TOWARDS A NEW NATIONAL SKILLS DEVELOPMENT POLICY 2020

Reviewing the National Skills Development Policy 2011

OCTOBER 10, 2019

INTERNATIONAL LABOUR ORGANIZATION, DHAKA, BANGLADESH
Report submitted by Prof Santosh Mehrotra, Prof of Econ., Jawaharlal Nehru University

Table of Contents

The evolution of the labour market and TVET since NSDP 2011

The demographic dividend of Bangladesh will last only another two decades. As many as 2.2 million young people are joining the labour force each year – who must either get jobs or be enabled to earn livelihoods in self-employment. However, only around 46 percent of the population aged 15 years or above have attained secondary education and a fraction (4 percent) have tertiary education qualifications. Participation in skills trainings after formal schooling is negligible. Only 2.1 percent of the population had any formal vocational education or training.

While Bangladesh became a low-middle income country (LMIC) in 2015, raising it to become a upper-middle income country (UMIC) by 2024 (as official documents envisage) will be a stupendous task. The threshold for LMIC status is only just over $1000, for UMIC it is over $ 4000, which means a quadrupling of the 2015 GDP per capita. An absolute prerequisite for achieving such a high GDP growth rate would be a a. far better educated labour force; b. a far more vocationally and technically trained workforce. In other words, the *challenge for the rapidly expanding skills ecosystem, is to achieve a. an expansion of access to TVET; along with b. massive improvements in quality provision of TVET. The simultaneity of the dual challenge is a particularly difficult task.*

This report will attempt to spell out priorities to address this structural problem in meeting the demands of the labour market. The report begins with a brief understanding of the labour market, and its current challenges. It then examines how the evolving structure of the Skills Ecosystem, and the new institutions that have emerged remain highly fragmented. This fragmentation extends well beyond the 22 ministries involved in skill development (SD). It is driven by the heavily donor-funded project driven approach. It is for this reason that a Sector-wide Approach (SWAP) for TVET is essential, and is currently planned (on which see ILO's 2019 report (Khan, 2019). The present report will attempt to take on board Vision 21, 7th Five Year Plan, NEP 2010, Annual Performance Assessment (APAs), and SDGs. It will also address how technological changes should be addressed, green jobs be included, entrepreneurship be brought in – but these are addressed deliberately briefly. ILO's 'Global Commission Report on the Future of Work' and its recommendations will be touched upon. These new themes do not necessarily require separate sections in the new NSDP, but rather should be incorporated into each proposed section of the new NSDP 2020, where needed.

The current NSDP 2011 has 22 chapters and is 38 pages long. *The new NSDP 2020 may need to be shorter, so stakeholders in the policy space – government departments, agencies, private*

training providers, industry representatives, donors – are not deterred from reading it and also using it in their programmes. It should be a real, live document, which is used on a regular basis. We found evidence in our consultations that many stakeholders had not read the NSDP 2011 recently, and were not familiar with its exhortations. It is critical that the process of revising the NSDP is led by the government, and especially the NSDA, which is located in the Prime Minister's Office, given that NSDA has been charged with coordinating between the various stakeholders.

Since the NSDP 2011, considerable institutional development has occurred in the TVET space in Bangladesh. A National Skills Development Council (NSDC) was created (but has been subsumed into a new National Skills Development Authority (NSDA) in 2018). Also, a National Human Resource Development Fund (NHRDF) has been constituted in 2018. Moreover, a new NSDA has been constituted, as a regulatory body; this is in addition to the Bangladesh Technical Education Board (BTEB) that already existed. The number of private providers of vocational education training has expanded. Given that Bangladesh is dependent upon significant foreign exchange remittances by its nationals that have migrated to other countries in search of work, there is a new focus in the Ministry of Expatriates' Welfare and Overseas Employment (MEWOE), on skill development for departing and returning migrants. With a view to beginning to match qualifications between countries, a National Technical and Vocational Qualification Framework (NTVQF) has come into existence.

The 7th Five Year Plan 2016-2020 (7FYP) - Accelerating Growth, Empowering Citizens – notes that the industry needs about two million skilled labour whereas the sector delivers only 500,000 (of which large numbers would be those with only short-term training). The 7th FYP also recognizes that the Skills Development Policy was instrumental in setting the stage for planning and investing resources for increased productivity, employability and mobility of the labour force to reap the benefits of demographic dividend and support the economic transformation in the future. A Perspective Plan of Bangladesh, 2010-2021 (Vision 21) – aims to ensure that Bangladesh is known as a country of educated people with skills in information technology. **A** 8th Five Year Plan (2021-2026) is under preparation as this report is written. Another development has been The Expatriates Welfare and Overseas Employment Policy 2016, which aims to ensure and encourage safe migration and protection of migrants and their families.

In addition, related to skills, but outside the skills ecosystem, other developments in the Bangladesh policy space are also suggesting that the time for a revision of the NSDP is now. One

such development is the formulation of an Industrial Policy. There is evidence from other countries in East Asia that the education and skills policies of a country should be aligned to its Industrial Policy. Second, the country is in the process of discussing both a Secondary Education SWAP (after the success of the Primary Education SWAP), as well as a TVET Sector SWAP. These are opportune developments, because it will allow both to be taken into account when the NSDP is actually revised by the government. It is crucial that both the Industrial Policy and the Secondary Sector SWAP and TVET SWAP are in alignment with the new NSDP 2020.

There are two other economic developments that call for action in the skills space. The first is the growing threat of climate change, and its impact on Bangladesh's economy. The rising sea levels and the effects on Bangladesh agriculture of climate change are a source of worry for policy makers. Hence, green jobs and green skills should a matter of concern in the NSDP. The second development is rapid technological change coming through the global growth of digitization and of Industrial Revolution 4 related technologies. They will impact the Bangladesh economy, and the skills requirements will also change, at least at the margin. The NSDP should take into account this development.

However, more important than any of these recent developments in both the skills policy-space as well as global developments (climate change, IR4), the new NSDP 2020 must take into the labour market situation of the country. According to Khan and Khan (2017), "The performance of the labour market in Bangladesh with respect to the above indicators has
been mixed." On the positive side, a. Time related underemployment has declined (from 24.5 per cent in 2005-06 to 17.8 per cent in 2013). But this decline was only for women. b. The share of employees in total employment has increased (from 13.9 per cent in 2005-06 to 23.3 per cent in 2013). c. The share of unpaid family workers in total employment has declined (from 21.7 per cent in 2005-06 to 18.2 per cent in 2013). However, the labour market presents very serious challenges, which the NSDP 2020 must take into account while arriving at a skills strategy for the next decade of Bangladesh 's development.

The challenges include: a. For men, even time related underemployment has increased (from 11 per cent in 2005-06 to 13 per cent in 2013), and seasonal variation in employment continues to affect wage labourers. b. The share of informal employment has not declined and has persisted at a very high level (87 per cent of total employment in 2013). c. The share of self-employment (much of which can be categorized as "vulnerable employment") has not declined. The current NSDP 2011 seems to have been formulated with limited reference to the labour market situation, which remains difficult. *The new NSDP 2020 should be formulated with direct reference to the current challenges*

of the labour market. The ILO is in the process of preparing a report on the current labour market situation, which must be reflected in the final new NSDP 2020.

To address these challenges, the TVET ecosystem consists of the following institutions. There are two types of TVET/skills training in Bangladesh, formal and informal/ non-formal training. In the education system, there are both short and long duration course. The formal training under BTEB is provided as short courses such as basic trade course (360 hours, 95 trades) and CBT&A course (51 occupations), secondary level such as SSC vocational course (31 trades), Dakhil-vocational offered by madrasahs, higher secondary level such as HSC-vocational course (14 trades), HSC -Business management, Diploma in commerce, Diploma level course in engineering (34 technologies), textile engineering (3 technologies), agriculture, fisheries, forestry, medical (8 technologies) and other professional level courses.

TMED has a plan to introduce a flavour of technical education in the primary education stage and a compulsory technical education subject at the secondary and higher secondary education. Thus, a pathway is being built between primary and secondary and TVET education. TMED's broad plans, as enunciated in their SDG Action Plan includes introduction of vocational courses (Dakhil Vocational course) in 10,000 madrasahs by 2030, and introduction of SSC vocational courses in 20,000 general secondary schools by 2030.

In addition to the publicly provided education system, there are the publicly provided training institutions. There are 22 ministries that are offering vocational training, through 20 agencies.

Then there are the private providers of two types: the for-profit VTPs, and the not-for-profit ones (e.g. NGOs). Some of both types of private providers receive subsidies or grants from the grants (e.g. madrassas, though most of them are commercial operations. Finally,there are industry-employers own training being conducted at enterprise level (EBT).

The rest of this report is, *while being based on the chapterization of NSDP 2011, suggests fewer chapters in the new NSDP 2020. In fact, the rest of this report is written with chapter titles organized in a way it is suggested the new NSDP 2020 could be organized.* In each chapter, we will take as the starting point the formulations in the relevant chapter in NSDP 2011, before discussing the situation on the ground in that area, and then closing with some suggestions.

1. Definition of Skill Development in NSDP 2011: some rethinking required

NSDP 2011 defines Skills development (SD) "as the full range of formal and non-formal vocational, technical and skills based education and training for employment and or self-employment". However, the question is: Should skills be so defined, or should they be defined as consisting of a combination of cognitive, non-cognitive (also called transferable or transversal) and vocational skills? The *NSDP 2011 definition is narrow,* since the cognitive skills are foundational in nature, and the other skills for a human being are built upon that foundation. Yet they are ignored in the above definition of skills. However, this is not merely a definitional question: upon it rests the foundation of policy-maker's understanding of what is the goal to be achieved.

UNESCO (2012), while discussing putting education to work, rightly identifies three categories of "skills": a. foundational skills, associated with literacy and numeracy (cognitive skills); b. transferable skills (sometimes also known as soft skills or life or non-cognitive skills), including problem-solving and the ability to transform and adapt knowledge and skills in varying work contexts; and c. technical and vocational skills, associated with specific occupations (p. 171). *The new NSDP 2020 will need to re-conceptualise SD as having all three dimensions as constituent elements.*

There are two advantages to this alternative approach to defining skills (over the one followed in NSDP 2011). First, this will ensure coherence and clear articulation between the different parts of the educational system: general academic education; vocational training conducted in public or private training institutions; training conducted in formal industries; and technical education in tertiary education institutions. Second, the NSDP 2011 definition could lead to the entrenching of the notion that SD is outside the educational system, separate and independent, without need for transfer of students or knowledge from one stream to the other, and vice versa. In fact, this separation between the two streams is precisely one of the problems that makes SD less aspirational than general academic education. This is true not just in Bangladesh but in many developing countries, including those in South Asia.

If foundational skills are lacking, people have difficulty in acquiring transferable skills and technical and vocational skills. They need to be given a second chance. As much as 29.3%

of Bangla population 15+ had never attended school in 2016-17 (Labour Force Survey, 2017), with share of women (31.9%) being higher than for men (26.7%). Given that Recognition of Prior Learning has become a priority of the Bangladesh SD programme, *it is critical that RPL is not confined to merely upgrading the vocational skills of such workers. It must include bridge courses on foundational skills.*

Transferable skills are such skills that can be transferred and adapted to different work needs. In fact, with technologies changing faster than ever before (especially with the arrival of Industrial Revolution t4 technologies) such skills become even more important in the work environment. They include the skills of analysing problems and reaching solutions, communicating ideas effectively, being creative, showing leadership and conscientiousness, and demonstrating entrepreneurship. These can be partly acquired through education and training, especially through secondary schooling and work-based programmes. These are necessary for youth who have grown up in homes that are unlikely to encourage self-confidence. While all workers are required to acquire such skills, with only 22.3% of the population aged 15+ in Bangladesh who have completed primary level, and another 35% who had completed secondary education, such skills are likely to be lacking in such workers.

2. Scope of Skill Development in NSDP 2020: taking a more holistic view of education & skills

In its definition of the Scope, NSDP 2011 notes that: "Skills development does **not** include:

a. General education programs delivered by primary or secondary schools ie: those that do not have a vocational skills component;
b. Non-formal education (NFE) delivered by NGOs and government agencies that do not develop employment oriented livelihood skills eg: programs on literacy, numeracy, nutrition etc; and
c. Education for professionals delivered by universities ie: those programs that lead to qualifications at the Bachelors degree level or higher."

This view seems to follow from the way SD is defined in the previous paras – essentially quite narrowly. However, in our view, SD will need to include all three a, b and c above in their scope. The reason for including a. is because there are millions in the workforce who lack the basic cognitive skills, having dropped out at very low levels of education, or because

they never enrolled in school. A lack of cognitive skills leads to inability to grasp the theory involved in any vocation. All TVET should involve all three components: i.) a theory of the trade or occupation at the appropriate level; ii) practical workshop experience in the vocational skill in the particular trade; iii) on the job training in the vocation. Each of these three build upon each other, and all of them require reasonable cognitive skills.

It should include b. because there is evidence that stand alone adult literacy programmes don't have any lasting effects on literacy and numeracy for such adults unless linked to actual use of the literacy acquired in day to day avocational activities. In a highly informalized workforce with very low levels of education, is it even possible to think of skills upgrades in the absence of such adult literacy programmes? In other words, NFE, regardless of who is delivering (govt or NGOs), should include employment oriented livelihood programmes to have any lasting value in the lives of poor people. In other words, the international experience on sustained and lasting effects of adult literacy programmes suggest that they should be accompanied with skills development programmes – because in that case literacy has an immediate value to the informal worker.

Finally, SD as conceptualized in NSDP 2020 should also include c. because even SD has a continuum, with a component of lifelong learning built in. Moreover, without c. being included what possibility is there for vertical mobility of vocational trainees? One objective of reforming NSDP 2011 should be seen to be that those in vocational programmes below the age of 18 should have the opportunity to continue to tertiary education, whether those are certificate, diploma or degree programmes.

This importance of the goal of ensuring vertical mobility for TVET school leavers is underlined by the following facts: only 4.2% of Bangladesh population 15+ had completed tertiary level of education. Also, only 1.7% of the total working age population of Bangladesh have participated in a formal training course (Labour Force Survey, 2017).

According to UNESCO, TVET comprises formal, non-formal, and informal learning for the world of work. We wish to reiterate that the world of work requires all three types of skills: cognitive, transversal/transferable and vocational.

3. Access to TVET: issues the quantity issue in the NSDP 2020

The TVET system, particularly at the secondary level, has been expanded in recent years. The average (2008-2014) incremental Rate of enrolment in BTEB is 13.84 %; whereas in General Education, the rate is 5.81 % (BTEB, 2016). This suggests that there is evidence emerging of SD becoming aspirational. The normal concern in developing countries is that

parents (and hence students) follow the elites in pursuing higher and higher levels of general education, despite poor employment outcomes of such education. Given that non-elites have access to poorer quality general education than the elites, the limited formal sector jobs are captured by elites with higher quality education, leaving those from poorer backgrounds to seek employment in the informal sector out of sheer necessity – despite having acquired the same level of qualifications as the elite (albeit from different, less well-endowed educational institutions). TVET remains non-aspirational under the circumstances. However, the fact that BTEB courses in Bangladesh are attracting a higher proportion of youth is a welcome development. It is a good response to growing access to TVET, thanks partly to the NSDP 2011 and its implementation.

However, the challenge is great. The proportion of students enrolled in TVET increased from 0.4 % in 2001 to 1.8 % in 2013 (CAMPE, 2016); the incremental rate in enrolment in TVET is high, but given the low base, the overall share of the workforce that has formally acquired vocational education or training is negligible. The current enrolment in SD programmes will not suffice for two reasons. One is that 37% of the 63mn labour force is in the age-group 15-29 years (henceforth called youth): that is over 23 mn young people in search of work. Skilling them is essential if the Bangladesh Seventh Five Year Plan (2015-2020) goal of Bangladesh becoming an upper middle income country by 2024 is to be achieved. Given that the country achieved low-middle income country status (from Low income status) only in 2015, this goal is ambitious. The demands on Bangladesh planners are, therefore, even greater in respect of delivering on employment and employability. The second reason why enrolment in TVET will have to expand much faster than recently is that the country has aggressively pursued overseas employment for its growing youth, but only 14% of its overseas migrants are semi-skilled, while 52% of them are low-skilled. This has the effect of keeping remittance income from overseas migrants low.

The challenge in Bangladesh is not just quantitative. It is simultaneously qualitative, in the sense that there is urgent need for systemic improvements in quality of TVET provisioning, to which we will turn shortly. However, before we turn to the quality issues, we suggest that the *government needs to commission a paper which estimates at what rate quantitative provisioning needs to expand. That would give the government a better idea of planning for provisioning*. The methodology for this estimation will need to be carefully worked out (this report is not the place to discuss such issues of details.) We will return to this subject later in the Data and Monitoring section of this report.

There are two ways to assess the access issue: one, the access to TVET for those young that are entering the labour force looking for work; and two, the access to those already in the workforce, but entered it with little or no general education, or entered it with some general education but little or no vocational education/training. The first group's access is a different issue to that of the second group. The first group should be able to access pre-employment TVET, or in the case of those entering the formal workforce (a miniscule minority) should be able to access enterprise based training (EBT). The second group, which is much larger than the first group, needs to be given a second chance. The only way a second chance is given to such informally employed workers is to provide them with access to Recognition of Prior Learning (RPL). We shall discuss each of the groups, and their issues, in turn. We turn to the first group first.

Access to TVET for Young entrants to the Labour Force

As noted in NSDP 2011 (Clause 22.1), the "government has already made commitments in PRSP II to the effect that:

a. TVET students shall comprise 20% of all secondary students (currently 3%);

b. total enrolment in TVET should increase by 50%; and that

c. women's enrolment should increase by 60%."

We have already noted above that while the data does show progress in regard to these goals, the challenges on three fronts remain very considerable. The new entrants to the labour force numbered 2 million in 2013, and that figure is projected to reach 4 million in 2025 (according to the Labour Force Survey, 2016). These new workers need training if Bangladesh is to grow its economy quickly and earnings are to rise.

Given that access to TVET is still limited, the number of institutions offering TVET will need to grow. We have information (Table 1) from the BBS Census of TVET Institutions 2015, about the ownership pattern and the location (rural vs urban) of the 13 163 institutions currently offering formal TVET. Only 13% of these are government/semi-government institutions; an additional 19% are MPOs (or privately managed Vocational Training Providers (VTPs), that receive teacher salaries in the form of monthly payment order from the government). The rest are all totally private: non-MPO, individual ownership, partnership, Corporate/Trustee Board, and Joint Venture/Foreign. Nearly half are under individual ownership, and have to be quite small time operations. We learnt that the 19% share of MPOs is likely to rise sharply to 30% because the number of such institutions (currently 2517) is slated to grow quite quickly.

Table 1: Distribution of TVET Institution by ownership and locality

Ownership Type	Rural	Urban	Total	Rural	Urban	Total
	Number			Row%		Col%
Government/Semi Government/Autonomous	358	1373	1731	20.7	79.3	13.2
MPO	1455	1062	2517	57.8	42.2	19.1
Non-MPO	991	632	1623	61.1	38.9	12.3
Individual Ownership	2883	3430	6313	45.7	54.3	48.0
Partnership	143	574	717	19.9	80.1	5.4
Corporate/Trustee Board	36	125	161	22.4	77.6	1.2
Joint Venture/Foreign	35	66	101	34.7	65.3	0.8
Total	5901	7262	13163	44.8	55.2	100.0

Source: All tables are from Bangladesh Bureau of Statistics, BBS: Technical & Vocational Education & Training, Institution Census 2015, Ministry of Planning, Government of Bangladesh

However, Table 2 shows that of the 13 163 TVET institutions in the country, the largest number are associated with the Ministry of Education (4585 institutions, or 35% of all institutions). At the same 30% (3992) have no association with any government ministry. (Table 3 spells out the distribution of TVET institutions by attached department/agency). The private sector has responded to the demands from the labour market and employers for a more skilled workforce. Privately provided training has expanded very rapidly in the last decade.

Table 4 spells out the distribution of seat capacity by location and gender. What is positive is that of the total number of seat capacity of 84435, a good 41% are for women.

Islam and Islam (2017) have noted as follows: “The educated youth themselves have identified the lack of skill and knowledge about business techniques as the relevant constraints to self-employment. When asked about their awareness about the availability of specific training courses, most of them have reported that such awareness is lacking. This is particularly true for young girls in the remote regions.”

The World Bank study (2018) ‘Bangladesh Skills for Tomorrow’s Jobs: Preparing Youths for a Fast-changing Economy’ revealed that after obtaining at least nine years of school education, 6.5% received Technical and Vocational Education (TVET) which includes Secondary (Vocational), Higher Secondary (Vocational), Higher Secondary (Business Management), and diploma in Engineering, Agriculture, Commerce, Textiles, Fisheries,

Table 2: Distribution of TVET Institution by Ministries involved and locality

Attached Ministry	No. of institutions			% of
	Rural	Urban	Total	Total
1.Ministry of Education	2463	2122	4585	34.8
2. Ministry of Expatriates Welfare and Overseas Employment	31	49	80	0.6
3. Ministry of Labour & Employment	14	29	43	0.3
4. Ministry of Youth and Sports	120	353	473	3.6
5. Ministry of Social Welfare	78	315	393	3.0
6. Ministry of Women and Children Affaires	60	371	431	3.3
7. Ministry of Industries	22	70	92	0.7
8. Ministry of Agriculture	15	32	47	0.4
9. Ministry of Civil Aviation and Tourism	0	3	3	0.0
10. Ministry of Road Transport and Bridges	5	17	22	0.2
11. Ministry of Textiles and Jute	19	44	63	0.5
12.Ministry of Power, Energy and Mineral Resources	0	1	1	0.0
13. Ministry of Defense	1	2	3	0.0
14. Ministry of Health and Family Welfare	48	604	652	5.0
15. Ministry of Science and Technology	5	19	24	0.2
16. Ministry of Fisheries and Livestock	12	42	54	0.4
17. Ministry of Environment and Forest	2	1	3	0.0
18. Ministry of Local Government, Rural Development and Co-operatives	1669	279	1948	14.8
19. Ministry of Shipping	0	7	7	
20. Ministry of Home Affairs	11	53	64	0.5
21. Ministry of Posts, Telecommunications and Information Technology	45	73	118	0.9
22. Ministry of Primary and Mass Education	4	1	5	0.0
23. Ministry of Religious Affairs	1	4	5	0.0
24. Others	21	34	55	0.4
Not attached with any Ministry	1255	2737	3992	30.3
Total	5901	7262	13163	100.0

Health Technology, Nursing, Jute technology, and Forestry etc. About 9% of males and 4.2% of females had TVET ($p<0.01$). Those who did not go through TVET, nearly a third of them reported that TVET did not come to their mind while taking a decision about further

Table 3: Distribution of TVET Institution by attached department/agency and locality

Attached Directorate/Agency	Rural	Urban	Total	% of Total
1. Directorate of Technical Education	1438	1364	2802	21.3
2. Bangladesh Technical Education Board	1522	1429	2951	22.4
3. Bureau of Manpower, Employment and Training	41	66	107	0.8
4. Department of Women Affairs	56	338	394	3.0
5. Department of Social Services	73	287	360	2.7
6. Department of Youth Development	115	350	465	3.5
7. Bangladesh Small & Cottage Industries	18	50	68	0.5
8. Bangladesh Industrial and Technical Assistance Center (BITAC)	3	7	10	0.1
9. Bangladesh Parjatan Corporation	0	3	3	0.0
10. Bangladesh Chemical Industries Corporation	0	1	1	0.0
12. Bangladesh Rural Development Board (BRDB)	26	49	75	0.6
14. Directorate of Textile	1	2	3	0.0
15. Bangladesh Computer Council (BCC)	19	44	63	0.5
16. Directorate General of Health Services	38	435	473	3.6
17. Directorate of Nursing Services(DNS)	10	164	174	1.3
18. Department of Shipping	0	7	7	0.1
19. Local Government Division	1633	181	1814	13.8
20. Bureau of Non-formal Education (BNFF)	0	1	1	0.0
21. Department of Livestock Services	5	15	20	0.2
22. The Department of Fisheries	4	26	30	0.2
23. Bangladesh Ansar and VDP	11	51	62	0.5
24. Department of Agricultural Extension	13	33	46	0.3
25. NGO Affairs Bureau	41	59	100	0.8
26. Directorate of Textile	15	42	57	0.4
27. Department of Prisons	0	1	1	0.0
29. Jatiyo Mohila Sangstha	3	21	24	0.2
30. Road Transport and Highways Division	3	15	18	0.1
31. Bangladesh Institute of Management	0	3	3	0.0
32. Bangladesh Islamic Foundation	1	3	4	0.0
33. City Corporation	0	5	5	0.0
34. Bangladesh Petroleum Corporation	0	1	1	0.0
36. Department of Cooperatives	2	2	4	0.0
37. National Academy for Computer Training	0	1	1	0.0
99. Others	13	81	94	0.7
Not attached with any department	797	2125	2922	22.2

Total	5901	7262	13163	100.0

Table 4: Distribution of Seat capacity by locality and sex

Locality	Number				Per Cent			Per Cent	
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Rural	19810	14552	4758	23.5	29.6	13.7	23.5	17.2	5.6
Urban	64625	34667	29958	76.5	70.4	86.3	76.5	41.1	35.5
Total	84435	49219	34716	100.0	100.0	100.0	100.0	58.3	41.1

education beyond grade 8. Over a quarter of the respondents in the World Bank study (26.2%) had no idea about such education provision, 15.7% had no scope to go for such a study because it was not offered in their secondary schools, and 13.8% reported not getting any advice or encouragement from their family members to go for TVET.

This is an interesting finding with respect to the issue of access. Clearly it implies that the GOB has a job at hand to *spread the word around about TVET provisioning and its advantages. GOB will need to use social media, the internet, radio and TV to make information available widely. Perhaps this communication strategy needs to be built into the GOB budget of the Information & Broadcasting Ministry, since this strategy must adopt the Bangla and local languages among the hill tribes. This communication strategy will need to find mention in the new NSDP 2020. The fact that nearly 14% did not enter TVET because parents gave them no encouragement suggests that parents have to be also targeted in the communication efforts. But the fact that a significant minority could not access TVET because it was not offered suggests that, that is precisely where new provisioning has to target. The TVET Institution Census of 2015 (BBS, Ministry of Planning) is an excellent source of information to be used in actual policy planning and programme implementation.*

In addition to the expansion of the private VTPs, the government itself has major expansion plans to improve access. Technical Schools and Colleges (TSC) are planned to be expanded. The country has 64 districts, but only 50 of them have a Polytechnic. So 14 more Polytechnics are to be constructed by 2022. In addition, there is a India government Line of Credit to modernize 49 of the 50 existing Polytechnics. In addition, of the 8 Divisions in the country, four do not have a Women's Polytechnic. Hence, four more such polytechnics are coming up in the four divisions that are without a women's polytechnic. Further, the country has 4 engineering colleges in 4 divisions, offering B. Tech degrees; four more are

to be built in the 4 divisions currently without engineering colleges. For this purpose, $1.65 bn government funding will be available. Only $20 mn are from donors. There is a Tk. 2500 crore India government line of credit.

The *fact that new institutions will come up rapidly from this point on, it is critical that the new NSDP focuses on ensuring upward mobility for students and trainees to these institutions from the secondary and higher secondary levels vocational programmes, as well as from the TSCs.*

4. Quality issues to be addressed in the new NSDP 2020 (trainer strength, industry attachment, NVTQF, quality assurance, RPL, CBT&A and curriculum development)

The quality and effectiveness of current training is hampered (according to Khan (2019) by (a) a lack of trained teachers due to low output by teacher training institutions, a lack of in-service training opportunities, and poor incentives; (b) about a 50% vacancy rate for teaching positions in public training institutions; (c) overemphasis on theory in teaching and testing rather than on practical instruction; (d) inadequate financing to maintain facilities, replace old equipment, and consumables and training materials for training; and (e) a need for government rules to delegate powers, particularly to public training institutions, to generate earnings, hire trainers and resource persons with industry experience, offer market responsive flexible courses, and enter into partnerships with employers and enterprises to make training relevant and place graduates in jobs. (The issues relating to (c) and (e) should be addressed by the national consultant, to assess whether these concerns have been addressed, or mechanisms are in place to that effect. It is not possible for any international consultant to address these issues of detail.) Some of these quality issues will be addressed in this section.

In 2007, the government initiated a major reform of the TVET sector in Bangladesh. The TVET Reform project supported by the EU assisted in the development of a National Technical Vocational Qualifications Framework, (NTVQF) and strategies to promote social inclusion. We will have occasion to discuss how these issues could be addressed in the new NSDP 2020.

Quality Assurance System

NSDP 2011 notes (2.9 clause): “In the current system, there is no nationally consistent approach to quality assurance, with current qualifications not based on standards that align with the occupations or skill levels in industry. Curriculum development is highly centralized, rigid and time consuming and not based on need. The development of new courses, the expansion of high demand courses and the closing of obsolete courses do not always reflect market needs.”

We find it notable that NSDP 2011 assumes above that quality assurance is linked to, perhaps even dependent upon “qualifications not [being] based on standards”. However, there can be many reasons other than the presence/absence of ‘standards’ that preclude quality in TVET being achieved. Here in this section we will explore if qualifications or standards how and why “standards” are not to become overly privileged at the expense of these other reasons for poor quality.

What are the reasons for curriculum development (CD) being centralized? While bureaucratic procedures that must be followed if a curriculum is to be periodically revised should certainly be re-examined, GOB will need to take stock as to whether the procedures have at all been revised, or what success has been achieved if procedures have indeed been revised. The new NSDP 2020 may well need to mention specific actions that are required to eliminate multiple levels of approval for CD or curriculum revision.

But it may well be the case that the CD process has not integrated industry needs. In other words, first industry itself has to be brought into a stakeholder consultation about CD. The new *NSDP 2020 should specify how industry participation in CD is to be ensured. If this was stated in a public document owned by the GOB, it would lead to local governments to engage with local industry (at least in locations where some industry presence exists, given that there are regions where industry is very limited)*. We should remind the reader that the Ministry of Local Government, Rural Development and Cooperatives accounts for 15% of all TVET institutions by Ministries (BBS, 2015). The real issue is: how is market ‘need’ articulated? Is there a institutional mechanism for industry to articulate such need? And for feedback from industry being incorporated into CD? It may well be that the Industry Skills Councils might be the means for articulating industry needs. However, as we discuss below ISCs are in their infancy, and at an incipient stage. Their representativeness is currently open to question. What would be superior is that larger Industry Chambers of Commerce at sectoral as well as national level may have to be involved at an early stage of this process. Later on as ISCs gather strength, if they do, they could be asked to lead this process from the Industry side; for now they should be brought into the process as well, but not expected to lead the articulation of Industry expectations. This is why this matter should be

addressed directly in the new NSDP 2020. We will return to this question later, when we discuss financing of SD by industry contributions.

Expanding Trainer Strength and Industry Attachment

We have already noted above that there is a shortage of TVET teachers, with 40% of sanctioned strength of teachers remaining unfilled. There are only two Teacher Training Institutes: the Vocational Teacher Training Institute (VTTI) and the Technical Teacher Training Colleges (TTTC). For a SD ecosystem that is so short of teaching staff, its goals seem overly ambitious. *The new NSDP 2020 has to find new means of finding resources for expanding Trainer Strength. In this context the Financing section of this report becomes so much more salient.*

Table 5: Distribution of Teachers/trainers by educational qualification (general) and Sex

Highest class passed	Number			Per cent		
	Total	Male	Female	Total	Male	Female
SSS or equivalent	8818	6569	2249	12.3	11.9	13.9
HSC or equivalent	13644	10235	3409	19.1	18.5	21.0
Graduates	24093	18984	5109	33.7	34.3	31.5
Masters	24697	19328	5369	34.5	34.9	33.1
PhD	259	187	72	0.4	0.3	0.4
Total	71511	55303	16208	100.0	100.0	100.0

Table 6: Distributions of Teachers/trainers by highest class passed (TVET) and sex

Highest class passed	Number			Per cent		
	Total	Male	Female	Total	Male	Female
Trade course	23228	17894	5334	31.8	31.9	31.2
Diploma in engineering	16000	12493	3507	21.9	22.3	20.5
BSc in engineering	6748	4934	1814	9.2	8.8	10.6
MSc in engineering	1724	1119	605	2.4	2.0	3.5
MBBS/BDS	3070	2232	838	4.2	4.0	4.9
Specialized training	16469	12762	3707	22.5	22.8	21.7
Others	5875	4583	1292	8.0	8.2	7.6

Total	73114	56017	17097	100.0	100.0	100.0

Table 7: Distribution of TVET Institution by ownership and industrial attachment facilities

Type of Ownership	Number			Per cent		
	Yes	No	Total	Yes	No	Total
Government/Semi Government/Autonomous	479	1,252	1,731	27.7	72.3	100.0
MPO	1,181	1,336	2,517	46.9	53.1	100.0
Non-MPO	897	726	1,623	55.3	44.7	100.0
Individual ownership	360	5,953	6,313	5.7	94.3	100.0
Partnership	179	538	717	25.0	75.0	100.0
Corporate/Trustee	73	88	161	45.3	54.7	100.0
Foreign/Joint Venture	47	54	101	46.5	53.5	100.0
Total	3,216	9,947	13,163	24.4	75.6	100.0

Table 8: Distribution of TVET Institution by duration of Industrial attachments

	(Multiple answers possible)	
Duration of industrial attachments	Number	Per cent
<1 month	681	19.4
1-3 months	1963	55.9
3-6 months	573	16.3
6-12 months	240	6.8
Others	57	1.6
Total	3514	100

Those teachers in TVET that do exist, their distribution raises issues. The TVET Institution Census 2015 (chap 3) shows that the qualifications of the current strength of teachers might leave something to be desired. Of all TVET teachers, 32% only have undertaken a Trade Course; an additional 22.5% have undertaken Specialized Training (Table 5: Distribution of teachers/trainers by highest class passed).[1] While it is reassuring that an additional 9% have a BSc in engineering and 2.4% have an MSc (Engg), it is unclear whether any of these instructors have a. specialized Teacher Education (in other pedagogic skills); b. they have

[1] Unfortunately, the terms Trade Course and Specialized Training is not defined. Presumably it might refer to what is at offer in the VTTI or TTTC.

been required to themselves acquire real-life industry work experience. *The new NSDP 2020 will need to specify that all TVET instructors will need to acquire pedagogic instruction in addition to industry work experience.* In fact, in China, TVET teachers are required to obtain both. Instructors in China will not be hired in the absence of both types of education. Moreover, in order to be promoted, they are required to undertake at least one month's work experience on the job every year, or two months work experience every two years (Mehrotra et al, 2014).

There is another dimension of quality, which relates to the heavy predominance of trainees in basic, short-term courses of either 360 hours or even less (Table 6 Distribution of TVET seat capacity, admission and passed trainees by duration of course). The number of seats available for the short term courses is slightly more (at 5.2 laks) than for Diploma, HSC Voc, SSC Voc taken together. More importantly, given that short term training is imparted by more than double shift, the actually number of trainees passing out of short term courses (1.33 mn per annum)amounted to 2.5x the number of seats (0.52 mn), which is nearly 80% of all trainees of these 4 types of courses available in the country. While

NSDP 2011 makes no mention of industry attachment for trainees (apart from instructors). We have noted above in discussing the Scope of TVET, that without industry on-the-job work experience, TVET cannot be considered complete. The quality of learning of trainees is impacted by the absence of industry attachment as part of training. The TVET Institution Census 2015 reveals a worrying situation in respect of industry attachment for different types of TVET institutions by ownership. Thus, of all Government/Semi-Government institutions 72% do not have the facility of industrial attachment (Table 7 Distribution of TVET Institutions by ownership and industry attachment facilities). As regards Monthly Payment Order (MPO) institutions, which are privately managed institutions for whom teacher salaries are met by the government53% do not have the facility of industry attachment.[2] The TVET institutions that are Individually-owned (94%) and those that are partnerships (75%) have an even higher incidence among them of institutions that don't provide the facility of industry attachment. *The new NSDP 2020 will need to make provision explicitly for industrial attachment of trainees as well of instructors as part of the requirement of licencing new institutions. In addition, existing institutions can be given a limited time horizon within which they should be required to create the industry attachment facility.*

[2] It is notable that 55% of non-MPO TVET institutions do have industrial attachment facilities. It is worth investigating the reason for this phenomenon, and whether any policy lessons can be drawn from this difference between MP and non-MPO TVET institutions.

Industry attachment tends to be for 1-*3 months for the majority of trainees in the 3514 institutions that provide for such attachment (Table 8* Distribution of TVET institutions by duration of industrial attachment). *While this is good, there might be scope for making sure that for majority of trainees there should be provision for 1-3 months industry attachment in the new NSDP 2020.*

The National Vocational Training Qualification Framework

The NSDP 2011 (Clause 4.4) had noted:

"The Bangladesh Skills Development System will consist of:

a.National Technical & Vocational Qualifications Framework (NTVQF);

b. Competency Based Industry Sector Standards & Qualifications; and

c. Bangladesh Skills Quality Assurance System."

We will discuss each issue in turn, drawing lessons the new NSDP 2020.

Educated Unemployment among graduates rose in fiscal 2016-17 in a worrying development for a country like Bangladesh with a sizeable young demographic. The rate of unemployment among persons with an education of up to tertiary level increased 11.2 percent in fiscal 2016-17 from 9 percent a year earlier, according to the latest Labour Force Survey (LFS). This suggests that the unemployment rate is an outcome of a. the irrelevance of the general academic education to the needs of the labour market; and b. the expectation of graduate of tertiary education that the jobs available do not meet their expectations.

This outcome is being perceived by policy-makers as a basis for rapidly spreading the NVTQF in Bangladesh . Whether the introduction of a QF will solve the problem of employment or employability of such graduates remains to be seen. We shall turn to an analysis of Bangladesh 's QF shortly. But meanwhile, what this growing unemployment rate suggests strongly is that there is a strong case for diversion of many of these young students, much earlier than when they get to tertiary level into TVET. This suggestion is strengthened by the evidence in Bangladesh that while many formal employers are looking for trained workers, they cant find such workers with the requisite skills; on the other hand, there are plenty of graduates of general academic school and higher education institutions that cant find work.

On the NVTQF, Khan (2019) notes the following: "The NQF is a work in progress, as a draft NQF is being reviewed by 7 technical committees established by a high-level steering

committee, led by the minister of education. The aim of the NQF being developed is to provide pathways towards improved access to qualifications and assist people to move easily and readily between the education and training sectors and the job market. To support the NQF operationalization, the Project will draft a NQF Quality Assurance System and Implementation Guidelines." Khan goes on: "The challenge lies in the rolling out of the NTVQF **as early as feasible**, and through which, the establishment of a flexible, open, accessible and responsive workforce development system; and putting in place strong industry leadership across the whole economy." (emphasis added) Developing countries usually lack the competent professional pedagogical staff that can formulate qualification standards, quite often since trainers themselves have had very little direct exposure to industry; this is an unspoken reason why it is not possible to roll out a NVQF rapidly, without compromising quality of standards (and hence training).

There really is no evidence from international experience to suggest that a. a NVQF can be formulated quickly, let alone rolled out across the whole TVET system speedily, ; and b. a NVQF in any country has proven to be a means for creating what is called "a flexible, open, accessible and responsive workforce development system".

It is interesting that NSDP 2011 (Clause 5.7) itself had recommended the following: "In general education, a new system of dual certification will be introduced so that students who satisfactorily achieve the skills component of vocational education programs such as the ISC (Voc), HSC (Voc) and HSC (BM), will receive a NTVQF qualification in addition to, and separate from, the school qualification." There is little evidence that this goal of NSDP 2011 for the NTVQF has been achieved. That is hardly surprising, given the international experience with VQFs wherever they have been attempted in the rest of the developing world (a subject we turn to).

The NSDC 2011 seems to have many expectations of the National Technical and Vocational Qualifications Framework (NTVQF), which clearly began to be conceptualized in 2011. For instance, "The NTVQF will expand the number of qualifications available in the country to better reflect the growing and changing occupational and skill profiles in both domestic and international labour markets." (Clause 5.2 of NSDP 2011)

The question: Has this expansion happened? If so, how much? When we raised this question, we learnt that a small number of standards under the NTVQF have been agreed upon among

the stakeholders. What is heartening is that the process of arriving at these standards is rigorous, and hence it has also been rightly time-consuming. The result is that only a small number of standards have been approved, and been implemented. However, the matter does not end there. We also learnt at the Bureau of Manpower and Training (BMET) that only 500 certified trainers exist as of now, a good 7 years since the implementation of the NTVQF began. It is understood from BMET that Bangladesh needs 1800 such trainers just for the current crop of NTVQF courses. As the number of such courses grows, the number of qualified trainers will grow further. As it is, we noted earlier that there is a serious shortage of properly qualified trainers for non-NTVQF courses. *The clear implication is the new NSDP 2020 would be well advised to not rush the process of creating these QF compliant courses.*

The matter of the issues with implementation of the NTVQF does not end there. What is the acceptance of such qualifications among employers? There is little evidence on this matter. International experience from South Africa, Australia and India suggests strongly that it has taken years for acceptance among industry employers of such standards for any trade for any particular level.

It is again noticeable that NSDP 2011 states: "Apprentices will receive nationally recognised qualifications under the NTVQF, and although incentives may initially be limited to those occupations identified as a priority by industry, the government will explore the potential of making apprenticeships available at all levels of the NTVQF in all industry sectors". (Clause12.6). *Since rather little of this ambitious expectation of NSDP 2011 has been realized, it is prudent that the new NSDP 2020 is abundantly cautious about the NTVQF, and its salience in Bangladesh 's SD ecosystem in the short to medium run.*

We should remind the reader that Bangladesh is a highly informalized economy. The only countries in the world that have attempted the implementation of a VQF are now industrialized countries, that have all highly formalized economies: most enterprises are formal sector ones, and almost all workers have the formal conditions of work (ILO, 2018).

Policy makers and donors continue to support national qualifications frameworks and competence-based training systems, with the hope that they will improve the ways in which education and training programmes prepare people for work, help them to obtain jobs, and enable them to perform well at work. At least 142 countries are developing a framework and six major world regions are developing regional qualifications frameworks, with a view to supporting labour market mobility (ETF, Cedefop, and Unesco Institute for Lifelong Learning 2013). A recent report

from UNESCO (Keevy and Chakroun 2015) proposes the development of world reference levels for qualifications, with similar aims.

However, there is a plethora of international evidence that suggests that the benefits of VQFs have been over-stated, and their implementation in developing countries leaves very much to be desired, and in the best of cases, is a work in progress (Allais, 2010; , Pilcher, Scott and Smith, 2015).[3] Drawing from this evidence we present the major findings of an international study that attempted to investigate the labour market outcomes of qualifications frameworks in six countries – Belize, France, Ireland, Jamaica, Sri Lanka, and Tunisia, as well as the regional framework in the Caribbean. It finds limited evidence of success. Allais (2017) argues that the French framework, where labour markets are highly formalized, and also the most regulated and collective bargaining had the widest reach, had the clearest relationships between qualifications and work. "However, the qualifications framework did not seem to be the cause, but rather the effect of such relationships."

The GOB needs to first attempt to understand the underpinning issues, before going any further in pushing the QF. We will reflect on why policy makers and international organisations continue to push this policy that continues not to work. Raffe (2012), in a recent overview, argues that the evidence, while still inconclusive, shows that the impacts of qualifications frameworks have been less than expected, have often taken many years to appear, and have been negative as well as positive. A 16 country study commissioned by the International Labour Organisation (ILO) argued that qualifications frameworks have not provided quick-fix or simple solutions to the complex problems facing countries in relation to education, skills development, and employment (Allais 2010).

The disconnect between empirical evidence and policy-maker aspiration could partly be the result of the nebulous nature of frameworks; as a recent paper by Nick Pilcher, Fernie, and Smith (2015) argues, it is almost impossible to evaluate them because there is no way of developing a clear yardstick for measurement. It is well known that there is an enormous amount of consultancy opportunities around the development and implementation of such frameworks, especially given that much of the positive documentation comes from organisations involved in their development (for example, Cedefop 2013, 2015; ETF, Cedefop, and Unesco Institute for Lifelong Learning 2013).

[3] It is rather ironic that ILO's own research globally had already warned hat VQFs have had an extremely chequered history even in industrialized countries, where they began (the Anglo-Saxon ones). However, in Bangladesh , Lythe (2018), a consultant from New Zealand (another Anglo Saxon country) tried to advocate strongly for the NTVQF, in the face of strong international evidence and also Bangladesh evidence that the QFs are somewhat peripheral to the structural problems that the SD ecosystem faces in these countries.

It is obvious that QFs are an Anglo Saxon phenomenon, and while starting in the 1990s in Scotland then England, first spread to other Anglo Saxon countries such as Australia and New Zealand, and then South Africa. Research with a positive take tends to describe the QF rather than evaluate.

What the literature rarely does is not examine the alternative model in the world for TVET: the Germanic one (practiced not only in Germany, but also Austria and Switzerland). From a developing country policy-maker's perspective, both emanate from now industrialized countries, making both of them directly much less applicable to highly informalized economies in the developing world. However, the interesting point of relevance for developing countries is that Germany has built the most successful TVET system in the world, underpinning its manufacturing super power status for 175 years, without any qualification framework. Similarly, China has one of the most successful TVET systems operating for at least three decades since the economic reforms, and it has underpinned China's industrial strategy; however, it does not rely on an explicit qualification framework.[4] The Chinese state regulates a vast network of institutions, essentially with the Township and Country governments (or the rural and urban local bodies, which finance the TVET system), which has met the requirements of industry and agriculture with fair degree of success. But it has not felt the need for a qualification framework.

Nevertheless, there continues to be strong donor support as well as support from international organisations[5] for the building and implementation of qualifications frameworks (Allais, 2017); The international studies corroborates the argument in Allais (2010) that where occupations are not regulated in terms of licence to practice or similar requirements, policy makers try to improve education/work relationships by involving employers in developing competence-statements for qualifications, in the hope that the qualifications thus developed can be used to reform curricula and to reform the delivery of education. In other words the implicit idea is that getting employers to specify competences will lead to a policy mechanism which plays a similar role to a framework of regulated occupations. But in reality this often is not the case. One problem seen in all the cases is that in the absence of occupational regulation employers tend not to be involved, or to be involved sporadically or inconsistently. Occupation regulation is a situation where most employers

[4] All the Chinese SD ecosystem is to use five levels of certification: Primary Worker Certificate; Intermediate Worker Certificate; Advanced Worker Certificate; Technician Certificate; Senior Technician Certificate.

[5] This statement does not apply at least to the Asian Development Bank's work in either Bangladesh or even other Asian economies, despite ADB's growing role in Asian countries in SD, especially in Bangladesh. This is perhaps not surprising that the ADB is witness to many fast growing economies, that have become manufacturing nations of global standing, with very strong TVET systems. But none of them adopted NVQFs at an early stage of development of their system.

are formal enterprises, with hierarchical levels of positions. Such formal enterprises are governed also by laws, which govern different aspects of minimum wages to be paid, benefits to be given, occupational health and safety concerns met, social insurance provided, pollution standards met, industrial relations are also governed. Entry into the occupation itself for the enterprise is governed by certain requirements, legal or otherwise. In a highly informalized economy, none of these conditions would apply in informal units; the majority of workers are self-employed (and have no employer as such); and even formal firms may only be registered under some Act of Parliament, but are not regulated or inspected or monitored for most activities.

But more fundamentally, the idea of a NVQF is flawed: if the entrance to occupations is not regulated through licences to practice, even where employers do specify competences they are unlikely to value such
qualifications in practice as they tend to be low level and narrow; this is aggravated by the ways in which competence-based systems cause problems for providers, as has been well documented elsewhere (Allais 2007b; Wheelahan 2008; Wolf 1995, 2002; Young 2011).

The framework in France is the only example of an occupational framework in the international studies, where qualification levels are linked to levels of work and pay. However, the qualifications framework did not seem to be the cause, but rather the effect or codification of such relationships. A regulated occupational labour market and strong collective bargaining has historically enabled the French system to relate qualification levels explicitly to levels in the workforce. What is now recognised as a qualifications framework, the National Register for Professional Certifications (Repertoire National des Certifications Professionnelles, or RNCP) is largely the same qualification system that has been in place in France for further education and training since the early 1970s. In 1969, a grid of ‘training levels’ was adopted, with the explicit aim of linking the education to the workplace. While duration of education was important, the levels were anchored against definitions of staff in work situations, which were then linked to qualifications. This, as Bouder and Kirsch (2007) point out, was circular. What this means is that unless you have levels of work (a hierarchy of levels of positions or posts at work), a QF cannot specify what qualification matches with which level of post.

For the QF, we have the additional problem that levels of qualifications for different occupations are difficult, if not impossible, to equate. On what basis would you equate 500 hours of training as a motor mechanic with 500 hours of training as a hair salon specialist? By assigning a level in a QF to each of those 500 hours, you would be equating what is conceptually impossible to equate. On

top of that, if the QF attempts to equate that number of hours of training to some equivalent level of schooling at higher secondary or tertiary level of general education, what would be the basis for the QF to assign a level?

One abiding problem with NVQFs is that occupational standards should always be linked to occupational fields as opposed to specific jobs, but in NVQFs they tend towards specifying standards for specific jobs. However, the idea behind quality SD is not to create a narrow description of the tasks undertaken by a novice, but to identify the wider professional domain, taking into account processes of adaptation to the job and professional integration. France also has a tradition of centralised curricula. Training has always been compulsory at the level of the workplace and employers have to finance it in a manner that varies on the basis of the size of the enterprise and the number of employees.

The fact that qualifications are a weak proxy for skill is widely acknowledged (for example, Guile 2010), and it seems increasingly apparent that rising education attainment, rising youth unemployment, and the changing nature of work are creating challenges for transitions from education to work in many countries. But there is still little evidence to support qualifications frameworks as a way of improving these transitions. If the concern in developing countries (such as Bangladesh) is that it is not enough to pass an conventional examination, since 'competency' in performing a task is not demonstrated by it, then the answer is: ensure quality training, of adequate length of time (not a few hundred hours), with a well-defined syllabus and curriculum, that has been arrived at in consultation with employers/industry, and then the training is imparted by trainers themselves aware of what employers expect, with training incorporating theory, practical workshop experience, and on-the-job internship or apprenticeship – then competency will be an inevitable outcome, especially if the assessment is itself conducted by industry experts.

Qualifications frameworks seem to continue to derive popularity from the way they promise to offer simple solutions to these very real and complex problems. Unregulated labour markets (which are typical to developing countries including Bangladesh), the diversity of provision particularly within TVET systems, and qualification inflation, all aggravate the ways in which there are weak relationships between educational provision and labour markets.

Qualifications rameworks which have either succeeded in creating some buy-in and understanding of the national

system of qualifications as a whole (such as in Scotland and France) are invoked as proof that qualifications frameworks can perform this role; qualifications frameworks which codify

relationships between training levels and employment levels are invoked as proof that qualifications frameworks can improve relationships between education provision and the labour market. But the main mechanism which is offered to developing countries in order to create a qualification framework is employer-led competency statements. This mechanism leads to complexity – undermining the aim of improving understandings of the qualification system – and does not lead to improved labour market outcomes.

There seem to be two options for policy makers: accept that improving the description of your qualification system is a useful although very minor intervention, do it, but don't make extravagant claims about improving labour market relationships. Or, focus on occupational regulation and licence to practice – to prevent any further informalization of work and enterprises – in order to have clear relationships between education and work. Raffe (2015), reflecting on the reform of vocational qualifications in the UK, suggests that the best line of action may be to stop focusing on qualifications. Attempts to improve labour market outcomes through employer specification of learning outcomes cannot substitute for broadly supported relationships between training levels and employment levels.[6]

Informal Workforce, School drop outs and Training for them through Recognition of Prior Learning (RPL)

We noted earlier that 87% of Bangladesh 's workforce is employed informally, i.e. in the informal sector. Under such circumstances there is not a great deal of purpose served of building an SD ecosystem that does not directly cater to their needs. In fact, given the weight of the workforce that is very poorly educated, the focus of attention of the new NSDP 2020 should be both on the future of work, but also the legacy workforce, especially those among the latter who are below the age of 40.

NSDP 2011 had indeed recognized their needs. Thus, it states (clause 5.9):

[6] Khan (2019) says that there has been a general argument from the employer's side that the traditional TVET graduates were deficient in terms of efficiency, updated skills on technology, and core skills. With the introduction of NTVQF, and competency-based training and assessment system, the skills mismatch has been greatly minimized as course accreditation, new competency standards and course literature, manuals and the overall monitoring system were put in place. Khan goes on: "The ultimate impact has already started surfacing as revealed in the BTEB study titled 'Matching of NTVQF Qualification with The Occupations of Present Employment Market' (September 2018). The study shows that 94.4% graduates are now engaged in either paid work or as self-employed entrepreneurs while the remaining 5.5% could still have the potential to be employed but chose to move to occupations not linked to their qualifications." This conclusion has to be qualified by stating that a miniscule share of all courses on offer in the country are QF compliant, and at current rates it will be decades before all the courses become so compliant.

"NGOs and other providers of non-formal skills training, including the Bureau of NonFormal Education (BNFE), will also be encouraged to utilise the new standards [of the NTVQF] and support materials so the skills component of their programs can be nationally recognised."

However, the question that should be posed today is: Should BNFE be put in charge of the Recognition of Prior Learning? We learnt that the same competency 'standards' that apply to the formal NVQF standard and the RPL standard, and the same painstaking efforts are going into their creation for both. However, the more important question for the success of RPL is: given that NVTQF standards are focused on the vocational dimension, what kind of attention is paid to foundational skills/cognitive skills as well as transversal skills in the RPL standards? As we noted in the very first section of this report, the definition of SD has to be broad enough to encompass the total personality development of the current or potential worker; hence both foundational and transferable skills must be part of RPL programmes. Who is or can be the repository of knowledge about RPL? In a highly informalized workforce, there should be some explicit mechanism effort to ensure that RPL is not assigned to one of the weaker institutions of the education system. Rather it must be located within the newly minted NSDA. The new NSDP 2020 needs to propose that part of BNFE that deals with RPL should be located inside the premises of NSDA, so that Bangladesh FE receives the kind of attention from the Prime Minister's Office that it deserves.

If the new NSDP 2020 is to be a credible force to raise skill levels in the labour force, it should setup mechanisms to ensure that the RPL national standards are actually robust pedagogically. This would mean that a permanent cadre of staff are devoted to precisely this task. In fact, international evidence in respect of RPL implementation is limited. Since those who are making a living in the informal sector don't have a voice in policy making, their needs risk being neglected in any society at the pinnacle of decision-making. But Bangladesh cannot plan to become a manufacturing nation or an upper-middle income country by 2024 (in less than 5 years time), without much greater attention at the highest levels of policy making to RPL.

Labour force growth of 2.81% during 1974–2017 was faster than population growth (1.86%) due to a rapidly expanding young population and increased labour force participation, so Access must expand rapidly to TVET. Recognition of Prior Learning (RPL) was one major step to expand the TVET access. But Khan (2019) notes that the RPL certification at the Pre-Voc level has been stalled since 2014 because of the new regulations (e.g. NFE Act

2014) and the insufficient capacity of BNFE. We should add that RPL itself is a poorly researched area internationally. Hence, the GOB is pretty much on its own to develop all three kinds of standards: a. literacy and numeracy standards, so that the poor cognitive skills of the current workforce are both recognized and then remedied; b. transferable or soft skills requirements at different levels for all kinds of works; and c. the relevant vocational standards. The new NSDP 2020 will need to articulate these clearly.

NSDP 2011 does note the following (clause 14.4): "Many citizens have left school before completing Grade 8 of general education, and because of this, are not able to enroll in formal skills programs. To overcome this barrier, the government will work with its partners to introduce reforms to ensure the Grade 8 prerequisite is removed from formal courses and replaced by course specific entry requirements." It is unclear whether this has this been done? If yes, with what outcome?

Similarly, clause 14.4e in NSDP 2011 notes: "*Assessment procedures allow for reasonable accommodation (ie: theory assessments may be read to students with reading problems and answers written word for word by a scribe when the ability to read and write does not affect the performance of the competency being assessed)." This is an extremely laudable and sympathetic measure, assuming that it has been implemented, and this measure should continue to be used in the RPL process. RPL itself needs to expand, in fact take a quantum jump. GOB will need to take measure to provide RPL at most of the Government/Semi-government institutions in Bangladesh (1731 of them), as well as the MPO institutions (2517 of them). This level of expansion of provision of RPL facilities will require planning on a vast scale at the NSDA, for which NSDA needs to prepare itself. The new NSDP 2020 needs to make specific provision for this to occur progressively over the 8th Five Year Plan period. This could prove to be single-most important measure in improving the quality of human capital across the country.*

NSDP 2011 had already noted, appropriately, as follows: "The RPL system will also form part of the enhanced system of training and retraining planned for expatriate workers, so that departing and returning workers can have their skills properly recognised and certified and ensure that the highest level of skill is recognised and remunerated accordingly. " (13.5) It had also stated (Clause 18.8): "A system of 'ladderisation' should be established similar to that in place in other Asian countries. Under this scheme, returning workers will be offered an opportunity for skills testing, skills upgrading and skills certification at a higher level certificate or part thereof before returning abroad." It is not the returning workers (from

abroad) that need access to RPL and skills upgrading. All workers in the current workforce need that opportunity, and the new NSDP 2020 should make specific provision for such a quantum leap in coverage of the workforce through RPL.

NSDP 2011 had also noted in clause 13.3: "To implement the RPL system, the government will ensure that:

a. All skills training delivered by government training institutions will provide opportunities for RPL; and
b. Private providers affiliated with BTEB will be required to offer RPL to all prospective students."

This was an appropriate goal of NSDP 2011. *GOB needs to take stock in a systematic manner so that progress and pitfalls in this programme are identified, and adequate corrective measures are articulated in the new NSDP 2020.* It would be appropriate that GOB takes forward its commitment.

One means to take forward GOB's commitment to RPL would be to use the 517 453 basic course/short courses that are on offer (according to BBS, 2015) as locations to make RPL services available to workers in the informal sector. The only problem is that almost one-third of such courses are on offer in just two divisions of Bangladesh : Chittagong and Dhaka. Perhaps utilization of courses could be greater for RPL, to ensure wider access, in the 5 other divisions.

One other suggestion should be considered. School drop outs are likely to lost their cognitive skills of literacy and numeracy; restoring those will take time through bridge courses, and that will require the complete attention of branch in the Ministry of Education whose remit is school education and adult literacy. In addition, some soft skills will also have to be imparted as part of RPL (especially, communication skills, some basic English, and instruction in work ethic like basic integrity, observing working hours meticulously). Finally, time may have to be allocated in the RPL course to imparting some vocational skills to broaden or deepen the workers' knowledge base. All this requires no less than 3 months of training. There is no short cut to RPL. This is one form of RPL, which should r be imparted over a 360 hour or 3 month basis.

The government may need to also conceptualise RPL in another form. It should be used as a means of certification only of those who are quite skilled. 55 000 such workers have already been certified. With World Bank funding, an Impact Assessment of such certification has been carried out (a study that is not currently public). This kind of RPL involves only 3 days: two days of orientation and a final day when the certification is awarded.

Competency based Training and Assessment

NSDP 2011, following upon its expectations of the NTVQF, goes on to state: "The CBT&A [Competency based Training and Assessment) system will support the introduction of demand-driven training, and will result in the development of partnerships between industry sectors and the training organizations." (6.2)

After 7 years since release of NSDP 2011, it is a legitimate question to ask: Does a CBTA exist now 7 years down? How is demand-driven training being operationalized? What incentives are in place for such type of training? There was little formal SD in place in 2011 when NSDP 2011 was released. *Inevitably, in the early, incipient stage at which Bangladesh 's SD ecosystem currently stands, the SD ecosystem appears to have developed inevitably as a supply-driven system. It is not entirely clear how a SD system will be converted to a competency based one and turned around if most of the system is government financed and government managed, even though private vocational training providers (VTPs) have mushroomed in the interim, since NSDP 2011? A demand-driven system is always industry-employer driven, not government-driven.* And industry-employer driven system should not be confused with the existence in the SD ecosystem of standalone private VTPs, with little connection to employers themselves.

NSDP 2011 also goes on: "Under a CBT&A system, industry will be expected to increase its engagement and support of training institutions, so that programs and graduates are more likely to meet the needs of employers and their staff." (6.7) *There has indeed been greater industry-employer engagement since 2011, with the emergence of Industry Skills Councils (ISCs), which we discuss in the next section). But whether a CBTA could emerge when the industry engagement is expectedly weak, remains to be seen.*

We know from the international evidence about VQFs, that a key aspect of qualifications frameworks is learning outcomes, and this issue has also been the subject of much critique and debate (Allais 2011a, 2012; Brockmann, Clarke, and Winch 2008; Hupfer and Spöttl 2014; Méhaut and Winch 2012; Wheelahan 2010; Young 2008). Lassnigg (2012), in an overview of developments in Europe, argues that claims made about learning outcomes are simplistic both in terms of education systems and in terms of how education relates to labour markets.*What is also clear is that unless industry-employer engagement is seriously institutionalized in the SD ecosystem, a CBT &A may not get institutionalized. (The role of ISCs in this regard is discussed in the next section..)*

5. **According priority to Industry engagement: an urgent imperative to improve TVET quality**

Like many Anglo-Saxon TVET systems around the world, including the Anglophone countries in South Asia, Bangladesh has opted for creating sector skills councils to represent employers; here they are called Industry Skills Councils (ISCs). Twelve of them have come into existence since 2012: Agro-food; Leather; Light Engineering; Construction; Ready made Garments (RMG); Transport; ICT; Tourism & Hospitality; Furniture; Ceramic; Pharmaceuticals; Informal Sector.

In the Germanic TVET system, the Chambers of Commerce and Industry, along with the Trade Unions play an extremely important part in every aspect of the TVET system: aggregating and assessing skill demand by sector; curriculum development; internship/apprenticeship; placement counselling. In fact as we will discuss below the industry-employers finance most of the costs of the TVET in these countries. The Anglo-Saxon model of industry engagement itself has four variants, but in none of the variants is the scale and depth of industry-employer engagement close to that in the Germanic model.

The ISCs in Bangladesh were studied in 2017 (GOB, World Bank, Canada, ILO (2018). It found the following. The ISCs are at an incipient stage: none of them have a proper office setup; they have no full time staff, only volunteers. Funds are needed, but there is no assured source of funding. Except ISC Furniture and Tourism/Hospitality, no ISC could generate funds. They have tended to remain dependent upon donors for maintaining their activity. Under such circumstances, there are inevitable questions about their sustainability and credibility.

The study also noted that opportunities exist for raising funds through contributions from members and rendering services to public TVET authorities and industry members. In all industry sectors, there ise more than one industry association but only one ISC for each sector. Members from all associations are eligible to become members of the ISC. Current ISC boards were formed on an ad hoc basis on a verbal understanding among association leaders. However, all ISCs have been registered with a public authority.

We would *suggest that funding for ISCs cannot be the responsibility of the GOB or of donors. That is not a sustainable model. Given that the beneficiaries of TVET programmes are the industry-employers, they will have to be responsible for financing the activities of the ISCs. Meanwhile, NSDA has already decided that NSDA will provide ISCs with office space within NSDA, and there is provision in the government budget to support them. However,*

in the medium run, ISCs should be encouraged to be independently funded by industry itself.

We will return to this subject of financing through the mechanism of Reimbursable Industry Contribution which could support the NHRDF in Bangladesh (see section on Financing later).

Apprenticeship is another form of Industry engagement: still to flourish

Bangladesh is facing a paradoxical situation with regard to mismatch between the supply and demand for skills. For example, a skills demand survey by the National Skills Development Council (NSDC) had revealed the shortage of skilled workers in nine growth sectors of the economy (GOB, 2012). While employers report shortages of skilled workers, a huge number of unemployed young people remain unemployed and seeking jobs. These training providers train thousands of graduates, but many remain unemployed. In other words, the formal TVET system is highly supply driven.

An ordinance on apprenticeship has since 1962 required formal apprenticeship as a mode of training by formal employers. Apprenticeship is administered by the Bureau of Manpower Employment and Training (BMET). There are three Apprenticeship Offices under BMET to operate apprenticeships (Dhaka, Chittagong, Khulna), with 15 persons in each office. The functions of the Offices are to arrange youth as apprentices and to arrange employment of apprentices after training. The BMET registers the apprentices, regulates the courses, monitors the training programme and provides logistical support.

What makes the programme interesting and unusual is that both formal and informal sector have apprentices arranged by BMET. Over 2009 to 2019 145 formal units provided apprenticeships, but 4845 informal units did too.. While 20 325 apprentices were trained over the same period in formal units, 11461 apprentices were trained in informal units.

However, like in many South Asian countries, formal apprenticeship has remained insignificant and unattractive to employers. Khan (2019) notes that most employers are either not aware of the legal requirement for apprenticeship or not willing to participate in the program. This was pointed out by a survey on apprenticeship carried out by the ILO and the TVET Reform Project in 2009. In fact, the public sector enterprises have been conducting formal apprenticeship programmes; also, large private companies have adopted apprenticeship (e.g. Unilever, British-American Tobacco; Gulfra-Habib Ltd, Western Marine Shipbuilding Industries, Leather industries, Apex Footwear, Akhter Furnishers, the textile machinery

sector, while BRAC provided informal apprentice opportunities). But these companies have offered, for a labour force of 63.5 mn, offered just a few thousand apprenticeships over a 10-year period.

In 2004 the GOB compiled all the labour laws into one Labour Law (of 2006, the former ordinance, and of 2013)). It states that all industries that employ at least 50 workers must have at least 10% apprentices. There is a tripartite national advisory committee for apprenticeship. The obligations of the employers are: 25% new recruitment through apprenticeship; the curriculum is supposed to be designed such that 20% time is in classroom, and 80% is for hands-on work; and 100% cost is borne by employer.

There were two incentives given to employers if they took on apprentices. One, they would get import duty exemption for equipment imported for training purposes; and two, they would get tax exemption for training expenditure on costs training to apprentices. But unfortunately, no industry has applied to get such benefits (as we were informed by BMET senior officials), as we learnt that employers believe there are too many procedural hurdles in getting these exemptions.

According to the Apprenticeship Act, employers must pay the stipends of apprentices. They are required to pay50% of the minimum wage in the first year, then 60% in the second year, and finally 70% in the third year. According to the Act, apprenticeships are supposed to last 3 years. But the GOB has recently introduced flexibility, with employers deciding the time period, which could run from 6 months to 3 years.

Apprenticeship training was introduced (formal and informal) for over 12,000 individuals (26% of formal apprentices were women). For formal sector apprenticeship, the GoB-Canada-ILO B-SEP project for example, built linkages to the NTVQF by supporting ISCs to develop Competency Skills Logbooks (CSLBs). These were based on competency standards, ensuring recognition and coherence of skills, and supported training for managers and supervisors. Informal apprenticeships were developed and delivered through a number of NGOs and development projects which ensured wide dissemination of the strategy and its adoption by several NGOs. The model has been adopted by the Department of Social Services and local government authorities as a core service delivery strategy. Furthermore, an Apprenticeship Cell has been established at BMET to track all apprentices and issue certificates, ensuring that there is overall management of this approach. The BTEB has worked closely with industry to assess more than 10,000 workers with the support of the project, and this will continue.This is not a regular function of BTEB.

However, it is possible for industry to formally approach BTEB to secure this service from them.

The ILO study mentioned above notes the following weaknesses of the present apprenticeship system, as identified from the views of stakeholders: absence of adequate provision of quality in apprenticeship training; lack of public-private cost sharing; and the need for strong coordination and monitoring.

W*e would suggest the following if apprenticeship in formal sector enterprises are to be encouraged. We have noted in earlier sections that no TVET training can be regarded as completed without the trainee receiving some on-the-job experience. The new NSDP 2020 should provide that non-short term training programmes, whether HSC Voc or SSC Voc or Diploma programme will not be certified in the absence of a OJT or apprenticeship of 6 months. This will only succeed or not be resisted if, industry-employers have been formally involved in the design of curriculum. Industry involvement in the design of curriculum will itself be contingent upon sufficient flexibility and autonomy being granted to GOB institutions to revise curricula in the light of detailed review by industry partners. These industry partners will have to be mobilised by the ISCs or the Industry Associations, as seem more appropriate. When certification itself for the trainee will be contingent upon OJT/Apprenticeship, there will build up a pressure from the young/their parents, as well as from Trade Unions to introduce apprenticeship. Some cost-sharing between employers and government may also be considered for a limited time period.*

6. Skills Development for Overseas Employment

A significant number of Bangladeshis (estimated about 600,000) leave for overseas employment every year, mostly as unskilled workers. Remittances from these migrant workers comprised about 2% of gross domestic product (GDP) in 2015-2016 which could have been greater if they were skilled. With a projected labour force growth rate of 2.2% over the next 10 years, 2 million youth joining the workforce every year. Among them 0.6 million are from mainstream education and 1.1 million are trained from government/ private skills development agencies. The rest of the forces fall within the NEET (Not in Education, Employment & Training). Bangladeshhas long been successful in sending about six to 700000 workers abroad

Globally, Bangladesh is one of the major labour-sending countries, exporting manpower to 157 countries around the world. The skills training, and TVET have also impacted quite

positively on the growth of overseas employment, particularly on the growth of skilled and semiskilled manpower export and proportionate decrease in less-skilled overseas employment. But the trouble is that around 56% of Bangladeshi migrant workers are classified as either unskilled or semi-skilled. Apprenticeship is a significant endeavour to increase remittance per capita and ensure decent work for everyone through appropriate planning and coordination.

The majority of migrant workers from Bangladesh have been recruited for the construction and textiles sectors (male migrants) and the service sector (female migrants), the government is looking for new opportunities for potential skilled workers not only into new countries but also in new skill sectors within traditional countries of destination.

The supply of human resources possessing vocational skills as per the domestic and international market demand remains poor. Therefore, almost all strategic plans, i.e., the Sixth Five Year Plan, Seventh Five Year Plan, Overseas Employment Policy 2006 and the Overseas Employment and Migrants' Act, 2013 emphasize the need for reforming the education system to increase the proportion of vocationally skilled human resource, which would ultimately serve both of the job markets, domestic and international.

7. Inclusive Growth: Gender, Disabled, and Other Vulnerable Groups

The NSDP 2011 had noted: "The working environment in most training institutions is very male dominated and not gender balanced, with males significantly over represented in senior management positions. Consequently, an affirmative action strategy will be developed and implemented to ensure that at least 30% of managerial and senior faculty positions are held by women and that the participation of disabled persons and other under represented groups is encouraged."(11.7)

While we know what the current gender distribution by gender is of employed persons in tvet institutions, but there is no such data for 2011, so we have no way of comparing and assessing progress after this goal was articulated in NSDP 2011. Nevertheless what we now for 2015 (BBS 2015) is not particularly reassuring. As much as 79% of all employed staff are r male, the remaining one-fifth being female. The disabled constitute barely 0.2% of all workers.

The new NSDP 2020 should consider, therefore, a gender requirement as well as a disabled reservation, which apparently already exist. Both the gender balance and the disabled

share is critical to ensuring greater inclusiveness in the TVET system, as well as less exclusion in the labour market for such groups.

Since the NSDP 2011, GOB has adopted two more policies to encourage the inclusion of vulnerable groups in the TVET efforts. The first is National Strategy for Promotion of Gender Equality in TVET, 2012 – provides strategic framework charting out specific mechanisms, action areas and activities to implement the stated objective: "to increase access of women to formal TVET institutions and employment through a number of measures".

The second is the National Strategy for inclusion of persons with disabilities in Skills Development, 2013 - to provide equal opportunities for persons with disabilities by ensuring that:

 Every skills development program is inclusive of persons with disabilities.

 Persons with disabilities have access to skills development programs that will improve their employability.

There now exist 118 TVET schools across the country which are PWD friendly and monitored by TMED. This breakthrough was possible given the government's commitment to disability inclusion across all sectors, and Development Parnters' timely and effective response to the NSDP's pronouncements on disability inclusion. The creation of a Disability Network, called Bangladesh Business and Disability Network (BBDN), fully housed and largely cost-shared by a Bangladeshi business enterprise with 42 members so far is an example of the engagement private sector employers, and the shared vision between the DPs, the private sector and the government in the area of disability inclusion.

The National Strategy for Promotion of Gender Equality in TVET in Bangladesh established the framework for actions related to gender equality. The Strategy established a national goal of 40% female enrolment in TVET by 2020 and called for action to address, among others, negative perceptions on women in non-traditional occupations and improving TVET institutions capacity on gender.

However, a World Bank study in 2018 found that overall, there's a significant shortfall of skills development opportunities, especially among females and the poor. Access to skills training opportunities has been increasing but still fall far short of meeting the demand. Skills training are particularly difficult to access for female workers and poorer groups of the labour force. Females have traditionally been underrepresented in skills development. *Clearly, the new NSDP 2020 will need to monitor mandatory admission in government and*

government funded institutions. But at the same time, residential facilities, especially in rural areas for TVET institutions will need to expand. In addition, female teachers will have to be found as well. However, this will take time as current gender imbalance in enrolment in TVET institutions militates against a quick change in this situation; GOB will need to arrive a measured though still targeted approach to addressing this latter problem.

In Table 4 we had noted that female seats as proportion of all seats in TVET institutions is as high as 41% (BBS, 2015). However, there is significant disadvantage that girls in rural aras suffer from. First, there are only 19 810 seats in rural areas out of a total number of 84435 seats in the country. Moreover, rural girls account for only 13.7% of all girls in TVET, while 86.3% are from urban areas. Given that girls suffer from socio-cultural constraints upon their mobility, they are likely to remain excluded from TVET simply because they were born in rural areas.

8. Data, Monitoring and Evaluation

According to NSDP 2011: "A more effective skills data system in Bangladesh will be developed which strengthens industry's role in data collection and analysis, and integrates the existing disparate efforts of BBS, BANBEIS and BMET within an expanded and nationally coherent system." (8.7)

The question that GOB needs to ask itself in 2019 if the data system that exists 7 years since NSDP 2011 is now collecting data in respect of i. VTPs; ii. Sources of demand for skills by sector? b. Are BBS, BANBEIS and BMET less 'disparate', less fragmented now than before 2011, and has a more 'nationally coherent system' come into existence?

What we do know is that at present, TMED or DTE lacks a dedicated M&E and MIS department. The TMED Action Plan for SDGs makes a reference to its strategy to develop a results-based monitoring system for the delivery of TVET across all institutions. IMED is responsible to centrally manage the M&E of development projects, but they require quality inputs from the relevant departments. Other than Household Income and Expenditure Survey, Labour Force Survey and web-based statistical reports on labour migration and remittances, there are no regular and systematic research reports on the TVET sector, labour market supply and demand, skills gaps, and tracer studies. Occasional studies carried out by public, private organizations and DPs are often project specific and incomparable with each other. The absence of a labour market research, skill gaps analysis, and a Labour Market Information System (LMIS) leave the training providers with no systematic records of job placements and a poor understanding of current and future labour market needs. This

affects the revision of the TVET courses, developing market-responsive curricula and the expansion of the TVET access.

While BBS produces Labour Force Survey and BMET produces statistical reports on overseas employment, there is no regular tracer studies or life-story mapping to track the recipients of the TVET or skills training. However, as a corrective measure, the TMED Action Plan has provisions for tracer studies that, if followed will fill a major gap in the data and knowledge management system.

There is no known M&E system in the TMED or in any of the TVET agencies that is clearly focused on the results indicators of the program and the results matrix (Khan, 2019). The NSDA's possible role together with TMED could be explored in the area of M&E. The EU funded HCDP 21 has a focus on results based monitoring, that will be introduced in the TMED, in line with the three components and corresponding DLIs of HCDP 21; and this could be the basis for starting ME in TMED and NSDA.
The SEIP project, under the Ministry of Finance promises to support the establishment of data processing and monitoring system to monitor performance and effectiveness of the skills development system. This data processing centre, to be located in the NSDA, will involve system validation, compliance monitoring, and so on. An external agency will be contracted for implementation and operation of the MIS, who will provide technical inputs to the NSDA for analysis and dissemination of data to prospective users. The project is expected to coordinate data analysis from the MIS and publish an Annual Sector Performance Report for the skills sector, with information on student enrolments, skills training courses implemented, graduates' employment rates, and progress on key performance indicators. *All of these look like good plans, but in the interest of institutionalization of these plans it is appropriate that GOB, when it revises the NSDP 2011, should provide for them in the new NSDP 2020.*

NSDP 2011 had noted: "There will be an increased focus on student employment outcomes which will be measured by a new system of tracer studies implemented by all training institutions." (11.7) *The new NSDP 2020 should provide specifically for Tracer studies to be conducted for each type of VTP in the system, preferably conducting a baseline of tracer studies for different types of institutions as soon as possible. These will then in later years become the basis for monitoring outcomes of different types of TVET providers in*

terms of employability effectiveness over a period of time. This will enable policies and programmes to be tweaked – using these tracer study inputs.

9. **Governance of the Skills Ecosystem** –

Skills sector in Bangladesh is quite large and fragmented where more than 22 ministries and 20 government agencies are involved, quite apart from the multitude of registered and unregistered private VTPs.[7] The distribution of TVET institutions by agency should also be noted:

This level of fragmentation in a relatively small country is not exactly conducive to effective governance, especially the need of the hour is to improve regulation for improving quality of training. It is a good thing that Bangladesh now has an apex institution, NSDA, located in the Prime Minister's Office, which should be able to coordinate better the multiple institutions. Will be participating in a TVET SWAP soon, and hence there will be greater coordination possible among donor efforts. This coordination effort will be facilitated by the creation in 2018 of the NHRDF, to facilitate planning on a national scale of financing of TVET, so as to avoid unnecessary duplication of effort.

It is also good news that donors, who are major funders of TVET in BN, will pool resources into the NHRDF. It remains to be seen how government budgets for TVET across the multiple ministries are planned to be pooled (whether through the NHRDF or some other means).

We have, in the next section, discussed ways of mobilizing additional resources, but from the private formal sector industry, for TVET. If that is implemented, industry engagement will be enhanced, and a constituency in favour of coordination will be created within the private formal employers as well.

However, until this new scenario plays itself out, additional efforts may be required to reduce the fragmentation, and improve effectiveness: TMED is a relatively new public body within the Ministry of Education, and it covers both Technical and Madrasah education. TMED prepares its budget following MTBF against strategic objectives and

[7] The Ministries are (in order of importance of provision, defined as share of institutions): Education;Local govt, Rural Development &Cooperatives; Health & Family Welfare; Youth& Sports; Women & Child Affairs. These are the only ones whose share is greater than 1%. The remaining each have a share <1%:Social welfare, Labour & Employment;Industries, Agriculture, Civil Aviation & Tourism;Road Transport;Textiles & Jute;Poer, Energy & Minerals;Defence; Science & Technology;Fisheries & Livestock; Environment & Forest;Shippng, Home; Posts/Telecom/IT; Primary & Mass education; Religious Affairs. However, 30% don't have any ministry involvement, meaning they are "basically training institutions run by individuals" (BBS, 2015, p17).

activities. It has action plans for TVET sector development and for SDG-4 implementation. DTE is substantially understaffed for years (Khan, 2019). BTEB requires, among others, resources to develop and expand CBT courses. TMED, DTE and BTEB lack capacity related to results-based planning and monitoring, reporting, and financial management. There is also a very limited decentralisation and delegation of power at the local level which could empower the public TVET providers at the local level for local resource planning, industry engagement and public private partnerships (PPP). Other sector bodies like NSDA, ISCs, and COEs are yet to be fully functional and effective.

As of early 2019, there is a NSDA at the apex level of governance. It is critical that NSDA is charged with the responsibility of at the very least, ensuring coordination between the major public TVET providing Ministries, named above. However, that itself may be difficult to achieve, given that already conflicts have been noted between two Acts of 2018, one related to BTEB and the other creating NSDA. These need to be resolved at the very earliest by the PMO, in careful consultation between these two main institutions. This is not a matter that needs to find mention in the new NSDP 2020, but it needs to be addressed at the very earliest. Then serious issues of governance await the leadership of NSDA.

The areas mainly relate to NSDA's role in training impartation, certification and accreditation of training providers, which ideally should be performed by BTEB.
Also important is the need to clarify the areas of duplication in the two legislations (the NSDA Act and the TVET Act 2018). For example, Clause 8 of the BTEB Act mandates BTEB to provide Recognition of Prior Learning (RPL), while the NSDA Act's clause 6 allows NSDA to do the same where applicable. Both legislations allow the respective organizations to be involved in training quality improvement, certification and mutual recognition. NSDA being the apex body for coordination and overall quality direction, their micro-level involvement may not only create confusion, but also could jeopardy its main apex purpose. BTEB has provided RPL certification at the NTVQF pre-vocational level to 9000 employees during 2012 – 2015. BTEB has stopped this since the Non-formal Education Act 2014 assigns Bangladesh FE to do this certification. Since then, no NTVQF graduate has been certified at the pre-vocational level.

However, NSDA's ability to undertake wide-ranging reform is going to be contingent upon its own staff to be appointed and for the apex body to be itself up and running. The fastest way to ensure staffing of NSDA would be bring existing staff on board

from such line agencies as BTEB and DTE. However, even thereafter staffing can continue.

The next most important issue in governance is the need to rethink whether all the 22 Ministries and 20 agencies currently undertaking TVET should continue doing so. It is perfectly possible for PMO and NSDA to undertake consultations, one by one with each, and those which account for less than 1% of total provision could be brought under one common fold within a new division of NSDA. It would enormously ease and facilitate the regulatory role of NSDA.

The fourth and final big challenge in the TVET space is ensuring that private providers are meeting basic requirements in respect of: a. teacher qualifications, both pedagogic as well industrial experience; b. class-room theory teaching is backed by industrial attachment. In earlier sections we had raised issues in respect of these issues, but these issues are likely to be even greater among private VTPs than among government TVET institutions.

10. Financing Expansion with Quality

Despite BN's achievements in past decade in the TVET space, the budget allocation for the education sector remains 2% of the GDP. There has been a consistent increase in the TVET budget of the Ministry of Education (MoE), with a view to expand the public network of Polytechnic Institutes and Technical Schools and Colleges. These increases in public funding have, however, not kept pace with the actual level of expansion in the sector, with the shortfall increasingly being met through private sector, informal learning and household spending (Khan, 2019).

The World Bank shows that an investment of USD 600 million is needed to train the two million new entrants to the labour market. In fact, the World Bank has decided to lend to GOB $ 500mn for TVET, and a big expansion of the TVET activity is planned. GOB will take a view first, before the loan agreement is signed, whether and over what period of time is such a loan amount expected to be utilized. In other words, what is the absorptive capacity of GOB and the TVET instiituions to really make effective use of such a large sum of money.

The actual estimated annual investment currently from public and private sources is about USD150 million, or enough to train only 500,000. The investment requirement will rise to USD 1.2 billion in 2025 to train 4 million new labour market entrants per year. TMED gets about 1.3% of the total national budget to cover both technical and madrasah

education. Before increasing the sector financing, there is a serious need of institutional strengthening and financial management capacity building of the relevant public bodies on budget planning and on efficient budget utilisation.

The Government of Bangladesh finances the majority of the costs of public training institutions and a significant share of teacher salaries at BTEB-approved private secondary vocational institutions. Different numbers have been cited about the proportion of MOE financing devoted to TVET (Khan, 2019). However, all the percentages are low. According to DTE, TVET absorbs 1.7% of the MOE budget. Another source indicates that the government spends a mere 1.3% of its education budget on TVET, and that it decreased from 2.5% in 2004–2005 (World Bank 2016). For BTEB-approved SSC (voc) and HSC (voc) institutions, public spending comprised about 2.6% of the total education budget. Only about 1,600 out of 3013 BTEB-approved private TVET providers receive Monthly Payment Orders (MPOs). Although BTEB is responsible for regulating private TVET programs, its inspection and monitoring cell is not fully staffed, which affect the frequency of inspection as well as service delivery by private training providers.

Compared with general education, the per-student cost of public TVET is higher, largely owing to smaller class size and equipment and supplies. According to a 2007 World Bank study, the average TVET unit costs were nearly three times higher than the cost of general studies, and the per-student cost (Tk16,000) of public vocational secondary institutions is nearly three times higher than the cost of public general secondary schools. Similarly, public polytechnics cost about an average of Tk 13,500 per student compared to Tk 4,720 for government colleges (World Bank 2007).

Government grants provide about 70% of public institutions' revenue. In addition, public diploma institutions produce about 20% of their revenue from fees. Private secondary-level institutions received, on average, slightly more than half of their revenue from MPO grants. Private diploma-level institutions are entirely self-financing.

Household or out of pocket costs of TVET are high. TVET cost per month for education and training range from Tk. 1,175 (general education), Tk. 1,928 for formal TVET and Tk. 694 for non-formal TVET, which add up to major share of the subsistence level income of at least 30 % of the families below the poverty line (Khan, 2019).

This combination of household costs and of low GOB spending on TVET is a factor limiting a more rapid expansion of TVET. Bangladesh needs to find new and additional resources for TVET. Bangladesh formal sector has been thriving in the 21st century, with Bangladesh averaging 6% pa GDP growth. However, currently formal sector firms are contributing very little to the costs of TVET in BN, even though the largest beneficiaries of TVET programmes are registered formal sector firms. This situation is not unusual for developing countries.

Why firms' prefer not to provide in-firm training in developing countries?

Why firms in developing countries prefer not to provide in-firm training can be best understood theoretically as a 'moral hazard' problems combined and a 'free-rider' problem. Firm A bears the cost of setting up the infrastructure needed to provide training, as well as hires professional staff to provide the training, while firm B, C and D do not, firm A runs the risk of losing its trained staff to its competitors. Firm A faces in other words, a moral hazard, since the free labour market is such that other firms will free-ride upon its investment. As a result, no firms will free-ride upon its investment. As a result, no firms willing to make the investment. Since, skilled persons are public goods, the government has historically provided them, practically free to the private sector, which bear little or no cost. A typical example is the system of Bangladesh nInstitute of Technology and Bangladesh Institute of Management, where the best young trains in the country are trained at considerable public expense, and they have been employed at large Bangladesh firms. But the latter have had to contribute precious little towards their training/education. No firm, foreign or Bangladeshi, operating in Bangladesh will be willing to pay for creating the human resource infrastructure required to skill the people to enable a growing emerging market economy sustain its growth.

There is, however, an additional problem. If there is such a serious shortage of skilled personnel, why are young persons not coming forward in larger numbers to acquire the skills. We suggest that there are two sets of constraints preventing what seems to be a rational act on the part of youngsters. One is information asymmetry', and the other is the problem of 'ability to pay'.

Demand aligned skills financing forms the pivot for realizing the demographic dividend. We have noted earlier in this report that the VET system in most developing countries (excepting a minority), and especially in South Asia, has evolved as a government- financed and supply-driven system. A supply-driven system is characterized by the governments taking decisions about who is to provide VET, where it will be provided, and how it is to be

provided. Such a system relies mainly on government financing of pre-employment training. Industry or employers have a very limited role in financing or actually running the system.

As a result, industry often complains that a) not enough trainees are emerging from the government- financed and government-managed VET system; b) the quality of training in government- financed institutions is so poor that the trainees are either not employable or have to be retrained by employers; and c) skills which are provided do not match the specific skills needs. Employers in Bangladesh for the last several decades have had all three types of complaints about the VET system. Clearly, there is time for a change. The current model of the system is not serving the needs of employers, youth (as they don't get jobs) or the goals of government (which wants to skill youth, provide them opportunities of decent livelihood and meet exact skill needs of employers).

The existing model emerged at a time when a state-led model of industrialization prevailed, with public sector firms generating jobs. This stage of Bangladesh development was over by the 1980s, but the VET ecosystem then was in its infancy; given how miniscule is the share of youth in formal TVET, it is still very much in what could be described as 'early childhood'. Government jobs have not been growing in any sector for the last quarter of a century except in the health and education sectors. Meanwhile, the private sector has grown in share of total investment and total turnover in the economy. The private employers are the biggest beneficiaries of the VET system, but their direct contribution to the TVET system is minimal.

Government-financed and government-managed ecosystems tend to be supply-driven as opposed to being demand-driven. All global models of TVET that have demonstrated success are demand-driven. Alternative models of financing exist around the world have proven to be more successful in avoiding all three problem areas identified above: too few trained relative to need (quantity); quality (poor quality training, with low levels of competence, and little practical industry experience); and skills mismatch (irrelevant skills inappropriate to the industry requirements). *The alternative model has two characteristics: one, it is demand-driven (i.e.driven by employers) and two, it is mainly industry-financed and managed. The government funding does not fall in any way in this model. However, since private employers and not the government are the main users of trained personnel, it is only natural that industry makes a financial contribution to training, that goes beyond the limited number of companies in Bangladesh that currently provide enterprise based training (EBT).*

Present model of financing VET in BN

In Bangladesh, general tax revenues are used to fund public and private training providers (VTPs). This is reflected in skill and training budgets of 22 Ministries. *Another variant of financing skill development from general tax revenues could be a provision of tax deduction (of say 100-150%) of the expenses incurred on Skill Development programmes by the enterprises, which could be a model that new NSDP 2020 may wish to propose. However, we are suggesting below a superior model for industry financing of TVET. Our proposal is not the GOB stops* funding all pre-employment training in Bangladesh for every pillar of the formal VET eco system. It is intended as a source of supplementary funding.

The second form of financing is "in-firm training financing", which is confined to a tiny fraction of al firms, and that too only the very large ones (contrast that to 85% of Chinese firms that conduct in-house training). But even the smaller of large firms, and certainly the medium and small enterprises, don't conduct much in-house training. Hence, while international evidence suggests this is the best way to address skill needs, the financing for it is meagre and needs more impetus.

A third form of financing that could be argued for in Bangladesh is Corporate Social Responsibility (CSR). The policy for CSR in Bangladesh could be governed by the Companies Act, (Year??). The Act could encourage companies to spend at least 2% of their average net profit in the previous 3 years on CSR. However, its use would need to be monitored, and it would need to be mandatory.

However, putting skill development in the category of CSR activity assumes that skill development is not directly profitable or beneficial to the company in its core business. Since many large companies are already undertaking skill development activities, as the company requires skilled manpower that no one else can provide. Putting skill development into the category of CSR may enable such companies to transfer the costs of normal skill development activities the firm was running in any case, and pass them now as CSR activities, substituting for other equally worthwhile activities eligible for CSR under a new 2% requirement. Finally, since skill development is an activity that will be undertaken by the company for meeting its own requirements for skilled people, the training may be overly specialized, and may leave the trainee not particularly employable if he was to move jobs. In sum, while CSR could be used as a means of enhancing financing for skill development, the Government of Bangladesh has to be careful that it does not end up subsidizing activities by the firm that it might have undertaken in any

case, and is meant to exclusively serve the purposes of the firm, rather than a public good.

Need for Relook at the Financing Model

There is another issue which is peculiar to government-driven funding of TVET . When the Government funds the training, the involvement of employers is peripheral in setting training standards, in-plant training, assessment or placement. However, it has been observed that when the employers contribute financially to training, their intensity of involvement increases many fold in all aspects of training. There are 62 countries of the world where employer-industry contribution to training has led to greater engagement by employers in training quality, as we will discuss below. These countries belong to Latin America, Europe, several countries in Asia (South Korea, Malaysia, Singapore), and a few in Africa.

There is, however, an additional problem which exists on the demand side. There needs to be effective demand from youth for training. If there is such a serious shortage of skilled personnel, why are young people not coming forward in larger numbers to acquire skills? We suggest that there are two sets of constraints preventing what apparently would seem to be a rational act on the part of youngsters. One, is information asymmetry and the other, is the problem of the 'ability to pay'.

Young people who can be trained are not aware of the sectors and skills that are in short supply, since there is no publicly accessible labor market information system (employment exchanges are a poor substitute), nor is there a publicly available skill gap analysis by sector. In other words, there is a problem of information asymmetry. Employers, industry or services, are looking for skilled people to employ but can't find them. Youth looking for jobs who can afford to pay for pre-service vocational training do not know which skills are in demand, and therefore can't find jobs.

A further demand problem arises from the fact that young people turning 15 often do not possess the ability to pay for the training. Even if training itself is free in government institutions (though not in private ones), there are living costs to be met during training if undertaken away from home. Potential trainees face two kinds of costs if they decide to acquire vocational skills pre-service. First is the financial cost of the training itself, including living expenses. The second is the opportunity cost of not being in a job. For the children of poor parents, dropping out of school occurs due to financial reasons; parents cannot afford to keep their children in school. Some could drop out, and may not work, but

the majority will end up in the informal workforce. he reason most such young people left school after (or even before) completing elementary school (class 1-8)is that they were not sure any further general, academic education would improve their employability, especially for a formal sector job.

The dual burden of the financial and opportunity cost of pre-service vocational training is a serious barrier against entry of youth into VET. Hence they don't wish to join vocational education in senior secondary school or pre-employment vocational training that may be on offer from the public or private sector. It is precisely on account of the moral hazard problem on the supply side, and the information asymmetry plus inability to pay on the demand side that both skill supply and demand for training is as low as it is in Bangladesh . Both these problems could be addressed simultaneously if financing was available through a dedicated training fund in Bangladesh .

The National Skill Development Policy adopted a demand driven sectoral approach to skill development and envisaged participation of employers in a key role in articulating and meeting skill demand. The Bangladesh government has to think of creating a 'market maker' to catalyze private investment. However, the financing of skills has still remained centralized from the government through public provision. This constitutes the main reason for sustaining the current supply driven system, in complete contrast to our stated objectives.

The Industry Skill Councils by their very definition are 'employer led bodies' as reiterated in their role description in National Skill Development Policy,2011. However, ISCs have all been incubated with donor funding, with negligible contribution by employers. Moreover, peripheral employer involvement and ownership by industry is reflected in a) poor placement percentages and b) qualification standards not often used even though they are supposed to have been prepared with their 'involvement'.

It has become clear in this process that putting employers in the driving seat in ISC can only happen by employer-incentivized participation in the financing of the system.

Bangladesh's demographic dividend will peak by 2030s, with the additions to the labour force increasing between now and 2030, and then falling thereafter. However, financing, largely hitherto dependent on government and more recently multilateral financing (especially from the ADB and the World Bank), will not be adequate for the nation's

goals. Instead of borrowing growingly large sums in foreign exchange, GOB could draw upon BN's own private sector to contribute to its own skills needs, which if fulfilled will enhance productivity and quality of Bangladesh products. Bangladesh 's current VET ecosystem in the best-case scenario is still training half million per annum only, nowhere close to the requirement. More worryingly, a lot of the 2 million youngsters who are entering the labour force since 2012 are trained on extremely short term courses, but the rest go without any formal TVETBetter quality training to large number of new entrants is required, as the number of new entrants will increase beyond 2 million per annum, as more young people get educated. Given the growing education level of these youth, they will not join agriculture, but look for non-agricultural work.

In addition, there will be those leaving agriculture looking for work. All these older leavers will need to be trained; otherwise the quality of the workforce cannot improve. But the kind of training to be imparted to them will be different than for those young with education who are fresh entrants into the labour.

Finally, there are the already unemployed (>4% of the labour force, according to Labour Force Survey), who will need jobs and hence may need better training than they currently have. In other words, the skilling challenge is huge, and will only grow. Hence, the need for more funds and a new financing model for Bangladesh for skilling has acquired paramount importance today; a re-examination of the financing model of government-alone financing, supplemented with donor funds, for the skill ecosystem is in urgent need for a revamp.

The past government-only funding model has lost its relevance for two reasons. First, the numbers being trained currently are not being skilled to levels of quality and relevance to industry needs on the scale required. Bangladesh has expanded the numbers being trained, without adequate concern for quality or relevance. This situation cannot continue any longer. If it does continue, there is clear risk that 10 years from now, we may still have a workforce that is very poorly skilled, even though some of them have some skills. Second, the numbers to be skilled should expand, because of the growth in the expected labour force looking for non-agricultural jobs.

Much more funds are needed for the growing numbers to be skilled, and the government alone cannot meet these costs. The government has other commitments, especially financial requirements to improve the quality of both school as well as tertiary education, which has experienced massification, with a precipitate decline in quality of learning. Building a skill ecosystem to train poorly educated youth is like building a house upon sandy foundation.

Strategic financing over the next few years is, therefore, required if we wish to ensure that the demographic opportunity is not wasted. The current skill system is underfinanced, the number of people Bangladesh needs to train is huge and there is a need to upscale efforts.

However, there is a limit to the extent of general tax revenues that can be mobilized for skill development, given the need to keep the fiscal deficit under control on the one hand, and the multiple very important drafts on resources from health, education and infrastructure investments, which must remain the responsibility of the state. The private sector cannot be expected to provide either public health or school education, and even for infrastructure the private sector enters only when there are major state funded projects.

Financing of skills across 22 Ministries, and unifying the fragmented training system to create a truly one nation, one standard and one VET system needs resources beyond public provisioning. Private financing will enable better coordination between multiple providers to meet the needs of the funders: the private industry will not find anything less than the best quality training acceptable. An objective formula for provision along with a diversified contribution from sectoral employers would ensure the demand side of employment comes with the right allocation of financial resources. The common pooling of funds is also a key

strategy to ensure unification of the skills efforts across the country. The availability of the National Human Resource Development Fund (NHRDF) is a valuable institutional development in 2018 (with an initial financial contribution made by the GOB)..

Globally, the main source of financing for Skill Development has been the private sector as evident by the fact that 86% of the total cost of VET in Germany is met by the private sector, with only the remaining 16% coming from the Government. Germany has built up one of the most successful VET systems in the world. Germany is only among the majority of countries of the world; we single it out only because it is a manufacturing superpower, and has been in that position for decades. Industry contribution of such an overwhelming magnitude is only logical since they are the direct beneficiaries of such skill development, even though the state may play a facilitating role. The Bangladesh private sector needs to step up to the task, given its own requirements.

From the above discussion, it is clear that while government has larger national goals in skill financing, unilateral financing only by the government does not meet the sectoral employer skill needs. For all these reasons above, operationalizing a National Training Fund with employer participation with a meaningful economic rationale is required at the earliest.

International Experience of Skill Financing

In 62 countries of the world payroll training levies are the principal source of financing for training funds and have been part of their system for *many* decades (for example in Brazil since 1942). Levies can provide a steady and protected source of funding for training, particularly in the context of unstable public budgets. Early training funds (e.g. Brazil) tended to be single purpose aimed at financing pre-employment training. Others focused on expanding the volume of in-service training within the enterprises. There are 17 countries in Latin America (including Brazil), 17 countries in Sub-Saharan Africa (including South Africa), 14 in Europe, 7 in Middle East and North Africa, and 7 in Asia that have such funds.

From the above discussion, it is clear that one of the key strategies to address the moral

hazard/free rider/poaching problem in skill development, to ensure right resource allocation and create a holistic financing system is right financing. There is overwhelming evidence from 62 countries in the world that have some form of industry incentivized reimbursable contribution, that it has helped to a large extent to solve the moral hazard/free rider problem.

Reimbursable Industry Contribution (RIC)

Sixty two countries have adopted an option that seems to have served them well. This is in the form of a reimbursable industry contribution on a company, a levy that goes into an earmarked fund, meant exclusively for VET purposes. Firms can be reimbursed the costs of training from such a fund depending on the training done. They can do in-firm training or purchase training from accredited vocational training partners across the country.

The systematic use of industry financing by such a large number of countries with good skill development systems is encouraging. It is important to highlight that this is not a tax that will flow into the government treasury, never to be seen again, over which employers have no control. Rather it is proposed as a "Reimbursable Industry Contribution" they make, which will be managed by them; it can flow into the NHRDF, but this part will

Be mainly managed by sector industry senior managers. In addition, the government's financing system will remain in place and match it.

In our consultations with various stakeholders, it was revealed that the majority of employers in any sector do not know about the ISCs and their benefits. Of course, all efforts must be made to articulate the benefits of the ISCs to the employers. However, in a populous though small country like Bangladesh and with the short time frame available for the demographic dividend, we would recommend that it should be mandatory for all private and public enterprises to be a member of at least one sector Skill Council. This would be mandatory prerequisite for the RIC.

It is proposed that new NSDP 2020 should explicitly state: "Industry should earmark at least 2% of its payroll (including for contract labour) for skill development initiatives in their respective sectors. These funds can be channelized for skill development activities either through respective ISCs or through NHRDF". The RIC would be applicable to any registered large, medium and small private and public enterprise which employs 10 or

more workers.

In our consultations, it was evident that the ISCs have not been able to estimate the skill needs of the industry. It is hence recommended to mandate a very brief online submission of a 'requirement of skills' and 'annual training plan' agreed to by the employers with the ISCs, through consultation formally conducted by the ISC. This would be a part of the submissions to the ISC for reimbursement in the RIC framework.

Global evidence suggests that such RIC financing mechanisms work with private sector being able to manage the contribution. The Government-control is seen as inefficient, bureaucratic, and the private sector does not find worthwhile the time and effort to access such funds for skill development. This is a very important concern. However, this concern can be addressed by the private sector being in complete control of the allocation of funds. For example, sectoral training funds (as in Brazil) enable industry to completely manage the funding, without government control. The huge advantage of the private sector managing the levy and the training is that there is better alignment of the skills with private sector needs. The ISCs could be the channels for grant management, mandatory grant, continuous learning grant, and the apprentice grant.

The RIC would provide an institutional framework for a steady revenue flow to the ISCs to focus on their strategic objectives. They would be freed from mobilizing resources from here and there. The RIC is a hybrid model that incorporates best practices for industry involvement from across the world but adapted to Bangladesh conditions.

The total RIC collected, could be passed on to the ISCs in proportion to the contribution of their members. It is proposed that 20% of the funds will be used for training for the unorganized sector. The remaining 80% of the funds collected will be used by ISCs for reimbursements to members as per training plan, for their ISC administration and for grant based funding for small registered enterprises in the organized sector. But this training should be for fresh entrants to the labour force. To upgrade their existing staff employers should be paying the costs of training to the training providers. The amount should also be used for financial support to learners (to compensate for training leave for workers, lifelong learning opportunities, stipends after training to support apprenticeships, etc.).The use of funds must be targeted for industry and only for skills required by the industry; self-employment must not be

funded by the RIC. Funds cannot be diverted to other sources but should be tied to the needs of firms.

The RIC can become the basis in Bangladesh for measuring the performance of ISCs. One measure of performance that has been used in countries is monitoring numbers trained in their sector versus targets agreed with authorities. However, this measure is vulnerable to manipulation. Hence, as opposed to measurement of ISC performance against skewed simple enumeration of output against training targets, the ISCs could be evaluated by real impact made: actual training plans received, total reimbursements made, numbers trained and counselled for placement, under the RIC.

There is considerable global evidence that suggests that similar models like RIC may be misused by large employers who already have in-house, existing training capacities. Before implementation, there is a need for a baseline to recognize current level of training in the industries to ensure a baseline data is established for numbers currently being trained. RIC funds would be utilized for reimbursements for training over and above those currently being trained. The reimbursements would link to incremental improvement from the baseline and not on the absolute training capacity. This provides employers an incentive to augment existing capacities and ensures that we do not have deadweight training later on. So the levy will be on incremental improvement from current level.

One of the key purposes of the RIC is to ensure adequate financing for National Vocational Training Qualification Framework courses. The administration of the RIC should be simple. There would be no complicated rules and it will be designed to ensure there is no additional paper burden on the employers.

The RIC would be an online system that provides for levy calculation, collection and reimbursement. The entire system could be linked in due course to the LMIS, but this would be a long-term objective, given how nascent a stage the LMIS is currently at. The employers would get candidates trained by the skill ecosystem in real time for their needs.

There would be monitoring of training quality and content by an ombudsman/ national regulator and assessment and certification at the end of the training will be done by a proposed National Board of Assessment and Certification.

The RIC will benefit the large firms directly. But the small firms may not be able to claim reimbursement since they do not have the financial capacity to undertake EBT; hence it is important to ensure that small firms particularly from the unorganized sector who do not have cash flows for training are provided training vouchers, which they can redeem, from nationally approved training providers.

The determination of the RIC rate can be decided after a thorough estimate of national skill finance needs. A multidisciplinary expert group could be constituted by the Government to work out all details, implementation strategy and drafting of a law on the subject. However, we would recommend that the rate should be 1% of payroll bill of the firms, to start with, .

Governance Structure for financing

NHRDF should be the institutional repository of the funds. The fund will be used for the entire VET system across the country and be managed by sectoral employers by way of ISCs.

The ISCs will need to collect credible data from industry through mandated provisions and be able to estimate the demand gap for each skill. ISCs have so far not been able to meet this requirement of industry skills bodies.

The government has a key role in being a provider of information about the impact and effectiveness of the RIC. Government funding will not drop by any means. Government funds from all relevant Ministries will need to be also deposited in the NHRDF. This would be beneficial, as it would enable planning on a national and sectoral basis, end fragmentation and duplication, and rationalize funding. This would ensure that a holistic mechanism would be put in place for financing skill development across the entire country. In this manner, the government role for social equity- based skills financing would be more effective, and its financial contribution can be more effectively used for disadvantaged groups, women, unorganized sector, disabled, and minorities.

11. Emerging Areas

Extensive studies commissioned by ILO shows that in ASEAN countries such as Cambodia and Vietnam, where textile industries play a large part in economy as in Bangladesh, nearly three in five jobs are at high risk of being fully or partially automated.[8] As technology adoption is making significant strides in Bangladeshi industries, and the global market is integrated, it is likely that jobs and skills demands in Bangladesh would also be impacted by automation and other technologies in very similar manner. *Hence, the NSDA should consider commissioning a reputed research institution to examine the current situation in respect of adoption of such technologies so far, and the plans of corporates to adopt digital and IR 4 technologies over the next five years. That should become the basis for the preparation of plans, which could be articulated in the new NSDP 2020. At the same time it would be advisable to involve the Ministry of Science and Technology and the Ministry of Industries in this exercise from the beginning, so that best information and best minds are brought to bear on this exercise.*

The main greening shifts in the economy and the labour market of Bangladesh have taken place predominantly in renewable energy – most prominently in solar photovoltaic energy followed by biogas, but only rather weakly in materials management, telecommunication, transport, and manufacture of bricks and ready-made garments (RMG) (Khan, 2019). The shifts in the sectors other than renewable energy remain weak, owing primarily to inadequate policy and institutional support. Available evidence shows that green jobs in solar energy steadily increased by 18.5% annually from 60,000 in 2011 to 140,000 in 2016, compared to 1.9% job growth nationally.Bangladesh has embarked on a large number of legal acts, policies and programs for adaptation to climate change and mitigation of its adverse impact, but it has no national policy for the formation and development of skills for greening the economy.

In all the sectors including renewable energy, skills response remains informal, essentially provided by NGOs. National skills development objectives and targets do not match national environmental objectives and targets; and existing national skills

[8] Computerized manufacturing machines such as automated cutting machines and sewing robots are increasingly prevalent in ASEAN countries.

development policies, programs and strategies have no correspondence with national climate change policies, programs or strategies. They are mutually exclusive.

Here again, *a comprehensive study needs to be undertaken first to identify the biggest risks emanating from climate change for a. Bangladeshagriculture, and b. Bangladeshsociety as a whole. That study should be the basis for the preparation of plans which should be incorporated in both the 8th Five Year Plan, but also in the new NSDP 2020.* A good beginning in the direction of environmental consciousness raising and environmental safeguards has taken place already through TMED's commitment in the SDG Action Plan. TMED SDG Action Plan proposes a number of actions, and interventions in support of environmental consciousness raising, as well as integrating green employment practices in the TVET sector. These include organizing innovation and green job fair in conjunction with the Ministry of Environment and Forest; and imposing reward and penalty for green practices and lack of it in the mainstream formal, non-formal, informal and TVET education. TMED also proposes to conduct community outreach program focusing green technology, establish classroom for every trade and technology of each institution; and developing training program for 5000 TVET teachers on sustainable development issues. TMED, in conjunction with DTE and BTEB also proposes to prepare curriculum with the inclusion of climate changes and global warming issues.[9]

Both the Industrial Revolution 4/Digital technologies related skill requirements and the Climate Change related ones should be incorporated in the Eighth Five Year Plan (2020-2025), the new Perspective Plan (2020 to 2040), and SDG attainment. These must also find space in the SWAP for TVET document.

New priorities have emerged in the economic development of Bangladesh (going beyond the challenges of IR4 and climate change). The 8th Five Year Plan (2020-205) is about to be written. The Prime Minister aims to create 30 mn new jobs by 2030, by creating 100 Special Economic Zones (currently 8 exist, which are Special Export Zones, which are to be merged with SEZs). It is planned that 10 mn of these 30 mn

[9] These topics will include, inter alia, green technology (such as solar wind, biogas). Green practices, similar to PEDP 4 in every institution, transforming 200 TVET institutes into green institutions (green campus, paperless office, zero energy, green dining, and practicing 3R (reuse, recycle, and reduce) across all institutions. TMED however, needs to also focus on green practices in the government agencies, such as TMED itself and its implementing agencies, such as the Directorate of Technical Education (BTEB), and the Bangladesh Madrasa Education Board (BMEB).

jobs are planned to be created in these SEZs. TVET will need to expand for the special needs of these SEZs. More than 50% of the land needed for these SEZs has already been acquired, and the government plans to develop these in the way Singapore and China developed SEZs. The Chinese government is already taking 400 Bangladeshi students each year to China to train them for enterprises they will set up in Bangladesh. The new NSDP 2020 will need to respond to create a skill development ecosystem that services the needs of a fast growing economy, that has major, serious plans in place that are already underway

12. SUMMARY OF RECOMMENDATIONS for the new NATIONAL SKILLS DEVEVELOPMENT POLICY 2020 FOR BANGLADESH

Chapter 1. The new NSDP 2020: Defining SD and the Scope of SD have policy implications

1. The challenge for the rapidly expanding skills ecosystem, is to achieve a. an expansion of access to TVET; along with b. massive improvements in quality provision of TVET. The simultaneity of the dual challenge is a particularly difficult task. Bangladesh is at the mid point of its demographic dividend; and to realise the dividend it is necessary to: a. create new non-agricultural jobs faster than youth entering the labour force; b. expand TVET capacity to underpin productivity in such jobs; and c. improve TVET quality – all of this together. This unprecedented challenge facing BN should be stated early on in the new NSDP 2020.

2. The new NSDP 2020 may need to be shorter, so stakeholders in the policy community – government departments, agencies, private training providers, industry representatives, donors – are not deterred from reading it and also using it in their programmes. It should be a real, live document, which is used on a regular basis

3. The new NSDP 2020 should be formulated with direct reference to the current challenges of the labour market. The ILO is in the process of preparing a report on the current labour market situation, whose challenges and priorities must be reflected in the final new NSDP 2020. This will require strengthening skills in a. manufacturing sectors broadly, not just in RMG, since that is what GOB wants; b. construction, since infrastructure investment will continue for at least another three decades; c. modern services and, d. some mechanization in agriculture.

4. While being based on the chapterization of NSDP 2011, we suggest not only a short policy document, but fewer chapters in the new NSDP 2020. In fact, the rest of this report is written with chapter titles organized as we propose the new NSDP 2020 could be organized.

5. NSDP 2011 confines itself to vocational education and training. The new NSDP 2020 will need to re-conceptualise SD as having all three dimensions as constituent elements: foundational or cognitive skills (i.e. literacy and numeracy); transferable or transversal (or soft skills); and vocational skills. That means that a revision of the National Education Policy 2010 might itself be due, which must adequately discuss TVET throughout the educational system. At the same time, the NSDP 2020 must incorporate foundational and transferable skills as its core dimensions.
6. It is critical that RPL is not confined to merely certifying workers in 3 day long orientations, as is currently happening. It should attempt to upgrade the vocational skills of such workers. It must include bridge courses on foundational skills; preferably, it should also incorporate soft skills for workers already in the workforce. The inclusion of all three dimensions in RPL will mean a RPL course is unlikely to be any shorter than 360 hours or, if it is a full time course, 3 months. The requirement is stated in terms of number of hours because RPL for workers who are already in a job will need to accommodate the concern of employers who may be unwilling to let workers go on paid leave to study for the RPL certificate, while they are employed.

Chapter 2. The new NSDP 2020 and Issues of Access

7. The government needs to commission a paper which estimates at what rate quantitative provisioning needs to expand. That would give the government a better idea of planning for provisioning.
8. There seems to be a lack of awareness among youth and parents about the need for TVET, and the growing demand from employers for more skilled workers. To spread the word around about TVET provisioning and its advantages, GOB will need to use social media, the internet, radio and TV to make information available widely. Perhaps this communication strategy needs to be built into the GOB budget of the Information & Broadcasting Ministry, since this strategy must adopt the Bangla and local languages among the hill tribes. This communication strategy will need to find mention in the new NSDP 2020. The fact that nearly 14% did not enter TVET because parents gave them no encouragement suggests that parents have to be also targeted in the communication efforts. But the fact that a significant minority could not access TVET because it was not offered suggests that, that is precisely where new provisioning has to target. The

TVET Institution Census of 2015 (BBS, Ministry of Planning) is an excellent source of information to be used in actual policy planning and programme implementation.

Chapter 3. The new NSDP and Issues of Quality:

Expanding Trainer Strength and Industry Attachment

9. The new NSDP 2020 has to find new means of finding resources for expanding Trainer Strength. In this context the Financing section of this report becomes so much more salient.

10. The new NSDP 2020 will need to specify that all TVET instructors will need to acquire pedagogic instruction in addition to industry work experience. Currently these do not seem to be requirements for recruiting teachers or instructors at TVET institutions.

11. The new NSDP 2020 will need to make provision explicitly for industrial attachment of trainees as well of instructors as part of the requirement of licencing new institutions. In addition, existing institutions can be given a limited time horizon within which they should be required to create the industry attachment facility.

The National Vocational Training Qualification Framework

12. The clear implication from the international evidence in respect of the implementation of vocational qualification framework, especially but not only in developing countries, is that they have not worked well in almost any country. Even in the now industrialized countries, they are confined mainly to the Anglo-Saxon world, and even they took decades to implement, and even their impact is indeterminate. The Bangladesh authorities will be well advised to note that developing countries have very segmented labour markets, rather unlike industrialized countries. The high share of informal enterprises and informal workers in Bangladesh, as in all developing countries, makes such countries a less fertile ground for vocational qualification frameworks, even less than in industrialized countries. The new NSDP 2020 would be well advised to not rush the process of creating QF compliant courses.

13. Since rather little of this ambitious expectation (about rapid implementation of the NVTQF) of NSDP 2011 has been realized, it is prudent that the new NSDP 2020 is abundantly cautious about the NTVQF, and government should proceed cautiously. The preparation of courseware that is QF compliant is taking time. Bangladesh ’s SD

ecosystem is capability constrained, and hence allocating scarce professionals to devising QF compliant courses may distract in the short to medium run from other pressing priorities.

Chapter 4. Informal Workforce, School drop outs and Training for them through Recognition of Prior Learning(RPL)

14. RPL, especially the scale of informality in the workforce, itself needs to expand, in fact take a quantum jump. GOB will need to take measures to provide RPL at most of the Government/Semi-government institutions in Bangladesh (1731 of them), as well as the MPO institutions (2517 of them). This level of expansion of provision of RPL facilities will require planning on a vast scale at the NSDA, for which NSDA needs to prepare itself. The new NSDP 2020 needs to make specific provision for this to occur progressively over the 8th Five Year Plan period. This could prove to be single-most important measure in improving the quality of human capital across the country.

15. GOB needs to take stock of RPL conceptualization as well as programme design, in a systematic manner, so that progress and pitfalls in this programme are identified, and adequate corrective measures are articulated in the new NSDP 2020

16. One means to take forward GOB's commitment to RPL would be to use the 517 453 basic course/short courses that are on offer (according to BBS, 2015) as locations to make RPL services available to workers in the informal sector. The only problem is that almost one-third of such courses are on offer in just two divisions of Bangladesh : Chittagong and Dhaka. Perhaps offers of courses could be greater for RPL, to ensure wider access, in the 5 other divisions.

17. One other suggestion should be considered. School drop outs are likely to lose their cognitive skills of literacy and numeracy; restoring those will take time through bridge courses, and that will require the complete attention of the branch in the Ministry of Education whose remit is school education and adult literacy. In addition, some soft skills will also have to be imparted as part of RPL (especially, communication skills, some basic English, and instruction in work ethic like basic integrity, observing working hours meticulously). Finally, time may have to be allocated in the RPL course to imparting some vocational skills to broaden or deepen the workers' knowledge base.

All this requires no less than 3 months of training. There is no short cut to RPL. These issues should be articulated in the new NSDP 2011.

Competency based Training and Assessment

18. Inevitably, in the early, incipient stage at which Bangladesh 's SD ecosystem currently stands, the SD ecosystem appears to have developed inevitably as a supply-driven system. It is not entirely clear how a SD system will be converted to a competency based one and turned around if most of the system is government financed and government managed, even though private vocational training providers (VTPs) have mushroomed in the interim, since NSDP 2011? A demand-driven system is always industry-employer driven, not government-driven.

19. There has indeed been greater industry-employer engagement since 2011, with the emergence of Industry Skills Councils (ISCs) (which we discuss in the next section). But whether a CBTA could emerge when the industry engagement is expectedly weak, remains to be seen.

20. What is also clear is that unless industry-employer engagement is seriously institutionalized in the SD ecosystem, there is little reason to believe that simply introducing a NTVQF or creating ISCs will automatically lead to the emergence of a CBTA, even in the formal sector enterprises, let alone the informal sector that predominates. The new NSDP 2020 needs to recognize this fact explicitly, rather than continue in the fond hope (as expressed in NSDP 2011) that a CBT&A is imminent.

21 The new NSDP 2020 will need to state that funding for ISCs cannot be the responsibility of the GOB or of donors. That is not a sustainable model. Given that the beneficiaries of TVET programmes are the industry-employers, they will have to be responsible for financing the activities of the ISCs.

Chapter 5. Apprenticeship is another form of Industry engagement: still to flourish

22 We would suggest the following if apprenticeship in formal sector enterprises are to be encouraged. We have noted in earlier sections that no TVET training can be regarded as completed without the trainee receiving some on-the-job experience. The new NSDP 2020 should provide that non-short term training programmes, whether HSC Voc or SSC Voc or Diploma programme will not be certified in the absence of a OJT or apprenticeship of 6 months. This will only succeed or not be resisted if, industry-

employers have been formally involved in the design of curriculum. Institutional Management Committees, with industry participation at local level, with government TVET institutions have emerged; many of them are running successfully. Industry involvement in the design of curriculum will itself be contingent upon sufficient flexibility and autonomy being granted to GOB institutions to revise curricula in the light of detailed review by industry partners. These industry partners will have to be mobilised by the ISCs or the Industry Associations, as seem more appropriate. When certification itself for the trainee will be contingent upon OJT/Apprenticeship, there will build up a pressure from the young/their parents, as well as from Trade Unions to introduce apprenticeship.

Chapter 6. Inclusion

23. The new NSDP 2020 should consider a gender requirement as well as a disabled reservation, with goals being set for achieving that requirement within a reasonable time frame. Both the gender balance and the disabled share is critical to ensuring greater inclusiveness in the TVET system, as well as less exclusion in the labour market for such groups.

24 The new NSDP 2020 will need to encourage admission of vulnerable groups in government and government funded institutions. But at the same time, residential facilities, especially in rural areas for TVET institutions will need to expand. BBS (2015) in its path-breaking TVET Institution Census found that a minority of TVET institutions (9% of total) had residential facilities. Rural TVET institutions have a severe under representation of girls. In addition, female teachers will have to be found as well. However, this will take time as current gender imbalance in enrolment in TVET institutions militates against a quick change in this situation; GOB will need to arrive at a measured though still targeted approach to addressing this latter problem.

Chapter 7. Data, Monitoring and Evaluation

25 The NSDA's possible role together with TMED could be explored in the area of M&E.

The EU funded HCDP 21 has a focus on results based monitoring, that will be introduced in the TMED; and this could be the basis for starting ME in TMED and NSDA.

The SEIP project, under the Ministry of Finance promises to support the establishment of data processing and monitoring system to monitor performance and effectiveness of the skills development system. This data processing centre, to be located in the NSDA, will involve system validation, compliance monitoring, and so on. An external agency will be contracted for implementation and operation of the MIS, who will provide technical inputs to the NSDA for analysis and dissemination of data to prospective users. The project is expected to coordinate data analysis from the MIS and publish an Annual Sector Performance Report for the skills sector, with information on student enrolments, skills training courses implemented, graduates' employment rates, and progress on key performance indicators. All of these look like good plans, but in the interest of institutionalization of these plans it is appropriate that GOB, when it revises the NSDP 2011, should provide for them in the new NSDP 2020.

26. The new NSDP 2020 should provide specifically for Tracer studies to be conducted for each type of VTP in the system, preferably conducting a baseline of tracer studies for different types of institutions as soon as possible. These will then in later years become the basis for monitoring outcomes of different types of TVET providers in terms of employability effectiveness over a period of time. This will enable policies and programmes to be tweaked – using these tracer study inputs.
27. There is currently no institution conducting research on TVET needs and concerns. There is a need for NSDP 2020 to recognize this need, and provide for research on TVET to be conducted at two possible academic institutions: the Institute of Education of BRAC University, as well as at Dhaka University Faculty of Education. Currently, some skills gap analysis is underway at the Bangladesh Institute of Development Studies (BIDS), but there is scope for supporting dedicated institutions for research and tracer studies, to enable NSDA to draw upon such data and research for empirically-founded policy making.

28. The ISCs will need to collect credible data from industry through mandated provisions and be able to estimate the demand gap for each skill. ISCs have so far not been able to meet this requirement of industry skills bodies. This task is currently being performed on a one-off basis by BIDS researchers.
29. NSDA should be required in the new NSDA 2020 to institutionalize both Monitoring reports on an annual basis for all publicly funded institutions at the very least. However,

equally importantly, rigorous evaluations of programmes will be required, and this should be made explicit in the new NSDP 2020. However, this requires building up the capacity of a division in NSDA which is charged with this responsibility of both conducting as well as commissioning evaluations. Monitoring, and creating an MIS for TVET, should be responsibility of NSDA.

Chapter 8. Governance

30. As of early 2019, there is a NSDA at the apex level of governance. It is critical that NSDA is charged with the responsibility of at the very least, ensuring coordination between the 22 public TVET providing Ministries. However, that itself may be difficult to achieve, given that already conflicts have been noted between two Acts of 2018, one related to BTEB and the other creating NSDA. These need to be resolved at the very earliest by the PMO, in careful consultation between these two main institutions. This is not a matter that needs to find mention in the new NSDP 2020, but it needs to be addressed at the very earliest. Then serious issues of governance await the leadership of NSDA.

31. However, NSDA's ability to undertake wide-ranging reform is going to be contingent upon its own staff to be appointed and for the apex body to be itself up and running. The fastest way to ensure staffing of NSDA would be bring existing staff on board from such line agencies as BTEB and DTE. However, even thereafter staffing can continue.

32. The next most important issue in governance is the need to rethink whether all the 22 Ministries and 20 agencies currently undertaking TVET should continue doing so. It is perfectly possible for PMO and NSDA to undertake consultations, one by one with each, and those which account for less than 1% of total provision could be brought under one common fold within a new division of NSDA. It would enormously ease and facilitate the regulatory role of NSDA.

33. The fourth and final big challenge in the TVET space is ensuring that private providers are meeting basic requirements in respect of: a. teacher qualifications, both pedagogic as well industrial experience; b. class-room theory teaching is backed by industrial attachment. In earlier sections we had raised issues in respect of these issues, but these issues are likely to be even greater among private VTPs than among government TVET institutions. Regional Directorates have been created every region

of Bangladesh. This is a good beginning, since Dhaka based institutions will be unable to monitor quality, whether at public or private TVET institutions, as their numbers expand rapidly. These Directorates currently have no staff, and Polytechnic Principals are holding dual charge as Officer in Charge. Most short term courses are run by private VTPs; they are ones that most need to be monitored for quality assurance purposes.

Chapter 9. Financing

34. The World Bank shows that an investment of USD 600 million is needed to train the two million new entrants to the labour market. In fact, the World Bank has decided to lend to GOB $ 500mn for tertiary level technical education. GOB may wish to take a view first, before the loan agreement is signed, over what period of time is such a loan amount expected to be utilized. In other words, what is the absorptive capacity of GOB and the TVET institutions to really make effective use of such a large sum of money? The new NSDP 2020 may need to take a view, in the light of the forthcoming TVET SWAP, that all funding will need to be pooled through the NHRDF, so the Development Partners are may contribute to a reduction in the fragmentation of the TVET system, which leads to overcrowding and duplicating.

35. Government-financed and government-managed ecosystems tend to be supply-driven as opposed to being demand-driven. All global models of TVET that have demonstrated success are demand-driven. Alternative, industry-based models of financing exist around the world have proven to be more successful in avoiding three problem areas: too few trained relative to need (quantity); quality (poor quality training, with low levels of competence, and little practical industry experience); and skills mismatch (irrelevant skills inappropriate to the industry requirements). The alternative model has two characteristics: one, it is demand-driven (i.e.driven by employers) and two, it is mainly industry-financed and managed. The government funding does not fall in any way in this model. However, since private employers and not the government are the main users of trained personnel, it is only natural that industry makes a financial contribution to training, that goes beyond the limited number of companies in Bangladesh that currently provide enterprise based training (EBT).

36. In Bangladesh, general tax revenues are used to fund public and private training providers (VTPs). This is reflected in skill and training budgets of 22 Ministries. Another variant of financing skill development from general tax revenues could be a provision of tax deduction (of say 100-150%) of the expenses incurred on Skill Development programmes by the enterprises, which could be a model that new NSDP 2020 may wish to propose. However, we are suggesting a superior model for industry financing of TVET. Our proposal is not the GOB stops funding all pre-employment training in Bangladesh. It is intended as a source of supplementary funding.

37. The past government-only funding model has lost its relevance for two reasons. First, the numbers being trained currently are not being skilled to levels of quality and relevance to industry needs on the scale required. Bangladesh has expanded the numbers being trained, without adequate concern for quality or relevance. This situation cannot continue any longer. If it does continue, there is clear risk that 10 years from now, we may still have a workforce that is very poorly skilled, even though some of them have some skills. Second, the numbers to be skilled should expand, because of the growth in the expected labour force looking for non-agricultural jobs.

Much more funds are needed for the growing numbers to be skilled, and the government alone cannot meet these costs. The government has other commitments, especially financial requirements to improve the quality of both school as well as tertiary education, which has experienced massification, with a precipitate decline in quality of learning. Building a skill ecosystem to train poorly educated youth is like building a house upon sandy foundation.

38. For youth, there is a case for them to be incentivised by being provided stipends if they undertake long term vocational education/training. This will attract poor youth to TVET for two reasons. The dual burden of the financial and opportunity cost of pre-service vocational training is a serious barrier against entry of youth into VET. Hence they don't wish to join vocational education in senior secondary school or pre-employment vocational training that may be on offer from the public or private sector. It is precisely on account of the information asymmetry (youth and parents lack information about the availability of TVET and its potential advantages) plus inability to pay on the demand side that both skill supply and demand for training is as low as it is in Bangladesh . Both these problems could be addressed

simultaneously if financing was available through a dedicated training fund in Bangladesh .

39. Strategic financing over the next few years is, therefore, required if we wish to ensure that the demographic opportunity is not wasted. The current skill system is underfinanced, the number of people Bangladesh needs to train is huge and there is a need to upscale efforts. Currently, industry financing of TVET is practically non-existent, despite the rapid growth of the formal sector industries, especially but not only manufacturing, in the last decade. There is a case for drawing upon formal industry to contribute to TVET, while they benefit from such funding of TVET directly.

Sixty two countries have adopted an option that seems to have served the industry in those countries well. This is in the form of a reimbursable industry contribution on a company, a levy that goes into an earmarked fund, meant exclusively for VET purposes. Firms can be reimbursed the costs of training from such a fund depending on the training done. They can do in-firm training or purchase training from accredited vocational training partners across the country.

40. It is proposed that new NSDP 2020 should explicitly state: “Industry should earmark at least 1% of its payroll (including for contract labour) for skill development initiatives in their respective sectors. These funds can be channelized for skill development activities either through respective ISCs or through NHRDF”. The RIC would be applicable to any registered large, medium and small private and public enterprise which employs 10 or more workers.

NHRDF should be the institutional repository of the funds. The fund will be used for the entire VET system across the country and be managed by sectoral employers by way of ISCs.

Chapter 10. Emerging Areas of Industrial Revolution 4 and Green Technologies

41. The NSDA should consider commissioning a reputed research institution to examine the current situation in respect of adoption of such technologies so far, and the plans of corporates to adopt digital and IR 4 technologies over the next five years. That should become the basis for the preparation of plans, which could be articulated in the new NSDP 2020. At the same time it would be advisable to involve the Ministry of Science and

Technology and the Ministry of Industries in this exercise from the beginning, so that best information and best minds are brought to bear on this exercise.

Here again, a comprehensive study needs to be undertaken first to identify the biggest risks emanating from climate change for a. Bangladesh agriculture, and b. Bangladesh society as a whole. That study should be the basis for the preparation of plans which should be incorporated in both the 8th Five Year Plan, but also in the new NSDP 2020.

42, Both the Industrial Revolution 4/Digital technologies related skill requirements and the Climate Change related ones should be incorporated in the Eighth Five Year Plan (2020-2025), the new Perspective Plan (2020 to 2040), and SDG attainment. These must also find space in the SWAP for TVET document.

43. The Prime Minister aims to create 30 mn new jobs by 2030, by creating 100 Special Economic Zones (currently 8 exist, which are Special Export Zones, that are to be merged with SEZs). It is planned that 10 mn of these 30 mn jobs are to be created in these SEZs. TVET will need to expand for the special needs of these SEZs. More than 50% of the land needed for these SEZs has already been acquired, and the government plans to develop these in the way Singapore and China developed SEZs. The Chinese government is already taking 400 Bangladeshi students each year to China to train them for enterprises they will set up in Bangladesh. The new NSDP 2020 will need to respond to create a skill development ecosystem that services the needs of a fast growing economy, that has major, serious plans in place that are already underway.

BIBLIOGRAPHY

Allais, S. 2007, "The Rise and Fall of the NQF: A Critical Analysis of the South African National Qualifications Framework." Doctoral thes, University of the Witwatersrand.

Allais, S. 2017. "Labour Market Outcomes of National Qualifications Frameworks in Six Countries". Journal of Education and Work 30(5): 457:470.

Bangladesh Bureau of Statistics, 2016-17, Ministry of Planning, Labour Force Survey, Bangladesh, Dhaka

Bangladesh Business & Disability Network, Year in review 2017, Towards the SDG Goal of Disability Inclusive Growth, Dhaka.

Bangladesh Economic Review 2019, Finance Division, Ministry of Finance, Govt. of the People's Republic of Bangladesh, Dhaka

Bangladesh Institute of Development Studies (BIDS), 2019, Tracer study of Graduates of Universities in Bangladesh, submitted to Higher Education Quality Enhancement Project, University Grants Commission of Bangladesh, Ministry of Education, Dhaka

Bangladesh Institute of Development Studies, 2018, The Bangladesh Development Studies, Volume XLI, September 2018, Number 3.

Bangladesh National Parliament, The National Skill Development Authority Act, Dhaka 16 Awsin, 1425/October 01, 2018, National Skill Development Authority, Dhaka

Bangladesh Institute of Development Studies, 2017, Earnings Inequality, Returns to Education and Demand for Schooling: Addressing Human Capital for Accelerated Growth in the Seventh Five Year Plan of Bangladesh, Dhaka.

Breaking Gender Barriers in the World of Work, ILO 1919-2019, Dhaka

Brockmann, M., L. Clarke, and C. Winch. 2008. "Can Performance-related Learning Outcomes Have Standards?"Journal *of European Industrial Training* 32 (2/3): 99-113.

Cedefop. 2013. *Analysis and Overview of NQF Developments in European Countries.* Annual Report 2012. (Cedefop working paper; No 17). Luxembourg: Publications Office.

Cedefop. 2015. *National Qualifications Framework Developments in Europe-Anniversary Edition.* Luxembourg: Publications office of the European Union.

ETF, Cedefop, and Unesco Institute for Lifelong Learning. 2013. *Global National Qualifications Framework Inventory* (Report prepared for ASEM Education Ministers Conference, May 13-14). Kuala Lumpur: ETF, Cedefop, and Unesco Institute for Lifelong Learning.

Finance Division, Ministry of Finance, Govt. of the People's Republic of Bangladesh, Skills for Employment Investment Program, April 2019, Dhaka

Guile, D. 2010. *The Learning Challenge of the Knowledge Economy.* Rotterdam: Sense.

Hupfer, B., and G. SOUL 2014. *Qualifications Frameworks and the Underlying Concepts of Education and Work - Limits and Perspectives*. Bremen: Institut Technik and Bildung.

ILO Bangladesh (reports by David Lythe), 1. Assessment of the National Technical and Vocational Qualifications Framework and roadmap for development of the Bangladesh Qualification Framework, 2. Situation analysis and roadmap for establishment of four Mutual Recognition Agreements, 3.Sector analysis and roadmap for development of mechanisms and elements for a Sector –Wide Approach to technical and vocational education and training, Dhaka.

ILO, Bangladesh Vision 2021, Prepared under the initiative of Nagorik Committee 2006, Dhaka.

ILO, 2018, Comparative Analysis of National Skills Development Policies, A guide for policy makers, (Ashwani Agarwal, Vladimir Gasskov), Dhaka.

ILO, 2019, EU and Government of Bangladesh, Situation Analysis of Bangladesh TVET Sector: A background work for a TVET SWAp, by Dr. M. Amanulla Khan, Dhaka.

ILO, 2017, Good Practices, Replication Steps and Way Forward, Public- Private Partnerships benefit TVET institutes and industry alike, Dhaka.

ILO, 2018, Industry Skills Councils in Bangladesh, Basic Information, Challenges and Opportunities, Dhaka.

ILO, 2018, Major achievements of the Bangladesh Skills for Employment and Productivity (B-SEP) project, Dhaka.

ILO, National Skills Development System in Bangladesh 2015, Dhaka.

ILO, National Strategy for Promotion of Gender Equality in Technical and Vocational Education and Training (TVET) 2012. National Skills Development Council Secretariat, Government of Bangladesh in Collaboration with ILO TVET Reform Project, Dhaka.

ILO, The World Bank, 2011, Draft Report on Options for Designing and implementation an NVQF for India, New Delhi

Keating, J. 2011. "The Malaysian Qualifications Framework. An Institutional Response to Intrinsic Weaknesses."Journal *of Education and Work* 24 (3-4): 393-407. DOI:10.1080/13639080.2011.584699.

Keevy, J., and C. Borhene. 2015. Levelling and Recognizing Learning Outcomes. The Use of Level Descriptors in the Twenty- first Century. Paris: Unesco.

Lassnigg, L. 2012. "'Lost in Translation': Learning Outcomes and the Governance of Education:' *Journal of Education and Work* 25 (3): 299-330.

Mehaut, P., and C. Winch. 2012. "The European Qualifications Framework: Skills, Competences or Knowledge?" *European Educational Research Journal* 11 (3): 369-381.

Microeconomic Wing, Medium Term Macroeconomic Policy Statement, 2019-20 to 2021-22, Finance Division, Ministry of Finance, Government of the People's Republic of Bangladesh,.

Ministry of Education, , National Skills Development Policy 2011. Government of Peoples Republic of Bangladesh Dhaka, Bangladesh

Ministry of Education, Government of the National Education Policy 2010, Dhaka.

Pilcher, N., F. Scott, and K. Smith, 2015. "The Impact of national Qualifications Frameworks: By Which Yardstick Do We Measure Dreams?" Journal of Education and Work 30(1): 1-12. DOI: 10.1080/13639080.2015.1122178.

Raffe, D. 2012 "What is the Evidence for the Impact of National Qualifications Frameworks?" Comparative Education 49(2): 143-162. DOI: 10.1080/03050068.2012.686260.

Skills for Employment Investment Program, Finance Division, Ministry of Finance, BIDS Study Report, Labour Market and Skill Gap in Bangladesh (Macro and Micro Level Study), published in May 2017.

Stephanie Allais (2017) Labour market outcomes of national qualifications frameworks in six countries, Journal of Education and Work, 30:5,457-470, DOI: 10.1080/13639080.2016.1243232.

SWAP under Skills 21: Position paper, Dhaka

United Nations Educational Scientific and Cultural Organization, EFA Global Monitoring Report 2012, Youth and skills. Putting education to work, Paris.

Wheelahan, L. 2008. "Can learning outcomes be divorced from processes of learning? Or why training packages make very bad curriculum:' Presented at the 11th Annual Australian Vocational Education and Training Research Association Conference, VET in Practice, Adelaide, April.

Wheelahan, L. 2010. *Why Knowledge Matters in Curriculum.* Abingdon: Routledge.

Wolf, A. 1995. *Competence-based Assessment.* Edited by H. Torrance. Buckingham: Open University Press.

Wolf, A. 2002. *Does Education Matter? Myths about Education and Economic Growth.* London: Penguin.

Young, M. 2008. "Bringing Knowledge Back" In *From Social Constructivism to Social Realism in the Sociology of Knowledge.* London: Routledge.

Young, M. 2011."National Vocational Qualifications in the United Kingdom: Their Origins and Legacy."Journal/ *of Education and Work* 24 (3-4): 259-282.

List of Persons Met (over two missions to Dhaka, June and September 2019)

Sl. No.	Name	Designation	Organization
1	Shirajun Noor Chowdhury	Joint Secretary	Finance Division, Ministry of Finance, Government of the Peoples Republic of Bangladesh , Bangladesh Secretariat, Dhaka-1000, Bangladesh
2	Hari Pada Das	Chief Technical Advisor	ILO DHAKA
3	Dr. Zhigang Li	Social Sector Specialist Bangladesh Resident Mission	Asian Development Bank, Plot E-31, Sher-e-Bangla Nagar, Dhaka-1207
4	Mustahsin-ul- Aziz	Consultant Education Global Practice South Asia Region	The World Bank Plot E-32 Agargaon, Sher-e- Bangla Nagar Dhaka-1207, Bangladesh
5	Akiko Hanaya	Education Advisor	Japan International Cooperation Agency JICA room, Directorate of Primary Education , Mirpur-2, Dhaka-1216
6	Dr. Minhaj Mamud	Senior Research Fellow	Bangladesh Institute of Development Studies E17, Agargaon, sher-e-Bangla Nagar, GPO Box 3854, Dhaka-1207
7	Dr. Zhigang Li	Social Sector Specialist Bangladesh Resident Mission	Asian Development Bank Plot E31, Sher-e- Bangla Nagar, Dhaka 1207
8	Prof. Aminur Rahman	Head of the Department of Economics, School of Business	Independent University , Bangladesh Plot -16, Block B, Attabuddin Ahmed Road, Bashundhara, Dhaka-1229
9	Brig Gen Aftab Uddin Ahmad (Retd)	Chief Executive Officer	Centre of Excellence for Bangladesh Apparel Industry , BGMEA Complex 4th Floor, 23/1 Panthapath Link road Karwan Bazar, Dhaka-1215
10	Md. Ahasan Habib	TVET Specialist	Skills for Employment Investment Program, Finance Division, Ministry of Finance Dhaka-1000
11	Tahsinah Ahmed	Executive Director	Under Privileged Childrens Educational Program, Dhaka-1216

12	AKM Bari	Chairman, Industry skills council	Tourism & Hospitality Sector, Bangladesh
13	Mohammad Nuruzzaman	Program Officer	ILO Dhaka-1207
14	Md. Nurul Islam	Director (Training Operation)	Bureau of Manpower, Employment and Training, Dhaka-1000
15	Funda Celikel Esser	Program Manager	Plot 7, Road 84, Gulshan 2, Dhaka-1212
16	Arshad Refai	Head- Business Intelligence	TIIKM, No. 531/18, Kotte Road, Pitakotte, 10100, Sri Lanka
17	Dr. Engr. Md. Ramjan Ali	Principal	Technical Teachers Training College Tejgaon, Dhaka-1208
18	Md. Kamal Hossain	Additional Secretary	Deputy Executive Project Director , Skills for Employment Investment Program, Finance Division, Ministry of Finance, Dhaka-1000
19	Md. Faruque Hossain	Executive Chairman, Secretary in charge	National Skills Development Authority , Dhaka-1208
20	Md. Mohiuzzaman	Course Specialist	Skills for Employment Investment Program, Dhaka-1000
21	Al- Haj Sukkur Mahmud	President, Jatio Sramik League	23 Bangabandhu Avenue 3rd floor, Dhaka-1000
22	Naimul Ahsan Jewel	Joint General Secretary	35-36, Bangabandhu Avenue, Dhaka-1000
23	M. Messbaul Alam	CEO	Speed Holidays, Dhaka-1207
24	Johan Lm Kii Geat	Associate Dean	TARC, Department of Management, Faculty of Accountancy, Finance and Business, Malaysia
25	Md. Shafiqur Rahman Bhuiyan	Chairman & Principal	Centre of Excellence Agro food Skills Foundation, Dhaka-1000
26	Engr. Md. Jahangir Alam	Director, Planning & Development	Dhaka-1207
27	Shah Muhammad Abu Zafar	Former Member of Parliament, President	Bangladesh Labour Federation BLF Dhaka-1207
28	Dr. Wajed Ul Islam Khan	General Secretary	Bangladesh Trade Union Centre, Secretary, Dhaka-1000

29	Riful Jannat	Senior Development Advisor	High commission of Canada, United Nations Road, Baridhara, Dhaka-1212
30	Md. Mokhlesur Rahman	Senior Operations Officer	The World Bank , Plot E-32 Agargaon, she-e Bangla Nagar Dhaka-1207