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# A Perception of Tribal Secondary Students Towards Sustainable Development

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**Abstract:** *Jharkhand, the 28th state of India, is known for its rich natural resources and tribal population. It is also not untouched by environmental challenges. Despite the abundance of forest area, deforestation remains a serious problem. Due to illegal felling and increasing population pressure, the area of forests is continuously decreasing. Here not only biodiversity is harmed, but the local community, especially the tribal community, is also being adversely affected. The main objective of the study is to find out the perceptions of tribal secondary school students towards sustainable development to prioritize socio-economic development. The research design/methodology is based on qualitative and quantitative data collection through descriptive research. The idea of studying the secondary tribal students of Seraikela-Kharsawan district of Jharkhand state came to mind as it is a backward tribal community district. It will easily reflect their attitude towards measuring forest conservation and livelihood development, and has focused on the social-capital and cultural society of the tribe in their livelihood. It shows how non-wood forest products can be used commercially and industrially without affecting the natural resources. In this way, the concepts of sustainable development will be highlighted. The study defines how the people of this community have contributed significantly to the government revenue through sustainable livelihood and helped in generating income for the weaker section of the community.*

**Keywords:** *Sustainable Development, Livelihood, Perceptions, Tribal Students and Secondary Level School*

## I. INTRODUCTION

Jharkhand state, which is known for its richness in natural resources, is not untouched by environmental challenges. Despite the abundance of forest area, deforestation remains a serious problem. Due to illegal felling and increasing population pressure, the area of forests is continuously decreasing. This not only harms biodiversity, but also has an adverse effect on the living standards of local communities (i.e., especially tribal communities). At present, there are 33 tribal communities in Jharkhand state, out of which 25 are in the tribal major category and 8 are primitive tribes. About 9% of its population lives in urban areas and 91% in rural areas. This tribal community, being a primitive tribe, is very well aware of the importance of conservation of forests. Because the people of these communities worship nature. This study is about the perceptions of the students of tribal secondary school of Seraikela-Kharsawan district towards environmental conservation through sustainable development. Which is the basis of this research study.

### A. Sustainable Development

Education is crucial to achieving the Sustainable Development Goals (SDGs), with SDG 4 particularly emphasising the importance of ESD (UNESCO, 2022). ESD aims to equip learners with sustainability capabilities, including knowledge, skills, values and attitudes, enabling them to plan, think and act in their daily lives, thus ensuring that human activity stays within planetary boundaries (European Commission. Joint Research Centre, 2022). UNESCO's "ESD for 2030" framework, which was launched in 2020 through the Berlin Declaration, provides guidance for implementing SDG 4 and emphasises the urgent changes needed for sustainable development (UNESCO, 2022). This change is necessary in both individuals and societal institutions and requires a holistic approach to ESD (European Commission. Joint Research Centre, 2022). ESD is also known as EFS (Education for Sustainability) and SE (Sustainability Education). These terms share similar meanings. In this study, we mainly use the term ESD, as it is used internationally. ESD also includes EE/ESE (Environmental Education/Environment and Sustainability Education), as it is holistic in nature.

### B. Concept of Sustainable Development

Sustainability word is taken from the Latin language having several meanings, but main meaning is "maintain, "support" or "endure", "Sustain" means to maintain something through time, "to keep it going", "to extend its duration".

“Sustainability” means the ability or capacity to sustain (maintain) something. “Sustainable” means able to be maintained. There are many definitions of sustainable development which is Brundtland commission, “sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. The concept of sustainable development contains the two key concepts: The concept of needs in particular the essential needs of the world’s poor, to which overriding the priority should be given and the idea of limitations imposed by the state of technology and social organization on the environments ability to meet present and future needs.

The eminent environmentalists Dr. M. S. Swami Nathan defines “Sustainable development implies a future in which standard of life is improved would wise through economic development where local environment and biosphere are protected and science is mobilized to create new opportunities for human progress”. Abdul Kalam remarks, “Sustainable development does not imply absolute limits to growth and it is not new name of environmental protection, the concept leads a unique meaning to development and sets an integrated target for the measurement of development which has a combination of parameters Including economic status, poverty, education, health, women empowerment, harmony, physical connectivity and environmental aspects”. Raymond defines, “the most object and potentially measurable criteria for sustainable development is the preservation of the productivity and full functioning of the resources base”. Stephen Viedman emphasizes that, “sustainability is a vision of the future that provides as with a road map and helps to focus our attention on a set of values and ethical and moral principles by which to guide our actions as individuals and in relation to the institutional structures with which we have contact-governmental, and non-governmental, work-relations and other”.

There are three main dimensions of sustainable development, such as:

- 1) Economic sustainability
- 2) Social sustainability
- 3) Ecological sustainability

#### *C. Importance of Sustainable Development*

The United Nations' 2030 Agenda for Sustainable Development emphasizes the need for holistic development, balancing economic, social, and environmental aspects. SD is particularly vital for tribal communities, as they heavily rely on natural resources for livelihood.

#### *D. Education's Role in Sustainable Development*

Education plays a pivotal role in promoting SD awareness and shaping attitudes among young minds. Secondary school students, in particular, are at a critical stage of development, where they can influence their communities' future. Understanding their perception of SD is essential for developing effective education strategies.

#### *E. Problems that has been identified*

*Problems that have been identified regarding sustainable development in Jharkhand, particularly focusing on addressing socio-economic aspects are:*

- 1) Land and Resource Ownership: Tribal communities in Jharkhand often face challenges related to land ownership and access to natural resources.
- 2) Marginalization and Discrimination: Tribal communities often experience marginalization and discrimination in various aspects of socio-economic life, including education, healthcare, and employment opportunities.
- 3) Lack of Quality Education: Limited access to quality education leads to lower literacy rates among tribal populations. Inadequate educational infrastructure, lack of culturally relevant curriculum, and language barriers contribute to this problem, hindering their skills development and employment prospects.
- 4) Healthcare Disparities: Tribal communities face inadequate access to healthcare facilities, leading to poor health outcomes.
- 5) Unsustainable Livelihood Practices: Traditional subsistence-based livelihoods like shifting agriculture can be unsustainable and contribute to deforestation and environmental degradation.
- 6) Lack of Skill Development: Limited vocational training opportunities restrict tribal community members from acquiring modern skills required for diverse job markets. This leads to high unemployment rates and underemployment.
- 7) Infrastructure Deficit: Poor road connectivity, inadequate access to electricity, and limited connectivity hinder economic development and discourage investment in tribal regions.



- 8) Lack of Financial Inclusion: Limited access to formal financial institutions, credit, and banking services hinder entrepreneurial efforts and small business development among tribal communities.
- 9) Lack of Market Access: Limited access to markets and value chains for tribal produce and handicrafts reduces their potential for income generation and economic growth. Addressing these challenges requires a comprehensive approach that involves collaboration between government agencies, non-governmental organizations, tribal communities themselves, and other stakeholders.

## II. REVIEW OF RELATED LITERATURE

Andrabi (2016) explored the academic achievement of tribal and non-tribal adolescent students in secondary schools of the Kashmir division. The sample was comprised of 564 students randomly selected from three secondary schools. Academic achievement was obtained from the school records of the sample students. Gender-wise and category-wise comparisons were done using mean, S.D., and independent samples t-tests. Results showed that tribal and non-tribal adolescents differ significantly on the measure of academic achievement at 0.001 level. Non-tribal adolescents were found to have a higher level of academic achievement than tribal students. The study also revealed that there is no significant difference between male and female adolescents on the measure of academic achievement.

Kumari (2019). A study of academic achievement among tribal and non-tribal adolescents of secondary schools in the Kashmir division, and reported a significant difference in the academic achievement of tribal and non-tribal students. Non-tribal adolescents were found to have a higher level of academic achievement than tribal students. Significant differences were also found between male and female adolescents in their academic achievements.

Giudici, G., Guerini, M., Lamastra, C.R. (2019) published a paper titled as "The creation of clean tech start ups at the local level: the role of knowledge availability and environmental awareness". In their paper, the researchers have explored which local factors affect the creation of clean tech start ups in a geographical area. Specifically, they have noted that these start ups combine innovation and attention to the environment. Thus, the researchers considered two primary sets of local factors: the availability of scientific and technological knowledge and the environmental awareness of local governments and communities as the main drivers of the creation of clean tech start ups. Using a dataset of 393 clean tech start ups created between 2012 and 2014 and extracted from the Italian official database of innovative start ups, the researchers have estimated negative binomial regressions whose dependent variable is the number of clean tech start ups created in each of the 110 Italian provinces. The results highlight that both the local availability of scientific and technological knowledge and the local environmental awareness are crucial determinants of clean tech entrepreneurship in a geographical area. In their paper the researchers have also discussed the implications of these results for policymakers who intend to stimulate this type of entrepreneurship.

Andersson, E., Olsson, P., Folke, C. (2019) published a paper titled as "Sustainability and resilience for transformation in the Urban century." According to the researchers there are many sustainability challenges in urban areas which are growing very fast and they cited few examples of devastation as we have entered into the era of urban century. In their paper the researchers addressed that when urbanization accelerate, meeting the challenges will require unprecedented transformative solutions for sustainability with a careful consideration of resilience in their implementation. Global and local policy processes often use vague or narrow definitions of the concepts of 'urban sustainability' and 'urban resilience', leading to deep confusion, particularly in instances when the two are used interchangeably. Confusion and vagueness slow down needed transformation processes, since resilience can be undesirable and many sustainability goals contrast, or even challenge efforts to improve resilience. The researchers proposed a new framework that resolves current contradictions and tensions; a framework that they believe will significantly help urban policy and implementation processes in addressing new challenges and contributing to global sustainability in the urban century.

McGowan, P., Stewart, G.B., Long, G., Grainger, M.J. (2019) published a paper entitled as "An imperfect vision of indivisibility in the Sustainable Development Goals". The researchers have presented Sustainable Development Goals (SDGs) as highly connected, an 'interrelated' and 'indivisible' agenda with a need for policy coherence for implementation. They have analysed the relationships among the goals using formal systems analysis and they have found that the connections between goals are uneven, with a failure to integrate gender equality, peace and governance concerns. According to them this incoherence may undermine policy initiatives aimed at developing approaches to implement the SDGs.

Purvis, B., Mao, Y., Robinson, D. (2019) published a paper titled as "Three pillars of Sustainability: in search of conceptual origins". The researchers said that three-pillar conception of (social, economic and environmental) sustainability, commonly represented by three intersecting circles with overall sustainability at the centre, has become ubiquitous. With a view of identifying the genesis and theoretical foundations of this conception, this paper reviews and discusses relevant historical sustainability literature.

From this the researchers have found that there is no single point of origin of this three-pillar conception but rather a gradual emergence from various critiques in the early academic literature of the economic status quo from both social and ecological perspectives on the one hand and the quest to reconcile economic growth as a solution to social and ecological problems on the part of the United Nations on the other.

### III. RESEARCH GAP

I have studied the literature review related to the perception of tribal students about sustainable development. And listed the findings of some research studies conducted in India and abroad, which are related to the problem under study. I have tried to know about the work done earlier regarding the problem and solution, to what extent it has been successful for my area, and what I feel is lacking. In this context, I found that the perception of tribal secondary school students towards environmental protection in sustainable development was lacking. Therefore, I conducted this research in my area.

### IV. STATEMENT OF THE PROBLEM

“A Perception of Tribal secondary students towards Sustainable Development. ”

### V. NEED AND SIGNIFICANCE OF THE STUDY

Sustainable development plays a vital role at present society. Sustainable development, effects various aspects on like social, Economic, Political, educational, environmental development. At present, Education emphasizes to increase the perceptions of sustainable development among tribal secondary school students. As a result, students enable in conscious to fulfill their social, political, economic structure, educational development. At present, secondary school students don't give their respect to their parents, their elders and teachers so that the space of morality becomes demotion, for this reason so that a proper educational system is built, we should at the side. Another factor is sustainable development. If it is not, then which needs are necessary it will be needed to aware about those facts for making educational environment in future. Sustainable development will be needed to aware of ecological development to the tribal secondary school students which exists the earth for a long time.

### VI. OBJECTIVES OF THE STUDY

OBJ 1: To evaluate the perception of tribal secondary school students towards sustainable development.

OBJ 2: To compare the perception of rural and urban tribal secondary school students towards Sustainable development.

OBJ 3: To compare the perception of boys and girls tribal secondary school students towards sustainable development.

### VII. HYPOTHESES OF THE STUDY

HY0 1: The perception of tribal secondary school students towards Sustainable development is not high.

HY 02: There is no significant difference in the perception of rural and urban tribal secondary school students towards Sustainable development.

HY 03: There is no significant difference in the perception of boys and girls tribal secondary school students towards Sustainable development.

### VIII. DELIMITATION OF THE STUDY

- 1) This study will be restricted in Seraikela-Kharsawan district.
- 2) This study is delimitation to only the tribal secondary school students (class-10)
- 3) This study is delimitation to only ecological sustainability

### IX. METHODOLOGY OF THE STUDY

Methodology is a vital instrument for the growth and development of knowledge. This chapter deals upon various part used in the study. It discussed sampling procedure, tools of the study, data analysis technique, procedure of data collection.

#### A. Research Method

The descriptive survey method of investigation which attempts to describe and interpret that exists at present in the form of conditions, practices, process, trends, efforts, attitudes, believes etc. It means “what are the real facts with regard to the existing conditions”.

### B. Population of the Study

Population is an important part of methodology. This present study population has selected in secondary schools of Seraikela-Kharsawan district.

### C. Sample and Sampling Procedure

Sample is the representation of the population on which the study is for the present study. The suitable sampling technique is sample random sampling. How much to selected sample from the population which given to below :-

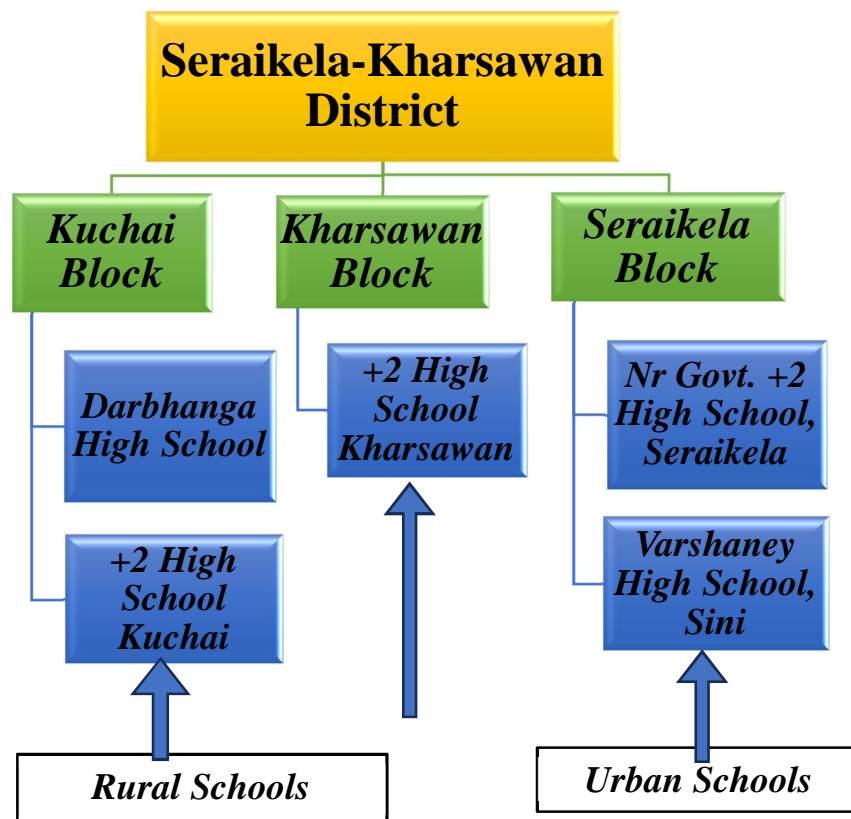


Figure- 1.1

200 samples are selected on the secondary school for the study. Their rural school students are 125 and urban students are 75. Their boys students are 134 and girl students 66 from the total 200 students.

Table- 2.1 Variables wise distribution of the samples

Sl. No.	Variables	Number	Total
1.	Locality		
	(a) Rural	125	200
	(b) Urban	75	
2.	Gender		
	(a) Boys	134	200
	(b) Girls	66	
Total			200

### D. Procedure of Data Collection

At first, I collected the permission letter from the University for Data Collection. Then I gave the permission letter to the head in charge of the students and he/she permitted me for data collection, then the tools were given to the students of class X and I instructed to the students. There are 30 marks for 30 questions. At last data were collected from the students.

### E. Tool of the Study

Tools are an important part of methodology. This tool was a two-point scale. It was a scale of environmental awareness. This tool was to know the awareness of environment of secondary school students. The reliability of the test on awareness of secondary school students towards sustainable development was 0.737 found out with the help of Cranach's Alpha by SPSS which signifies that the test had a high reliability. The tool consisted of 30 items with positive and negative items.

**TABLE- 2.2**

CATEGORIES	ITEMS NO.	TOTAL
Positive items	1,2,3,4,5,7,8,9,11,12,13,14,15,17,18,19,20,21,23,25,26,27,29,30	<b>24</b>
Negative items	6,10,16,22,24,28	<b>6</b>
	<b>TOTAL</b>	<b>30</b>

### SCORING PLAN

#### Positive items

YES	1
NO	0

#### Negative items

YES	0
NO	1

### F. Pilot Study

After the preparation of the tool, the pilot study is needed to verify its appropriacy. The tool administered on 50 students. The students did not have any differently in answering the questions in the tool. Its norms are necessary for afterward interpretation on secondary students easily. The norms table are given below.

PERCENTILE NORMS	SCORES AREA	REMARKS
$P_{99} - P_{80}$	29.65 – 27.7	Very High Perception
$P_{75} - P_{70}$	27.2 – 26.7	High Perception
$P_{60} - P_{40}$	25.5 – 22.95	Average Perception
$P_{30} - P_{25}$	21.6 – 20.91	Low Perception
$P_{20} - P_1$	20 - 13	Very Low Perception

The above norms where conducted on the basis of the mean and SD obtained in pilot study .The mean words 23.72 and the SD was 4.35.

## X. DATA ANALYSIS TECHNIQUES

This survey study used various techniques are mean, standard deviation, t-test, questionnaires (self-made).

### A. Objective Wise Analysis and Interpretations

1) To evaluate the perception of tribal secondary school students towards sustainable development.

Result: There are 200 samples for this study. Every items (30 items) mark is 1. The Total sample score is 4649. The mean of samples is 23.25. The norms table are given below.

Table 2.4 Mean of the Samples

No. Of Students	$X^2$	Mean
200	4649	23.25

Table 2.5 Pilot Study

PERCENTILE NORMS	SCORES AREA	REMARKS
$P_{99} - P_{80}$	29.65 – 27.7	Very High Perception
$P_{75} - P_{70}$	27.2 – 26.7	High Perception
$P_{60} - P_{40}$	25.5 – 22.95	Average Perception
$P_{30} - P_{25}$	21.6 – 20.91	Low Perception
$P_{20} - P_1$	20 - 13	Very Low Perception

Interpretation: It can find out that the perceptions of secondary school students towards environmental awareness mean score is 23.25. The pilot study, mean scores area of average and perception are 25.5 – 22.95. So, the perception of tribal secondary school students towards sustainable awareness is average.

2) *To compare the perception of rural and urban secondary school students towards sustainable development.*

Result: Table 2.6: There is no significance difference between rural and urban secondary school students towards sustainable development.

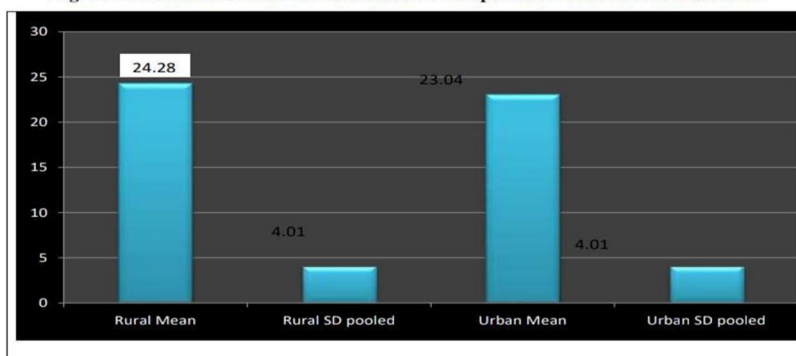
Sl. No.	Locality	No. of Students	Mean	SD Pooled	SED	M.D	C.R	Table Value	Remark
1.	Rural	125	24.28	4.01	0.58	1.24	2.12	1.97 At 0.05 level.	H0 is rejected at 0.05 level of significance
2.	Urban	75	23.04					2.60 at 0.01 level	

Interpretation: It can find out that the table value 1.97 at 0.05 level of confidence. Since, our calculated t value that is 2.12 which is more than the table value, we can reject the null hypothesis at 0.05 level of significance. Our hypothesis is rejecting. Therefore, we can say that the two groups namely Rural and urban students differ significantly with regard to awareness of sustainable development.

Since, the means score of rural students is higher than that of the urban students, we can say that rural students are more aware of environment than the urban students.



Figure 1.2. Mean and SD values of sustainable development of rural and urban students



3) To compare the perception of boy and girl tribal secondary school students towards sustainable development.

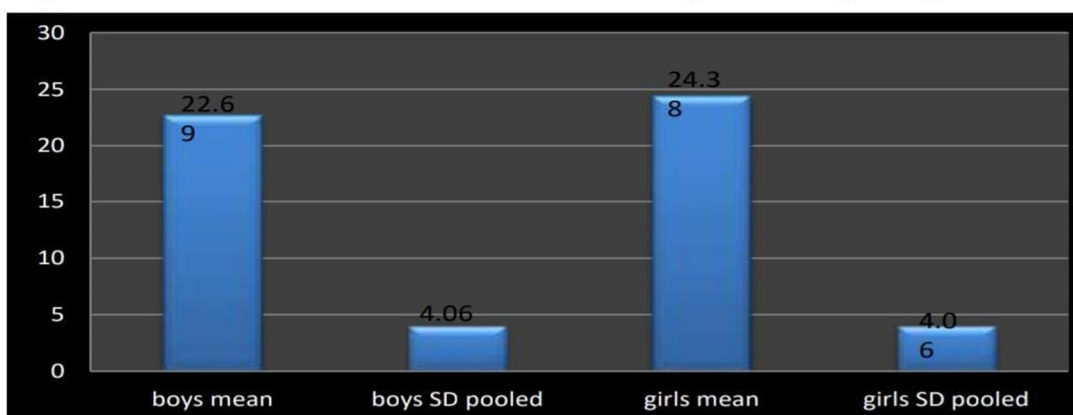
### RESULT:

TABLE 2.7. There is no significance difference between boy and girl secondary students towards sustainable development.

Sl. No	Gender	No. of Students	Mean	SD Pooled	SED	M.D	C.R	Table Value	Remark
1	boys	134	22.69	4.06	0.69	1.68	2.77	1.97 at 0.05 level	H0 is rejected at 0.01 Level of significance
2	girls	66	24.38					2.60 at 0.01 level of significance	

Interpretation: It can find out that the table value 2.60 at 0.01 level of confidence. Since, our calculated t value that is 2.77 which is more than the table value, we can reject the null hypothesis at 0.01 level of significance. Our hypothesis is rejecting. Therefore, we can say that the two groups namely boys and girls student differs significantly with regard to perception of sustainable development. Since the means score of girl students is higher than that of the boy students, we can say that girl students are more aware of SDG than the boy students.

Figure 1.3. Mean and SD values of sustainable development of boy and girl students



## XI. MAJOR FINDINGS

Main major findings in the study are the following:

- 1) The perception of tribal secondary school students towards sustainable development is not high in the hypothesis but on testing the result is found to be average.
- 2) The hypothesis stated that there is no significant difference in the perception of rural and urban tribal secondary school students towards sustainable development, but the testing showed that rural students are more aware than urban students.
- 3) The hypothesis stated that there is no significant difference in the perception of tribal secondary school boys and girls towards sustainable development but the testing revealed that girls are more aware of sustainable development than boys.

## XII. CONCLUSION

It is concluded that various strategies for inclusive rural development incorporating principles of environmental sustainability have proven to be beneficial as there is a need for sector, region and target group specific measures to achieve green goals, including measurement and tracking, usage incentives and capacity building. Some case studies have proved how green outcomes can be achieved. It is also believed that natural resources are a key factor to avoid chronic poverty. In the current context the poor can be seen as a continuum rather than strictly a separate category. Uncertainly the lack of assets and adverse inclusion of government funds for schemes and rural development programmes exert pressure to increase poverty. Looking ahead, policy making to tackle rural poverty should focus on systematic approach to build interlinkages in natural resource management and rural development programmes in the planning agenda.

## XIII. EDUCATIONAL IMPLICATIONS

To achieve a good quality of life on earth for all living beings, it is essential to educate humankind and spread awareness about environment and sustainable development. Teacher is an effective tool in this regard. If the teacher is aware only then s/he can make the students aware about the environmental issues, their effects and solutions and can imbibe in them environmental ethics. The teachers themselves can explore environmental issues and their solutions; can also do a lot of readings with the help of information technology to increase their knowledge about global and local environmental concepts. The government must restructure and enrich both in service and pre- service teacher education programmes with environmental awareness activities. More and more lectures, seminars, courses, debates, declamations, posters and painting, essay writing competitions, innovation from disposed items, or reciting environment related poetry, celebrating environmental days or week can be introduced in this regard.

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