

## Research Article

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# Make-in-India: Moving from a Monocentric to a Polycentric Response to the COVID-19 Crisis!

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**Abstract:** The paper will look at the initial and subsequent Indian government's response to the COVID-19 focusing event. The strategy used to tackle the initial Covid-19 wave in India was copied from resource-rich countries and authoritarian countries and due to centralization bias in India's institutions, a monocentric response to the crisis was the default instead of cooperative solutions. However, the response to the pandemic should have been by multiple decision centers and based on local and institutional knowledge, considering India's institutions, culture, and state capacity, for a "Make-in-India" polycentric response. Solving large-scale health externalities requires coproduction to deal with nested externalities more effectively instead of monocentric global responses. I propose policy considering previous epidemic responses focusing on polycentric governance where civil society is incentivized.

**Keywords:** COVID-19, state capacity, polycentric governance, monocentric governance, nested externalities, co-production

**Jel classification:** H70, H77, I18, Z12

## 1 Introduction

The first case of the coronavirus in India occurred on January 30th, 2020 (Unnithan 2020). On March 22nd, Indian Prime Minister Modi announced a 14-hour voluntary public curfew known as the *Janata* (people's) curfew. Soon thereafter, on March 24th, the prime minister announced a nationwide lockdown for 21 days (Withnall 2020).

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On April 14, the lockdown was further lengthened till May 3rd with additional guidelines provided by the government (Desk 2020).<sup>1</sup>

The Center for Disease Dynamics, Economics, & Policy (CDDEP), using models (IndiaSIM) found that without interventions that 300 to 400 million Indians would be infected by July. At the peak, around 100 million (between April and May) would be infected with 2 to 4 million requiring hospitalization. Social distancing in theory could reduce the peak rate by 75% (Klein et al. 2020).

It was estimated that India needed 38 million masks, and 6.2 million pieces of personal protective equipment (PPE), but had only 9.1 million masks and 800,000 PPE (Kalra and Ghoshal 2020). The CDDEP report also finds that there were only 30 to 50,000 ventilators in India and about 100,000 intensive care unit (ICU) beds but the needs would be upward of 700,000 ICU beds and 1 million ventilators (Klein et al. 2020).

To avert this potential tragedy, a lengthy nationwide shutdown was implemented. However, while it has been argued that the benefits of the lockdown were to save lives and not to overburden the health infrastructure in India, the marginal costs to individuals, private institutions, and governments are very high in a less developed country. The trade-off in saving lives by preventing and mitigating the impact of the coronavirus is possibly more lives and livelihoods lost due to the social and economic impact, especially on the poor. To mitigate the economic impact, the Indian government has put out a \$23 billion package to provide the poor with food rations, cash transfers, and cooking gas (Chandrashekar 2020).

India has a history of dealing with pandemics which needs to be considered for a Make-in-India solution to COVID-19. Numerous epidemics have impacted India since colonial times. The main and recurring ones include malaria, smallpox, and cholera (Arnold 1993; Samanta 2017). Other infectious diseases have also been dealt with in India more recently including dengue fever and chikungunya. Having dealt with these diseases in the past provides institutional knowledge. However, the heightened narrative around coronavirus and people's fear about the pandemic resulted in drastic monocentric action taken by the Indian government during the initial wave.

Further, modern India, unlike American federalism or the European Union, is considered to have a 'quasi-federal' system with a centralization bias (Venkataramanan 2019). Decision-makers primarily include the central governments and state governments, with municipal and rural governments playing a minor role despite the 73rd and 74th Constitutional Amendments which increased the responsibilities of the urban (Ahluwalia 2019) and rural bodies. This centralization bias in institutions eased the way for monocentric actions.

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<sup>1</sup> There were four phases of the lockdown and as of April 8, 2022, India ended at the twenty-second unlock phase.

Economists use the concept of market failure to impose state intervention to promote the common good. When dealing with infectious diseases, people's private actions could impose costs on society and hence the argument for coercive state solutions. COVID-19 is a global health crisis where the solution was approached from a top-down approach. However, "global solutions' negotiated at a global level—if not backed up by a variety of efforts at national, regional, and local levels—are not guaranteed to work effectively' (Ostrom 2012). Due to the nested nature of the problem, bottom-up solutions which include, for example, local governance and civil society must be included. Ostrom frames the issue as those of 'nested externalities,' where polycentric institutions "have a significant role in coproducing nested and overlapping solutions to resolve global dilemmas" (2012, Paniagua 2022).

In this paper, I will use the polycentric governance model to suggest a "Make-in-India" solution that involves numerous decision centers<sup>2</sup> in finding solutions to the nested externalities caused by the pandemic. Section two details the theory of polycentric and monocentric governance. Section three reviews the monocentric response by the central government of India. Section four discusses how a polycentric governance approach will look for a Make-in-India approach. Section five concludes.

## 2 Polycentric versus Monocentric Governance

The concept of polycentricity was first discussed by Polanyi (1951). Polycentric political orders have several key features: "overlapping jurisdictions" of authority, "duplication of functions" concerning public goods and services, and "many centers of decision making that are formally independent of each other" (Ostrom et al. 1961). This allows for competition between and within different levels of the organization. To further explain the basic features of polycentricity, Aligica and Tarko (2012) have identified three features: "(1) The existence of many centers for decision making, (2) the existence of a single system of rules (be they institutionally or culturally enforced), and (3) the existence of a spontaneous social order as the outcome of an evolutionary competition between different ideas, methods, and ways of life."

Polycentric political orders have both horizontal and vertical competition which occurs as political units at different levels can possess unique knowledge. Vertical competition occurs when government services occur at different levels e.g., police forces at the central and state level in India. Horizontal competition occurs between jurisdictions without overlapping geographies (e.g., states). Tiebout competition

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<sup>2</sup> Decision centers are formal or informal groups where certain individuals whose decisions become binding on a group.

(Tiebout 1956), as horizontal competition provides information on what is working better amongst competing states allowing people to leave for better jurisdictions. For this reason, polycentric governance will result in more and varied entrepreneurship across all levels where decisions are made (Boasson 2018). Further, polycentric governance will enhance “innovation, learning, adaptation, trustworthiness, levels of cooperation of participants” resulting in legitimacy and effective outcomes at different levels (Ostrom 2010). Further, polycentric systems can withstand shocks to the system better and continue to deal with problems as they occur even when key players may be out of commission due to for example illness (Jun and Kim 2007).

On the other hand, monocentric states are where control is “vested in some single office or decision structure that has an ultimate monopoly over the legitimate exercise of coercive capabilities in some particular society” (McGinnis 1999). For this reason, a purely monocentric state faces informational limits from the lack of democratic process and due to a lack of Tiebout competition. Monocentric states have difficulties collecting and processing dispersed and tacit information. “Officials of the modern state are, of necessity, at least one step—and often several steps—removed from the society they are charged with governing. They assess the life of their society by a series of typifications that are always some distance from the full reality these abstractions are meant to capture” (Scott 1998). Further, these states have a difficult time predicting the long-term and many times unforeseen effects of their policy interventions.

Pandemics create externalities that at times are global. For this reason, many scholars believe that these externalities are an “optimizing problem” that is solved by a “singular authority through uniform policies” however, the concept of nested externalities sees the problem as that of solving “multilevel collective action problems” (Paniagua and Rayamajhee 2022). Nested externalities occur when “actions taken within one decision-making unit simultaneously generate costs or benefits for other units organized at different scales” (Ostrom 2012). For example, during pandemics, activities taken by families, individuals, firms, and clubs, create externalities that affect other levels of governance. If the externality is too big to internalize by different levels of authority, then effective coordination of “different nodes of authority across administrative and political hierarchies is needed” (Paniagua and Rayamajhee 2022).

A complex society like India needs polycentric governance including during times of pandemics. This allows for services to be provided at multiple levels and reduces the average complexity of problems that higher governance levels must solve. “[T]he polycentric program encourages duplication and competition among different polycentric problem-solving institutions, which provides some approximation of the ideal of ‘experimenting’ with diverse institutional designs to see which institutional schemes are more functional and efficient” (Gaus 2019). Furthermore,

complex societies if governed by monocentric systems will be unresponsive to local concerns. Additionally, polycentric governance also includes non-state players such as private and voluntary organizations such as religious institutions, neighborhood associations, political parties, schools, and so on, (Stephan et al. 2019) which can replace or supplement state actors.

### 3 Monocentric Responses & the Challenges Posed

India's initial response to the coronavirus was monocentric partly due to the centralization bias in its institutions. The centralization bias comes not only from historical pathways (e.g., colonialism) but also via the institutions set up post Independence. The center-state relationship is mainly dominated by the central government. There are two main reasons for this dominance. The first reason is that the constitution accords enormous power to the center and also the ability to dismiss duly elected state legislatures for various reasons including things like civil unrest, absence of a clear mandate, and political instability (Article 356). The second reason is that the center controls the purse strings. The center collects a large portion of the taxes and then redistributes some of it to the states to do their duties. Many states have become financially dependent on the center to help fill the financial gap in their budgets via intergovernmental transfers. Additionally, local governments also depend in many cases financially from the state governments to administer their goals (Choutagunta et al. 2021; Siwach 1985).

The Indian Constitution provides for three lists in the Seventh Schedule: the Union List, the State List, and the Concurrent List. These lists provide powers and functions for the central and state governments. The central government legislates in the areas of the Union List.<sup>3</sup> The states have powers to make laws that are on the State List<sup>4</sup> and matters in the Concurrent List.<sup>5</sup> However, in matters of the concurrent list, the central government can also legislate, and if so, then the central government legislation overrides any state government provisions. Further, under some circumstances, Parliament might even legislate in areas of the state list (Choutagunta et al. 2021). Furthermore, a statutory basis also exists for dealing with infectious diseases and this includes the Epidemic Diseases Act (1897) and the National Disaster Management Act (2005) the latter of which empowers both the central and state

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3 These include for example areas related to the military, navy, railways, ports, foreign affairs, taxes, and so on.

4 These include things like police, prisons, public order, public health, agriculture, taxes, and so on.

5 These include things like criminal law, family law, drugs, trade, and commerce, to prevent “the extension from one State to another of infectious or contagious diseases” and so on.

government to deal with disasters (Alok 2020). For these reasons, the centralization bias results in monocentric actions.

Another reason for monocentric responses in India and other countries is the issue of global spillover effects of the pandemic and hence many believe that global cooperation is needed. Due to the large-scale externalities, experts saw this as a humongous problem, that was to be “solved at a national or global level, disregarding institutional diversity and heterogeneity of challenges” (Paniagua and Rayamajhee 2022).

A similar monocentric response failed earlier with the bubonic plague when India was under centralized colonial rule. The plague that arrived in Bombay (now Mumbai) in 1896 was an epidemic and was part of the global third bubonic plague pandemic and lasted many decades. By 1930, 12 million had died from the disease (Ramanna 2008). In the early days of the plague, there was no clear understanding of the plague or the appropriate measures to use hence it was novel like COVID-19. Drastic controls were attempted. Mass disinfection, destruction of homes, quarantines, cordons, restrictions on travel, hospitalizations, etc., were tried. People fled the cities, used traditional remedies, prayed, etc., to control the plague. The authorities also violated many local norms in trying to control the plague resulting in resistance from the people for example burning bodies when the community had burial customs. Eventually, the authorities changed their colonial policy to a more polycentric approach to “promote preventive steps, with the support of the people” (Ramanna 2008). By the 1940s, plague mortality was declining. The authorities, who by now had plenty of data and had produced useful knowledge from the data, had perfected the methods needed to control the plague. These solutions included cyanogas fumigation, the inspection of ships and trains, the establishment of separate plague hospitals, mass inoculations, sun disinfection, the construction of rat-proof granaries, etc. (Mahammadh 2020).

One of the key insights learned from the plague example is that when seeking a solution to a novel epidemic, the authorities must avoid a one-size-fits-all policy and involve other decision centers like village elders, etc. Otherwise, there will be continued resistance to perceived monocentric actions resulting in possibly making the epidemic worse and long-lasting<sup>6</sup> i.e., there needs to be a sort of co-production between the people and the authorities that need to occur to solve serious problems (Herzberg 2020).

We saw similar disobedience to government edicts in India for COVID-19. While in countries like Japan, the people gradually ceased compliance with the legal norms, in India, it was almost immediate. This almost immediate shift away from legal norms minimized social conflicts amongst citizens but increased conflict with the

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6 The bubonic plague took decades to resolve in part due to the monocentric response.

state via police enforcement which at times was heartless. The shift away from legal norms was primarily due to cultural and economic conditions as the lockdown decisions involved no coproduction. Laws that are inconsistent with social norms are perceived as irrelevant or unjust by many citizens, who then are reluctant to help the state detect and punish individuals who break such laws (Cooter 1997). Lockdowns which resulted in job losses and shutting down of the informal sector which many depend on, resulted in people immediately migrating to their hometowns to prevent hunger and hence spreading the virus. Further, a lack of understanding of basic hygiene and ignorance of the impact of Covid-19 resulted in people not washing their hands frequently, changing masks often, lack of social distancing, and even not wearing masks properly (Iwasaki 2022; Kartono et al. 2020).

With the fast-moving and novel COVID-19 pandemic, the low-cost way to implement a policy is to adopt a policy from other jurisdictions. Media coverage of what China was doing to contain the virus, plus coverage from the developed world on their government policy, and from institutionalized communications it would seem natural for countries with a centralization bias to at first pass to default to the policies of those countries. However, a wholesale imitation of policies from other countries without consideration of those policies' effect in a developing democratic country can be unsuitable in India (Shipan and Volden 2012). Further, imitation can result in a path-dependence problem that can be difficult to change course if the state machinery, interest groups, and other players get locked in. For example, bureaucracies develop routines and momentum resulting in inertia and the inability to innovate during changing times. As Rourke states, "bureaucratic services generate constituencies that oppose their liquidation" (1984).

Hence, when considering a new policy for a novel and severe problem, the Indian government, based on information readily available, naturally leaned toward a monocentric approach due to the centralization bias in its institutions. However, based on previous experiences with the plague and other internal characteristics such as India's other governance structures, the optimal Make-in-India solution would be the polycentric approach.

In this section, I will discuss the two main challenges for why India adopting the initial monocentric approach was not ideal.

### 3.1 State Capacity

One of the obstacles to imitating policies from other countries and using the monocentric governance model is the lack of state capacity which is tied to measures of economic development (Berry and Berry 2014). Lack of state capacity in the COVID-19 context means the state cannot provide public health capacity e.g., lack of

hospital beds, insufficiently trained healthcare personnel, testing centers, and so on (Choutagunta et al. 2021). Further, they lack state capacity to enforce a lockdown properly, get migrants home, or provide welfare during a lockdown, etc. Further, the monocentric approach lacks informational feedback and competition which exacerbates the issue of state capacity and state effectiveness. Moreover, when there is a pressing problem, many in society might “tolerate a great deal of unforeseen consequences in pursuit of a solution, thus practically reducing the relevance of interconnections” (Gaus 2019) which would result in other pressing problems like starvation in a developing country when there is a lack of state capacity.

Many authors have written about the limited state capacity of India. The Indian state is inadequate in some matters but does well in other contexts (Kapur 2020). Further, India copies the West in its many rules and regulations but has a very limited capacity to implement the policies resulting in further breakdown of capacity (Rajagopalan and Tabarrok 2019). When “managing complex tasks and on a massive scale” and where there is an exit, like national elections, the Indian state does well in ‘mission mode’ (Kapur 2020). However, this was not true with the episodic event of demonetization. Numerous unintended consequences required further intervention and in many ways were a failure when compared to the officially stated reasons (Bose 2019). It seems that mission mode is only successful if the mission is narrow and regularly repeated like the elections, the *Kumbh Mela*,<sup>7</sup> etc., where institutional learning can occur and where there is evaluation, learning, and accountability over multiple episodes resulting in state capacity.

The issue of a national lockdown<sup>8</sup> due to COVID-19 is another episodic event that has never occurred post-independence, at least when considering the length of time and as a novel epidemic. Similar lockdown experiences occur in India with *bandhs* or *hartals*, which are mass protests where entire regions can be shut down and occasionally All-India *bandhs* occur too. These events are usually short-term and organized by political parties. In these instances, police beat up people who either call for the *bandh* or oppose it depending on who controls the machinery of the police and under these circumstances, most people stay in their homes and do not venture out. Hence, the *bandh* model was implemented by the governments when dealing with the coronavirus as that was the only institutional knowledge available. When the initial 21-day lockdown was announced, police physically assaulted people who violated the coronavirus lockdown regardless of whether that person was seeking

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7 A Hindu religious festival that occurs four times in four different locations over 12 year period. Each celebration attracts tens of millions of pilgrims and lasts many weeks (<https://www.britannica.com/topic/Kumbh-Mela> accessed March 10, 2023).

8 This was copying what China did in Wuhan in one province across the full country.

medical treatment or food, a doctor going home from a shift, or a worker going to work in a factory making masks, vegetable vendors, etc., (Deese 2020; Venkataramakrishnan 2020a). The *bandh* model, with its authoritarian and monocentric nature, is not the model that is needed to operate this one-of-a-kind long-term event proving that state capacity even in mission mode and even with some institutional knowledge is lacking.

### 3.2 Knowledge Problem

One of the primary issues with a monocentric response to the epidemic is the knowledge problem mentioned by Nobel laureate Hayek. Government edicts from the top fail to understand the local realities at hand as they do not have on-the-ground information and further top-down planning imposes the will and desires of the elites on the people even if the reasoning to do so is noble.<sup>9</sup> Further, the elites in the capital Delhi did support the lockdowns and their support might convey erroneous information to members of parliament who interact with these elites that all classes of Indians support the lockdown (Sharma 2020).

“The movement for planning owes its present strength largely to the fact that” it is comprised of “almost all the single-minded idealists, all the men and women who have devoted their lives to a single task. The hopes they place in planning, however, are the result not of a comprehensive view of society but rather of a very limited view and often the result of a great exaggeration of the importance of the ends they place foremost ....” This makes “the very men who are most anxious to plan society the most dangerous if they are allowed to do so — and the most intolerant of the planning of others. From the saintly and single-minded idealist to the fanatic is often but a step” (Hayek 1944).

In the case of the coronavirus lockdown, the immediate nature of the knowledge problem became clear immediately. When the 21-day lockdown was announced, people ran out to buy food because the prime minister did not explain how the food was to be obtained. Later, a tweet from the PM suggested essential commodities will be available (Venkataramakrishnan 2020b). Further, the lockdown broke down the supply chains preventing essentials like food, water, and medicines from being transported. Moreover, many daily wage earners who were now out of a job started migrating back to their home villages. It took the government almost 2 days to react to the migration by announcing a relief package. Further, with crops ready to be

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9 The British government faced similar problems when dealing with smallpox and cholera epidemics in the 1800s in India. ARNOLD, D. 1993. *Colonizing the body: State medicine and epidemic disease in nineteenth-century India*, Berkeley; London, University of California Press.

harvested (wheat, rice, lentils, etc.), the shutdown left crops dying in the fields (Bhosale and Sally 2020). The government had to allow it to be harvested,<sup>10</sup> but the shutdown has made it difficult to obtain labor and transportation for products (Biswas 2020; Mukul and Aryan 2020). Additional provisions were later allowed for fisheries and hatcheries. These unintended results highlight the issues Gaus (2019) mentions about reducing the relevance of interconnections.

Further, when the shutdown was announced, we see a large reverse migration to villages from cities as people head to better support structures found in their extended families. This migration could increase the exposure of the disease to millions more resulting in higher costs due to health and lives lost. While on paper, the state has social security schemes and entitlements<sup>11</sup> to mitigate the need to migrate to the villages, however, “on the ground, these schemes are hobbled by poor implementation, planning or just plain apathy” (Angad 2020). While money is deposited into a *Jan Dhan*<sup>12</sup> account holder, the bank might be far from where one lives making it difficult to access during the lockdown. This is known as the “last mile” problem.

To further ease the pressure on individuals to migrate to villages, the government has directed industries to continue paying wages during the shutdown even when firms have zero or reduced revenues. This created higher-order problems, for example, even in industries that are allowed to operate, the workers don’t show up as they assume they will get paid anyway. While corporate involvement might have a polycentric flavor, the directive to help the workers is in a way compelling the industry to be an intervening welfare institution even though that is not what they specialize in (Bureau 2020). However, some companies have continued to support their workers during the shutdown, as it is primarily for good business reasons for retaining experienced workers instead of a welfare scheme (Damodaran 2020).

With the announcement of the nationwide shutdown, numerous changes had to be made to the initial shutdown order via notifications from the Ministry of Home Affairs to make the process go more smoothly. According to PRS Legislative Research, on September 24, 2020, there were 945 notifications at the central level and 6084 notifications at the state level.<sup>13</sup> These changes were needed because of the

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<sup>10</sup> The rice and wheat crops saw an increased harvest as the shutdown impact was thankfully short-lived and did not cause permanent harm. <https://www.indexmundi.com/agriculture/?country=in&commodity=wheat&graph=production>. <https://www.statista.com/statistics/1140236/india-production-volume-of-rice/> (accessed November 12, 2022).

<sup>11</sup> These include programs such as free grains, disability payments, old-age pensions, LPG cylinders, *Anganwadi* (child care centers) supplies, etc.

<sup>12</sup> *Pradhan Mantri Jan Dhan Yojana*, is a program by the Indian government to increase access to financial products and services for Indian citizens.

<sup>13</sup> <https://prsindia.org/covid-19/notifications> (accessed September 24, 2020).

knowledge problem that Hayek talks about. Even with the *ad hoc* notifications, which are in English the language of the elites, there were still numerous higher-order problems that require additional notifications, especially when dealing with the migration crisis. Moreover, reopening the country after the lockdown could create more uncertainty if companies have to wait for notifications and clarifications from the top (Jacob 2020).

Further, even when state and local governments announce plans, the knowledge problem is still very stark. For example, the Haryana government announced cash relief for daily wage workers. However, to obtain the benefit, everyone needs to register online in a nation where online access is nowhere near universal and have a bank account. Further, going out to register for the benefit, could get one beaten up by the police (Lalwani 2020). In a village in the state of Madhya Pradesh, after the lockdown was announced, the district collector “started issuing daily bulletins regarding the lockdown, what to do and what not to do. Unfortunately, most of the population doesn’t use cell phones or the internet in the village. There are no newspapers, and they only got some information through people who use a smartphone” (Vishwakarma 2020).<sup>14</sup> Even at the local level, we see a knowledge mismatch between the local government and the citizens.

## 4 Polycentric Make-in-India Governance

The COVID-19 problem should have been approached and solved using a system that considers the political, economic, social, and institutional characteristics of India with local knowledge.<sup>15</sup> Being a complex society, a polycentric approach would be more in line with what an ideal Make in India response would look like with many levels of action and with both vertical and horizontal competition. One author limits polycentric responses to including foreign entities like the World Health Organization or the Gates Foundation and other experts in policy-making in India, but this is a limited understanding of polycentricity (Mistree 2022). What makes it “Make-in-

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<sup>14</sup> In India 25% of adults report owning a smartphone, an additional 40% own a mobile phone, and 35% do not own a mobile phone. TAYLOR, K. & SILVER, L. 2019. Smartphone Ownership Is Growing Rapidly Around the World, but Not Always Equally: In emerging economies, technology use still much more common among young people and the well-educated. Pew Research Center.

<sup>15</sup> This is not the same as scientific knowledge which is more easily transmitted across international borders. However, even scientific knowledge transfers need to carefully consider local circumstances as was seen when the British sought to introduce vaccinations for smallpox and met with resistance. ARNOLD, D. 1993. *Colonizing the body: State medicine and epidemic disease in nineteenth-century India*, Berkeley; London, University of California Press.

India” is that polycentric governance utilizes numerous and diverse decision-makers at all levels of authority in a coproduction process.

## 4.1 Make in India—Federalism

Since 2015, India’s federal structure, while having a centralization bias, has been nudged via *NITI Aayog*<sup>16</sup> towards cooperative federalism through fiscal devolution. However, due to bureaucracy and incentives, the change to fiscal decentralization did not fully occur (Aiyar and Kapur 2019). Even so, the federal structure can play an important role in dealing with a crisis.

Since the epidemic will play out differently in different states, and since the median voter in each state will tolerate different levels of intervention, the decision-making power as to what to do should be devolved from the center to the various other power centers that exist in India including state and local governments at the beginning of the crisis. The center does play a role like eliminating trade barriers for medical supplies, limiting international travel, dealing with large interstate externalities that might occur when other centers of authorities act, etc., however, most policy action when dealing with externalities should be done at the state and local level allowing for better matching between voter preferences and policies. This is consistent with Oates’ decentralization theorem (Oates 1972). After the failure of the monocentric response became apparent a shift toward a polycentric response took place with subsequent Covid-19 waves. While knowledge problems will continue to exist, the closer to the people decisions are made, the more innovative and adaptive solutions will come about based on local information.

States that have better medical infrastructure might opt for a shutdown of only those infected and showing symptoms (Bhuyan 2020; Philip 2020). Other states with less corrupt and hence better welfare delivery systems (primarily panchayat-based) might attempt more restrictions as the aid gets to the people who need it (Angad and Singh 2020). States with better organized and charitable institutions could attempt aggressive methods. Rural and poorer states might emphasize more social distancing instead of a general lockdown whereas urban centers might focus on testing, sanitizing, and quarantining.<sup>17</sup> These different responses in rural and urban settings will

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<sup>16</sup> National Institution for Transforming India is a public policy think tank run by the Government of India to increase the involvement of state governments to promote bottom-up cooperative federalism.

<sup>17</sup> This approach was used in the Dharavi slums of Mumbai with the usage of hydroxychloroquine as a prophylaxis. The city teamed up with the doctors in the area resulting in a co-production of sorts with the people that lived there (<https://www.latimes.com/world-nation/story/2020-06-24/dharavi-slum-in-mumbai-india-contained-covid-19> and <https://theprint.in/health/hcq-to-be-tested-on->

be driven by the median voter. The median voter in these different states living in different circumstances would have different ideal positions. This would allow for maximizing net benefits of the states or even localities are allowed to set policies.

Moreover, policy diffusion, “the process by which an innovation is communicated through certain channels over time among the members of a social system” (Rogers 2003) could occur as states or localities discover solutions that could be used in different areas. These solutions could be adapted via five mechanisms, “learning, imitation, normative pressure, competition, and coercion” (Berry and Berry 2014).

To improve responses to epidemics in general, India’s local governments need to be strengthened so that they can better monitor, evaluate, gather, and share information. Lower-level political units (both urban and rural units) have closer proximity to their citizens and hence information is more freely exchanged. If more problems are solved at the local level, it reduces the size and scope of the problem the central government must solve. However, India’s local government employment is very low when compared to countries like China and the U.S. Only 3% of total government expenditure is at the local level compared with 27% for the US and 51% in China (Kapur 2020). Local governments, as front-line state agents, need independent financing and need to be much larger to implement programs such as basic sanitation and waste management effectively (Randolph and Gandhi 2020), but these powers need to be devolved from the state level (Rajagopalan 2018) which is also relatively large.<sup>18</sup> Moreover, having stronger local governments can create a pathway for local control of the police instead of the current system of state control or central control of the police, a system set up by the British (Joshi 2015). This would make police more accountable and less brutal to the populace allowing for vertical competition. Further, independent local governments will avoid one-size-fits-all policies being implemented either at the state level or central level allowing for policy diffusion of better ideas to occur quickly. Additionally, the local governments are more responsive to the needs of the local populace as they can use better the dispersed and tacit knowledge thus making their actions more likely to have the support from the people. Further, solutions generated at the local level end up in a ‘regulatory knowledge commons’, which then can be used by other jurisdictions (Murtazashvili and Piano 2019). When local government action causes externalities with their actions or lack of actions via free riding, this requires coproduction with higher levels of governance to solve them, for example, when during peak infection

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thousands-in-mumbais-dharavi-and-worli-to-prevent-covid-19-spread/404133/ accessed March 18, 2021).

<sup>18</sup> Kapur states that state employment has increased relative to the central government indicating that further decentralization is needed at the local/panchayat level. KAPUR, D. 2020. Why Does the Indian State Both Fail and Succeed? *Journal of Economic Perspectives*, 34, 31–54.

rates, traveling between districts was limited by the state governments (Koushik and Ramakrishnan 2020).

## 4.2 Make in India—Voluntary Sector

Another reason not to mimic solutions from other countries during an emergency is due to the issue of culture/religion tied to non-state institutions. Policy decisions are conditioned and shaped by contextual factors that include cultural and institutional factors. The voluntary sector such as religious institutions, community organizations, and other non-state actors have considerable authority in guiding people's behavior (Chamlee-Wright and Storr 2011) and where trust is diminished with state actors these non-state actors can fill the gap.

In India, there are two primary welfare institutions. They are the state and the family with few sizable intervening welfare-providing institutions that people can turn to get support. There is a need for a more robust voluntary sector or civil society between the family and the state that needs to be incentivized. These institutions can be local non-governmental organizations or organizations that might be affiliated with religious institutions. Independent management of religious institutions would allow for temples to provide needed welfare to their constituents in times of need and could have lessened the need to migrate.<sup>19</sup> Independent financing would allow religious organizations to adapt to new collective needs. Hindu organizations emphasize food distribution (Iyer 2018) which was important during the migrant crisis. Further, allowing temples to have full access to funds allows for increased religious competition, innovation, variety, value, etc., which has been shown to increase the provision of non-religious services also (Iannaccone and Bose 2011; Iyer 2018). These intervening institutions also suffer from lesser knowledge problems than governments and can be more easily monitored by their members hence making them more accountable (Sobel and Leeson 2007). These intervening institutions would create conditions for collective action to thrive by promoting cooperative behavior (Chamlee-Wright and Storr 2009) which impacts issues of public health.

Another benefit of the voluntary sector is that it could be the right mediating institution where the state and the people can get together to develop cooperative solutions to deal with the epidemic. Moreover, independent religious networks under polycentric governance can serve as a check and balance that is “essential for

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<sup>19</sup> This would require temples to be managed independently without their funds being appropriated by the state. Guruprasad (2015). What really happens to your money in Temple Hundi? Available from: <http://guruprasad.net/posts/really-happens-money-temple-hundi/>.

democratic governance” (McGinnis 2016). Additionally, fast-moving pandemics are always in constant flux allowing for the voluntary sector to adapt quickly to changing scenarios (Paniagua and Rayamajhee 2022).

One cost that was a cause of concern regarding religious institutions is that religious gatherings could be epicenters of outbreaks creating externalities. For example, in early 2020, a religious gathering of Muslims was seen as a source of a major outbreak, then in 2021, the *Kumbh Mela* festival by Hindus was also seen as a major source of a major outbreak (Rocha et al. 2021; Sharma and Anand 2020). While the state can try to stop these gatherings by force to prevent externalities, it might result in the delegitimization of the state’s actions as the state’s actions might be seen as outside the social norms and could cause social conflict (Iwasaki 2022). For this reason, education and coproduction are preferred for collective problem-solving to minimize the externalities of religious gatherings.<sup>20</sup> For example, many religious gatherings occurred online or in a socially distanced way which involved fewer crowds. Many religious practices were modified, for example, churches placed restrictions on the practice of kissing the crucifix and online *darshans*<sup>21</sup> were practiced in Hinduism (Mitra 2020). However, online gatherings and online practices could only be a temporary coproduction solution due to many benefits lost from face-to-face interactions like networking and implicit communications (Iwasaki 2020).

One size fits all solutions from the top could result in non-compliance and resentment if co-production does not occur. And where trust is low, monitoring and sanctioning costs by a central state will be high. Non-state actors can play a trust-enhancing role. The central government should complement and not crowd out “co-production efforts by non-governmental actors at the micro level” (Paniagua and Rayamajhee 2022).

As Hayek states, “if we can agree that the economic problem of society is mainly one of rapid adaptation to changes in the particular circumstances of time and place, it would seem to follow that the ultimate decisions must be left to the people who are familiar with these circumstances” (1945).

Coproduction occurred at the individual, family, and neighborhood levels also. But when top-down orders were imposed in the areas of social distancing, use of hand sanitizers, and mask-wearing, people at times were cooperative and other times in conflict. This is because there was not a common perception that a problem needed to be solved and at times it was not clear if these were solutions. For example, requiring people to wear masks when driving in their cars by themselves

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<sup>20</sup> One counterargument for larger gatherings is that it helps reach herd immunity faster allowing for the protection of the vulnerable.

<sup>21</sup> Viewing of the inner sanctum of the temple where the deity resides.

(Desk 2021).<sup>22</sup> However, in the area of education, when schools were shut down, people immediately saw that a huge problem needed to be solved i.e., the education of their children. Hence, those parents who could afford it were involved in their children's education at home. The schools also made every effort to make classroom material available through online methods. However, poor children were not able to access these materials due to limited broadband. Amongst this handicap, the rise of informal schools arose to fill in the gaps for poor children in different parts of the country and these schools took various safety measures and were creative in how materials were obtained and how classes were organized (Ravi 2020). Ultimately, government orders are dependent on citizen compliance with them. Under polycentric systems, "diverse problem-solving institutions, state as well as nonstate, self-organize in forming rule-based reflexive efforts to solve shared, pressing problems" (Gaus 2019).

## 5 Conclusion

The response to the plague that started in 1896 has taught that the ideal Make in India solution is based on a polycentric governance model where more decision-makers at all levels are involved. The polycentric governance model is what is needed for dealing with the COVID-19 crisis and other epidemics that could occur in the future. The initial response to the COVID-19 crisis was primarily monocentric in nature and did not incorporate coproduction. However, the second Delta wave saw a shift away from monocentric towards polycentricity with states experimenting with different approaches in regards to lockdowns, medications used (vaccines, ivermectin, remdesivir), etc., (Fiore 2021), allowing for learning, adaptation, experimentation, and policy diffusion to occur, however, more decentralization was still needed to deal with numerous other problems that continued to occur.

Being a large and complex society, India needs polycentric governance to deal with nested externalities. An ideal pandemic response would consider median voter preferences in different states and districts which then would necessitate different responses to maximize net benefits. Polycentric systems allow for "norm exploration"; and "groups experiencing perceived unsolved, or badly solved, collective action problems seek to resolve them within the context of their current social networks" (Gaus 2019).

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<sup>22</sup> When this author visited India in 2021 and 2022, I noticed many people hardly wearing masks, but would wear them near police checkposts to avoid steep fines. Further, in some parts of the country, masks were required outdoors during hot and humid conditions. The solution to the problem did not seem reasonable to many people who did not share the problem orientation.

The crisis has created an opportunity to create a framework for societal betterment. The solutions mentioned in this paper like increasing capacity at the local level, allowing for action at the various centers of initiative and authority, and incentivizing<sup>23</sup> the voluntary sector to develop can lead to higher levels of resilience which would allow for an improved response to the crisis in the future. Any governing norms and constitutional limits that need to be changed to allow for these changes like decentralization should be considered and rigorously implemented (Herzberg 2020) like the 73rd and 74th Constitutional Amendments. Allowing for a high degree of co-production among different governing units is needed to prevent making the crisis worse and for providing legitimacy and accountability (Jeffery 2021) which will allow for true “Make-in-India” solutions. The crisis will create suboptimal outcomes if monocentric governance is the modal form of operation.

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<sup>23</sup> Material incentives (e.g., tax breaks for donors) or non-material incentives (done organically) need to be encouraged to make this a reality.

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