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Vocational Education and Training (VET): Pakistan situation analysis (1959-2002) and Partnership needs to promote VET through research study

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Abstract

Pakistan inherited a weak vocational education and training (VET) base at the time of independence in 1947. Vocational education was introduced in mid 1950s with setting up of two polytechnic institutes in Karachi and Rawalpindi. Half a century later, there has been a manifold increase in the number of institutions, enrolments and teachers imparting vocational education. During the period 1950-2002, hundreds of middle, secondary and higher level vocational education and training schools, polytechnic institutes, colleges and universities in government and private sector have been set up.

The terms technical and vocational (TVE) are some time used synonymously. However in the Pakistani context, the term technical education refers to post secondary courses of study and practical training aimed at preparation of technicians to work as middle level supervisory staff; where as the vocational education refers to as lower level education and training for the preparation of semi skilled and skilled workers in various trades. At present a number of departments such as education, labour and human resources, industries, social welfare and agricultural departments are involved in TVE. The federal ministry of education is basically responsible for policy planning, coordination of standards and curriculum development for post secondary technical education provided in colleges of technology and polytechnic institutes under the education department. Besides, provincial governments are also running a number of vocational institutes, particularly for females. Education departments also administer commercial education institution to train human resources for business sector and offices.

This paper comparatively analyses the status of vocational education and training (VET) in all the National Education Policies of Pakistan since 1959. The comparative analysis shows that the number of vocational and technical education institutions in the country is 43% of the total that is close to female population ratio but their enrolment is 20%, almost one fifth of the total enrolment which is a disappointing indicator. The reason for this sharp decline in female enrolment in vocational education institutions is that the vocational trades offered are not considered fit for women workers in Pakistani society. Generally, people consider trades and professions gender-specific. To them, it seems strange to see women working as electricians, carpenters, plumbers, mechanics and some others in similar trades. Normally, women are accepted as workers in packing jobs, garment and embroidery, informal and non-contractual jobs in the labour market.

Based on this analysis, the paper suggests a research study on the need assessment of vulnerable and unemployed people, particularly women, regarding Vocation Education and Training (VET) in the poverty alleviation, livelihood and empowerment perspectives. The study aims at promoting Vocational Education and Training as a tool to empower people, particularly women to achieve the goal of sustainable human development. The study covers present status of women in this field with an overview of the state of VET in Pakistan. The study will analyze the impact of UNESCO and Government of Pakistan's joint projects in VET to see whether these efforts meet the challenges of the new millennium. The research study aims at developing curriculum programmes, focused on entrepreneurial skills for small businesses with livelihood perspective.

Vocational education and training 1959-71

In late 1950s, the government of Pakistan put education on its development agenda. The then government of General Ayub Khan appointed a Commission on National Education on December 30, 1958. The Commission first of its kind was inaugurated on January 05, 1959 with a task to reorient the then existing educational system thus transforming it into a system that could meet the challenges of the growing needs by assisting development in the fields of agriculture, science and technology. Dignity of labour and vocational education and training was declared as the cornerstone of this policy to make the best possible use of human and capital resources of the country.

By August 1959, the Commission adopted its comprehensive report after having consultations with academia, experts and all stakeholders and this report became the basis for Pakistan's first formal education policy after independence. The Chapter 4 of the report deals with vocational and technical education in detail. The Commission identified weaknesses of the existing system and found that elementary and secondary education are predominantly bookish in content and provide little training in different vocational trades. The focus on vocational education and training (VET) was genuine with this realization that in societies where full industrialization was achieved generations ago, children grew up with a familiarity with machinery and learnt some skills and knowledge necessary to maintain and operate their daily life routines but this situation did not exist in Pakistan. Keeping this view the Commission said a whole range of skills is necessary right from widespread knowledge of simple mechanical tasks of daily life such as the ability to replace a blown fuse or to repair a bicycle and extend through the skills of the trained operator, the artisan and the technician upto the skill shown in creative design by the engineer or the executive of a public or private enterprise.

This policy classified this range of vocational education and training into four categories. At the lowest level were the so-called unskilled workers in industry who required manual dexterity for the performance of their duties. The second category was the trained operators in factory and office whose skills in industrial and commercial processes produce consumer goods or commercial services. The third category was to make technicians who generally constitute the supervisory personnel in industry or office whose practical skills enable them to appreciate the problems of the skilled workers at their machines and whose theoretical training enables them to understand the ideas of the engineer or executive and to interpret them to the skilled workers. The fourth category was of creative engineers and executive capable of developing new techniques, methods

and design, sensitive to needs and local conditions but well versed in world knowledge and experience.

So to achieve adequate vocational education and training programmes for these categories, radical innovations were made in school level education programme. Under this school programme, school curriculum was diversified by enriching it with a series of optional and practical courses in vocational, technical, agricultural and home economics subjects. This led to devising a separate vocational and technical education schools system in the country. The first diversification in the curriculum was introduced after Class VIII. The suitable vocational trades to be taught at the vocational schools were: Fitting, machining, automobile mechanics and diesel mechanics' work, pattern-making, foundry work, cabinet-making, carpenter and joiners' work, bricklaying and masons' work, concrete construction, shuttering, etc. The duration of the courses in vocational education schools at this stage varied from two to three years and the curriculum included 50% each of vocational (craft and trade instructions) and general education. It aimed at preparing students either to enter industry as trained workers or to enable them to take up apprenticeship courses to perfect their skills.

The second diversification was proposed after Class X where provision for the specialized training of the skilled technician was made. For this stage, a number of polytechnic institutes were set up where full time day and evening vocational education and training courses were started. This produced a large number of mid-level technical supervisors and refined technicians in various fields like electronics, electricity, metals, tools, construction and other trades. They provided assistance to engineers and executives to carry out technical jobs. The courses for the polytechnics were: Instrument making and repair, watch and clock repair, radio maintenance and repair, refrigerator maintenance and repair, jig and tool-making, typewriter mechanics' work, boiler-makers' work, plumbing and pipe fitting, coach-building, motor body building, electrical installations, furniture and cabinet-making, industrial design and commercial art, gas technology and supply, paper technology, boat-building and small craft design, leather technology, glass and ceramics technology including technology of scientific glassware, food technology, including catering and canteen management, printing trades technology, building trades technology, X-rays technicians' work, ore dressing and mineralogy, musical instrument construction and agricultural science and animal husbandry.

The last stage of diversification comes after Class XII where students qualify to enter a range of professional colleges and universities for higher studies in engineering and medicines and other technologies.

The agenda of vocational education and training (VET) set by the first Commission on National Education in 1959 and implemented in 1960s provided the basis for future planning in the VET field and has largely been reflected in education policies of 1972-1980, 1981-1991, 1992-2002 and modified one for 1998-2010.

VET in National Education Policy 1972-80

The 1972-80 Education Policy duly recognized the concept of dignity of labour by advocating for trained human resources in different vocational trades. Under this policy, vocational education and training workshops were opened up at middle level in schools where students were imparted vocational training in weaving, book-binding, wood work,

black-smithy, leather-work, food preservation, child care, home management, electricity and agriculture in accordance with the local needs. For the dropped out students after Class III, special training courses were allowed in the skills of their vocational interest in the school workshops so that they could return with enough skills as farmers and crafts-persons to earn their livelihoods.

The government of Prime Minister Zulfiqar Ali Bhutto in 1972-80 Policy upgraded the polytechnic institutes into Technical Colleges. After completing three-year diploma courses in different vocational trades students were encouraged to undergo two-three years of industrial training experience for which opportunities were also provided. For diploma holders, a one-year additional course, leading to the degree of Bachelor of Technology (B.tech), was also offered. In addition to diploma and B.Tech degree courses, these technical colleges also provided a variety of programmes covering new areas of technology, which require urgent attention for modernization and development.

The subjects introduced at these colleges were: Electronics and instrument technology, textiles, cotton and wool technology, para-medical technology, leather technology, mineral technology, printing and graphic technology, timber technology, oceanography and marine engineering, aeronautics, plastic and rubber technology, gas and petroleum technology, arts and fine arts, ceramics and glass technology, architecture and development economics.

Vocational Education in 1981-91 and 1992-2002

During the 1981-91 decade, though structure of education system and curriculum were drastically changed under the so-called Islamisation of education by the then dictator General Ziaul Haq's government, nothing special was added to the count of vocational education and training in the existing vocational education schools and colleges rather they closed a number of polytechnic institutes and colleges to shun the then student movement against the dictatorial government.

After demise of General Zia in an air crash on August 17, 1988, his successors once again reviewed the education policy and devised a changed plan for next decade in the form of 1992-2002 National Education Policy. The first post Ziaul government Education Policy (1992-2002) thoroughly analyzed the vocational and technical education and felt the need for reorientation of this sector keeping track of the modern labour market needs. The policy admitted though there are a plenty of vocational education and training (VET) institutes/colleges in the country but their curriculum does not subscribe to the job market owing to new human resources market. The policy makes it realize that though vocational and technical education is imparted at prevocational, vocational, technical and professional levels, the new technologies have however created the need for harnessing new skills to meet the new labour market needs.

Over the years, increase in number of vocational and technical institutions has been accompanied by a sizeable growth of technical, vocational and agro-technical education in various regions of each province in Pakistan. However, this spread is not in line with the needs of job market. Training of semi-literate dropouts also remains a problem. New possibilities need to be considered for improving the status and career opportunities for the technicians. Much of success would depend on a demand-oriented vocational and technical education and reinforcement of general education with vocational education and

training (VET) to vocationalize (polytechnicalize) the education in the country. There is a dire need of introducing a new model of vocational high school with the involvement of private sector. Earlier the government sector largely taken over this sector.

The Education policy 1992-2002 led to setting up of a network of technical teachers training institutes, one each in all the four provinces of Pakistan, linking them with the National Teachers Training College at federal level. The policy emphasizes on setting up of trade schools in rural areas. One vocational subject was declared compulsory part of general education. The policy promised more opportunities for women to get vocational and technical education.

As part of implementation strategy, modernization of curriculum for vocational education and training was made mandatory and computer education was declared compulsory part of the curriculum of VET. More vocational subjects including agro-technical education would be including in a bid to vocationalize education sector to increase employability of the educated youth. Provincial Boards of Technical and Vocational Education are running all the vocational and technical institutes and colleges and the Federal and Provincial Education Ministries provide them necessary support.

Even while Education Policy 1992-2002 was under implementation, a new National Education Policy 1998-2010 was formulated to cater the needs of the time by incorporating new trends in the market oriented education system.

Vocational Education and Training (VET) in National Education Policy 1998-2010

The National Education policy 1998-2010 duly recognized that sustainable socio-economic development is not possible by mere capital investment unless it is reinforced with proper supply of adequately trained scientific and technical human resources. Rapid economic growth demands a mixture of skilled workers, trades-persons, technicians; technologists; engineers; research and development scientists, trained labour force with areas linked to national development requirements and needs of industry. A well-planned education system including vocational and technical education is therefore essential for economic development of the country.

The policy document admits that there has been a greater increase in facilities for general education in the country over the years but adequate facilities and opportunities have not been provided for promotion of vocational education and training (VET). The number of graduates without technical education looking for employment in the white-collar sectors has gone beyond the absorption capacity. As a result, there is a rampant unemployment in the country among educated youth. There are also heavy dropouts at various stages on the line, which need to be catered. Furthermore there an undue pressure on higher education institutions simply for the reason that school leavers are unable to get employment for the want of any employment skill. It requires multi pronged strategy to address this situation. While concerted efforts are being made to increase academic standards of education and arrest drop outs, there is a dire need of relating education to the world of work and develop, among the students, awareness and interest for acquisition of skills in employable trades and vocations.

The policy document suggests that keeping in view the cost intensive nature of vocational education and the financial limitations, at least a modest beginning in this direction is inevitable. Opponents of vocational education at school level quote the example of agro-

technical education scheme launched in 1970s. The inability of this scheme to achieve the desired objectives could not be construed as failure of the concept. The agro technical scheme could not achieve envisaged objectives for two reasons. First it was extended to schools more than planned and thus the requisite inputs could not be provided. Secondly the non-examinable status of vocational subjects resulted in causal attitude of the students, teachers and the school administrations.

Technical Education Project 1996-2003

Technical education project is an on going (1996-2003) project of the federal ministry of education launched with the assistance of the Asian Development Bank. The main objective is to improve the quality and relevance of technical education. The total cost of the project is Rs. 2395 million. The major component of project includes the construction of new polytechnic institutes for women at Quetta and technical teachers training centers at Sukkar and Peshawar, provision of equipments and introduction of emerging technologies in selected institutes.

A new polytechnic institute for women at Quetta, new building of polytechnic institute for women Karachi, technical teachers training institute at Sukkar and technical teachers training center at Peshawar have been completed. Necessary equipment including computers and furniture for all new and selected existing technologies in 43 polytechnic institutes and 4 technical training centers as per their need is also being provided. According to educational statistics 2001-02, total technical institutes in the country are 498 and about 88,000 students are enrolled in these institutes and 6582 teachers are delivering their valuable services at these institutes.

Number of vocational institutions, enrolment and teachers 1990-2002

No of years	No of teachers		No of vocational institutions		Enrolment	
	Total	Female	Total	Female	Total	Female
1990-91	7402	2566	725	345	90,000	19,000
1991-92	6703	2677	608	311	90,000	21,000
1992-93	9153	2605	602	316	93,000	24,000
1993-94	7965	1603	474	218	84,000	18,000
1994-95	6949	1708	487	221	86,000	15,000
1995-96	7291	1799	577	224	86,000	14,000
1996-97	7422	1845	578	225	92,000	15,000
1997-98	6923	1870	574	223	90,000	18,000
1998-99	7133	1858	580	228	75,000	17,000
1999-00	9253	1959	612	233	91,000	17,000
2000-01	9253	1959	612	233	91,000	17,000
2001-02	6582	n.a	498	n.a	88,000	n.a

Source: economic survey of Pakistan 2001-2002

Conclusion

If we look at the data shown in the above table, we find an imbalance in the number of vocational education institutes, teachers and enrolment across gender. The female teachers in the vocational institutions comprise 26% of the total strength of teachers while female enrolment is 20% of the total enrolment in the vocational education institutions whereas the female vocational institutions are 43% of the total vocational institutions in the country.

This comparative analysis shows that the number of vocational and technical education institutions in the country is close to female population ratio but their enrolment is almost one fifth of the total enrolment, which is a disappointing indicator. The reason for this sharp decline in female enrolment in vocational education institutions is that the vocational trades are not considered suitable for women workers in Pakistani society. Generally, people consider trade and professions gender-specific. To them, it seems strange to see women working as electricians, carpenters, plumbers, mechanics and some others in similar trades. Normally, women are accepted as workers in packing jobs, garment and embroidery, informal and non-contractual jobs in the labour market.

Partnership need for a research project to promote VET as a tool leading people, particularly women, towards economic empowerment

Keeping in view the above situation analysis of the status of vocational education and training (VET) in Pakistan, a research work for the need assessment of vulnerable and unemployed people, particularly women, regarding the Vocation Education and Training (VET) with poverty alleviation, livelihood and empowerment perspectives is essential. This research study aims at promoting Vocational Education and Training as a tool to empower people, particularly women, to achieve the goal of poverty alleviation, security of movement and livelihood to ensure sustainable human development. The study would cover the existing status of women in VET field with an overview of the state of VET in Pakistan. The study will analyze the impact of UNESCO and Government of Pakistan's joint projects in VET to see whether these efforts meet the challenges of the new millennium.

This research project aims at developing curriculum programmes, focused on entrepreneurial skills for small businesses with livelihood perspective. The study would also analyze the efforts made by the National Institute of Science and Technical Education (NISTE), Ministry of Education, Pakistan to develop model curriculum and training programmes, focused on vocational skills development, in the formal and non-formal sectors, at the secondary level. The study would also look into the possibility on how the VET could be made an integral part of development plans, including rural development. It was not only an investment for future generations, but would also open new doors for the professional development of VET teachers. Besides a continuous review of curriculum, in keeping with technological trends, the study would focus on ensuring its relevance to the needs of the job market. By incorporating skills of entrepreneurship in the VET, beneficiaries might be encouraged to move towards self-employment. The study would do a need assessment of both students and job market about VET through awareness raising and broadening VET access to rural areas, particularly among vulnerable people of Pakistan.

ENDS....

(Shafqat Munir: The author is a development journalist/researcher and president of Journalists for Democracy and Human Rights (JDHR) Pakistan. The JDHR plans to undertake the above-proposed project. The JDHR has the capacity to undertake this study but needs certain donors/partners to fund this study. May be CDG could be a potential partner.)

(Journalists for Democracy and Human Rights (JDHR) is a public interest media and research organization/think-tank that sensitizes media, journalists and people on democratic norms and human rights, sustainable human development, empowerment, poverty and livelihoods issues and media developments. It builds capacity of media professionals on how to cover human rights issues in media. The focus is on vulnerable people like women, children, minorities, farmers and consumers. The JDHR provides policy briefs, position papers, handbooks on media subjects, background information on human rights and sustainable human development to media professionals for their onward flow to the general masses. The JDHR imparts training to journalists thus building their capacity and professional and vocational skills and understanding on democracy and human rights in a plural society like Pakistan.

The JDHR is a member of South Asia Committee on Human Rights (SAMCOHR) of South Asia Network on Food, Ecology and Culture (SANFEC) and Resistance networks The JDHR is a member of South Asia Watch on Trade, Economics and Environment (SAWTEE), Nepal. The JDHR is a Research Partner in Pakistan of the Department of Geography, University of Zurich, Switzerland
