

# Sustainable Natural Resource Management in Ghana: The Role of Social Studies Education

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**Abstract:** - The study investigated the role of social studies education in sustainable natural resource management (SNRM) in Ghana. Quantitative data collection and analyses were used. All the 346 Social Studies teachers in the Kumasi Metropolis during the 2017/2018 academic year were included (census) in the study. However, 341 teachers provided usable data for the study. A self-developed questionnaire was used to collect data. Descriptive statistics with means and standard deviation was used to analyse and present the data. In effect, Social Studies teachers do not possess the requisite competence that would enable them teach concepts of SNRM in Social Studies. Even though most of the topics in the SHS social studies curriculum introduces students to sustainable use of natural resources, the content or body of knowledge and the activities involved are not explicitly linked to the understanding of sustainable natural resource management. It was concluded that in order to ensure the attainment of sustainable natural resource management in Ghana, the integrated approach to teaching social studies should be adopted by teachers when teaching social studies. This will ensure effective combination of knowledge, values, skills and experiences from other subject areas to enhance the realization of sustainable natural resource management objectives of social studies. Also, courses in the Social Studies in the teacher training institutions in Ghana and elsewhere should acquaint teachers with knowledge and experiences in SNRM and provide them with experiences in teaching SNRM. This will equip all Social Studies teachers to be better positioned to promote the management of natural resources in a sustainable manner.

## I. BACKGROUND

Education is the engine that transforms the social, economic, political and cultural structures of a nation. It is the best tool that brings positive changes to societies and helps to develop responsible, patriotic and concern citizens who have their nations at heart. It trains and the individual to think and take the right decisions, especially, concerning the environment. These aims of education are however based upon the quality of education that is provided to the individual in the development of every country. One key area of the economy where education plays critical role in Ghana is the management of natural resources. Natural resource management involves the management of natural resources such as land, water, soil, plants and animals, with a particular focus on how management affects the quality of life for both present and future generations. It deals with managing the way in which people and natural landscapes interact. It brings together land use planning, water management, biodiversity conservation, and the future sustainability of industries like agriculture, mining, tourism, fisheries and forestry. It

recognizes that people and their livelihoods rely on the health and productivity of our landscapes, and their actions as stewards of the land play a critical role in maintaining this health and productivity (Thakadu, 2005).

Natural resources provide the all-important basis for human existence and activities. The basic functions of natural resources are often divided into two: First, natural resources provide important raw materials for the production of goods and services as well as various environmental services. This is often referred to as the source function. In addition, natural resources or the environment functions as receiving medium for the waste originating from production and consumption - the waste being assimilated or accumulated in nature (Toman, 2003).

These relevance of natural resources to the development of the economy of Ghana demands that critical steps are taken to educate the citizens on managing natural resources in a sustainable way. One important subject which has the creation of awareness of the physical environment and developing pupils' knowledge and skills and their capacity to manage and protect its resources is Social studies education (GES, 2010). According to Venkataraman (2009), social studies can positively influence the management of the country's increasingly stressed natural resources through the incorporation of successful techniques of environmental education since it provides students with the knowledge, skills, and experiences essential to making intelligent decisions pertaining to the management of natural resources. The flexible nature of the content of social studies accommodates issues and problems confronting the environment in an attempt to move Ghana forward.

This is because Social Studies education by its integrated nature helps to improve the capacity of people to address environmental challenges. It is a well-established discipline, which focuses on humankind's relationship with the natural environment and on ways to conserve and preserve it and properly steward its resources in a sustainable way (Venkataraman, 2009). This is evident in the following major objectives of social studies as indicated by Ghana Education Service (2001) which include: developing full awareness and stimulating public interest in mutually related economic, social, political and ecological issues; enabling each human being to acquire knowledge and skills necessary to improve the state of the environment; equipping people with some basic skills necessary for the resolution of social and

environmental problems; helping people with the opportunity to learn about their social and physical environment without inhibition of subject areas restrictions; and shaping individual, group, and social attitudes, values and beliefs which carry concerns for the quality of the environment (Ghana Education Service, GES, 2010).

Social studies education as a multidisciplinary field draws knowledge, skills and experiences from the social, physical and biological sciences. It encourages citizens to make knowledgeable and informed decisions about their environmental behaviour based on the awareness, knowledge, skills, and attitudes instilled in them. It relies on both formal and non-formal teaching techniques (discussion, inquiry, observation, etc) to accomplish the ultimate goal of encouraging citizens to make informed and positive actions toward the environment. Thus, social studies education makes use of many disciplines (geography, economics, history, and civics), techniques, and resources to accomplish its environmental goals.

#### *Problem statement*

Sustainable management of natural resources has become global issue due to the poor ways in which natural resources are being mismanagement. Sustainable natural resource management problems are rarely the domain of a single conventional discipline due to their scope and diversity. It engages a multitude of disciplines within the biophysical and the social sciences. This involves consideration of the different epistemological and methodological paradigms with competing views on why a problem exists in the first place, how it has manifested, and the best ways to address it. Therefore, efforts to integrate knowledge and skills across disciplines can enhance the ability to develop competent use of natural resources in a sustainable way. One of such integrated efforts is the inclusion of social studies education in the school curriculum in Ghana, which studies the relationship between man and the physical and social environment. As an integrated subject, social studies combines the social sciences disciplines for the purpose of addressing societal problems (Ghana Education Service, 2007). Integration in social studies incorporates the idea of people from different disciplines (geography, economics, history, sociology, among others) bringing their knowledge and methods to bear on a particular problem in a particular place at a particular time with a common purpose of addressing the problems. This is evident in section one, unit one of the junior high school social studies curriculum which emphasises the environment and environmental problems. Under this unit, environmental issues which have been drawn from different social sciences disciplines include environmental degradation – types, causes, effects, and solutions. It also covers issues such as causes of desertification. Section one, unit two of the curriculum also covers topics that relate to natural resources and the sustainable management of natural resources. Issues such as types of natural resources, efficient use of natural resources, factors that negatively affect efficient use of our natural

resources, as well as how to achieve efficient utilization of natural resources in Ghana (Ghana Education Service, 2007), are presented.

The inclusion of sustainable natural resource management in Social Studies education in Ghana is best conceived as an integration of the bodies of knowledge identified as essential to solving environmental problems. It is a means of solving environmental problems and answering questions that cannot be satisfactorily addressed by single subjects, methods, or approaches. In this regard, integration across disciplines occurs when problems are formulated in a way that genuinely enables the different disciplines to work in close collaboration, without competition. It is believed that when integrated effectively, it will help with the identification and mitigation of critical environmental problems, such as air, water and soil pollution that can negatively impact on human and environmental health.

Despite its integration in the social studies curriculum, social studies has had little impact with regard to ensuring sustainable management of natural resources in Ghana. this emanates from the poor nature in which natural resources are being mismanaged by citizens. For example, the is increasing rate of environmental degradation though wand winning, forest degradation, air pollution, water resource degradation, etc. It is not known whether the content of natural resources in the social studies is insufficient to adequately equip pupils with the knowledge, values, attitudes, and skills to effectively manage natural resources in a sustainable manner, or social studies teachers do not use the appropriate methods to effectively equip pupils with knowledge and skills to manage natural resources in a sustainable manner. Hence, the need to conduct this study.

#### *Objectives of the study*

Specifically, this study is designed to:

1. Examine how adequate the social studies curriculum covers topics on managing natural resources in a sustainable manner.
2. Explore social studies teachers' level of education on natural resource management.

#### *Research questions*

1. How adequate does the senior high school social studies curriculum cover topics on sustainable natural resource management?
2. What is social studies teachers' level of education on sustainable natural resource management?

## II. LITERATURE REVIEW

### *Concept of Social Studies Education*

One of the most significant dimensions of history of Social Studies is lack of agreement among its scholars over the definition of the subject. It is because of this that in the literature, too much attention has been focused in this direction. Various definitions have been offered by different

writers which revealed a variety of perspectives on the subject. It is also the study of the problems of society (Ministry of Education Science and Sports, 2009). The subject prepares the individual to fit into society by equipping him/her with knowledge about the culture and ways of life of their society, its problems, values and hope for the future. According to Jasim (2008), Social Studies is the integrated study of the Social Sciences and Humanities to promote effective citizenry. It is also the study of the problems of society. To him, the subject prepares the individual to fit into the society by equipping him/her with knowledge about the culture and ways of life of their society, its problems, its values and its hopes for the future.

Aggarwal (1998) also sees Social Studies as “the life of a man in some particular place, at some particular time” (p. 2). Social Studies is indeed a subject with wide coverage area and it behoves on the educators of the subject to be up-to-date on knowledge and information. To Linquist (1995) it is “an integration of knowledge, skills and processes that provide powerful learning in the Humanities and Social Sciences for helping children to be good problem solvers and wise decision makers” (p. 1). In a similar definition, the National Council for Social Studies [NCSS] (1994) sees it as the integrated studies of Social Science and Humanities to promote civic competence (p. 105). From the above definitions, it is gathered that Social Studies is based on “Integration.” This means using the various Social Sciences and Humanities such as History, Geography, Economics, and Government taught as a unit or themes to equip the learners with knowledge, skills and desirable attitudes to be able to fit and function well in the society. In this regard, Martorella (1994), states that the field of Social Studies gains a significant portion of its identity from the disciplines of the Social Sciences. He adds that the methods of enquiry used in the Social Sciences are important sources of Social Studies subject matter. He gave a threefold definitions of Social Studies as follows: the Social Studies are selected information from any area that relates directly to an understanding of individuals, groups and societies and application of the selected information to citizenship education. Tamakloe (1994) agrees to the assertions raised by the writers that “Social Studies deal with man in relation to his environment.” It can be inferred that, irrespective of the dimension on the subject, man is paramount in the development of the society with the requisite knowledge, skills, and desirable attitudes acquired.

Another dimension to the concept of Social Studies is that, “it is that part of the school curriculum which deals with human relationships and aims to contribute to the development of good citizenship (Tabachnick, 1991). To Banks (1990), it is that part of the elementary and high school curriculum which has the primary responsibility of helping students to develop the knowledge, skills, attitudes and values needed to participate in a democratic society. Kenworthy (1980) in the same vein states that Social Studies is a kind of shorthand for the study of people by pupils in elementary and secondary schools. Barr, Barth, and Shermis (1977:45) see it as “an

integration of experience and knowledge concerning human relations for the purpose of Citizenship Education.” Jerolimek (1971) sees the subject as how young learners grow in their understanding of sensitivity to the physical and social forces at work around them in order that they may shape their lives in harmony with those forces. He went further that the subject must be based on wisdom, reason, and rational processes not on myth, superstition and ignorance. This dimension to the concept clearly paints the picture that Social Studies is indeed wide in scope. Jerolimek and Walsh (1965) explained that a Social Studies programme which is designed to maximize the ability of learners to understand and satisfactorily explain human and natural problems should incorporate within itself relevant topics and activities. Wesley (1950) on the other hand, views the subject in terms of the method and purpose of teaching it when he states that “the Social Studies are the Social Sciences simplified for pedagogical purposes” (p. 34). Michealis (1953) also shares in the same view of the writers when he says “Social Studies are concerned with man and his interaction with his social and physical environment, they deal with human relationships.” (p. 2).

#### *Objectives of Social Studies Education*

Like the definition of Social Studies, it appears to have unlimited goals. According to Jasim (2008) the subject prepares the individual to fit into society. Again, it helps the learners to understand their society better; to investigate how their society functions and hence assists them to develop their critical and at the same time developmental kind of mind that transforms societies. To the Ministry of Education Science and Sports (2007), the subject is designed to help the learners to: develop the ability to adapt to the developing and ever-changing Ghanaian society; develop positive attitudes and values towards individual and societal issues, develop critical and analytical skills in assessing issues for objective decision-making; develop national consciousness and unity; develop enquiry and problem-solving skills for solving personal and societal problems and become responsible citizens capable and willing to contribute to societal advancement. To Banks (1994) the subject is to prepare citizens who can make reflective decisions and participate successfully in the civic life of the local community, nation and the world. Martorella (1994) also shares a similar view point. He opines that the basic purpose of Social Studies is to develop reflective competent and concerned citizens.

Also, NCSS (1994) asserts on the same line of thought that, the primary purpose of Social Studies is “to help young people develop their abilities to make informed and reasonable decisions for the public good as citizens of a culturally diverse democratic society in an interdependent world” (p. 105). It can be deduced from the above explanations that, there appears to be similarities about the purpose and objectives of the subject, in that, it is to prepare young citizens so that they possess the knowledge, skills and values needed for an enlightened citizen to participate in society. According to NCSS (1994), the body of knowledge



relevant to Social Studies Education should be what it calls “Social Understanding.” It explains it as knowledge of human beings’ social world. These includes a deep sense of appreciation for the people and places on earth, their relationships, similarities and differences among them, the problems they encounter and social trend and processes that are likely to shape the future. Social Studies also inculcate in learners the right type of attitude, knowledge and values needed for the survival of the individual and society. Aggarwal (1982) warns that the development of desirable attitudes and values should not be done through indoctrination via lecturing or preaching, rather it should be the natural outcome of all the discussions and activities carried on by the class. He emphasizes that values and attitudes are caught but not taught. This assertion confirms the fact that learners are to develop reflective competent and become

#### *Adequacy of the senior high school social studies curriculum regarding sustainable natural resource management*

Social Studies curriculum in Ghana at the senior high school level which span three years, has three main sections: 1) Environment; 2) Governance, Politics and Stability; 3) Socio-Economic Development. Some of the topics studied in the third year under the broad section of Environment include the Ecosystem, Physical Environment and Human Activities, the Influence of Climate, Rainfall, Land and Environmental Degradation, The Green House Effect, Challenges of Mining and Conservation of Environment (GES, 2010). The natural resources topics of the SHS Social Studies syllabus is one unit out of 50 (2%) of the total content of the SHS integrated social studies teaching syllabus. It formed part of the SHS 3 topics under “our physical environment and environmental challenges”. Although the students are introduced to influence of climate change at this level of their education, it appears no other topic in social studies again covers climate change and there is no continuity in the subsequent years (Boakye, 2015). Moreover, the third year in which these aspects of climate change is taught is an examination year and the students attention and time are taken up by six or seven other subjects which have to be passed if the students are to progress to the next stage of the educational ladder. Again, the third year is not a full academic year since the West African Secondary School Certificate Examination (WASSCE) starts in the second quarter of the academic year. Although there is evidence of exposure of students to issues of climate change at this level, the challenge is that there is little reinforcement of the issues raised in the subsequent years of study.

### III. METHODOLOGY

#### *Research Design*

Since I collected data at one point in time, the cross-sectional survey was employed. One major reason for using this design was that it offered me the opportunity to collect a wide scope of information from a large population. It was also used because of its usefulness in investigating how natural resources management in Ghana are managed in a sustainable

manner. One important advantage of the cross-sectional survey was that in general it was relatively fast and less expensive.

#### *Population*

The study was carried out in all 346 Junior High Schools in the Kumasi Metropolis in the 2018/2019 academic year. All the 346 social studies teachers constituted the population of the study of which 341 (98.6%) provided usable data for the study. Kumasi Metropolis was chosen for the study due to the fact that majority of the teachers though have obtained the requisite qualification (diploma in basic education and bachelor’s degree), in social studies, the qualification varies from one teacher to another in terms of scope of content of their qualifications.

#### *Instrument for data collection*

Questionnaire was used to collect data for this study. It was a self-report inventory with a three-point likert-type scale titled Questionnaire on Sustainable Natural Resource Management (QSNRM), with 1 = adequate, 2 = uncertain, 3 = inadequate. The questionnaire was in two parts, section A and B. Section A required respondents to give some background information such as educational qualification and teaching experience whilst section B required respondents to indicate the adequacy or inadequacy of teachers education and training in teaching sustainable natural resource management topics in the JHS social studies curriculum. The items in section B, were tested on 1 to 3 likert-type scale (1 = inadequate, 2 = uncertain, 3 = adequate). The weights were added to get the average for the acceptable mean value ( $1+2+3 = 16; 6 / 3 = 2$ ). Therefore, mean value of 2 meant that the respondents were uncertain with the items or statement and a mean value from 1.0 to 1.9 meant the respondents had inadequate knowledge to the topics while a mean value of 2.1 to 3.0 meant that respondents’ knowledge was adequate. The use of questionnaire was preferred because it ensured a wider coverage of respondents and enabled me to approach the respondents easily. It also enabled the respondents to respond quickly to the items. It however suffered from the problem of no return as five questionnaires were not returned.

This study incorporated the procedures of content validity. The claim for content validity was based on the examination of the survey instruments by educational professionals and lecturers in the Department of Business and Social Sciences Education, University of Cape Coast. The design of the questionnaire was informed by the literature reviewed in my study to ensure that the questionnaire mirrors the representative themes. The aim was to reveal any ambiguity, threatening questions and other problems which needed to be sorted before trying out the questionnaire. The questionnaire was pilot-tested in the Cape Coast Metropolis with 100 JHS Social Studies teachers due to the fact that the Kumasi and Cape Coast Metropolis bear similar characteristics in terms of teacher characteristics (academic and professional qualification) in the teaching of Social Studies. Pilot-testing

the instrument aimed at ensuring that the questionnaire was suitable to elicit the responses from the Social Studies teachers on the role of social studies education in sustainable natural resource management in Ghana, to check the clarity of the items and to identify, restructure and re-phrase any ambiguities that existed. It was also meant to ensure that administration procedures were effective. The outcome of the pilot-test provided very beneficial feedback before the actual data collection exercise. The planning for the actual field work less stressful and less difficult as a result of the pilot-testing.

The reliability of the questionnaire was established by computing the Cronbach's alpha coefficient which indicated the degree of item-total correlation. It varies from 0 to 1 and a value of 0.6 or less generally indicates unsatisfactory internal-consistency reliability and therefore helps in deciding whether to delete an item from the list and whether the elimination improves the corresponding alpha values (Parasuraman, Zeithaml, & Berry, 1988). The Cronbach's alpha was used against the background that its values tend to increase with an increase in the number of items in a scale. Individual items with corrected item-to-total correlation below 0.6 were eliminated. A reliability coefficient of 0.72 was obtained which was significant at the 0.05 alpha level. Hence, the instrument was statistically adjudged to be reliable and considered suitable for research use.

#### *Data Analysis*

The data from the questionnaire were organised into two sections based on the objectives of the study. Prior to coding and tabulating the items on the questionnaires for analysis, all the items were checked. This helped the researcher to check to see if instructions had been followed uniformly and whether all items had been responded to. After checking incomplete and inaccurate questionnaire, the items on the questionnaires were transferred to a spreadsheet (Statistical Product and Service Solutions, version 21.0). The data were then cleaned by examining them for any errors and were finally analysed using the SPSS. All the research questions were analysed using frequency counts, percentages, means and standard deviations. Content analysis of the JHS social studies syllabus, 2010, was also carried out.

#### IV. RESULTS AND DISCUSSION

##### *Content analysis of how adequate the social studies curriculum at the SHS level in Ghana cover concept of sustainable natural resource management*

Social studies education which deals with man's interaction with the environment has a key role to play in helping to manage the physical environment and its natural resources in a sustainable way. As a means of promoting this, the curriculum is expected to adequately cover issues that relate to sustainable natural resources. A part of this study, the researcher sought to conduct content analysis of the SHS social studies curriculum to identify, if any, the topics that

relate to sustainable natural management and how adequate the topics cover sustainability in managing natural resources.

A cursory look at the SHS social studies syllabus reveals that unit 1 focuses on resources development and utilization in Ghana. Under this topic, specific objectives such as explaining the meaning of resource and development, identifying the three types of resources and their relationship in the production of goods and services, explaining how human resource can be developed, and explaining the relationship between human resource development and the utilization of other resources. It is clear from these objectives that unit 1 does not adequately cover natural resources and their use in a sustainable manner. The only objectives that are closely related to natural resources are objectives 1 and 2. Even with these objectives, learners are only given knowledge on the definition of resources without specific focus on natural resources. Objective 2 also requires students to only identify the three types of natural resources.

Among the three types, natural resources are included. However, it does not give students adequate opportunity to define it nor does it create the opportunity for students to identify ways of making use of these natural resources in a sustainable manner. This is because a mere acquisition of knowledge in natural resources does not necessarily translate to learners' ability to apply the acquired knowledge. This means that the curriculum is tilted towards the acquisition of knowledge to the neglect of the practical and the skill dimensions. This tends to affect the effective utilization of natural resources in a sustainable manner for national development.

However, Unit 3 of the SHS social studies curriculum which has six objectives is closely related to natural resources. A critical analysis of this unit reveals that students are given the opportunity to explain environmental challenge and describe human activities that upset the environment. Students are also given the opportunity to identify problems that arise out of improper use of the environment and suggest ways of reducing the problems of misuse of the environment. These are evidence that although unit 3 relates to sustainable use of natural resources management, the issues are not explicitly presented in the curriculum.

It can be inferred from this that although the curriculum covers resources and environmental challenges, issues relating to natural resources are inadequately covered. For example, unit 3, objectives 2 and 4 mention activities of man that can upset the environment, and the possible steps that should be taken to conserve that physical environment. By implication, since students are not adequately introduced to natural resources and their sustainable management, they would not be properly equipped with knowledge, attitudes, values, and skills that are prerequisite for ensuring effective management of natural resources in Ghana. At best, they would be equipped with knowledge and skills in defining resources, identifying the types of resources and the ways of utilizing these resources, they will be handicapped in effective

application of knowledge acquired in ensuring proper management of these resources in a sustainable manner since the curriculum makes no mention of such experience.

#### *Teachers' level of qualification in teaching sustainable natural resource management*

This section examined the level at which social studies teachers have gained knowledge in teaching students how natural resources could be managed in a sustainable way. It also enquired from teachers the level of academic qualification in relation to sustainable natural resources.

Table 1: Teachers' level of qualification in teaching sustainable natural resource management

I have acquired	No.	%
Bachelor of Education Degree in Social Sciences	127	37.2
Bachelor of Education Degree in Social Studies	113	33.1
Bachelor of Arts in Social Sciences	44	12.9
Bachelor of Arts in History	34	10.0
Post Graduate Diploma in Education (Social Studies)	16	4.7
Postgraduate Degree in other areas	7	2.1
Total	341	100.0

The results revealed that 113 (33.1%) have attained bachelor of education degree in social studies education from recognized universities in Ghana, whilst 127 (37.2%) have Bachelor of Education degree in social sciences. It also shows that 44 (12.9%) have Bachelor of Art degree in Social Sciences whilst 7 (2.1%) have postgraduate degrees in other subject areas other than social studies. This is a clear indication that majority of the teachers who teach social studies do not have the requisite minimum academic qualification in social studies. This will not ensure effective attainment of the goals of sustainable natural resources management in social studies which is one of the core objectives of social studies education in Ghana. Even the few who possess the requisite qualification in social studies, it is

not clear whether the content of education the received in social studies adequately cover issues regarding sustainable management of natural resources. This is because most of the content of social studies programmes at the university level do not match the content of social studies offered at the pre-tertiary level of education in Ghana (Kwenin, 2019). Therefore, the level of knowledge teachers might have gained in social studies at the university level could insufficiently equip them with the skills and experiences required to effectively teach concepts that relate to sustainable natural resources at the pre-tertiary level. At best, those teachers who hold bachelor of art degree in social sciences may have knowledge and skills relating to natural resources and natural resource management. Even if they have adequate knowledge in these areas, by virtue of the fact that they do not hold the requisite qualification to teach social studies at the pre-tertiary level means that they would not be effective teachers who are better positioned to ensure the realization of the objectives of sustainable natural resource management. This is because, according to Kwenin (2019), the integrated nature of social studies at the pre-tertiary level of education in Ghana demands that teachers who are mandated to teach the subject should possess the requisite qualification in the integrated social studies, or else, teach will not be effective. Therefore, to be able to teach social studies and ensure the realization of its goals, teachers must hold appropriate qualification in social studies or related subject areas in an integrated manner.

#### *Adequacy of Teachers' Education and Training in Teaching Sustainable Natural Resource Management*

The teachers were further asked to indicate whether they have had adequate education or training in concepts that relate to natural resources and their sustainable management and that would enable them to effectively handle topics of sustainable natural resource management. The areas considered were: the understanding of natural resources, types of natural resources, utilization of natural resources, management of natural resources, sustainable management of natural resources, exploitation of natural resources as well as problems of efficient exploitation of natural resources.

Table 2: Adequacy of Respondents' Education and training in sustainable natural resource management

Topics on sustainable natural management	Inadequate No.	%	Uncertain No.	%	Adequate No.	%	Mean	Std Deviation
The understanding of natural resources	331	97.1	0	0.0	10	2.9	1.06	0.34
Types of natural resources	23	6.7	0	0.0	318	93.3	2.86	0.50
Utilization of natural resources	316	92.7	5	1.7	20	5.9	1.13	0.48
Sustainable use of natural resources	299	87.7	14	4.1	28	8.2	1.21	0.57
Management of natural resources	219	64.2	22	6.5	100	29.3	1.65	0.90
Exploitation of natural resources	217	63.6	100	29.3	24	7.0	1.44	0.63
Importance of natural resources to national development	325	95.3	0	0.0	16	4.7	1.09	0.42
Problems of effective exploitation of natural resources	211	61.9	6	1.78	124	36.4	1.74	0.96
Reasons for insufficient use of natural resources in Ghana	208	61.0	32	9.4	101	29.6	1.69	0.90
How to achieve efficient utilization of natural resources in Ghana	298	87.4	0	0.0	123	36.1	1.25	0.66

The results indicate that majority of the teachers ( $n = 331$ ,  $M = 1.06$ ,  $SD = .34$ ) expressed that they have inadequate understanding of resources and their sustainable management. The results also indicates that majority of the teachers ( $n = 341$ ,  $M = 2.86$ ,  $SD = .50$ ) have acquired adequate knowledge in the types of natural resources. It is further indicated that teachers ( $n = 341$ ,  $M = 1.13$ ,  $SD = .57$ ) have received adequate training in the utilization of natural resource management while ( $n = 341$ ,  $M = 1.44$ ,  $SD = .63$ ) have gained adequate knowledge in effective exploitation of natural resources. By implication, teachers' adequate knowledge and understanding in sustainable management of natural resources will be translated into effective practice. Thus, they would teach the aspects of the social studies curriculum which they can handle better and ignore other areas where they themselves have limited knowledge or education. According to Kwenin (2010), majority of teachers skip content areas where they have little or no knowledge to the advantage of curriculum areas where they themselves received adequate training. This phenomenon affects effective realization of the objectives of the social studies curriculum of which sustainable natural resource management is a component.

#### V. CONCLUSIONS

Even though most of the topics in the SHS social studies curriculum introduces students to sustainable use of natural resources, the content or body of knowledge and the activities involved are not explicitly linked to the understanding of sustainable natural resource management. Surprisingly, the issue of sustainable natural resource management is not mentioned anywhere in the curriculum. Students are only given knowledge of environmental problems without necessarily providing the necessary skills and ability to put this knowledge into practice for the purpose of promoting sustainable use of natural resources. Besides, key concepts of natural resources such as the meaning of natural resources, types of natural resources, utilization of natural resources, sustainable use of natural resources, management of natural resources, exploitation of natural resources, problems of effective exploitation of natural resources, and how to achieve efficient utilization of natural resources in Ghana which are prerequisite for effective utilization of natural resources in a sustainable manner are not covered by the curriculum. In short, the curriculum at the JHS level in Ghana does not adequately prepare students to tackle the issue of sustainable natural resource management in an effective manner. Thus, there are gaps in the social studies curriculum at the SHS level regarding equipping studies to manage natural resources in a sustainable manner in their communities.

#### VI. RECOMMENDATIONS

In order to ensure the attainment of sustainable natural resource management in Ghana, the integrated approach to teaching social studies should be adopted by teachers when teaching social studies. This will ensure effective combination of knowledge, values, skills and experiences from other subject areas to enhance the realization of sustainable natural

resource management objectives of social studies. It is further recommended that social studies teachers should possess the requisite academic qualification in social studies or related subject areas through workshops, seminars, conferences, and in-service training. This is critical to the enhancement of the objectives of social studies education. According to Kwenin (2019), majority of teachers have been mandated to teach social studies at various levels of education in Ghana, yet, they do not possess the requisite academic qualification. This phenomenon hinders effective realisation of the objectives of the social studies programme at various levels of education, of which sustainable development is a part. It must also be stated that, placing more emphasis on promoting sustainable natural resource management will also go a long way to address the inadequate nature of the social studies curriculum in equipping students with relevant knowledge and experiences in dealing with natural resources in a sustainable way.

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