

GEOGRAPHY EDUCATION AND RESEARCH IN NEPAL: CHALLENGES, STATUS AND OPTIONS

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Abstract

This paper discusses the development trends of Nepalese Geography and presents the status of geography teaching and research activities at university level. Facts and figures, used for discussion were assembled from the review of available geographic literature. Findings of the paper clearly indicate that there is an urgent need to redefine its directive principles in its research goals, teaching styles and social relevance. The author opines that Nepalese Geographers have to disseminate and recreate the existing knowledge of geographical science and adopt micro approach for the application of our integrated knowledge to the promotion of human welfare.

Key Words: Geographic research, geotechnologies, social relevance, climate change adaptation, geopolitical relationship.

INTRODUCTION

The dynamics of globalization have strong spatial implications and geographic dimensions. As we embark in our journey through the 21st century we experience the complexity of a world changed through the forces of globalization environmental change and ever growing challenges of livelihoods. Conflicts and terrorism are actively shaping the geopolitical relationships among people and places all over the world (Richardson, 2003). Environmental problems and natural disasters know no political boundaries. Ecosystem healing requires the participation of countries, nations, and communities from many political, economic, and social origins. With increased international migration, economic integration, cultural interaction, and pressures of globalization can fracture communities along ethnic, cultural, and religious divides. All these ever increasing issues are begun to call for more integrative approaches to research and education for understanding the marvelous diversity that geography education can richly provide. In light of these realities geographic research and education are essential to achieving better interregional and intercultural understanding along with the strong feeling of nationality for national unity and its implications for addressing economic, natural resource, and other social and political disparities. Many cross-disciplinary researches and societal solutions indicate that the analytical power of geographic ideas, techniques and perspectives need to be incorporated into the curricula of school level (up to grade 12) as core and compulsory subject and major discipline in university level.

Since Nepal is in a state of restructuring movement, the need is great for geography education and geotechnologies i.e. geographic information system-GIS, remote sensing-RS, global positioning system-GPS and other specialists to apply the knowledge and innovation to transgress both disciplinary and sectoral boundaries which are ever changing through the driving forces of global change. These growing challenges, opportunities and options require integrative and multidisciplinary approaches to research and location-specific education that can be possible by incorporating geography knowledge in school and collage curriculum and research area with integrative problem-solving capabilities of newly developed geotechnologies. It shows that our national education policy and programs need to move toward advancing multidisciplinary research and education, incorporating within its geographic studies both the physical and human perspectives at school and university level. For geography with its GIS technologies, thriving as it does at the intersection of the physical and social sciences as an inherently interdisciplinary discipline. This trend within the broader research and applications communities generate many fruitful opportunities that need to respond effectively by the state policy and action of plans. Thus, the technical knowledge and theoretical insight of geography science need to extend both in vertical as well as horizontal linkage to promote public welfare in relation to addressing socio-ecological issues by strong tie with the philosophy of live and let live.

METHODS AND MATERIALS

The paper is based on secondary sources of information for tracing out the development trends of Nepalese Geography education and research both at school and university level. Issues, options and obstacles of the development of geography science in Nepal have been analyzed by using content analysis methods. Thus, the paper is more descriptive and qualitative in nature.

PRESENT STATUS AND CHALLENGES

Nepalese Geography, though not very old in the global context, has traveled 50 years long journey since the establishment of Tribhuvan University in 1960s. In the education history of Nepal it was placed as a compulsory and core subject since the time of Raja Jaya Prithvi Bahadur Singh when the book on Geography of Nepal was written. It formally included in the school curricula since the time of SLC Examination Board establishment in 1934. Within the framework of formal education at higher level studies geography started in Tri-Chandra Collage in 1947 as an academic discipline in Nepal. Thus, geography was taught at university level with traditional lines as a descriptive science since mid sixties. But it remained narrowed and receiving higher studies only viewed as an input to further teaching rather than research (Manandher et al., 1978). Onward seventies, the department of Geography which consisted of number of western-trained geographers started the teaching of discipline in little bit modern lines. However, research works in geography are very few even today. Consequently, there is a continued tendency to borrow its philosophical foundations and intellectual rigor from the West and India for dealing its evolution. Before 1965 almost all Nepalese geographers earned their post graduate degrees from the Indian universities such as University of Patna, Banaras Hindu University, University of Kolkata, University of Allahabad and University of Gorakhpur. Koirala (2010) raised the issues of methodological contribution of Nepalese geographers by taking into consideration their PhD. research themes and incorporated methodologies he mentioned that most of the Nepalese geographers earned their Ph.D. degree from Indian Universities (46.7%), followed by American Universities (23.3%), UK (10%), and Austria (3.3%). Onward 1980 Geography department of TU started to award PhD. degree to Nepalese and foreign scholars in Nepal. Since 1980s, the Geography Department has awarded PhD. degree to 20 percent geographers. However, it is lacking the theory building based on indigenous experiences and methodological inquiries. Therefore, Nepalese geography has been

remained the borrower of ideas from USA, UK and India. It did not experience any paradigmatic upheaval and crisis. A major share of geographic research in Nepal is similar to Indian context likely duplicate copy of some pioneer works in urban geography, population and settlement geography and agricultural geography. Therefore, the methodological root of contemporary geographic research in Nepal is the influence of Indian, American and even British geographers. Up to mid 1980s geography was recognized as one of the core and compulsory subject at secondary school level and Nepal Parichaya (An Introduction to Nepal) as a national geography content was taught at certificate level. The students in any streams became literate in history and geography of Nepal and earned the basic knowledge that need to a conscious citizen to learning to think spatially with strong feeling of nationality. It is because of the geographical knowledge by its nature. It is easy to understand the man and place relation logically by dealing man-environment relationship focusing on why things are where they are and what processes are responsible for the changes in the pattern of development and distribution.

In the history of national development of the country, geographical contribution is great and Nepalese Geographers had contributed in different capacities since the beginning of the 1970s and gained honorable place in national institutions like National Planning Commission (Vice-chairman-4 and Member-2), Ministries, and senior advisors in various national and international organizations. Nepalese geography did multiyear academic progress since 1970 to 1990 and made remarkable progress in teaching and research and had impressed to the development policy particularly in the regional development approach in the country. Geographers showed their greater competence and confidence in the use of both of quantitative and qualitative methods of analysis and synthesis with strong concern for dealing the problems of development and planning in an interdisciplinary frame. Therefore, Nepalese Geographers had occupied key positions in University, National Planning Commission and other governmental organizations.

In spite of a long journey, of more than half a century, Nepalese geography has lost its gravity in both of educating people in national geography and policy assessment after 1990s. It suffers by several dilemma and debates concerning its disciplinary aspects, expectation of society and curricular issues, vertical linkage of courses from school to university level, and scientific research. Number of students in geography classroom are declined both at school and college level. It is due to the lacking of time relevant

teaching contents, high performance research in emerging issues in ecology, economy, social change, manpower and poverty plan, and failure to acquire own identity by developing indigenous knowledge of geography education and research that lay greater emphasis on geosocial changes, social equality, cultural diversity, ecological integrity and demographic stability. Existing global changes and challenges like climate change adaptation capacity development, natural disasters management and risk reduction, livelihood improvement, environmental management, indigenous or location-specific knowledge and technology development, biodiversity conservation and public policy services are closely associated with spatial context and within the scope of geography education and research. From the perspective of social acceptance and importance, geography is an essential subject to be literate in history, culture, economy, ecology and geopolitical existence of the country and to enhancing social welfare by expressing the set of time and space variables in spatial scales from the local to global level. In application of spatial dimension in day to day life individuals must be aware about the basic functioning of nature- the flow pattern of energy, the bio-geo-chemical cycle and the significance of biodiversity in maintaining the health and integrity of socio-ecological system which has a complex interconnected form of spatial-temporal - sectoral - ecological - technological and cultural linkages (Singh. 2003).

Despite the large geographical diversities on biophysical, socio-cultural and ecological aspects exist in the country, the importance of geographic knowledge and skills is shadowing due to the carelessness of policy makers level to identifying core and fundamental subjects in school curriculum. Geography was excluded from the core subjects and placed as optional subject group in school level. Very few portion of geography content has been included in social studies with less than 20 percent wastage of geography course. There is general practice to handle the social studies by non-geography graduate teacher who has no basic knowledge about geographic techniques such as scale, map drawing techniques and bio-geo-chemical characteristics of a place. Lack of trained geography teacher and extra requirements like instruments, resources school management discourages student in offering geography and students themselves do not feel easy to choose geography as optional subject due to the reason of practical courses with some cartographic works. Problem to design curriculum focusing on contemporary issues and practicability to the present context remains another reason to be less attractive in geography study. All these caused to decline the number of students in geography at secondary and

higher secondary school level. Likewise, geography discipline is in critical condition at university level.

Tribhuvan University is only one university out of nine universities which has Bachelor to PhD academic programs in geography. There is also a gradual process of declining number of students at university level since the lower levels have already experienced the declining trends. It is because of limited access to geography in secondary and higher secondary school. The job opportunities for geography graduates have direct impact on it has caused a gloomy picture for university. Thus, the student number has rapidly declined both at Bachelor and Master levels. Besides these, Nepalese geography gradually loses her gravity and ability to integrate the physical as well as social dimensions of the geographical problems by way of greater emphasis on human geography rather than physical geography. It further deteriorates its quality itself due to inadequate leadership, lack of collective teamwork, narrowing role of the national institutions like Central Department of Geography, Geographical Society of Nepal and even the Alumnae of Geography with low academic performance in national development sectors. Now, it suffers by poor data base, weak techniques of analysis and irrelevant content of teaching for contemporary society. Most remarkably, cartography seems to have reached its dead end. In this cold fact, one can easily be stated that after the fifty years academic journey and hard work it has no place in society due to missing methodology, fizzing physical geography, and feeble fieldwork. It is also indicative that the traditional approach to descriptive geography does not promote an interdisciplinary frame to integrate physical and social issues into public concerns. We study geography but not live with it. So the content of the discipline is not actively practiced but passively learnt. Geographic literacy is the matter of negligence at grass-roots level where school geography is in hopeless shambles. It is divorced from university geography. Public image of geography is not worth preserving. Most serious point is that the useful works of the discipline are stored in the room of senior geographers and their affiliated NGOs. There is a great gap to communicate to the people in general, the planners and administrators in particular, about what Nepalese geographers have and are doing, and in which manner it is important for society. All this makes us very poor sales clerks and no bothered about convincing the community of our worth. Now, grounding in philosophy of geography is not adequate.

Basically, the heart of geography i.e. physical geography is suffering from unjustifiable neglect in both teaching and research so that we lost ground to geology, climatology, environmental studies and

economics. We have not only ignored the physical geography from the preferential area of research but also failed to formulate indigenous models and construction of rational ecological systems in mountainous perspective. Consequently, it looks out booth capture position by advancing research frontiers of other professional courses and social science disciplines. Because the historical evidence on scientific fields and specialties shows that disciplinary boundaries are constantly changing with other specialties: that frequent scientific migration, technological innovations and research. Pointing out the current status of Nepalese geography, Subedi (2010) has critically discussed the general public perceptions and detached position of Nepalese geography with respect to its discipline foundation, research inputs and academic performance to address the burning national issues and academic competency in national context. Similarly, Late Hark Gurung (nd) stressed the method to uncover the social process and relations of power that lie beneath geographical patterns. Subedi (2005) elaborated his views to link it with methodological paradigm shift including ethnic diversity, settlement systems, population location and resource relation in order to make it meaningful discipline in the Nepalese context. Pandey (nd) argued that Nepalese geography remains the fiction of science to address the issues and methods of mountain environment and potentiality of altitude geography.

There are many bright spots of research in geomorphology, climate change, watershed management, natural resources appraisal, regional and spatial planning, environment and ecosystem studies by applying modern techniques of research like geographic information system (GIS) global position system (GPS) and remote Sensing (RS). Poudel (2010) pointed out the importance of GIScience in mountain perspective. It also seems shy of analyzing the spatial implications of policy decisions, which sometimes radically transform the cultural and economic geography of area. Most remarkably, it is lacking of research on ongoing issues of social change, poverty incidence, food insecurity, climate change hazards and natural disaster, state restructuring, social inclusion, and national unity. Thus, the question of social relevance of the geographic discipline stands as the big challenge to us, especially those who search for professional carrier in geography science, though it has the power to integrate the natural and social dimensions of the location specific problem in an interdisciplinary approach to study. However, there are many worldwide successful evidences that prove that the science of geography is only discipline, which has unique capability of integrating ecology,

environment and livelihood improvement issues at national and local levels. It only provides the philosophical foundation for the solution of location specific problems in sustainable practice (Raza, 1989). All this evinces that geography discipline can play the important role to frame the policy and plans for meeting the needs and aspirations of contemporary society with due consideration of environmental balance. However, Nepalese scenario does not prove this in the ground reality and shows that geography is almost detached with national concerns and lacked to contribute the country through intellectual productivity of geographical research. As mentioned above, there are many causative factors that rendered geography at poor methodological position and nobodies knows what Nepalese geographers do in their professional life. It cannot shine the rays of new aspirations for new generation towards the more competitive modern world. In this context, the time has knocked the door to rethink, reframe, renovate, and to make revolutionary changes in geographic curriculum, methods of teaching and research in order to regain its high status as it did in past. Thus, the main purpose of this conceptual paper is to explore ways to make geography as a core and compulsory subject at secondary and higher secondary school level as well as collage and university level so far as possible.

OPTIONS AHEAD

Being a mountainous country, there are many options and opportunities to apply geographic knowledge, skills, methods and techniques to address the burning issues of climate change, natural resource management, conservation and continuation of ecosystem services, biodiversity conservation, framing eco-region for national and regional planning, and poverty reduction. The prevailing global concerns on economic growth, macroeconomic stability, trade liberalization, privatization, deregulation, and structural reform have also left little room for local and geographical investigation to address location –specific needs of local communities. Many parts of the country lag behind in development and to value local products with the appreciation of ecologically intact landscape. Since the earlier past of the twenty first century, there has been a growing interest in local and national development with rising environmental awareness and concerns for the degradation of the environmental resources. Global warming, climate change, biodiversity loss, and changes in livelihoods and economics, which are seriously threatening the ability of national government to provide the goods and services upon which humanity

depends. In this connection, geographic research dealing with policy frame for concrete action plan towards sustainable development providing guidance to governmental and non-governmental organizations on how to improve the livelihood of grass root people, protect ecosystem services, and use available resources wisely. Emerging issues and challenges, which are mounting by globalization, environmental change and by population dynamics, have been creating a number of options ahead to the geographic knowledge and research in Nepal. Some important aspects are creating local knowledge base to develop the problem-solving approaches, strengthening local ecosystem services and regional cooperation, develop the successful modality for sustainable livelihood improvement at community level by integrating global markets, local institutions and policies for change and development. It is evident that if the government of Nepal could commit to make it as core subject and geographers do continues efforts, rigorous analysis, and promote the discipline honesty in professional life, lot of opportunities and fertile field for geography education and research are still virgin in national and regional context. Postmodernism has also ushered in a paradigm shift in the concept of development from structural transformation in the economy to the transmogrification of a society including sustainability and equality.

The modern concept of development is a process of expanding real freedom that people enjoy by putting life before money (Sen, 1999). Therefore, the main task of Nepalese Geography is to transform the society to put people their needs, their aspirations and their capabilities at the centre of development efforts by strong tie with the philosophy of natural sciences. Similarly, we should aware on our rational and logical contribution to the social welfare, and sustainability of the biophysical system. Because of sustainable development is meaningless for the developing countries like Nepal that has neither sound economic growth nor healthy environment. In this context, more emphasis has to be given to planning of ecosystem services and conservation of natural resources by linking physical geography with environmental issues in order to meet the standard of high quality research on development planning and social change. In future, the regional scenes of mountain ecology, economy, society and polity are going to be more complex. These calls for a higher-level competence capacity on the part of geographers to comprehend describe and explain the emerging scenario (Dikshit, 1997). Thus, Nepalese geography must strengthen its reflexes by way of responding to new issues and challenges. This situation demands the role of geographers as a delver and dovetailer to provide ground

level information for the use of planners, decision makers, and educating community people about their rights and responsibilities to promote better administration and location of public facilities to offering service that is more efficient to the society and plan with people (Harvey, 1989). The most important task of geographers to the nation and educational sector is to establish and promote the best quality and ability to synthesize the materials from a wide range of sources, analyze multilateral and complex phenomenon, derive information from diverse sources, focus on spatial pattern analysis, and establish the tradition of environmental studies in the discipline.

NEED OF ASSESSMENT

Geography is a dynamic subject. The goal, method and content of geography are changing as men see the objective of geography as the same as that medicine to postpone death and reduce suffering. Thus the themes of geography education and research have to change from the location of super markets and highways to poverty and race relation. This is visualized by the growing economic uncertainty and hardship that become source of grievance against government and inspiration for civil rights movements. Meeting these needs require an urgent and concerted efforts of educational institutions, governmental agencies, and other stakeholders to place geography as the core and compulsory subject at school level and multidisciplinary field of geographic research for personal career and national building. It is important to explore the new opportunities as US Department of Labor recognized geotechnologies as evolving new field as biotechnologies and nanotechnology. Thus, the prime focus of national education policy has to re-evaluate the existing geography curricula at both school and university level and to place it at the center for providing a reliable roadmap for integrated, inclusive and sustainable progress, peace and prosperity of Nepal. Enhancing economic efficiency, social equity, cultural diversity and ecological integrity all are possible by the application of geographic knowledge and geotechnologies properly. Therefore, following tasks are to be done in order to materialize the contribution of geography for the nation building.

- It is essential to make national education policy to place geography as a core and compulsory subject at secondary and higher secondary school level for every citizen including policy makers, planners and executives should study it and be literate in different aspects of geography.

- In order to make geography education and research more time and space relevant for Nepalese society, new and current themes need to be explored by reframing syllabus at school, collage and university level with great emphasis on the philosophy of natural sciences for the national unity in diversity.
- Issues pertaining to continuity and change in land use, ecosystem services, decentralization and centralization of development activities, good governance, conflict between development and ecology, ethnic and political boundaries, and the locale of an individual in the emerging scenario of globalizing economy, regionalizing polity and localizing society need to be deliberated to contribute substantially to the welfare of Nepalese society.
- There is a need to incorporate climate change adaptation, natural disaster and environmental resource management, mountain development, regional planning, inclusive growth, social change and sustainable development into the geography curriculum.
- Methods of teaching and research have to be changed from traditional descriptive to apply to diversify its sequence of contents through rigorous training in multidisciplinary techniques of research to produce qualified manpower in this field.
- Nepalese Geography has a great absorptive power for mountain environment and development so that new and location-specific problem-solving methods need to be addressed as being more innovative in the mission of local development and environmental conservation.
- There should be a greater stress on physical geography to pursue public concerned issues on research having high quality of research culture. Thus, physical geography must be hooked to environmental sciences to deal more effectively with issues pertaining to environment, ecology, economy, technology, and institutionalization of development efforts at community level. It has to further promote for the quality of sector as well as regional planning with due consideration of quality of life and quality of environment.
- Regional studies need to be redesigned to integrate rural-urban linkages into regional framework addressing poverty alleviation, environmental conservation and management of population dynamics. Thus, geography course and syllabus need to redefine for incorporating planning of ecosystem services, management of natural resources and to develop the research culture to work out on public policy, inclusive development, social change and restructuring the nation. Thus, the vital task should be on policy research on social relevance to improve its visibility and make its presence felt. Thus, emphasis needs to develop model academic framework in order to bridge the gap between regions at different levels of development and people belonging to different sections of society.
- Nepalese Geography further needs to concentrate more on those dimensions of discipline in which geographers have greater competence. In the line with this, eco-development, climate change, mountain ecosystem services, area studies, environmental and public policy analysis, and environmental education have to incorporate in the syllabus and curriculum of geography discipline at the school and university levels.
- The greatest strength of geography is in its eye for spatial diversity and instinct for regional synthesis. Thus, the need is to reinvent the syllabus of Nepalese Geography by way of redefining its directive principles in respect of its research goals, teaching styles and social relevance with holding three stakeholders such as the captains, the initiates, and the system.
- The priority should be the devotion of geographers to spread geography literacy at popular level through improving and integrating geography curriculum at school, collage and university levels and by producing quality documents.

CONCLUSION

The evolved scene of Nepalese Geography resembles a polycyclic landscape. There is a kind of co-existence between geographies belonging to different periods. Thus time has come to evaluate and recreate the existing knowledge of the geographical science and application of our knowledge to the

promotion of human welfare, prime concern of the millennium. The age of narrow specialization in even sub-themes makes geography, the mother of all sciences as widowed mother its children having developed into specialized disciplines. Nepalese geography needs to develop as a science concerned with synthesizing the variable character of the earth surface as a whole or in part. Therefore there is a need to reinvent geography by way of redefining its directive principles in respect to its research goals, teaching styles and social relevance.

REFERENCES

- Dikshit, R. D., 1997. *Geographical Thought: A contextual history of ideas*. New Delhi: Prentice Hall of India
- Harvey, D., 1989. *The condition of post modernity*, Oxford: Basil Blackwell
- Koirala, H. L., 2010. Are geographers' research Methodologically poor? *Tribhuvan University Journal*, Vol. XXVII (1-2): 61-70
- Manandher, M.S.; Rana, R.S.J. and K.C. B.K., 1978. *Research in geography*, T.U. Journal, Special Issue, Vol. X(1). :285-289
- Pandey, R. K.(nd). *Nepalese geography. The Third Pole*, Vol.II:
- Poudel, K., 2010. *Giscience in the Mountain Geography*, *Tribhuvan University Journal*, Vol. XXVII (1-2): 81-90
- Raza, M., 1989. *Regional development as eco-development*, Presidential Address: XIth NAGI Conference, New Delhi
- Richardson, D., 2003. *Integrative trends in geographic research and societal applications* (www.aag.org/cb2003)
- Sen, A., 1999. *Development as Freedom*. New Delhi: Oxford University Press.
- Singh, J., 2003. *Indian geography vision 2020*. Presidential Address: XXV NAGI Conference, Ghaziabad
- Subedi, B.P. (2010). *Bhugolko khoj khabr*, *Shichak* Year-3 No.32 :50-55
- Subedi, B.P. (2005). *A glimpse of geographic research in Nepal: Review and reflection*. In B.P. Subedi and P.C. Poudel (eds.) *Geography and Geographers work in Nepal: Reflections on mountain Environment and human Activities*. Central Department of Geography, Nepal Geographical Society and NCCR North-South, Kathmandu.