



Education Policy Coherence With Environmental Governance Mechanism After 18th Constitutional Amendment In Pakistan

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Abstract. All matters related to ecology and pollution of environment used to be addressed at federal level till 2010 until 18th constitutional devolved the mandate to provinces with considering the fact whether provinces are ready for taking this responsibility or not. The federal Environmental Protection Act of 1997 was not repealed is still intact. Whereas, provinces have legislated their own environmental protection acts, which has created problem of mandate and policy distortion. This study analyzed the impacts of this amendment in the constitution on the based on six criteria of governance for assessing coherence of educational policies with environmental policies using standard techniques of qualitative data analysis in the provincial policies. The study concluded on the basis of results that environment based education has to be provided at elementary and secondary level for sustainable development. The reason to focus the environment based elementary education is that students at primary level are too young to understand the things clearly although they get concept memorized while the students of secondary and higher secondary level in Pakistan are mentally directed to focus their future field or profession on the basis of which they have to choose some subjects and to leave others in a system thus limiting to the option numbers. The elementary level is the most important age group of children where they can be focused through lessons, class room and school environment, contents of curriculum, practical's, field trips and tours to the national parks, rivers, oceanic coasts, zoo, gardens, thus inspiring them to be a friend of nature in life.

Keywords: Education policy, coherence, environment, governance mechanism, 18th Amendment, environment-based education

INTRODUCTION

Environmental governance is based on three pillars of policy, legal and institutional frameworks. The policy framework is important if it provides integration of environmental consideration across policies and plans including education and environmental policies. Pakistan launched its National Environmental Policy (NEP) in 2005. Creation of demand for environment through mass awareness and community mobilization is one of the objectives of NEP of Pakistan. The policy described integration of environment in educational curricula at all level as a mean of implementation of policy. The human and environment relationships mostly rely on education and environment (Lucas, 1980). The human as a collective foundation of educational transformation (Rees, 2010) in a quickly altering globe with growing pressure of human tempted conversion as well as human nature itself play the central role (Jordan et al., 1990; Malik, 2013). Talking about the literacy rate in Pakistan which is ordered at 113 out of 120 countries (Rehman et al., 2015) and overall literacy rate in Pakistan is 58 % while the literacy rate of women is 48% (Mustafa et al., 2019).

The countries in developing phase are consistently facing the multifaceted challenges of environmental problems (Gleick, 1989) and has no escape. Along with other efforts being made for remedial measures and rehabilitation of already degraded environment, these are also focusing now to inbuilt environmental education in the curricula at school level through integrating into education policy at national and sub-national level and implementing at school level (Kalsoom and Qureshi, 2019). Pakistan is one of the top listed countries facing severe challenges of environment and climate changes (Mumtaz et al., 2019). The government of Pakistan, in the current scenario of industrialized world, needs to give due consideration to inculcate the environment based education in the curricula at school level in all provinces including Azad Jammu and Kashmir and Gilgit Baltistan and to make an efficient and



constant linkage between environmental governance and education governance. It will ultimately develop the future human resource with environment friendly attitude and will leave a long term impact on future generations across the nation.

The 18th amendment in the national constitution of Pakistan has played a significant role in the parliamentary history of the country (Siddiqui, 2010; Akram et al.; Khan, 2015; Ahmad, 2014; Ali, 2015). It has given a strong impression of Pakistan as a federation (Hussain and Kokab, 2012; Adeney, 2012) and decentralized the domain of education and environment to the provinces (Zubair et al., 2019). After the 18th constitutional amendment in 2010, the subject of environment and ecology has also been devolved and decentralized from federal to provincial level (Tahir, 2012). The school education with exception of few components was already dealt at provincial level in government setup in Pakistan, but now the curriculum development has also become under the umbrella of provinces. Apparently, 18th amendment gives a positive outlook since both institutions are now provincial where more coordinated mechanism can easily be evolved or might have already developed which needs to be examined as there is a general perception that 18th amendment have negative impact on institutional performance due to multiple reasons. Hence it is important to look into the coherence of education policy and governance with the environmental policy and governance mechanism after 18th amendment.

The modifying concerns about the environment and problems related to it have linkages and strong association with the definition and promotion of environmental education as the history of environmental education has been revealed. Here, it is also required to examine horizontal alignment between institutions in provincial context since environment and education both are cross cutting in nature and overlap each other. In other words the environment and education are having a very strong bonding in term of human thoughts, actions and their attitude and behavior towards nature.

The state of development of environmental education cannot be ignored and in national strategies (Dillon, 2003; Smyth, 2006). It is an important dogma to be inculcated in the curricula of primary, elementary and secondary education (Disinger, 2001) by the government, as it got importance at global level due to the declaration of United Nations as the decade of education for sustainable development from 2005 to 2014 (Abd Rahman et al., 2018; Combes, 2005). The role of School Education in creating environment friendly approach with green thoughts (Cherian and Jacob, 2012) followed by green actions in the majority of children (Sagala et al., 2019), the 80% of whom live in developing countries (Glewwe and Kremer, 2006) is a key factor (Yunmei, 2003). The attitudes based on environmental care (Feinberg and Willer, 2013), inspiration (Sandell and Ohman, 2013) and behaviour of environmental respect (De Leeuw et al., 2015), if developed through education at school level (Otto and Pensini, 2017) have long life impact on the personalities of the children (Hsiao and Shih, 2016).

In this context, this paper an attempt has been made to analyze the education policy coherence with developed segment of environment at province level after the 18th constitutional amendment in Pakistan. The education policy of Pakistan including primary, elementary, secondary and higher secondary education at school and college level along with higher education is in dire need to be studied in depth to make better decisions about future generations in term of achievement of sustainability and environmental protection and conservation through incorporating environment based educational content in the curricula across the country at federal as well provincial levels.

METHODOLOGY

The present study is extracted from doctoral studies work of first author and primarily a qualitative research (Payne, 2006) in the field of environmental science focused on environmental governance to take a view of coherence between the education policy in term of curriculum contents, field trips and tours and practical aspects for students including teacher education and training (Prihantoro, 2015) and environmental governance mechanism.

Content Analysis

First, policy and legal documents were scrutinized using standard content analysis technique as described by Prihantoro, (2015); Kozikoglu and Senemoglu, (2015) and Waheed et al, (2021) which include but not limit to environment policy (national/provincial), education policy (national/provincial),



climate change policy (national/provincial), national environmental protection act, provincial environmental protection acts and contents of elementary and secondary school curricula in Pakistan.

A comprehensive literature review was also carried out including policy documents, curriculum approaches documents, books, journals, magazines, newspapers and online published national and international articles of various research groups accessed through the internet, Google Scholar, digital library resources of International Islamic University Islamabad - Pakistan and digital library of Higher Education Commission of Pakistan.

Cause and effect analysis

Secondly, for deepening the understanding of studies including both educational and environmental linkages as suggested by Ramsarup et al., (2017) and mechanism between them, the cause and effect analysis (Derman and Gurbuz, 2018; AE and BA)/life-cycle model (Troxel, 2013) with the help of network diagram by using flip charts (Strayer, 2007; Glewwe et al., 2004) in an in-house exercise was done repeatedly for federal and provincial contexts.

Problem Tree Analysis

Thirdly, a detailed problem tree analysis (Norris et al., 2012; bin Jailani et al., 2014; Iqbal et al., 2020) was done for setting the criteria and indicators for quantitative analysis under the scope of objectives of the study. For this study, prior to qualitative analysis, following six criteria were developed along with various indicators for each to analyze the impact of 18th constitutional amendment of the Islamic Republic of Pakistan on coherence of environmental education and environmental governance in Pakistan. The following are the criteria set for the analysis purpose:

Criteria 1 (C1): Clarity of Mandates

Clarity of institutional mandate of federal and provincial governments is essential to define role and responsibilities in performing functions at national and provincial levels.

Indicators of C1: (i) Notified distribution of functions of concerned institutions of federal and provincial governments (ii) Notified status of Education and Environment based Legislation (iii) Notified jurisdiction of Federal and provincial administrative units in term of education and environment after 18th amendment (iv) Obligations of national education policy and national environmental policy.

Criteria 2 (C2): Frameworks of Environmental and educational Governance

Environmental Governance and Educational Governance frameworks in term of policy, law and institutions at provincial levels is the basic requirement. Indicators of C2: Development of i) Environmental Policy and Educational Policy ii) Environmental Act(s) and Educational Act(s) iii) Environmental Institutions and Educational Institutions as provided by legislative documented decisions.

Criteria 3 (C3): Regulatory Frameworks

Without rules and regulations law cannot be enforced. Indicators of C3: Development of; i) Rules and Regulations ii) Adoption of existing federal rules and regulations.

Criteria 4 (C4): Institutional Capacity of Provinces

Institutional capacity in all aspects is essential requirement for enforcement of environmental rules and regulations made under the law. Indicators of C4: Institutional capacity is adequate i) Human capacity ii) Technical capacity iii) Technological capacity iv) Financial capacity.

Criteria 5 (C5): Harmonized Arrangements

For discharging national obligations on state, there must be a harmonized arrangement between federal and provincial institutions. Indicators of C5: Development of mechanisms of i) Data and information sharing ii) Distribution of tasks between federal and provincial institutions.

Criteria 6 (C6): Performance

Indicators of C6: i) Contents developed for Pollution Control, Climate Action and Urban Planning ii) Contents developed for Sustainable Resource Exploitation and Green Growth iii) Contents developed for change in attitude and behavior. Fourthly, it thoroughly examined horizontally at province level between the two institutions and vertically between provincial and federal institutions against set criteria and cause and effect model based, on which it generated discussion. Analysis is developed in the form of matrix based on which discussion was generated and along with working out findings. Finally, the inference was drawn as both environmental and educational set up at provincial levels need improvement in structural and functional settings along with developing and improving the interconnection and intercommunication between both for future planning to work out for sustainability through green education.

RESULTS

Figure 1 shows network analysis model for the outcome of behavioral change through environmental education.

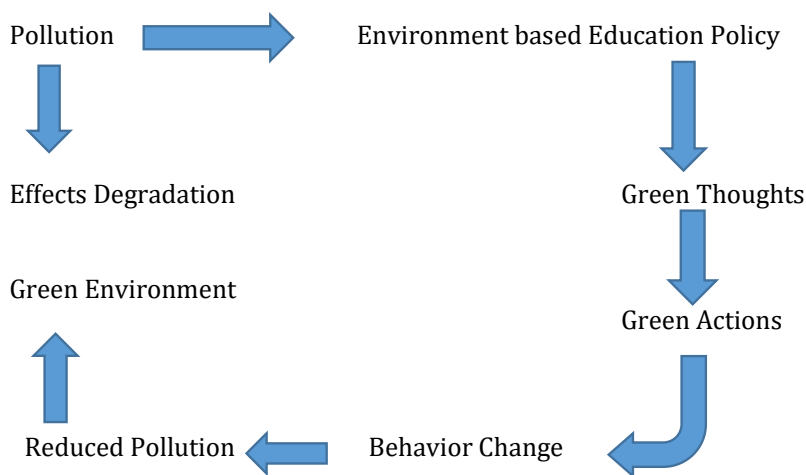


Figure 1: Network Diagram

Pakistan is a federal nature governed country under the Constitution of Pakistan with governing authority of the Islamabad as Capital Territory, four autonomous sub national domains or provinces: Sindh, Punjab, Khyber Pakhtunkhwa and Balochistan, two self-governed autonomous territories inclusive of Azad Jammu Kashmir and Gilgit-Baltistan with their own separate legislature.

18th Amendment and Federal Setup of Education Governance in Pakistan

At federal level, for education, “Ministry of Federal education and Professional Training” is working with twenty two (22) listed different departments and organizations. In wake of the 18th Constitutional Amendment, the Concurrent List was abolished and the subjects in the Concurrent List were devolved to provinces including Education and Curriculum is not an exception. Due to this step, various ministries were devolved from 5th April 2011 to 30th June 2011 including the Ministry of Education.

Ministry of Professional and Technical Training was established in July 2011 following the 18th amendment in the Constitution of Islamic Republic of Pakistan and few departments of Ministry of Labour and Manpower (MOLM) and Ministry of Education (MOE) were included in the ministry. But later according to the judgment and directions of Supreme Court of Pakistan, on 25 th November, 2011, referring Article 25-A of the Constitution, the Federal Government cannot absolve itself from the responsibility of providing Education to its citizens, ministry was renamed as Ministry of Education and Training with the approval of Prime Minister followed by notification of Cabinet Division on 24th July,



2012 and subsequent endorsement of Council of Common Interest (CCI) in meeting of 8th November, 2012. The Ministry was again retitled as Ministry of Education, Trainings and Standards in Higher Education according to the notification of Cabinet Division on 07th June, 2013. The ministry got another new title on 19th June, 2014 as per notification of Cabinet Division as Ministry of Federal Education and Professional Training (<http://www.mofept.gov.pk/index>). It was an important step to maintain the constitutional mandate and to meet the responsibilities of the government to the nation. One may read the Federal Legislative list, Part 1, Entry 16 as follows; Federal Agencies and Institutes for the following purposes that is to say, for research, for professional and technical training, or for the promotion of special studies will be organized by the Federal Government. Therefore, the Federal Government retained the Federal Agencies and Institutes imparting professional and technical training and research.

18th Amendment and federal setup of environmental governance in Pakistan

For Environment, at federal level, "Ministry of Climate Change is working with four (4) attached departments and seven (7) wings and sections. In the month of April 2012, Ministry of National Disaster Management was retitled as the Ministry of Climate Change which was moved down as a Division in July 2013. Later on, it was moved up again and Climate Change Division (CCD) has been now upraised to a level of ministry at federation in Pakistan. The ministry now comprises one hundred and seventy eight (178) total employees strength which includes fifty eight (58) officers and one hundred and thirteen (113) staff members. Figure 2 portrays the organizational hierarchy of MoCC.

DISCUSSION

National Climate Change Policy-2012 of Pakistan and Environmental Education

The National Climate Change Policy 2012 (Mumtaz, 2018), under "4.7-Disaster Preparedness" in Policy Measures (f) states to "Redesign and construct disaster resilient multi-purpose school buildings to be used as shelters during natural calamities". The policy, in its preamble, aimed to take appropriate measures relating to disaster preparedness and introduction of the climate change issue in higher education curricula to be incorporated as important components of the policy. In the domain of Forestry, to enhance the adaptive capacity, the policy is focused to ensure inclusion of climate change as a compulsory subject in forest education systems. The policy states that the capacity enhancement will be carried out in climate change professionals by sending young scientists and students to reputable institutions abroad for higher studies, by strengthening national climate change science related institutions, in particular the Global Change Impact Studies Centre (GCISC) and universities, in terms of necessary financial and technical support, and Development and introduction of curriculum on climate change and environmental planning with particular emphasis on Disaster Risk Reduction (DRR) and introduce it into the formal education system at all levels, particularly into the higher education system.

For awareness raising, the policy aimed to ensure advocacy and mass awareness regarding the importance of water and energy conservation, the impact of climate change on various sectors including forest ecosystems, biodiversity and so on, using mass media, public private partnerships, students and community mobilization, and incorporate these issues into the formal education systems at all levels. In the technology transfer, the policy urged to establish a base for technology transfer and absorption at technical institutes, engineering colleges and universities.

National Environmental Policy-2005 of Pakistan and Environmental Education

The National Environmental Policy-2005 of Pakistan, in its Policy Instruments includes Public Awareness and Education aimed to integrate environmental education into all levels of curricula and syllabi from primary to university level. It further states to encourage the establishment of environmental education and training institutions. Moreover, the policy announces to support all educational institutions throughout the country to establish environmental clubs. The policy, under the heading of Public Private Civil Society Partnership, urges to include the concept of "Participatory Approaches and Practices" in the curricula of environmental education and training programs. Talking about the "Gender and Environment", it is focused to include gender and environment in the curricula of education and training programs on environment.



National Education Policy Framework-2018 and Environmental Education

The National Education Policy Framework-2018 of Pakistan was brought forward in November, 2018 and states as Pakistan faces significant education challenges in providing uniform and quality education across the nation for all children, and in the past decades the progressive indicators of education have been found very inadequate. Improved educational governance system with financial efficiency of the education system is the dire need of the country as governance and management of the education sector has been cited as one of the biggest stumbling blocks in achievement of education targets in Pakistan. It also talks about the Lack of coherence and coordination in curriculum frameworks, textbooks and examination systems. Unfortunately, in the policy framework, no road map of revision of curricula to inculcation of environment and climate change based education found.

National Forest Policy-2015 of Pakistan and Environmental Education

According to NATIONAL FOREST POLICY-2015, The National institution shall promote high-quality research and education by building linkages with regional and international forestry institutions. The National institution shall also develop and maintain updated databases related to all aspects of forestry, biodiversity and allied disciplines, conduct periodic national forest assessment and publish state-of-the-art forest report after every 2 years. The environment based education and linkages with education sector at school, colleges and university level, however has not been stated in the policy.

Provinces and Environmental Education

Almost all the provinces, AJK and Gilgit Baltistan are having their respective boards under the ministry of education for developing curriculum. These all are coordinated with the National Curriculum Committee working for one curriculum across the nation. These boards need stronger coordination and improve the contents of environment and its belongings in the curricula of all levels of education.

CONCLUSION

The environment and climate change based education is a major support to the nation to cope with the challenge of global environmental stewardship in 21st century which can be addressed by key of environmental governance in perspective of sustainability. Different levels and multifaceted governance can be brought forward for the country integrating environmental education. The environment based education will give a long term fruit of the education based environment with full of natural beauty and plenty of natural resources for present as well as future generations. The reason to focus the environment based elementary education is the students at primary level are too young to understand the things clearly although they get concept memorized while the students of secondary and higher secondary level in Pakistan are mentally directed to focus their future field or profession on the basis of which they have to choose some subjects and to leave others in a system thus limiting to the option numbers. The elementary level is the most important age group of children where they can be focused through lessons, class room and school environment, contents of curriculum, practical's, field trips and tours to the national parks, rivers, oceanic coasts, zoo, gardens, thus inspiring them to be a friend of nature in life.

The government of Pakistan, with the help of educationists and environmentalists should take proactive steps to inculcate the different problems of environment and the responsibilities of a citizen in this scenario in the curricula of all levels of education including primary, elementary, secondary, higher secondary schools, colleges and universities. Although the higher education sector has started the environmental sciences and environmental management like courses and degrees at university levels but school level education system and curricula, particularly the elementary level needs to revisit the courses for the promotion of environment based education.

The religious set of educational network in the society is also have a strong influence on the students of schools and colleges of the nation. The Friday sermons, Dars-e-Quran and Dars-e-Hadith can be arranged in mosques periodically across the nation to teach and preach the importance of nature and natural components which are narrated as "Signs of Almighty". It will give a stronger stewardship concept to the young generation and they will be a good human being, with nature loving attitude and



nurturing it. The contents of religious book of Muslims, The Holy Quran and teachings of The Holy prophet Muhammad (Peace be upon Him) preaches the best philosophies and practices for environment and nature. It leads to eternal peace of human being, expressed as individual peace which ultimately leads to the social peace. This is how the universal peace can be obtained across the globe.

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