

Policy WATCH

Volume X, Issue 9
September 2021, New Delhi

Growth with Employment

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growth precipitated
a jobs crisis:
Prof Santosh Mehrotra**

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RAJIV GANDHI
INSTITUTE FOR CONTEMPORARY STUDIES

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Editorial

The Rajiv Gandhi Institute for Contemporary Studies (RGICS) works on five themes:

1. Constitutional Values and Democratic Institutions
2. Growth with Employment
3. Governance and Development
4. Environment, Natural Resources and Sustainability
5. India's Place in the World.

This issue of Policy Watch cuts across several of the above themes and deals with the theme Growth with Employment.

The first article gives an overview of the employment situation in India in 2021. In it, Prof Santosh Mehrotra, Visiting Faculty at the University of Bath, UK, highlights the fact that in 2017-18 the NSO reported that open unemployment had reached a 45-year high, and youth unemployment had tripled between 2011-12 and 2017-18 to over 18%. Finally, unemployment as per the Current Weekly Status, which is close to the international standard for measuring, was 8.9% in 2017-18 to 8.8 % in 2018-19 and remained at 8.8% in 2019-20. These were the worst unemployment rates in the last 48 years since measurement began.

The second article is by RGICS Senior Fellow Dr Rakesh Malhotra and Research Associate Narayani Gupta. It describes the results of an action research project that the RGICS has been doing to promote micro-enterprise based self-employment in small towns in 22 migration prone districts of six states. It shows that by selecting individuals with a high level of achievement motivation coupled with handholding by local NGO Mentors, as many as 90 percent of the aspiring micro-entrepreneurs were able to establish and sustain a business activity, despite the lockdown and the second wave of COVID.

The third article is by RGICS Senior Advisor Manideep Ray and Research Associate Subho Chakraborty and it summarises a more detailed report they produced on the Health and Medical Equipment and Devices Sector for India. They conclude that it is a sunrise sector and thanks to the work done over the last ten years, India is poised to move from high import dependency to potentially becoming a global manufacturing hub for Health and Medical Equipment and Devices

The fourth article, reproduced from the Economic Times, is by Supriyo De, Aditya Sinha, Chirag Dudani & Jayasimha K R, who work with the Government of India, is a report card on What state labour law reforms have achieved so far. It concludes that states with greater flexibility in labour regulation have achieved higher employment growth.

The fifth article is by RGF Coordinator for Maharashtra, Moshsin Khan who has reviewed the implementation of the Street Vendors Act 2014. He asserts that the law is not being seriously implemented and suggests the role of trade unions and civil society Institutions in correcting the shortcomings.

We hope you enjoy reading these articles. We look forward to your feedback.

**Vijay Mahajan, Director,
Rajiv Gandhi Institute for Contemporary Studies**



Image Courtesy: <https://scroll.in/article/983343/the-covid-19-migrant-crisis-showed-why-the-state-must-protect-living-wages-as-a-public-good>

Slowing pre-pandemic growth precipitated a jobs crisis

Prof Santosh Mehrotra

The pandemic has only worsened what was already a joblessness crisis in early 2020. The National Survey Organization (NSO) of the Government of India, began conducting annual labour force surveys in 2017-18, which hitherto had been only done every five years. NSO just released its third annual survey (2019-20), which covers the period till June 30, 2020.

We know that in 2017-18 the NSO reported that open unemployment had reached a 45-year high, and youth unemployment had tripled between 2011-12 and 2017-18 to over 18%. Thereafter, poor economic management had resulted in economic growth slowing for each quarter for nine quarters up to March 2020 – a situation only compounded by the pandemic and its economic aftermath.

What the new data reveals is that the situation remains grim. At first sight the slight rise over the three years from 2017-18 on in labour force participation (LFPR) and workforce (WPR) participation rates (which are measured as a share of those in the population of working age i.e. 15 years and over) may be seen as a positive development. Keep in mind, though, that India's LFPR at 40.9% (2019-20, a rise from 38.1% two years earlier) is miles short of the world average of 60.8% in 2019 (which had fallen to 58.6% in 2020). But a rise in WPR and LFPR at a time when the economy was slowing over 2017-18 to 2019-20, does need to be explained.

We suggest the following after examining the PLFS 2019-20 data carefully. In a slowing economy, incomes are not rising, and distress is increasing. When it comes upon pre existing falling trends in employment and wages, the pressure on household resources becomes overbearing.

We had estimated earlier that wages for casual and regular workers had stagnated or fallen until 2019. What we have seen in 2019-20 is that while male LFPR and WPR have remained the roughly the same, it is females that are searching for and even finding some work. There is very little change in male LFPR or WPR over these three years.

There are probably two forces at work here pushing up LFPR and WPR of women. The first is something that happens the world over: that girls when they get educated, as they have been in India, not only to elementary level (i.e. upto class 8), but even going further. In the years from 2010 and 2015, the enrolment rate at secondary level (classes 9-10) shot up from 58% to 85%, and this happened with gender parity. Most states had begun around 2010 to incentivise girls' secondary schooling, by offering those girls that finished class 8 and continued to class 9-10 a scholarship or a bicycle so they could bike to school. These girls, having got secondary school certificates, had better chances of entering urban jobs in services and even manufacturing.

The world over, there is a strong positive relationship between educational level of girls and their engagement in economic activity. So, the female work participation, having fallen for decades, is now finally turning upwards. This, however, is likely to be weak force, given how weak the growth process has even, and also given how only the services sector was creating a limited number of jobs. But women were benefitting from the growth in services sector regular work in urban areas; more than half the women who work are in regular work. However, that trend has been reversed in 2019-20. Worse, CMIE data since mid-2020 has demonstrated that women have lost work first even after the lockdown ended; and that trend has continued into 2021.

In fact, the latest PLFS also reveals that regular jobs share has fallen in 2019-20, reversing a trend noticed since 2004-5 that the share of regular wage work was increasing at the expense of the more precarious self-employment and also casual wage work. This is especially noticeable for women, who saw the share of regular in all economic activity that women undertake fall between 2018-19 and 2019-20.

The second reason is even more worrying: the WPR and LFPR increases are distress driven. While WPR and LFPR may have increased slightly, it is accompanied by several distressing trends that undermine what at first sight appear to be positive developments. First, the 2019-20 data shows that the share of agriculture in the total workforce, which was consistently declining for two decades, has stopped falling; in fact, it has reversed, as the reverse migration from cities in 2020 showed clearly. The share of agriculture increasing in the workforce is a retrogressive step in a developing economy attempting a structural transformation. At the same time, manufacturing share in employment, which had fallen between 2011-12 and 2017-18, fell in 2019-20 again, notwithstanding the 'Make in India' programme. Construction employment share also fell.

Second, women dropped out of regular work, and became self employed. Self employment is in any case more precarious than regular work. But worse, the entry of many women was driven by distress. This is demonstrated by the fact that the share of women who are unpaid family helper in the household enterprise increased sharply from 2018-19 to 2019-20. That means women were engaged in economic activity (that shows up in an increase in WPR/ LFPR) but it is unpaid work.

Third, precarity and informality increased from 2018-19 to 2019-20, reversing a ever-so slight

trend that had set in between 2011-12 and 2017-18, that the share of regular workers who had no social security was falling. Those in regular work without any social security increased from 49.6% of all non farm regular workers to 54.2% between 2018-19 to 2019-20. This is consistent with the fact that the share of those engaged in proprietary and partnership enterprises – informal sector enterprises – increased over the same period.

Fourth, for all types of workers that had work – regular, self employed casual wage workers – the average number of hours actually worked in a week fell sharply in the April-June 2020 quarter (the lockdown period), when the economy contracted by 23.7% (compared to the same quarter in 2019). Naturally, earnings fell for all households.

Thus, on every reasonable measure of the quality of work, there was a perceptible decline – only to be expected as the economy that had already been slowing for three years, went into the worst contraction in a financial year ever since independence in 1947. It was the also the largest economic contraction for any G20 country.

Finally, if anyone is still thinking that the fall in the unemployment rate between 2018-19 to 2019-20 from 5.8% to 4.8% by usual status is a positive development, measured over a recall period of 365 period, here is a fact that should give them pause. By the Current Weekly Status, which is close to the international standard for measuring unemployment, there is no improvement in the unemployment rate between 2017-18 (8.9%) to 2018-19 (8.8%) to 2019-20 (8.8%). These rates remain the worst in the last 48 years since measurement began.



राजीव आजीविका संवर्धन अभियान (RASA) - प्रगति रिपोर्ट अगस्त 2020 से जून 2021

डॉ राकेश मल्होत्रा एवं सुश्री नारायणी गुप्ता



1 परिचय: - राजीव आजीविका संवर्धन अभियान

राजीव आजीविका संवर्धन अभियान (RASA), 20 अगस्त, 2020 को शुरू किया गया था और इसने अपने दस महीने पूरे कर लिए हैं। RASA के अंतर्गत उठाए जाने वाले मुद्दों और उनसे मिलने वाली सीखों की पहचान करने के लिए परियोजना की नियमित आधार पर निगरानी की जाती है। नवंबर 2020 से, प्रत्येक जिले के लिए एक Google शीट बनाई गई थी, जिसमें प्रत्येक उद्यमियों (AME) का विवरण (डेटा) परामर्शदाता द्वारा अपलोड किया जाता है। RASA का विवरण मासिक आधार पर एकत्र किया जाता है, और हम इस परियोजना के समय-श्रृंखला के पटकथा का निर्माण करने में पूर्णतः सक्षम हैं। हालांकि, इस वर्ष मार्च 2021 से मई 2021 तक के महीनों के आंकड़े हम कोरोना महामारी की शुरुआत के कारण एकत्र नहीं कर पाए हैं। अतः 30 जून 2021 को समाप्त होने वाली अवधि के लिए 20 जिलों से प्राप्त विश्लेषण नीचे प्रस्तुत किया गया है।

2 जिलों में संसाधन एजेंसियां और RGF सुविधा टीम:

इस अद्वितीय आजीविका पुनरुद्धार कार्यक्रम के कार्यान्वयन एवं कार्यक्रम को प्रभावी ढंग से निष्पादित करने के लिए हमें जमीनी स्तर पर भागीदार संसाधन एजेंसियों की आवश्यकता थी। संसाधन एजेंसियां एनजीओ, स्वयं सहायता समूह (एसएचजी) संघ या किसान उत्पादक संगठन (एफपीओ), या एनजीओ और एसएचजी फेडरेशन या एफपीओ का संयोजन हो सकती हैं। यथोचित परिश्रम के बाद 22 जिलों में 20 संसाधन एजेंसियों की नियुक्ति की गई। चयनित संसाधन एजेंसियाँ, उनके नेता और मेंटर के रूप में कार्य करने वाले स्टाफ सदस्य निम्नलिखित पृष्ठ पर तालिका 1 में सूचीबद्ध हैं।

कृषि जलवायु और भाषाई कारणों से, 22 जिलों को पांच क्षेत्रों, - बिहार, छत्तीसगढ़, ओडिशा, राजस्थान और बृंदेलखंड में विभाजित करने का निर्णय लिया गया। संसाधन एजेंसियों को प्रत्येक क्षेत्र में आरजीएफ फैसिलिटेटर्स का समर्थन प्राप्त था - छत्तीसगढ़ और झारखंड के एक जिला के लिए गौतम बंधोपाध्याय, ओडिशा के लिए मनोज मिश्रा, बिहार के लिए रश्मि सक्सेना, बिहार झारखंड के एक जिला के लिए राजू पासवान, मध्य-प्रदेश / उत्तर-प्रदेश के लिए लाल मणि तिवारी, और राजस्थान के लिए मुरारी गोस्वामी।

दिल्ली में केंद्रीय टीम का नेतृत्व डॉ. राकेश मल्होत्रा और श्री उजैर खान ने, डॉ. दीपांकर राय और श्रीमती रीता सेनगुप्ता के विशेषज्ञ समर्थन और नारायणी गुप्ता द्वारा अनुसंधान सहायता के साथ किया। पशुपालन पर तकनीकी सहायता डॉ. प्रदीप बोस द्वारा और लेखांकन पर सुश्री पिया बहादुर के नेतृत्व वाली मेराबिल्स टीम द्वारा दी गई थी। अरुण, गोपी और निशांत की राजीव सद्भावना मीडिया लैब टीम ने जूम पर प्रशिक्षण सत्र आयोजित करने और रिकॉर्ड करने में सहायता प्रदान की, जिसे बाद में उपयोग के लिए संपादित किया गया।

तालिका 1: राजीव आजीविका संवर्धन अभियान (रासा) - संसाधन एजेंसियों की सूची

क्रमांक	राज्य	ज़िला	संसाधन एजेंसी का नाम	मुख्य पदाधिकारी का नाम	मेंटर का नाम
1	बिहार	कटिहार	सर्व सेवा समिति संस्था (4एस)	गणेश परमानिक	मो. रफीक
2	बिहार	मुजफ्फरपुर	4एस + मीनापुर एसएचजी फेडरेशन	इंदु देवी	दिलीप मिश्रा और बैजू
3	बिहार	गया	4एस+आदर्श महिला फेडरेशन	द्रौपदी देवी	रविन्द्र कुमार
4	बिहार	नवादा	4एस+ ज्ञान गंगा फेडरेशन	सरस्वती देवी	आनंद प्रकाश
5	छत्तीसगढ़	बस्तर	बस्तर सामाजिक जन विकास समिति (बीएसजेवीएस)	सुशील कुमार पाण्डेय	जयंत बिस्वास
6	छत्तीसगढ़	रायपुर	छत्तीसगढ़ एक्शन एंड रिसर्च टीम	गौतम बंधोपाध्याय	रामजी खिलवाड़े
7	छत्तीसगढ़	महासमुंद	निदान सेवा परिषद	सुरेश शुक्ला	दिव्यांका नंद
8	छत्तीसगढ़	कबीरधाम	श्रम विकास और शोध संस्थान	नरेश बुनकर	सत्यप्रकाश बुनकर
9	झारखंड	गिरिडीह	अम्बेडकर सोशल इंस्टिट्यूट	रामदेओ विश्वबंधु	दिलीप कुमार

10	झारखंड	रांची	टोरंग ट्रस्ट	बसावी किरो	पुनिया खालखो और लक्ष्मी देवी
11	मध्य प्रदेश	छतरपुर	महिला समिति	अशोक प्रताप सिंह	विनोद कुमार विश्वकर्मा
12	मध्य प्रदेश	टीकमगढ़	प्रकृति सेवा संस्थान	महेंद्र कुमार द्विवेदी	महेंद्र कुमार द्विवेदी
13	उड़ीसा	गजपति	अगामी लोक कल्याण संघ	संतोष कुमार जयपत	अमर और सुभाष पाणि
14	उड़ीसा	नवरंगपुर	एसोसियशन ऑफ सेक्युलर इनिशिएटिव, हुमानिस्म	रासानंदा पाणि	शेखर खुरा
15	उड़ीसा	रायगड़ा	बापूजी ग्रामय कायन समाज	सरलासुकन्ता पाणि	राजेंद्र डोरा
16	राजस्थान	बाड़मेर	धारा संस्थान	महेश पनपालिया	सोना राम
17	राजस्थान	जयपुर	धारा संस्थान	महेश पनपालिया	विनोद शर्मा
18	राजस्थान	अलवर	सर सईद ट्रस्ट	आसिफ जैदी	आशीष
19	राजस्थान	करौली	ग्राम गौरव संस्थान	जगदीश गुजर	राधा किशन
20	उत्तर प्रदेश	फैजाबाद	सर सईद ट्रस्ट	आसिफ जैदीक	पंकज कुमार
21	उत्तर प्रदेश	झांसी	मार्गश्री चैरिटेबल ट्रस्ट	ध्रुव सिंह यादव	जय प्रजापति और संजय सिंह
22	उत्तर प्रदेश	ललितपुर	बुंदेलखंड सेवा संस्थान	बासुदेव सिंह	विवेक सिंह

3 आकांक्षी सूक्ष्म उद्यमियों (AME) की संख्या:

तालिका 2: आकांक्षी सूक्ष्म उद्यमियों की संख्या में परिवर्तन की तुलना

जिला:	30 नवंबर 2020 को AME की संख्या:	30 जून 2021 को AME की संख्या:	नए जुड़े AME	छोड़ने वाले AME
गया	27	27	0	0
कटिहार	25	24	6	7
मुजफ्फरपुर	26	26	0	0
नवादा	31	38	7	0
गिरिडीह	26	26	6	6
राँची	25	25	0	0
कबीरधाम	25	26	1	0
महासमुंद	25	25	11	11
रायपुर	31	31	0	0
बस्तर	21	19	0	2
गजपति	30	30	0	0
नवरंगपुर	25	25	0	0
रायगाड़ा	25	25	0	0

छतरपुर	28	26	0	2
टीकमगढ़	31	31	2	2
झाँसी	25	25	0	0
ललितपुर	25	25	0	0
फैजाबाद	25	25	0	0
अलवर	33	34	1	0
करौली	26	18	0	8
कुल	535	531	34	38

हमने अगस्त 2020 में 550 (22x 25) AME के लक्ष्य के साथ शुरुआत की, जिनमें से 414 (75 प्रतिशत) ने दिसंबर 2020 तक उद्यम शुरू कर दिए। कार्यक्रम को दो जिलों - बाड़मेर और जयपुर में बंद करना पड़ा, क्योंकि वहाँ पर संसाधन एजेंसियां एवं कार्यक्रम परामर्शदाता अनिच्छुक थे। हालांकि, हमारी संसाधन एजेंसियों और सलाहकारों के अतिरिक्त प्रयासों के कारण, राजीव आजीविका संवर्धन अभियान कार्यक्रम में अभी भी 535 AME हैं।

4 AME द्वारा कारोबार शुरू करना और जारी रखना:

जिला:	दिसंबर 2020			फरवरी 2021			जून 2021		
	हाँ *	नहीं *	कुल: *	हाँ *	नहीं *	कुल: *	हाँ *	नहीं *	कुल: *
गया	27	0	27	27	0	27	24	3	27
कटिहार	13	11	24	24	0	24	23	1	24
मुजफ्फरपुर	26	0	26	26	0	26	26	0	26
नवादा	23	8	31	31	0	31	38	0	38
गिरिडीह	20	6	26	26	0	26	25	1	26
राँची	25	0	25	25	0	25	25	0	25
कबीरधाम	9	16	25	18	8	26	16	10	26
महासमुंद	15	10	25	15	10	25	15	10	25
रायपुर	18	13	31	25	6	31	25	6	31
बस्तर	19	0	19	19	0	19	19	0	19
गजपति	13	17	30	30	0	30	27	3	30
नवरंगपुर	25	0	25	25	0	25	25	0	25
रायगाड़ा	25	0	25	25	0	25	25	0	25
छतरपुर	28	0	28	28	0	28	22	4	26

टीकमगढ़	22	8	30	26	5	31	31	0	31
झाँसी	25	0	25	23	2	25	25	0	25
ललितपुर	25	0	25	25	0	25	25	0	25
फैजाबाद	25	0	25	25	0	25	24	1	25
अलवर	15	18	33	16	18	34	23	11	34
करौली	16	10	26	20	6	26	18	0	18
कुल	414	117	531	465	69	534	481	50	531
प्रतिशत में	78	22	100	88	12	100	91	9	100

हाँ का तात्पर्य है कि उद्यम स्थापित किया गया है। और नहीं का तात्पर्य है कि कोई उद्यम स्थापित नहीं किया गया है।

30 जून 2021 तक, 20 जिलों में, 481 (91 प्रतिशत) AME सक्रिय रूप से अपने उद्यम चला रहे हैं। जैसा कि हम तालिका 1 से देखते हैं, इन 481 में 34 नए AME को जोड़ा गया है क्योंकि (संसाधन एजेंसियों द्वारा जोड़े गए 38 AME मूल संख्या 550 से बाहर हो गए थे)। और यदि हम 34 नए जोड़े गए AME को भी हटा देते हैं, तो हमारे पास 447 रह जाते हैं। इस प्रकार चयनित मूल 550 AME में से, 447 या 81 प्रतिशत AME 30 जून 2021 तक अपने व्यवसाय चला रहे हैं।

यह COVID महामारी के कारण उत्पन्न उथल-पुथल के बावजूद सम्बन्धित संस्था / व्यक्ति की अदभुत दृढ़ता को दर्शाता है। उनकी सहनशीलता और लचीलेपन के लिए यह एक सम्मान है।

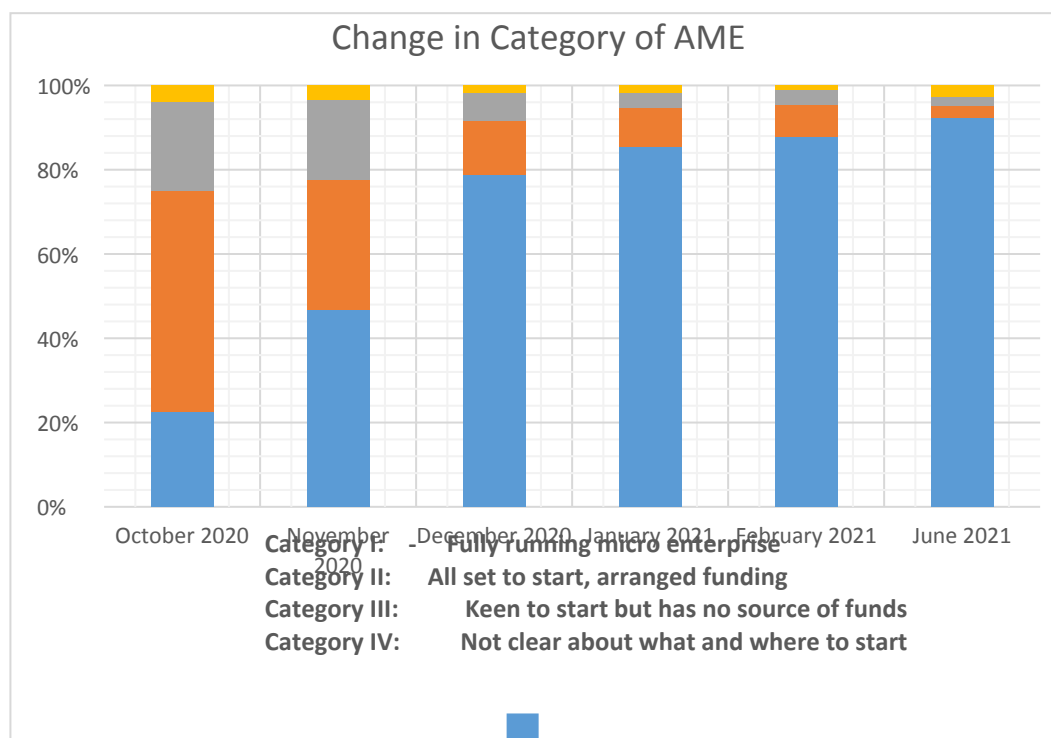
यहाँ यह भी ध्यान रखना दिलचस्प है, कि इस परियोजना के तहत 20 में से 10 जिलों ने अपने अधीन सभी AME के लिए शत-प्रतिशत उद्यमों का सफलतापूर्वक संचालन किया है। नवादा जिले में, हमारी संसाधन एजेंसी जो एक बहुत सक्रिय SHG फेडरेशन है, उन्होंने 38 सक्रिय AME को जोड़ा है। जो वास्तव में उनके वास्तविक लक्ष्य 25 के मुकाबले कहीं अधिक है।

अनिर्णीत उद्यम से सक्रिय रूप से चल रहे उद्यमों में AME की प्रगति:

- AME की श्रेणियों (पूरी तरह से चल रहे सूक्ष्म उद्यमों) में धीरे-धीरे वृद्धि हुई, जो अक्टूबर 2020 में 23 प्रतिशत से बढ़कर जून 2021 में 92 प्रतिशत हो गई।
- श्रेणी IV (अनिश्चित) से श्रेणी I (पूरी तरह से चल रहे सूक्ष्म उद्यम) तक AME की प्रगति संकेत करती है कि AME व्यवसाय शुरू करने की चुनौतियों पर लगातार नियंत्रण कर पा रहे हैं। और परियोजना में प्रदान की गई सलाह का पैरामीटर परियोजना की गुणवत्ता को भी दर्शाता है।
- जून 2021 में सक्रिय रूप से चलने वाली इकाइयों में AME की संख्या में फरवरी 2021 की तुलना में चार प्रतिशत की वृद्धि हुई थी, इस तथ्य के बावजूद कि इस अवधि में देश में COVID महामारी की दूसरी लहर चल रही थी।

d) यह भी देखा गया है कि श्रेणी IV में AME का अनुपात फरवरी 2021 में एक प्रतिशत से बढ़कर जून 2021 में तीन प्रतिशत हो गया था। RASA की केंद्रीय टीम के साथ बातचीत के दौरान सलाहकारों की आम तौर पर यह धारणा थी, कि इसका AME की आजीविका पर प्रतिकूल प्रभाव पड़ा है। इस कारन उनमें से कई AME को अपने उद्यम बंद करने पड़े।

तालिका 4: श्रेणियों में AME को शिफ्ट करना / बदलना



श्रेणी I: - पूरी तरह से चल रहे सूक्ष्म उद्यम

श्रेणी II: शुरू करने के लिए पूरी तरह तैयार, फंडिंग की व्यवस्था

श्रेणी III: शुरू करने के लिए उत्सुक लेकिन धन का कोई स्रोत नहीं है

श्रेणी IV: यह स्पष्ट नहीं है कि क्या और कहाँ से शुरू करें

6 AME की गतिविधियों में परिवर्तन:

सभी आकांक्षी सूक्ष्म उद्यमी (AME) ने अगस्त-सितंबर 2020 में तत्परता के साथ विशिष्ट व्यावसायिक गतिविधियों की पहचान की थी। व्यावसायिक गतिविधियों को अंतिम रूप देते समय मांग, क्षमता, पिछले अनुभव या कौशल, इनपुट/निविष्टियों की उपलब्धता और व्यवसाय के लिए स्थान की विशेषताओं का विशेष ध्यान में रखा गया था।

हालांकि, समय के साथ, खासकर COVID-19 के प्रभाव के कारण स्थितियां बहुत बदल गई हैं। इसलिए, उम्मीद यह की गई थी, कि AME (आकांक्षी सूक्ष्म उद्यमी) को बदली हुई परिस्थितियों में गतिविधियों की अपनी पसंद को संशोधित करने की आवश्यकता होगी।

जैसा कि ऊपर दी गई तालिका से पता चलता है कि 13 प्रतिशत मामलों में व्यावसायिक गतिविधियों में बदलाव आया था। जो यह दर्शाता है कि कार्यक्रम के तहत अपनाई गई व्यावसायिक गतिविधियों

के चयन की प्रक्रिया काफी मजबूत थी, और AME प्रतिकूल परिस्थितियों में अपनी गतिविधियों के चयन को बनाए रख सकता था। गतिविधियों में परिवर्तन केवल तीन जिलों में हुआ, जो यह दर्शाता है, कि मूल गतिविधियों की मांग में गिरावट जैसे कुछ स्थानीय कारक थे।

जिला:	दिसंबर 2020		फरवरी 2021		जून 2021	
	कोई परिवर्तन नहीं	प्रारंभ से नई गतिविधि	कोई परिवर्तन नहीं	दिसंबर 2020 से नई गतिविधि	कोई परिवर्तन नहीं	दिसंबर 2020 से नई गतिविधि
गया	100	0	100	0	96	4
कटिहार	29	71	100	0	100	0
मुजफ्फरपुर	100	0	100	0	100	0
नवादा	94	6	75	25	82	18
गिरिडीह	77	23	100	0	100	0
राँची	100	0	100	0	100	0
कबीरधाम	96	4	88	12	100	0
महासमुंद	32	68	96	4	80	20
रायपुर	100	0	97	3	100	0
बस्तर	100	0	100	0	100	0
गजपति	100	0	100	0	100	0
नवरंगपुर	100	0	100	0	100	0
रायगाड़ा	100	0	100	0	100	0
छत्तरपुर	100	0	100	0	85	15
टीकमगढ़	93	7	100	0	100	0
झाँसी	100	0	100	0	100	0
ललितपुर	100	0	100	0	100	0
फैजाबाद	100	0	100	0	100	0
अलवर	88	12	100	0	100	0
करौली	100	0	96	4	100	0
कुल	90	10	97	3	97	3



7 AME द्वारा सामना की जाने वाली बाधाएं:

तालिका 5: AME की बाधाएं (प्रतिशत में)

सबसे शीर्ष बाधा:	दिसंबर 2020 में AME की संख्या	जनवरी 2021 में AME की संख्या	फरवरी 2021 में AME की संख्या	जून 2021 में AME की संख्या
बाधाओं की संख्या:	36	37	46	37
उधार लिया धन	41	41	34	41
लेखांकन	3	2	2	2
प्रचार और विपणन	4	3	4	3
कौशल	10	8	10	8
आधारभूत संरचना	1	6	2	6
कच्चा माल	1	1	2	1
उत्पाद की गुणवत्ता	1	1	0.5	1
मूल्य निर्धारण	0.4	0.2	0.9	0.2
मांग / मौसमी समयानुकूल) मांग	1	1	0.5	1
ब्रांडिंग	0.2	0.2	0.2	0.2
कुल:	100	100	100	100

AME को अपना व्यवसाय शुरू करने में और लाभदायक संचालन के लिए इसे बनाए रखने में विभिन्न बाधाओं का सामना करना पड़ा। AME द्वारा सामना की जा रही विभिन्न बाधाओं का पता लगाने के लिए, प्रतिक्रिया मांगी गई थी।

- कुल AME में से लगभग 37 प्रतिशत, COVID और लॉकडाउन की दो लहरों से पस्त होने के बावजूद भी, किसी भी महत्वपूर्ण बाधा का सामना नहीं करना पड़ा।
- AME द्वारा दिए गए संकेत से साबित होता है, कि AME की सबसे बड़ी बाधा ऋण प्राप्ति में आने वाली अड़चनें थी। जून 2021 के अंत तक कुल AME का लगभग 41 प्रतिशत, व्यवसायी अपने व्यवसाय को शुरू करने के लिए वित्तीय सहायता प्राप्त करना चाहता था, जो फरवरी 2021 में 34 प्रतिशत से बढ़ गया था। यहाँ यह भी उल्लेखनीय है, कि शेष 59 प्रतिशत AME के द्वारा जुटाए गए धन परिवार, स्वयं सहायता समूह (SHG) और कुछ मामलों में सूक्ष्म वित्त संस्थानों (MFI), और बैंकों से प्रबंधित होते हैं।
- कौशल और तकनीकी सहायता लगभग 8 प्रतिशत AME द्वारा सामना की जाने वाली एक सबसे महत्वपूर्ण बाधा बनी रही।

8 राजीव आजीविका संवर्धन अभियान का भविष्य की योजनाओं का दूसरा चरण:

अगस्त 2020 में चुने गए मूल 550 AME में से 81 प्रतिशत ने व्यवसाय शुरू कर दिया था और 30 जून 2021 तक सभी सक्रिय रूप से अपने उद्यम चला रहे थे, COVID की दूसरी लहर के बावजूद, कार्यक्रम के डिजाइन, प्रशिक्षण की गुणवत्ता, संसाधन एजेंसी, नेताओं और सलाहकारों द्वारा की गई कड़ी मेहनत के लिए आभार है। अतः हमें इस गौरवपूर्ण रिकॉर्ड को आगे बढ़ाना चाहिए। राजीव गांधी फाउंडेशन (RASA) के दूसरे चरण की शुरुआत करने जा रहा है।





Image Courtesy: <https://www.joharidigital.com/>

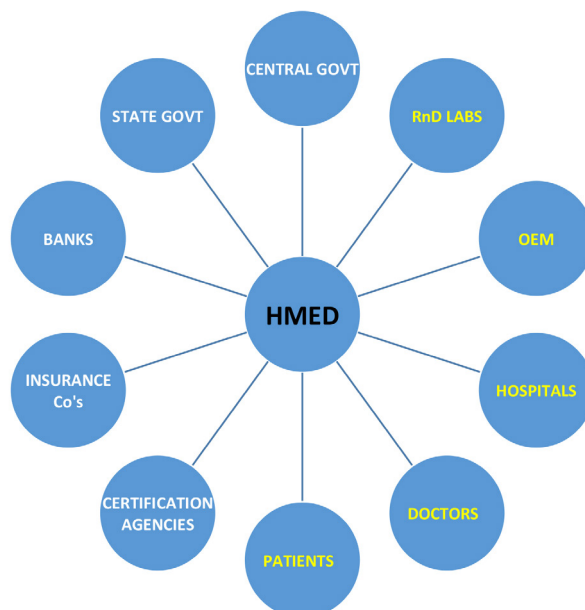
Health and Medical Equipment and Devices – A Sunrise Sector for India

Manideep Ray and Subho Chakraborty

In the first half of 2021, RGICS undertook a study to evaluate the necessity and feasibility of setting up one or more HMED (Health and Medical Equipment and Devices) manufacturing parks in India, so as to lay the foundations of India's future emergence as a Medical Tech manufacturing powerhouse by 2030. The paper took us through many aspects of India's HMED industry. We present some of the salient portions almost as they appear in the paper, to give the reader a concise version of things.

Components of the Healthcare Industry

The following diagram shows all the players in the HMED industry, with the ones in yellow labelling being the makers and end users and the ones in white being the facilitators.



How India Compares with Other OECD Countries in Healthcare

The United Nations captures vital parameters of Health, Nutrition, Population, etc. providing the overall 'Healthcare Scenario' for India as follows

HEALTH DATA FROM WORLD BANK 2019 (in bold) or 2017 (not bold)	Ireland	India	USA	China	Mexico	Singapore	Thailand
Age dependency ratio (% of working-age population)	54.73	49.24	53.27	41.39	50.6	32.84	41.3
Current health expenditure (% of GDP)	7.15	3.53	17	5.15	5.51	4.41	3.83
Diabetes prevalence (% of population ages 20 to 79)	3.2	10.4	10.8	9.2	13.5	5.5	7
Domestic general government health expenditure (% of GDP)	5.2	0.95	8.54	2.91	2.84	2.12	2.93
Domestic private health expenditure per capita, PPP (current \$)	1528.56	182.62	5078.86	362.97	519.77	2172.26	159.23
External health expenditure per capita, PPP (current international \$)	0	2.04	0	0.0037	0	0	1.54
Fertility rate, total (births per woman)	1.7	2.2	1.705	1.69	2.103	1.14	1.514
Hospital beds (per 1,000 people)	2.97	0.53	2.87	4.31	0.99	2.49	..
Incidence of tuberculosis (per 100,000 people)	5.8	193	3	58	23	41	150
Number of infant deaths	173	678728	21779	112595	26936	103	5493
Physicians (per 1,000 people)	3.29	0.7779	2.612	1.9798	2.3827	..	0.8075
Population ages 65 and above (% of total population)	14.22	6.37	16.2	11.47	7.41	12.39	12.4
Rural population (% of total population)	36.59	65.52	17.54	39.692	19.55	0	49.308

The above table shows 2019 (and sometimes 2017) data from many OECD countries, across multiple health and nutrition parameters. Source: World Bank Data Archives, accessed in July 2021. As is clear from the table above, India lags in most parameters.

The Size of the Medical Industry in The World And In India

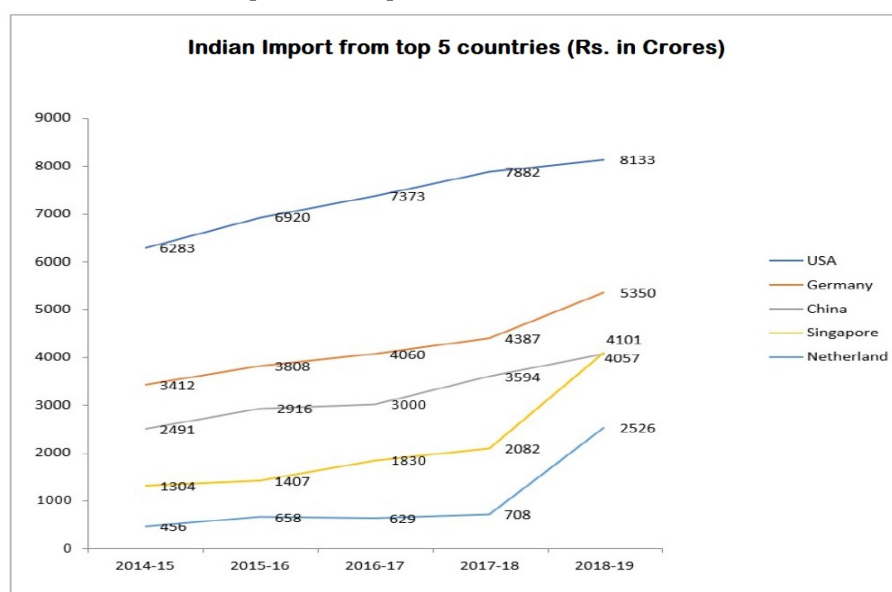
As per a study by Wolters Kluwer, a global health and information systems company based in the Netherlands, "the global medical devices market in 2020 was valued at \$456.9 billion, which is an increase at a compounded annual growth rate (CAGR) of 4.4% since 2015. Despite an expected decline of -3.2% in 2020, it is expected to rebound in 2021 with a 6.1% CAGR and reach \$603.5 billion in 2023. With rising incomes in the more populous middle and lower-middle income countries, including China, India, Indonesia, Brazil, Bangladesh, Nigeria and Mexico, the demand for HMED is only going to go up faster. Thus, we are looking at a potential trillion-dollar sector by 2030, globally. The domestic market for medical devices in India in 2017 was around \$11B, which accounts for about 4% of the overall Indian healthcare market.

Main Drivers of Growth of the HMED Industry in India

- Increase in chronic diseases, especially non communicable diseases (NCDs) including diabetes, cardiovascular diseases, chronic obstructive pulmonary disease, and cancer. This category NCD is likely to constitute upwards of 75% of India's disease burden by 2025 (it was 45% in 2010). Other top NCD include cancer, cardiac diseases, stroke, pressure etc.
- Another factor driving growth in HMED is our ageing population – the percentage of people above 65 is steadily increasing, though on the whole India has a lower median age than most developing countries (and almost all developed countries).

- c) A third factor aiding growth, is the rising income in India, resulting in bigger demand and affordability for healthcare. India's population segment with more than \$5000 annual income is expected to touch 450m by 2025 and only poised to grow since. Hence the percentage of household income spent on healthcare is expected to reach 13% by 2025.
- d) The number of people with health insurance is also currently lower than 50% of the population – implying that, thanks to rising incomes and benevolent new government schemes, the number of insured people is also expected to rise.
- e) Of late the Indian government has implemented many policies to address the challenges of the health care sector – from allowing 100% FDI in the HMEC sector, to Make in India initiative, coming up with a reliable standardization and certification framework etc. In July 2015 the government announced a plan to open a medical college in every district.
- f) Another growth driver of HMEC is increased affordability and penetration of mobile phones and internet, which increase awareness about the need for healthcare among the rural population, which now can also be served remotely, through telemedicine.
- g) Hospital industry in India is expected to reach USD 132 bn by 2023 to USD 61.8 bn in 2017 practically growing at a CAGR of 16%. In 2016, the hospital infrastructure in India had a shortage of beds – India has an estimated 1.1 beds per 1,000 people which is far behind the WHO recommendation of 3.5 beds per 1000 people. India needs 4 million beds for the recommended capacity. And this increase in beds will further drive the demand for medical devices.
- h) Healthcare costs in India are among the lowest in the world even after adjusting to purchasing power parity. This attracts people from other lower income countries for medical treatment to India. Indian Medical Tourism market is growing at 18% y-o-y and expected to reach USD 9 bn by 2020.

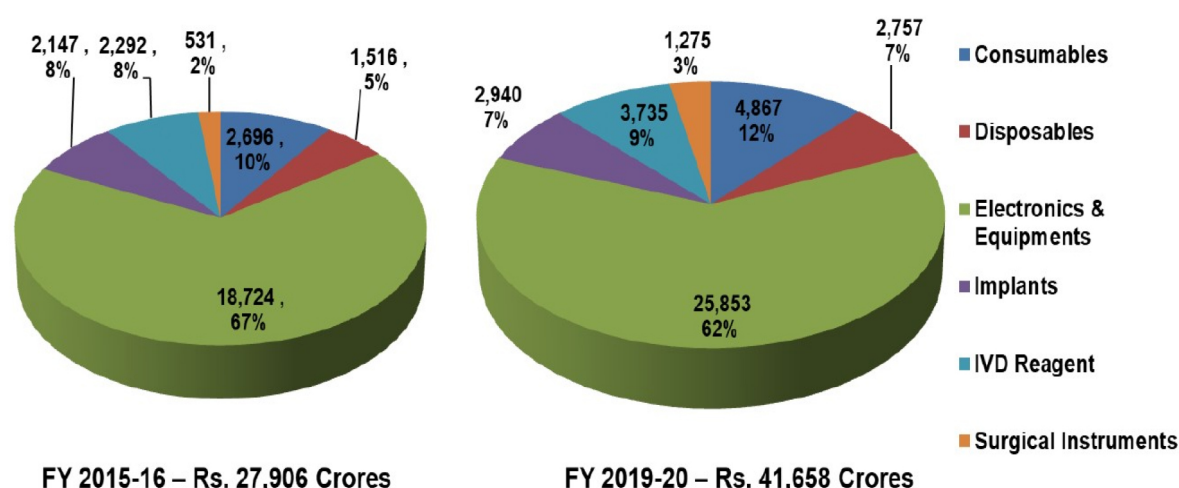
A Snapshot of India's Import Dependence in HMEC



The Graph shows top 5 source countries for India's HMEC imports. Courtesy: AIMED

India currently has an 80+ % import dependency on medical devices – costing around Rs 42,000 crore yearly. Most of the imports are from USA, Germany, Netherland, China and Singapore. The USA dominates the Indian HMED import scene, with Singapore and the Netherlands showing the highest growth in recent years. While USA is the biggest source country across all types of HMED except “Disposables” (where Singapore dominates), the type of HMED where India’s import from USA is highest, is the “Electronics Equipment” segment. This segment is also the biggest segment of import for India from all the other top countries. Diagnostic imaging is the largest segment within this “Electronics Equipment” and also in the overall Indian medical device market, expected to touch USD 2.47 bn in 2020.

Import Summary of 6 Categories Medical Devices



The Pie Charts above show the growth of imported HMED to India. Courtesy: AIMED

Current Structure and Problems of the Indian HMED Industry

Most of the Indian manufacturers of HMED make things at the lower end of the technology spectrum and are highly fragmented, with over 1000 mostly small firms manufacturing HMED without benefiting much from either of economies of scale or scope. However, things are looking up – quite a few mergers and acquisitions have taken place among domestic Indian HMED manufacturers recently and some Indian companies have even bought international HMED companies, in an attempt to gain market access and tech prowess. The medical devices industry growing at a CAGR of 15% holds the highest potential amongst all sectors of the healthcare industry. However, India has an import dependence of upwards of 80%. HMED is the 20th most exported product in the world and the global export market for medical devices and equipment is around \$117B2 of which India exports about \$2.1 bn worth, mostly in low tech and/or inexpensive MED.

The domestic HMED industry has not been able to grow with the demand, neither in volume nor in the level of technological sophistication needed for certain devices – leading to a

dependence on imports of up to 80% in some HMED segments. Some of the main reasons for reaching such a situation and for finding it tough to change this paradigm are as follows –

- a) The regulatory process for HMED used to fall under Drugs and Cosmetics Act and is a major hindrance. It causes delays, often up to two years (for implantable devices). Such time lag may be justified for the Pharma industry but in HMED it only acts as a hindrance. Things have improved after the notification of Medical Devices Rules, 2017.
- b) The import duty structure (zero to 5% basic duty + nil special additional duty or SAD) incentivises Indian industry to import and trade as opposed to getting into manufacturing. As per AIMED, when there is nil or low import tariff structure and foreign Governments like China are giving subsidies of up to 17% to their HMED Industry for export, no Indian player wants to take burden of manufacturing and even experienced Manufacturers take easy route of importing and selling in India.
- c) Possibly as a consequence of the above, the Indian HMED sector also invests very sparsely in R&D and relies on a mix of technology transfer and reverse engineering. To change this paradigm, the government should incentivise expenditure on R&D, either in house (in the MED company) or by commissioning Indian research laboratories, with fiscal benefits like tax rebates and subsidies.
- d) As per the authors' interactions with AIMED, most Overseas MNCs are not keen to set up factories in India since they have no barriers to market access, but instead have been given free access, with negligible Custom Duties between 0 to 7.5%. Though, Health Cess of 5% was imposed in Budget 2020, it was withdrawn along with Basic Custom Duty on some Medical Devices, due to lobbying by the Indian subsidiaries of overseas MNCs.
- e) Indian manufacturers are facing further loss of competitiveness post GST, since now the cost of imports is down by 11% as importers can avail GST input credit which they earlier could not. Direct importing not only takes away local employment generation opportunities but also drains valuable foreign exchange and slows down the Economy.
- f) India used to lack indigenous certification agencies to enforce quality control. The HMED approval process also takes a lot of time, delaying the product life cycle. Lack of IP protection laws also deters global players to invest in R&D in their India operations.
- g) Setting up manufacturing facilities in India often come with logistical issues. India, as of now does not have an effective transportation and component supply chain infrastructure in place. Most of the components for domestic manufacture, are also imported – so in order to facilitate HMED manufacturing in India, we have also to first upgrade the HMED components manufacturing and supply ecosystem.
- h) India ranks low in the ease of doing business for reasons ranging from unnecessarily complicated regulations to unfavorable labor laws and lack of skilled workforce needed for carrying out installation, repair and service work.

The Proposed Three Phase Strategy

At present, we import low tech HMED from cheap export hubs like China and import high-tech HMED from developed countries like USA. To break the status quo and emerge as a manufacturing powerhouse, India has to incentivize local production while discouraging imports, foster tie ups between research laboratories and HMED manufacturers, increase exports even if it means selling at a loss initially, encourage med-tech start-ups and medical tourism, empower the insurance industry and bring about stricter regulations and smoother coordination among the many segments comprising the healthcare industry.

India would have to expand as well as stabilize the domestic demand for HMED sector products. After this, a three phase strategy is proposed to develop India into a global manufacturing hub for the HMED Sector. In the first phase, we should focus on boosting capacity in routine and lower tech HMED items like Clinical and Digital thermometers, Syringes, Stethoscopes, Oxymeters, Oxygen Concentrators, Catheters and Electrocardiographs which were mainly imported from China, directly or through Singapore. These kinds of items can not only be easily manufactured in India but also must be manufactured here. If cost is an issue, we should put our best engineers to work to meet and beat the costs of imported items. This just requires a dedicated task force to do so.

In the second phase, in the Coming Five Years we need to get into manufacturing Medium Tech HMEDs like Electrophysiology probes and lead wires, diagnostic ultrasound scanners, wearables/disposable smart health monitors, implants/prosthetics, patient-aid equipment and instruments. Two related industries where India has reasonable manufacturing capability are (i) plastics and metal work and (ii) customized circuits. In the third phase, in about a decade, India can manufacture for domestic use as well as exports of high tech times such as X-ray generators for X-Ray based diagnostic systems, Computerised Tomography (CT) scanners, Magnetic Resonance Imaging (MRI) scanners, Hemodialysis systems, Cancer care devices, and Anaesthetic devices.



New Developments in the Indian HMED Sector On the Horizon

The Andhra Pradesh MedTech Zone Limited (popularly known as AMTZ) is an enterprise, incorporated in April 2016, under the Government of Andhra Pradesh, a 270 Acre dedicated zone for Medical Device Manufacturing. It is a first of its kind Med Tech Park in India. Their objective is to be a “One stop Shop” of all support systems of Med Tech and thereby simplify operations and reduce the cost of production. Their final aim is to reduce import dependency, make healthcare affordable to Indians and put India in the global map of HMED export.

Aside from India’s high dependence on imports, another motivation for setting up the AMTZ was that HMED manufacturing often requires certain facilities and equipment which are prohibitive for individual companies to set up – so AMTZ gives them a shared alternative. One more advantage is that the AMTZ is in an area near industrial corridors and is well connected by rail, road, air and sea. AMTZ has been acting as a national resource centre for building the HMED sector and has helped several other states, including Kerala, Tamil Nadu and Telangana to set up med tech parks. The CEO of AMTZ Dr Jitendar Sharma is also a Senior Advisor to the Niti Aayog and was involved in formulating the National Policy on Medical Devices, 2017.

Part of the same AMTZ facility is the Kalam Institute of Health Technology. KIHT has access to both HMED academia and industry and aims to facilitate focused research on critical aspects pertaining to medical devices by supporting institutions involved with R&D, industry, policy makers and knowledge repositories. Among other things, KIHT does the following –

- Undertakes HTA (Health Technology Assessment) to appraise the innovative medical devices in terms of their clinical and cost effectiveness.
- Undertakes systematic review and meta-analysis of medical devices and health policies
- Supports repository of medical device-specific best practices, technology upgrades, skill building programs and knowledge sharing platforms.
- Undertakes research and analysis about concerns, rapid action requirement and long term strategy in Med Tech industry

They also do the following –

- Act as knowledge repository for export and import data on medical devices
- Act as advisory board on all matters relating to medical device sector
- Act as an advisory board on policy matters pertaining to medical devices
- Act as bridge between Start-ups and Corporates, and analysing Investments and advising accordingly

In an effort toward indigenous MedTech infra building, Govt. of India announced sub-scheme viz. Assistance to Medical Device Industry for Common Facility Centre under the umbrella scheme for Development of Pharmaceuticals Industry. Under this sub-scheme, financial

assistance to the tune of Rs.25 Crore or 70% of the project cost, whichever is less may be provided for creation of common facilities under any Medical Device Park promoted by State Governments/State Corporations. Department of Pharmaceuticals has received three proposals under this sub-scheme from (i) Telangana Medical Device Park, Telangana (ii) Kerala State Industrial Development Corporation (KSIDC), Kerala & (iii) HLL, Medipark Ltd (HML), Tamil Nadu. Department of Pharmaceuticals has given ‘in-principle’ approval to all the said proposals. State Level Initiatives. The next generation HMED tech parks came up with the mentorship of the Andhra Pradesh Med Tech Zone (AMTZ) in the three southern states of Kerala, Tamil Nadu and Telangana and one was announced in Punjab in 2021

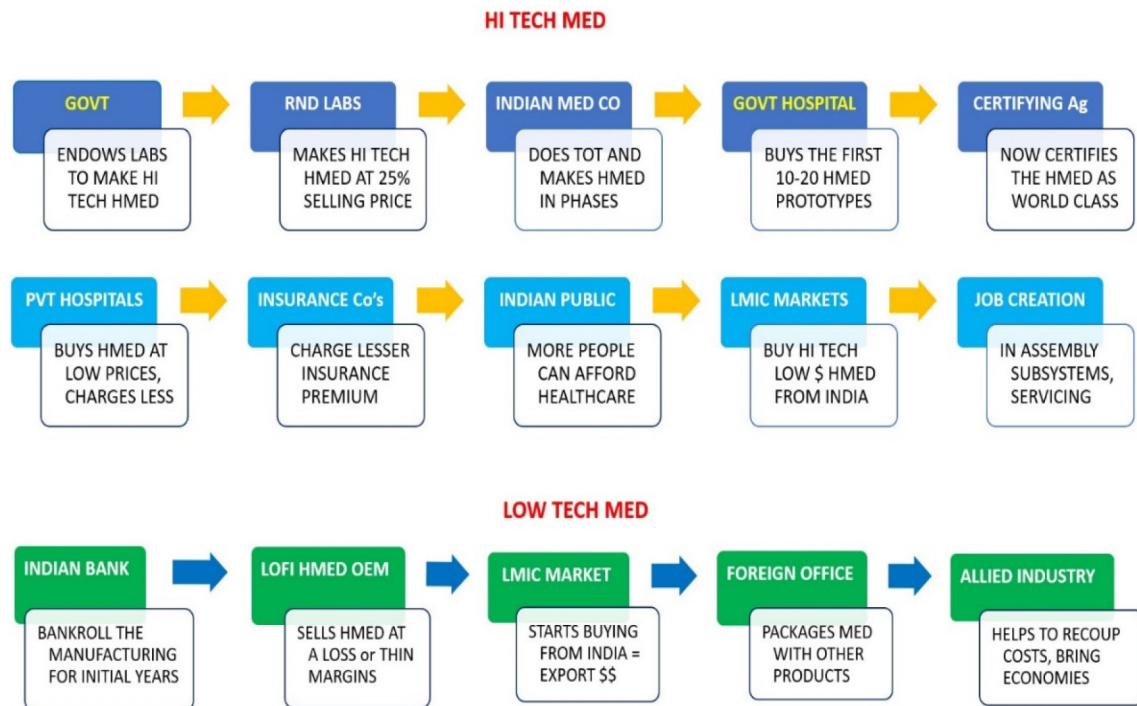
Developments That Auger Well for Our Tech Knowhow in HMED

India has taken some steps for fostering MED start-ups. A research collaboration was set up between Stanford University and Department of Bio Technology which led to the development of a prosthetic Jaipur Knee which costs less than 1% of the titanium alternative. In 2018, Government of India and the World Bank also signed an agreement to help India in developing innovations in pharmaceutical and medical devices. The ‘Innovate in India for Inclusiveness Project (I3)’ was awarded to BIRAC, which stand for Biotechnology Industry Research Assistance Programme.

SAMEER (Society for Applied Microwave Electronics Engineering and Research) was set up as an autonomous R & D laboratory at Mumbai under the then Department of Electronics (now MEITY), Government of India with a broad mandate to undertake R & D work in the areas of Microwave Engineering and Electromagnetic Engineering Technology. It has branches in Mumbai, Chennai and Kolkata. SAMEER is pursuing research and development in the field of Opto electronics, Medical Electronics, Radar based instrumentation, Atmospheric remote sensing & Meteorology, RF & Microwave systems and components, Navigational electronics etc. Most of the work regarding the development of high-tech Medical devices is carried out in Sameer Mumbai. Many of its R&D outputs and spin-offs have found applications and acceptance in industry. SAMEER also developed Linear Accelerator at a nominal cost, a hi-tech machine used in Oncology for radiating carcinoma, whose global market is dominated by American Varian Medical Systems, Inc. (merged with Siemens Healthineers in April 2021) and Swedish Elekta. Aside from this, there are host of Med-Tech start-ups and incubators and accelerators coming up to make diagnostic and prognostic devices, typically at the lower end of the tech spectrum.



A Flowchart to Indigenize the Manufacture Of HMED



Based on the authors' one-to-one interactions with R&D Labs, Manufacturers etc., they recommend these two strategies for (a) indigenizing High Tech HMED manufacture and for (b) increasing out export footprint in the low-tech segment. In a nutshell, India has to play a double game – catch up with technologically advanced countries like USA, Germany etc. in the high tech HMED sector and match the low price-points of countries like China in the lower end HMED segment (e.g.: disposables), by initially selling at a loss to grab export markets, and then letting the economies of scale and scope kick in and make the process sustainable over the long term.

Conclusion

One thing which was very clear from their paper is that the Med-tech sector does not work in isolation – to improve it, India has to bring about improvements across the board – in rules and regulations, certifying agencies, financing, insurance sector, healthcare (hospital) sector, medical colleges et al. Hence the dynamics of healthcare segment is a copy book case of the chain being only as strong as the weakest link – even if we leave any one segment unattended, it will bring the whole HMED sector down. On the other hand, to improve the paradigm, we have to improve all the linkages proportionally. On the whole, the situation is rather dismal – currently, most of our HMED is imported, only a few Indians have insurance, there are lot lesser hospitals (beds) than needed, there are few Indian OEM's (most are foreign) and also fewer trained personnel (doctors and nurses) than required, which is itself because of fewer medical colleges!

So, the overall healthcare industry seems to be playing a “low volume, high margin” game. The thrust of their recommendations was to shift things towards a “high volume, low margin”

paradigm (making insurance and healthcare available to as many Indians as possible) and attaining production sufficiency (i.e. indigenizing HMed). That is on the quantitative side – on the qualitative side, they suggested changes which will hugely increase industry-laboratory cooperation, reduce imports, raise HMed production and exports, improve regulation, financing and certification and/or standardization and raise general awareness about health.

According to the authors, to really turn things around and firstly become self-sufficient in HMed equipment manufacture and then become a hub of HMed export, India has to improve on two fronts simultaneously. We need to catch up with the developed countries in technology and also match the low-price points (for low tech HMed) of manufacturing hubs like China. As for the changes required in the overall scheme of things under the aegis of which India's HMed manufacturing industry operates, they have been elaborated in their state and national level recommendations. Even if most, if not all, of these changes in the factor conditions can be brought about within a short span of time, then the paper asserts, there is every reason to be hopeful, that within a decade, just like India's pharmaceutical and automobile industry, our HMed industry also will become not only self-sufficient but also a flourishing global manufacturing powerhouse.



What state labour law reforms have achieved so far?

Here's a report card

Supriyo De, Aditya Sinha, Chirag Dudani & Jayasimha K R

India has some of the most extensive and burdensome labour laws in the world. It is a complex web of nearly 50-55 laws of which the labour and employment ministry administers 40. This amounts to over 30,000 compliances and over 3,000 intimations or filings, which together comprise over half of the regulatory burden facing enterprises. The laws also make it nearly impossible to lay off permanent workers even when business conditions are seriously adverse, denying firms the opportunity to be flexible, nimble and competitive.

Firms have responded by substituting capital for labour, or using temporary contract labour, to keep the number of regular workers below the thresholds at which various labour laws come into effect. Consequently, formal sector employment growth is slow, and vast numbers toil in the informal economy with scarcely any employment certainty or social security coverage.

Over the years, some states have attempted to reform the laws and simplified regulations. Before 2014, Uttar Pradesh, Andhra Pradesh, Punjab, Gujarat, Karnataka, Orissa and Rajasthan reduced inspectors. Gujarat, Punjab, Rajasthan and Maharashtra introduced self-certification. In UP, labour inspectors could carry out inspections only after consent from certain officers and after providing advance information about the inspection. Andhra Pradesh introduced self-certification for IT and IT-enabled services, biotechnology, export-oriented units, units in export processing zones and tourism-based enterprises.

Post-2014, Rajasthan, Madhya Pradesh, Maharashtra, Gujarat and Haryana initiated significant labour reforms. Earlier, the Industrial Disputes Act, 1947, covered establishments employing 100 or more workers. Rajasthan, Haryana, Gujarat and Maharashtra amended the threshold to 300 or more workers. Similarly, the Factories Act, 1948, was amended to cover only establishments that employ 20 or more workers (using power) and 40 or more workers (not using power). The earlier threshold was 10 or more workers (using power) and 20 or more workers (not using power).

In Madhya Pradesh, any application under different labour statutes is deemed approved if not disposed of in 30 days. In Haryana, after reforms, the Contract Labour Act will not apply to establishments employing up to 50 workers. The earlier threshold was 20.

A recent analysis carried out by us examines the impact of state labour law reforms on indicators like output, new industrial units, formal sector employment, capital investment and the size of industrial units. It uses Annual Survey of Industries (ASI) data covering 2000-01 to 2017-18 for over 600,000 cross-sectional units. The series are adjusted using appropriate inflation indices to avoid real versus nominal confusion.

The states are classified into those with flexible and inflexible labour laws, as per the classification in the Economic Survey 2018-19. They are also classified according to manufacturing intensity (gross value added from manufacturing per capita). This results in four types of states: high manufacturing flexible (Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Odisha, Tamil Nadu, Telangana, Maharashtra, Punjab, Uttarakhand); high manufacturing inflexible (Chhattisgarh, Goa, Kerala); low manufacturing flexible (Andhra Pradesh, Madhya Pradesh, Rajasthan, UP); and low manufacturing inflexible (Assam, Bihar, Jharkhand, West Bengal).

Opt for Flexi-Growth?

The growth rates of various indicators are compared across 2000-01 and 2014-15. The starting point was chosen before major labour reforms commenced. The endpoint represents the time when multiple earlier reforms were completed (barring in Rajasthan). Data are analysed using worker number-based firm size categories.

The analysis suggests that the inflexible states have lower growth of large industrial units and regular worker employment. The number of units grew 93% in high manufacturing flexible states compared to 52% for high manufacturing inflexible states. In low manufacturing flexible states, the number of units grew by 55%, with evenly distributed growth in nearly all size categories. In low manufacturing inflexible states, the number of units grew by 73%, largely driven by the asymmetric growth of small units (0-100) of 87%.

Worker numbers grew by 77% in high manufacturing flexible states compared to 2% for high manufacturing inflexible states. The corresponding figures were 21% and -14%, respectively, for flexible and inflexible low manufacturing states.

Contract labour hiring spiked in firms with 301-500 workers in all state categories, indicating policy constraints at this level. Capital growth was higher than the growth of worker employment in all states. This indicates a degree of substitution of regular workers with capital and contract labour.

There was no dramatic difference in output growth of firms between flexible and inflexible states. This indicates that firms in inflexible states can work around labour law constraints, perhaps using the contract labour route. Which means that state-level labour law reforms did increase regular worker employment propensity in the flexible states. However, even in flexible states, the changes have not been pervasive enough to encourage firms to overcome their preference for contract labour. An alternative classification that uses state per-capita income instead of manufacturing intensity also gives broadly similar results.

Rajasthan was the first state to carry out additional labour reforms in 2014. These are examined by comparing Rajasthan (a low manufacturing intensity, flexible labour law state) with low manufacturing flexible and inflexible states, as well as high manufacturing, flexible labour law states from 2013-14 to 2017-18. Rajasthan's performance, in terms of growth of industrial units, was high (18%) and more comparable to the high manufacturing intensity, flexible labour law states (16%) than its low manufacturing peers (4% for flexible ones and 6% for inflexible ones, although with negative growth for larger units).

Worker numbers grew by 37% in Rajasthan. In contrast, for high manufacturing inflexible states, they grew 15%, for low manufacturing flexible states 20%, and for low manufacturing inflexible states -4%.

An abiding trend, irrespective of manufacturing intensity and labour law flexibility, is increasing capital intensity (in terms of capital per worker and capital per factory). This may be capturing increasing capital intensity due to both structural and technological change. It could also reflect the substitution of labour with capital due to labour law constraints. The key takeaway is that if capital intensity has an increasing trend, employment gains from labour law reforms may be muted.

In 2001-02, both flexible and inflexible high manufacturing states had similar wages rates, while both types of low manufacturing states had similar wage rates. However, by 2017-18, wage rates in inflexible high manufacturing states were the highest. On the other hand, flexible low manufacturing states saw a larger rise in wages than inflexible low manufacturing states.

To capture changes in the diverse forms of employment, we compared the ratio of total employment (including contract workers, family employees, persons designated as managerial, etc) to regular workers. This showed a sharp drop in 2013 for flexible low manufacturing states, indicating that labour reforms that brought greater flexibility may have positively impacted the employment of regular workers in proportion to other categories.

In flexible high manufacturing states, the ratio shows a slight rise. In the inflexible low manufacturing states, the ratio has risen more drastically, and surpassed that in the flexible low manufacturing states. This indicates that regular workers are being substituted by other employment categories such as contract labour, family employees or support staff perhaps due to lack of reforms.

We also carried out regression analysis to control for factors other than labour laws that may impact worker employment. The number of workers is sought to be explained by the wage rate, fixed capital and value of output for each state-industry combination analysed over time (panel data). Other state-specific control variables that impact employment (rail density, industrial disputes per worker, man-days lost per worker, crime index, road per population and gross enrolment ratio) are included.

The regression results, when interpreted in totality, tell a valuable story.

- State labour law reforms had a distinctly positive impact on employment once they came into full effect after 2013.

- High manufacturing states had more employment generation after 2013, perhaps indicating some impact of clustering and early effects of 'Make in India'.
- High manufacturing flexible states did not have any additional employment gains compared to low manufacturing flexible states. Instead, the larger benefits of labour law reforms accrued to the less affluent low manufacturing states.
- Good infrastructure (roads and railways), reduction in industrial disputes and related disruptions (disputes and man-days lost), low crime and better education and skill-building resulted in significant employment generation.
- Controlling for other factors, the decline in employment across time was arrested in the post-2013 period.
- The impact of education and skill-building is significant post-2013, perhaps indicating skill-biased technical changes as the manufacturing sector matures and imbibes global trends.



Image Courtesy: <https://images.indianexpress.com/2021/04/MUMBAI-3.jpg>

Implementation of Street Vendors Act 2014 in Mumbai

Mohsin Khan

Introduction

This study explores, and investigates the status of implementation of Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014 in India's largest, and richest metropolitan municipality - Municipal Corporation of Greater Mumbai (MCGM) also commonly known as Brihanmumbai Municipal Corporation (BMC). The study draws mainly from Center for Civil Society's excellent reports on the status of overall implementation of the act in the country and as well as CCS's Narang's deep dive report in the case of Mumbai. Likewise, study also briefly looks into Mumbai history with regards to its development, history of the informal sector, and importantly, its street vendors unions roles in historical and ongoing legal fights and struggle for collective rights of its members.

Mumbai and Its Development

Mumbai, originally a group of seven marshy islands on the west coast of India and a fishing village until the 16th century, was ceded by the Moguls to the Portuguese in the 1630s. Later the King of England leased it to the East India Company. It developed as an important port, used by the British for more than two centuries. The history of the creation of wealth in Mumbai has essentially been a product of investment by merchant-capitalists, professional expertise, and abundant cheap labour of migrants from within the region or from far-off areas. The handling of cargo by its seaport, competitive textile industry, and finance and trade set the tone for such a development.

The surplus capital generated was partly reinvested in chemical and allied industries, and the rest mainly diverted to fixed assets like real estate and gold trade or converted into the black money. The creation of wealth thus led to the darker side of development, manifesting in unethical business and the emergence of the underworld. The unskilled or skilled migrant

workers were poorly paid and settled either in dingy dwellings provided by the employers or in slum structures through informal means (mainly with the help of slumlords).

At the time of 'opening up' of Indian economy to global markets (in 1991-92), Mumbai showed symptoms of a declining megapolis for reasons like (a) over-burdened land-use due to population explosion (due to large in-migration and natural growth), (b) crumbling infrastructure (c) aging housing stock in the main city, (d) over 45 per cent of the population living in dehumanised conditions in over 2,000 slum settlements, (e) depleting public resources for any significant improvement, (f) social housing schemes of government departments marred by scarcity of land for mass housing and inefficient and corrupt practices, (g) virtual seizure of the city by the builder mafia and land sharks, and above all (h) the decline in manufacturing activity and rapidly growing informal economy in the city. (Sharma 2010).

The pace of migration of rural poor to the city increased manifold in the 1970s and onwards, with the result of proliferation of slum settlements all around. These slums were sandwiched between the commercial areas and regular housing settlements of the middle and upper classes. Such a mixed use of landscape of the city became symbolic of the chimneys, ware-houses, and godowns integrated with the housing clusters of various classes of population (Shaban 2008). As the city grew urban development plans tried to catch up through mega debt financed projects with main focus on Infrastructure constructions, housing and settlements. In and around these mega projects, skyscrapers, commercial malls the slum grew at a tremendous rate. According to the 2011 census, Mumbai had 12 million population with the biggest share of slum dwellers among the big metro cities, with 42 percent of its population residing in slums and this share is only going to increase in decades to come. Some estimate it to be 65% of the total population by 2030. These slums occupy just 7% of Mumbai's total land area. According to a UN World Urbanization Prospects report Mumbai's population will reach close to 25 million by 2030.

Urbanisation in India has been termed a 'messy and hidden process', with urban governance institutions finding themselves unable to cope with the steady influx of rural populations to urban regions for work. (Ellis and Roberts 2016, 2). There always has been an uphill battle for the governance and administration institutions to plan, upgrade and manage big metropolitan areas especially when there is regular movement of people and goods in and out of the city like Mumbai.

Informal Sector in Mumbai

Large part of the fuel for economic growth has been the informal sector that is supporting the majority of the population. The underbelly of any modern city particularly in a developing country has been its informal sector.

According to ILO definition "The informal sector is broadly characterised as consisting of units engaged in the production of goods or services with the primary objective of generating employment and incomes to the persons concerned. These units typically operate at a low level of organisation, with little or no division between labour and capital as factors of production and on a small scale. Labour relations - where they exist - are based mostly

on casual employment, kinship or personal and social relations rather than contractual arrangements with formal guarantees.”

The informal sector represents an important part of the economy, and certainly of the labour market, in many countries and plays a major role in employment creation, production and income generation. In countries with high rates of population growth or urbanization, the informal sector tends to absorb most of the expanding labour force in the urban areas. Informal employment offers a necessary survival strategy in countries that lack social safety nets, such as unemployment insurance, or where wages and pensions are low, especially in the public sector. In these situations, indicators such as the unemployment rate and time-related underemployment are not sufficient to describe the labour market completely. (International Labour Organization (ILO) 1993)



A broader conceptualization of what is formal and informal sector especially in developing countries have kept academicians busy. Empirical findings from scholar (Bhowmik 2005, 22-23) studying different socioeconomic arrangements in developing countries like India and parts of Latin America argue for a more inclusive understanding of urban informality (i.e. as part of the formal, regulated space) in an urban city’s ecosystem which includes those working as part of what can be seen as the informal/unregulated space. In fact, on closely observing the businesses of those categorized as ‘informal workers’ one can see an intertwined, more complex relationship between the ‘formal’ and ‘informal’ aspects of commercial exchanges taking place (Martínez, Rennie, and Estrada 2017, 34-43) (Sekhani, Mohan, and Medipally 2019, 120-129).

The distinct features of a city like Mumbai is the tens of lakhs of people staying in slums amongst sporadic towers here and there. Traditionally, slums used to be places where low income people stay but with the influx of migrants and need for low housing settlements

these slum areas became overcrowded with spaces divided into smaller and smaller areas. Slums can be understood as an outcome of the industrialisation process and urban growth. In these slums, people adopted and even perfected to an extent strategies to survive in the city; this is one of the draws for the people to continue to exist in a tough and dilapidated habitat. Street vending is one of those strategies for livelihood that lakhs of slum dwellers have adopted for decades. Street vending not only provides livelihood opportunities for those who have the least in terms of capacity, agencies, and resources but also in large part what tens of lakhs of low income and some middle class families depends on as their sources of quick, cheap, daily, regular, and essential items to survive and exist in an otherwise expensive city. However, street vending as a service and people engaged in it has complicated and complex relationships with society at large.

As illustrated by Jha “Despite street vending being one of the oldest forms of retail in the country, the urban laws of independent India still neglect the activity and its practitioners. City administrators continue to regard hawking as illegal. There are sections of the public who feel that hawkers encroach on spaces meant for civic use, and others simply consider them as eyesores. Even those who may be buying goods from vendors, would like for them to be more obscure. Clearing streets, footpaths and transport terminals of vendors and hawkers, and confiscating their goods, is a daily municipal activity. For their part, the street vendors continue to claim their space in the cities to earn their living. In a cat-and-mouse game, local officials ignore hawkers when convenient and tighten the rules on them when exigencies have demanded preventive action.

This has served a dual purpose: some underhand money goes to the administration for turning a blind eye, and the street vendors get to conduct their business too. With time, hawkers found able allies and protectors among local councillors who objected to their eviction and instead promoted their proliferation. Hawkers returned the favour by turning into loyal voters and political workers. A complex calculus emerged: hawking was bad under the law, but the law did not find any takers. While hawkers dared it and breached it, buyers ignored it and abetted its breach. Local politicians benefited as it helped perpetuate their career, and administrators ignored the implementation of the law, tempering private profit with local exigency. Consequently, street hawking continued to ‘thrive’ illegally in every Indian city”. (Jha 2018)

History of the Fight for Rights of Street Vendors

Roughly 2.5% of India’s population is engaged in street vending (Bhowmik 2003, 1543 -1546). Yet, the road to 2014 acts and beyond have been and is full of struggle and fights for self-determination and legal recognition for the street vendors as shown in the graph below.

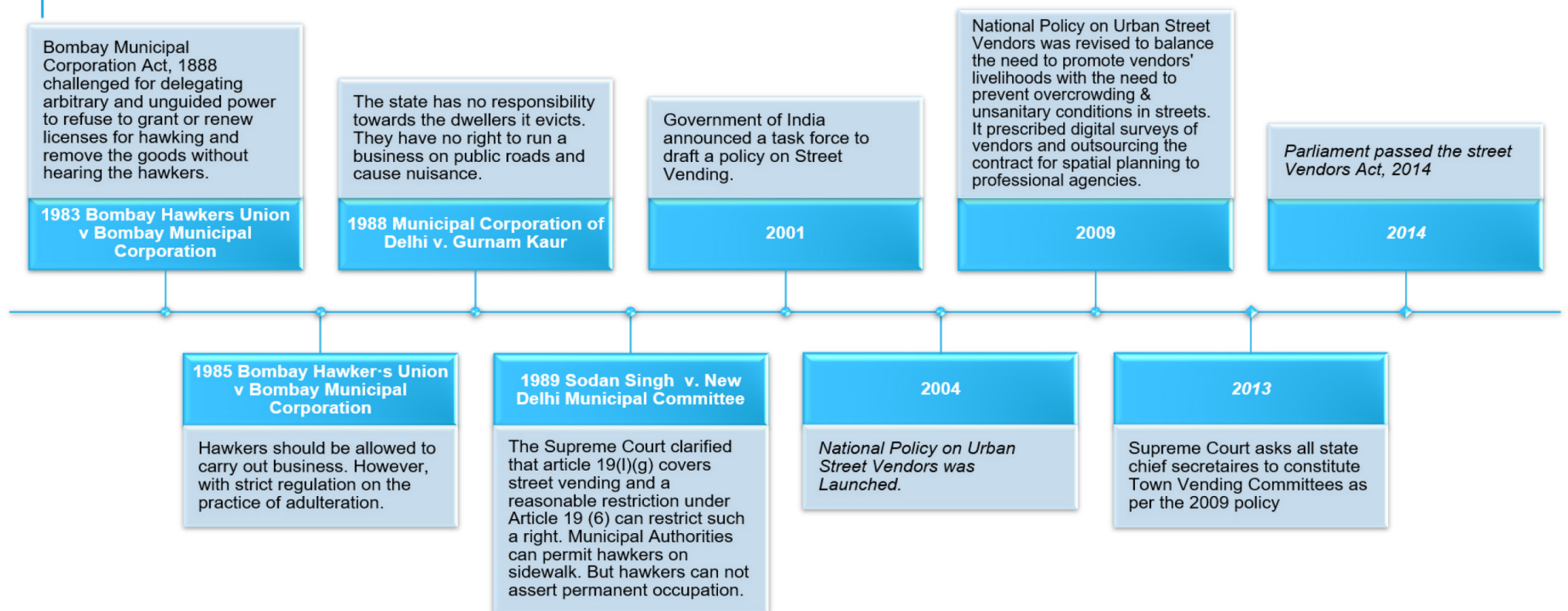
Back in 1983 hawkers union filed a writ petition before the Supreme Court that culminated in judgement in 1985 by the court to direct the Municipal Commissioner to demarcate zoning in consultation with the BMC, and to frame the final Scheme based on the Court’s directions and observations. The Supreme Court empowered the Municipal Commissioner to extend the no-street vending zones in the interest of public health, sanitation, safety and public convenience.

In 2009, National Policy on Urban Street Vendors was adopted. The Policy prescribed digital surveys of vendors and outsourcing the contract for survey and spatial planning to professional agencies for spatial planning.

In 2013 as per the 2009 Policy, BMC Commissioner constituted a 30-member TVC under his chairmanship. In 2014, The Parliament of India enacted the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014.

STREET VENDORS

Landmark Judgements and Policies



Salient Features of the Street Vendors Act 2014

Although municipal zoning and regulation of vending falls under the State List, the standing a committee on the Street Vendors Bill recognised that Parliament may legislate on the rights and obligations of street vendors under entries 20, 23 and 24 of the Concurrent List (Bedi 2013). Historically, the issue of public spaces & its development, and public safety versus street vendors' right to livelihood has been the core of many legal issues. Even though the act was passed in 2014 the implementation of it in letter and spirit has been tough in degrees from state to state. The matter of street vendors' livelihood comes under concurrent list. Hence the Act delegates the power to the state to make legislation. It lays out the statutory contours within which the local institutions built by state governments may evolve. To meet the letter and spirit of the Act, state governments ought to:

- Formulate subordinate legislation that lays out an appropriate framework for guiding
- institutional mechanisms and processes;
- Establish institutional mechanisms (such as Town Vending Committees and Grievance Redressal Committees) and execute processes (such as vendor surveys and demarcation of vending zones). (Bedi and Narang 2020, 4)

Hence, each state had to make State act, rules and schemes which in turn will support by-laws as per the section (37) of the national Act. As per the Act, once the framework is established, the minimum institutions and processes that state governments ought to put in place to protect the interests of vendors include:

- Constituting participatory Town Vending Committees (TVCs): The Act instills accountability at the local level by necessitating the formation of local governance bodies called TVCs. To encourage participatory decision making and recognise the voice of vendors, the Act requires 40% of TVC members to be vendors. Civil society participants (such as members from non-government or community-based organisations) must constitute 10% of the total strength.
- Surveying street vendors, issuing certificates of vending and distributing identity cards: TVCs are responsible for enumerating vendors in their jurisdiction at least once every five years. Section 3(3) of the Act prohibits any eviction before all existing vendors are enumerated. Once the enumeration is complete, TVCs must issue certificates of vending to the identified vendors (based on criteria laid down in the Act and state schemes). Following this, all vendors holding certificates of vending must be given identity cards.
- Formulating the city street vending plan and demarcating vending zones: Section 21 of the Act requires each local authority to formulate a vending plan (once in every five years), after consulting the TVC. The plan should lay down criteria for earmarking 'no-vending', 'restricted' and 'restriction-free' vending zones and give priority to natural markets. These norms must be in consonance with the principles for demarcation mentioned in the First Schedule of the Act.

- **Constituting Grievance Redressal Committees:** Section 20 of the Act recommends the local authority to form one or more Grievance Redressal and Dispute Resolution Committees for addressing vendor disputes and grievances. It prohibits members of the local authority or state governments from being a part of this committee. (Bedi and Narang 2020, 5)

Implementation of the Act

In 2014, The 2013 Mumbai TVC passed a resolution to form 241 teams for conducting a survey of the vendors. (However, BMC did not hire any professional agency to undertake a survey. Moreover, the survey should have been in a census-like fashion. Instead, BMC merely distributed forms and asked the vendors to submit the filled form later, along with other documents. It was an application-based registration drive. When the BMC sent letters to vendors asking them to submit documents in time, many letters came back undelivered. This is precisely what a census-like survey would have avoided.

The BMC issued only 1,28,443 forms to vendors and 99,435 vendors submitted the forms. Vendors needed to submit a birth certificate, a domicile certificate, proof of working as a vendor (any fine/receipt issued by the police/ court/BMC before 1 May 2014) and an undertaking (hamipatra) of having vending as their only source of livelihood. On Jul-Aug 2018: TVCs completed verifying 96,655 applications of the total 99,435 applicants; remaining 2,780 applicants are pending verification. The TVC found only 23,265 applications eligible. BMC asked for a domicile certificate among other documents from the applicants (Narang 2020)



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The short of long story of the status of implementation of the Act in Mumbai and overall in Maharashtra state is abysmal. Ever since the Center of Civil Society's publishing annual report on progress on the implementation of the Act state wise, Maharashtra has been at the bottom of the list. In their 2020 report Maharashtra is at third spot from bottom barely above Uttarakhand and Assam. Implementation of the act can be looked at from two stages first being de jure implementation and second is de facto implementation. Maharashtra implementation efforts in these two stages have faced setbacks from the beginning.

In de jure implementation the state was supposed to implement state level act, rules and schemes. As mentioned before, in 2013 BMC constituted a 30 member TVC based on the 2009 National Policy on Urban Street Vendors. This is what Mr. Macancy Dabre of National Hawkers Union points out as the source of the initial problem. According to him, the Maharashtra government should have involved street vendors in the discussion of acts, schemes, and TVC formation. But instead certain clauses in the rules namely - rule R22(10) empowers the Municipal Commissioner or the Chief Officer to reject a proposal "passed in Town Vending Committee on majority of votes or voice of vote" and similarly, rule 22(11) empowers the Government of Maharashtra to "recall the proceedings of the Town Vending Committee and revoke the proposals passed" if the proposal is not in accordance with certain local laws. This is repugnant to the centred act.

As per the Constitution of India in the matter of legislations on subjects like street vendors livelihood which is in concurrent list the article 246(2) – gives power to two legislatures (Center and State), and during a conflict that can arise between laws passed on the same subject by the two legislatures Articles 254(1) states that the law made by Parliament, "whether passed before or after the law made by the Legislature of such State, or, as the case may be, the existing law, shall prevail and the law made by the Legislature of the State shall, to the extent of the repugnancy, be void." Then on the 9 January 2017 after 2 and half years State formulated a scheme for the whole of state without consulting the local authorities and local TVCs.

On the same day, the State also brought out another government resolution entitled "Scheme enforcement related information" allowing local authorities to constitute TVCs without any representation of street vendors. Another rule going against spirits and the letter of the center's law. Moreover, in the city Mumbai TVC was formed before the state even enacted the act or schemes. All these were disputed in *Azad Hawkers Union v. Union of India* MANU/MH/2574/2017 in which on 1 November 2017 the Bombay High Court held: (1) the scheme dated 9.01.2017 could not be regarded as the statutory scheme because the Government did not consult the local authorities and TVCs for framing the scheme, as per the Act; (2) BMC-conducted survey of 2014 can be considered to be the first survey under section 3 of the Street Vendors Act, 2014 and elections can be held based on that survey; (3) Government resolution dated 9.01.2017 allowing the local authorities to constitute TVCs without the representation of street vendors, was bad in law.

Till now, no new or amended scheme has been enacted, hence, no local bylaws have been passed and no elections have taken place. The delays, inactions, conflicting rules and subsequent challenges to the rules, schemes stalled the first stage of de jure implementation of Act. Meanwhile, all these years BMC didn't start the process of new surveys and in fact

operationalized TVCs, a central TVC, and 7 zonal TVCs that met a couple of times over the last 7 years. Few street vendors' union members, and NGOs are represented in these central TVC and zonal TVCs. Their selection was done based on a lucky draw method. It has been 7 years without an election. The Street Vendors Act 2014 states elections for new street vendors representations in TVC at least every 5 years. Moreover, the 23 thousands Street vendors that BMC recognised in the 2013 survey are yet to receive certificates or IDs. In fact, the reality for a normal street vendor is the same as before the act was enacted 7 years back.

References

1. Bedi, Jayana, and Prashant Narang. 2020. Progress Report 2020: Implementing the Street Vendors Act. N.p.: Center for Civil Society.
2. Bhowmik, Sharit K. 2003. "National Policy for Street Vendors." *Economic and Political Weekly* 38, no. 16 (April): 1543-1546.
3. Bhowmik, S. K. 2005. "Street vendors in Asia: A review." *Economic and Political Weekly* 40:22--23.
4. Ellis, P., and M. Roberts. 2016. *Leveraging Urbanization in South Asia : Managing Spatial Transformation for Prosperity and Livability*. Washington, DC: World Bank.
5. International Labour Organization (ILO). 1993. Resolutions Concerning Statistics of Employment in the Informal Sector Adopted by the 15th International Conference of Labour Statisticians. <https://stats.oecd.org/glossary/detail.asp?ID=1350>.
6. Jha, Ramanath. 2018. "Strengthening Urban India's Informal Economy: The Case of Street Vending." *ORF ISSUE BRIEF*, no. 249 (July).
7. Martínez, L., J. Rennie, and D. Estrada. 2017. "The urban informal economy: Street vendors in Cali, Colombia." *Cities* 66 (June): 34-43.
8. Narang, Prashant. 2020. *Street Vendors Act 2014 Enumerating Street Vendors in Mumbai, Maharashtra*. New Delhi, India: Center for Civil Society.
9. Sekhani, Richa, Deepanshu Mohan, and Sanjana Medipally. 2019. "Street vending in urban 'informal' markets: Reflections from case-studies of street vendors in Delhi (India) and Phnom Penh City (Cambodia)." *Cities* 89:120-129.
10. Shaban, A. 2008. Politics of violence and production of urban spaces in Mumbai, Paper presented at 'Urban Research Centre Seminar', London School of Economics.
11. Sharma, R. N. 2010. "Mega Transformation of Mumbai: Deepening Enclave Urbanism." *Sociological Bulletin* 59 (1 (January-April 2010)): 69 - 91. <https://www.jstor.org/stable/23620846>.



RAJIV GANDHI
INSTITUTE FOR CONTEMPORARY STUDIES

Rajiv Gandhi Institute for Contemporary Studies

Jawahar Bhawan,
Dr Rajendra Prasad Road,
New Delhi 110 001
India

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