

**MACAO (CHINA),  
EUROPA SUDORIENTAL,  
AMÉRICA LATINA:  
UNA MIRADA HACIA LA VIABILIDAD  
DE LA COOPERACIÓN TRIANGULAR**

**SLOBODAN S. PAJOVIĆ, MAJA ANDRIJEVIĆ Y SONIA CHAN PRADO  
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# ÍNDICE

<b>A MODO DE PRESENTACIÓN</b>	<b>v</b>
TATJANA CONIĆ <b>BILATERAL COOPERATION BETWEEN THE REPUBLIC OF SERBIA AND THE PEOPLE'S REPUBLIC OF CHINA</b>	<b>1</b>
DMITRY RAZUMOVSKIY <b>LOS IMPERATIVOS DE ADOPTACIÓN Y TRANSFORMACIÓN DE LA ECONOMÍA GLOBAL Y LAS RELACIONES INTERNACIONALES</b>	<b>9</b>
FRANCISCO JOSÉ LEANDRO <b>MACAU: A PLATFORM FOR DIALOGUE AND COOPERATION BRIDGING THREE CONTINENTS</b>	<b>23</b>
MARÍA DE MONSERRAT LLAIRÓ <b>LOS NUEVOS EJES ESTRATÉGICOS DE LA INTEGRACIÓN LATINOAMERICANA: ARGENTINA ENTRE EL MERCOSUR - ALIANZA DEL PACÍFICO 2011-2018</b>	<b>51</b>
DATTESH D. PARULEKAR <b>MEGA-REGIONS IN INDUSTRIALISATION, URBANISATION &amp; INFRASTRUCTURE DEVELOPMENT: THE INDIAN EXPERIENCE FOR ASIA-EUROPE-LATIN AMERICA DIALOGUE</b>	<b>65</b>
VÍCTOR ALEJANDRO GODOY LÓPEZ <b>LA ALIANZA DEL PACÍFICO: ¿INTEGRACIÓN O FRAGMENTACIÓN?</b>	<b>85</b>
MIGUEL ÁNGEL MORFFE PERAZA NEIDA ALBORNOZ-ARIAS <b>MIGRACIÓN Y CONFLICTIVIDAD SOCIAL: UNA REALIDAD COMPARTIDA EN LA FRONTERA COLOMBO-VENEZOLANA</b>	<b>99</b>
APARAJITA GANGOPADHYAY <b>FROM HISTORICAL LINKAGES TO TRANSFORMATIVE CONVERGENCES: INDIA-BRAZIL CULTURAL AND EDUCATIONAL RELATIONS IN THE 21<sup>ST</sup> CENTURY</b>	<b>127</b>
JOSÉ ZANARDINI DEISY AMARILLA <b>EXCAVACIONES ARQUEOLÓGICAS EN EL ALTO PARAGUAY</b>	<b>143</b>
<b>ANEXO DOCUMENTAL</b>	<b>151</b>
SONIA CHAN PRADO <b>MACAU'S BRIDGING ROLE BETWEEN CHINA AND LATIN AMERICA</b>	<b>153</b>

**MEGA-REGIONS IN INDUSTRIALISATION,  
URBANISATION & INFRASTRUCTURE DEVELOPMENT:  
THE INDIAN EXPERIENCE  
FOR ASIA-EUROPE-LATIN AMERICA DIALOGUE**

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**Abstract:** *Connectivity and competitiveness have merged as principal universal underpinnings to processes of industrialisation, urbanization and conjoining infrastructure development, prioritizing the values of size and scale of the entity in operation. As developed societies meet saturation, the aspirations of the swathe of developing and emerging socio-economic spaces, sought to be satiated through proliferation initiatives at industrialisation, urbanization and attendant infrastructure-build, encapsulated in the evolving concept and phenomenon of Mega-Regions, morphing from City-centric agglomerations to Corridor-driven integrating-continuums, have become cynosures of attention. Notwithstanding their curated specificities in their respective locales, the dominant emerging nations of China and India within a rising Asia, an expansive Latin America beholding region of promise, and the countries of Central, East and South East Europe, share similarities in terms of deficits on the aforesaid triad dimensions to people centric and participatory development and governance, which can optimally be addressed through information sharing and experiential learning from each other. The Paper informs extant stakeholders of the Indian approach, in terms of its uniqueness and comparative contrasts with the peer performer China, unfolding lessons for the Latin American and East and South East European socio-economic spaces, in terms of determining the requisite model for radiating physically capacitive based economic growth, creating platforms for magnetizing investible surpluses, facilitating mobility of labour and human skills, engendering a salubrious quality of life, and inducing competitiveness and resilience within such milieus.*

**Key Words:** *Mega-Region; Agglomeration; Corridors; Industrialisation-Infrastructure; Urbanisation-Infrastructure*

**Resumen:** *La conectividad y la competitividad se han fusionado como fundamentos universales principales para los procesos de industrialización, urbanización y desarrollo conjunto de infraestructura, priorizando los valores de tamaño y escala de la entidad en operación. A medida que las sociedades desarrolladas se encuentran con la saturación, las aspiraciones de la franja de los espacios socioeconómicos en desarrollo y emergentes, se saciaron mediante iniciativas de proliferación en la industrialización, la urbanización y la construcción de infraestructura concomitante, encapsuladas en el concepto y fenómeno en evolución de las mega-regiones, transformándose Desde aglomeraciones centradas en la ciudad hasta continuos integradores impulsados por el Corredor, se han convertido en circunstancias de atención. A pesar de sus especificidades curadas en sus respectivos lugares, las naciones dominantes emergentes de China e India dentro de un Asia en ascenso, una región expansiva de América Latina en la promesa, y los países de Europa Central, Oriental y Sudeste, comparten similitudes en términos de déficit en las triadas dimensiones mencionadas anteriormente se centran en el desarrollo y la gobernanza participativos y centrados en las personas, que pueden abordarse de manera óptima a través del intercambio de información y el aprendizaje experiencial entre sí. El documento informa a las partes interesadas existentes sobre el enfoque de la India, en términos de su singularidad y sus contrastes comparativos con el de China, que está desarrollando lecciones para los espacios socioeconómicos de América Latina y Europa del Este y Sureste, en cuanto a la determinación del modelo necesario para la radiación. crecimiento económico basado en capacidad física, creando plataformas para magnetizar los excedentes invertibles, facilitando la movilidad de las habilidades laborales y humanas, engendrando una calidad de vida saludable e induciendo la competitividad y la capacidad de recuperación dentro de tales entornos.*

**Palabras clave:** *Mega-Región; Aglomeración; Corredores; Industrialización-infraestructura; Urbanización-Infraestructura*

## Introduction

It's famously averred, that "*great things come in small packages*", even as one is equally inured, to hearing the aphoristic formulation, that "*big is beautiful*" too. And if the singular determinant in strategic geopolitics, is the coordinates of location, location and location, then, it can be arguably asserted, that in respect of regional and trans-regionally cooperative frameworks for transcendental forms of economic concert, underpinned, by the triad dimensions of industrialisation, urbanisation and conjoining infrastructural development, what's critical a consideration, is veritable metrics of size and viable benchmarks for scale, that seldom lend themselves to sovereignly delineated territorial circumscription. After all, in an interconnected and interdependent global order, where the forces of globalisation, marked by the advent of technology and information, have discernibly eroded the salience, if not primacy, of the classical conception of the nation-state, what matters most, across manufacturing processes, production methodologies and essayed forays into human development, is to be participative and integrated within constructions of continuums, be they infrastructural corridors, industrial hubs, logistics chains, and urbanising clusters, that are less necessarily conformist, to the overriding almost inviolable attribute of the sanctity of sovereign frontiers. Instead, they ought to be more amenable, to pivotal considerations of cost-competitiveness, operative efficiency and efficacious dispense of last-mile services, on account of being attractive propositions, for floating investible surpluses, which are only persuasively gravitated, by the sheer prospects for beholding consumption-demand markets, forking-up rewarding returns on investments, exuding a progressive latitude for seeding technologies and consummating transfers, not to mention the coveted opportunities and potential eco-systems, for fostering and nurturing human-induced ingenuity, enterprise and innovation.

Across strategic developmental planning frameworks and ideated discourse alike, it has been hobbyhorse, to regard the concept of the sovereign 'Nation-State', as the centripetal unit of structuralism and agency for conduct, with accommodated scope for miniaturisation of models towards accounting for 'Provincial' development, even as the phenomenon of the 'City', barring the aberrational exception(s), remains regarded, as a banal and passé oddity, for the purposes of any considered emphasis and focus. The concept of 'Mega-Regions' is increasingly in vogue in the lexi-

con and lingua, pervading academics and policy makers, as a new cartographic delineation and embraced scale of economic co-ordination and social organisation. Though the observed phenomenon of a mega-region, is shorn of a systematised epistemology, that can be comprehensive, uniform, and universally validated, nevertheless, its most commonly understood, as an increasingly prominent economic unit, that encompasses an agglomeration of cities, and hems-in, its less dense hinterlands, which are linked, through the intersecting labyrinth of infrastructure, economic connections, settlement patterns and land use, physiology and topography, an environmental system, and/or a shared culture and history, that together facilitate the shaping of a commonly partaking interest, for the beneficence of the wider region, in capacitated socio-economic terms (Regional Plan Association, 2006). This said, notwithstanding the extensive corpus of literature ventilating on the myriad benefits exuded by mega-regions, much less erudite work exists in the context of identifying mega-regions, in an international context, given that the concept finds its genesis in the progressive prosperity of the proverbial imperial 'West' and the putative democratised, neo-liberally advanced 'West'.

In theory, mega-regions can be expounded, through a morphological, functional or network approach. The morphological approach identifies mega-regions based on continuous urban settlement areas that reach certain thresholds of density, dimension or degree of urbanisation. The underlying idea of this approach is that contiguous development results from a functioning as a mega-region. Thus, if multiple urban centers become integrated to the point where their labour markets and local supply chains overlap, the space between them tends to fill up with lower density development. The functional or network approach defines a mega-region as an area of interactions between actors that can go in multiple directions and on several interconnected multiple layers. Identifying complex structures requires information on flows between the different parts of the mega-region. Such information can help capture material or immaterial flows. Material flows are directly observable and can be measured such as commuting flows or commodity flows. Immaterial flows include observable ones, such as email and telephone exchange, as well as non-observable ones such as knowledge flows. In practice, variants of the morphological approach dominate as the functional or network approach is much harder to conduct, due to constraints in data availability at the local level and limited comparability across regions.

In a worldwide context, the phenomena of ‘Mega-Regions’, is invariably perceived, as conflating with commodious areas, signifying copious dimensions of geographical and territorial spatiality, blended, with gargantuan magnitudes of population. The UN Habitat Report of 2014, defines ‘Mega-Regions’, as symbolising, any one of three types of new urban configurations, alongside Urban-Corridors and City-Regions, and details them, as “*several cities, integrated with each other, within the orbit of the overall region, surpassing mega- or meta-cities, in terms of population, and economic output, and that further combine large markets, skilled labour and innovation*” epitomized, in the storied grandeur Japanese initiative of the Tokyo-Nagoya-Osaka-Kyoto-Kobe mega-region (home to sixty million inhabitants) and China’s surpassing equivalent of the presently unfolding Greater Pearl River Delta (around 120 million people) mega-region, encompassing the industrial locomotive of Guangzhou with the high-tech and electronics city of Shenzhen, with the twin Special Administrative Regions (SARs) of Hong Kong and Macau, respectively (Van Der Ploeg, 2008: 15).

The real driving force of the world economy is a new and incredibly powerful economic unit: the mega-region. Extending far beyond a single core city and its surrounding suburbs, a mega-region is an area that hosts business and economic activity on a massive scale, generating a large share of the world’s economic activity and an even larger share of its scientific discoveries and technological innovations. While the expansive constellation of one hundred ninety three sovereign nations, constitute the tapestry of the global governance firmament, it behoves instructive mention, that it’s the forty significant mega-regions, embodying commercial-industrial heft and economic-financial pelf, that veritably power the global economy, accounting for two-thirds of global economic output, and a staggering 85% of substantive technological innovation, on a progressively rising operative trajectory (Singh, 2012).

More than half a century ago, the noted economic geographer Jean Gottmann propounded the nomenclature of the “Megalopolis”, to explicate the phenomenon of cities on the US Eastern Seaboard, consciously endeavouring, to band together. Describing the conurbation, spanning six hundred miles and reposed of thirty million individuals at the time, as “*the cradle of a new order in the organisation of inhabited space*”, this characterisation has turned out prophetic, in that, the expansive corridor straddling the bookends of Washington DC and Boston, is home to about



a fifth of America's population, and beholding an annualised economic output to the tune of 3.75 trillion dollars, equalling just under a quarter of the aggregated US GDP; there's no gainsaying that, from an economic standpoint, it's virtually incontrovertible, that mega-regions are eclipsing hinterlands, into oblivion(Gottmann, 1961). The classical US vision of mega-regions, visualises the unfold of such constructs, in terms of growth of interconnections of urban agglomerations, inter-se, wherein, within such ostensible corridors, a unique phalanx of metropolitan areas procreate, circumventing traditional political boundaries, developing determinant externally and internally functionalised linkages. Under such apparently synonymous 'City-Region frameworks, mega-region constructs stand denoted, as areas comprising multiple contiguous metropolitan realms, interconnected by commuting patterns, business thoroughfare, environmental landscapes and watersheds, weaved economies and social networks, across which, critical factors of production, such as capital and labour, get reapportioned in deployment, at winnowed transaction-executing costs(Burton, 1963: 285-286).

Across the world, regions are facing a continuous transformation shaped by economic, technological and social developments that affect residents' activity and spatial patterns. Globalisation has increased the central role of urban areas in the competitiveness of regional and national economies due to their potential for reaping agglomeration economies. As such, urban areas have developed as economic hubs and attracted more and more people over the last century. Continued growth of urban areas is resulting in cities becoming economically interdependent with their surrounding settlements. (OECD, 2015) In addition, new technologies allow for increased mobility and linkages between cities creating the new geographic scale of mega-regions. Mega-region is sufficiently large and diverse to accommodate a far broader range of types of agglomeration economies and geographic settings than it typically does today. This would take the advantages of mega-regional location beyond the notion of urbanization economies. A mega-region can then be seen as a scale that can benefit from the fact that our complex economies need diverse types of agglomeration economies and geographic settings, from extremely high-agglomeration economies evinced by specialized advanced corporate services to fairly modest economies evinced by suburban office parks and regional labour-intensive low-wage manufacturing. It can incorporate this diversity into a single economic mega-zone. Indeed, in

principle, it could create conditions for the return of particular activities now outsourced to other regions or to foreign locations.

Infrastructure is a sine qua non condition-precendent of sorts, for intimating social and economic ties between peoples, across places. While the era of digitalisation increasingly allows for accessing services and knowledge without the need for actual mobility, physical transport infrastructure channelling goods and labour is still an important factor for supporting linkages and facilitate functional integration between regions. Policy discussions in a mega-regional context therefore often focus on developing new or upgrading existing infrastructure to achieve sustainable goals that are environmentally and socially beneficial. For example, high-speed trains are often discussed as potential solution to overcome the greater distances within a mega-region while limiting the environmental impact that accompanies greater integration through shifting transport from air or road to rail. Apart from environmental benefits, especially smaller networks of cities aim to increase their joint competitiveness through higher accessibility between their economic centers. Not only does better infrastructure connection facilitate co-operation and pooling resources between neighbouring regions and cities, it can also increase international visibility and strengthen competitiveness at a global scale. The impacts of large scale infrastructure are however uncertain and benefits are not necessarily distributed equally across cities within the region.

Increasing connectivity between cities and regions not only provides new opportunities but may also confront local policy makers with challenges that affect their cities and neighbourhoods, which cannot be solved by action taken only at the city or metropolitan scale. Examples include the efficient provision of infrastructure and services, enabling economic development and creating inclusive and resilient regions, protecting public watersheds that span across multiple administrative boundaries, and moving goods from coastal ports through congested metropolitan areas to reach inland destinations. Addressing challenges at the appropriate geographic scale can increase the benefits associated with economies of scale. Not only do economies of scale relate to the most common advantages resulting from shared transport infrastructure, coordinated land use planning or economic development strategies, but may also support local strategies in an increasing globalised world. For example, areas where smaller cities are the norm are facing increasing pressure to remain visible and competitive in a global market. Co-operation and

pooling resources between neighbouring regions and cities is therefore an increasingly important factor for global success.

To understand the benefits that emerge from mega-regions, the appropriate geographic scale needs to be identified. In practice, mega-regions are often identified by a ‘bottom-up’ approach, where local stakeholders see common ground to act with neighbouring cities and regions. In practice, bottom-up approaches of cities and regions seem to be an important driver for collaboration on a mega-regional scale. Thus, common challenges that need to be addressed at a wider regional scale are recognised and efforts are made to find partners in the surrounding regions. However, not knowing the true extent of the mega-region may result in crucial areas being left out. Similarly, top-down approaches face the difficulty of identifying potential mega-regions based on quantitative criteria. For example, national governments that want to support collaboration on a mega-regional scale have to know which areas have the potential for integration and to foster economic growth.

Like America’s fifty states, the countries of eclectic Europe are also historical artefacts, defined by political boundaries. The major economies of Europe are a small number of world-class mega-regions, which compose the bulk of the continent’s innovation and production. However, European mega-regions are comparable in size to their North American and Asian counterparts, even though most of the metropolitan areas of which they are composed are smaller. Notwithstanding, in contrast to its American peers, the European scheme has conventionally imagined such mega-regions as constituting a density of ‘City-Networks’, involving a slew of discrete or physically separated urban centers in close proximity to each other and functionally inter-related, leading to arguable polycentric urban agglomerations, qualitatively curated, to criterion of economic growth index and sustainability quotient, than be ritualistically wedded, to spatial dimensions of territoriality and demography, alone (Ross, 2009, p.1). To this end, mega-regions, ought not to come across, as mere linearly extrapolated versions of a city or metropolitan region, but ought to be guided, by touchstone indicators of thresholds of functional integration, governance arrangements and agglomeration benefits.

Neither are there any iron-clad rules governing the establishment of mega-regions, nor does any manual as to the consolidated roadmap for a mega-region, exist. Hence, things sort of evolve and happen, and models of mega-region emerge and evolve, playing it by ear, recognising along

the way, as to the critical consideration of collaboration and the ingredients that go into forging it. However, what makes stakeholders repose their faith in the strategy towards mega-regionalism, is the belief, that this framework can propel milieus on the economic fringe and politically, hitherto excluded, from planning processes, establishment decision-making and delivery and dispensation mechanism, to enter the possibility of engaging and exerting influence over peer centers of social power, through creation and fostering constructs of a 'mega-regional' space.

While in the developed world, where more or less stable and evenly distributed quality of life, is independent, from the place of living, the opposite tendency of de-urbanization and desire to live in distant and calm suburbs, is becoming increasingly popular, as a result of massive sprawling. This presents other issues like improvement in the efficiency of existing transport infrastructure, improved rural-urban planning or re-distribution of economic activity. Regardless of the country and its economic status, further urban growth must be smarter, more efficient, more environmentally friendly and sustainable. Meanwhile, some areas, due to an ever-growing concentration of people, business and government activity, achieved the stage of megacities, exceeding the threshold of ten million people or the level of global cities with significant influence on the world economy. This process is accompanied, by the gradual integration of the nearest towns and cities which become the hinterland of the core. Progress in information and communication technologies, coupled with further improvement of transport infrastructure, bind these areas and bring a principle new feature, viz., socio-economic coalescence with common labour market and free circulation of tangible and intangible assets.

Due to increased growth, megacities consume large metropolitan areas as intermediary steps toward the next enlarged urban form of human settlements; the mega-region. Mega-regions unify several urban clusters into one integrated area. There is no chance to escape the mega-region's concentration, their mega-structures or their respective consequences (both problems and mitigations). To some extent it can be argued that the future world will not be led by nations but by cities; particularly major urban cores with own hinterland within mega-regional boundaries, competing in the global economy at global while having to cooperate in other spheres like environmental protection, migration, and mitigation of global risk. This shift toward mega-regional influence over national leadership is already happening. Such kind of city networks like C40 cities foundation

for climate actions, the Global Parliament of Mayors or the Strong Cities Network, launched by the United Nations (UN), and others. The influence of such horizontal activities and cooperation among urban practitioners throughout the world, escaping national boundaries and high policy would only increase. Simultaneously, mega-regions too vast for their own regional boundaries are starting to play at national and even international levels since some of mega-regions overlap national boundaries to say nothing of those that enclose smaller regions and municipalities.

This said, while the West has been the progenitor pioneer of the Mega-Regions concept, territorial swathes driving this concept in contemporary times, are the lesser developed continents, the emerging societies, and newer nascent rising economies, alike, making the likes of Asian and African expanses, the most notable agencies, for twenty-first century conurbation. As dominant arch-pillars within Asia and globally, China, within its 2.2 billion populace strong immediate East and South East Asian vector, and India, albeit to a lesser extent, but within its two billion demography South Asian sub-continent, are at the vanguard of the trend to develop new-age gen-next mega-regions, even as the Latin American transcontinental expanse, with its unmistakable profile as the fastest urbanising behemoth locale and requirement for attendant infrastructural growth, and the section of Central, Eastern and South Eastern Europe (CESEE), in so far as being enduringly and largely excluded from the politico-economic processes of European mercantilist and fiduciary cohesion and integration, have remained agglomerating laggards to the swathe of the 'EU-28', rendering them relatively more archaic in development and impoverished in human subsistence, despite possessing much captive promise and potential to be unlocked, as witnessed in the incorporation of both Latin America and the CESEE sovereign-states into China's ambitiously fording Belt-n-Road Initiative (BRI).

### **Examining the 'D-M-I-C' Game-Changer – Whither an Emerging Indian Mega-Region?**

The Delhi-Mumbai Industrial Corridor (DMIC), is one of several infrastructure megaprojects underway in India, which are intended, to spur much-vaunted industrial modernisation and engender manufacturing-based employment for India's teeming young, largely unskilled work-

force, which portends, a metastasizing full-blown crisis, if not addressed, momentarily. The Delhi-Mumbai Industrial Corridor (DMIC) project, seeks to address the triad of impediments, impairing and hobbling the ascent of the Indian economy to a robustly sustained higher growth trajectory, and impeding the proffering to its complex society, of enduring avenues for substantive upward mobility, viz., dearth of cogent and resilient industrial manufacturing, gaping multi-vectored infrastructural deficiencies, and haphazard and indiscriminate urban planning and implementation, detached, from industrialisation imperatives and societal sustainability priorities. Conceptualised and formulated by the Govt. of India in cooperative compact with Japan, the DMIC supports the integrated development of robust industrial mega-regions, new-age townships and gen-next 'Smart' Cities across seven states within the Indian Union, pegged at an estimated aggregated project outlay of approximately \$100 billion. At its root, spine and stem, is a dedicated high-speed freight line that would connect the bookends of the National Capital Region (NCR) of Delhi with the nation's largest port container, in Navi Mumbai, in the country's financial capital of Mumbai. Quintessentially, the DMIC is one of five 'Development Corridors', envisioned, across India; ambitious, complex megaprojects, that involve public and private investment and multitudinous levels of state intervention, anchored in the presupposing ardent belief, that deliberatively-planned and well-coordinated investment, in infrastructure, world-class facilities and better connectivity, will boost industrial modernisation, within and across regions, and generate mass employment, to ameliorate the paradoxically vexing 'jobless-growth' spectre, not to mention, radiate developmental economic activity across vast stretches spanning the seven provinces on the alignment of the project, which have been notorious for underwhelming economic progress, if not outright backwardness. Yet, it begs the question, as to why has this 1483 kilometres winding, arguably the largest global infrastructural initiative to date, been rendered, a seemingly fledgling visage, having floundered for long since its inception in 2009, and only found precious impetus in recent years? And this so, when India's constantly perceived peer competitor, albeit militating at an altogether differentiated plane on account of its voracious financial bling and pedigreed construction-logistics expertise, China, has made such an apparent success of its forays into developing humungous mega-regions?

Apart from the truism of being a late bloomer in its infrastructure building spree, some lessons are nevertheless instructive, in comprehending India's quest for industrial and economic corridors, as integrative endeavours aimed at bridging and straddling socio-economic development, juxtaposed against the Chinese hub-n-spoke model that expands cities, metropolitan regions and enterprise centers through agglomeration, into 'Greater' Hub-Regions, thereby elucidating how there cannot be and need not be a single-shot silver-bullet, one-size-fits-all approach to envisioning, ideating and constructing mega-regions, and bringing viable, resilient and competitive parameters of size and scale, to attributes of connectivity and integration (Lall and Rastogi, 2007).

There remains little doubt that, in a nation which has seen witnessed scant attention to infrastructure-build, up until the economic liberalisation inflection-point, and in a chequered undulating form, even since, and where manufacturing and production capacity-building has been fettered to within and girdling major urban centers, and where elements of convoluted legal regimes at land acquisitions, and high transport costs have made industrialisation and urbanisation formidably uphill, consequently contributing to a disproportionately inverse relationship between indices of national economic growth and the pan-India quotient of formal employment, the sheer planned framework for the development of no less than twelve industrial 'Mega-Regions', encapsulated in the main by eight such 'Investment Regions' in the unfolding first phase of the DMIC, traversing through relatively impoverished agrarian states such as Madhya Pradesh as well as vested in the more industrialised ones but yet mid-rung human development indicators states, like Gujarat, has to be a game-changer, in terms of galvanising what makes mega-regions, heartthrob ticks, i.e. factors of production in the form of capital (investible funds) and labour (skills) mobility. The support for multi-sectored infrastructure provisioning in the form of multi-modal transportation network, power grids for sufficient commercial and non-commercial persuasions, industrial clusters and zones, logistics hubs, technology parks, etc., which bring consortiums to bear, that tend to the value-added and knowledge-oriented services strand of the economy, water supply and waste management facilities that cater to urban aspirations, and the stand-out feature of Smart Cities, has to constitute a dead-cert stimulator to productive economic activity, which catalyses a higher bump in GDP growth, and amelioration, in allied indicators (Estache and Garsous, 2012).

Outside of lending a fillip to the economic growth trajectory, mega-region projects such as the DMIC, proposes a new scale of urban settlement in India, taking the form of a network of investment and industrial regions at strategic locations, but equally, introduces a new scale of institution, as Indian cities have only been familiar with governance at the level of metropolitan regions, to date. To this end, the sprawl of the DMIC in terms of the labyrinth of economic and industrial corridors, assumes and dons a greater share of national-building, as viewed in the DMIC Trust fund corpus, being rechristened, as the National Industrial Corridor Development and Implementation Trust (NICDIT), not meant to be an exercise in semantic calisthenics, but invested in having this project and its execution, don the mantle of an avowed and intended integration of corridor developments, across India (Bajar and Rajeev, 2016).

Mega-regions, by their innate profile and showcasing, act as 'spaces' that are attractive to capture private sector investors, with promises of rewarding returns, either competitive to opportunity costs elsewhere or with assurances of compensating returns for such solicited suppliants. Mega-projects such as the DMIC, with its medley of investment and industrial regions can be considered as veritable 'Spaces of Mega-Region' that are attractive to the welter of Sovereign Wealth Funds and Pension-Funds, floating around, awaiting opportunities, for credentialed high returns. Hence, it comes as little surprise that industrial and urbanised powerhouse economies such as the US, and the Western European big-wigs, as also the East Asian sentinels, such as Japan, South Korea and Singapore, have been gravitated to invest their political will and fiscal means into stake-holding of the DMIC itself, or varied components of the overarching mega-regional development initiative, with similar strong interest evinced, from the trillions of dollars wagering Gulf States, such as the UAE, Saudi Arabia and Qatar, amongst the fold. This said, identities come under strain when such large mega-regions appear to subsume localised consciousness and imaginations, a necessary casualty of seeking increased globalism. Mega-regions, to this extent, have to be on the qui-vive, and watch for mutating power-relations within the mega-region itself, since despite marketing the mega-region as a composite integral whole, private sector investments which are ruthlessly profit orientated, would splice these mega-regions in terms of tiers of their commercial predilections, creating dualities of 'vanguards' and 'laggards' and a consequently discordant and acrimonious atmosphere, in the bargain. Since



they are likely to attract private sector investors and deliver so-called 'world-class' infrastructure and development, it is likely that such areas will exacerbate spatial inequalities within India.

Mega-regions, despite outgrowing many established centers of yore, cannot go off on their own accord, charting an alignment, of their own volition. Mega-regional development, in order to make commercial and societal sense, has to be tethered to national destiny and nationally delineated vision and roadmap, otherwise, such organic and linear agglomerations working on principles of aggregation and compositeness, can bring inundating debt and problems of sustainability, all round. Some of this has been observed across China, where grandiloquent mega-regions growth has left eye-balls grovelling and minds gyrating, yet, two decades on from when they began to be carved-up, amidst concerns of a slowing Chinese economy, these massive physical structures are being questioned for being prescient investments, or foolishly conceived endeavours, premised and predicated upon impulse of premature impulsiveness. In contrast, though much smaller in operation, India has defined the alignment and trajectory of its DMIC stretch as corridor development skirting and corraling its envisioned transportation infrastructure route. For instance, the DMIC passes through two of its states, viz., Gujarat and Maharashtra, both of whom are home to India's biggest international ports of Kandla and the JNPT, respectively, and which are forerunners to India's currently envisaged ambitious scheme of developing a string of two hundred multi-tiered (big, intermediate and small) ports along its seven thousand six hundred kilometres, straggled coastline. In addition, the DMIC, all along its 1483 kilometres long 'Freight Corridor' stretch, would usher-in a purported 'global manufacturing trading hub', along a 150-200 kilometres concurrent stretch, abutting the entire length of the logistics cargo thoroughfare line, wherein commutation and transit-times, along the corridor, would be significantly whittled down from a torturous fifty hours at present, to a nifty seventeen hours, on the freight corridor, with transfer times for the six-lane motor-expressway, and the country's maiden bullet-train segment to truncate it massively. The DMIC is planned around the freight corridor, with public investment to develop the trunk infrastructure until the surrounding development starts attracting private sector investment. And such can be the allure of a mega-region, that the nation's maiden Bullet-Train track of about 560 kilometres, connecting the financial capital city of Mumbai and the commercial provincial capital

of Ahmedabad in Gujarat State, estimated at \$15 billion, is overwhelmingly financed on commercially incomprehensibly munificent terms by Japan, at such minimal lending rates, that work out more as a gift, than a commercially advanced loan. The DMIC megaproject aims to leverage the freight line, connecting cities, towns, districts and regions within its 'Zone of Influence', to each other, and to domestic and global markets (Straub, 2011).

Intriguingly, in India, policymakers and across academic literature, shun the use of the term mega-region to allude to the DMIC, preferring instead to mention it as a development corridor, an idiom that sits much more comfortably in a nation, of significant poor, and segues into what has become a global trend across the swathe of developing societies. Across the developed comity of countries, the idea of transport/transportation corridors have been hotly debated due to a perceived lack of adequate integration, between mega-corridors and spatial planning processes.

As centralised, concerted projects of state intervention, Development Corridors like the DMIC, are mounted as correctives to the small-scale, uncoordinated Special Economic Zones (SEZ) and unrealised public-private infrastructure projects, that proliferated across India in previous decades, most of which were unsuccessful. This said, in developing environments such as that of India, which is a multi-party democracy, with decentralised and devolved multiplicity of authority and decision-making, mega-regions success, are as much a function of the physical capacitation that imbues within, as much as it is the upshot of governance mechanisms bearing down upon such a region. The DMIC essays to address physical capacitation, through an intertwined network of planned and inter-connected industrial and investment regions, however, piloting the project through a unitary nodal authority, or body, as is perfunctorily possible in the Chinese context, is an onerous task, virtually impossible. Since the DMIC peregrinates through as many as six states, the institutional overhang in terms of the wherewithal of the political class and the bureaucratic core, to deliver on equal footing, becomes an ineluctably fraught reality (Kohli, 2004). Furthermore, mega-regions are often impacted upon by invariable cost overruns due to escalating levels of risks involved, brought on by the downsides to policy planning, execution and consummation.

The DMIC is a complex, multi-sectoral project, which spans not only a large territory, but three levels of government, i.e., the public sector and private actors. National-scale and mega-infrastructure components – the

dedicated freight railways, national highways and high-speed rail links, ports and airports—are typically national state enterprises, while state governments are responsible for planning and delivering regional and local infrastructures and land/urban development. Traditional models use public money to account for the high risk of megaprojects without necessarily securing the full consent of the public. This is often referred to as a democratic deficit at the heart of major infrastructure planning. Although, Public Private Partnerships (PPP) evolved in part to overcome democratic deficits, since private sector actors share the risk capital, in practice there is very limited awareness of the actual framework of account ability of PPPs. In India, for example, the PPP is more widely known as a project financing mechanism. In such a context, methodologies like reference class forecasting (RCF) must be used to estimate more accurate project costs, and financial accountability must be suitably assigned. There is a valid ground to adopt such methodologies considering DMIC is definitely a megaproject that is prone to cost and time overruns.

It's widely suggested, that what metropolitan centers have been to project based development of the twentieth century, mega-regions are, to the vagaries and vicissitudes of economic development in contemporaneous times. With a lot riding on the way mega-regions, ultimately turn out, a good measure of attention coagulates itself towards ensuring the adequate absorption of invested global capital and the rule of law and legal environment that governs such investments. It's not accidental, that in recent years, India seems suitably better poised to solicit greater FDI than even China, ostensibly because while China has much more going for itself in terms of decisive governance and an overall environment more conducive, India's certitudes in terms of a democratic system and a fully functioning rule of law, makes it equally congenial, if not more, to deploy valuable investible surpluses across India.

The foregoing suggests that, the DMIC, and other proposed economic and industrial corridors, are emerging mega-regions, within India. It has sought to demonstrate how such developments are defining mega-regions, for India and South Asia. In India these are taking the form of planned urbanisation, boosting the manufacturing sector and its contribution, towards national economic growth. Mega-regions are being implemented, as part of a strategy to improve the economic competitiveness of the nation, with the leadership of the central government. Such mega-regions are therefore making space for global capital to be invested,

and are therefore, in a very real sense, an urban form of globalisation. Besides, these mega-regions are grist-to-the-mill evidence of the incumbent dispensation's strategy, to foster international economic integration. Such mega-regions will also, however, accommodate a substantial and newly urbanised population. Notwithstanding, plausible questions surrounding the feasibility of the DMIC, being promoted as the world's largest infrastructure project, demands attention and raises many significant challenges and questions, viz., whether investment in infrastructure would translate into economic growth, and who would be the genuine beneficiaries, emanating from this investment; the potential infirmities with regard to instituting accountability frameworks for Public-Private Partnerships (PPP); the latitude for integrating the transport infrastructure with spatial planning, the governance matrix of a mega-corridor being run through multiple administrative boundaries, and the social and environmental impacts of this new scale of urban settlement. NASA has come forth to conceptualise an understanding of the trends at urbanisation leading to mega-regions, worldwide, through the deployment of its night-light schematic map, which speaks to the most revealing dint of India being home to fourteen of the twenty most urbanising cities, globally. Recently NASA's night light map has revealed that fourteen of the twenty most urbanising cities in the world are located in India. The moot question that would determine the fate of mega-regions in India, and posit it as instructive for other regions, nursing similar aspirations, is as to how would planned mega-regions like the DMIC, relate to the likely emergence of other spontaneous mega-regions, in India's urban future?

## Bibliography

- Bajar, S., and Meenakshi Rajeev (2016):“*The Impact of Infrastructure Provisioning on Inequality in India: Does the Level of Development Matter?*”, The Journal of Comparative Asian Development, 15(1), pp.122-155.
- Bajpai Jitendra & Eliza Muzzinni (2016):“*Cities as Growth Accelerators: Fostering National and Urban Development Policies for Success*”, Growth Dialogue Institute Report, CAF Development Bank of Latin America.
- Burton, I. (1963), “*A Restatement of the Dispersed City Hypothesis*”, Annals of the Association of American Geographers, Vol. 53(3), pp. 285-289.
- ChattarajShahana (2018):“*Infrastructure, Institutions and Industrialisation: The Delhi-Mumbai Industrial Corridor and Regional Development in Gujarat and Uttar Pradesh*”, ORF Issue Brief No. 272.
- Ducca Frederick W., Ting Ma, Sabyasachee Mishra, and Timothy Welch (2013):“*A Framework for Mega-Region Analysis: Development and Proof of Concept*”,National Center for Smart Growth Research and Education, University of Maryland, USA.
- Florida Richard, Tim Gulden and Charlotta Mellander (2008) :“*The Rise of the Mega-Region*”, MPI Rotman School of Management/Centre for International and Security Studies/Prosperity Institute of Scandinavia/Jonkoping International Business School, Paper No. 129, CESIS Electronic Working Paper Series, April 2008.
- Glocker Daniela (2018):“*The Rise of Mega-Regions: Delineating a New Scale of Economic Geography*”, OECD Regional Development Working Papers 2018/04.
- Gottmann, J. (1961),“*Megalopolis: The Urbanized North-Eastern Seaboard of the United States*”,Twentieth Century Fund, <http://dx.doi.org/10.2307/1952505>.
- Harrison J., and Hoyler M., (2015):“*Mega-regions: Foundations, Frailties, Futures*”, in Harrison, J. and Hoyler, M. (eds.) *Mega-regions Globalization’s New Urban Form?* Cheltenham, UK and Northampton, MA, USA: Edward Elgar, pp.1-28.
- Meijers, E., (2005):“*Polycentric Urban Regions and the Quest for Synergy: Is a Network of Cities More Than the Sum of the Parts?*”, Journal of Urban Studies, 42(4), pp. 765-781.

- Mukhopadhyay Chandrima (2017): “*Is the Delhi-Mumbai Industrial Corridor an Emerging Mega-Region in India?*”, *Planning Theory and Practice* (Online) 1(5).
- OECD (2015), “*The Metropolitan Century: Understanding Urbanisation and its Consequences*”, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264228733-en>.
- Ohmae, K., (1995): “*The End of the Nation State: The Rise of Regional Economies*”, Simon and Schuster, 1995.
- Overman, H. G., Venables, A. J., (2005): “*Cities in the Developing World*”, CEPR Discussion Paper, London: Centre for Economic Policy Research.
- Regional Plan Association (2006), “*America 2050: A Prospectus*”, New York, USA, September 2006. <http://www.america2050.org/pdf/America2050prospectus.pdf>.
- Retsinas, N., P. (2007): “*Mega-Cities, Mega-Problems*”, LA Times, February 28.
- Ross, C. (2009): “*Mega-Regions: Planning for Global Competitiveness*”.
- Singh S., (2012): “*Urbanisation: From Mega-Cities, Mega-Regions, Mega-Corridors, Mega-Slums to Mega Opportunities*”. In: ‘New Mega Trends’, Palgrave Macmillan, London, pp. 61-80.
- Scott, A. J. (ed.), (2001): “*Global City Regions*”, Oxford, U.K.: Oxford University Press.
- Taubenbock H., M. Wegmann, C. Berger, M. Breunig, A. Roth, H. Mehl (2008): “*Spatio-Temporal Analysis of Indian Mega-Cities*”, *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*. Vol. XXXVII, Part B2, Beijing, PRC, 2008.
- Van Der Ploeg Frederick (2008): “*Globalisation and the Rise of Mega-Cities in the Developing World*”, Working Paper No. 2208, *Cambridge Journal of Regions Economy and Society*, February 2008.
- Wheeler Stephen (2009): “*Regions, Mega-Regions and Sustainability*”, *Journal of Regional Studies*, Vol. 43, Issue No.6, pp. 863-876.