



Review Paper of Urban Planning Curricula of Leading National Planning Schools

South Asia Urban Knowledge Hub

(Co financed by the Sanitation Financing Partnership Trust Fund under the Water Financing Partnership Facility)

Project Number: 46465-001

Regional–Capacity Development Technical Assistance (TA-8568)



National Institute of Urban Affairs

India National Centre

September 2015

Abstract

Historically the planning education in India started with colonial influence of regulatory provisioning of civic administration under the town and country planning framework; however, there has been a major diversification in specialisation within planning courses incorporating the multiple-dimensions of urbanisation. While there exists a model curriculum, public funded schools of planning have been innovative in addressing the contemporary needs of planning education tools compared to those run by private institutions. To understand the diverse issues of modern cities especially in the developing world, there is a need for a multi-disciplinary approach and perspective to widen the subject horizon of planning education. It is observed that the outreach of planning education is low in India given the vastness and requirements of planning professionals in the country under rapid and higher economic growth and urbanisation. This review paper hence, tries to assess the commonalities and differences among the course curricula in the select Planning schools and to what extent does Indian planning education provide adequate attention to the contemporary urban agenda.

Background and Context:

Emergence of planning education dates back to later part of the 19th Century in response to growing concern of rapidly urbanising centre with environmental pollution affecting human health in Western Europe (UN-Habitat 2009). The establishment of first course on Town Planning and Civic Design at the University of Liverpool, UK in the year 1909 focusing on the urban health and sanitation bears this manifestation; secondly the publication of a journal *Town Planning Review* in the year 1910 (Davoudi and Pendlebury 2010) gave academic birth to the urban planning discipline. From there, it caught the attention of MIT, USA with the introduction of a course on urban planning in the year 1912. It has been evolving ever since.

The urban agenda of the world has also been changing with time from provision of infrastructure and basic services to environment to urban growth to sustainable urban development to liveable, smart and intelligent cities. (Wheeler *et. al.* 2010). There existed a gap between planning agendas and planning education both in space and time which compelled the planning education and its pedagogy to change and adapt to new approaches. Along with the changing issues in urban areas, the definition of urban planning have changed over time and are not the same across the globe (UN-Habitat 2009). The early urban planning definition was focused on physical design, enforced through strict land use regulations. This is replaced by new approaches that identify institutional shift from governmental control to good governance facilitating wider scope for planning through public participation and effective implementation of the plans. (ibid).

European countries including UK display a wide variety of urban planning approaches characterized by a diverse range of course curricula (UN-Habitat, 2009). In UK, planning education has emerged as a distinct discipline from its origins as an adjunct of architecture, engineering and surveying into an independent and highly regarded social science discipline (Davoudi, and Pendlebury, 2010). Canadian and Australian planning education seems similar in their approaches and ideologies for obvious colonial reasons under the British influence. (Goonewardena *et.al.*, 2004). Planning education in Africa has been facing challenges (given rapid urbanisation in a context of extreme poverty and inequality) in consolidation of curricula and research funding because of rapidly changing socio-economic scenario in Saharan and sub-Saharan countries. While rest of the continent exhibits commonalities in their planning education ideologies, South Africa seems to be somewhat different due to its past history of apartheid and resource availability.

Urban planning as it is practiced in the United States is carried on openly through the democratic processes of local governing bodies, advised by official planning agencies which usually have little authority in themselves (Professor Frederick J. Adams, 1954). Comprehensive planning was prescriptive-seeking to design an ideal end-state for urban development, rather than interventional. The system of planning followed is methodological, in terms of framing goals and objective, survey, identification of issues and formulation of strategies.

Similar is the case of South Asian planning education as cities in this region, though largely bear the colonial influence, exhibit contrasting characteristics of urban growth in recent time. The history of urban planning education in the South Asia is only half a century old since the first planning school started in India (Ansari, 2009). Nonetheless, all the planning schools in the continent have ideological orientation under the British influence and have

initially followed the urban planning thought process of diagnostic survey, conservative surgery and integrated planning ideas of Sir Patrick Geddes and or Garden city principles of another British urban thinker Ebenezer Howard (ibid, p69)

Brief History of Planning Education in India:

The urban and regional planning education started in India in the early years of independence and had colonial influence (Ansari, 2009). The first educational programme was started with the formation of School of Planning and Architecture (SPA), New Delhi in 1955. This was followed by another Masters level programme by Indian Institute of Technology, Kharagpur, West Bengal in 1956. Currently, there are 25 planning schools in India operating under public and private ownership(see Table 1). Majority of them are under public sector which are directly governed either by the Ministry of Human Resources Development (MHRD), Government of India or run under various State Government patronage. However, All Indian Council of Technical Education under MHRD provides accreditation and major curricula guidelines to be followed by all of them.

The urban and regional planning education started in India in the early years of independence and had colonial influence (Ansari, 2009). The first educational programme was started with the formation of School of Planning and Architecture (SPA), New Delhi in 1955. This was followed by another Masters level programme by Indian Institute of Technology, Kharagpur, West Bengal in 1956. Currently, there are 25 planning schools in India operating under public and private ownership(see Table 1). Majority of them are under public sector which are directly governed either by the Ministry of Human Resources Development (MHRD), Government of India or run under various State Government patronage. However, All Indian Council of Technical Education under MHRD provides accreditation and major curricula guidelines to be followed by all of them.

In the initial years there were few urban planning schools/institutes that introduced town and country planning courses in India. These were SPA New Delhi, Indian Institute of Technology, Kharagpur and Bengal Engineering Collage, Sibpur. These schools started planning courses immediately after the independence with colonial legacies oriented towards British planning ideologies of diagnostic survey, conservative surgery and integrated planning (Ansari, 2009). Even the establishment of Institute of Towns Planners, India in 1951 was inspired heavily by the Royal Town Planning Institute (RTPI) in UK. According to the ITPI (www.itpi.org.in/pages/origin) there were only 15 Indian Planners at the time of its establishment, most of them were educated in UK.

In the early years, the development agenda in India were heavily focused towards nation building programmes and there were hardly any demand for urban planners as the orientation was not sectoral but physical planning and civic design. Urban policy also suffered from adhocism as urban programmes such as Urban Community Development Project in (1958-59) could not take a pan Indian programme neglecting urban development agenda in the national policy making. However, a few notable urban planning instruments got mentioned in the first two five year plans, i.e. the need for National Town and Country Planning Act, which led to the establishment of Town and Country Planning Organisation (TCPO) in 1955, creation of a separate Ministry of Urban Development and Preparation of Delhi Master Plan under the guidance of Albert Mayer, the famous American planner. (Kumar, 1996).

The initial decades of national building agendas were highly biased towards rural development, focusing on employment generation along with poverty alleviation; this led to poor response of existing Planning Schools to be able to provide professional inputs in the development process. It was only in early 90s with the 74th Constitutional Amendment Act giving autonomy to the 3rd tier of government or urban local bodies and subsequently the launch of a national level urban sector programme called Jawaharlal Nehru National Urban Renewable Mission (JNNURM) in 2005 that for the first time that urban centres were recognised as engines of growth in India. Subsequently, policy reforms were put in place to strengthen the capacity of urban local bodies for ensuring urban infrastructure and access to basic services to citizens. This programme realised the need for urban planners in nation building and there was a massive requirement for capacity building at urban local body level. This has led to establishment of new Planning Schools in India mainly in the private sector. During the last 15 years (2000-2015) more than 50 percent of the total institutes offering urban planning courses have been established. Central Government has also felt the need for public sector engagement in planning education and have established two new Schools of Planning and Architecture located at Bhopal and Vijayawada during later part of 2008. The newly established Planning Schools have realised the changing orientation of planning education in India and have tried to incorporate the technological, spatial and managerial skills formation in their respective course curriculum based on the incorporation of spatial science curriculum that helps decision making in urban planning problem solving rationales.

To add numbers to the need, according to a recent estimate by the Institute of Town Planners, India (ITPI), there are only 5000 registered planners , too little a number to deal with the existing demand for planning professional. It needs 1,60,000 planners by 2031 (Committee of Experts in Town Planning and Architecture for Policy on Education, Chaired by Mr. E.F.N. Riberio, 2011). Thus on an average, India needs 8,000 planners every year over next 20 years. Only a few metropolitan cities in India have a functioning planning department supported by a metropolitan authority. Even where they exist, they are staffed with only 8 to 10 planners and are usually led by engineers.

Planning education in India: Content and relevance

Having set the context, the paper has limited the review to the 3 national planning schools of Delhi, Bhopal (Madhya Pradesh) And Vijaywada (Telengana) and Indian Institute of Technology (IIT) Kharagpur (West Bengal) Planning Department, which is one of the oldest in the country. This section deals with analysis of the contents of planning curricula and strengths of academic and research activities of these institutes.

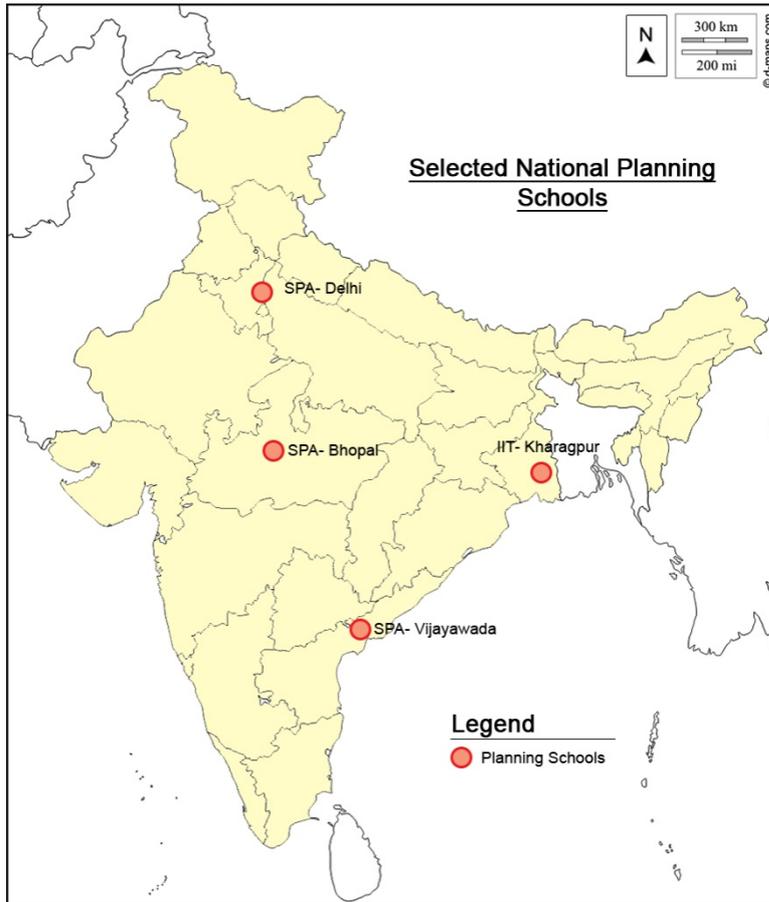


Table 1. Select Government Planning Schools in India

Sl. No.	Name of the Schools	Year of establishment	Subjects offered and Number in Masters Programme	Levels offered	Affiliations
1	SPA New Delhi	1955	5 (UP, RP, TP, HSG, EP)	PhD., MP, BP	Autonomous Institute, MHRD, Govt. of India
2.	IIT Kharagpur	1956	2 (CP, RP)	PhD, MP	Autonomous Institute, MHRD, Govt. of India
3	SPA Bhopal	2008	2 (TUP, UD)	PhD, MP, BP	Autonomous Institute, MHRD, GoI
4	SPA Vijayawada	2008	2 (URP, EPM)	PhD, BP MP-To be started from this academic session	Autonomous Institute, MHRD, Govt. of India

UP- Urban Planning, RP- Regional Planning, TP-Transport Planning, HSG- Housing, EP- Environment Planning, EPM-Environmental Planning& Management; URP- Urban and Regional Planning, CP- City Planning, MP- Master of Planning, BP- Bachelor of Planning.

Source: Compiled by Author, 2015

Planning education courses in selected schools in India have diversified to some extent to cope up with the changing socio-cultural and political economy in contemporary India. However, a careful observation reveals that there is still major emphasis on spatial or physical analysis component of course content. One glaring lacuna in the existing urban planning process in India is the almost total absence of any participatory mechanisms, which has been primarily responsible for the wide gap between what planners do and what people expect from planning. This is enhanced with the planning education's scope being limited to more of theory and less of linkage to market demand (Ansari, 2009). In almost all planning schools in the country, the orientation and contents of their programs have been shaped by the planning ideologies that were essentially British in origin. However, The model course curriculum of AICTE for Master Programme (brought out in an effort to standardise the curricula of post graduate planning offered in the planning schools) has also been followed by the government run institutes since it has been put in place in 2011. In spite of this, diversification of planning courses (number of specialisations in Masters of Planning programme) has been observed in SPA New Delhi; it enjoys the flexibility and innovation to incorporate the relevant courses that are demanded in the professional practices.

Table 2- Urban Planning Curricula of the Planning Schools						
Model Curriculum of Post Graduate Urban Planning	School of Planning & Architecture, New Delhi	School of Planning & Architecture, Bhopal	School of Planning & Architecture, Vijayawada	Indian Institute of Technology, Kharagpur		
Course Name						
M. Planning with specialization in Urban Planning	M. Planning with specialization in Urban Planning	Masters in Urban and Regional Planning	M. Planning (Urban and Regional Planning)	Masters in City Planning	<ul style="list-style-type: none"> • SPA-Delhi and SPA-Bhopal course curriculum is same as the model curriculum provided by the AICTE for post-graduate programs. 	
Course Structure						
Semester - I						
Planning History and Theory	Planning History and Theory	Planning History and Theory	Evolution of Human Settlements and Planning	Planning Theory and Process		
Socio-economic basis for Planning	Socio-economic basis for Planning	Economics and Urban Sociology	Socio-Economic Dimensions of Planning	Transportation Planning & Traffic Engineering		
Planning Techniques	Planning Techniques	Planning Techniques	Planning Techniques and Quantitative Methods	Seminar		
Infrastructure and Transport	Infrastructure and Transport	Infrastructure	Infrastructure	Planning		

Planning	Planning	Planning	Planning	Workshop	<ul style="list-style-type: none"> IIT-Kharagpur, on the other hand, deviates from the model AICTE curriculum; the course forgoes many of the important subjects as most of them are listed under electives.
Housing and Environmental Planning	Housing and Environmental Planning	Housing and Environment Planning	Habitat and Environment Planning	Statistical Technique and Computer Programming	
Studio course	Studio course	Integrated Studio	Area Planning Studio	Housing and Community Planning	
		Demography and Quantitative Methods	Introduction to Information Systems	Housing Policies and Programs	
				District and Rural Area Planning	
				Dynamics of Settlement Systems	
				Development of Human Resources	
				Social Aspect of Human Settlement	
				Utilities and Services Planning	
				Water Supply Systems	
				Solid Waste Management	
Semester - II					
City and Metropolitan Planning	City and Metropolitan Planning	Regional Planning and Development	City and Metropolitan Planning	Planning Legislation and Planning Practice	
Infrastructure Planning	Infrastructure Planning	Planning Legislation	Advanced Infrastructure Planning	Development Management and Finance	
Urban Heritage Conservation	Urban Heritage Conservation	Local Governance, Management and Finance	Urban and Regional Governance	Comprehensive Viva Voice	
Advanced Planning	Advanced Planning	Land Economics and	Land Economics	Seminar	

Techniques	Techniques	Real Estate and Management	Seminar		<ul style="list-style-type: none"> • SPA-Delhi focuses on pro-poor planning subjects in the second semester, inclusive planning, however it's an elective firm.
Studio Course	Studio Course	Studio - Regional Planning	Urban Planning Studio	Planning Workshop	
Inclusive Urban Planning	Inclusive Urban Planning	Transportation Planning and Management	Applications of Geo-informatics	Quantitative Methods in Planning	
Planning for Tourism	Planning for Tourism	Geoinformatics Laboratory	Inclusive Planning	Regional Analysis and Programming	
			Demography and Planning	Environmental Planning	<ul style="list-style-type: none"> • SPA-Bhopal studio exercise focuses on regional planning. • IIT-Kharagpur compresses the syllabus in first two semesters.
			Smart Cities	Planning Informatics	
			Urban Renewal	Urban Conservation Studies	
			From other Masters Programme (Same Semester)	Urban Design	
				Landscape & Recreation Planning	
				Metropolitan Planning	
				Remote Sensing and GIS in Planning	
				Disaster Management	
				New Town Planning	
Semester - III					
Urban Development Management	Urban Development Management	Urban Design and Landscape	Rural Development and Planning	Thesis Part - I	
Project Planning and Management	Project Planning and Management	Project Appraisal and Management	Project Planning and Management	Professional Training (Summer)	
Urban Governance	Urban Governance	Disaster Mitigation and	Disaster Preparedness		

Urban Governance	Urban Governance	Management and Management			<ul style="list-style-type: none"> • SPA-Bhopal and IIT-Kharagpur curriculum emphasis on professional training before the session for third semester begins. • IIT-Kharagpur has only focuses on thesis project as the other subjects have been taught in the previous semesters.
Politics and Planning	Politics and Planning	Thesis Programming	Advanced Research Methods		
Studio	Studio	Studio - Urban Planning	Regional Planning Studio		
Environment, Development and Disaster Management	Environment, Development and Disaster Management	Urban Redevelopment	Planning Legislation and Professional Practice		
Energy, Climate change and Urban Development	Energy, Climate change and Urban Development	Planning for Tourism	Future Settlements		
		Quantitative Methods and Systems Analysis	Special Area Planning		
		Planning for Special Areas	Human Settlements and Climate Change		
		Sustainable Planning Practices	Tourism Development and Planning		
		Professional Training (Summer)	From other Masters Programme (Same Semester)		
Semester - IV					
Development Finance	Development Finance	Seminar on Emerging Planning Concerns	Development Finance	Thesis Part - II	<ul style="list-style-type: none"> • The curriculum focus is majorly on thesis project and legal issues faced in the practice.
Legal Issues and Professional Practice	Legal Issues and Professional Practice	General Proficiency	Planning and Politics		
Thesis	Thesis	Thesis	Thesis		
		PPP in Development			
		Public Policy			

		Analysis			
--	--	----------	--	--	--

Core Subject	Elective - I	Thesis	Inferences
Planning Techniques	Elective - II		
Studio Course	Elective - III		

A review of the urban planning curricula in the selected schools (Table 2) brings out certain stark differences. Alongside, the model AICTE curricula has also been reviewed to bring out the adaptability of content.

- Inclusive Urban planning though a part of the model AICTE curricula is one among the elective subjects.
- SPA-Delhi and SPA-Bhopal course curriculum is same as the model curriculum provided by the AICTE for post graduate programs.
- IIT-Kharagpur, on the other hand, deviates from the model AICTE curriculum, the course forgoes many of the important subjects as most of them are listed under electives.
- SPA-Delhi focuses on pro-poor planning subjects in the second semester, inclusive planning, however is in an elective form as it follows the model curriculum totally.
- SPA-Bhopal and IIT-Kharagpur curriculum emphasis on professional training before the session for third semester begins.
- IIT-Kharagpur only focuses on thesis project as the other subjects have been taught in the previous semesters.

The selected Planning Schools in India, have incorporated majority of the thematic contents in three broader levels of pedagogies such as 1) theoretical and conceptual understanding of the issues, 2) analytical tools and skill development and 3) surveying and field techniques, essential for the profession. However, there has been serious lack of social equity/justice, participatory planning tools and techniques, deliberative and communication skills across all the above selected planning schools in India. Planning schools across the world are now required to incorporate these themes into their curricula in order to better equip the planning professionals for the 21st century planning agendas (UN-Habitat, 2009). Gender issues and urban poverty modules are almost completely missed out from the course curricula.

Table 3. Course Content and their relevance to Urban Agenda				
Schools/Thematic course content being offered	SPA New Delhi	SPA Vijaywada	IIT Kharagpur	SPA Bhopal
Theoretical Understanding				
Physical planning and design	✓	✓	✓	✓
Sustainable development	✓	✓	✓	✓
Social Equity/Justice	✗	✗	✗	✓
Participatory	✗	✗	✗	✗
Deliberative	✗	✗	✗	✗
Communicative	✗	✓	✓	✓
Climate Change	✓	✓	✗	✓
Gender and Planning	✗	✗	✗	✗
Inclusive Planning	✓	✗	✗	✗
Policy focus	✓	✓	✓	✓
Analytical Tools				
Geospatial Science	✗	✗	✓	✓
GIS- Digital Mapping	✓	✓	✓	✓
Modelling for decision	✗	✗	✓	✓
Survey Techniques				
Field Visits	✓	✓	✓	✓
Reconnaissance	✓	✓	✓	✓
Photo documentations	✓	✓	✓	✓
Survey methods	✓	✓	✓	✓
PRA	*	*	*	*

Discussion with the heads of the planning schools as well as heads of urban planning department have revealed the fact that though involvement of the schools have increased many fold researching for the urban policy agenda for the Government, there has not been any large scale revision in the course curriculum simultaneously to match it. Only minor customisation has been done by one or two of the schools. Although climate change, disaster

management, urban heritage, tourism planning etc. have become part of the mainstream curricula, much needs to be done to arrive at a standard template which will capture all dimensions of contemporary urban agenda.

Need for an Improved Urban Planning Curricula: A case

The scale and rate of growth of informality in cities of the global South requires urban planners and managers to respond to this issue with some urgency. In some developing countries “slum” dwellers constitute the majority of the urban population, and informal employment comprises one-half to three-quarters of non agricultural employment in developing countries. Introducing changes in established programmes and curricula is difficult. A forward looking curriculum model that combines old and new pedagogies and content takes considerable effort. Current approaches to and methods of urban planning are inadequate for effective urban policy analysis. Planners emerging from existing planning education programs have not been provided with the skills, knowledge, and experience required to plan for and guide urban change.

Today cities in India are at the centre of the development agenda. In southern Asia India included, cities are not able to effectively play this role due to problems associated with phenomenal population growth leading to environmental degradation, poverty and lack of housing (reflected in growth of informal sector, slums and squatter settlements). Often the poor people living in precarious locations are exposed to disaster risks such as flooding and land slides. The cities themselves have the potential to deal with these problems but are let down by misplaced priorities of urban planning practices and weak urban governance.

While thinking about the strategies for improving the lot of the poor, the role of the informal sector needs to be clearly understood. It is noted that in the cities of the developing world, the informal sector plays a major role in the urban economy besides being source of employment for the urban poor. Yet policy makers instead of working toward integrating the informal sector into the overall city planning and development process actually device policies that are harmful to the interest of the informal sector.

Thus, for a curricula to address issues of inclusivity and planning for the poor have to be linked to laws, regulations and professional practices associated with the discipline of “urban planning” which have a significant effect on the ability of the poor to survive in towns and cities. Planning regulations are frequently so onerous that the poor are obliged to step outside the requirements of the law, living and working in ways that are categorized as “informal” and are, therefore, open to state-initiated censure and often repressive intervention.

Intervention in urban policymaking is a continuous process. Monitoring and performance evaluation skills are as necessary for effective policy planning as substantive expertise in the urban problem issues. If planners are serious about redirecting the profession’s energies toward policy planning, curricula must be redesigned to provide the skills, knowledge, and experience necessary for effective management of urban change.¹

¹ Denis A Rondinelli (2007): Urban Planning as Policy Analysis: Management of Urban Change; Journal of American Association of Planners, Vol.39:1, Page-13-22.

References:

1. Adams, D and Watkins, C (2014), "The Value of Planning", RTPI Research Report.5, London: RTPI
2. Amin, A (2013), "The Urban Condition: A Challenge to Social Science", *Public Culture*, Vol 25 (2), pp.201-208.
3. Ansari, J.H. (2009). Revisiting urban planning in South Asia. *Regional Study Prepared for Revisiting Urban Planning: Global Report on Human Settlements*.
4. Batey, W. J. 1985. "Postgraduate Planning Education in Britain: Its Purpose, Content and Organisation." *Town Planning Review*, Vol. 56, No. 4, 407-420.
5. Budge, T. (2009). Educating planners, educating for planning or planning education: The never-ending story. *Australian Planner*, 46(1), 8–13.
6. Chettiparamb, A. (2006). Bottom-Up Planning and the Future of Planning Education in India. *Journal of Planning Education and Research*, 26(2), 185–194.
<http://doi.org/10.1177/0739456X06289239>
7. Davoudi, S., & Pendlebury, J. (2010). Centenary paper: The evolution of planning as an academic discipline. *Town Planning Review*, 81(6), 613–646.
8. Frank, A. I. (2007). Entrepreneurship and enterprise skills: A missing element of planning education? *Planning, Practice & Research*, 22(4), 635–648.
9. Frank, A. I., & Buining, F. (2007). A practice-based approach to developing creativity in higher education. *Transactions*, 4(2), 8–26.
10. Frank, A. I., Mironowicz, I., Lourenço, J., Franchini, T., Ache, P., Finka, M., Grams, A. (2014). Educating planners in Europe: A review of 21st century study programmes. *Progress in Planning*, 91, 30–94.
11. Geppert, A., & Verhage, R. (2008). Towards a European recognition for the Planning profession. *Planning Education, AESOP*.
12. Goldstein, H. A., Bollens, S., Feser, E., & Silver, C. (2006). An Experiment in the Internationalization of Planning Education The NEURUS Program. *Journal of Planning Education and Research*, 25(4), 349–363.
13. Goonewardena, K., Rankin, K., & Weinstock, S. (2004). Diversity and planning education: A Canadian perspective. *Canadian Journal of Urban Research*, 13(1), 1–26.
14. Hambleton, R. (2006). Purpose and Collegiality in Planning Education: An International Perspective. *Journal of Planning Education and Research*, 26(1), 107–117.
15. Higgins, M., & Reeves, D. (2006). Creative thinking in planning: How do we climb outside the box? *Town Planning Review*, 77(2), 221–244.
16. Jupp, E., & Inch, A. (2012). Introduction Planning as a profession in uncertain times. *Town Planning Review*, 83(5), 505–512.
17. Kaliyath, A (2013), Land as a Critical Ecological Resource for Sustainable Cities: A Case of Chennai, India, Unpublished Thesis, Queen's University Belfast, UK, 256-268.
18. Kumar, P., Siddiqui, A., Gupta, K., Jain, S., & Murthy, Y. K. (2014). Capacity Building through Geospatial Education in Planning and School Curricula. *ISPRS-International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, 1, 1253–1259.
19. Lennon, M. (2014). Finding Purpose in Planning. *Journal of Planning Education and Research*, 0739456X14560573.
20. Osborne, M., Kearns, P., & Yang, J. (2013). Learning cities: Developing inclusive, prosperous and sustainable urban communities. *International Review of Education*, 59(4), 409–423.
21. Poxon, J. (2001). Shaping the planning profession of the future: the role of planning education. *Environment and Planning B*, 28(4), 563–580.

22. Raghavendra, V. (2014, November 5). SPAV among global top ten urban planning schools. *The Hindu*. Vijayawada. Retrieved from <http://www.thehindu.com/news/cities/Hyderabad/spav-among-global-top-ten-urban-planning-schools/article6568123.ece>
23. Roy, A. (2009). The 21st-Century Metropolis: New Geographies of Theory. *Regional Studies*, 43(6), 819–830. <http://doi.org/10.1080/00343400701809665>
24. Roy, A. (2009). Why India cannot plan its cities: informality, insurgency and the idiom of urbanization, *Planning Theory*, 8 (1), 76-87.
25. Sankhe, S., Vittal, I., Dobbs, R., Mohan, A., & Gulati, A. (2010). India's urban awakening: Building inclusive cities sustaining economic growth. Retrieved from <http://www.ponline.org/node/210196>
26. Sehested, K. (2009). Urban Planners as Network Managers and Meta-governors. *Planning Theory & Practice*, 10(2), 245–263. <http://doi.org/10.1080/14649350902884516>
27. UN-Habitat. (2009). *Global report on human settlements 2009: Planning sustainable cities*. Earthscan: for UN-Habitat.
28. UN-Habitat. (2012). *Training for better cities* (p. 62). Retrieved from <http://unhabitat.org/books/training-for-better-cities/>
29. Watson, V., & Odendaal, N. (2013). Changing Planning Education in Africa The Role of the Association of African Planning Schools. *Journal of Planning Education and Research*, 33(1), 96–107.
30. Watson, V. (2013), "The ethics of planners and their professional bodies: Response to Flyvbjerg", *Cities*, Vol.32, pp.167.168.
31. Wheeler, S. M. (2013). *Planning for sustainability: creating livable, equitable and ecological communities*. Routledge.
32. Wilson, A. G. (1968). Models in urban planning: a synoptic review of recent literature. *Urban Studies*, 5(3), 249–276.

Appendix:1 Model Curriculum of M.Tech/M.Plan. 2011; All India Council for Technical Education (AICTE).

Appendix:2 Course Structure and Syllabus for Two Year Masters Degree Programme in Planning Leading to the Award of Master of Planning (Urban and Regional Planning) SPA, Vijaywada

Appendix: 3 Scheme and Syllabus of Post Graduate programme, Master of Planning, SPA Bhopal

Appendix:4 Syllabus, Department of Urban Planning, School of Planning & Architecture, New Delhi

Appendix 5: Course Structure, Master of City Planning, IIT, Kharagpur, West Bengal.