

# The Map in Post Colonial India: A Case Study of Regulations

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**Abstract:** The decolonization of India involved a process of transfer of vast territory from the British Empire to the Indian Union. In the early phase of the formation of the new nation a series of cartographic exercises were initiated by the new central government of India. This initial re-articulation was based on a series of colonial systems of territorial regulation. However in the decades of the second half of the 20th century the Indian state devised mechanisms that defined it as a territorial entity. This state formation process is critical in understanding the definitive features of Indian border regulation. This paper will examine historical documents from the first few decades of state formation in India to study how the Ministry of External Affairs, the Survey of India and other institutions functioned in their early phase to produce cartographic representations and territorial definitions for India, based on historical records of correspondences and policy regulations. Following this the paper will study how maps as an object of regulation and cartography as a subject of state control evolved in post – colonial India. This will be a case study based on numerous documents from various periods in the 20th century. These historical processes within the state have significant implications on the nature of the state relationship to the Indian borderland.

**Keywords:** Maps, Nation-State, Cartography, Borderlands, India, South-Asia

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Date of Submission: 12-12-2022

Date of Acceptance: 28-12-2022

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## I Introduction

In 2016 the Indian parliament mulled the Geo-spatial Information Regulation Bill. By the general terms set forth in this bill, the regulations for the depiction of maps in India was extensive. If interpreted at its full extent the bill would suggest a near complete regulation of cartographic representations of Indian territory (The Geospatial Information Regulation Bill, 2016). The Bill indicated which departments within the Indian state would have the authority over the authorized representation of maps. Simultaneously, it indicated which sections of the Indian state would be devoid of the said regulations. Much of the debate surrounding the bill at the time revolved around the scale of regulation that the bill would cover. Despite the debates over the bill the nature of its regulations are not a break from the inherent regulatory policies of the Indian state. To the contrary, they are well aligned with a series of laws, legislation, policies, and practices that have been intrinsic to how India is organized as a state. In the context of the post-colonial history of the Indian state, regulating the map is an exercise that is of serious anxiety and critical value. A series of historical instances can be evaluated to elicit this feature of the Indian state. Irrespective of the bill in 2016 there already existed a significant number of regulations upon the representation of maps in India.

India has also changed as a nation state in the 21<sup>st</sup> century. Since the liberalization reforms in 1991, there has been significant political and economic changes in the country. These changes have brought with it new interests and objectives that guide the government and the state. This was reflected in 2021, when the Department of Science and Technology passed revised guidelines for the use of geospatial information (DST Guidelines, 2021). The system was made much more liberal for the use of businesses and individuals. The concerns addressed by the 2021 guidelines were reflected in the discussions in 2016, which centered around the impact vast restrictions on geospatial information would have on businesses (Hindustan Times, 2016). India's Geospatial Information Economy is expected to grow to over 7.6 billion dollars in 2025, by government estimates (Ministry of Science & Technology, 2022). Continuing with rigid policies on maps that were reminiscent of the 20<sup>th</sup> century would not have worked as smoothly in the digital age. The guidelines in 2021 essentially overruled many of the restrictions that were to be proposed in the 2016 bill.

The relaxation of geospatial information while liberal in scope still does not include a series of regulations on strategic maps and information. Much of the sphere of restrictions still exists within older regimes of regulations. The Bill in 2016 and the guidelines published in 2021 can be seen as representative of

two paths in Indian History. The former is rooted in the myriad cartographic regulations that have been a prominent feature of the Indian state since decolonization. The latter is representative India post liberalization. The two are interlinked histories that impact the regulation of maps.

A series of influences on current regulations come down from the National Map Policy of 2005. The Regulation primarily divides maps into Defence Series Maps (DSM) and Open Series Maps (OSM)(National Map Policy, 2005). Despite the classification what has to be noted is that both series of mapping stay well within the Survey of India's purview in terms of accreditation and valuation. The National Topographical Database also firmly regulates depictions of cartography. Much of the roots of these policies goes back to the decades after independence. After the Survey of India transitioned away from colonial administration in 1950 a series of regulations were introduced often in coordination with other ministries and departments to create a framework for cartographic regulation. A significant move in this regard was the acquisition of complete control the Survey of India and the Ministry of Defence have in the definition and the depiction of the Indian map. An important law that facilitated this process was the Criminal Law Amendment Act, 1961 which essentially criminalized the production of any map that was not in conformity with the standard set by the Survey of India. The penalty for this offense could be imprisonment upto six months. In 1963 the export of any map of India of the scale 1: 250K and larger was prohibited(Ministry of Finance Notification, 1963). The obverse of this scenario is the fact that any unofficial depiction of maps both in India and of maps of India abroad remains illegal.

## **II Context and Methods**

The objective of this paper is to contextualize these regulations on cartography as they are built over the course of contemporary Indian history. This paper focuses on the administrative and bureaucratic changes that happened in the 1950's and 1960's to contextualize the origins of these cartographic laws. The discussion around the regulation of maps in India is primarily based on state centric views on security and the control of sensitive material. The majority of this discussion among the Indian bureaucracy has been about how the proliferation or misrepresentation of maps can be a deterrent to national security. This logic informs the core ideas of intensive regulation by the state on cartographic representation and geo-spatial information. There has been criticism on these regulatory policies in different fields and industries. The geo-spatial information industry as well as the legal historical criticism has been raised against such vast regulatory practices. This is often based on how regulations affect the free flow of information and creates restrictions for industry to easily access or generate geo-spatial information. The regulations affect a vast array of individuals in business and in academia. The laws are also successively updated as newer forms of technology emerges to depict territory.

Instead of trailing a legal history of the subject, this paper will examine historical documents from different departments of the Indian state. These correspondences, cartographic exercises, surveys, and letters allow for an analysis of the mechanics of Indian bureaucratic systems and its implications on cartography. The paper works towards showing how this anxious and overbearing approach to restricting maps is historically an intrinsic part of the Indian state. This is why despite the criticism the laws remain intact and new legislation always further restricts maps. This also has significant implication on post-colonial India's cultural and social approach to imagining the map.

## **III Colour Washes**

The decolonization of India involved a process that transferred the vast territory of the British Empire to the Indian Union. In the early phase of the formation of the new nation, several cartographic exercises were initiated by the new central government of India. This initial re-articulation was based on a series of colonial systems of territorial regulation. However, in the decades of the second half of the 20<sup>th</sup> century, the Indian state devised mechanisms that defined it as a territorial entity. This state formation process is critical in understanding the definitive features of Indian border regulation. One of the earliest exercises in cartographic depiction was undertaken by the Survey of India in creating the initial political maps of the new union. The correspondence for this exercise is a window into a multitude of features for the approach the Indian state had towards its boundary definition. The definition of the extent of territory in the early 1950's was tenuous. The new Indian state having emerged from the violence of partition still had to renegotiate what constituted a vast colonial territory into the new republic. In defining the map the concerns of K.Zacharia (the head of the Historical Division of the Ministry of External Affairs) lay in concluding what depiction of territory and more specifically which depiction of the international boundary line would suffice for representation of the Indian Nation-State. In his correspondence to the Survey of India, Zacharia indicated significant concern as to the nature of representing the boundary line which as he pointed out, did not have clear demarcations in most cases(Zachariah, 1951). The suggestion was thus raised to refer back to colonial era classifications of terrain and treaties that demarcated colonial territory to produce a depiction of territoriality for the new nation. Zacharia's focus lay in the section of terrain between Hunza and Nepal which along with the expanse of territory in the Tirap frontier tract were

mostly undefined in the records (Survey of India, 1950). The solution proposed to deal with this inconsistency in border demarcation was to indicate the region in color washes. In the final map that was produced as the 'Map of the New Republic' both the north western sector as well as the Tirap frontier tract in the east were depicted in an "undemarcated colour wash". The undefined and unregulated nature of these territories was displayed as an unfinished demarcation. This was further addressed in November 1953 in the making of the 'National Atlas for India'. The demarcations required were sourced in this case by referring to British demarcations from 1945-46. Critical input in this process was derived from the book 'Highlands of Tibet' in evaluating the extent of territory (Wilson, 1953). The subsequent map of the Indian Union which would come out a few years later in 1956 would have articulate representations of all the boundary lines alluding to a series of negotiations and cartographic exercise that would be definitive of the territoriality of India. This clarity of mapping does not however indicate that the territorial extent of the Indian union was accurately regulated at par with its cartographic representations. There were issues for mapping several areas well into 1956 where for example, the Ladakh frontier largely remained undefined. In this regard, the Ministry of External Affairs corresponded concerns of the paucity of information regarding the region. Most of the information for the same was taken from the work of an IB agent named Jagjit Singh who was posted in the region for a significant amount of time (MEA Extract, 1956).

The inconsistency between cartographic representation and real geographic territorial control was a defining feature of the political negotiations of the Indian Union in the early phase of the state's development. These were either the consequence of renegotiating colonial boundaries, territorial reorganization or the center-periphery divide in demographic conflicts. The view of territory in relation to cartography was tenuous even within the Indian state. By analyzing contradictions of cartography within the state, issues at the core rather than at the periphery can be studied. Several contexts for such contradictions can be seen. A critical issue was in the debate over the effectiveness of maps and their inaccuracies in Tawang during the Indo-China war of 1962. The debate over the efficacy of the maps of Tangla ridge and their impact on fighting in the sector turned out to be a point of contention. Gen. Palit who was involved in the conflict published his views on the matter almost ten years later in 1971 (Murty, 1971). The arguments between the General and officials of the Ministry of External Affairs provide a series of positions that can justify both sides of the argument. The debate in itself is interesting however this study finds the context of the debate as a point of scrutiny. Here the depiction of terrain on the map is a site of contention.

#### **IV. Contradictions and Debates.**

The contradiction between cartography and territory and between terrain and map is a pertinent point in this discussion. This debate can thus be seen as case to understand the simultaneously anxious and unresolved nature of the Indian state in the first few decades after Independence. Another contradiction within the state can be seen in the case of dispersion of maps within departments of the Indian state when in 1971 concerns were raised over the depiction of official boundaries on operational training maps being used in Bhutan. Being maps that depicted the borders in Sikkim, Bengal and Bhutan there was insistence that the boundary be shown as accurately as possible. This was primarily due to fears that the maps were likely to reach Chinese hands through Bhutanese patrols that might use them. In this case the internal dispersion of the maps itself was of debate due to the risk of their proliferation. In some cases the requirement was extended to state governments and local bodies that were closer to borderland regions to allocate how to define regions on the map. Zacheria's concerns over the expanse between Hunza and Nepal can be further contextualized in the case of the Historical Division of the Ministry of External Affairs reaching out to the Himachal Pradesh government. The policy on trans-border movements that required allocation in 1953 had to take into account the Treaty of Bushahr which was referred to by the government of Himachal in articulating what the boundary line and movement across it designated.

As seen in this series of events, cartographic representation was a critical and arduous process that went along with state making in India. What this process also created was an inherent need within the Indian state system to regulate maps. This has to be placed within the context of how India defines its territoriality. It is a tumultuous process emerging in contradiction with bordering states where a constant negotiation over vast stretches of territory are constantly a site of conflict. This often translates to the depictions of the map being a point of contention. The conflicted border in Kashmir, disputes over the boundary line close to the source of the Kali river in Nepal, the disputed regions of northern Uttarakhand, the cartographic contention with China over Arunachal and several more points on the map are in a state of constant debate. This translates in India having an administrative system that is constantly anxious of the depiction of the map. More specifically acknowledging, even indirectly, the validity of a map that does not fit the official description is considered a significant threat to the state. It informs a series of ways in which the map is regulated in India.

### **V. Legalities and Illegalities.**

An early snippet of the regulatory mechanics behind maps comes from the notes of the Ministry of Home affairs regarding the policy on maps with different depictions of the Indian borderline. The Ministry was advised by the Intelligence Bureau to issue notifications to all Indian states under the section 4(1) of the Criminal Law Amendment Act, 1961. The directive put forth two parameters for the regulation of maps. In regards to foreign publications which had questionable depictions of the frontiers of India their imports was already prohibited under previous customs notifications. The suggested guidelines would go further to “take the additional action of forfeiting the publications.” The second set of parameters empowered state governments with the power of forfeiture over maps with illegal depictions(MHA Extract,1961).

Under section 2 of the Criminal Law Amendment Act, 1961 any publication which had violated the permitted depiction of maps could be seized by Customs. This could amount to a fine for the offender not higher than three times the value of the possession or a thousand rupees, whichever was higher. The limitation was that no police officer could confiscate such maps or detains individuals related to its use. However when the publication was forfeited under section 4 any police officer could seize the same wherever in the country. This also empowered any magistrate the ability to issue warrants to a police officer not below the rank of sub-inspector to enter and search premises where such maps were held. The correspondences in the home ministry at the time pondered about the complexity of implementing such extensive regulations across the breath of India. It was discussed that the “unnecessary correspondence” with the state could be avoided by regulating some of the seizures from the center itself. Jurisdiction was also a complicated matter between ministries, agencies (like customs, police) and well as between state and central bureaucracy. 54 publications were pursued in 1961 with the use of the amendment. The amendment to the criminal act enables state governments to pursue forfeitures on numerous publications. The book “Documents on the Sino-Indian Boundary Question” was forfeited by the Government of Madras under the amendment in 1961. Provisions for forfeiture of publications were already present within the Indian state before the amendments of 1961. In 1959 the November issue of the publication “China Reconstructs” were forfeited by the Andhra Pradesh Government under section 99-A Cr.P.C.

Historically, a significant effort has been endured by the state system to regulate the flow of maps into India. In December 1952 alone 54 maps within a series of atlases, publications, and books were considered to be questioning the territorial integrity of the country(MHA , 1961). These maps would in turn be restricted from entering India through customs regulations and their use by Indians abroad would technically be illegal. These were primarily from Chinese publications and pertained to maps that indicated the boundary line with China according to the Chinese claim of territory. Such regulations were not limited to publications from countries which have territorial disputes with India. In 1963 the distribution of the ‘Oxford School Atlas’ printed in Edinburgh was prohibited for distribution under the sub sections 1 and 2 of section 4 of the Criminal Law Amendment Act of 1961. The depictions of maps in the book was stated to be “questioning the territorial integrity and frontiers of India in a manner which is likely to be prejudicial to the interests of the safety and security of India”(Sahgal, 1961). In 1962 all copies of the wall map called ‘World Wall Map’ published by A.J. Nystron & Co in Chicago was required to be forfeited to the government under the same law(Dave, 1961). Some editions of the history book the Advanced History of India by R.C. Majumder were also recalled for wrong depictions of boundaries in 1959(MHA, 1959). While it is the case that some maps with clear intent at misrepresentation of territory are restricted under law, the legal implications impinge on significantly more areas. This is evident in that the regulations imply to maps that do not necessarily have boundary definitions made to further geo-political goals. The extent of state control over maps is so vast that the majority of maps are in some way restricted from distribution.

### **VI. The Map at the Center**

What can be observed is the formation of the structures of power that would come to define India’s approach to the map. The circulation of maps became connected need to control the representation of territory. This draws parallels to Benedict Anderson’s perspectives on the maps as a key part of the nation state. The “maps as a logo” was a critical development that traversed state formation through imperialism, anti-colonialism into the post-colonial state. Imperial maps progressed from defining their territory of control to creating color-coded demarcations of imperial possession. Colonial possession was distinguished by their color-coded depictions on imperial maps. To Quote Anderson,

*“...jigsaw effect became normal, each ‘piece’ could be wholly detached from its geographic context. In its final form all explanatory glosses could be summarily removed: lines of longitude and latitude, place names, signs for river, seas, and mountains, neighbours. Pure sign, no longer compass to the world. In this shape, the map entered an infinitely reproducible series, available for transfer to posters, official seals, letterheads, magazine and textbook covers, table cloths and hotel walls.”(Anderson, 1983)*

The maps as a 'Pure Sign' and 'an infinitely reproducible series' of specific importance here. The post-colonial Indian state built an entire system of law concerned around the regulation of the map as a sign. Deviation from this sign became a crime and system of continuous appraisal of imagery of maps was built to regulate the sign. The restriction on maps have significant influence on research especially historical research on borderlands in post-colonial Indian history. The 2005 policy that replaced orders from 1967 prohibit the production, possession, and publication of maps that indicate the contours of island territories as well as maps in which boundaries have not been depicted according to the official issue of the Survey of India (Ministry of Defence, 2015). The strategic value of the policy is evident in that differentiated depictions of territorial extent could go against the Indian state's official position in cases of boundary disputes. The policies also have a significant impact on analysis and reproduction of historical maps. These regulations essentially restrict the majority of historical maps from being available for study. Since historical maps will inevitably have boundary definitions that vary from the norm or are undefined, they remain fully restricted or are only available for limited viewership. It is possible to access these maps by going through different channels that grant permissions, this often requires clearance from multiple departments in different ministries. This is not an easy process and access is likely to be limited even when permissions are granted.

## **VII. Conclusion**

Cartography is exceptionally regulated in India. The objective of this paper was to show the historical roots of the series of regulations that permeate into the nature of restrictions on maps. This was not an expansive study of the totality of the mechanisms that control the use of maps in India but an analysis of certain parts of the history of the Indian state after independence that can be seen as contributing to the nature of the current policies. A legal historical approach would have been to trace the linear progression on different colonial and post-colonial laws that were consequential to the policies. Instead, the focus of the paper was on studying the implications of map regulations and the mechanisms that impact the distribution of maps. The intent was to elucidate the ways in which actual controls over cartography permeate. This is also seen in the case of internal contradictions within state mechanisms in relations to the handling of maps.

There are also strategic reasons that influence the extensive restrictions on maps. It can be seen as a state response to regulating the narrative of terrain. The Indian state requires a series of claims over territory to be maintained so as to continue holding diplomatic and military positions. This in turn facilitates a continuous regulation of maps as this is a significant part of maintaining these claims. The implications of these regulatory policies is that general access to most types of maps is significantly low. It has affected research and the general discourse of territory. The extensive nature of the regulations might also have an influence on how territory is viewed by Indian society. They set a precedence of creating policies that persistently lead to criminalizing maps. Since the study of borderlands has the analysis of maps as a key factor, understanding the influence of these policies on cartography is critical. Restrictions on maps have produced a significant gap in the knowledge of borderlands especially in the case of historical maps. This is because historical maps as such do not have the same strategic impact as current maps of disputed regions but the current policies in their broad framework brings these maps under regulation. This has had implications on the current study. None of the maps studied in this paper can be presented as they all remain restricted for public viewing. Considering these historical processes the Indian state's efforts to have successively more detailed policies to restrict and regulate mapping is unlikely to change. The nature of the policies are intrinsic to how the state is ordered. While the Geo-Spatial Regulations Bill of 2016 did not gain much ground it is likely that similar legislation with overarching effects on the access to maps will emerge in India in the future.

At the same time mention has to be made about the changes happening in the economy of geospatial information. The 2022 guidelines show how the Indian state is simultaneously changing because of the needs of present day realities. It is likely economic and realities as well technological changes will affect the interplay between the state and geo-spatial information. The regulatory mechanism that governs information related to territory will also evolve with the emerging technological environment. Despite contemporary changes it will be historical influences on the state that will create regulatory regimes. This burden of history will not be inert but will be dynamic based on India evolves as a state into the 21<sup>st</sup> century.

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Anand Damodaran. "The Map in Post Colonial India: A Case Study of Regulations." *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 27(12), 2022, pp. 41-46.