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Sustanabale Development and Useful Science.

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Abstract:-

The role of education is crucial for wise use of science and technology for sustainable development. Education for change needs a clearer understanding of ecological, participatory world view from which a strong educational paradigm and culture can be developed. Attainment of a sustainable development through education requires clear vision, image, design and action from all other concerned areas like government, non-government organization, school, teacher education, higher education, and business professional practice. This paper focuses on; what is adolescents' attitude towards Science that is related to Sustainable development, and how we maximum can contribute to develop the science curriculum underpinning the sustainability. How adolescents' attitude towards science is related with sustainable development, also how it may contribute to develop the science curriculum underpinning the sustainability. Science education has to play a critical role in developing the concept which underpins Sustainable issues and lead to pro-environmental behavior.

Keywords: Science, Sustainable Development.

Introduction

Human Behavior caused to Environment that exacerbated Nature and the challenges the existence of creatures on Earth due to advancement of Science and Technology. It is required that Science and Education should develop such learning settings that could influence the students to adapt sustainable lifestyle. There is an utter need that adolescence

must be aware about the sustainable development and judicious use of science that qualify their life. It is now widely accepted that environmental problems are the consequences of human activities and to strive for good living standards that demands urgent actions in order to secure a life-sustaining environment for present as well as for future generation. The task is very challenging and essential. Who will do it? Who will be accountable for this? How can this objective be achieved?

Adolescents are the citizens, who will play different role in the society. What is their attitude toward Sustainable development and how they express? Therefore, the main purpose of this paper was to conduct a research that will generate the information about the knowledge of students on Sustainable development and science, and its awareness in life. What will we leave for our future generations? We do really need to think upon. We have been consuming our natural resources at alarming rate; and polluting our environment and natural resources. Don't human develop a legacy that will leave safe and secure earth for next generations? There must be an honest answer with implement solution.

The 47th session of the **UNESCO** International Conference on Education in 2004 drew consideration of the World to the way that a large portion of the total populace is younger than 25 year, forming the largest generation of youngsters ever. It was forecasted that by 2020, 87 percent of the world's youngsters will be living in developing nations. India will to have larger part of adolescents. Henceforth, the accountability of teachers in education system will increase. It requires quality education, by which the students feel their responsibility towards the environment, natural resources and sustainable development. In this direction, it is essential that adolescent should be well informed about sustainable development.

Science

Working knowledge of science is the primary aim of science education so scientific literacy is the most probably the frequently used terms in science education today (Roberts 2007). Einstein says, "Science is an attempt to make the chaotic diversity of our sense experience corresponds to logically informed system of thought." One of the aims of teaching of science is to inspire the learner to develop positive attitude towards science for good effects on students learning in science. According to Columbia encyclopedia (1963) – "Science is an accumulated and systematised learning in general usage restricted to natural

phenomenon. The progress of science is marked not only by an accumulated fact but by the emergence of scientific method and of scientific attitude."

The development of any nation is mainly dependent on the scientific knowledge of the students. It is also observed that one of the most important factors of science teaching is the attitude of the students, which determines their behavior towards science. As scientific knowledge is continuously growing, attitude towards science seems to become ever more critical.

Sustainable Development (SD)

The concept of sustainable development emerged in the 1980s when it was realised that betterments in some spheres of life (e.g., comforts from air-conditioning technologies, dramatic increase in food production by green revolution technologies and rapid economic growth) were achieved at the expense of creation of new problems (e.g., climate change, loss of biodiversity, depletion and degradation of soil and water resources) or aggravation of pre-existing problems (e.g., inequitable development, natural constraints to production of resources needed by humans and earthquakes). While advancements in environmental/ ecological sciences established that natural ecosystems had only a limited capacity to withstand/recover from human disturbances, those in social sciences drew attention to the importance of equitable economic development. Sustainability, derived from the idea of sustainable development, in the 1987 reports of the United Nations World Commission on Environment and Development is –

"meeting the needs of the present without comprising the ability of future generations to meet their own needs"(WCED,1987,pp43)

Govt. of India has also taken measures to implement the programs for SD, as per International policies. Millennium Development Goals (MDGs) have influenced the development, planning and formulation in India as well, since the year 2000, when they were agreed upon. At the Sustainable Development Summit on 25 September, 2015, UN Member States adopted the 2030 Agenda for Sustainable Development, which includes a set of 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by 2030. The 2030 agenda for Sustainable development stresses on the global commitment of "achieving Sustainable development in its three dimensions –economic social and environmental – in a balanced and integrated way". (Nilsson, Griggs, Visbeck 2016) Therefore, in order to achieve Sustainable development goal there is an urgent need that School

education of any country must introduce Sustainable development in such a manner that it modify the lifestyle of children individually and socially to protect the environment (Venkattaraman, 2009)

The UNESCO has also focused on the concept of 'sustainable development' which is now central to the programs of many governments, businesses, educational institutions and nongovernment organisations around the world. The history of SD includes landmark international events such as: the 1987 Brundtland Report, the 1992 Earth Summit in Rio de Janiero, the 1997 Rio Conference, the 2000 Millennium Summit in New York, the 2002 World Summit on Sustainable Development in Johannesburg, and 2015 International Summit on Sustainable development. The concept of Sustainable development is the result of raising environmental problems at global level (Hopwood, Mellor and O'Brien 2005).

World Commission on Environment and Development (WCED) published agenda 21, indicating that there is a need to understand the importance of environment as well as humankind simultaneously. Agenda 21 also stressed on crucial role of Sustainable Development in school curricula through-out the world (Kopnina, 2012). UN declared the decade of Education for Sustainable development (2005-2014) to aware and facilitates the concept of Sustainable development issue to different stakeholders of the education system. The chief aim of DESD was to implement Sustainable development at different level of educational system across the world. There is a need of teaching approach which prepares the children to become active citizen and decision makers on environmental issues. This approach is often called ESD (education for Sustainable development)

Sustainable development concerns a process of change and is heavily reliant upon local contexts, needs and interests. Thus, sustainable development is an 'emerging concept' in two ways, first, because it is relatively new and evolves as we learn to grasp its wide implications for all aspects of our lives, and, second, because its meanings emerge and evolve according to local contexts.

Discussion and conclusion

It is important to create great living spaces and modifying daily life by integrating comfort and sustainability to integrating comfort and sustainability to enhance the well- being of people in the world. Sustainability in society can be achieved by sustainable construction, sustainable, manufacturing,, resource efficiency which is not an easy task. There is a dire need of collaborates

with various stakeholder including government, NGO, academic institution professionally, local bodies and so on.

The world watch institute (WWI) declared in its annual publication statues of world in 2006, the dramatically rise of two highly populated Asian countries China and India, both having the 40 percent of world population (Saldanha, D.2007). "By 2025" India will be the only nation that will have highest young population in the world". Therefore, it is the need of the hour to take immediate action to educate the school children (especially adolescents) about judicious use of science for sustainable development. Today's children are tomorrow's citizens who will be the policy makers in a democratic country like India. So they need to be aware about scientific temperament and sustainable development. The another role of science education is to educate the public about the conservation and preservation of environment and natural recourses or the future generation, their by preparing the adolescents for Sustainable lifestyle. Growth and sustainability have often been seen to be in conflict with each other. It is however clear that adopting sustainable practices is no-longer a matter of choice and fortunately there are "Smart" ways of going green.

Also European commission (2007) had suggested including the study of science as part of primary teachers initial training for environmental education. There is also confusion in understanding the concept of science and sustainable development in respect to the interrelationships and distinctions between the two fields. Earlier pedagogy of environmental education has occurred in science subject. So, it is a requirement that science education academic community must work to accomplish in field of sustainable development.

If we consider these aspects of understanding developed by adolescents in relation to attitude towards science and attitude towards sustainable development, and their attitude linked with the environmental problems will definitely lead to the solutions which are more comprehensive and global. It can be proposed on the basis of research data to tailor the science curriculum in more flexible forms to disseminate the information among students and other stakeholders of the education system about environmental issues and sustainable development. Young students may understand that it is the responsibility of everyone to preserve the environment. For this it is suggested to achieve a more holistic approach that contemplate and strengthen both the science education and sustainable development. It is necessary to develop new strategies of learning (learning for comprehension and for sensitivity towards environment) It also allowed the possibility of understanding what and how adolescents are being exposed to science exploration

by the formal and informal ways, as well as social-cultural practices concerning social, ecological and economic concerns of the society. Furthermore, from the ideas of adolescents several new themes supposed to be included in the science curriculum in a more precise manner, so that they can learn and used it in everyday life situation which help in the sustainable participant as a responsible citizen to solve environmental problems and move towards sustainable lifestyle. Sustainable development is not really perceived as a very important problem in our societies, it seems to be curricular possibilities for relating science knowledge with the several environmental problems which should be discussed with adolescents for preparing them to participate in the globalised world. The findings will be very useful in developing the curriculum to be included in school curriculum programmes for education for sustainable development which is the which is also recommended in agenda 21in 1993.

The Millennium Young People's Congress (MYPC) Honululu, Howaii in 1993 recommended education for adolescence its top priority. It was observed that "if every young person educated about environmental problems, Human Rights, tolerance, democracy and sustainable development all other problems will vanish over time."

The education for sustainable development is different from the Environmental education. The main concern of environmental education is quality of environment while the education for sustainable looks into the ecological, economic and social issues with improving the quality of life of the people living on the globe. As the population of adolescence is going to be supersede other age groups people, it is necessary to motivate them toward the better science education and sustainable development.

Education can support sustainable development programs by providing the knowledge to student through learning process, which is the best way to face the challenges of educational issues, economic justice and sustainable development through modifying the thought process and behavior of the young people. As a student, they must participate actively in environmental programs and when they grow, must support to disseminate their knowledge about sustainable development in society.

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