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Research Article

Perspectives of School Principals and Geography Teachers on Sustainable Development Goals

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ABSTRACT

Education for Sustainable Development (ESD) is crucial for developing younger generation's knowledge, attitudes and skills towards social, economic and environmental development. Objectives of this study were to identify school principals' perspectives of ESD, to identify Geography teachers' perspectives of ESD, to make suggestions to introduce SD goals in the school curriculum through the subject Geography. Research method used was survey method. Selected 1A & 1C 32 schools under stratified sampling method from the Kandy District in Sri Lanka. As research tools questionnaire and interview schedule were used for both teachers and school principals. Data analyzed qualitatively and quantitatively. According to results 74.36% of teachers, 60% of principals have strongly agreed SD concept is worth paying attention to and 54.3% of teachers, and 42.9% of Principals have strongly agreed ESD concepts should be taught during school hours. According to the principal's perspectives, school time should be utilized to transfer knowledge, attitudes and skills towards ESD. As teacher's perspective, school is the only place to provide knowledge skills and attitudes regarding ESD and to give practical knowledge about ESD beyond text books to develop good qualities as responsible citizens. As conclusion, SD should be included into subject Geography while introducing SD Goals. Suggestions were to make awareness programmes for teachers and principals about ESD and SD goals. Further, to pay much attention to school authorities to add ESD related knowledge, skills and attitudes into Geography curriculum as well as other subjects also mentioning SD Goals.

KEYWORDS

Education, Geography, Sustainable Development Goals

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INTRODUCTION

Education for Sustainable Development (ESD) is crucial for developing younger generation's knowledge, attitudes and skills towards social, economic and environmental development. School as a societal institute is more responsible for transmitting knowledge, developing skills and inculcating good attitudes in its future generations. Teachers and principals as leaders of the schools are responsible in carrying out this duty of transforming Education for Sustainable Development.

This study is a segment of a main study based on Sustainable Development and Education for Sustainable Development and ESD Goals. Objectives of this study were to identify school principals' perspectives of ESD, to identify Geography teachers' perspectives of ESD, to make suggestions to introduce SD goals in the school curriculum through the subject Geography.

The problem of the study was to identify, to what extent Geography teachers and school principals could facilitate teaching ESD towards Sustainable Development Goals. The Sustainable Development Goals (SDGs) are a universal plan for all countries to end poverty, protect the planet and ensure prosperity for all. They provide a focus for the international community's developmental efforts until 2030. As Nelson Mandela says, "Education is the most powerful weapon which you can use to change the world." Therefore, education has a vital role to achieve these goals as a weapon to change the world.

Chandith, P. (2013) representing Sri Lanka at a UNESCO conference, pointed out that

'ESD is very important to Sri Lanka since it focuses on a lot of issues that are interlinked. They help to make the students wholesome and more aware of respect for human dignity and right and respect for the environment. Most of the Ministries, Departments NGO's and the multilateral and bilateral organizations could be are involved in the ESD activities. The Ministry of Education, National Institution of Education, UNICEF and the GTZ are working towards peace and SD education. However, there is no proper coordination with each organization. It is therefore important to get a more coordinated focus for ESD.

In 2015, UNESCO declared the SD goals up to year 2030.

'SD Goals (SDGs) include a set of seventeen aspirational 'Global Goals' with 169 targets and 244 indicators between them. It is officially known as 'Transforming our world: the 2030 Agenda for SD'. It

was adopted by the 194 Member States of the United Nations (UN) General Assembly'. (*Status of SD goals indicators in Sri Lanka, 2017.*)

As a member of the United Nations, Sri Lanka has to implement these goals in development policies. Therefore, the current need is for more studies on education and SD. From 2017. Strategies for ESD is being implemented in selected schools by the government of Sri Lanka. In 2017 the Sustainable School Programme was launched under this implementation. There are five sub programmes which are conducted in selected schools under the theme: A beautiful world of children-A secure world. Again another circular was published for ESD projects to implement in the schools of Sri Lanka on 27th November 2017.

Sustainable Development and the Subject Geography

Geography is the science of space and place. It is a study of the earth. It is a Multidisciplinary subject. It has a holistic vision. These qualities help to discuss about interdependence of systems. Geography student can easily understand about systems in the world. Duka has described total features of the subject through his definition. 'A more specific and informative definition of Geography is that it is concerned with the study of the earth's surface including peoples' responses to topography and climate as well as soil and vegetation and the distribution and interaction of the different phenomenon on earth' (*Duka, 2008*).

Duka has described how geography can discuss issues related to SD.

"The field of economic geography provides information on how various forms of human economic activity contribute to the emission of greenhouse gases through fossil fuel burning and land use change. Combining the knowledge of both of these academic areas gives us a more comprehensive understanding of why this serious environmental problems occur (*Duka, 2008*).

According to this as a multidisciplinary subject, Geography can show a path and it has strength to discuss issues related to SD and to participate in discussions at schools through the subject Geography.

Geographical investigation both satisfies and nourishes curiosity. Geographical perspectives help deepen understanding of many contemporary challenges such as climate change, food security, energy choices, overexploitation of natural resources and urbanization. In this way teaching geography serves several vital educational goals. Building on young people's own experiences, studying geography helps

them to formulate questions, develop their intellectual skills and respond to issues affecting their lives. It introduces them not only to the key 21st century skills but also to distinctive investigative tools such as maps, fieldwork and the use of powerful digital communication technologies (*2016 International Charter on Geography Education, 2016*).

Haubrich (2007) mentions that it is obvious that, if the social environment and the whole school environment isn't sustainable and not all teachers behave, at least partly in a sustainable manner, it is quite impossible to teach effectively about SD with the outcome that each student really changes his or her own behaviour. There is no other way, when we want to master the future; achieving SD has to become one of the most important guide in education principles.

Today, at the dawn of the 21st century, Geographical Education has to play a crucial role in the general educational systems of all countries around the world. In the forthcoming years and decades, today's learners need to act as responsible citizens with regard to complex key issues that are of great environmental, social, cultural, economic and political significance. Geographical education is one of the educational areas that teach learners the thinking skills required to understand and to act sustainably in the world. Without Geography, young people are unprepared for an increasing global future (*Reinfried & Hertig, 2011*). This literature supplies a good foundation for the relationship of the subject Geography and Sustainable Development.

METHODOLOGY

Objectives of this study were to identify school principals' perspectives of ESD, to identify Geography teachers' perspectives of ESD, to make suggestions to introduce SD goals in the school curriculum through the subject Geography.

Research method used was survey method. Selected 1AB & 1C type 32 schools under stratified sampling method from the Kandy District in Sri Lanka. As research tools questionnaire and interview schedule were used for both teachers and for school principals. Data was analyzed qualitatively and quantitatively.

Sample: Samples of Schools, Teachers, and Principals

Zone	No of 1AB Schools	1AB Schools sample	No of 1C schools	1C schools sample	Total school sample	Teacher sample	Principal sample
Gampola	04	01	11	03	04	04	04
Kandy	20	05	16	04	09	09	09
Denuwara	07	02	13	02	04	04	04
Wattegama	04	01	15	04	05	05	05
Katugastota	05	01	23	05	05	05	05
Teldeniya	03	01	15	04	05	05	05
Total	43	11	93	25	32	32	32

3.1 Sample selection:

3.1.1. Teacher sample

Teacher sample was selected according to available number of 1 AB and 1C type schools of the zones and one teacher from each school was selected purposively as a participant for the study. According to table No 01, the teacher sample was 36. Selected ratio was 1:4. for teacher selection

3.1.2. School Principal sample

Principal sample was selected according to available 1 AB and 1C type schools of the zones and each principal was selected purposively as a participant for the study. According to table No.01 the principal sample was 32.



Figure.No.01.Sample area of the Study: Kandy District – Sri Lanka.

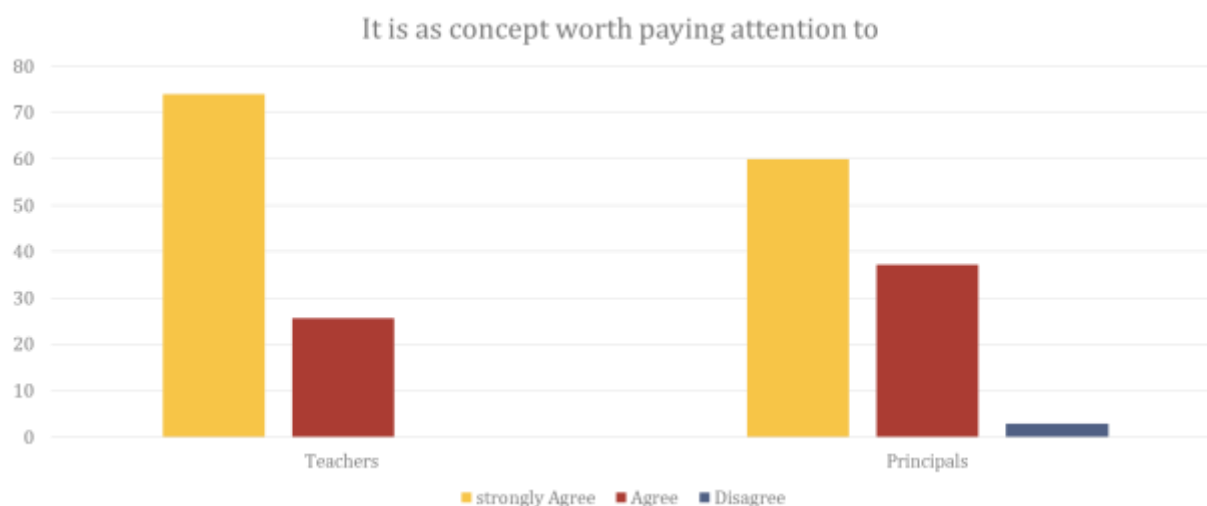
RESULTS

Teaching SD in Sri Lanka

To examine the current situation in teaching SD in Sri Lanka, three statements were given to respondents to use four point Likert Scale (strongly agree, agree, disagree, strongly disagree). The statements are as follows.

1. It is a concept worth paying attention to
2. It should be taught during school hours
3. The concept is being taught in schools at present

Responses collected are presented in the following figures.



Figure, No 02 –It is as a concept worth paying attention to

According to figure No 02, 74.36% of teachers, 60% of Principals have strongly agreed with the above statement. Agreement was indicated by 37.1% of Principals and 25.7% teachers with this statement. But, 2.9% of Principals have disagreed with the statement.

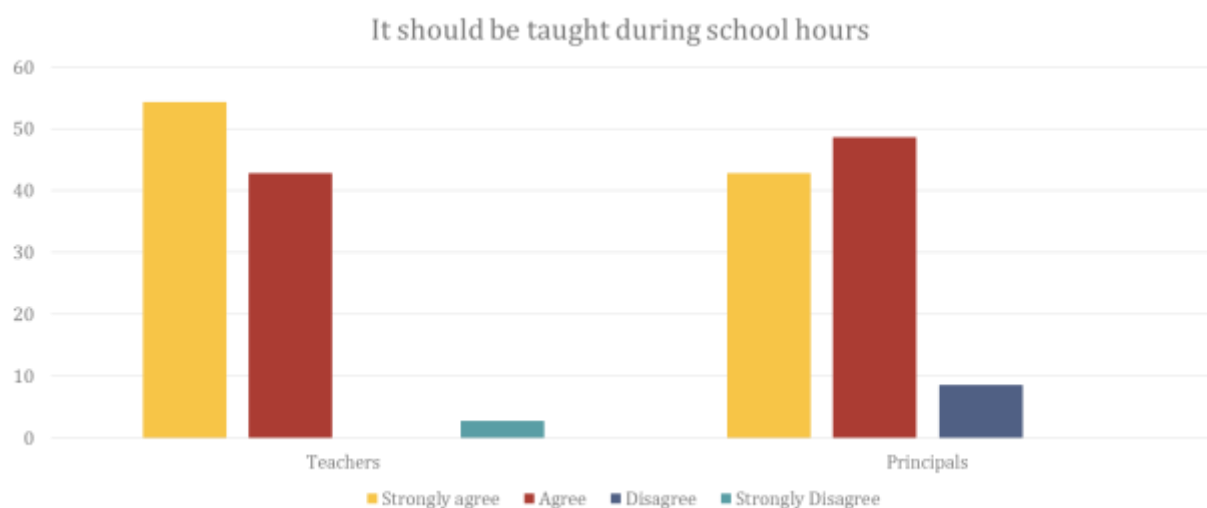


Figure No 03- It should be taught during school hours

According to figure No 03, 54.3% of teachers, and 42.9% of Principals have strongly agreed. Agreement was indicated as 42.9% of teachers and 48.9% of Principals. Disagreement on the other hand was indicated as 8.6% of Principals. Also, 2.8% of teachers have strongly disagreed.

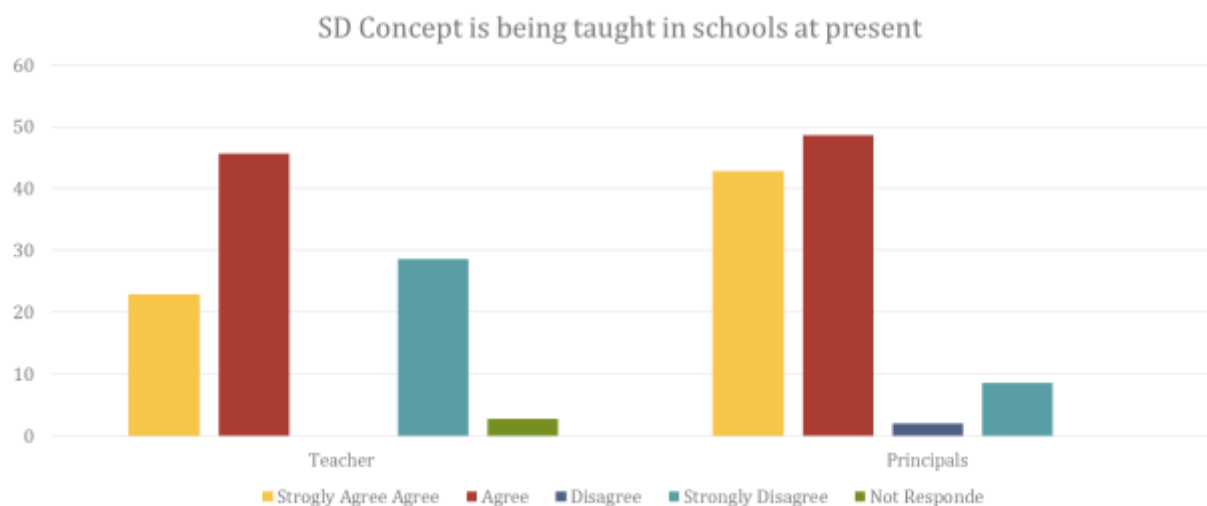


Figure No 04-SD concept is being taught in schools at present.

According to figure No 04, highest percentage of strongly agreement was indicated as 42.9% by principals and 22.9% by teachers but a higher agreement of 45.7% by teachers and 48.6% by Principals respectively and no responses were given by 2.8% teachers.

Geography Teacher perceives ESD

Geography teacher's responses are stated below. Teachers have been viewed as an important source of schools when transferring knowledge, attitudes and skills. Responses collected could be categorized as follows: Related responses are been shown under the each category.

- ❖ School is the only place to provide knowledge skills and attitudes regarding SD for school Students
- “It is the duty of the present generation to save the resources for future. The only place where knowledge, skills and attitudes could be developed is the school. In addition, strength for survival of sustainability through social equilibrium, justice, eradicating poverty, could be successfully introduced to students by environmental conservation, and frugality.”
- “Converting students who complete the knowledge based education after Advance Level (AL) into nature loving personalities is a duty of the nation as the rate of environmental pollution is considerably high. For this, students should have a thorough knowledge of the concept of SD. Once these Students become parents they will definitely instill these attitudes in their children.”
- ❖ To feed positive attitudes regarding SD Goals
- “If we want to lead a nation, a country towards sustainability we should cultivate positive attitudes in its citizens. Therefore children should be fed with attitudes related to SD and SD Goals and should be socialized at the schools.”
- “Today policies are made with reference to making students successful at exams. But the education policies are not changed to help improve the attitudes towards the environment. There is an ability to make an attitudinal change by the school environment. Mostly people who destroy nature are the ones who had not had a proper education. School can create environmentally friendly people.”
- “SD is not widely taught in schools. However by providing a good understanding on this will help to build a liking for nature and progress in development activities. For any country to progress the younger

generation should be well educated on how to help development while protecting the environment. Not including sufficient amount of information on this regard is a serious issue.”

❖ To give practical knowledge about ESD beyond text books

- “Students seem to be overly dependent on text books. Practical activities should be implemented. The majority of today’s children cannot identify plants and trees. Therefore knowledge, practical knowledge, and skills in nature should be given to Students. Some Students have a good knowledge of nature, but not positive attitudes towards them.”
- “It is important to develop knowledge, skills and attitudes to reverse the global economic, social, political and cultural degradation. The formal and informal education strategies introduced by the government can make a better future.”
- “If SD programmes were activated from primary classes there will not be a special need for organizing extra programmes in the Advanced Level classes. This education should be given commonly to students from Grade one upwards.”

❖ Learning to live, without disturbing nature

- “To create awareness on frugal use of diminishing resources. In addition to that to teach, to live without disturbing nature, thriftiness, to use public property carefully, to think about the future, to give an understanding about the effects of and income generation oriented life, to develop patience, attitudes, and to highlight beautiful feelings.”
- “Students waste productive physical resources. That should be minimized. If these experiences are not provided at this stage they will not think of protecting the nation. Then it will be a place of fulfilling needs of foreign countries. In addition this will be a country depending on other nations. To avoid this they should be provided with good attitudes, skills and knowledge needed for SD.”
- “Practices of selfish consumption of resources. Insufficient building of attitudes towards protecting the resources for the future in children. SD provides a chance to give knowledge on human activities leading to disasters such as landslides and environmental pollution.

- “Speedy industrialization gives rise to over consumption. We should make students aware that this leads to depletion of resources. They will learn to use the resources carefully at school, at home, at the work place, only if they were given knowledge on SD. Therefore I believe A/L Students should be given a vision for the future.”

❖ To develop good qualities as responsible citizens.

- “People have to face social, economic, political, and environmental issues at present. Improving qualities such as patience, justice, frugality, etc., will pave the way for SD. It is a must to improve knowledge, skills and attitudes in A/L Students as they face economic, political, and environmental issues.”

- “The present younger generation will be responsible citizens in the future. Therefore we should prepare A/L students for this. We see a deterioration of ethics, respect for heritage, frugality, local products, ethical consumption, etc. However destructive behaviors are increasing. “Educating children on SD can help to create a better future. I value this subject area as this can instill knowledge, skills and attitudes towards a better future.”

❖ To solve environmental issues in the country

- “Since we know there are serious aggravating environmental issues at present”
- “In general the public has no feeling towards the environment. There is an increase of selfish people and their children too share the same attitude. Since there is a crowd which is not aware of that the survival of the earth depends on SD.”
- “To teach about conserving water, and using it sparingly, and to avoid the 3rd world war for water. Students should be advised to use resources carefully.”
- “Current environmental issues since solutions for environmental issues could be found through SD. Attitudes should be developed as they need to be successful.”

❖ To modify sustainable behaviors of Students and inculcate good attitudes

- “Children of nuclear families are very selfish. As they have got used to luxuries and comfortable life styles the concern for sustainability is very low. Children of low income communities are frustrated due

to insufficiency of resources to fulfill their needs. Therefore a sufficient knowledge should be given to maintain the stability of SD.”

- “As there are environmental, economic, political and social issues arising locally and internationally due to globalization, there is a need for educating the younger generation, owing to the disappearance of good attitudes of people, lack of thriftiness there is negligence in protecting available resources for future generation.”
- “The trend towards exam oriented education should be changed. In addition, cultivating unselfish attitudes in children is important. Conservation of resources for future should be highlighted. This will help to create individuals who respect family members, to have a good conduct, and to minimize conflicts.”
- “There are no facilities for students to fulfill their day to day needs. Today people are crazy for power and high positions. I like to see a future with people dedicated to serving the nation unlike today.”
- “It is very important to provide knowledge, skills and attitudes related to SD to young A/L students who are about to step into the society at large. This will make it easy for them to adjust their behaviors needed in employment, society, domestic life etc. and further, create a better atmosphere and a better generation.”

❖ SD with the subject of Geography and all other subjects

- “Research of this caliber is a prerequisite of the present-day. The support given by the syllabus of the subject of Geography is very low. So providing knowledge, skills and attitudes related to this concept is a timely need”.
- “Because this is a timely topic which could be incorporated with any social science subject, a prominent place should be given to this topic in the A/L syllabus. Students can reach towards an international level of understanding with this subject area. Moreover Students will understand the importance of the subject of Geography compared to other subjects.”

❖ Should inculcate ESD competencies through the Advanced Level syllabus

- “It is extremely important to inculcate competencies of SD in school students before they step into the society at large. The present generation is more into getting things done with the help of technology,

giving priority to privacy follow-on selfish behavior. Therefore to reduce this, students should be taught SD competencies.”

- “To make the A/L students become aware of the importance of saving for future generation when using resources at present. Because it is important for A/L students to get knowledge about global social, cultural, economic, political, environmental issues and conflicts. It is important to give an understanding of environmental protection to all the Students. It is a timely need to include SD in the A/L syllabus.”
- “A very small percentages of students is selected for University Education from the Advanced Level Examination. The majority join different fields in the world of work. If they had gained at least a little knowledge about SD they will serve towards sustainability. Therefore it is important to improve knowledge, skills and attitudes of A/L Students.”
- “As positive attitudes and a feeling towards the nation, religion, and environment, are diminishing among A/L Students, these should be instilled into children’s hearts when they are young.”

According to these responses Teachers have much focus on teaching SD during school time. Secondly a higher number of Geography teachers had paid much attention to teaching developmental issues of the country, As well, the responses regarding ideas towards future generations also can be considered significant.

School Principals’ perspectives about SD

Collected data from the school principals also is categorized under the sub themes. All responses have been presented under the sub themes, as follows.

The School time should be utilized to transfer knowledge, attitudes and skills

- “The knowledge of SD should be given to the future citizens during their period of schooling.”
- “As the school system has not paid much attention to SD, environmental, social, political and economic issues are being faced by citizens today. To avoid these circumstances and to safeguard the lives of citizens ESD should be implemented in the school system.”

- “If the final target of education is SD, the present students should be stakeholders of this new process. Because of this, the present students should be thorough with these concepts.”

As Advanced Level Students they should learn SD

- “When the present students begin to enter the world of work after their G. C. E. A/L examination, they should be knowledgeable to prevent environment damage and to protect the heritage of and the Sri Lankan culture and transfer these ethics to the future generations which is a must”.
- “As the A/L Students leave the school after their A/L examination, they soon enter the society and it is essential that their knowledge about SD attitudes and skills should be improved.”

SD should cater to the Geography subject content and co-curricular activities.

“It should cater to subject content development and for co-curricular activities.”

- “SD will be a novel topic for A/L students as well as to their life experiences.”
- “Knowledge of the changes of the new world will be possible after introducing SD to the school system and it will provide lifelong learning to all citizens.
- “The realization of the importance of learning ESD will help the Students to develop their attitudes within the school curriculum as well as in the society. This concept will help them to protect the limited resources for future generations.
- “Implementation of SD in the school curriculum is important at present as well there should be a special way of implementing it in the school system.”

“Through lifelong learning of ESD, the development of the new world will be acknowledged with the help of active citizens with KP skills.

Develop positive attitudes in Students mind through SD and SD Goals

- “At present it is a trend of A/L Students attending private classes, and this has led to ignoring the Teachers of the school who they learn from and they have developed negative attitudes towards them. And lot of resources in the school (example: library facilities in school) are being wasted. As the A/L Students do not realize the value of the resources and the development of knowledge, attitudes, and skills through the process of the school system”.
- “School system should give basic competencies in ESD to its Students.”

- “Present generation of Students need development of attitudes which will help in their knowledge of technology. But subject oriented teaching has not being able to achieve this target. Because of this ESD education is a must to achieve SD Goals”
- “7 Billion Dreams, One planet, Consume with care in one policy that every citizen should keep in mind.”

Principal's perspectives of ESD have been included various types.

According to the above qualitative and quantitative data analysis following findings and conclusions has been presented as follows.

CONCLUSIONS

Teachers and school principals have agreed that Sustainable Development is a concept worth paying attention to, Sustainable Development should be taught during school hours, Sustainable Development concept is being taught in school at present but it should be organized according to Sustainable Development goals. Knowledge, attitudes and skills should be transferred to school students on SD concept. To make better school management process, teaching about Sustainable development is important. Teachers and School Principals should be aware how to connect with SD goals.

As suggestions following ideas can be suggest with:

- Plan to make awareness programs regarding Sustainable Development (SD) Goals through Geography curriculum.
- Provide continuous training towards SD Goals to Geography teachers and all subject teachers and School Principals by the Department of Education with the help of Faculties of Education in Universities.
- Give opportunities to make annual action plans for making quality education towards SD Goals in the schools for all school principals.
- Making awareness programs for school students through whole school approach.
- Including selected SD Goals related experiences into the lessons of the text books of Geography and other subjects

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