offer technical, commercial and life skills to those who have not completed their education (under-educated/under-skilled), but want to find meaningful work and continually upgrade their competencies or to become self-employed.

As reported in the NSDC annual report (2012), B-ABLE launched its initiative with a model skill training campus and trained more than 1000 students in 25 centers around India. It targets labor intensive sectors: rural farm & non-farm, automobile, hospitality & tourism, construction, food processing, healthcare, and banking, insurance & finance. B-ABLE has a vision of setting up 400 centers nationwide and skilling 10 lakh youth in 10 years. This year, B-ABLE plans to set up 100 centers with a manpower base of more than 800, extending its reach to 19 states and train about 8000 youth in more than 30 courses.

Among these initiatives, "Light Commercial Vehicle (LCV) Training" is an example where B-ABLE jointly provided trainings to inmates with TATA Motors Ltd, a large enterprise in India. It aims to:

- Provide theory and technical trainings within the premises of Central Jail.
- Offer a short-term life skill training to increase their motivation and self-confidence.
- Jointly certify the successful candidates at the end of the training program.

The audit report (MoF and MSDE 2015) also introduced four projects/cases which failed to achieve training and placement targets as well as defaulted repayment of loans. Everonn Skill Development Limited in Chennai (Everonn) is one of these cases. The NSDC signed its contribution to Everonn in the forms of equity and loan in March 2011. The amount of loan that the NSDC/NSDF signed was INR41.76 crore.

However, it seems that Everonn failed to open the targeted number of training centers. Since it had not produced any management audit and submitted progress reports to the NSDC since 2012, it was hard to know the reasons it had failed to meet the target. The audit report (MoF and MSDE 2015) mentioned that it was under liquidation.

Sources: NSDC annual report (2012); MoF and MSDE (2015)

Eligibility Conditions and Operational Requirements (M&E)

In order to receive funds from the NSDC/NSDF, training providers need to submit proposals through the NSDC website. The NSDC/NSDF evaluated the proposals within two months from various aspects, in particular target beneficiaries and specific sectors. Proposals that the NSDC prefers would target scare skill sets or student populations with unmet skills needs and focus on employability through placement in industry and/or self-employment. In addition, the NSDC prefers to provide financial assistance to the training models that serve high growth sectors or underserved areas/sectors. As stated in the NSDC's annual report (2015), training providers can be private training/vocational institutes (57%), corporate and SMEs (22%), educational institutes/universities (13%) and NGOs (8%).

96. After the proposal is accepted, a partial amount of the funding would be granted. The NSDC will continuously monitor the use of funds and the progress of the project and impact on skill development by using its multiple stages of M&E system. According to the "monitoring policy" that NSDC has published, the programs/courses that the training providers would offer are monitored with a mix of social and financial parameters by using more than 15 different tools such as "site visits", "annual impact assessment" and "fund disbursement". For instance, subsequent disbursement from NSDC will be made after the performance validation of the very first disbursement. Nevertheless, according to the audit report (MoF and MSDE 2015), monitoring process, in particular site visit, has been rarely conducted owing to the NSDC's limited capacity. Box 4 summarizes glimpse on NSDC's periodical M&E procedures including required reporting and actions.

97. Moreover, the NSDC provides incentives to the training partners to achieve its training targets by reducing the interest rate for the loans.

Box 4. India's NSDC: Monitoring and Evaluation Procedures and Indicators

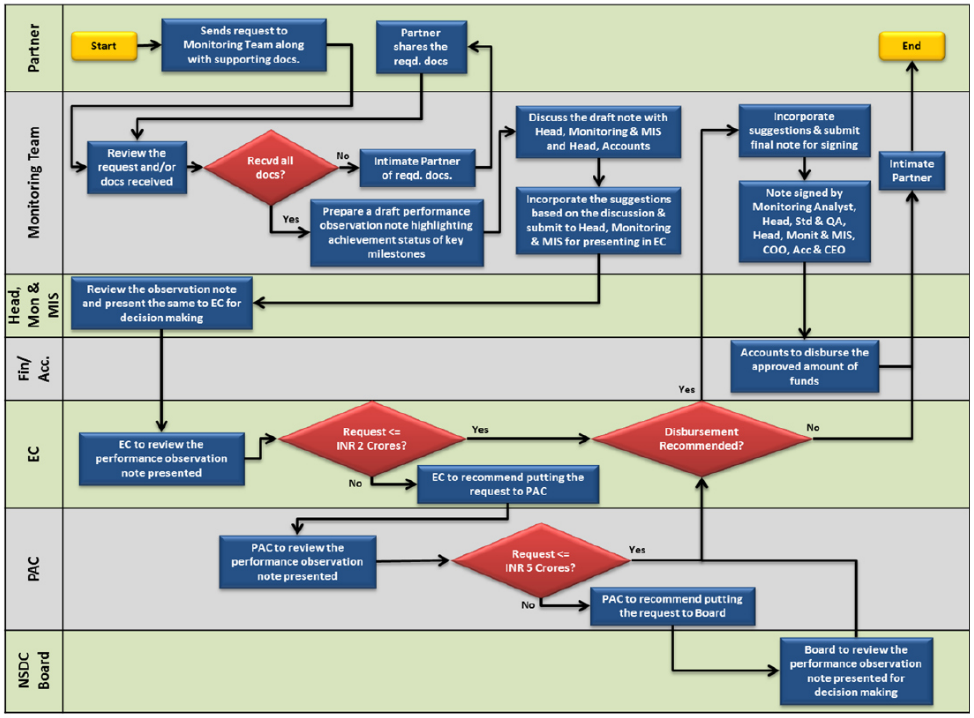
India's NSDC introduces 20 activities for monitoring and evaluation procedures. These activities can be categorized into weekly, monthly, quarterly, annual and other activities which are undertaken on requirement. Once the NSDC decides to support a project, the project needs to conduct these activities:

Weekly activities	Monthly activates	Quarterly activities	Annual activities	Other activities
Conference calls	Monthly dashboard update to nominee directors Update to Ministry of Finance Update to NSDA Interest payment and principal repayment tracker	Utilization certificate collection and analysis Quarterly scorecard Center financials call validation Site visits Management audit Online survey	Annual plan collection and analysis Annual financial statements collection and analysis Annual impact assessment	Fund disbursement (Figure III.6) Revision of business plan/financial model Partner case studies on NSDC website

The parameters that the NSDC/NSDF focuses on for M&E include a mix of social and financial parameters and a mix of quantitative and qualitative parameters. Number of trainees completing training must be measured every month as an immediate output. The candidates completing a training program are deemed to be trained only after their certification has been done either by training partner or by any other authorized certifying agency. As for the training effects, the NSDC/NSDF advised training providers to track the employers and trainees (who are trained). In general, the training providers and/or employers need to track the trainees over a period of 6 months to 1 year. They need to report monthly salary / employment or promotion letter and in case of self-employment proof as gross increase in earning/ or increase in assets / business/ increase in business-skills.

Source: NSDC 's monitoring policy report.

Figure III.9: Performance-based Fund Disbursement



Source: NSDC monitoring policy

Experience to Date

98. As of September 2016, the training providers that are financially supported by the NSDC reached 8,033,299 beneficiaries across different regions in India and 2,929,120 got placement, which only accounted for approximately 36.5% of 9,191,675 trainees. There has been an increasing trend in the number of trainees in line with the regional and sectoral expansion (Table III.8). Since 2012 the number of placements has increased more than 100% annually. However, as can be seen in Table III.8, placement rate is not consistently high. In 2012, it was 79% but dropped to 54% in 2013. In 2015, placement rate was reported as 66%. The varying placement rate may depend on many factors, such as the sectors covered by the trainings, the duration of the training courses, and the inclination of trainees looking for higher studies, in addition to the quality and relevance of training programs. However, analysis on these possible factors is out of the scope of this study. In the "Effectiveness" section as follows, some references are cited to show the different aspects of performance by the NSDC/NSDF interventions. These at least partly disclose the current status of the NSDC/NSDF in achieving its multiple objectives.

Table III.8: Outputs of the Trainings Supported by HRDF

Year	Trainees	Placement	Placement rate	States covered	Sectors covered	District covered
2012	181691	144238	0.79			365
2013	402506	216962	0.54			

2014	1005074	643247	0.64	27	27
2015	3442422	2271999	0.66	28	31

Source: NSDC annual reports (various years)

Assessment of the Fund:

99. **Relevance:** The NSDC/NSDF is socially and economically relevant.

100. The NSDC has made several efforts to establish a mechanism to ensure skills upgrading and developments of the youth and employees in the specific sectors where skills shortage exists (e.g. auto and auto components and textiles and clothing). By establishing SSCs, the NSDC has been able to identify the demand and supply of skills and decide where to direct its financial assistance. This particularly helps the NSDCs remain as demand-driven.

101. **Efficiency:** Efficiency of the NSDC/NSDF is still under test despite its strong efforts.

102. There is a risk of sustainability. As mentioned earlier, the government remains a sole contributor to the NSDF although it was expected to receive funds from the private sector, multilateral/bilateral developing partners and other agencies. The budget provision is limited in terms of quantity and duration. For instance, since its inception, there have been three times (in 2009, 2010 and 2012) when the NSDF could not receive funds from the government (Table III.6).[16] There is an on-going discussion on financing from Corporate Social Responsibility (CSR). However, debate against this idea focuses on its potential harm to the autonomy of firms' decision making process.

103. Low efficiency in fund absorption is another major issue. Tables III.6 and III.7 show how the fund has been channeled from the NSDF to the NSDC and then from NSDC to the training providers. Both tables provide evidence that the funding flows were not consistent over the last few years. An inconsistent financial contribution from the government to the NSDF may be due to low utilization of the funds by the NSDC. Table III.6 reports that for most of the years, utilization rates were below 50 percent.

104. Against this backdrop, the nature of the NSDF is demand-driven. Using a PPP approach, it has continued to create and nurture TVET system by expanding its coverage and establishing the SSCs.

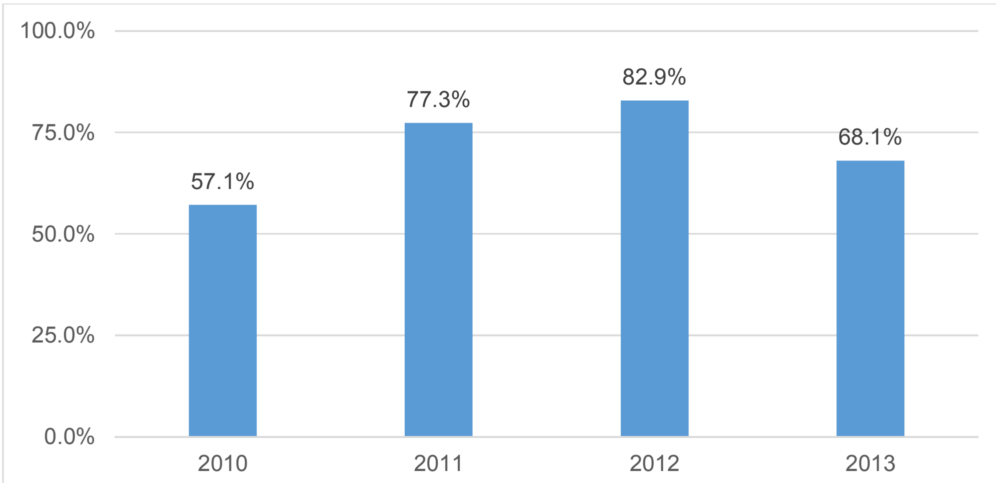
105. As for the M&E, the NSDC has a fairly complex system, consisting of many stages and training providers are required to report its process and conduct evaluation regularly and frequently. However, according to the audit report (MoF and MSDE 2015), due to the NSDC's limited capacity (i.e. lack of staffs), M&E has rarely been conducted since its inception (see again Box 4).

106. **Effectiveness:** Considering the NSDC's objective, which is to increase skilling capacity in the country, the NSDC/NSDF has been working to expand its coverage in terms of regions and sectors. In order to increase effectiveness of the trainings provided by the training providers, the NSDC has played a critical role in identifying skills gaps and setting up SSCs.

[16] Hard to find the evidence why the government did not contribute to the Fund.

- **MoF and MSDE (2015):** This report evidences the deterioration in the ratio of beneficiary training partners who had failed to achieve the agreed targets until 2013, when some improvement was made, although it has always been that more than half of the beneficiary training partners could not achieve the planned targets.

Figure III.10: Share of Training Providers Not Achieving Targets (%)[17]



Source: Controller (2015)

107. However, training supported by the NSDC seems to promote skills development and employability of the trainees as evidenced. As for the references, few impact assessment studies have been conducted by the NSDC beyond the one tasked by Deloitte.

- **Deloitte (NSDC 2015):** The NSDC and Deloitte conducted impact assessment of skilling initiatives in North, East and South regions in India based on the interviews with key stakeholders including beneficiaries and suppliers of trainings. In total 4,800 persons were interviewed during the study covering 111 training centers of 75 training providers. The study identified 450 skills training courses offered by the sample training partnerships across 28 priority sectors, 61% of which are of short duration (<200 hours). This report provides evidence that the skill trainings have an impact on labor market performance as well as skills development. Employability of those who were students or unemployed prior to training has improved. Of the students, 56% are employed in regular salaried positions and 12% are self-employed or become causal labors. Of the unemployed, 64% got regular employment or self-employed. For those who were working prior to skills training experienced a wage increase by 37% on average. In terms of skills development, majority of the trainees and employers agreed that trainees had developed their skills, confidence and productivity.

108. It might still be too early to examine effectiveness of the NSDC/NSDF. Given geographical, socioeconomic and cultural diversity in India, the NSDC/NSDF needs more

[17] Here training providers only refer to active training providers who need to report their progress in terms of annual training and placement targets to the NSDC.

time and efforts to reach out “unorganized” areas in India. In addition, it is still expanding, indicating that it focuses more on quantitative aspects such as adding new training providers, covering more sectors and regions and having more training courses and trainees across regions and sectors than quality issues.[18]

D. Sri Lanka’s Skills Development Fund (SDFL): Turndown of Its Renewal

109. Sri Lanka’s Skills Development Fund was established as part of the TVEC Act to promote demand-driven vocational training programs to help employers meet their training, retraining and upskilling needs by collecting training levies (Rajapakse 1999). However, it has never been fully functional (World Bank 2014), and now acts as a training provider.

Context

110. It was dated back to 1998 when Skills Development Fund Limited (SDFL) was established as a pilot project sponsored by the International Labour Organization (ILO) and United Nations Development Programme (UNDP). In Sri Lanka, during that time, the Minister of Finance and Planning put the focus sharply on skills development and training in order to enhance the capabilities particularly of the younger generation (Peiris 1998).

111. As stated in several studies (Dundar et al 2014; Saman 2006), it had failed to serve a delivery channel of enhancing employers’ participation in delivering trainings for workforce. In this light, the ADB proposed to create a new SDF, known as Human Resource Endowment Fund (ADB 2003). However, due to the then introduction of new government, the establishment of the fund had been turned downed.

112. Thus, the SDFL, which has never been functioning well according to its planned objectives, still exists under the Ministry of Skills Development and Vocational Training (MSDVT)[19] and acts only as a short-term training provider.

Objectives and Functions of the Fund

113. When it was set up, the SDFL had to be projected as most effective demand-driven skill development system in the country (Saman 2006). As mentioned above, its objective was to support employers to improve enterprise-based training and to contribute to job entry training, upgrading and retraining of their employees (ADB 1999).

114. Currently, the objective of the SDFL is stated as “to develop and conduct training programs to enhance the knowledge & skills of the employees of the private and public sectors” (MYASD performance report 2013).

Organization of the Fund

115. The Fund was registered under the then Ministry of Youth Affairs and Skills Development (MYASD). However, it is not financially provisioned by the ministry, but by the Treasury. This is because the Treasury is the main investor in the Fund. The Treasury

---

[18] As repeatedly, quantity issues are not regretted.

[19] Before 2015, it was Ministry of Youth Affairs and Skills Development (MYASD), which was split into MSDVT and Ministry of Youth Affairs following the change of government in that year.

controls the Fund by appointing all the 12 members and the chair of its governing body (Dundar et al 2014).

Delivery Mechanism

116. In 1999, the Cabinet approved a sum of LRK 100 million to invest in SDFL. SDFL was set up as a self-funded institute, indicating that it was expected to generate income from its investments and its operations to cover its expenditure. At the initial stage, SDFL was also financed by the Employer's Federation of Sri Lanka and other private investors.

117. In September, 1999, the cabinet of Ministers approved a sum of LKR100 million to purchase shares of SDFL, which it invested securely. It was expected that SDFL could cover its recurrent expenditure by the means of interest income from its investments and its operational income. SDFL was established as a self-funded institute and, it was initially contributed with funds from the Employer's Federation of Sri Lanka and another private investor in addition to the LKR100 million share of the state.

118. **Operational Income:** The SDFL provides training programs and consultancy services, which usually lasts only 1-5 days, to MYASD agencies and also to industry (Dundar et al 2014) in order to gain operational income.

119. In 2013, by directly providing three representative programs to its trainees, the SDFL gained LKR25.7 million, which marked up 83% of its targeted income (Table III.9). The composition of programs that the SDFL offered is somewhat different from its target: 1) The customized programs were the most popular as it accounted for 54% of the total programs provided, followed by the open workshops (42%) and job entry academic courses (3.7%); and 2) In terms of the number of courses offered and the number of participants in the program, "customized programs" on the request organizations – both government and industry entities – reached near/above the target, whereas the other programs presented low achievement of both parameters. This implies that demands for skills trainings are more prevailing if they are tailored to the needs by the request entities.

Table III.9: Performance of the SDFL in January – August 2013

Program	Targeted program	Targeted participation	Targeted income (LKR million)	Achieved programs	Achieved participation	Achieved income (LKR million)
Workshops	121	4830	14.03	69 (57%)	2331 (48%)	14.63 (104%)
Customized programs	92	3770	7.99	89 (97%)	3854 (102%)	9.02 (113%)
Job entry & academic courses	16	565	9.13	6 (38%)	195 (35%)	2.05 (22%)
Total	229	9165	31.15	164 (72%)	6380 (70%)	25.7 (83%)

Source: MYASD performance report 2013

Experience to Date

120. As a training provider, the SDFL conducts skills trainings to the existing and future labor force. Tables III.10 shows that there is an increasing trend in the number of the programs that the SDFL offered and Figure III.11 shows operational incomes and expenditures of the corresponding programs. As can be seen in Table III.10, a significant

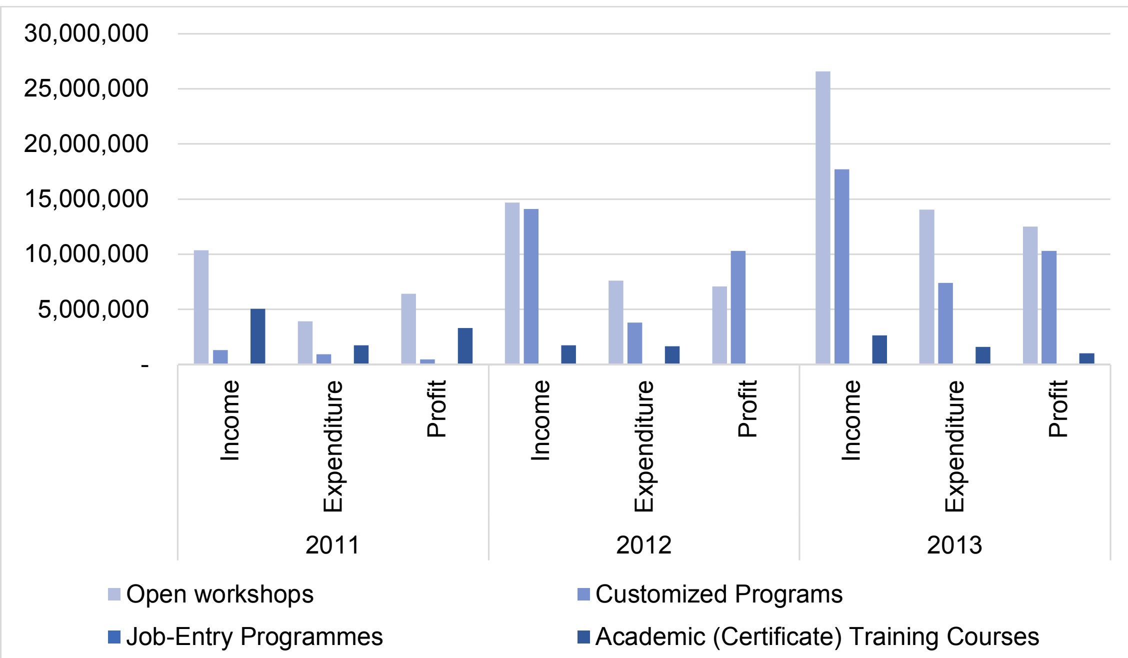
change can be observed in the composition of the programs. In 2009, there were 6 programs, two of which (i.e. job-entry programmes and special programs) were no longer available since 2011. Another distinguishing feature is a sudden increase in the number of customized programmes. As mentioned above, this might reflect a demand in skills training that are relevant to the industry.

Table III.10: Number of Programs Conducted (2009-2013)

Type of programs	2009	2010	2011	2012	2013
Open workshops	21	25	59	103	113
Customized programs	21	8	31	117	131
Job-entry programmes	7	2	-	-	-
Academic (certificate) training courses	11	11	24	15	12
Special programmes (consultancy /social benefit programmes)	5	3	-	-	-
Other services	1	-	-	1	-
Total	**66**	**49**	**114**	**236**	**256**

Sources: SDFL annual reports (2012, 2015)

Figure III.11: Operational Income and Expenditure by Program (2011-2013, LKR)



Sources: SDFL annual reports (2012, 2015)

Assessment of the Fund

121. There are difficulties in examining the SDFL under the framework of relevance, effectiveness and efficiency. This is because: 1) that the SDFL does not function in the way it was planned and expected, and 2) that there is lack of both primary and secondary information and data sources.

122. Despite a small body of researches, most of the researches (World Bank 2014, Saman 2004 and interviews) consistently highlight that the SDFL is only a marginal source of TVET financing and it has never fully functioned well since its establishment. As it failed to collect training levies, channelling money through a national training fund has never become a mainstream approach for TVET in Sri Lanka. In this light, ADB (2003) proposed to establish a new SDF although the proposal was turned down due to the then government turn-over.

123. From the experience of Sri Lanka, two or three lessons can be drawn out:

- From the governance structure of the SDFL, one can induce that the Fund is lack of an institutional setting to be responsive to industry's demand for skills. As a main investor, the Treasury appoints all members of the SDFL's governing body, which might restrict private sector involvement. Companies would not be willing to pay levies under the existing SDFL structuring unless they have their voices in decision-making process.
- As evidenced in Sri Lanka's case, it is important to be aware of political risks and minimize the impact of government turn-over on the Fund. According to the UNESCO (1996), "the shaping of National Training Funds is the results of a complex of economic, social and political forces". During the setting-up period, strong political commitment would be required. However, given the definition that the Fund is an independent operational entity, the role of government in operational decision making must be complementary so as not to exert unnecessary intervention or cause significant deviation from planned tracks (e.g. Malaysia's HRDF).

E. Alternative Approach towards Promoting TVET: JobStart Program in the Philippines

The JobStart Philippines program can be a good example of using a program approach towards promoting TVET through engaging private sector participation. Due to the difficulties of establishing a SDF relevant to structuring an extra bureaucratic system that may be time-consuming or not accommodative under the existing government budget framework, a country may, at least at the initial stage, opt not to institutionalize skills development financing by using an independent fund entity. The unpredictable result of operationalizing a fund makes it hard to decide on whether to establish a fund or not. In this light, a country may test the depth of water by allocating a specific funding component as in a program and try on whether such funding arrangement would sustain from within the program and achieve its planned target. In order to introduce how a program approach can be applied to TVET financing with private sector participation, Box 5 discusses the JobStart Philippines program.

Box 5. JobStart Program in the Philippines

The JobStart Philippines program was piloted by the Department of Labor and Employment, with financial support from the Government of Canada and technical assistance from the ADB. It was operated from January 2014 to August 2015, aimed at assisting young Filipinos in starting their careers and seeking quality employment by addressing the issue of asymmetric information between job providers and job seekers.[20]

During the pilot stage, the program had two main objectives: (1) to set up full-cycle employment facilitation services that cover technical trainings and certification, career guidance, and matching with employers (Figure III.9); and (2) to promote skills development system in local communities of the Philippines by incorporating Public Employment Service Offices (PESOs) into Local Government Units (LGUs) and encouraging all-around involvement from the private sector.

Upon positive outcomes that the program generated during the pilot period, the Cabinet approved its nation-wide roll-out (ADB 2016). Several components of the program contributed to these positive outcomes:

- **Clear and simple objectives with a simple delivery mechanism:** The program was designed with clear objectives and a simple delivery mechanism. A main objective was to match the job seekers and job providers within a local community. In order to achieve this objective, it introduced a simple service delivery mechanism which assigned a role to the program participants (i.e. PESOs, employers and job seekers), each of which can best serve the assigned role. For example, as PESOs were incorporated into LGUs, they were able to acknowledge what was the information gap relevant to the local labor market and figure out who needs/requires what kind of skills and so on.

- **Skills training services to "at-risk" youth:** The program was subject to so-called "at-risk" youth aged 18-24 with at least secondary education and less than a year or no work experience. And the registration took place on a first-come first served basis. In this regard, it attempted to attract the most motivated youth and to address one of the most serious social issues in the Philippines – poor school-work transition and high unemployment rate.

  As can be seen in Figure III.9, the training services covered both life skills and technical skills trainings, which not only increased the skill level of the trainees, but also changed their attitudes towards workplace and raised their confidence (ADB 2016).

- **Building a sound institution:** PESOs at LGUs: PESOs at LGUs are implementing agencies where the services were delivered. As shown in Figure III.9, they were responsible for registration and client assessment, life-skill training with one-to-one career guidance and job matching. In this regard, the program has also been dedicated to improving the capacity of PESOs (i.e. trainings offered to the PESO staffs) in order to maximize the overall outcomes.

  During the pilot program, as stated in the mid-term review report by the ADB (2014e), due to insufficient capacity of the PESOs staffs in life skills training and

---

[20] As widely known, the Philippines is one of the countries where skill-mismatch and limited school-to-work transition become intensive (ADB 2015). Its labor market is characterized with high youth unemployment and low employability at the same time. This may, at least partly, be caused by lack of available information between demand and supply of labors.

career guidance, the program outsourced some of these services to experts and/or specialists so as to strengthen its effectiveness.

- **Tight linkages with private sector from the beginning to the end:** In this program, registered employers were in charge of trainings and employment of the trainees. As illustrated in Figure III.12, the employers designed a training plan for the program's successful applicants, offered internships and/or supported trainings as training providers to them. This makes the program highly relevant to the industry, indicating that the program could identify where skills-job mismatch occurred and then equip the trainees with the skills that the local employers mostly need. In this regard, it would be more likely that the trainees get employed and sustain their employment status as well as show higher productivity and more positive workplace attitudes. According to the mid-term review (ADB 2014e), the employers were satisfied with the trainees that they hired from the program.

Figure III.12: Delivery Mechanism of JobStart in the Philippines

Source: ADB (2015)

IV. IMPLICATIONS FOR SOUTH ASIA

104. Based on the sector contexts and the country cases discussed in previous sections, this section will aim to provide policy recommendations for South Asia in terms of factors to be considered for establishing a skills relevant fund or improving the performance of such an existing fund. First part of this section will summarize lessons drawn from the country experiences in Section III. In this part, major questions related to setting up the fund and its principles of design will be discussed. Experiences in the other Asian countries can also be discussed as an example wherever needed. Based on the summary of lessons learned, the second part of this section will try to develop a roadmap for South Asian countries if they may hope to set up a new skills fund or improve their existing fund. Main tasks and concerns that need to be considered by the policymakers will be proposed by taking into account the current skills level of a nation's workforce and the way that the nation aims to further develop skills by engaging private sector participation.

105. As stated in many studies on SDFs/national training funds (Johanson 2009, Ziderman 2016), it is difficult to standardize the skills relevant funds across countries and to define "success" of such funds. This is because each fund has different goals, target beneficiaries and varied programs. There is no guarantee that a fund with success in one country can also "succeed" in another country following a simple replication without mature consideration and incorporation of the different country context, including socio-economic status, sector capacities and institution framework.

A. Lessons from Country Experiences

Why did the countries establish the Fund?

106. The analyses of the country experiences show that the countries set up the funds to mainly promote skills development and productivity growth of their nationals, especially employees, by encouraging private sector involvement. In particular, low enterprise-based trainings had motivated some countries to take actions to break the status-quo and to produce public goods to overcome the market failure in providing more trainings, which is largely referred to as the problem of "probing" when firms prefer to get skilled workers from the market than to train them from within. The earlier actioners in Asia include Singapore, Korea, Malaysia and Sri Lanka, who tried setting up the skills fund. In this light, Malaysia adopted a levy-reimbursement scheme and training programs that promote skills trainings of employees in both large enterprises and SMEs. For example, under the "Joint Training Scheme", employees in SMEs can attend the training programs that are run by large enterprises. Korea adopted a levy-exemption scheme where the enterprises who offered trainings to their employees above the government's required level were exempted from paying the relevant levies.

107. Besides financially contributing to the skills fund, private sector is deeply engaged and technically involved in the fund's operation. For example, India's NSDF is an outcome of PPP where private sector plays a major role in deciding allocation/disbursement of sources across private training providers in the country. Also as in Singapore's SDF and Malaysia's HRDF, private sector engagement in decision making process and governing body is a contributing factor to the success of such funds, which is commonly realized in previous studies (Johanson 2009, etc.).

108. Countries such as Malaysia, India and Singapore use their respective Fund to direct skills development in specific sectors, usually the nation's priority sectors. In the case of Singapore, Skills Development Fund (SDF) provided more grants to the employers in ICT sector during the nation's transition towards knowledge-driven economy. In the case of India, by setting up Sector Skills Councils, the NSDC/NSDF attempted to identify the amount of skills shortages in non-agricultural sectors and provide financial assistances to the training providers which are willing to offer training services in these sectors.

109. Moreover, countries like India, Singapore and Korea established their respective Fund in order to institutionalize skills development by fostering a TVET system to formally engage the key stakeholders (i.e. employers and individual beneficiaries). The Government of Korea utilized a pool of the levies in order to build up public training institutes that could complement the limited capacity of private provision and provide skills trainings to the retrenched.

Who financed the Fund?

110. As stated in Johanson (2009), the survey of national training funds around the world shows that levy is the most common source of financing for the funds. Among the four countries that we examined, two countries, Sri Lanka and Malaysia, have attempted to impose specific levies on employers. Additionally, there are other means of financing including the government's general tax revenues (e.g., India's NSDF), contributions from donors or developing partners (e.g., Nepal's Employment Fund) and CSR from the private sector.

111. Which option is better in terms of the sustainability of funding sources and the way of using the funds? Considering the sustainability of funding sources, levy-scheme is better than the other means as specific levies are earmarked to financing targeted activities. Particularly, if the levy collected is managed through individual accounts of the contributory enterprises, no conflict of interest or free ride problem would occur. Then if the funds can be operationalized well, more enterprises will follow up to willingly contribute to the funds. This will lead to sustainability of such funds. As for general tax revenues, the government may be constrained from allocating more budget than approved and its priorities are likely to be effected under different budget cycles. In addition, the contributions from donors and developing partners are mostly time bound. As for the usage of funds, levy scheme, although its revenue collection is cyclic, under good management can lead to a counter-cyclic pattern of expenditures on trainings, which is mostly desired for a country to confront the impacts from business cycle. A good example is Malaysia's HRDF, which has experiences in providing counter-cyclic training services. On the contrary, for general tax revenue financed funds, budget planning practices will usually require a certain consumption rate of the allocated budget. Henceforth it is hard to get counter-cyclic expenditures. The same is for the donors- or development partners-financed funds. However, there are also risks relate to adopting levy-schemes. As stated in many studies, in countries where the formal sector is relatively small, like in Sri Lanka, collecting specific levies would be difficult as enterprises would take the levies as an extra form of tax thus unwilling to participate.

112. "Who finances the Fund" depends on the objectives (targets) of the Funds. Each financing source has its rationale to participate in the Funds as a contributor, which may be

different (Table IV.1). In case of Malaysia's HRDF, there are two funding sources, each of which are utilized for different purposes.

Table IV.1: TVET Financing Bodies and Their Different Rationales

Fund sources	Main rationale for training
Central government	National social and economic growth and development Unemployment reduction Poverty reduction Social equity
Regional government	Regional social and economic growth and development Regional unemployment reduction Poverty reduction Social equity
Employers	Pre-employment training Productivity enhancing training Training for new technology, new products
Donor agencies	National social and economic growth and development Unemployment reduction Poverty reduction Social equity
Worker organizations	Enhanced employability Enhanced earnings
Individuals	Enhanced employability Enhanced earnings

Source: Noonan (2016).

To whom does/did the Fund finance?

113. Based on the analysis of the country experiences, although there are cases where the Funds provide living allowances/stipends to employees through intermediaries and training institutes to attract and encourage more people to nurture their skills, it is unlikely that the employees (training beneficiaries) are directly financed. For instance, Malaysia's HRDF provides financial assistances after the employers claim reimbursements for the training costs of their employees occurred from their own accounts. India's NSDC offers loans to the training providers and disbursements of its loans depend on the performance of the training providers in terms of achieving the defined outputs/outcomes. This means that as mentioned in Section III, subsequent disbursements would be made when the training providers submit evaluation documents of its performance showing whether it has achieved its target or not. In addition, India's NSDC has an incentive/disincentive scheme to push the training institutes to achieve their own targets.

What are the ways to invite private sector into skills development?

114. The analysis shows that there are three ways of private sector engagement in skills development: 1) as a decision-maker, 2) as a financing source, or 3) as a training provider.

115. In most cases, private sector involves in a decision-making process. A decision-making body in most of the Funds composes representatives of private sector, government and sometimes the labor union. In Malaysia's HRDF, representatives of private sector outnumbered those of the government. As for India's NSDC, private sector has a larger

share than the public sector in the Board of Members. As mentioned earlier, in both funds, private sector participates in the decision making process (e.g. which training providers that the funds will finance; whether to have a partnership with such provider; which programs the industry needs most). In the Philippines' JobStart program, the private sector plays a bigger role including submitting its own training design and providing internships to the trainees which usually lead to job placements. In this light, the funds can maintain its relevance to the industry and fulfill its goals.

116. If the Funds adopt levy-scheme, private sector is expected to register for participation and contribute financing source through levies. This would promote ownership of the Fund and help increase its sustainability, as mentioned earlier.

117. As training providers, employers can also contribute to the Fund. In general, public training providers traditionally are supply-driven and offer trainings that are usually less relevant to the industry needs. In this light, in a country where the transformation of public TVET system is still on-going, the employers can start arranging trainings to equip the existing and/or future employees with the skills that they desire through the support by the Fund. As for the informal sector and SMEs, large enterprises who have training capacities may have incentives to train their employees, given that there are linkages in supply value chain between them.

What are the ways the Fund finance the retrenched group?

118. As discussed in many studies (Mehrotra and Gosh 2012), most of the Funds attempt to cover the retrenched group as their beneficiaries. Providing vouchers to the trainees is one of the classic examples to allow the retrenched group to access trainings. The country experiences we have looked at in Section III suggest more other ways: Malaysia's HRDF utilizes financial sources from the Government Special Fund to support trainings of housewives, apprentices and graduates with no work experience; India's NSDC/NSDF provides incentives to the training providers which would like to offer trainings to the unorganized area (where ITIs do not exist); in addition, Singapore's SDF gives more grants to the employers who participate in training the elder.

What are the constraint/risks that the Fund faced?

119. One of the common challenges that the Funds in Asia face is the employers' unwillingness to pay and the beneficiaries' unwillingness to participate in trainings. Thus, it is critical to overturn the poor perception on TVET through various measures to enhance the image of skills development by linking quality of training and payback of job placement.

120. Political risk may also threaten the autonomy of a Fund. Given its nature, once it's set up, the Fund should be an independent agency that addresses skills development of the nation. However, a political risk can always arise, for example, in Sri Lanka, which may result in the unforeseen changes of the institutional framework or even planned objectives.

B. Policy Implications in the "South Asia" Setting

Why South Asian countries need SDFs?

To highlight, setting up SDFs is not an original concept to the four selected South Asian countries. Sri Lanka already has had experience of setting up and managing such a fund, though it had failed. India has just implemented its skills development initiatives by setting up the NSDF, a financing vehicle of the NSDC (an implementing agency). In Nepal, there was recently an active discussion about launching a dedicated fund for skills development. In Bangladesh, the Cabinet has just approved the establishment of a National Human Resource Development Fund. The ADB is currently supporting Bangladesh in a skills development project, which provides support for this matter.

121. The UNESCO (1996) stated that the "shaping of National Training Fund is the result of a complex of economic, social and political forces". Therefore, it is important to discuss whether South Asia countries should set up SDFs by highlighting economic, social and political landscape related to TVET system.

122. Given its economic structure, South Asia needs a dedicated TVET financing system to cope with skills shortages. To be short, a large volume of resources needs to be spent on developing skills of its workforce to improve productivity and support economic transformation. Most countries in this region are still at the input-driven growth stage and are characterized with a large share of small and micro-enterprises and a prevalent informal sector. During its transition, as highlighted by many researches (ADB 2014, ADB forthcoming), a shortage of skilled labor is recognized as one of the key bottlenecks to adapt and imitate advanced technology. Thus, to move up in global value chain, South Asia countries should address skills shortages by promoting skills acquisition in labor force and increasing supply of skilled labor to the industry.

123. Given that the informal sector is prevalent in this region, it is highly likely that many available skills are not yet recognized and considered as "skills". As discussed in Section II, skills shortages will become more intensive as the countries are expected to encounter a large volume of entrants in labor market in the coming decades. Hence, South Asian countries demand a large volume of financial and technical resources to train and up-skill the existing and future labor force, so that the majority of workforce can catch up with the skills demands for the needs of the economic growth and transformation.

124. Governments in South Asian countries have attempted to improve their capacity for skill development, as discussed in Section II, through using a skills relevant fund. Despite its significant efforts, there remain considerable rooms for further capacity development for TVET sector. These include, for example, labor market information system, competency-based quality assurance, career counselling and guidance, entrepreneurship incubation services, training the trainers and industry linkages, etc.

125. Against this backdrop, setting a SDF would help South Asia deal with skills-related issues including skills shortages. However, one should note that a SDF cannot address all the fundamental problems, but it can be an initiative for steering skills development by mobilizing key stakeholders in this region. Given economic, social and political conditions, SDFs in South Asian countries are suggested to set the objectives to:

- Enhance skills development of workforce;
- Promote coordination among different stakeholders;
- Encourage private sector participation in the funds as a decision-maker and training partner; and

- Promote capacity development of TVET sector.

Brief design of the funds (road map of the fund)

126. The following paragraphs will introduce a SDF that this report would like to suggest for South Asian countries that would like to set up a new skills/trainings-related fund or improve the existing SDF. The suggestions are briefly based on the previous analyses about TVET landscape in South Asia (Section II), country experiences in SDFs (Section III) and policy implications (Section IV). However, further discussions on relevant tasks and how to operate such fund are needed. Also, monitoring and evaluation system is left for future studies.

127. As demonstrated with Malaysia's HRDF, the Fund needs to evolve itself along with a nation's skills levels and its development plan. The following paragraph will discuss how each component/task of a Fund needs to adjust and evolve over a nation's skills patterns under an ideal scenario by assuming that the Fund induces and leads the evolvement of TVET system by triggering active participations of various players and enabling positive effects of skills training in terms of its interaction with the industry growth and economic transitions (Table IV.2).

128. Against this backdrop, for South Asian countries, how to achieve "fast" success at the early stage of a Fund would be critical after its set-up. Given the existing limited experience in this region, it seems that the existing Fund is either deemed unsuccessful (such as the Sri Lanka's SDFL which failed to trigger and coordinate skills development activities across various stakeholders and now serves as only a training provider) or is yet to catalyze industry's direct contribution (such as the India's NSDF which until now has only mobilized the government's financial resources). The unsolid performance during the initial stage hinders stakeholders' active participation in the Fund. Therefore, it is very important to produce short-term outcomes to demonstrate positive effects of the Fund in the region's labor market and economy so as to attract more participation from various stakeholders, regional or even international. In this regard, Tourism Fund in the Philippines is a good example. It is reported that the beneficiaries (both tourism sector employers and employees) were satisfied with the training programs and acknowledged their positive effects on their productivity, which helps attract more tourism sector employers participating in the Fund.

Table IV.2: Roadmap of the Funds with the Evolving Skills Levels

Task Criteria	**Lower Skills**	**Medium Skills**	**Higher Skills**
Fund/program	Program-approach or Sector based fund-approach	Fund-approach	Insurance-approach (i.e. Japan and Korea) or abolishment of the Fund
Governance	Supreme ministry for coordination (e.g. Ministry of Finance, or Prime Minister's office); Employer's associations; Donors/developing partners;	Ministry of Skills Development or Ministry of Labor and Employment; Employer's associations; Donors/developing partners; Associations from	Ministry of Skills Development or Ministry of Education; Employer's associations; Donors/developing partners; Associations from informal sectors

	Associations from informal sectors	informal sectors	
Financing source	Government; Donor/developing partners	Government; Levies from employers (optional for SMEs)	Government; Levies from employers
Financing instrument	A mix of grants and loans (dominant share of grants)	Reimbursements; Grants	Reimbursements; Grants
Service offerings	Developing capacity of TVET sector (i.e. labor market information center; occupation qualification framework) Training schemes to train, retrain and upskill existing labor force in priority sectors Training schemes to recognize skills of workers in informal sector	Training schemes to train, retrain and upskill existing labor force Training schemes to increase supply of skilled labor	Training schemes to train labor force working in the extremely high skilled sector and to extend to less served sectors (such as agriculture) Training schemes to increase supply of skilled labor
Beneficiaries	Youth (NEET, secondary school students); Employees (formal and informal sector); Oversea workers	Youth; Employees	Youth (secondary and tertiary school students); Employees (formal sector)
Private sector involvement	Training provider; Decision-maker; Sector association and industries (job creating-manufacturing and service sectors)	Financial contributor; Training provider; Industries (manufacturing and service sectors) Decision-maker	Financial contributor; Training provider; Industries (extended to agriculture); Decision-maker

At lower skills stage:

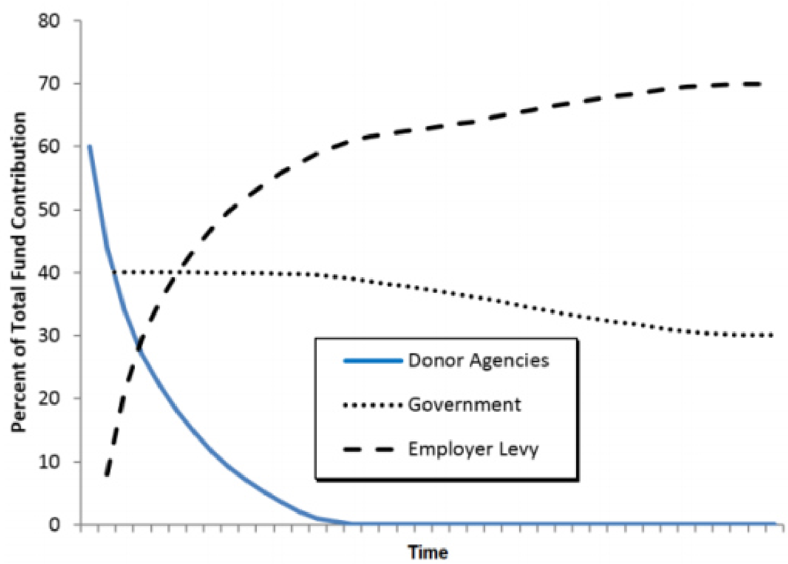
129. Currently, most of the South Asian countries are at this stage. As evidenced in Sri Lanka's failure in setting up a levy-based fund, South Asian countries need to begin with a program or a sector-based fund for initial trial in order to get solid experience and positive results for short-term effectiveness, which will help reduce risks of failure once it rolls out. Since the Fund needs to initiate from scratch the high degree of coordination among employers, employees and various government agencies as well as donors and developing partners, supreme ministry such as the Ministry of Finance or Prime Minister's office should take in charge of setting up such a Fund. For example, India's NSDC was initiated under the Prime Minister's office and Singapore's SDF was intensively managed by DEA (department of economic affairs) at the beginning. The supreme ministry's leading role and the power of

budgetary planning and allocation would provide evidence and backup for a government's high commitments towards skills development.

130. As can be seen in Table IV.2 and Figure IV.1, during the set-up of the Fund, major funding sources are the government and donors/developing partners. Owing to the prevalent informal sector and a large share of micro-enterprises, levy scheme is not likely to be implemented with success in this region at the initial stage. It is known that many of developing partners are interested in investing in such Funds. Given this backdrop, by pooling up a TVET-dedicated Fund, this region can consolidate and use financial as well as technical resources from the government, donors and/or developing partners as initial sources to kick off and trigger its activities.

131. Besides collecting resources, the Fund needs to generate its revenues to support specifically targeted beneficiary groups and to enhance its financial sustainability. Relying only on these public sources poses a risk as resources from the developing partners and donors are time-bound and budget allocation from government is subject to budget cycles and to defined activities which do not necessarily accommodate the actions needed for responding flexibly to market needs. Thus, it is important to start with co-financing and selected revenue models (Box 6).

Figure IV.1 Evolution of the Fund over Time: Funding Sources



Source: Noonan (2014).

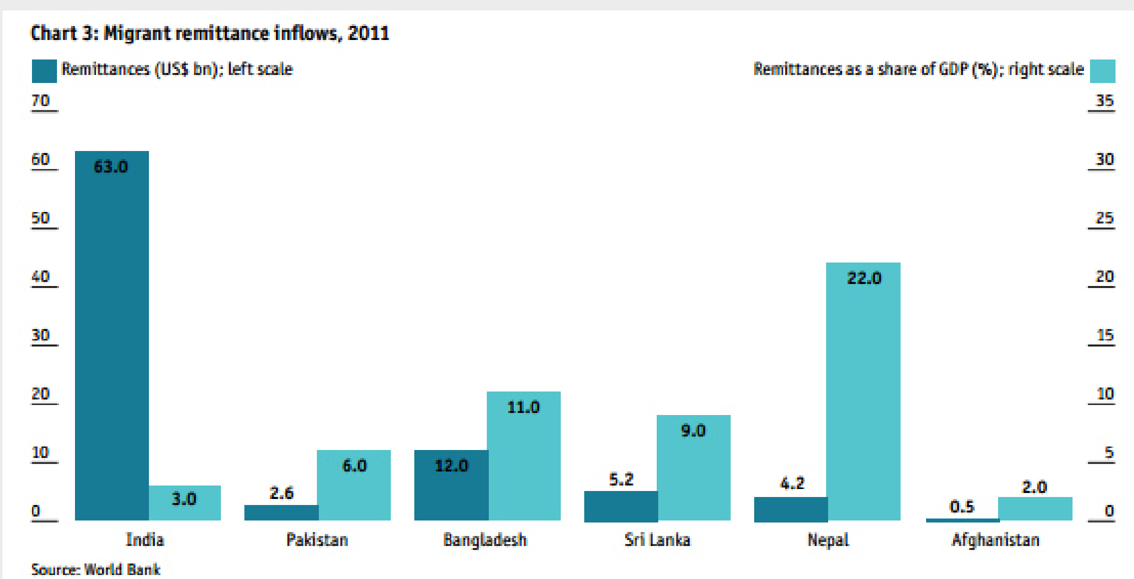
Box 6. Examples for Co-financing and Revenue Generating Models

As stated in Section IV, South Asia needs to formulate self-revenue generating mechanisms in order to ensure sustainability of the SDF, given the short-lasting contributions from donors and developing partners, and limited contributions from the government. Political conditions also matter. As one of the ways to present the government's strong commitment to foster skills development system, it may also attract a greater volume of contributions from the international community. Furthermore, adopting self-revenue generating mechanisms can aim at attracting the most motivated trainees and employers by serving their best needs. Discussions on how to design and evaluate the following revenue models are left for future research.

Co-financing from the industry: The industry can co-finance the Fund by offering in-kind contributions. This would expand the coverage of the Fund, implying that the Fund can reach out SMES, especially small and micro-size enterprises who have limited funding, facility and knowledge for providing skills trainings. In addition, by encouraging in-kind contributions from these players (employers), the Fund can discern skills needs and thereby offer customized training services to beneficiaries of the Fund (i.e. trainees). This would increase relevance and effectiveness of the training services implemented and supported by the Fund.

Revenues collected from future migrant workers: The Fund can collect its income by offering services to workers who want to work abroad and seek the oversea job opportunities through various intermediaries. These services may include providing labor market information, job-matching with employers abroad and offering skills training. Owing to a higher salary that the migrant workers could earn, there is an increasing trend of workers migrating to the other regions of Asia (e.g., the Middle East). High remittances have flowed in South Asian countries (Figure IV.2). Given that currently many non-government brokers (largely informal) charge considerable commission fees from migrant workers over their services which are often found limited to only channeling the oversea job information from the first-hand sources to the potential migrant workers, the Fund can serve as an information center to improve information accessibility and transparency and to reduce information gap. This can largely help save the excessive intermediary costs currently suffered by the migrant workers. Combined with more complementary services such as skills, language and cultural trainings, it can justify the incentives for migrant workers to contribute to the Fund by using its services.

Figure IV.2: Migrant Remittances Inflows, 2011

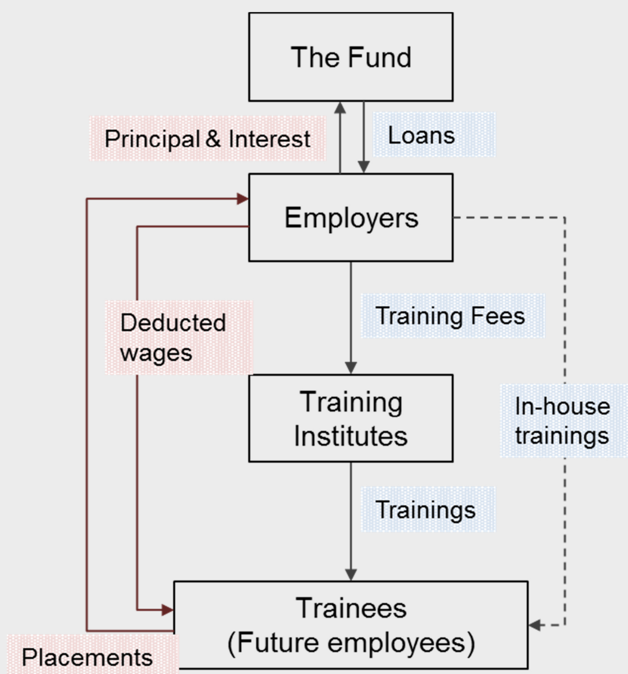


Source: EIU (2013) using World Bank's World Development Indicators.

Revenues by offering credits to trainees (Figure IV-3): This revenue model is proposed by borrowing the idea of student loans. Under this revenue model, the Fund would provide training loans to trainees via employers, especially associations and training institutes. There must be a contract between the employers and the trainees, which ensures the employers support trainings to the trainees that they would like to hire after the training process. Employers have two options of delivering trainings: offering in-firm trainings or purchasing services from the training institutes. Once the trainees are placed, they can pay back the loans by receiving deducted wages from their employers.

This model can be applied to those who would like to work in high growth sectors (e.g., garment industry in Bangladesh) or export-oriented sectors/enterprises with large job creation potential but requiring certain levels of skills. Besides a higher salary the trainees can get paid than before training, by encouraging an immediate and sustained placement, it is supposed to attract the most motivated trainees more likely than some other approaches such as trainee stipends or allowances.

Figure IV.3: Delivery Mechanism of the "Credit to Trainees" Model



At medium skills stage: (For example, Malaysia)

132. Upon initial effects of the Fund for the TVET sector, South Asian countries may develop a program and/or sector-based fund into a nation-wide fund (e.g. Malaysia's HRDF). As the Fund progresses and evolves, it needs to diversify its financial resources by inviting the private sector as funding source. Under the ideal scenario we previously assumed, the private sector who acknowledges the value of skills trainings in contributing to productivity of the existing labor force would be willing to pay levies for skills development. However, like

Malaysia's HRDF, the Fund needs to provide training windows also to the retrenched for social equity.

At higher skills stage: (For example, Korea and Japan)

133. Once the Fund successfully achieves its initially planned objectives, the government needs to determine whether to reform its levy scheme like what Korea and Japan have done or to abolish the Fund given "mission completed". If the government decides to maintain the Fund, the Fund may be considered to play a role in promoting skills in the extremely high skilled sector (e.g., space industry, etc.) that the private sector is not willing to invest due to high cost and high risk, and to extend the services to previously less served sectors such as agriculture.

C. Conclusion

134. This report introduced and evaluated the experiences of SDF in four selected countries – Malaysia, Korea, Sri Lanka, India – within the framework of relevance, effectiveness and efficiency. Then, based on the analysis, policy implications were drawn out for South Asian countries which would like to reform/renew the existing SDF or set up such a new fund.

135. To our knowledge, this report is the first attempt to examine the SDFs only in Asian countries. The existing papers (Ziderman 2002, 2003; ICF GHK 2013) investigate this topic in the Pacific Area, Africa and Europe. Thus, this report fills the gap in the literature and helps other Asian countries to learn from their neighborhoods. Moreover, this report strives to conduct a systematic evaluation of SDFs by constructing an evaluation scheme based on the guidelines suggested by ADB (2009) and Hirosato (1998). Despite this endeavor, due to lack of availability of data (both quantitative and qualitative), there exist difficulties and shortcomings in the evaluation. This paper also suggests an alternative approach to financing TVET in a case study of the Philippines' JobStart program to be nationally-rolled out upon its success in achieving objectives in an immediate and solid manner.

136. To figure out rationales behind establishing a SDF in South Asia and its potential roles in the TVET system, this paper briefly explores South Asia's TVET landscape by stakeholders and identifies the challenges and constraints for each nation's skills development. The current TVET system in South Asia is small and underdeveloped. Due to the underlying constraints that this paper states in Section II, it is unable to train and upskill in an efficient way the existing and future workforce, especially those who are left out from the general educational system and need the most training, as well as respond quickly to the evolving demands from the industry.

137. SDF experiences in Malaysia, Korea, India and Sri Lanka and the innovative skills program in the Philippines have been introduced. These country cases are chosen for the examination based on the important factors of funding for skills development including objectives, financing sources, applicable instruments and fitness to the evolving country context.

137. Policy implications are then drawn for South Asian countries where setting up a SDF is not unfamiliar. As stated in Section IV, the proposed SDF should present quick, step-by-step and solid results that trigger the development of a relevant and responsive quality TVET

system and enlighten the stakeholders to be more willing to participate and invest in skills training. In addition, the proposed SDF needs to be multi-functional. Like India's NSDC, it not only takes a role as a financing channel that collects and augments financial resources from different stakeholders, but serves as a catalyst leading to the aimed TVET system development.

138. A roadmap is briefed for the proposed SDF framework applicable to the evolving country context based on the existing skills level and the future transition, but further studies are needed to thoroughly design a SDF for individual countries. As analysed in Section III and stated in previous studies, it is difficult to standardize the concept and design of a SDF. How to design a SDF depends on the major objectives to be served. And, to facilitate a fund and at the same time to optimize its effectiveness and efficiency, further discussions on how to operate such funds are needed.

139. Also, due to limited available data that constrain the research scope, this report has limitations that need to be tackled in future studies. As mentioned earlier, more quantitative data is required for a systematic analysis and evaluation. One of the major remaining questions is to what extent the launch and operationalization of a SDF has an impact on beneficiaries (i.e. trainees' skill levels, productivity, wage levels and promotion, employers' satisfaction level and upgrading in production line and value chain), on a nation's labor market (i.e. supply and demand of skilled workers), and on the TVET system (i.e. self-evolving for relevancy, responsiveness, quality and sustainability). Although some SDFs have impact assessments (or natural experiments) done by themselves, their results are more likely to be positively biased to highlight positive externalities and importance of operating the SDFs. However, for authors, it is difficult to access the required data and information of SDFs (i.e. SDFs' beneficiaries' data and information) that this report studies.

140. Like other studies (Johanson 2009, Ziderman 2003), this report leaves the investigation of monitoring and evaluation (M&E) system for further studies due to limited source of information. Nevertheless, considering its importance from the operational view, cross-county studies on SDFs' M&E must be studied.

REFERENCES

Abdullah, H., Rose, R. C. and Kumar, N. (2007). *Human Resource Development Strategies: The Malaysian Scenario*. Journal of Social Science, *3*(4), 213-222.

Agency for Strategic Initiative (ASI). (2015). *Short Collection of Best Skills Development in BRICS Countries*. Moscow: ASI.

Asian Development Bank (ADB). (1999). *Female Youth and Women's Participation in Skills Development in Sri Lanka*. Technical Report #12.

____. (1999a). *Quality Assurance in Skills Development*. Technical Report #15

____. (2004). *Improving Technical Education and Vocational Training: Strategies for Asia*. Manila: ADB.

____. (2009). *Good Practice in Technical and Vocational Education and Training*. Manila: ADB.

____. (2014a). *Innovative Strategies in Technical and Vocational Education and Training for Accelerated Human Resource Development in South Asia*. Manila: ADB.

____. (2014b). *Sustainable Vocational Training toward Industrial Upgrading and Economic Transformation*. Manila: ADB.

____. (2014c). *Technical and Vocational Education and Training in the Socialist Republic of Vietnam – an Assessment*. Manila: ADB.

____. (2014d). *Human Capital Development in the People's Republic of China and India: Achievements, Prospects, and Policy Challenges*. Manila: ADB.

____. (2015a). *Innovative Strategies in Technical and Vocational Education and Training for Accelerated Human Resource Development in South Asia: Bangladesh*. Manila: ADB.

____. (2015b). *Innovative Strategies in Technical and Vocational Education and Training for Accelerated Human Resource Development in South Asia: Nepal*. Manila: ADB.

____. (2015c). *Innovative Strategies in Technical and Vocational Education and Training for Accelerated Human Resource Development in South Asia: Sri Lanka*. Manila: ADB.

____. (2015d*). Republic of the Philippines: Support for the Nationwide Rollout of JobStart Philippines*. Manila: ADB.

____. (Forthcoming). *Human Capital Development in South Asia: Achievements, Prospects, and Policy Challenges*. Manila: ADB.

Attanasio, O., Kugler, A. and Meghir, C. (2011). *Subsidizing Vocational Training for Disadvantaged Youth in Colombia: Evidence from a Randomized Trial*. American Economic Journal: Applied Economics, 3(3), 188-220.

Awang, A., Ismail, R. and Mohd Noor, Z. (2010). *Training Impact on Employee's Job Performance: a Self Evaluation*. Ekonomska istraživanja, *23*(4), 78-90.

Card, D., Ibarrarán, P., Regalia, F., Rosas-Shady, D. and Soares, Y. (2011). *The Labor Market Impacts of Youth Training in the Dominican Republic*. Journal of Labor Economics, 29(2), 267-300.

Cho, Y., Kalomba, D., Mobarak, A. M. and Orozco, V. (2013). *Gender Differences in the Effects of Vocational Training: Constraints on Women and Drop-out Behavior*. World Bank Policy Research Working Paper, (6545).

Dar, A., Fluitmna, F. and Gill, L.S. (Eds.). (2000). *Vocational Education and Training Reform: Matching Skills to Markets and Budgets*. Washington, D.C.: The World Bank. http://documents.worldbank.org/curated/en/306571468750301579/Vocational-education-and-training-reform-matching-skills-to-markets-and-budgets

De Ferranti, D. et al. (2003). *Closing the Gap in Education and Technology*. World Bank Latin American and Caribbean Studies. Washington, D.C.

Dobbs, R., Madgavkar, A., Barton, D., Labaye, E., Manyika, J., Roxburgh, C. and Madhav, S. (2012). *The World at Work: Jobs, Pay and Skills for 3.5 Billion People*. Worldwide: McKinsey Global Institute. http://www.mckinsey.com/

Dundar, H., Millot, B., Savchenko, Y., Aturupane, H. and Piyasiri, T. A. (2014). *Building the Skills for Economic Growth and Competitiveness in Sri Lanka*. Washington, D.C.: The World Bank.

FICCI and Ernst & Yong. (2012). *Knowledge Paper on Skill Development in India: Learner First*. India.

Glasskov, V. (1994). *Alternative Schemes of Financing Training*. Geneva: International Labour Organization.

Hirshleifer, S., McKenzie, D., Almeida, R. and Ridao-Cano, C. (2014). *The Impact of Vocational Training for the Unemployed: Experimental Evidence from Turkey*. The Economic Journal.

Hirosato, Y. (1998). *Establishment of "Skills Development Fund" in ASEAN: Alternative Mechanisms for Financing Enterprise-based Training*. Forum of International Development Studies, 9, 161-188.

HRDF. www.hrdf.com.my

Human Resource Development Fund (HRDF). (2005). *Annual Reports 2005*. Malaysia: HRDF.

___. (2014). *Annual Reports 2014*. Malaysia: HRDF.

___. (2015). *Annual Reports 2015*. Malaysia: HRDF.

International Labour Organization. (2016). *National Human Resource Development Fund, Bangladesh: Policy, Operational Challenges, International Experience & Global Best Practice*. Dhaka.

Johanson, R. (2009). *A Review of National Training Funds*. The World Bank. http://siteresources.worldbank.org/SOCIALPROTECTION/Resources/SP-Discussion-papers/Labor-Market-DP/0922.pdf.

Konrad Adenaurer Shifung (KAS) (2015). *Skill Development in India*.

Korea Research Institute for Vocational Education & Training (KRIVET). (1994). *Vocational Education & Training Indicators in Korea 1998*. Korea: KRIVET.

_____. (2012). *2011 Modularization of Korea's Development Experiences: Vocational*

Training System for Skilled Workforce. Korea: KRIVET.

Kelegama, S. (2006). *Development under Stress: Sri Lankan Economy in Transition*. Sage.

Rajapakse, S. (1999). *Skills Development Fund Business Plan*. Colombo: UNDP National Consultant: 4.

Majumdar, S. (Ed.). (2011). *Emerging Challenges and Trends in TVET in the Asia-Pacific Region*. Springer Science & Business Media.

Mehrotra, S., and Ghosh, D. (2014). *The International Experience with National Training Funds: Lessons for India*. Economic and Political Weekly, 49, 26-27.

Mehtrotra, S., Handhi, A. and Sahoo, B. K. (2014). *Is India's TVET System Responding to the Challenge of Rapid Economic Growth*, In: Mehrotra, S. (ed.) 2014. India's Skills Challenge. Reforming Vocational Education and Training to Harness the Demographic Dividend. New Delhi: Oxford University Press.

Ministry of Education, Government of People's Republic of Bangladesh. (2011). *National Skills Development Policy*. Bangladesh, Dhaka.

Ministry of Finance and Ministry of Skill Development and Entrepreneurship. (2015). *Comptroller and Auditor General of India on National Skill Development Fund and National Skill Development Corporation for the Year ended March 2014*. India.

Ministry of Higher Education. (2012). *Sri Lanka Qualification Framework*. Colombo, Sri Lanka.

Ministry of Skill Development and Entrepreneurship. (2015). *National Policy for Skill Development and Entrepreneurship 2015*. India: New Delhi.

National Skill Development Corporation (2010). *Annual Reports 2009-10*. India: NSDC

_____. (2012). *Annual Reports 2011-12*. India: NSDC.

_____. (2015a). *Annual Reports 2014-15*. India: NSDC

_____. (2015b). *Impact Assessment Study 2014-2015: Executive Summary*. India: NSDC.

_____. (2016a). *Funding Guidelines*. India: NSDC.

_____. (2016b). *Monitoring Policies*. India: NSDC.

Noonan, R. (2014). *Public Labor Market Training Funds: Some Personal and General Reflections on Their Use and Sustainability*. History of Education in Laos Working Paper Serious, No. 16.

Palmer, R. (2015). *Research into the Financing of Technical and Vocational Education and Training (TVET) in the Pacific: Private Financing for TVET in the Pacific-Overview Paper*. Melbourne: ACER.

Ra, Y-S. and Shim, K. Y. (2009). *The Korean Case Study: Past Experience and New Trends in Training Policies*. The World Bank.

Ritchie, B. K. (2010). *Systemic Vulnerability and Sustainable Economic Growth: Skills and Upgrading in Southeast Asia*. Edward Elgar Publishing.

Ryu, K. and Moon, H. (2015). *Knowledge Sharing Forum on Development Experiences:*

Comparative Experiences of Korea and Latin America and the Caribbean. Discussion paper No. IDB-DP-393. Inter-American Development Bank.

SME, Government of Malaysia. (2012). *SME Masterplan 2012-2020.* Retrieved from http://www.smecorp.gov.my/index.php/en/resources/2015-12-21-11-07-06/sme-masterplan/book/11-sme-masterplan-english/3-sme-masterplan

Tan, H. (2001). *Do Training Levies Work? Malaysia's HRDF and Its Effects on Training and Firm-level Productivity*. World Bank Institute Working Paper.

The Economist Economic Intelligence Unit (EIU). (2013). *Skills development in South Asia: Trends in Afghanistan, Bangladesh, India, Nepal, Pakistan and Sri Lanka*. London: The Economist.

Tertiary and Vocational Education Commission. (2012). *Corporate Plan 2012-2016*. Colombo.

UNESCO-UNEVOC (International Project on Technical and Vocational Education). (1996). *Financing Technical and Vocational Education: Modalities and Experiences*. Berlin: UNEVOC.

UNEVOC (2013a). *TVET in Nepal*. www.unevoc.nesco.org

UNEVOC (2013b). *TVET in Sri Lanka*. www.unevoc.nesco.org

UNEVOC (2015). *TVET in India*. www.unevoc.nesco.org

World Bank. (2016). *Enterprise Surveys*. http://www.enterprisesurveys.org/

World Economic Forum. (2015). *Human Capital Outlook Report 2015.* Geneva: World Economic Forum.

Ziderman, A. (2002). *Financing Vocational to Meet Policy Objectives: Sub-Saharan Africa*. Africa Region Human Development Working Paper Series.

Ziderman, A. (2003). *Financing Vocational Training in Sub-Saharan Africa*. Washington, D.C.: The World Bank.

Ziderman, A. (2016). *Funding Mechanisms for Financing Vocational Training: An Analytical Framework* (No. 110). Institute for the Study of Labor.

APPENDIX 1: GENERAL DISCUSSIONS ON SKILLS DEVELOPMENT FUNDS

Appnedix 1.1. Typology of Training Funds

According to the survey by Johanson (2009) and Mehrotra and Gosh (2012), trainings funds can be traditionally classified by purpose: pre-employment training funds that finance pre-employment training, enterprise training funds that promote in-service trainings within enterprises, and informal sector training funds and equity training fund that may open a funding window to train the disadvantaged groups (e.g. unemployed, women, youth and microenterprises). Each of the types has its own advantages and limitations.[21]

Training funds were first introduced in Latin American countries in the 1940s and 1950s. Early training funds tended to serve a single purpose. Brazil's training fund, for instance, focused on promoting pre-employment training while other funds in Latin America aimed to promote and expand in-service trainings within firms. Owing to its independent nature from the political intervention, many countries around the world began establishing their own funds.

Recently, the funds evolved to have different structures in accordance with their mixed objectives, and thus to serve various beneficiaries with different financing sources. This introduces "**National Training Funds**". A major difference between traditional funds and newly upgraded national training funds is their function in a TVET system. The funds receive their financing resources from training levies, alone or in concert with funding from other sources, mainly government budgets. In other cases, levies may not exist and the government and donors remain the principal financiers.

Table A1.1: Typology of Training Funds

Type	Main purpose	Financing sources	Successful example(s)
Pre-employment Training Fund	Finance the expansion and delivery of initial training before employment	Payroll levy-revenue generating	Brazil-SENAI
Enterprise Training Fund (Formal sector)	Provide incentive to increase in-service training of workers within enterprises	Payroll levy-incentive schemes (cost reimbursement, levy-grant and levy exemption)	Singapore's Skills Development Fund (SDF)
Informal S ector Training Fund	Provide funding to build skills and productivity of people working in microenterprises and the informal sectors	Payroll levy-incentive; Cross subsidization Voucher scheme	Cote d'Ivoire; Kenya's Jua Kali programme
Equity Training Fund	Increase opportunities for skills acquisition by disadvantaged groups not covered by enterprise schemes	Public subsidy, levy or donors	South Africa's National Skills Fund
National Training Fund	National training authority	Government, levy, donors, etc.	

[21] Please refer to Jonhnson (2009) for details.

Sources: Johanson (2009); Mehrotra and Gosh (2012)

Appendix 1.2. Rationales for Establishing SDFs in Developing Countries

There are several ways to finance TVET including setting up a TVET fund (i.e. SDF) and offering a subsidy. Among these options, many developing countries have attempted to set up a SDF. In these countries, the fund serves not only as a funding channel for skills training/development, but also as an initiative that triggers a formation and development of the TVET ecosystem. Likewise, there are rationales for establishing SDFs in developing countries commonly discussed as follows:

- **To augment the volume of resources for TVET (i.e. skills trainings):** Given its importance, TVET is an underinvested and undervalued part of the education system in most of the developing countries. In South Asia, as mentioned in Section II, public expenditure on TVET is very low (ADB 2014a). For example, as can be seen in Figure II.3, TVET always marked up 0.5% of government expenditure from the period 2006-2011, lower than shares of schools and higher education in government expenditure in Sri Lanka. In Nepal, of the government budget, 0.2% goes to TVET whereas 16%-17% on general education (ADB 2014a). This pattern can also be found in Bangladesh and India. Thus, a large volume of financial resources is required to increase the national capacity of TVET (i.e. offering inclusive training programs; and setting up institutions or initiative to reduce information gap in labor market).

- **To unify (and coordinate) various sources and channels for TVET:** In developing countries, many different ministries provide their own skills training programs without necessary coordination. For example, there are 22 ministries offering TVET services in Bangladesh, 10 in Nepal and 21 in Sri Lanka. This high degree of fragmentation may be due to lack of capacity (and even absence) of the TVET apex body. As stated in ADB (2014a) and other studies, the TVET apex bodies in South Asian countries remain supply-driven, indicating that they plan a national TVET strategy and manage the TVET system without appropriately addressing and responding to the market needs.

- **To improve the relevance of TVET in accordance with market needs:** In developing countries, training institutes are supply-driven, offering training services that are irrelevant to changing market demands. It results in a mismatch between supply and demand for skills. As highlighted in many studies, owing to lack of incentives for good performance, TVET institutes in developing countries are unlikely to transform to provide demand-driven training services.

- **To mobilize resources and expand TVET:** In general, in developing countries, the private sector plays a restricted role in offering TVET services. In addition, there is a growing supply of financial sources from donors and developing partners (and bilateral/multilaterals). These players are willing to offer financial as well as technical resources to support education expansion and TVET development. Thus, by setting up a fund, developing countries can pool and mobilize resources from various players including the private sector and donors/developing partners in order to trigger capacity development of the TVET sector and skills training of the workforce.

- **To promote equal opportunity of access to TVET:** Socially and economically disadvantaged groups are more likely to face limited access to training services. As shown in Figure II.1, a proportion of the informal employees who have ever obtained trainings in Bangladesh, Nepal and Sri Lanka is much lower than that of the formal employees. This may be caused by various reasons including lack of availability of such services in remote and disadvantaged areas and the associated high costs. Particularly, the high costs that include both actual costs of taking TVET services and opportunity costs of waiving daily income remain as a major barrier. To offer more equal opportunity of access to TVET, governments in developing countries as well as advanced countries intervene in the market and complement the activities such as providing training services (trainings or subsidies) to the youth, the unemployed and other disadvantaged groups. Thus, setting up a fund can serve as a means for government intervention in this matter.

Besides the aforementioned rationales behind the set-up of the fund, some of the basic economic theories including the demand and supply framework and the principal-agency dilemma could explain issues related to TVET and/or SDFs:

- **Why is TVET underinvested? (Demand and supply framework):** Both suppliers and demanders of skills trainings are not willing to invest and/or participate as sufficiently as needed. Despite the high costs, firms are reluctant to offer skills trainings to their employees due to the externality of trainings, which may cause a free-ride problem (i.e. poaching). Employers are afraid of losing trained employees to their competitors. As reported in many studies on the experiences of TVET (Johanson 2009; ILO 2016; Ziderman 2003), poaching is more likely to occur if firms nurture general human capital rather than specific human capital. In addition, private institutes face limitations in fostering TVET ecosystems. This justifies government intervention to increase the supply of the undersupplied and achieve economies of scale in TVET sector.

  From the demand side, cost of skills training is high as reflected in low enrollment in TVET in developing countries. There are two kinds of the costs of skills training – opportunity cost of waiving income and actual cost of taking skills training. Opportunity cost of waiving income is high for daily earners (i.e. hand to mouth) as it is more pressing to work to make ends meet. Also, the actual cost including both training fees and transportation cost may burden the poor, who takes a higher percentage of the population in a developing country.

- **Why to establish a SDF? (Principal-agent problem):** The dilemma between funding sources and the government could be addressed by setting up a SDF, a dedicated fund which is independent from government budget.

  The problem between the principal and agent arises where the two parties have asymmetric information. In general, the agent has more information compared to the principal. Thus, the principal cannot directly ensure that the agent is always acting in the principal's best interest.

  This can also be applied to the relation between funding sources providers and the government who uses its routine budgetary and institutional system to provide public goods and services. As for TVET sector, funding sources providers such as donors/development partners and, more relevant, private sector participants cannot ensure whether the government would use their money efficiently and effectively to support skills development of its nation. Given the less transparency in bureaucratic systems in developing countries, establishing a SDF is a way to channel the financial and technical resources from the funding sources to steer skills development of the workforce and capacity development of a nation's TVET sector. This also helps to avoid leakage of the financial sources into activities other than TVET that the funding aims at.

Sources: ADB (2014a); Johanson (2009); ILO (2016); Ziderman (2003)

Appendix 1.3. A Survey on Contributing Factors for the Effectiveness of a Training Fund

Despite rapidly growing researches on how to finance TVET, a systematic evaluation on training funds has not yet been thoroughly conducted. Thus, it is hard to tell which factors have contributed and/or which kinds of training funds work best under which conditions. Yet, few studies attempt to identify conditions and key aspects required for the funds to function effectively and efficiently.

Hirosato (1998) suggests the institutional and labor market conditions that would be required for training funds to function properly:

- Development of private sector: Whether private sector has a capacity to absorb and facilitate advanced technology is important. As in case of export-oriented economies in Asia like Singapore, Korea and China, they needed to adopt and facilitate advanced technology in order to maintain their competitiveness in the world market. Also, active FDI transfer would facilitate a fast rate of technological absorption. Due to the economic conditions, both employers and employees have incentives to spend their resources for trainings and learnings.
- Role of government: Due to the issues related to market failure and equity of opportunities mentioned in Section IV, a role of government in skills formation is justified and necessary to achieve "socially optimal level of training".
- Basic education for further skills development: Well-developed basic education is an essential factor to increase effectiveness of the SDFs (i.e. impacts of trainings on the productivity of trainees). Basic education helps future workforce to be equipped with basic skills (i.e. numeracy, literacy, cognitive ability, communication and interpersonal skills) that are highly required in the workplace. Hirosato (1998) argues that due to high cost of early specialization and acquisition of general skills, TVET should address more general skills and "leave the more occupation-specific aspects to employers".
- Commitment of employers: Employers must participate in skills formation of the workforce. According to Hirosato (1998), when trainings are conducted at the workplace, their costs are lower. He basically suggests a dual system for the TVET.
- Regulations: As repeatedly mentioned, due to the issue of poaching, the employers are discouraged to train their employees.[22] Thus, Hirosato (1998) claims that certain incentives must be implemented to prevent the employers from reducing their training

[22] This issue has been discussed in Appendix 1.2.

services.

Some other studies (ADB, 2009; Johanson, 2009; Ziderman, 2016) suggest key operational aspects that determine success for training funds - whether the funds can work effectively and efficiently.

- Security of income
- Autonomy and control
- Stakeholder ownership
- Activities (and disbursements) for national training needs only
- Avoidance of role of training providers
- Decision making transparency

Sources: Hirosato (1998), ADB (2009), Johanson (2009) and Ziderman (2016)

APPNEDIX 2: LABOR MARKET EFFECTS OF SKILLS TRAININGS

Appendix 2.1. Empirical Studies on Labor Market Effects of Skills Trainings

Labor market effects of skills trainings are found to be mixed in both advanced and developing economies. However, recently, few studies on this subject in developing countries adopt a randomized experiment and provide an evidence that skills trainings have a significant effect on trainee's labor market performance in developing countries, especially for women.

Card et al (2011) and Cho et al (2013) conducted randomized evaluations of vocational training programs directed at disadvantaged youth in the Dominican Republic and Malawi, respectively. The results present no impact on employment in either and perhaps, modest increase in income in the Dominican Republic.

According to the randomized evaluation in Colombia done by Attanasio et al (2011) and in Turkey (Hirshleifer, 2014), vocational training has an impact on labor market performance of the unemployed youth. Attanasio et al (2011) show that young women with training experience a 7% increase in employment and 20% increase in earnings. In Hirshelifer (2014), the average impact of training on employment is positive, much lower than program officials and applicants expected. However, interestingly, the study found that when training is offered by private providers, training effects on the quality of employment are significantly stronger.

Sources: Attanasio, Kugler and Mehgir (2011); Card, et al. (2011); Cho, et al. (2013); Cano (2014).

Appendix 2.2. Case of Sri Lanka: To Examine Effects of Skills Training Using the STEP

However, to the best knowledge of the author, there exist scanty studies examining labor effects of skills trainings in South Asia. It is important to discuss whether skills trainings in South Asia have a positive effect on trainees' quality job placement and/or labor market performance (i.e. productivity and wages). If so, skills trainings financed by the Fund themselves serve as an incentive for both employers and trainees to participate.

Using data of Sri Lanka from the World Bank's STEP Skills Measurement Program (STEP), effects that skills trainings have on skills development and labor market performance (i.e. employment and wages) are studied. The STEP is known as the first attempt to measure adult skills, both cognitive and non-cognitive, in low and middle-income countries.

In this appendix, the effects of skills training were examined using the following equation,

$$\ln(hourly\ wage_i) = \alpha + \beta \mathrm{S_i} + \delta \mathrm{T_i} + \gamma_1 \mathrm{E_i} + \gamma_2 \mathrm{E}^2 + \gamma_3 \mathrm{F_i} + \varphi A_i + \varepsilon_\mathrm{i},$$

where $\ln(hourly\ wage_i)$ is log of hourly wage of individual *i*, $\mathrm{S_i}$ is the number of years of attained schooling, $\mathrm{T_i}$ indicates the years of skills trainings, $\mathrm{E_i}$ represents the years of work experience, and $\mathrm{F_i}$ is an indicator for female workers. The model specification also includes a measure of literacy skills (A_i) to allow for the differentiation between education and skills. Hence, the parameters β and δ show the wage effect of education and trainings, respectively. Occupation, industry, formality and regions are controlled.

The estimation results in Table A2.1 show that skills trainings have a significant and positive impact on trainees' wages. It shows that a return to an additional year of training in Sri Lanka is approximately 15.0%, which is higher than that to an extra year of education. In contrast to the other studies mentioned in Appendix 2.1, the estimation results provide evidence that wage effects of the skill training are positive and significantly bigger than those of schooling.

Table A2.1: Estimated Returns to Years of Training Using the STEP

	(1)	(2)	(3)	(4)
VARIABLES	Literacy	Vocabulary	Sentence	Passage
Years of education	0.0438***	0.0463***	0.0468***	0.0538***
	(0.0133)	(0.0133)	(0.0135)	(0.0133)
Years of training	0.145***	0.151***	0.150***	0.155***
	(0.0511)	(0.0509)	(0.0510)	(0.0511)
Female	-0.333***	-0.332***	-0.332***	-0.333***
	(0.0632)	(0.0632)	(0.0633)	(0.0633)
Experience	0.0140	0.0129	0.0130	0.0131
	(0.00971)	(0.00971)	(0.00971)	(0.00970)
Experience^2	-0.0247	-0.0231	-0.0235	-0.0243
	(0.0179)	(0.0179)	(0.0179)	(0.0179)
Constant	4.287***	4.235***	4.296***	4.368***
	(0.238)	(0.263)	(0.244)	(0.237)
Observations	967	967	967	967
R-squared	0.095	0.094	0.094	0.094

Notes: One should note that this estimation requires a further investigation. Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

APPNEDIX 3: NOTES ON EXPERIENCES OF SDFS IN ASIA

Appendix 3.1. Assessment Criteria for SDFs

	Topics to be discussed	**Questions**
Criteria 1: Relevance		
Economic relevance	Economic background (National planning) Linkage with the labor market (Private sector involvement)	Are the funds market-driven or supply-driven? Do the funds offer courses and/or skills formation programs that are relevant to the market?
Social relevance	Direct beneficiaries New entrants vs. employees Duration of TVET courses Inclusion of abroad/overseas	Who are the beneficiaries of the funds? Who demands skills trainings most? Are they retrenched people in the nation?
Role of the funds	Financing vehicle Coverage (institution or PPP); (start big or small)	What is the role of the funds? Is the fund just a financing vehicle? Or is it something that functions beyond (for example, capacity building)?
Criteria 2: Efficiency		
Resource mobilization	Resource mobilization Sustainability	Who are the main contributors to the funds? What is the funding mechanism? Is there any possibility that they might stop putting their money in the funds? Is there any mechanism that secures continuous funding flows? What are the funding instruments these funds use? How these funds are used in order to achieve its goals?
Governance	Which authority governs the funds?	Who governs the funds? What is a composition of the authority? Who has a greater power in the authority – private sector or government? (Who decides allocation/distribution of the funds to the clients?)
Monitoring and evaluation (M&E)		Do the funds have their own M&E systems? How are the funds monitored and evaluated?
Criteria 3: Effectiveness		
Outcome/output	What is the objective of the funds? Has the fund achieved its objectives?	What are the outputs/outcomes of the funds on beneficiaries (trainees / employers / training providers)? (e.g. Job placement / number of certificates / skills development)

Impact on skills production/TVET		Has the fund contributed to improvement of TVET system in the country?