Abstract

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PARTICIPATION IN SUSTAINABLE DEVELOPMENT OF WOMEN IN SUNDARBAN DELTA IN RELATION TO THEIR EDUCATIONAL QUALIFICATION

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Anthropogenic activities are causing environmental degradation, which is now in an alarming rate and it is resulting various environmental issues like global warming, ozone layer depletion, greenhouse effects, and raise in sea water level, improper monsoon, acid rain etc. It has been identified and accepted that education is an essential tool for achieving sustainable development, and 'UN decade of Education for Sustainable Development' (2005-2014) is running on. The present study has been undertaken to observe the relative impact of formal educational qualification on participation in environmental sustainability among women of the Sundarban delta in West Bengal, India. A survey conducted on a sample of 570 women from Sundarban delta. The result reveals that women's participation in environmental sustainability is gradually increasing with uplifting of formal educational qualification. Moreover, women with higher secondary level of education are differing significantly from those of lower secondary level in participation towards environmental sustainability. So, the inclusion of environment related topics in subjects of lower secondary curriculum could make the formal education process more effective to attending environmental sustainability.

Key words: Sustainable development, Educational qualification, Sundarban delta, Secondary level

Today, the major factor that causing deterioration to environmental health is anthropogenic disturbance (WCED, 1987). The earth has a natural balance, but the growth in consumption and unbalanced consumption patterns are placing unprecedented pressure on the earth's natural environment (UNDP, The Human Development Reports, 1998), that makes it difficult for the earth to renew itself. Now, environmental degradation is not only a threat to the quality of life but also a threat to human survival (Dunlop and Merting, 1995).

In this light, the acceptance and adoption of sustainable life-style is an urgent issue in protecting environment, because sustainability is not just about conserving our resources, it is about changing our culture to make conservation a way of life.

It has been identified and accepted unanimously that, 'Education is an essential tool for achieving sustainable development', because, education at all levels can shape the world of tomorrow, equipping individuals and societies with the skills, perspectives, knowledge and values to live and work in a sustainable manner (The World Commission on Environment and Development, 1987). The present study aimed to observe the solution with studying the relative impact of educational qualification on participation in environmental sustainability. It is generally believed that women are more concern about environment. In last two five years plans in India it has affirmed that women are active participants rather than passive recipients of change. With accepting all these, the study carried on moderately vulnerable women from two islands of Sagar block (Sagar and Ghoramara) at the world heritage site Sundarbans, West Bengal, India.

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Objectives	The single objective of this study is to observe the relative impact of formal educational qualification and participation in environmental sustainability among women of the Sundarban delta.
Emergence & Significance	Literature review shows that different projects demonstrated on environmental education, environmental awareness and pro-environmental behavior (Wahed, 2008; Nagalakshmi, 2010; Jarrar and Gheith, 2013). The study region is a remote, deprived and environmentally disadvantaged zone and review of literature suggests that there is a lack of sufficient research work in this field especially on women's participation and sustainability. Hence, this kind of research will boost up new initiatives to attend the knowledge gap.
Hypothesis	 There may be significant difference between formal educational qualification and participation in environmental sustainability among women of the Sundarban delta. It could be more specific in the following way; There may be significant difference in mean scores of participation in sustainability between women educationally qualified at below primary level and primary level. There may be significant difference in mean scores of participation in sustainability between women educationally qualified at primary and secondary level. There may be significant difference in mean scores of participation in sustainability between women educationally qualified at primary and secondary level. There may be significant difference in mean scores of participation in sustainability between women educationally qualified at secondary and higher secondary level. There may be significant difference in mean scores of participation in sustainability between women educationally qualified at secondary and higher secondary level. There may be significant difference in mean scores of participation in sustainability between women educationally qualified at secondary and higher secondary level.
Methodology	 Research design – The design of the research is survey type. Sampling design – Purposive sampling technique was used and 570 women with moderate vulnerability were taken as sample. Tools – Close ended questionnaire was used to measure the participation in sustainability. Further, the indicators of sustainability are – Environmental, Social and Economic (source: Prescott –Allen, 2001). The present study focuses on environmental indicator only. Dimensions used according to International Institute for Sustainable Development (IISD, 2009) and Environmental Behaviour Scale of Archana Singal, predeep Singal and Urmila Verma; published by national Psychological Corporation (2010). The dimensions are – pollution, conservation and management.
Results	The result showing that the mean scores of participation in sustainability among women with higher educational qualification are gradually increasing.

TABLE: 1 Descriptive statistics of data					
Educational Qualification	(N)	Mean	SD		
Below primary	94	35.574	4.456		
Primary	86	36.629	4.327		
Secondary	139	36.877	3.717		
Higher Secondary	93	38.311	4.683		
UG and above	158	38.841	4.326		

The graphical presentation of this data will give a clear picture about it.

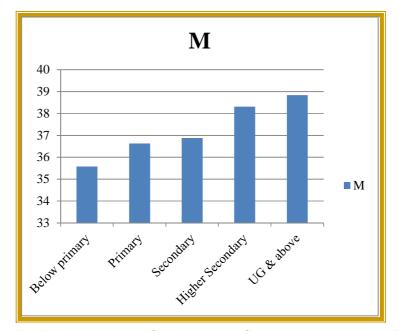


Fig.1 Graphical representation of Mean scores of participation in sustainability

TABLE: 2 Inferential statistics of the data						
Educational Qualification	t- value	Significance				
Below primary & Primary	1.61	Not significant				
Primary & Secondary	0.455	Not significant				
Secondary & Higher Secondary	2.593	Significant at 0.01 level				
Higher Secondary & UG and above	0.909	Not significant				

The difference in mean scores of participation in sustainability is significant between women with educationally qualified at secondary and higher secondary level.

Analysis	As the study revealed that participation toward sustainability is increasing with educational qualification, so it gives a positive stimuli to encourage the advocacy that education is an essential tool to achieve sustainable development. Though, the mean scores of participation in sustainability is gradually increasing, but the
Sis	difference in mean scores of participation in sustainability is gradually increasing, but the qualifications of secondary and higher secondary level.
	So, new researches with new research questions could be initiated from here.
Conclusion	The United Nations General Assembly declared 2005-2014 the UN Decade of Education for Sustainable Development (DESD). One of the goals of the decade is transition to sustainable development – through all forms of education, and to give an enhanced profile to the important role of education and learning in sustainable development. The present study is an attempt to advocacy regarding this. In this study, 'Education' is limited around formal education only, but according to UNESCO's International Implemented Scheme 'all forms of education' are recommended. Moreover, it is also a field specific research work with the scopes for follow up.
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