Review on School Based Environmental Club Impact on Student and General Environment

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Abstract

Environmental clubs plays an important role in creating environmental awareness for the future generation. Environmental clubs performs activities to save the environment, through activities like planting trees, increasing pollution impact on environment. Environmental clubs is a platform on which knowledge about environment is gained early during childhood. They offer programs and activities to encourage others to reduce pollution, plant trees, and more through voluntary group which promotes the participation of students in learning about, and improving their environment. Therefore, this paper was sets out to review the impact of school based environmental club on student and environment in general. The findings of those reports related to the selected topic and an objective was organized from student and environmental perspectives from different published and unpublished materials found. The review result concluded as it is a wonderful opportunity to create awareness, build attitudes and help students take up activities in real world in which the constraints of the classroom and curriculum will not allow. An Environmental clubs can thus help to extend boundaries and scope of the formal educational system encouraging creativity, and improving students for constructive action. The environmental activity performed by environmental club a group contributes for environmental conservation at varies level from increasing awareness for community to direct intervention in conservation works. Although environmental club contribution is evident there is also number of challenges related financial and knowledge gaps. So increasing funding, training on Environmental Education, integration of Environmental Education in all primary and secondary school curriculum, support from government and other donors should be with the environmental club to expect more result.

Keywords: - environmental club, environment, Environmental education, impact, student **DOI:** 10.7176/CER/12-6-02 **Publication date:**June 30th 2020

1. Introduction

Environmental education deals with man's relationship with his natural and man-made surroundings. The exploitation of the Earth's resources for development purposes was started since the beginning of humankind, and up to now humankind's relationship with the planet Earth has been guided by the "anthropocentric paradigm" that nature subordinate the needs and wants of humans. The concept of environment is not new; moreover, it is deeply related to each specific culture and its relationship with nature (Meseret, 2016.).

The roots of environmental education can be traced back as early as the 18th century when Jean-Jacques Rousseau stressed the importance of an education that focuses on the environment in *Emile: or, On Education*. Environmental education has been considered an additional or elective subject in much of traditional curriculum (Minton, 1980). Conservation Education was a major scientific management and planning tool that helped solve social, economic, and environmental problems during this time period. Environmental education was born of the realization that solving complex local and global problems cannot be accomplished by politicians and experts alone, but requires "the support and active participation of an informed public in their various roles as consumers, voters, employers, and business and community leaders (Saylan, C. and Blumstein, D., 2011).

Internationally, environmental education gained recognition when the UN Conference on the Human Environment held in Stockholm, Sweden, in 1972, declared environmental education must be used as a tool to address global environmental problems (Sohn, 1973). To correct and prevent any further environmental degradation the United Nations Conference on the Human Environment held in Stockholm in 1972 urged all countries of the world to incorporate environmental education in their curricula at all levels of education. A follow-up conference held in Tbilisi in 1977 outlined the objectives and implementation strategies of environmental education (Palmer, 2002 and Toili, 2007).

1.1. Objective of the review

The objectives of the paper was to review impact of school based environmental clubs on students environmental awareness and environment

2. Methods of organization

The paper was organized by reviewing different written and published materials such as research findings and other reports from local schools in Bale zone woredas. The findings of those reports related to the environmental

club and objectives are organized from school based club impact on student attitude, knowledge to its implication to general environment. The paper also organized in the way that it can introduce or shows about school based environmental education club and its challenges.

3. Result of literature review

3.1 Definition of Environmental Education

Environmental education has been defined in a number of ways. However, since the early 1970s, they have all tended to emphasize similar points to those in the Nevada Conference of the International Union for the Conservation of Nature and National Resources. Accordingly, Environmental education is the process of recognizing values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the interrelatedness among man, his culture and his biophysical surroundings. Environmental education, therefore: Is a process that allows individuals to explore environmental issues, engages in problem solving, and takes action to improve the environment. Environmental Education is a process in which individuals gain awareness of their environment and acquire knowledge, skills, values, experiences, and also the determination, which will enable them to act - individually and collectively to solve present and future environmental problems(Harvey, 1976, Rickinson, M., 2001,Bonnes and Bonaiuto,2002).

Environmental education Provides learners with awareness and knowledge about the environment including the relationship of humans to the natural world, and fosters the development of the skills, attitudes and motivations that enable learners to make informed decisions and take responsible actions that incorporate environmental considerations. Environmental education, therefore, entails practice in decision-making and self-formulating of a code of behavior about issues concerning environmental quality Proceedings of the Organization of American States Conference on Education and Environment in the Americas, 1971, stated: "Environmental education involves teaching about value judgments and the ability to think clearly about complex problems - about the environment which are as political, economic, and philosophical as they are technical" (DiEnno, and Hilton, 2005, Thomas, 2009).

The US Environmental Protection Agency has a definition of what environmental education should be and it is as follows. "Environmental education is a process that allows individuals to explore environmental issues, engage in problem solving, and take action to improve the environment" and *Environmental clubs is a group who works to contribute to improving environmental conditions (*Skanavis, and Manolas, 2015). Generally environmental education is an action process related to the work of almost all subject areas. It is concerned with the dynamic relationships between man and nature (Raver, 2002 and Ginsburg, 2007).

The Environmental Protection Agency also has a list of the components of what should be gained from Environmental Education. Accordingly the expected output of environmental education generally includes:-Awareness and sensitivity to the environment and environmental challenges, Knowledge and understanding of the environment and environmental challenges, Attitudes of concern for the environment and motivation to improve or maintain environmental quality, Skills to identify and help resolve environmental challenges and Participation in activities that lead to the resolution of environmental challenges (Johnson et al., 2000).

3.2 Environmental education Issues

Environmental education refers to organized efforts to teach how natural environments function, and particularly, how human beings can manage behavior and ecosystems to live sustainably. Environmental education programme was developed in 1992 in response to the need to involve young people in environmental projects at the local level as identified at the United Nations Conference on Environment and Development of 1992. Environmental education programmes that focuses on creating awareness and modifying learners" behavior towards preservation and conservation of the physical environment (Ajiboye and Silo (2008), Gakuo (2010).

As early as 1988, World Wide Fund-United Kingdom (WWF-UK) had made statement regarding usefulness of environmental education when it noted that "environmental education is fundamental to the well-being of the planet and of its inhabitants" (WWF-UK, 1988). The United Nations Educational, Scientific and Cultural Organisation (UNESCO) states that environmental education is vital in imparting an inherent respect for nature amongst society and in enhancing public environmental awareness. UNESCO emphasizes the role of environmental education in safeguarding future global developments of societal quality of life, through the protection of the environment, eradication of poverty, minimization of inequalities and insurance of sustainable development (Sondakh and Wibowo, 2012 and UNESCO, 2014a). The term often implies education within the school system, from primary to post-secondary. However, it sometimes includes all efforts to educate the public and other audiences, including print materials, websites, media campaigns, etc.

There are also ways that environmental education is taught outside the traditional classroom. Aquariums, zoos, parks, and nature centers all have ways of teaching the public about the environment (MacDonald, 2008). Environmental education has crossover with multiple other disciplines like citizen science, education for

sustainable development, climate change education, science education, outdoor education, experiential education, garden based training, inquiry based training. While each of these educational fields has their own objectives, there are points where they overlap with the intentions and philosophy of environmental education (Ajiboye Silo, 2008 and Francis, et al ,2012).

Much country has come to appreciate that environmental education has an important role to play in molding an individual to become a responsible citizen towards his/her environment. In many countries the Ministry of Education realized that the absence environmental education (EE) in the school curriculum may contribute greatly to the improper use of the environment as the field of education (ALJADI, 2020). It has been argued that there are already some subjects in school that teach aspects of environmental education, why then do we need another programme of this nature and nearly all writers in the subject of citizenship education agree that the subject is essential for preserving a country's democratic way of life (Angel, 1991, Hoge, 1998 and Palmer, 2002).

As cited in Nderitu (2011), Falk (2005) observed that environment in particular, is a topic not easily confined to school hours and years, because our knowledge and understanding of environmental processes are ever changing. However, the current school curriculum cannot be relied upon wholly to teach environmental issues thoroughly since it only mentions them and at times introduces the topics but does not give details on the issues raised (Mbwesa, 1996; Perrot, 1977). Nevertheless, the researchers felt that these clubs could be improved to address environmental threats by allocating funds to buy equipment and facilities, money for trips, giving support to the school based clubs, allocating time, integrating Environmental Education in the school curriculum and involving all teachers, training the patrons on Environmental Education and providing the literature with current information about the environment. Some of the patrons saw the need to use the media to publicize the club activities (Nderitu, 2011).

3.3 Goal and objective of Environmental education

The first Intergovernmental Conference on Environmental Education was organized by UNESCO in co-operation with UNEP and held at Tbilisi, Union of Soviet Socialist Republics, in 1977(Kanyimba, 2009, Briceño and Pitt, 2018). The Goal and objective of Environmental education was also identified and listed so that every country aware of it and works towards that Goal and objective.

3.3.1 Goal of Environmental education

The overall goal of environmental education and its club is to generate environmental action so as 'to improve all ecological relationships including the relationship of humanity with nature and people with one another' (Belgrade 1975, Tuli, 2005, Johnson and Manickavasagam (undated) and Rajendran, 2014). Insufficient environmental awareness aggravates the problem of environmental degradation **and** environmental awareness is one of the goals of environmental education (Gakuo, 2010 and Kipsisei, 2011). Additionally, (Neal and Palmer, 2003 and SKANAVIS (undated) outshined environmental education Goal of Tbilisi Conference as listed below:-

• To Foster clear awareness of, and concern about economic, social, political and ecological interdependence in urban and rural areas;

• To provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment; and

• To create new patterns of behavior of individuals, groups and society as a whole towards the environment.

3.3.2 Objective of Environmental education

The key specific objectives were that environmental education should provide individuals and social groups with an opportunity to be actively involved at all levels working towards the resolution of environmental problems (UNESCO, 1980) and to empower the world population to maintain and enhance environmental quality (Toili, 2007 and Gakuo,2010) environmental education programs aim at empowering students to be the change our sustainable world needs by engaging them in fun, action-orientated and socially responsible learning through developing environmental knowledge, skills and awareness about the natural resources and their management. More specifically according to Tbilisi conference Environmental education objectives endorsed are narrated in relation with Awareness, Attitude Skills and Participations importance as follows:-

• To help social groups and individuals acquire an awareness and sensitivity to the total environment and its allied problems; knowledge: to help social groups and individuals gain a variety of experience in, and acquire a basic understanding of, the environment and its associated problems.

• To help social groups and individuals acquire a set of values and feelings of concern for the environment, and the motivation for actively participating in environmental improvement and protection.

• To help social groups and individuals acquire the skills for identifying and solving environmental problems.

• To provide social groups and individuals with an opportunity to be actively involved at all levels in working towards resolution of environmental problems.

3.4 Environmental club

Environmental Club Can be described as a group of concerned students, teachers and volunteers that are committed to raising awareness about environmental issues and to reducing environmental impact as individuals, a school

community, and as citizens of the world(Chawla, 1999 and Smith, 2007). Sensitizing people and requiring them to take action to counteract present environmental crisis is quite urgent. Environmental issues present some of the most profound and complex challenges requiring attention today and in the coming decades (Kazdin, 2009). Accessing a dynamic events calendar offering teacher workshops, training and information on upcoming events; As reported by Gakuo (2010), Although environmental education content is infused in the formal education system through an interdisciplinary approach across the primary and secondary education system and it has not produced an environmentally literate society because most of what is taught in primary school is theoretical. Thus it would be unfeasible to expect learners to become environmentally literate without relevant exposure to environmental knowledge and skills which foster competence to participate in day to day management of their environment.

It is through environmental clubs that learners are introduced to practical bit through exposure to actual ecological environment (Erdoğan et al, 2009). Environmental clubs are therefore an avenue that complete the formal education offered by the schooling system by involving community activities into the curriculum and thus, the goals of environmental education would be to instill in learners knowledge for the environment, positive attitudes toward the environment, competency in citizen action skills, and a sense of empowerment (Palmer, 2002 and Ruto, 2004).

3.4.1 The purpose of Environmental clubs

Enhancing the awareness and understanding of individuals/ citizens about the environment including the relationship of humans to the natural world, is highly contribute to address the serious environment and global warming challenges currently the world encounter. In this regard Environmental education club plays an important role through fosters the development of the skills, attitudes and motivations that enable citizens to make informed decisions and take responsible actions that incorporate environmental considerations(Palmer, 1999).

Strengthening Environmental club play a vital role to build a green and resilient economy by enhancing awareness and understanding of school community about environmental, climate change, and sustainable consumption and production issues. This also changes the life styles and values of school community (Okvat and Zautra, 2011, Yeshalem, 2013.).

Environmental club encourages students to study the local environment and to contribute to solving environmental problems and environmental club is an ideal place for students to gain these understandings. In so doing, students will be playing an important role in Environmental Education for Sustainable Development through (EFC. 2019):-

- Understanding the consequences of human actions for the earth and its resources.
- Understanding decisions and actions that can be taken locally and globally to encourage sustainable living and to avoid unsustainable practices, taking personal responsibility for living in a sustainable way.
 The purpose of Environmental clubs also can be summarized as to:

• Create awareness of environmental protection, conservation, preservation, and restoration

• Provide students with the opportunity to learn more about their surroundings, participate in environmental activities at school and in the community.

• Promote environmental awareness and develop social and life skills.

• Increase student awareness of environmental issues and give them power to make change.

• Provide opportunities for students to become directly involved in a variety of activities relating to the environment.

• Promote environmental awareness and empower students to take action and work toward building a sound environmental ethic.

Benefits of Environmental Clubs to Students also can be listed as:

• Expanding their eco-consciousness and gain knowledge about the environment.

- Perform actions to improve their environment.
- Help to solve local environmental problems.
- Educate others about the environment.
- Enjoy oneself and have fun.
- Learning about green technology.
- Meeting and collaborating with other school clubs from varying socio-economic backgrounds and cultures.
- Developing leadership skills.
- Finding their voice.
- Stretching their expectations of self.
- Positively impacting their peers, families, schools and communities.
- Creating and building upon a vision of a sustainable future.
- Opportunities to engage politicians, leaders, peers and educators.
- Participating in a grass roots movement to sustain the planet.
- Participating in field trips.

3.4.2 Goal of Environmental club in school

The Goal of school environmental club is to help students become environmentally conscious and enable

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participation in school clubs to develop environment friendly skilled, and attitudes dedicated and responsible citizens who are willing to work, individually and collectively towards achieving high quality of life and environment (Flynn,et al 2002, Neal and Palmer,2003)

3.4.3 Objective of Environmental club in school

According to Smith(2007), Neal and Palmer, (2003) From research and conference held/ conducted on Environmental education and Club at deferent year and place, the objective of Environmental club objectives can summarized as to:-

- Help students acquire an awareness and sensitivity to the total environment and its problems
- Help student acquire experience in using their acquired knowledge and skills in taking thoughtful, positive action toward the resolution of environmental issues and problems
- Guide students establish and strengthen school environmental clubs
- Encourage student's participation in Environmental clubs
- Help student acquire a set of values and feelings of concern for the sustainable production and consumption and participate in environmental maintenance and improvement.

3.5 Motivation

The principal motivation behind participating in environmental clubs is to improve the environment. School environmental clubs are motivated by a range of different factors, some of which are altruistic and others are for personal interest and development. According to the explanation of most of the research finding and students view, environmental Club is the most important club in school with a really important message and knowledge for creating a more sustainable world. According to many authors and observation all of the students are happy with their membership in the club and it is after becoming club members that they describe a change and increased interest for nature (Legault and Pelletier, 2000).

3.6 Participation

According to different scholars view Environmental education focuses on:-Engaging with citizens of all demographics to:-Think critically, ethically, creatively, Make educated judgments, Develop skills, a commitment to act independently and collectively to sustain and enhance the environment (Bamberg & Moeser, 2007; Wals et al., 2014). Gakuo (2010) and Mwangangi (2012) reported that, Pupils in many schools are vigorously involved in local environmental projects. Majority of the student joined the clubs through invitation by their friends, wanted to participate in environmental issues or were curious to know what was going on in the club (Nderitu 2011). Research dealing with students' participation in environmental action has tended to focus on the products in the environment rather than on the process involved in arriving at such action (Buskov, 1991; Pieters, 1991). As reported by Toili (2007) referencing (Emmons, 1997),For participation in environmental management demands that students be equipped not only with personal knowledge of the environment, leading to affection, but also dynamic qualities that can come only from practicing these attributes in real environmental activities. Perhaps of greater interest is the fact that only very few students participated in environmental action through their own personal initiative than through other modes of participation.

In Ethiopia in the case Bale highland districts namely Dinsho, Goba and Sinana schools environmental clubs report and the research results of implementers shows that the students became members in the environmental Club because the school told them they had to choose at least one club, earlier they were not an active club member and they did consider as the club was not much useful and not valued for them but interested later (MELCA, IBI and BMNP).

3.7 Why youth

Learning more about the environment generally means learning more about what we have done to the environment rather than what we have done to care for it (Meseret, 2016). To become involved in respecting nature and protecting the environment over the long term, people need to have a sense of hope and gratification from environmental instructions (Stewart, 2001). Modern environmentalism start with the premise that we bear the responsibility of our actions towards nature and therefore our eyes and hearts must be educated (Toili, 2007).

According to Meseret (2016) and Geff (2010) youth is targeted as environmental risks and hazards are more affecting and will affect young people who have to live for an extended period. This implies, the new generation is the one who is more affected by environmental problems and who can do something towards the solution. Some authors argue that environmentally responsible choices that adults make are based on lessons learned in their youth (Eagles & Demare, 1999); while other authors argue that school programmes and clubs have a significant impact in improving children's environmental consciousness (Eagles & Demare, 1999; Pashby & Weis, 2002; Ajiboye & Silo, 2008).

The United Nations Conference on Environment and Development held in Rio de Janeiro in 1992 reiterated, in Agenda 21, that through environmental education school children are obliged to participate actively in guarding

the quality of the environment. This is because they comprise half of the world population and are highly vulnerable to the effects of environmental degradation now and in the future (United Nations, 1994). Additionally, Hodson (1994) reported as inculcating children and youth in environmental education is an important and effective strategy to address environmental and climate challenges facing the world because they constitute a large proportion of the people. It is also create an opportunity to intervene at a key developmental stage of life and children can be an important influence on the environmental behavior of their parents

3.8 Why educational institution for environmental education club

Environmental issues remain a peripheral issue in the formal schooling system. They continue to be viewed more as an extracurricular activity and less as a subject holding a priority position in the national curriculum. As cited in Meseret (2016) over the past 15 years educational institutions across the world have been encouraged to mobilize students and to take a more active participation in local, national and global processes towards environmental sustainability issues (UNESCO, 2012). According to United Nations Educational, Scientific and Cultural Organisation (UNESCO) conservation education should be incorporated into primary schools subjects and also in science and geography curricula of secondary schools (UNESCO, 1977). School voluntary Environmental-club, which promote the participation of young students in learning about and improving their environment, is best ways of reaching the young about the environment. The educational institutions, where more young generations are more concentrated, have the big responsibility and opportunity to create awareness on young students through both formal and informal educations. The school based environmental Clubs are one of the good ways through which the students can meet together and deal on environmental protection issues (Meseret, 2016).

It is for this purpose that Schools are the convenient place to teach and equip children and youth students in environmental and climate change issue as they make up a substantial proportion of the children and youth by encouraging them to engage in formal environmental education and school club (GoE, 2017).

3.9 Activities of School Based Environmental Club:-

The **purpose** of the **club** is to create awareness of **environmental** issues, such as protection, conservation, preservation, and restoration, with an emphasis on educating and empowering students. Students who are interested in **environmental** advocacy and awareness are encouraged to join. Environment clubs in schools are a means by which students can be empowered to participate and take up meaningful environmental activities and projects (Walter, 2009).

An environmental organization is an organization coming out of the conservation or an environmental movement that seeks to protect, analyze or monitor the environment against misuse or degradation from anthropogenic activities. Some of environmental issues that environmental organizations focus on include pollution, plastic pollution, waste, resource depletion, human overpopulation and change (Gakuo, 2010). School based Environmental clubs are volunteers that conduct a range of activities including environmental monitoring, ecological restoration such as re-vegetation and educating others about the natural environment discussed (Gooch, 2005).

3.9.1 Cleanups

The club has been undertaking many environmental protection activities including waste management, soil conservation, plantation, and campus landscaping Meseret (2016).Nderitu (2011) added that most club members participated in these activities and Local communities were sensitized on energy saving, deforestation, hygiene and proper waste management through organizing rallies, marches, human chains and street theatre at public places with a view to spread environmental awareness. An environmental organization is an organization coming out of the conservation or an environmental movement that seeks to protect, analyze or monitor the environment against misuse or degradation from anthropogenic activities. Some of environmental issues that environmental organizations focus on include pollution, plastic pollution, waste, resource depletion, human overpopulation and change (Gakuo, 2010). The club members also sensitize other students to minimize the use of plastic bags, not to throw them in public places as they choke drains and sewers, cause water logging and provide breeding ground for mosquitoes.

3.9.2 Awareness creation

The school based environmental clubs had minimal activities and club activities are monotonous as their work repeated year after year. The works experienced and frequently carried out were taking positive action in the local environment in collaboration with other organizations to create awareness on the diverse environmental problems (Mutugi, 2010, Gakuo, 2010 and Nderitu 2011). Nderitu (2011) added that most club members participated in these activities and Local communities were sensitized on energy saving, deforestation, hygiene and proper waste management through organizing rallies, marches, human chains and street theatre at public places with a view to spread environmental awareness. In some cases school based Environmental clubs Organize seminars (rarely), debates, lectures and popular talks on environmental issues in the school and publically to student family through celebration. This implies there is need among the school youth to be aware of environmental problems (nature,

causes, and extent) and to stop the extensive use of environmental resources, protect our environment and create sustainable future (Meseret, 2016).

In Bale zone in three district environmental education club implementers and member students has been organizing cultural biodiversity, Mountain Nyala day and climate change awareness creation celebrations days. The participant school of environmental clubs present different poems, dramas, music and anthem in the stage. The presentation mainly focus on the values of biodiversity conservation, adverse effects of climate change and the measures that should be taken to mitigate the effect, protection of elders and traditional ecological knowledge for biodiversity conservation, the value of traditional ecological knowledge and others.

3.9.3 Tree planting

School based Environmental clubs are volunteers that conduct a range of activities including environmental monitoring, ecological restoration such as re-vegetation and educating others about the natural environment (Gooch, 2005). According to Gakuo (2010 and Meseret (2016) the club is currently engaged on campus land rehabilitation and land cover through plantation. Environmental clubs therefore provide learners with an opportunity to experience physical environment and act to conserve it. In the same way at in Bale highland schools in most school environmental club park has been established and indigenous tree seedlings were planted.

The negative experiences of community members considering tree plantations have to be revised. Conservation parks like the Hora-Soba school site show students how

Rehabilitation works. Furthermore these parks function as demonstration sites for the broader community. Students talk about their club activities and community members can take part at tours around the conservation park. Also the influence of the striking appearance of this site, which can even easily be noticed from the outside at any time, demonstrates that it is manageable to grow trees there and rehabilitate the area.

3.9.3 Water storage

Promote ethos of conservation of water by minimizing the use of water through school based water day celebration mostly in university level club. Installation of a rain harvesting plant: With the installation of the plant rain water can be collected, purified and used for various purposes in the school/College(Stohr, 2013).

3.10 Environmental Education club Activity impact

Environmental education club conducts activities like planting trees, cleaning school camp and organizing awareness creation events and the following activity outcomes is expected to be resulted(Roberts, 2009 and Sonowal, 2009).

3.10.1 Care for environment

Surveys have found that those engaged in environmental clubs care deeply about the environment and wish to improve the environment in which they live within. The environmental club leader teachers and school directors agree as the environmental Club has a good impact on the students both in and out of school mobilizing replacing each tree cut down by planting at least two to three new seedlings and clean the school yard. They also explained as they did not care about the destruction of the forest, they did not know the strong relation between nature and culture. Because they did not have knowledge and awareness , they did not teaches other students the value of the nature and culture, the importance of replacing trees and to plant endemic species and the value of having schools nursery site and culture hut. A common answer on how to raise the awareness is that the participants teach other students, the families and other people in the surrounding about bio cultural diversity (the importance of natural resource conservation and conservation of the culture). According to the Environmental Club leader teacher's responses, their Schools environmental Club is best in that, it brings awareness to the school and it gives the members valuable information on how to conserve natural recourses(Johnson, et al 2007)

3.10.2 Personal benefit

There are a few central qualities involved in environmental education club that are useful contributions to the individual. This attribute includes:-Enhancing real-world problem solving, Strengthens physical activity and Improves communication/leadership when working in groups. According to some teachers and students of club members having environmental or other club certificate is also seen as helping employment prospects(Simmons,1998).

3.10.3 Student knowledge and attitude

Ajiboye and Silo (2008) reported a significant change in the knowledge and attitudes of the pupils after their exposure to the club activities. Additionally Environmental knowledge competences of environmental club members were higher than environmental knowledge competences of non-club members and Environmental attitudes of environmental club members were more positive than environmental attitudes of non-club members (Gakuo (2010). The same evidence was seen in three districts of Bale zone that the behavior, attitude and environmental related knowledge of club members was higher than non-member of the club.

3.10.4 Relation among students

The clubs also helped to establish relationships; learned new information built leadership skills, attitudes, and brought unity in the schools and approaches to environmental problems (Gakuo (2010) and Nderitu (2011). It is

observed that the club members joined from different grades and villages were debate freely on environmental and other issues. The clubs members assume themselves as one body working for common goal and believe in each other. The member themselves evaluate ones work for the club especially issues to be presented on the stage during events. This process helps the students to learn from each other through developing relationship among them.

3.10.5 Student academic point

With this sense some teachers tried to evaluate student academic points and witnessed improvement especially in subjects like geography and Biology in Ethiopia, Bale zone highland woredas. Bakers (2008) found that learners who took part in co-curricular activities during college life were more academically successful than those who did not. Robyn (2008), found learners who participated in peer support programmes developed valuable skills and attributes. Botma (2000), found a relationship between environmental clubs and schools where academically weak learners became more noticeable as they exposed their aptitude.

3.10.6 Student self-confidence

In most school based environmental clubs it is the students who share and lead the whole club activities at different level with minimum guidance from the patron.in process of organizing and conducting club activities they develop their self-confidence and leadership ability. The developed self-confidence and leadership ability helps the in their future career life solving the challenge they may face. Svedbom (2000) found environmental clubs develop a sense of resilience and coherence in the face of problems and risks that adolescents face as they prepare for adulthood so that they feel their lives are manageable and meaningful(from Gakuo ,2010).

3.10.7 Student Awareness

The study conducted by Nderitu (2011) affirmed that school based environmental clubs created awareness on the need to conserve the environment to both the students and local community.

The awareness and acquired knowledge in the club insisted the students to act as environmental advocators and to participate in different issues of the environment. Environmental club members used to participate more in activities geared towards environmental protection than non-club members (Gakuo, 2010). The study conducted by Nderitu (2011) added that clubs mostly addressed threats related to unclean water, deforestation and environmental disease as Clubs were useful in creating awareness, advocacy, conservation, maintenance of school environment and in projects establishment. The schools in Bale highland have been undertaking many celebration events from school level to schools cluster level celebration on different issues of environmental resource conservation and gaining awareness to themselves and creating awareness to local community.

3.10.8 Advocacy

According to environmental club supporter assessment report(MELCA-Ethiopia,2016),Most of the students explained as they trying to convince people cutting trees for fuelwood to stop and look for better alternatives such as fuel saving stoves or replacing each tree by planting two or three new ones. They are trying to influence other students, local communities and government bodies by demonstrating environmental resource degradation consequences. Some school students also trying to convince local governments to give attention to environment and requesting implementation of environmental resource conservation rules and regulations through different events and voluntary works.

3.10.9 Student Attitude

The role of education institutions in relation to environmental sustainability is more prevalent as it is essential to impart and reinforce the environment respecting moral values in the young minds (Brynjegard, 2001). Youth whose parents were engaged in tourism-related activities were more positive towards wildlife and environmental conservation. Schooling and participation in extra-curriculum activities through clubs positively influenced the youth's perceptions of wildlife and environmental conservation (Gakuo 2010). Progress towards sustainable environment is dependent upon a fundamental change in youths' attitude to nature and the environment (Sukhwinder, 2013).

Dynamic qualities are personal qualities of thought, feeling and action which develop in the students through a process of learning in which understanding and action are key features (Posch, 1991, p.3). As the assessment by (MELCA-Ethiopia,2016), indicated, Most of the students responded that as they have dramatic attitudinal change and started playing leading role in clubs activities and become more environmental friendly. Additionally, all the interviewed school directors and school environmental club leaders highly recognized the importance of environmental club and that explains the attitudinal change of their students in the school and outside the school. **3.10.10 Student behavior**

If dynamic qualities of students are to be translated into responsible social behavior (environmental action) it would appear that these qualities should be deeply rooted and based upon environmental knowledge and awareness, and experienced through genuine participation in their local environments rather than superficially "learned" or instilled by coercion(Toili,2007). In the same way the reports from Bale highland schools mentioned dramatic behavioral improvement was observed on some students with peak bad characters. Some schools have also reported story of a few student behavioral change related bad wearing style, smoking, chewing and attention to education.

3.10.11 Student knowledge

Similarly Meseret (2016), Reported as the club brought about significant change in students environmental mentality and on ground environmental protection activities, with ever increasing large number of participants. According to Bale highland schools reports most of the interviewed students know a clear connection between forest degradation and climate change, they have developed an interest for raising and planting trees and they change their concern about the climate change and environment degradation.

As the most respondents explained their minds changed after participating in the clubs activities for a while and become truly interested in natural resource conservation and the traditional culture. They have been a member in the club and learned a lot about medicinal plants in forest, and they understood that all plants and trees have their special value in the nature and that they also can be used for medicine for both human beings and animals. Many of the students said that the different field trips they have undertaken (Sof Umer cave, Goba Escarpment, BMNP) have played a great role in motivating them to conserve the forest(MELCA-Ethiopia,2016).

As they responded that, they did not have much knowledge about nature or culture but after being environmental club member they got more knowledge about the environment and the culture, their mind transformed from first being negative to neutral and now positive towards conservation of the forest. After they participated in the environmental club programs, all students interviewed explained how they have developed an interest and understanding for the value of conserving natural resources(MELCA-Ethiopia,2016).

3.11 Challenges to Environmental Club

The constraints were more on the conceptual barriers (such as lack of understanding of the scope) and content of the **environmental education** (Kin, 2004), logistical barriers (such as time constraint, inadequate teaching materials, inappropriate class size, financial and transportation **problems**), and issues of security.

3.11.1 Financial

The environmental Club needs more financial support both from donors and the School to be able to work with full potential. Several challenges limit student participation in environmental club activities among most schools (Geff Wahungu 2010). The club activities were hindered by lack of funding. Major challenges to the school based clubs were financial, poor timetabling of the clubs" activities, lack of motivation and necessary facilities among others (Nderitu, 2011).

3.11.2 School curriculum

Environmental education processes is an integral part of both the formal and non-formal curricula, but little was done at classroom level, beyond a discipline-based approach to the teaching of environmental education processes in many countries (Gakuo, 2010). Environmental clubs are offered as co-curricular activities in schools to provide an experiential form of learning which supports the formal education practices. According to Nderitu (2011) most of the schools put more emphasis on school curriculum and very little time was given to club activities.

3.11.3 Time given to club activities

As it is reported by Nderitu (2011) most of the schools gives little time for club activities .In most schools even that little time was not as such active and passed by waiting other members to come then finally postponed always. Because of this many members hesitate and leave the club as it consumes their study time. In some cases the school activities often disrupted the club meetings and other teachers felt that the clubs belonged to the particular supporters (Nderitu, 2011).

3.11.4 Student parent

The parents had negative attitudes/fear towards the clubs and frequently discouraged their children from joining them especially female students as club activities are out of education time and students spend may attacked by male students. In most developing countries the school found far from their home and it takes some time to arrive both the school and back to home. The family advises their child to use their time properly both to school and home on time. Additionally in case there is field trip the parent of female student is not willingness to send their children. These problems affect both the knowledge that the students acquire from club activity and successfulness of the club in general.

3.11.5 School land size

Most schools had very small pieces of land that had already been filled with trees or have no nursery site area. In certain cases instead of rising seedling in school nursery, the directors prefer getting seedling through purchase. The planted seedlings were also mostly exotic tree species having ornamental value. Most schools dependency on exotic tree species have its own implication on conservation of indigenous tree species through creating less value attitude and attention to indigenous tree species at school student and generally to wider community

3.11.6 Politics

In some countries the students and patrons feared to carry out demonstrations in case they were mistaken for politicians. The students and patron are not free say or write what they feel about the environmental conservation. These especially common in case students work outshine politician's weakness regarding environmental conservation.

3.11.7 Awareness

The students' awareness problems especially at the beginning or before they here from seniors are common challenge and Lack of motivation to participate as there is no events or occasion that expose this to the students were the major challenges for the success of the club (Meseret 2016).

3.11.8 Lack of motivation

The biggest challenge from the member point of view was lack of motivation from school teachers and directors probably because of the very few activities that were being carried out in the clubs. Some of them also believes that no one evaluate their club activity performance except formal subjects given to them.

3.11.9 Knowledge of club leaders

It was clear that only a few patrons had attended environmental education courses and even most of them have little knowledge of environmental education. In some of the schools the patrons were appointed as patrons of the clubs and hence they did not have the zeal to improve the clubs or guide the interested students **as** they had many other responsibilities and received very little material gains from clubs (Nderitu, 2011). In the same way the criteria to become environmental protection club leader is not having knowledge/awareness of environmental education and person with environmental hobbies, rather being relative of school director or gaining high number of vote from group.

3.11.11 Selfishness

As club leader explained earlier they got merits from participating in the club but now the club does not get any other benefit than good knowledge about bio cultural diversity. Additionally the interest/objective of most club leader was not to bring attitudinal change of students and local community, instead to collect certificates for personal promotion. In the same way many students become club member to get certificate of witness that may help them when they look for a job.

3.11.12 Lack of attention

Most of the schools put more emphasis on school curriculum and very little attention was given to club activities. In most schools Even that little time was not as such active and passed by waiting other members to come then finally postponed always. Because of this many members hesitate and leave the club as it consumes their study time. In some cases the school activities often disrupted the club meetings and other teachers felt that the clubs belonged to the particular supporters (Nderitu, 2011).

4. Conclusions

From the review it could be concluded that when learners participate in environmental clubs activities their environmental knowledge competences are improved possibly due to exposure gained from interaction with the nature. Positive outcomes in attitudes are experienced when learners participate in environmental clubs than when they do not participate; possibly due to regular voluntary interactions with the environment. Pupils who were environmental club members were more likely to continue engaging in environmental activities geared towards environmental protection than pupils who were not environmental club members. Engaging in voluntary environmental groups comprising of learners and teachers (club patrons) in a school can promote participation of pupils in learning about and working towards the conservation and sustainability of the environment. With the support of respective school management and other interested stakeholders, the clubs movement can create awareness about the environmental related issues which threaten the existence of the ecosystems.

5. The way forward

From the review the way forward produced includes increasing funding, training on Environmental Education and integration of Environmental Education in all primary and secondary school curriculum. Other recommendations include support from government and school administration, encouraging collaboration and partnership, motivation and positive reinforcement, adherence to time allocated for the clubs, establishment of projects to raise funds and provision of facilities and equipment such as trips and literature among others.

6. References

Ajiboye, J.O. and Silo, N., 2008. Enhancing Botswana children's environmental knowledge, attitudes and practices through the school civic clubs.

ALJADI, H., 2020. ENVIRONMENTAL EDUCATION AND MANAGEMENT.

Angell, A.V., 1991. Democratic climates in elementary classrooms: A review of theory and research. *Theory & Research in Social Education*, 19(3), pp.241-263.

Baker, C.N., 2008. Under-represented college students and extracurricular involvement: The effects of various student organizations on academic performance. *Social Psychology of Education*, 11(3), pp.273-298.

Bonnes, M. and Bonaiuto, M., 2002. Environmental psychology: From spatial-physical environment to sustainable development. *Handbook of environmental psychology*, pp.28-54.

Botma, C., 2000. Environmental Youth Clubs in Namibia (Doctoral dissertation, Rhodes University).

Briceño, S. and Pitt, D.C. eds., 2018. New ideas in environmental education. Routledge.

- Brynjegard, S., 2001. School Gardens: Raising Environmental Awareness in Children.
- Buskov, P., 1991. Denmark: How do we want to use Nature?
- Chawla, L., 1999. Life paths into effective environmental action. The journal of environmental education, 31(1), pp.15-26.
- DiEnno, C.M. and Hilton, S.C., 2005. High school students' knowledge, attitudes, and levels of enjoyment of an environmental education unit on nonnative plants. *The journal of environmental education*, *37*(1), pp.13-25.
- Eagles, P.F. and Demare, R., 1999. Factors influencing children's environmental attitudes. *The Journal of Environmental Education*, 30(4), pp.33-37.
- EFC. 2019. FDRE environment, Forest and climate change commission: Manual for School Environmental Clubs.
- Emmons, K.M., 1997. Perspectives on environmental action: Reflection and revision through practical experience. *The Journal of Environmental Education*, 29(1), pp.34-44.
- Erdoğan, M., Kostova, Z. and Marcinkowski, T., 2009. Components of environmental literacy in elementary science education curriculum in Bulgaria and Turkey. *Eurasia Journal of Mathematics, Science and Technology Education*, 5(1), pp.15-26.
- Falk*, J.H., 2005. Free-choice environmental learning: framing the discussion. *Environmental education research*, *11*(3), pp.265-280.
- Flynn, T., Berry, S., Saker, C., Kavanaugh, S. and Currie, T., 2002. Environmental clubs at elementary schools.
- Francis, C., Moncure, S., Jordan, N., Breland, T.A., Lieblein, G., Salomonsson, L., Wiedenhoeft, M., Morse, S., Porter, P., King, J. and Perillo, C.A., 2012. Future visions for experiential education in the agroecology learning landscape. In *Integrating agriculture, conservation and ecotourism: Societal influences* (pp. 1-105). Springer, Dordrecht.
- Gakuo, J.M., 2016. Influence of environmental clubs on pupils" environmental awareness: a study of primary schools in Mwea Division, Embu County, Kenya (Doctoral dissertation).
- Ginsburg, K.R., 2007. The importance of play in promoting healthy child development and maintaining strong parent-child bonds. *Pediatrics*, *119*(1), pp.182-191.
- Gooch, M., 2005. Voices of the volunteers: an exploration of the experiences of catchment volunteers in coastal Queensland, Australia. *Local Environment*, *10*(1), pp.5-19.
- Harvey, G.D., 1976. Environmental Education: A Delineation of Substantive Structure.
- Hodson, D., 1994. Seeking directions for change: The personalisation and politicisation of science education. *Curriculum Studies*, 2(1), pp.71-98.
- Hoge, J, D.,1998. Civic education in schools. ERIC Digest .Bloomington, In: ERIC Clearing House for Social Studies/ Science Education, December (ED 301-531).
- Hudson, S.J., 2001. Challenges for environmental education: Issues and ideas for the 21st century: Environmental education, a vital component of efforts to solve environmental problems, must stay relevant to the needs and interests of the community and yet constantly adapt to the rapidly changing social and technological landscape. *BioScience*, *51*(4), pp.283-288.
- Johnson, J. and Manickavasagam, B., Creating Eco-Friendly College Campuses in Trivandrum City, Kerala.
- Johnson, L.R., Johnson-Pynn, J.S. and Pynn, T.M., 2007. Youth civic engagement in China: Results from a program promoting environmental activism. *Journal of Adolescent Research*, 22(4), pp.355-386.
- Johnson, P. and Smith-Sebasto, N.J., 2000. The First Pennsylvania Environmental Readiness for the 21st Century Survey Report: Survey of Adult Pennsylvanians' Knowledge about, Attitudes toward and Behaviors Related to the Environment.
- Kanyimba, A.T., 2009. *The incorporation of environmental education for sustainability in the Namibian colleges of education* (Doctoral dissertation, University of South Africa).
- Kaur, S., 2013. Role of teachers in imparting environmental education for sustainable development. *International Educational E-Journal*, 2(2), pp.10-16.
- Kazdin, A.E., 2009. Psychological science's contributions to a sustainable environment: Extending our reach to a grand challenge of society. *American Psychologist*, 64(5), p.339.
- Kipsisei, G., 2011. Environmental degradation and social conflict in trans Mara district, south Rift Valley of Kenya.
- Legault, L. and Pelletier, L.G., 2000. Impact of an environmental education program on students' and parents' attitudes, motivation, and behaviours. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, 32(4), p.243.
- MacDonald, C., 2008. *Green, Inc: An environmental insider reveals how a good cause has gone bad.* Rowman & Littlefield.
- Mbwesa, J.K., 1996. Integration of environmental education in to the secondary school curriculum in Kenya: strategies and constrains. *Unpublished Master of Education Thesis, Kenyatta University, Kenya*.
- Meseret, D., 2016. Promoting Environmental Awareness of Youth through School Environmental Protection Clubs: A Case Study in Debre Tabor University, Ethiopia. *environmental protection*, 40.

- Meyers*, R.B., 2005. A pragmatic epistemology for free-choice learning. *Environmental education research*, 11(3), pp.309-320.
- Minton, T.G., 1980. The history of the nature-study movement and its role in the development of environmental education.
- Mwangangi, P.N., 2012. Roles and constraints of clubs in enhancing environmental awareness among secondary school learners in Nairobi West District, Kenya (Doctoral dissertation, Masters thesis). Kenyatta University, Kenya).
- Nderitu, R.W., 2012. Role of school based clubs in addressing environmental threats in the Nile Basin, case of *Jinja District, Uganda* (Doctoral dissertation).
- Neal, P. and Palmer, J., 2003. The handbook of environmental education. Routledge.
- Nolan, C., 2012. Shaping the education of tomorrow: 2012 report on the UN decade of education for sustainable development, abridged. UNESCO.
- Okvat, H.A. and Zautra, A.J., 2011. Community gardening: A parsimonious path to individual, community, and environmental resilience. American journal of community psychology, 47(3-4), pp.374-387.
- Palmer, J., 2002. Environmental education in the 21st century: Theory, practice, progress and promise. Routledge.
- Palmer, J.A., 1999. Research matters: A call for the application of empirical evidence to the task of improving the quality and impact of environmental education. *Cambridge Journal of Education*, 29(3), pp.379-395.
- Pashby, L. and Weis, J., 2002. Planting the seeds of environmental awareness: Evaluating an environmental education program for Grade 5 students. ontario: ontario Institute for Studies in Education. University of Toronto.
- Perrot, E.,1977. The Education of an Ecuador. In H. Evan, Education: Key Issues of the Future. Pergamon Press, Oxford.
- Pieters, M., 1991. The Netherlands: Environmental Education in Regular Subjects: Innovation through a Curriculum Development Project.
- Posch, P., 1991. Environment and School Initiatives: background and basic premises of the project in Environment, Schools and Active Learning, Part 1.
- Rajendran, M., 2014. A Study on constructivistic approach to environmental education among primary pre-service student teachers (Doctoral dissertation).
- Raver, C.C., 2002. Emotions Matter: Making the Case for the Role of Young Children's Emotional Development for Early School Readiness. Social Policy Report. Volume 16, Number 3. Society for Research in Child Development.
- Rickinson, M., 2001. Learners and learning in environmental education: A critical review of the evidence. *Environmental education research*, 7(3), pp.207-320.
- Roberts, N.S., 2009. Impacts of the National Green Corps Program (Eco-Clubs) on students in India and their participation in environmental education activities. *Environmental Education Research*, 15(4), pp.443-464.
- Robyn, M., 2008. Journal of Higher Education: Eco-club Influences the Environmental Awareness of Pupils. vol. 32, N3 pp 207-219.
- Ruto, S.J., 2004. The Contribution of Non-Formal Schools in Enhancing the Provision of Basic Education in Kenya.
- Saylan, C. and Blumstein, D., 2011. The failure of environmental education (and how we can fix it). Univ of California Press.
- Simmons, D., 1998. Using natural settings for environmental education: Perceived benefits and barriers. The Journal of Environmental Education, 29(3), pp.23-31.
- Skanavis, C. and Manolas, E., 2015. School gardens and ecovillages: innovative civic ecology educational approaches at schools and universities. In *Transformative approaches to sustainable development at universities* (pp. 559-570). Springer, Cham.
- SKANAVIS, C., Environmental Education Applied to Agricultural Education. *Ecological Agriculture and Rural Development in Central and Eastern European Countries*, p.59.
- Smith, G.A., 2007. Place-based education: Breaking through the constraining regularities of public school. Environmental Education Research, 13(2), pp.189-207.
- Sohn, L.B., 1973. Stockholm declaration on the human environment, the. Harv. Int'l. LJ, 14, p.423.
- Sondakh, O. and Wibowo, W., 2012. Save the Rain Forest: The Antecedents of Students' Ecological Behaviour Intentions. In *The 3rd International Conference on RainWater Harvesting & Management "From Drain City* to Rain city By Training Brain Citizens" Proceeding.
- Sonowal, C.J., 2009. Environmental education in schools: The Indian scenario. *Journal of Human Ecology*, 28(1), pp.15-36.
- Stevenson, R.B., 2007. Schooling and environmental education: Contradictions in purpose and practice. *Environmental education research*, 13(2), pp.139-153.
- Stohr, W., 2013. Coloring a green generation: The law and policy of nationally-mandated environmental education

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and social value formation at the primary and secondary academic levels. JL & Educ., 42, p.1.

- Sukhwinder Kaur., 2013. Role of Teachers in Imparting Environmental Education for Sustainable Development. International Educational E-Journal, 2, 10-16.
- Svedbom, J., 2000. A Comparison of Different Approaches to Health Education Some Reflections on the Role of Health Education in Relation to Inequity in Health.
- Thomas, I., 2009. Critical thinking, transformative learning, sustainable education, and problem-based learning in universities. *Journal of Transformative Education*, 7(3), pp.245-264.
- Toili, W.W., 2007. Secondary School Students' Partipation in Environmental Action: Coercion or Dynamism?. *Eurasia Journal of Mathematics, Science & Technology Education*, 3(1).

Tuli, F., 2005. Environmental education for global environmental issues. IER FLAMBEAU, 12(2), pp.34-47.

UNESCO, 2014a. Ecological Sciences for Sustainable Development.

- UNESCO.,2012. Shaping the Education of Tomorrow. Report on the UN Decade of Education for Sustainable Development. UNESCO, Paris
- Wals, A.E., Brody, M., Dillon, J. and Stevenson, R.B., 2014. Convergence between science and environmental education. *Science*, 344(6184), pp.583-584.

Walter, P., 2009. Philosophies of adult environmental education. Adult Education Quarterly, 60(1), pp.3-25.

- WWF-UK.,1988). A common purpose: Environmental education and the school. Module 2: A Whole School Approach to Environmental Education.
- Yeshalem, A.D., 2013. Environmental Education about, in and for the Environment: The case of two secondary schools in Ethiopia (Master's thesis).