International Journal of Geography and Geography Education (IGGE)

To Cite This Article: Alam, S. (2021). An overview of geography teaching in secondary schools of India. *International Journal of Geography and Geography Education (IGGE),* 44, 91-101.

Submitted: April 12, 2021 **Revised:** May 16, 2021 **Accepted:** May 23, 2021

AN OVERVIEW OF GEOGRAPHY TEACHING IN SECONDARY SCHOOLS OF INDIA

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Abstract

In India, geography is taught as a compulsory subject in secondary schools (class 6th to class 10th) affiliated to all of its school boards. The subject is considered as a part of social science, yet many differences can be found in the way it is practiced in schools across the school boards. By using literature survey as well as primary data, the paper provides an overview of geography in secondary schools with particular focus on its place in school curriculum, qualifications of teachers of geography, its pedagogy, teaching aids and resources, and its general image. Further, it identifies major challenges of geography in the opinion of teachers of geography, principals of schools and officials of school boards and State Councils of Educational Research and Training (SCERTs), and makes certain recommendations. The paper argues that the variations in the teaching geography in secondary schools of India are essentially due to its vast field and complex nature.

Keywords: Geography Education, School Geography, Geography Curriculum, Geography Teachers, Geography Pedagogy

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INTRODUCTION

In India, matters pertaining to education are managed by the central as well as state governments. The Government of India recognizes a number of international, national, state, autonomous or affiliated school boards. The National Council of Educational research and Training (NCERT) is the apex body created by the Government of India to assist and advise Central and state governments in academic matters pertaining to school education (starting from primary level up to higher secondary level). The NCERT prepares course curriculum, syllabi, textbooks, and supplemental reading materials for schools from primary to higher secondary level.

Among the traditional school subjects, geography retains its place in the school curricula of all the national and state school boards. At primary level, elementary topics of geography are taught as a part of either environmental studies or social studies in most of these school boards. In contrast, geography is a compulsory subject in all secondary schools affiliated to all the school boards. The subject is taught as a part of social science either in an integrated manner or independently. At the level of higher secondary school (class 11^{th} to 12^{th}), all the school boards have kept geography as an optional subject but a majority of higher secondary schools deny opportunities to students to opt it as an optional subject.

Geographers and educationists generally agree that the teaching geography is essential and that it should be imparted throughout school education. However, they disagree on issues of what geographical topics should be taught and how should those topics be taught. Hence, there are differences as well as similarities between school boards as regards to the importance attached to geography in schools, place of geography in curriculum, geography syllabus and pedagogy. In view of this, the paper aims to present an overview of issues of geography teaching in secondary schools in India. It also seeks to identify important challenges of geography teaching at school stage.

LITERATURE REVIEW

A plethora of studies has reported on the status of geography in schools in different countries of the world. In India also, several studies have been published on various aspects of school geography covering different states of India. For example, in 1963, G.C.P.I. (cited by NCERT, 1987) made investigation into the level of the students' understanding of some common terms of geography. This study was designed to measure the cognitive outcomes to teaching geography. It found out that an overwhelming majority of students had either partial or completely lack of understanding of geographical terms. In 1974, A. D'Souza conducted a study on the application of regional concept in the teaching of geography (cited by Rudramamba, 2004: 45-46). It was designed to assess whether the teaching of geography by regional method was more effective than the methods generally employed by the school teachers. The study found out that the students taught with the help of regional method performed well compared to those who were taught by systematic method. In 1979 C. B. Patyal (cited by Rudramamba, 2004: 45-46) conducted a study of the readability indices of prescribed geography materials in geography textbooks for standard VIII and its effectiveness in reading comprehension in Gujarati language. It was designed to determine readability of geographical content as stated in written form in different chapters in the textbook. The study found out that the range of readability level among students, having low and high intelligence, was awfully large.

In his study, Sukhwal (1984) compared the teaching of geography in schools of India and United States of America. He identified absence of participation of all stakeholders in the development of school curriculum in India: 'The university professor frame curricula, write textbooks, and conduct refresher courses; and teachers who teach the students only carry out the policies framed by university professors…It is obvious that teachers lose their interest in the educational system and feel themselves outsiders.' Brar (2004) critically evaluated teaching and learning of geography with special reference to its objectives in primary and high schools of Punjab state. The author reached a very gloomy on the state of geography teaching. He found out that a large number of teachers of geography were unaware with the objectives of teaching geography in schools. Inamdar (2014) studied problems in the teaching of geography in the Marathi medium secondary schools of Maharashtra state. She identified limitations of traditional method of teaching geography. She found that most of the students were not able to grasp the basic principles and cannot apply them in their daily life, because teachers make maximum use of lecture method while teaching. Students become passive listeners instead of active learners; often doubts of the students remain unanswered. The creativity of students got hampered due to overcrowded classes. As a result, many students develop an aversion to the subject. As teaching is topic oriented, teachers are in a hurry to complete the portion in limited time before examinations. So teachers usually have to stick to subject matter and textbook content and no extra information is provided to the students.

Recently, Sunny (2008) critically examined the geography textbooks of various schools of the state of Madhya Pradesh. She concluded that geography curriculum largely consists of abstract and global themes like earth's movement, wind

and pressure systems, ocean currents, etc. mostly in the initial grades of middle schools. She found the text terse from junior to senior grade, its nature uniform. Singh (2012: 33-44) identified some problems of school geography in India and has also suggested measures to overcome them. According to him, the neglect of geography in school curricula is the most important problem of school geography. Similarly, Ciineanu (2017: 40-71) did a content analysis of geography textbooks of grade 9th to grade 12th of taught in schools in the state of Maharashtra and compared them with geography textbook prescribed in Romania. Textbooks are prepared by huge panels of experts possessing competencies from different domains and information used in the geography textbooks was carefully selected according to scientific criteria, but also according to student's age particularities and at the level of their knowledge and skills. Together, these studies provide important insight into the school geography in India. So far, however, there has little discussion on similarities and differences in teaching of geography across the inter-school boards of India.

OBJECTIVES

This aim of the paper is to provide an overview of geography teaching in the secondary schools across different school boards of India. More specifically, the paper aims to:

- Evaluate the status of geography in secondary schools of India by examining its syllabus, pedagogy, availability of teaching aids and resources and teachers, and
- Identify major challenges of teaching of geography in secondary schools affiliated to different school boards of India.

DATA SOURCES AND METHODOLOGY

The study has used plurality of methods to carry out a comparative study of the status of geography in secondary schools. A part of paper is based on the analysis of geography curriculum, pedagogy and syllabus of geography in secondary schools affiliated to different school boards of India with the help of literature. A critical analysis of reports and documents, concerning school education, prepared by various committees and commissions constituted by the central as well as state governments and different school boards has been made. The paper is mainly based on data collected from school teachers, principals and officials of school boards during the years 2013-14. These schools were affiliated to 21 school boards of India. Questionnaire-based surveys for collecting primary data for this study were conducted at three levels. This paper makes use of data collected through questionnaire-based survey of officials of State Council of Educational Research and Training (SCERT), State Institutes of Education (SIE) and various school boards to find out teaching-learning process of geography in affiliated schools. The opinion of geography teachers and principals of 170 secondary schools of 21 different school boards were collected with the help of two different sets of questionnaires. Selecting representative samples of geography teachers and headmasters from large number of secondary schools spread all over the country was indeed a challenging task.

As above-mentioned three set of questionnaires were prepared for three groups of respondents which were validated by sending it to an expert on education. Comments and suggestions received from the expert were duly incorporated. The questionnaires meant for geography teachers and principals were pilot tested through survey of five schools in Varanasi district of Uttar Pradesh to standardize them. The questionnaire meant for board/SCERT officials in charge of social sciences/geography were sent to board offices by post office. However, only 10 boards/SCERTs replied to the questionnaire and therefore, the analysis views of board officials is limited by low response rate and limited geographical coverage. Members of research project team collected data from geography teachers and principals from 21 states. The survey was conducted in schools which were mostly located in accessible places, i.e. urban centres. Collected data were subsequently processed and analysed. Relevant literatures pertaining to geography educations have been used to contextualize findings of the study. It is important to note that the paper provides a summary of important findings from the study without going into the details of data.

THE STUDY AREA

India is the second most populous and geographically one of the largest countries of the world. The country is incredibly diverse with a distinct flora and fauna, diverse physical and socio-cultural environments. Its physical environment is amazingly diverse with regard to both geological structure and landforms - the Peninsular Plateau and Hills, the Indo-Gangetic plains, the Himalaya and associated mountains, the East and West Coastal plains and numerous islands of the Bay of Bengal and Arabian Sea. The climate of India is often described as a tropical monsoon type but the

country experiences climate ranging from tropical desert to sub-polar type. A great variety of soil, flora and fauna characterize the Indian landscape.

The Indian society is not only ancient but also highly diverse and variegated. There over 780 living languages and 66 scripts in India (Devy, 2017). People of all major religions inhabit India. The Scheduled Tribes constitute 8.5 per cent of its total population of the country. The Indian society is also hierarchically organized along caste lines. Considerable diversity is found in terms of agricultural practices, food habits, dresses, house types and life styles of people. As the largest democracy of the world, the constitution of India provides spaces for every group and community to live with their unique social and cultural distinctiveness. These variety and diversity are, to a large extent, reflected in the education policy of India and its states. The Constitution of India gives right to both union and state governments to develop their education, including school education. As a result, many similarities and differences can be observed in the way school subjects are taught across India.

FINDINGS AND DISCUSSION

Historical Perspective

The processes of acquisition, production and dissemination of geographical knowledge are as old as human civilization. No civilization could have sustained for a long time without precise and comprehensive knowledge of local and regional environment. In different phases of evolution of human society, geographical knowledge was mainly used for meeting socio-economic needs of people and political objectives of feudatories, kingdoms and empires. While the rulers used geographical knowledge for the furtherance and protection of interests of their kingdoms, the commoners used geographical knowledge for their survival and livelihood. During ancient and medieval period of Indian history, there was no formal schooling of children in the modern sense. The school education was mostly community based and some kind of geographical knowledge was also imparted. However, during the British colonial times, there was a tectonic shift in education as the traditional system of school education was removed and the state-sponsored education became popular (Kumar, 2005: 55-58). By this time, knowledge about the earth expanded significantly. Renaissance and scientific revolution in Europe brought new thinking in education and ways of seeing the world. The teaching of geography was initiated as a “modern” discipline. Much emphasis was placed on facts about the earth in school geography lessons. The Britishers used geographical knowledge to conquer, consolidate, expand, govern and exploit their colonies spread across the world. For the British colonizers, geography had both pragmatic as well as symbolic values (Hudson, 1994: 326).

After the independence of the country in 1947, geography stayed as one of the subjects of school curricula. In the present times, geography is taught as a social science discipline. Lately, due to changes in educational philosophy and technologies, school geography has also undergone changes. Earlier, its teaching was synonymous with facts about the earth. Now, some school boards are placing greater emphasis on the teaching of geographical concepts, skills and values. Due to revolution in geo-spatial technologies, many schools boards have readily incorporated them in their syllabus. These technologies are also increasingly finding resonance among school teachers as teaching tools. Even though, the contents of physical geography in school syllabus and textbooks have remained intact, the traditional connect of geography with natural sciences has weakened while its closeness with social sciences has strengthened. In National Curriculum Framework (NCF) - 2005, efforts were made by to make geography curricula students’ friendly in content with greater skills and concepts by giving examples from local and regional environments (National Council for Educational Research and Training, 2005).

Importance of Geography in Schools

Geography for Life (1994) considers geography as an important school subject because of four values – intellectual, utilitarian, ethical and symbolic (National Geographic Standards Project, 1994). All teachers who participated in the survey emphasized the continuing importance of geography as a school subject in India but a very significant proportion of them failed to spell out the usefulness of the subject to individual, society or state. Geography teachers were of the view that by studying geography students:

- obtain knowledge about the earth and the world.
- become aware about their surrounding and the world environment.
- acquire values regarding awareness and concern for the conservation of ecology and environment and resources, sustainable development and concerns for growing population.
- acquire specific skills, such as map reading and observation.

Most geography teachers felt that students found geography valuable in their day-to-day life. Curiosity of students in geography was intact due to use maps and field observation. Though teachers were able to identify certain values specific to the discipline but those were not very clear.

Place of Geography in School Curricula

Geography is taught either as an independent subject or is taught in some kind of integrated framework. School curricula in the case of geography is still dogged by questions of where the discipline is located, whether in the natural science or in the social sciences (Bhog, Bharadwaj and Mullick, 2012: 39-61). The place of geography varies considerably across different school boards and across various stages of schooling (from primary to higher secondary). The nature of school geography itself has not been clarified by geographers and curriculum planners. Therefore, its role in schools, even if well recognized, is not clearly defined. In India, there is lack consensus on the place of geography in school curricula. In some school boards, the place of geography is being marginalized by inserting subject matters of geography into new subjects such as world studies, environmental studies, etc. As there is lack of rigour in integrated social science, the teaching of geography is worst affected. Integrated social science means geography is also taught by teachers who may not have graduate degree in geography but in some other disciplines of social sciences (i.e. history, political science, and economics).

In most school boards of India, geography is taught as a compulsory subject in the upper primary and lower secondary stages. However, it is not recognized as a separate subject and taught as an integrated subject. Geography is taught in integration with environmental science in schools affiliated to Bihar Board and with social science in schools affiliated to Punjab Board. In schools affiliated to Kerala Board, geography is found to be a compulsory subject up to class tenth. However, it is taught as an integrated subject up to 8th standard and afterwards it is integrated with social science. In many secondary schools, geography is integrated into courses labelled as humanities or social studies and some components of geography are included in topics studied. Interestingly, the survey found that a majority of teachers (48.8%) favoured an integrated teaching of geography with social sciences while 37.6% favoured its independent teaching. Surprisingly, only 7.6% of them favoured integrated teaching of geography with natural sciences.

Geography Syllabus

A syllabus is an abstract giving the headings or main objects of a course of teaching, a conspectus or programme of hours of work (Long and Roberson, 1966: 267). During the survey it was found that the idea of geography syllabus among teachers varied with their education and training. Those who had studied geography as earth science in the university viewed it as earth science, while those trained as social scientists viewed it as social science. It was quite perplexing that most teachers did not articulate the holistic nature of geography. Viewing geography exclusively as a part of either earth science or social science reflects a narrow interpretation of a subject. Geography teachers were also asked to name certain concepts, skills and values which are exclusive to geography. They pointed out that the skills related to maps and globes have strong link with geography. They identified values related protection of environment and resources, and global interdependence to have strong link with geography. The concepts of location, distance, direction, shape and regions are distinctly related to geography, according to school teachers (Alam, 2020: 52-58).

Geography syllabus in India draws from all three branches of geography - regional, systematic and practical geography (i.e., tools and techniques). The focus of the geography syllabus not only varies with time but also from one school board to another. Earlier, regional geography dominated school geography curriculum. But, there were some problems with teaching-learning of regional geography. Kumar (1996: 246-253) considers that the treatment of the subject is very encyclopaedic in form. There is focus on facts and figures about starting from geology and landforms to populations, society, polity and economy of regions. Children were expected to cram facts and figures related to the region. Therefore, the learning process is generally very dry and a burden on children. The school geography syllabus contained the regional geography of the entire world. But since NCF 2005, regional geography of the world has clearly lost out to systematic geography.

Teaching Method

The NCF (National Council for Educational Research and Training, 2005: 53-54) states that 'the teaching of social sciences must adopt methods that promote creativity, aesthetics, and critical perspectives....' the effectiveness of teaching method profoundly influence pupils' learning outcome in geography. It has been empirically observed that in the case of poor teaching of geography, pupils of geography would merely cram up materials from their textbooks or from class-room notes, without understanding their meaning and implications (Brar, 2004: 18-19). They remain

unaware of elementary objectives of learning geography and fail to acquire proper and adequate knowledge of the subject and right attitudes and orientations.

An effective teaching geography/social science at secondary school level needs use of multiple teaching methods. But most geography teachers were found applying mostly traditional teaching techniques (lecture and note giving method) with only a few teachers using modern teaching methods (e.g. games and simulations). A particular teaching technique can be more productive to teach certain topics. But most teachers were found randomly using teaching techniques to teach a topic. In other words, they were not logically using specialized teaching technique to teach geography topics. Only a small number of them were found using teaching technique rationally. Most teachers agreed that teaching requirements of geography are unique and distinct. However, only a handful of them are able to tell the ground of uniqueness. They were of view that the teaching of geography is unique as it needs specialized teaching aids such as maps and globes. It was found that compared to other subjects of social sciences, there was excessive emphasis rote learning in geography.

Geography Teachers

It is said that good teachers are rare commodities. If good teachers are rare commodities then good teachers of geography are rarest commodities (Alam, 2010). Brar (2004: 19) in his study of geography teachers of secondary schools of Punjab paints a pitiable picture of geography teachers: "The impression gained by the investigator from his discussions with the Geography teachers was extremely discouraging. What indeed could be more discouraging than the impression of unawareness on the part of teachers of geography even of aims and objectives of teaching it schools?" It was found during the survey that geography was taught by specialists as well as by non-specialists in schools (Alam, 2015). The survey found that nearly one fifth (19.40 per cent) of teachers were without a B. Ed. degree. Some teachers of geography were had education in various languages or subjects of social sciences while a few had education in natural sciences. For those teaching geography without necessary training in the subject, it becomes very difficult to interpret the content and skills of geography. They often fail to generate students' interests in the subject by evocatively describing the earth not only as a physical entity but also as a home of human beings, the dynamics of people-environment relationships, the meaning and functions of places. Normally, they do not make best use of globes, maps and field in the process of teaching-learning.

Objectives of Teaching Geography

Bining and Bining (1952: 42-43) have mentioned the following critical elements in geography syllabus. "The point of view of the geography that is taught in schools today centres in the study of the relationships between man and his environment. The aims for the subject should lead to an understanding and appreciation of how people live and work; how environment affect their lives, ideas, and customs; and how those in one region affect those of another. The study should promote a better understanding among individuals, groups, and nations of the world. The development of skills necessary to sound geographic thinking and needed for an understanding of social data should also play a part in the specific aims of geography." The object of teaching geography incorporates almost all dimensions of learning – knowledge, understanding, skills, attitudes, values, etc. The objectives of teaching geography change with time and vary across school boards. The survey points out that the geography syllabus mostly focused on the theoretical understanding of the earth as a human habitat. The focus was on knowledge acquisition, both conceptual and factual. Emphasis was also placed in the syllabus on the application of geographical knowledge and skills in day-to-day life. School boards of Odisha and Assam emphasized more on skill development while awareness component is emphasized in the school curricula of Rajasthan. There was greater focus on value component in syllabus of Assam.

Use of Teaching Resources and Aids

McDougall (2000: 232) has underlined the need for reorienting geography teachers in new technologies: "Geography teachers should try to convey how notions of space and time have changed as a function of technology. From the first irrigation systems to the internet the human race has reinvented the world. But just as students cannot handle calculus until they have mastered algebra, so they can cannot deconstruct human conventions of space and time until they know what got deconstructed in the first place." Availability of teaching aids, resources and ITC are vital for geography teaching in schools. The study found gaps in the availability of teaching aids, resources and ITC in schools within and across school boards. Gaps were also observed in use of specific teaching resources by teachers. Globes and maps were most popular aids in all schools. Topographical sheets were used by only 10 per cent of teachers. Amongst ITC, computers, LCD projectors and internet were very popular. Very few teachers used traditional tool like radio and tape

recorders. Teachers in most of the schools were not satisfied with the available teaching resources in schools. A majority of them were not satisfied with teaching resources in terms of their up-to-datedness, stimulating value, availability, requirements of syllabus. They identified atlas, globe, maps, satellite imagery and GIS either exclusively or mainly with geography.

Table 1: Extent of Association of Teaching Resources with Teaching of Geography

Teaching aids and resources identified	Names of teaching aids and resources
Exclusively with geography	Atlas, Globes, Maps, Satellite imageries, GIS
Mainly with geography	Globes, Atlas, Maps, Satellite Imageries, GIS, photographs,
Exclusively with subject other than geography	Diagrams, graphs,
Mainly with subject other than geography	Charts, graphs, models
Not specifically identified with any subject but used by almost subjects including geography	Newspapers, photographs, posters, textbooks, computers, internet

Source: *Based on survey, 2010-11*

During the survey, it was asked from the officials who were looking after curriculum development of geography/social studies of 10 school boards about the identification of teaching aids and resources with school subjects. As indicated in Table 1, their responses were on expected lines. They identified atlas, globe, maps, satellite imagery and GIS either exclusively with geography or mainly with geography discipline. All the school boards identified atlas either exclusively with geography (7 school boards) or mainly with geography (3 school boards). Nine out of ten school boards identified globes either exclusively with geography (5 school boards) or mainly with geography (4 school boards). Similarly, six out of ten school boards identified maps and satellite imageries either exclusively with geography (3 school boards each) or mainly with geography (3 school boards each). On the other hand, modern tool such as GIS was identified either exclusively with geography (3 school boards) or mainly with geography (2 school boards). Thus, teaching tools like atlases, maps and globes were found to be most closely associated with of geography.

Evaluation Process

Evaluation is an important component of teaching-learning process of a subject. "In the Indian education system, the term education is associated with examinations, stress and anxiety. All efforts at curriculum definition and renewal come to naught if they cannot engage with the bulwark of the evaluation and examination system embedded in schooling" (National Council of Educational Research and Training 2005: 71). Using a variety of assessment tasks enable students to show their knowledge, understanding and skills of the subject in different ways (Sibley, 2003: 4). The study points out towards use of different types of assessment techniques in schools. Written assessment is the most popular form of assessment in all classes followed by oral assessment. The extent of emphasis on oral assessment and written increased with increasing grade. The emphasis was less on project work-based assignment but it also increased in higher classes. Practical and assignment-based assessments were least popular but increased in higher classes. Different types of question (multiple choices with options, multiple choice without options, reasoning-based, short type, essay-type and map-based) are asked to geography students studying from 6^{th} to 10^{th} classes. Some questions were general while questions related to map-based were unique to geography. Multiple choice questions with options were most popular in all classes. In lower classes, these questions were most popular. Short questions were second most popular questions in lower classes but in higher classes they become most popular questions. Reasoning, essay-type and map-based questions were least popular, but they became important in higher classes. Many types of project-based assignments were assigned by teachers for students of various classes. Notebook-based and chart-based assignments were most popular project-based assignments. Map-based projects were also important.

Geography teaches students to use logic and scientific reasoning to explain geographical phenomena. Therefore, reasoning and logical approach to questions should be the guiding principles of evaluation process. However, the manner of asking questions in examination leaves little scope for testing the quality of the examinees' mind. Questions are generally asked in such a way that they fail to draw out reasoning and thinking from students. A study by Kumar (1996: 248) points out that geography students just cram the text of their books or the answers to questions given at the end of their lesson, without understanding the basic principles.

Geography Educational Research

Research in geography education is critical for the development of geography. According to Commission on Geography Education (1992), research in geographical education focuses on the improvement of teaching and learning of geography in primary, secondary, tertiary, vocational, and adult education. It should also contribute to more general

development of teaching and learning theories. In order to achieve these ends, it is necessary to both basic and applied research (Haubrich, 1992).

Geography education in India has remained a neglected field, least of all in the area of school geography education. University teachers and researchers generally do not contribute towards development of school geography. Very few papers on school geography teaching are presented in seminars and conferences in India. Similarly, not many papers and articles on school geography are published in geography journals and magazines. Very few research theses have been written on theme of geography education. Geography departments lack expertise to supervise research on geography education. Education faculties have few geographers. Most faculty members are from disciplines of economic, psychology, philosophy, sociology or public administration. They are neither competent nor interested to conduct research on geography education.

Research in geography education is important for innovations in curricula and pedagogies. But less emphasis is placed on teaching educational research methods in teacher training programmes of geography. The survey identified problem solution and content analysis as popular components of teacher training programmes. On the other hand, ethnography and action research were found to be least popular.

Teaching Handbooks

Several institutes and organizations in India, such as NCERT, SCERTs and research departments of school boards and non-governmental organization have develop teaching modules for geography teachers. Their teaching modules pertain to both content and method component of school geography. The teaching modules help in improving the quality of teaching-learning process. It was found in the study that most school boards do not develop geography specific teaching modules. Geography is covered in modules developed for social sciences or environmental sciences. The focus of module pertains to content of subject as well as method of study. Geography-specific teaching modules had been developed only in Tamil Nadu.

Geography Textbooks

According to the Report of the Education Commission (1966: 229): "A good textbook, written by qualified and competent specialist in the subject, and produced with due regard to quality of printing, illustrations and general get-up, stimulates the pupils' interest and helps the teacher considerably in his work." The availability of good quality geography textbooks is crucial for improving the teaching-learning of subject in schools. This is particularly important in a situation where most teachers of geography have graduation degrees in subjects other than geography. Such teachers can learn geography through self-learning. Further, as geography is not the most important subject from the point of view of popularity among students, writing of good textbooks would attract them towards geography through self-learning. 'The geography textbooks of the NCERT have not changed as much as the others have. However, compared to the new textbooks of the NCERT [developed after NCF 2005], the middle school textbooks designed by Lok Jumbish in Rajasthan and Eklavya in Madhya Pradesh have rethought more on how geography should be taught' (George and Madan, 2009: 35).

In the opinion of teachers, geography textbooks for secondary schools that they use were generally of good quality. A significant proportion of teachers considered these textbooks of average quality while a small but significant proportion of them were of the opinion that geography textbooks were of very good quality. Only a small proportion of teachers considered these textbooks of poor or very poor quality. In terms of readability, ease of language and quality of visual representation, geography textbooks performed better. On the criteria of encouraging logical and critical thinking and applicability of students in the day-to-day lives, geography textbooks performed either average or poor. On the whole, most teachers felt that geography textbooks for secondary schools that they use were of good quality. About one tenth of teachers felt that geography textbooks for secondary schools were of very good quality. Only an insignificant proportion of teachers considered geography textbooks to be of poor or very poor quality. A substantial proportion of teachers (nearly one third) considered geography textbooks to be of average quality. On the criteria of rational presentation of chapters in books, ease with which they can used in classrooms teaching, quality of exercise and questions, geography teachers had better opinion about textbooks. However, these textbooks performed poorly in terms of clarity of presentation of facts and concepts, examples and activities.

Image of Geography

According to Faniran (1996: 933), 'geography seems to lack a sufficient degree of specificity in terms of what they have to offer. Geography, by and large, is still perceived as a 'jack of all trades' subject, without any recognizable focus. The recognition of geography in schools is also influenced by the way society, decision makers and academic world perceive it. Their perception is mostly based on the way geography is taught at school level. Banerjee (2006: 287) has identified some common perception about geography in India:

– Its boring.
– Its only about remembering names of countries, capitals, rivers, hills, mountains or which river comes from where and falling where. Not really interesting.
– Maps are like triangular *parathas* (Indian flat bread).
– Save us from maps!!!
– Its cool but only for general knowledge tests or to win in quiz.
– Helps in competitive exams for jobs.

Most of these images about geography may not be real as they are often formed on incomplete knowledge, but they certainly influence the opinion of society, policy makers and academia about the subject.

Field Teaching

Geography is defined as a field discipline and field is central to teaching and learning in the discipline. 'The field is any place where supervised learning can take place via first-hand experience, outside the constraints of the four-walls classroom setting' (Lonergan and Andresen, 1988: 64). However, the importance of field is yet to be fully realized as a teaching-learning technique. It was found in the survey that a large number of schools did not organize field trips. Most of the schools which organized field trips did not take it sincerely. From the point of view of organizing field trip, schools management considered geography as an important subject but did not enjoy exclusive right to organize the field trip. In most schools, field trip was not associated with teacher of any particular subject. Only in few schools, geography teachers were assigned the responsibility to organize field trips. Field trips were mostly organized to visit local sites for one to two days. Natural wildernesses as well as man-made features were preferred sites of field trips.

Centrality and Marginality of Geography

The study indicates that the status of geography in school curricula is neither marginal nor mainstream. Compared to mathematics and subjects of science, geography has a marginal position but in relation to social science subjects it is better placed. Geography is taught in a framework of social science in which history and geography dominate. Geography was found to be popular in the imagination of school children. In terms of availability of teaching resources, geography was found to be a key subject in schools. On the basis of availability of separate rooms and labs, examination marks and number of periods were considered, the position of geography was found to be almost the same as that of subjects of sciences. On the other hand, in terms of its place in school curricula, qualifications teachers teaching geography and timings of its classes, geography was accorded a marginal position by the school management.

Challenges of Geography Teaching

School geography faces many challenges pertaining to curriculum, pedagogy and resources. The study has identified the following problems and challenges in the teaching-learning of geography in secondary schools of various school boards.

- In school curricula of many states, geography is merged into a more general social science.
- Geography textbooks in schools mostly focus on the subject matter that is taught and students do not receive knowledge about how the discipline of geography has evolved and changing.
- There is no agreement amongst the teachers of geography as to what the discipline actually is or even what it should be.
- Geographers and geography educators who are involved in geographical research in institutions of higher education have little input towards development of curriculum and writing of textbooks.
- Differences in perceptions of geography among school teachers and principals and professional idea about the discipline came out very sharply during the survey.

- Since most teachers of geography were non-geography graduate, they did not have any stake in the discipline of geography, and did not have much liking for discipline.
- Most teachers of geography have very little opportunity to improve their knowledge of how to teach the subject, and as a result, the quality of geography teaching and learning suffers.
- The teaching of world geography is undermined in syllabus of some school boards.
- Field-based teaching is a highly neglected component of school geography. In most schools, field visits are hardly organized for geography students. Geography teachers are also poorly trained to undertake field-based teaching of geography. As a result, school children fail to develop taste for geography.
- The quality of assessment in secondary schools is generally weak in many school boards.
- School boards of some states had specific problems regarding school geography: lack of qualified geography teachers and lack of in-service training programmes (Odisha); teachers' inability to teach geography and lack of teaching and learning materials (Nagaland). Textbook of geography published by the National Council of Educational Research and Training (New Delhi) are written by a number of content writers and therefore harmonization among chapters is lacking. There is less focus on teaching of world geography in NCERT geography textbooks.

CONCLUSION AND RECOMMENDATIONS

Summarizing, geography is taught as a social science subject in schools of India. Most teachers teaching geography were not qualified to teach the subject. The teaching resources and aids were lacking in most schools. In recent time, though, emphasis is placed on the learning of geographical concepts and skills; geography syllabus in most of the school boards still contains lots of facts and information. Geography textbooks were not student's friendly and there is no serious attempt to produce subject specific teaching manuals for geography teachers. Even though geography is widely considered as a field science, field teaching is grossly ignored. School geography has poor image in society and academia.

In the light of these, some suggestion can be made to advance teaching-learning process of geography in schools. The main objective of geography teaching should not be merely to accumulate facts and information. Instead it should help in developing an attitude of mind and a mode of thought characteristic of the subject. Appointment of qualified teachers to teach geography would improve the profile of the subject in schools. Teacher quality training and regular orientation courses of geography teachers are very much needed. Qualified teachers would help in advancing the interests of geography in an increasingly competitive and congested curriculum. Production of quality textbooks of geography would help the students and teachers alike. Quality books are those which provide sufficient information, stimulate readers' interests, are easy to understand and thought provoking. Reading geography books and studying maps *should* evoke beautiful visions of distant lands and provide geographical knowledge in a fascinating way (Hudson, 1994: 226). Text books should be written keeping in mind the following three aspects - the degree of complexity, the method of presentation and choice of content (including details), and for each level there should be different mixture of these (Mishra, 1983: 7-8). Professionalization of book writings may prove to be very much useful. Further, all the stake holders of school geography education should be involved in the process of developing textbooks. In geography syllabus, emphasis should be placed on components of knowledge, skills, attitudes and values about people, places and environments at local levels, regional, national to the global. The curricula objectives of geography should focus on the appreciation of physiographic, social and cultural diversities of India and the world. Unity in diversity, respect for regional differences and similarities and ways of lives of people should be emphasised in geography syllabus. Geography syllabus should also focus on problems of environmental crisis and regional disparity in development. It is proposed that the field visit should be made an integral part of school curriculum because they will really enthuse the young minds, generate awareness towards the earth and its environs and develop understanding of the nature {and culture} and natural {and cultural} phenomena (Kaur and Chaudhri 2003,: 619). Finally, the training of geography teachers in skills of field-based teaching should be made mandatory, and geography classrooms should be equipped with teaching facilities, resources and aids including information communication technologies (ICT).

ACKNOWLEDGEMENTS

This paper is part of a research project funded by the University Grants Commission (UGC), New Delhi. The author thankfully acknowledges the UGC for funding the project.

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