



## TEACHER EDUCATION FOR SUSTAINABLE DEVELOPMENT

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### Abstract

*Education for sustainable development aims to help people to develop the attitude towards environment, knowledge & skills to make informed decisions for the benefits of themselves & others. The study was focused on the objectives i.e. to study objectives of 'Education and Sustainable Development', to study 'Teacher Education' and 'Sustainable Development in India' & to study the roles of Teacher Education and Teacher Educator in 'Education and Sustainable Development'. With the help of study of documents of Education and Sustainable Development and expectation from teacher education, we should rethink about the role of Teacher Education. It is concluded that integrated and interdisciplinary approach should be adopted by the teacher educators. Research and innovations will promote the Sustainable development. Working with Community definitely contribute for the same. To attain this we must reinvent the world socially, economically and environmentally.*

**Keywords:** *Teacher Education, Sustainable Development, Education for Sustainable Development, interdisciplinary approach.*



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### 1. Introduction:

India in modernization & Globalization era are replaced by technology. It brings out development in all the sectors i.e. industrial, economic, and social & education! These developments have a significant effect on the education system in general and higher education in particular! Though we are in modern era, we are facing so many problems today. That is social, economic, health, cultural, environmental, peace, poverty and about natural resources. As we expect healthy and wealthy life for all, the social, cultural, economic & environmental surroundings should also be healthy. The key to this entire problem is Education.

Whenever we expect development, progress, modernization or globalization, there should no side-effects on the existing system of human life. The development in all sectors should be sustainable that will sustain human being. For this, Education should play a vital

role. A teacher is a facilitator of all the things. Through education there should be sustainable development of human beings, is goal of education.

### **1.1 Education for Sustainable Development :**

Education for sustainable development is just another buzzword forgotten in a few years. From a global perspective as well as a local perspective we have to direct education toward what will be truly useful for each child and for each society in the future.

To have a fulfilling, life should be within reach for all children wherever they are born. In too many parts of society and of the world children grow up in hazardous environments with very poor conditions for basic requirements and bleak prospects for their future.

‘Education for Sustainable Development’ is derived from the Brundtland report’s focus on Sustainable Development (SD). The Brundtland report requires fundamental changes in the society and its institutions, in politics and in our individual family life styles. Economic development cannot be separated from social development and a concern for the environment.

Sustainability education (ES), Education for sustainability (EFS) and Education for sustainable Development (ESD) are interchangeable terms describing the practice of teaching for sustainability, ESD is the term most used internationally level and by the United Nations.

**Sustainable development is seeking to meet the needs of the present without compromising those of future generations.** We have to learn our way out of current, social and environmental problems and learn to live sustainably.

Sustainable development is a vision of development that encompasses population’s animal and plant species, ecosystems, natural resources and that integrates concerns such as the fight against poverty, gender equality, human rights, education for all, health, human security etc.

**Education for sustainable development aims to help people to develop the attitudes, skills and knowledge to make informed decisions for the benefit of themselves and others, now and in the future, and to act upon these decisions.**

### **2 Interdisciplinary relevance :**

In emerging issues, Sustainable Development is being studied through various subjects. It is related with Environmental Sciences, Geography, Biological Sciences and Human sciences Value Education and Life Skills Education also. Through these subjects we would sensitize the people to sustain the Environment, to sustain the human life. So it shows interdisciplinary study.

### **3. Need and Importance:**

Due to overuse and misuse of our good friend environment, we are facing the problems like pollution, deforestation, loss of biodiversity, the ozone hole, global warming & social problems. All these problems have an impact on human well-being. This may have short term and long term impact. To solve existing environmental problems and preventing new once, we require understanding and appreciation of the linkages between environmental well-being and human well-being. That will sustain the environment and the human life.

For well-being, we need to understand how to interact with the environment. To meet this need, Education should play vital role. A teacher should be a facilitator of all this process. Education for sustainable development aims to help people to develop the attitude towards environment, knowledge & skills to make informed decisions for the benefits of themselves & others.

### **4. Objectives of the study:**

1. To study objectives of 'Education and Sustainable Development'.
2. To study 'Teacher Education' and 'Sustainable Development in India'.
3. To study roles of Teacher Education and Teacher Educator in 'Education and Sustainable Development'.

### **5. International Status of Education for sustainable development:**

The UN General Assembly in its 57th session in Dec 2002, proclaimed the Decade of ESD for the period 2005 to 2014. Education for sustainable development aims to help people to develop the attitudes, skills and knowledge to make informed decisions for the benefit of themselves and others, now and in the future, and to act upon these decisions.

In United Nations climate change conference, the NGO's from 189 countries taken part. In Australia, Brazil, Canada, China, Denmark, Korea, South Africa, Singapore, United Kingdom, USA the issue climate change Education & ESD was studied.

Teacher Educators from 29 countries are working with the UNESCO Asia - pacific centre of Educational Innovation for development in Bangkok, Thailand & Griffith University of Brisbane, Australia.

### **6. The ESD and UNESCO:**

For human beings to all live sustainably, we must all learn the principles of SD - a process which involves not only learning new information but also thinking differently about our lives, actions, needs, environments and how all these elements interrelate. For this reason, ESD requires a great deal of consideration & effort which is why UNESCO has dedicated an entire decade to promotion of ESD.

UNESCO is the lead agency at world level seeks to integrate the principle, values and practices of sustainable development into all aspect of education and learning to address social, economic & environmental problems. The UNESCO Action plan for decade is to promote and improve the basic education, including literacy and lifelong learning for SD.

### **7. Teacher Education and Sustainable Development in India:**

India has made considerable progress in school education since independence with reference to overall literary, infrastructure and universal access and enrolment in schools. The universalization of elementary education, Right to education bill 2009 & right of children to free and compulsory education Act 2009 etc. demand qualified and quality teacher in coming times.

The NCFTE 2009, elaborates the context, concerns and vision underscoring the teacher education & school education have a symbolic relationship and developments in both these sectors mutually reinforce the concerns necessary for qualitative improvements of the entire spectrum of education. Issues related to inclusive education, perspectives for equitable and sustainable development, gender perspectives, role of community knowledge in education and ICT in schooling as well as e-learning become the centre stage in the NCFT E 2009. These are the needs of society in new times, To provide the quality teachers, education colleges should play vital role in coming time.

A teacher functions within the broad framework of the school education system- its goal, curricula, materials, methods and expectations from the teacher. A teacher needs to be prepared in relation to the needs and demands arising in the school context as well as in the society context.

#### **7.1 Perspective for Equitable and Sustainable Development:**

In order to develop future citizens who promote equitable and sustainable development for all sections of society and respect for all, it is necessary that they be educated through perspectives of gender equity, the perspectives that develop values for peace, respect the rights of all, respect and value work. In the present ecological crisis, promoted by extremely commercialized & competitive lifestyle, teachers and children need to be educated to change their consumption pattern and the way they look at the natural resources.

There is also an increasing violence and polarization, both within children and between them, being caused primarily by increasing stress in society, Education has a crucial role to play in promoting values of peace based on equal respect of self and others. The

Teacher education program provides a direction in this regard. For this, teachers need to be equipped to understand these issues & incorporate them in their teaching.

## **7.2 Functions of Teacher Education:**

Teacher Education is that knowledge, skill and ability which is relevant to the life of “teacher as teacher.” A course in teacher education should seek to reshape the attitudes, remodel the habits and in a way to reconstitute the personality of a teacher.

An American educationist, Edmund W. Gordon, has pointed out, “It is the task of the teacher to educate - to educate for change - to educate through change - to educate for orderly planned revolution. If necessary to educate through more disruptive revolutionary action.”

A teacher can convey, disseminate and develop knowledge, attitudes, skills and values to the students curriculum.

As stated by Miss W. Walker in ‘*World Trends in Education*’ (1967), “The function of teacher education is to produce good teachers. The good teacher is one who produces good results in meeting the central, presenting needs of life in whatever social context.”

B.O. Smith in ‘*Teachers for the Real World*’ (1969) states, “If student is to be prepared for the evolving world, then an essential attribute of effective teacher is awareness of the realities of the world.”

## **8. Roles of Teacher Education and Teacher Educator in ESD:**

The National commission on school teachers 1983-85 has described the role of the teacher in the context of the present needs of India: “For the proper fulfillment of the national goals mentioned above (A United Secular India, A Modern Nation, A Productive people and a Human and Caring Society) and for their proper fulfillment of which education must mediate, the teacher’s role assumes great significance. The teacher must actively and feelingly associate himself, as an essential and responsible partner, in the great tasks which face the nation & one of them is SD.

### **8.1 Reorient Education For Increasing Awareness about SD :**

Use innovative methods and approaches to reorient education to address sustainable development in locally relevant and culturally appropriate manner. The Organization has been ensuring community participation for integrating indigenous, traditional and local knowledge and culture into ESD programmes. The innovations and experimentations are meant to capture the unique local conditions in socially and culturally appropriate ways to integrate them into ESD programmes.

Such education addresses the interconnectedness of problems such as poverty, wasteful consumption, environmental degradation, urban decay, population growth, health

and human rights violations; which affect the present generation and threaten the future generation.

Inculcate values to bring positive changes for sustainability through education. These values include;

- respect for the human rights of future generations and a commitment to intergenerational responsibility,
- respect and care for the greater commonality of life in all its shared aim of protecting and restoring the Earths ecosystems;
- respect for cultural diversity, and a commitment to build locally and globally a culture of tolerance, non-violence and peace.

### **8.2 Incorporation of ESD in the B.Ed. Curriculum :**

- 1) Identifying motivated persons to enter the training institutions and devising stringent procedures to prevent indifferent and unmotivated individuals from entering.
- 2) Developing teacher education curricula which are relevant to the new roles & responsibilities.
- 3) Devising & using training modalities in the light of explosion in technology of teaching.
- 4) Creating structures for implementing a programme of continual and comprehensive in-service education of teachers to meet the challenges of change.
- 5) One of the key obstacles to Education for Sustainable Development is teacher knowledge and understanding, because of the lack of pre-and in-service teacher training in Education for Sustainable development. Universities should offer Education for Sustainable Development courses for pre- and in-service teachers and governments should implement policies which help all teachers to develop their capacity to implement Education for Sustainable Development.
- 6) Teacher education in Education for Sustainable Development will not change school practice unless resources and time for experimentation are provided and the sustainability is integrated into the curriculum. Thus, policy initiatives in teacher education should be coordinated with support for Education for Sustainable Development at school level.

### **8.3 Inclusion of Environmental Education in Teacher Education program :**

As teachers, we are responsible for giving students the skill, knowledge and critical thinking skills and caring attitudes that will enable them to respect and care for our planet home. It is our duty to sustain the world environmentally. So, this approach will help for that.

For better environment, teacher education programme should focus on following aspects of environmental study :

- Environmental crisis and solutions
- Development and sustainable development
- Environmental problems in developed and developing world.
- Environmental protection, developing awareness, action and strategies for environmental protection.
- Research or Action research in environmental studies.

#### **8.4 Use of Innovative Teaching Method :**

For active participation of student teacher, teacher-educator would use the SD approach with activity based teaching, debate, projects, panel discussion, brainstorming and seminars. By these methods student teachers will get aware about the current issues and they will take part to solve the issues.

#### **8.5 Perspectives on Education for Sustainable Development**

It is recognized that in order to achieve SD, there need to be policy changes, changes in teaching-learning process. The paradigm of education also has to change in certain fundamental ways. Some of these changes are listed below. The various points are interrelated and form part of a single. Paradigm shift which is needed as we move towards education for sustainable development.

- Learning rather than teaching
- Building capacity for critical thinking and problem solving
- Multidisciplinary approach
- Multi sourced and accessed
- Participatory with broad involvement of peers and other community members
- Knowledge generation
- Empowerment rather than socialization

This approach of Teacher education program defiantly develops the student teachers' view of SD and will try to bring out the same.

#### **8.6 Text book analysis and integrated approach of teaching SD :**

As the teacher educators, it is our responsibility to train the student teachers as the future teachers. They should have the skill to analyze the textbook and correlate the text with sustainability. As the subject teachers, they should plan the text based activities, projects and implement them.

Teacher educators should organize such workshops and should train the student teacher regarding the environmental crises and social issues. The content related to social, economics, environment or the health should be integrated for SD.

### **8.7 Research and innovations:**

Conduct research and survey to identify linkages between ESD with other aspects of learning (like literacy, numeric, natural science and social science) and with modes of development interventions (like sectoral projects, community mobilization, networking). The research also covers quality teaching and learning approaches. It will help to find the remedies for the sustainability.

Interaction between researchers, teachers, NGOs, public officers and others in the field of Education for Sustainable Development is essential, in order to support knowledge sharing, enhance curriculum development and promote more valid and reliable ways of evaluating ESD. The establishment of mediating organizations and groups to promote this. Regional Centers of Expertise on Education for Sustainable Development, which already exist at some places, may serve as models for this Endeavour.

### **8.8 Environmental Auditing :**

Traditionally a teacher has been regarded as an agent of social change and modernization. He has been called the ‘maker of history’ ‘the builder of the nation’ and the ‘social engineer’ children and especially children in the plastic period of their life emulate their teachers and draw inspiration form them. A teacher, therefore, can play an important role in promoting environmental awareness and understanding among his students.

Teachers educators can organize the following activities as the environmental auditing

- Nature conservation
- Energy audit in the society
- Transportation
- Waste and recycling
- Purchasing
- Community awareness about environment

These activities will support to train the students teachers and educational managers to account, audit and report environmental protection and the practice of sustainable development in educational institutes.

### **8.9 Building Teacher capacity :**

The successful implementation of a new educational trend will require responsible, accountable leadership and expertise in both systemic educational change and sustainable development. By in-service and pre-service training we can develop the human resource.

Education institutes play central roles in educational reform and teacher educators are the key change agents. Teacher educators train new teachers, Teacher educators write not only pre-service teacher-education curriculum, but also contribute for the social change. Because of this broad influence in curriculum design, implementation and policy setting, teacher educators can bring about educational reform for sustainable development.

Being a part of society, education colleges should organize the program to impart vision to the people, particularly the students and the teachers to work for environmental protection and conservation, to live within environmental limits, to interact in just and inequitable way and to work sustainably. The programmes, organized in forms of orientations and workshops, will sensitize the people about SD.

The programmes emphasize on awareness and understanding that an individual or group action can affect the life of others as well as influence the social, economical and environmental situations locally, nationally, regionally and globally; both for the present and future generations.

### **8.10 SD through Extension activities:**

As teacher educator, it is our duty to organize the extension activities for the in-service teachers and society. The issues regarding the SD would be discussed through seminars, workshops and orientation programs. For school teachers, we can organize orientation based on new time issues, various teaching methods and integrated approach for SD. through such extension activities we can built the skill and competencies among the stakeholders.

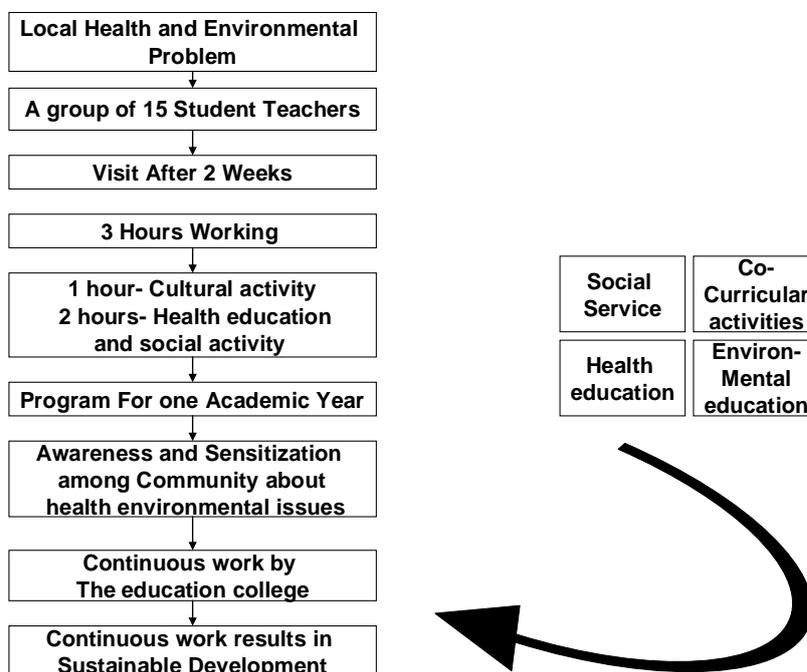
### **8.11 Working with Community:**

Working with Community is the soul of the teacher education program. There are so many expectations of society from teacher education colleges. Active participation of society helps to enhance the quality of the program and participation of teacher education will help to solve the emerging issues. For this, teacher educator and teacher education program would play vital role through working with community activities. Social service, health education and co-curricular activities help in solving the problems.

These activities can be organized for the community and through the community. Through such activities we can make aware the society about SD. In fig. 1, the model for

sustainable development is suggested through social service, health education and co-curricular activities to sensitize the people about health and environment issues.

### **Model for Sustainable Development**



### **9 Conclusions:**

- Sustainable Development is being studied through various subjects. It is related with Environmental Sciences, Geography, Biological Sciences and Human sciences Value Education and Life Skills Education also. So for teaching we should follow an interdisciplinary approach.
- For sustainable future we have to generate the competent human resource i.e. teacher! It is the duty of Teacher Education colleges to prepare future teachers which will contribute for Sustainable Development.
- By Incorporating ESD in the B.Ed. Curriculum with use of Innovative Teaching Methods and integrated approach of teaching will help ESD.
- Research and innovations and Working with Community help the teachers to contribute for SD in innovative manner.
- For sustainable future as a teacher educator, we should convey the message towards student and the society that, “Don’t live according to wish but live according to needs” To know the needs and the sustainable future we need education for life, education through life and education throughout life.

- In a sustainable world, we imagine that society would celebrate cultural diversity and increase the biological diversity and complexity of the ecosystem on which we all depend. To attain this we must reinvent the world socially, economically and environmentally.

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