

Bi-annual Journal

ISSN 2249-2909

**Volume 1
Number 1
July 2011**

G E O - A N A L Y S T

A Research Journal of Social Sciences



GEOGRAPHICAL SOCIETY OF NORTH BENGAL

Editor: Piyal Basu Roy



From the Desk of the Secretary

Geographical Society of North Bengal is an NGO located in the district of Jalpaiguri, West Bengal, India. Initially it was formed for educational development in the under developed Dooars area but its area of operation is not restricted in a single point and rather it is open for all, irrespective of geographical space. Geographical Society of North Bengal has stepped in to eight year of its working. The society is bound by promise to continue its unending efforts in the processes of social development and the first edition of ‘Geo-Analyst’ is one of such endeavours related to that. I thank all the members of the society for their kind co-operation to publish this Journal. I appeal to every Academician, Research Scholars and Social scientist from India and abroad to enrich the idea of social science related themes.

Alipurduar
July, 2011

Hiranmoy Biswas
Secretary



Editorial

In our contemporary life, the study of social sciences arouses great significance as the social landscape has been rapidly changing. In view of multi-faceted and dynamic nature of social sciences each and every micro level study of it highlights distinct importance in multi-disciplinary studies. Recently, there is a sign of growing interest as well as anxiety about the social changes taking place almost every part worldwide and the interest in social studies is growing for this reason. The introducing issue of Geo-Analyst, a bi-annual journal of social sciences of the Geographical Society of North Bengal is out on the stand, which has addressed to complex, changing and challenging issues along with few innovative ideas of development in the courtyard of social sciences.

Alipurduar
July, 2011

Piyal Basu Roy
Editor

Indian Geography: A critical appraisal of change and continuity

Dr. Ravi S. Singh*

Abstract:

Though a late beginner compared to other sister disciplines, Geography has a considerably longer presence in higher education system in India. There have been several (quantitative) strides made by the discipline; still it suffers from several (qualitative) 'ailments'. The present exercise intends to critically analyse the progress in Indian Geography. Beginning with a brief historical account, it deals with the paradigmatic changes, followed by the appraisal of achievements and 'ailments'.

Keywords: Achievement, ailment, higher education, Indian Geography, paradigm.

Introduction

The (Eurocentric) modern education system's introduction in India could be dated back to 1875 CE when the first three universities were established at the Presidency headquarters--Bombay, Calcutta and Madras. That was the beginning of the institutionalisation of various academic disciplines which could take place largely in the early part of the twentieth century only. Institutionalisation of Geography in higher education could take place in India as late as 1920. However, several other developments, partially to do with Geography, e.g. surveying, had already begun as early as 1767 CE. With the passage of time, particularly the attainment of Independent, national goals and priorities changes, that necessitated re-orientation of social endeavours including education. Geography, as a discipline, too responded and progressed. During last nine decades there are many 'successes' to its credit. But, the critics do not appear satisfied and have expressed concern over the 'failures'. One of the major issues is lack of 'forward' looking approach concerning 'openness' to new ideas and approaches leading to stunted and 'jaundiced' growth. The basic concern of the present paper is to attempt a critical appraisal of the change and continuity in Indian Geography. The whole discussion is organised into four major sections: the first one begins with brief history of Indian Geography; second section's concern is to analyse the paradigmatic changes; following section is devoted to a discussion on achievements and ailments; and, the last section tries to bring out a few conclusions based on preceding analysis and discussions.

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A Brief History

Geography stands out differently from many modern disciplines for the basic fact that in one hand it has 'synthetic' nature and on the other hand it is embedded deeply in our everyday life. That is the reason why in almost all ancient civilizations and cultures, there is a distinct geographical tradition which to a great extent overlaps with others. No wonder that the ancient Indians too have had a strong geographical sense, as testified by the Vedic *sutras* (formulae) meant for measuring angles, distances and also area. This ancient tradition continued through the ages revealed in the ancient texts like the Vedas, the Upanishads, the great epics like the Ramayana and the Mahabharata, the Puranas, and a host of other texts of the literary writings genre. It was carried on down the medieval period. In the wave of invasions and cultural successions, many ideas and ancient knowledge in different branches were precluded from proliferating and progressing if not destroyed per se. Only a few things survived in the tradition picked and chose on the basis of their direct practical utility; rest perished! It surely gives the impression of some sort of discontinuity in the intellectual tradition and heritage, matter of a separate full length inquiry. The knowledge created thus mostly belongs to cosmogony and astronomy (Ali, 1966; Dube, 1967), and rest of it had to do with geographic description related to rivers, hills and mountains, people and places. While the monotonous descriptive narrations may not be appreciated; the richness of information can surely be (Dikshit, 2006).

The invasion of the European powers in the Indian territory brought altogether a new set of systems that established there supremacy over the 'natives'. In the contest among the European colonial powers to have control over the territory, finally the British proved their superiority and established their territory in India that expanded to cover a very large tract extending in all directions covering today's Afghanistan, Pakistan, India and Bangladesh. Of course, with the presence of numerous princely states which were not parts of the British Empire as such. To keep this large territory of the Empire under proper administration, information was required and to fulfil this emergent need several surveys were to be undertaken. Consequently, the Survey of India (SOI) came into being with the appointment of Major James Rennell, as the Surveyor General of Bengal on the January 1, 1767 who commissioned by Lord Clive in 1760 to survey the country prior to this appointment (*The Great Arc*:17). Though very little is known, as revealed by some passing references here and there, about the exact beginnings of geography as a subject

in the modern period; these developments served as the foundation for institutionalization of Geography in the country. One can afford to speculate that Geography must have been introduced in the course of establishing the Macaulay's education policy. It is said that geography enjoyed a strong position in school system (Mukerji,1992). The first modern universities were established in 1857 at the three Presidency headquarters Calcutta, Bombay and Madras. These universities surprisingly neither conducted teaching nor research for nearly seven decades since their establishment. All these years they remained as affiliating and examining bodies. In 1920 at Lahore (in undivided Punjab) Geography was upgraded to under-graduate level and Aligarh and Patna were to follow in 1924 and 1927, respectively. In a quick succession since then undergraduate teaching also began at Agra (1935), Allahabad (1937 and Calcutta (1939). The first university department of geography was established in 1931 at Aligarh Muslim University.

Table:1 Institutionalisation of various disciplines in Indian universities

Discipline	Year of establishment	Number of university departments		Number of Doctorates 1857-2001
		1971	2001	
Sociology	1919 (Bombay)	51	88	4409
Political Science ¹	--	59	106	3904
Public Administration	1949(Napery)	19	30	1341
Economics	1912(Allahabad)	72	119	9521
Psychology	1915(Calcutta)	46	73	2182
Geography	1924(Aligarh)	48	78	2399
Anthropology	1949(Calcutta)	18	22	221
TOTAL		313	516	23977
Average (per Discipline)		45	77	3425

Note: 1. Could not be ascertained, (Source: Adapted from Kapur 2004)

Changing Paradigms

Scholars tend to differ over the issue of periodisation of the history of modern geography's institutional presence in higher education (Singh 2009 a & b ; Thakur 1994a & b; Singh 1996; Kapur 1998). They may not agree on a single scheme of periodisation; however, their observations and remarks are not that different. The term 'paradigm', coined by S. Thomas Kuhn (1962), is defined as 'the entire constellation of beliefs, values, techniques, and so on shared by the members of a given community'. Any growth in real life situation is not steady and normal and so is the growth of scientific disciplines.

The periods of smooth and steady growth are separated by the periods of 'crisis'. To be termed as 'paradigm', a view point must have a large following and a clear defined theoretical and methodological base (Haggett,1990). As per Kuhn's postulates, the development of science begins with 'pre-paradigm phase' marked by different schools of thought developed around several individual scientists. That is followed by the 'professionalization phase' when one school of thought starts dominating others and professional answers to research questions are accepted by others. Thus, the dominance of a particular school is agreed upon on the basis of significance. It makes the way for the 'first paradigm phase' characterized by the dominance of one school of thought, for a short period of time, displacing others. Next is the 'first crisis phase with revolution'. Then, comes another paradigm phase and through the alternative phases of 'paradigm' and 'crisis' with revolution, development of science (and other forms of knowledge too) takes place.

In its nine decades' long existence, Geography in India has evolved with distinct characteristic features. There are noticeable changes in the ways, approaches adopted and also the type of application of geographic knowledge to emerging societal needs. Many scholars identify paradigms and their shift in Indian geography. Among them, Rana Singh's (2009a) scheme (Table 2) is worth consideration on account of its merits. He has identified seven phases of the modern Indian geography and associated approaches, paradigms, and characteristic application.

Table : 2 Changes in trends and ways of practice in Indian Geography since 1920

Phase	Period	the way	Approach	Paradigm	Application
VII	2000 onward	re-looking ahead	diversified, technophilic	Synthetic turning	transitory prescription to human development
VI	1990-2000	-looking ahead	humanistic	ecopsychologic	human understanding & service
V	1980-1990	turning	behavioural	microscopic	environmental surveys
IV	1970-1980	copying the West	quantitative	speculative	numerical and scientific
III	1960-1970	unifying	Regional	statistical	regional surveys, development
II	1950-1960	shifting	descriptive-narrative	prototypal	regional reports
I	1920-1950	colonial	descriptive	deterministic	gazetteers for administrators; British cultural import

(Source: Singh, Rana P.B. 2009a).

The phase I though covers the period of 1920-1950 during which a great event in the history of south Asia partition of the then India took place in 1947, general characteristics remained unchanged. It is characterised by the predominance of the Britain-trained geographers, “Pax Britannica”, in the words of Mukerji's (2009) term, who were the founders and pioneers of geography in India. Through them came the imported methodology 'in distorted manner'. Their emphasis was on 'what' is 'where' at the cost of more important point of 'why'. That practice led to the concretisation of the descriptive approach put to produce gazetteers needed by the colonial administrators for the general knowledge and information for efficient control in the interest of the Empire. The publication of the Imperial Gazetteers of India was so prominent that all descriptive geographies were termed as “gazetteer geography”. In this phase many scholars (like N. Subramanyam, H.L. Chhibber, R.N. Dubey, S.P. Chatterjee, etc.), trained in other cognate disciplines mainly geology, contributed immensely to the cause of geography. Besides the dominant British tradition, the *la tradition Vidalienne* entered through the three France-trained geographers R.N. Dubey, M.H. Rahman and S.P. Chatterjee. It could be taken as enrichment of the infantile Indian geography.

In the phase II (1950-60), the hang-over of freedom movement and the national development cause was on the people's minds. India looked forward to multi-dimensional development. It provided purpose to all including Indian geographers. In the same period, India went through the first two plan-periods. Development planning kept the geographers preoccupied. Naturally, some advancement over the preceding phase did appear. But, they were not enough to make the approach change which was still descriptive and narrative. The over-arching influence of the British approach resulted in the publication of several regional reports. The growing need of proliferating institutions and professionals were catered by newly started journals and serials. The later part of this phase saw the contestation of the British hegemony as the batch of the USA and the USSR trained geographers entered in the domain of professional Indian geography. One of influential textbooks of that time *India and Pakistan* (1952) by O.H.K. Spate, still available in recent editions and used in many universities abroad, is mention worthy. So was R.L. Singh's *Banaras: An Urban Geography* (1955) a pioneer study in urban geography that proved to be the model for future urban studies for quite some time. The establishment of National Atlas & Thematic Mapping Organisation, NATMO in 1956, through the initiatives of S.P. Chatterjee and under his able guidance,

was another land mark achievement of this phase. The emerging hegemony of the USA and USSR in the post-World War II decades' power scenario and replacement of the UK by them as world superpowers had bearing on all aspects. Now, the flows of varied international interactions were to and from these two poles instead of London!

The phase III (1960-70) proved to be the turning point. The fashion of acquiring a British doctorate degree got gradually replaced by a new found craze for other promising destinations, especially the USA ("Pax Americana") and the USSR. On their return, the young geographers trained abroad brought the new wave of change confirming the current ideas there. 'Fashionable acceptance of quantitative and regional approaches with emphasis that information (data) is the knowledge and its spatial pattern can provide the answer for any sort of explanation' began to become the trendy mantra. The occasion of International Geographical Congress (IGC) in 1968 at New Delhi, actually the first IGC held in Asia, in a way got India and Indian Geography an international identity. The first regional work on India, *India A Regional Studies* (ed. S.P. Chatterjee 1968), released on that occasion and *India: A Regional Geography* (ed. R.L. Singh 1971) were testimony to the recognition given to the regional geography; of course quite late. Aligarh and Banaras (Varanasi) rose to the status of two well-acclaimed 'schools of geography' through their consistent contributions in agriculture geography and settlement geography, respectively. The university department of geography at Punjab University (Chandigarh) started in 1960 under the stewardship of G.S. Gosal focused mainly on population geography and later on gradually shifted to cultural geography after the joining of the department by A.B. Mukerji in 1963. In the last part of this phase, the foundations of a new university centre (JNU) were laid down.

The phase IV (1970-1980), referred to as the 'reformatory stage' appears to be exposed to the international currents more than ever before. The underlying reasons were growing contact and interaction with the outside world, especially the US, which by that time had already assumed the status of a strong pole in the world order that had considerable impact on the world affairs. . It can also be read as continuing dependence of the Indian Geography on outside developed methodology. This "missing of methodology" is still a major ailment persisting in the Indian geography. The deep concerns of Mukerji (1992) and Singh (1996) on this issue justified. "Indian geography having no basic philosophy of its own, has accepted even the naïve ideas and passing fads without any critical examination under the halo of foreign superiority. However, there is a redeeming feature

that it is now feeling its ground and is seeking its identity by shaking off initial psychological and emotional constraints” (Singh 1996). This phase also saw the establishment several university departments (totalling up to 56) across the country.

By the phase V (1980-1990), the Indian Geography started showing signs of maturity. The behavioural turn and growing concern for environmental health mark the major change over in the focus. Singh (2008a) terms it as the 'stage of speculation', that “marks the arena of confidence among Indian geographers through proper selection of approaches, methodologies and terminologies, of course mostly stemmed from British and North American sources”. With the objective of focusing on the regional development in India, relatively new Centre for the Study of regional Development, CSRD (at JNU) directed its efforts toward socially relevant geography. For many advantages which the traditional centres like Aligarh and Varanasi had not, JNU carved out niche for itself in the Indian Geography and acquired a different image envied by many others! Simultaneously, with the expansion of higher education in the country, many states in north-east India got universities and at most of them Geography was given due space.

The following phase VI (1990-2000), 'reformative stage', is characterised by a rebellious statement by an Indian geographer A. B. Mukerji perhaps for the first time in the history of Indian geography in 1991. The call for self-introspection in Indian geography and searching its roots and own identity was radical compared to any of the past statements. Naturally that was not relished. Singh and Singh (1992) appear inspired by Mukerji when remark, “If most of the countries in the West have their 'roots' in geography, where does our own root of Indian geography exist? A country having such a long tradition of its cultural growth and natural homogeneity (heterogeneity!) lacks its 'roots' in geographic concern”. Introspecting endeavours at different levels and in varying degrees have followed the line of Mukerji. In the given situation, there is enough scope to decide own agenda and follow that. Going by the 'cultural turn' happened in the world intellectual discourse, we still have a chance to re-interpret our ancient cultural roots, as exemplified by the continuing researches of Rana P. B. Singh.

The contemporary phase VII (2000 onwards), termed 'prospective stage in searching the roots', could be seen as overwhelmed by 'technocratic-mirage'. This (information) technology sway is so strong that techniques tend to replacing thought! In view of the good signs shown by general indicators of development and unprecedented global

interactions taking place, a brighter future is rightly desirable. Newly established (and a few upgraded) central universities in different States make noticeable statements on what the society looks for from the academic disciplines. In all the new geography departments their very nomenclature makes it crystal clear that academic knowledge must be applied in nature and of direct societal use. Such a trend also speaks of the future orientation of the academic institutions. Saying anything about the future become 'self-fulfilling as we seek to bend events to avoid a future we dislike or to attain a future we seek' (Haggett, 1990). As far as the current need is concerned, after having pursued micro level case studies from village to district level, now it is time to generalise our findings and also make attempts at theorising, if we can. The available advance computer facilities could be put to this noble end instead of surrendering to the modern imitative techniques like remote sensing, GIS, etc. It is said that in the 21st century, India is faced with a complex web of problems "that thirst for a geographical inquiry" (Kapur, 2004) and accordingly a change in focus is suggested (see Table 3).

Table 3: Geography: Focus of inquiry compared

in 1950s, as it was	in 2000s, as it is
areal differentiation	areal integration
balanced regional development	Sustainability
city	city systems
climatic types	climate change
dividing land	sharing waters
external threat	internal security
food productivity	food security
industrial estates	industrial parks
nation state	globalization and localization
political boundaries	political landscapes
political refugees	environmental displaces
population explosion	population displosion
rule of majority	role of minorities
self-sufficiency	Interdependence

(Source: Singh, Rana 2009b)

Aura of achievements

The growing number of institutions of higher education indicated popularity and demand for the same. Around the mid-nineteenth century the total number of colleges was 25 which went on to 101 in less than 50 years. But, this growth did not have any

positive impact on geography which had to wait until 1920. Geographers' desperation to organise and establish them professionally resulted in the foundations of four earliest geographical societies, namely the Indian Geographical Society (Madras, 1926), the Geographical Society of India (Calcutta, 1932), the Bombay Geographical Association (Bombay, 1935) and the National Geographical Society of India (Varanasi, 1946). Thus the path of publication was paved, of the two earliest geographical journals namely the *Indian Geographical Journal* from Madras and the present *Geographical Review of India* from Calcutta in 1926 and 1936 respectively. Such journals had a definite role in the progress of Indian geography as they contributed towards encouragement and dissemination of geographical knowledge and research.

Geography naturally was the young entrant in the Indian university system as many subjects like economics (1912, Allahabad), psychology (1915, Calcutta), and sociology (1919, Bombay) already had their presence in the university system. Stamp (1946) put the approximate number of the geography students pursuing degree courses just before the independence at 1000. It certainly gained a status and impetus with the recognition of geography as a Section of the Indian Science Congress at its Silver Jubilee Session in 1938, attended by a strong contingent of the British geographers. However, the pace of development was very slow. The main reasons for its tardy progress, believes Singh (1996), lay in the failure to seek wide recognition as a university discipline, its strong orientation to 'gazetteer-type geography' which could at best play a second fiddle to disciplines like history, economics, commerce and geology, lack of qualified personnel and government/public apathy. Naturally it had to "fight way against vested interests and intolerance than any known in the West" (Spate 1950 quoted in Singh 1996). At the time of Independence in 1947 India had altogether 19 universities out of which only at five Aligarh, Calcutta, Banaras, Allahabad and Agra existed.

If we compare this early progress with the developments taken place in Europe, quite a prominent gap at the initial stage itself will emerge. Institutionalisation of geography in different European countries picked up since 1874 when the then Prussian government established geography departments in all universities. Of course, there is instance of earlier initiatives, e.g. in 1809 in France and 1817 in Germany (Kapur 2004). By the turn of 19th century, geography was well established in Europe and in 1903 the United State had the first department at the University of Chicago. We were really late! We can safely say now that the fillip to the growth of geography was derived from the colonial interests

of the European nations. In the same line, the British too realised the necessity of starting geographical teaching and learning. However, the British authorities allegedly did not want to develop geography education beyond the schools as for the then political reasons they 'felt some kind of risk in imparting knowledge of geography' (Misra 1961).

The burden of ailments

Many of us may feel satisfied with the numerical growths which have taken place over last eight decades. The institutions (Kapur 1998), that is why the number of employment opportunities (largely in the school education), the number of students (Shukla 2005), and also the geographical societies and the journals and literature (Kapur 1998, 2004; Singh 1996). But, all is not well. Of course, the figures give an impression of the positive change. Even if we not go by the stringent evaluation bases like publishing in reputed international journals, where we end up with a very bad performance; the reality behind formation of many societies and their mouth-piece "home" journals is quite telling. In relative sense, even quantitatively, our academic output in the form of publishing is far below the potential. It is quite natural to see institutions growing as the population and demand for education is at any time peak; but this growth has taken place mostly outside the higher education. Wherever, new institutions were established, geography seems to have not received even the due treatment. Kapur (2004), in her analysis of geography's presence among the social sciences, finds negligent presence of the discipline. The situation is apparently appalling.

Many of us take pride in sharing how popular is our subject among civil services aspirants. There is considerable degree of truth in it; but it has no meaning at all if one is considering the same in reference to disciplinary progress. We must tell ourselves that good many civil services aspirants come from non-geography academic background and are taught (for competition) generally by non-geographers. And, as a matter of fact civil services' aspirants and even the students attracted to geography classes in institutions of higher learning are lured mainly by the 'scoring' nature of geography and least by the academic or intellectual merits. The recently introduced reforms (2011) in the format of Union Public Service Commission (UPSC) civil services examination would be litmus test for the 'popular' optional subjects like Geography.

Table: 4 Enrolment in higher education (Graduate+) by level of education (%)

Fields of Study	Graduate			Post Graduate			Total Enrolments		
	UGC ¹ 1995- 1996	UGC 2000- 2001	NCEAR ²	UGC 1995- 1996	UGC 2000- 2001	NCEAR	UGC 1995- 1996	UGC 2000- 2001	NCEAR
Science	27.9	30.2	33.1	36.5	38.3	41.4	28.7	31.0	34.6
Natural Science	18.4	19.2	20.3	23.0	26.6	11.5	18.9	20.0	18.7
Engineering	5.9	7.3	7.9	5.4	4.3	26.4	6.0	7.0	11.3
Medicine	2.9	3.1	4.1	5.4	4.3	2.3	3.0	3.2	3.8
Agriculture/ Veterinary	0.7	0.7	0.9	2.7	2.1	1.1	0.9	0.8	0.9
Arts	47.9	45.9	49.9	47.3	45.7	44.3	47.7	45.9	48.9
Commerce	17.4	18.4	14.2	12.2	13.8	5.7	17.0	17.9	12.6
Others	6.8	5.5	2.7	4.1	3.2	8.6	6.5	5.2	3.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number (million)	5.91	7.50	7.76	0.74	0.94	1.73	6.65	8.44	9.49

(Source: Shukla, et. al. 2005)

Though we do not have any empirical data to substantiate, there is general observation that school level education has been down falling rapidly. Often the lower level burden is passed on from the lower level to upper level(s), to which we agree during our informal conversations. In this process, the burden of poor schooling gets transferred to higher education with disastrous consequence of weakening of the overall system. The popular trend is clear enough in the disfavour of general subjects. Preference for science streams after high schooling and after the +2 level; rush for the technical and professional degrees need no evidence. As a result, even in the science disciplines bright students are not attracted (Shukla, et al. 2005). And, the union government has implemented several programmes and schemes to attract bright youths in hard core sciences. Naturally subjects like geography will not be able to attract bright students like the past (Ravi Singh, 2009). It is a significant issue and need a thorough exercise to find out the responsible reasons.

Instead of blaming it all on the students' side, the professional geographers too should try to locate the possible reasons in their side of the fence. Poor curriculum standards (and reluctance to change, sub-standard text books, lack of infrastructure (standard texts, journals, survey instruments & lab equipments), quality of teachers, quality of teaching, teacher-student ratio, lack of the use of modern teaching aids, no system of teaching improvisation and teaching evaluation scheme, young minds are not ignited intellectually, etc. are a few problems plaguing geography (Ravi Singh, 2008). These all are interrelated in a simple system like structure as shown in Fig. 1.

Cycle of Academic Sub-standardisation in Higher Education in India

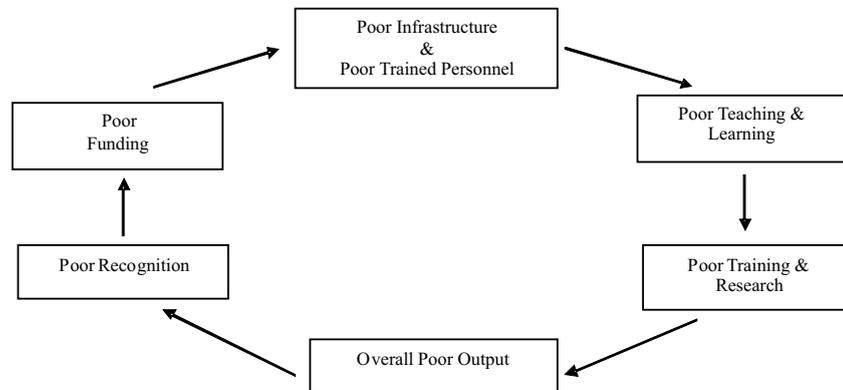


Fig. 1

Conclusions

Indian Geography has a longer history than generally accepted. Of course, the olden nature of it was different than how the discipline is conceived contemporarily. The Colonial Period in India marked the onset of many 'modern' developments including education and Geography as a discipline cannot be isolated. In its course of almost nine decades long journey, many changes in approach and application of geographic knowledge to social (including economic) problems could be noticed. It is however difficult to accept paradigm shifts in the strict sense of the term to have taken place in Indian geography. Because neither the first condition of “a large following of a viewpoint and clearly defined theoretical and methodological base” nor the second one related to “revolutionary crisis” are perceptible in the clear terms. Of course, an evolutionary nature may be noticed revealed through the nature of developments.

There is a general lack of conceptual and theoretical developments *per se* for the simple reason being heavy reliance rather dependence on their overseas' imports. Hence, instead of progressive developments, one finds (sub-standard) impressions of the western developments taking place in the discipline. Whereas, need of the hour is to undertake thorough scientific analyses of indigenous problems and issues. Achievements in general are quantity related and ailments are basically quality related. Quite a longer and dominant persistence of 'gazetteer' approach seems being replaced by over-reliance on modern information technology. Therefore, even the problems which need direct field experiences are being sensed remotely and represented colourfully. Quite naturally, the 'soul' of such geographic analyses is found missing amidst gaudily

overworked maps! The discipline that continues to be over-obsessed with map making than reading and interpreting that needs a drastic change in its approach and focus as well.

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