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INDIA
BIOECONOMY
REPORT
2021
JANUARY – SEPTEMBER

INDIA BIOECONOMY REPORT

SEPTEMBER 2021 Edition

*This report has been prepared for the **"Make in India"** cell of **Biotechnology Industry Research Assistance Council (BIRAC)** by Association of Biotechnology Led Enterprises (**ABLE**). The report is written by Narayanan Suresh, Chief Operating Officer of ABLE and Srinivas Rao Chandan, Editorial Consultant for ABLE*

Contents

INDIAN BIOECONOMY, SEPTEMBER 2021

Executive Summary

This IBER report now has been the guiding force for a host of national policies, regulations, and directives set out to reach ambitious target of $150 billion BioEconomy by 2025. Further, several states have begun to model their respective Biotechnology sectoral thrusts based on the national Indian BioEconomy Report (IBER).

QUICK FACTS

BIOECONOMY VALUE IN 2020: **$70.2 BILLION**

BIOECONOMY VALUE IN JAN-SEPT 2021: **$53.34 BILLION**

BIOECONOMY VALUE IN H1 2021: **$28.4 BILLION**

CUMULATIVE START-UPS IN 2020: **4,237**

CUMULATIVE START-UPS JAN-SEPT2021: **5,079**

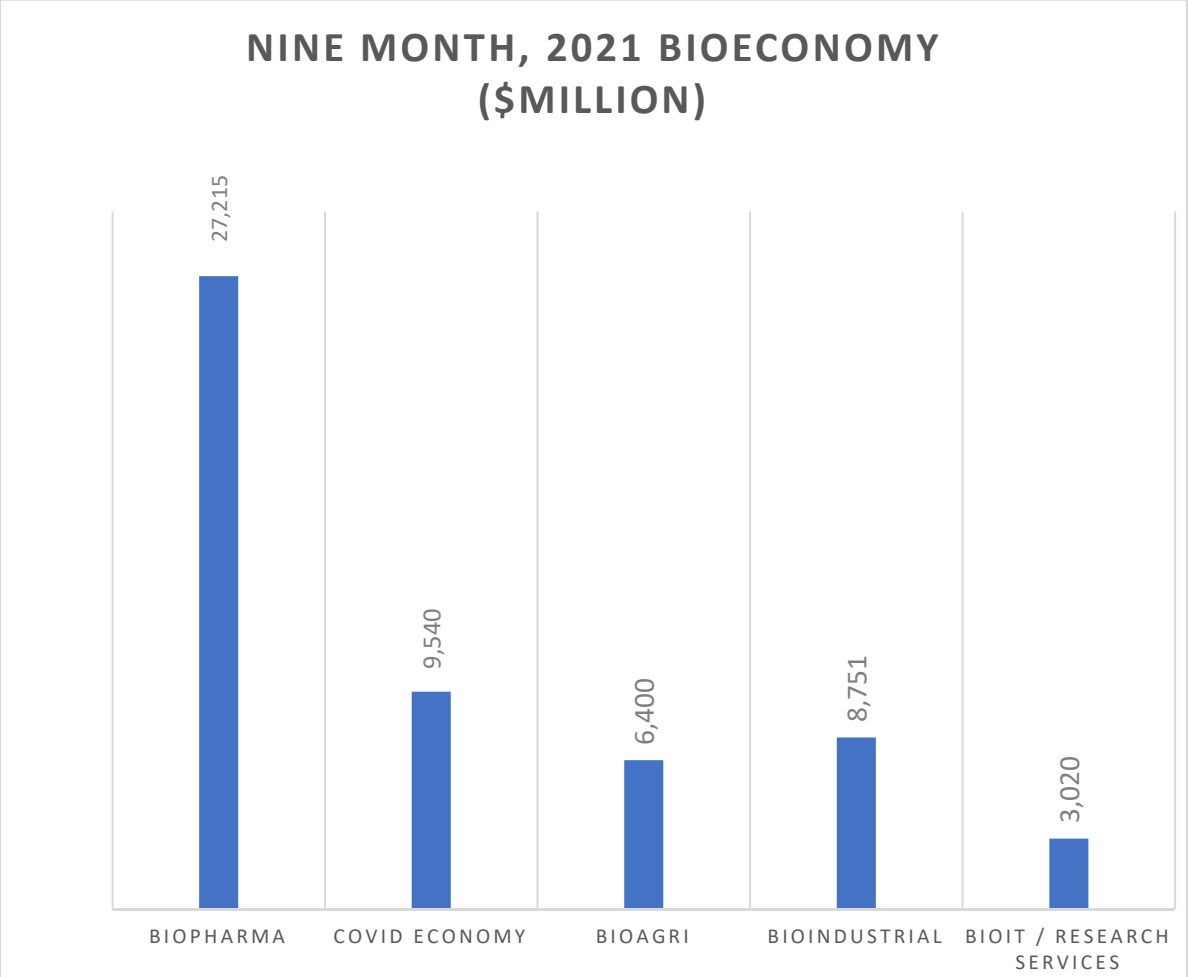
CUMULATIVE START-UPS IN H1 2021: **4,852**

Overview

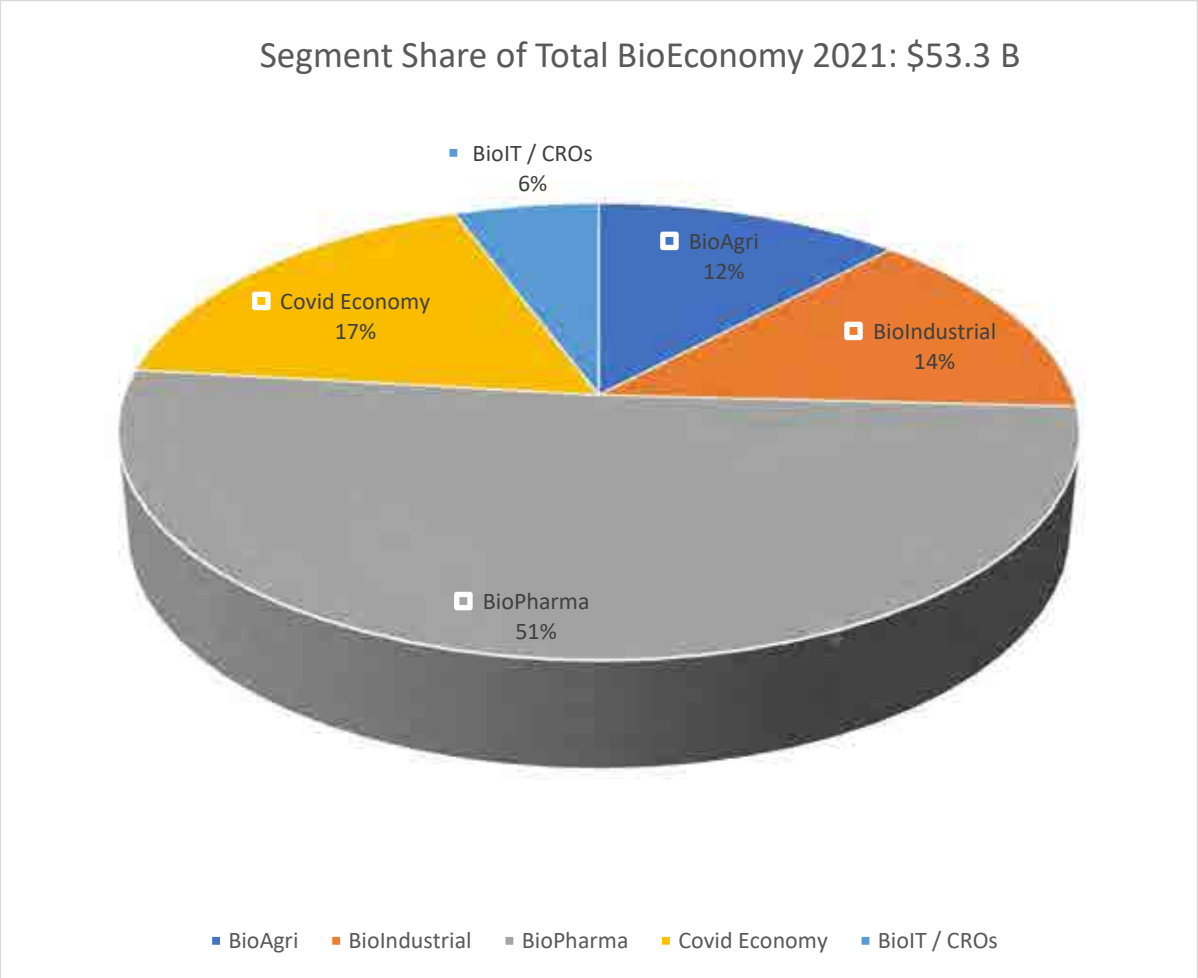
India's BioEconomy by the end of calendar year 2020 was valued at $70.2 Billion recording 12.3 percent growth.

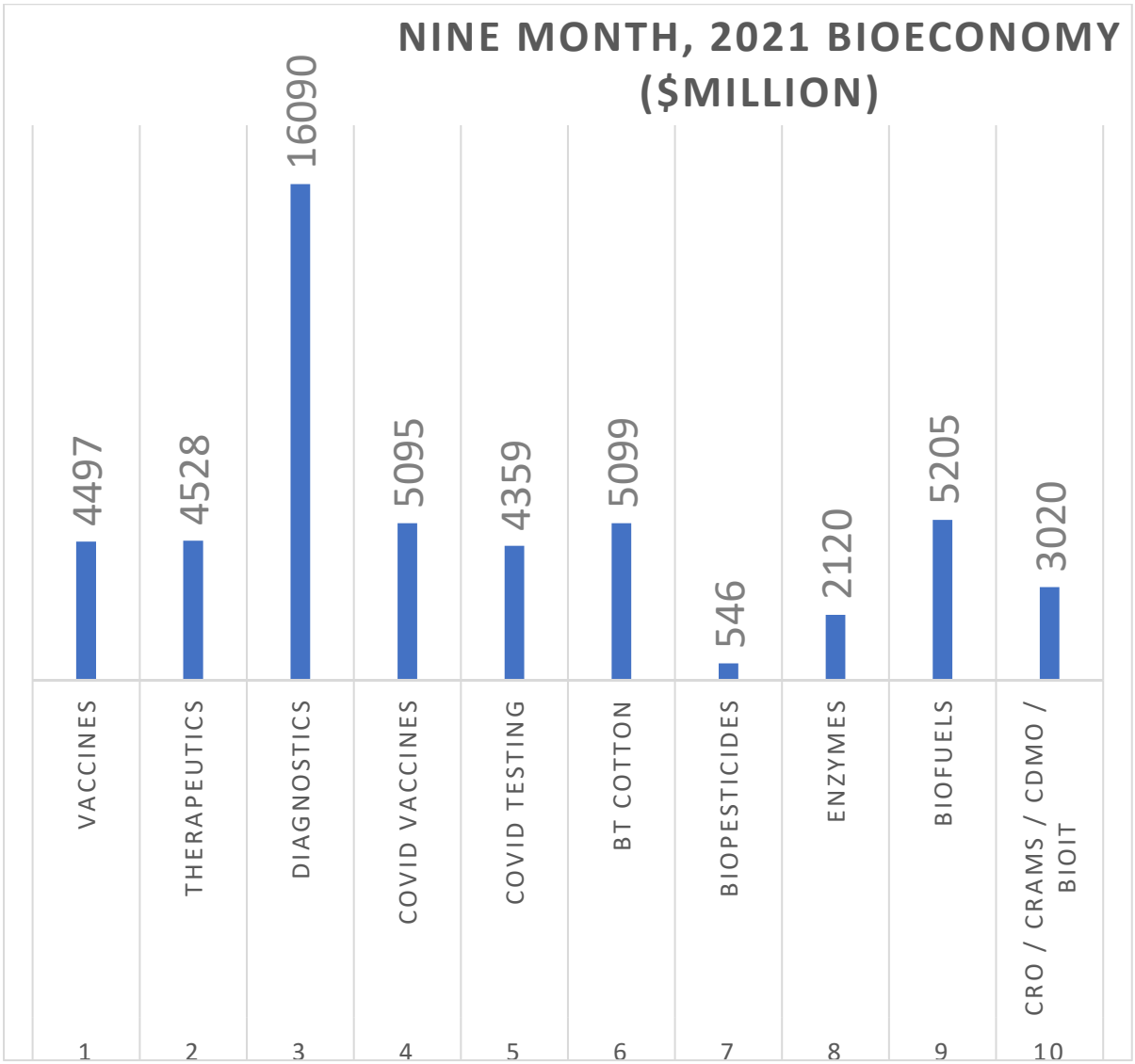
The Indian BioEconomy for the period January-September 2021 (First 9-Months of Calendar Year) is estimated at **$53.34 billion**. The BioEconomy registered 58% jump over the AMJ 2021 Quarter (April-June 2021).

NINE-MONTH BIOECONOMY, CY 2021



The growth has come on account of $9.34 billion Covid Economy consisting of Covid Vaccination and Covid Testing. BioPharma still accounts for the largest share of the BioEconomy. With a 51 percent share, the nine-month value of BioPharma economy is estimated at $27.2 billion. Diagnostics accounted for 60% share of the total BioPharma Market, while Therapeutics segment stood at 23%. The vaccines segment excluding Covid Vaccines accounted for 17% share.





Covid Economy (consisting of Testing and Vaccination) is being considered as a separate segment from the BioPharma report. This economy is now inching closer to $10 billion in value. The Covid Vaccine economy is valued at $5.1 billion while testing is around 4.36 billion for the first nine months till September.

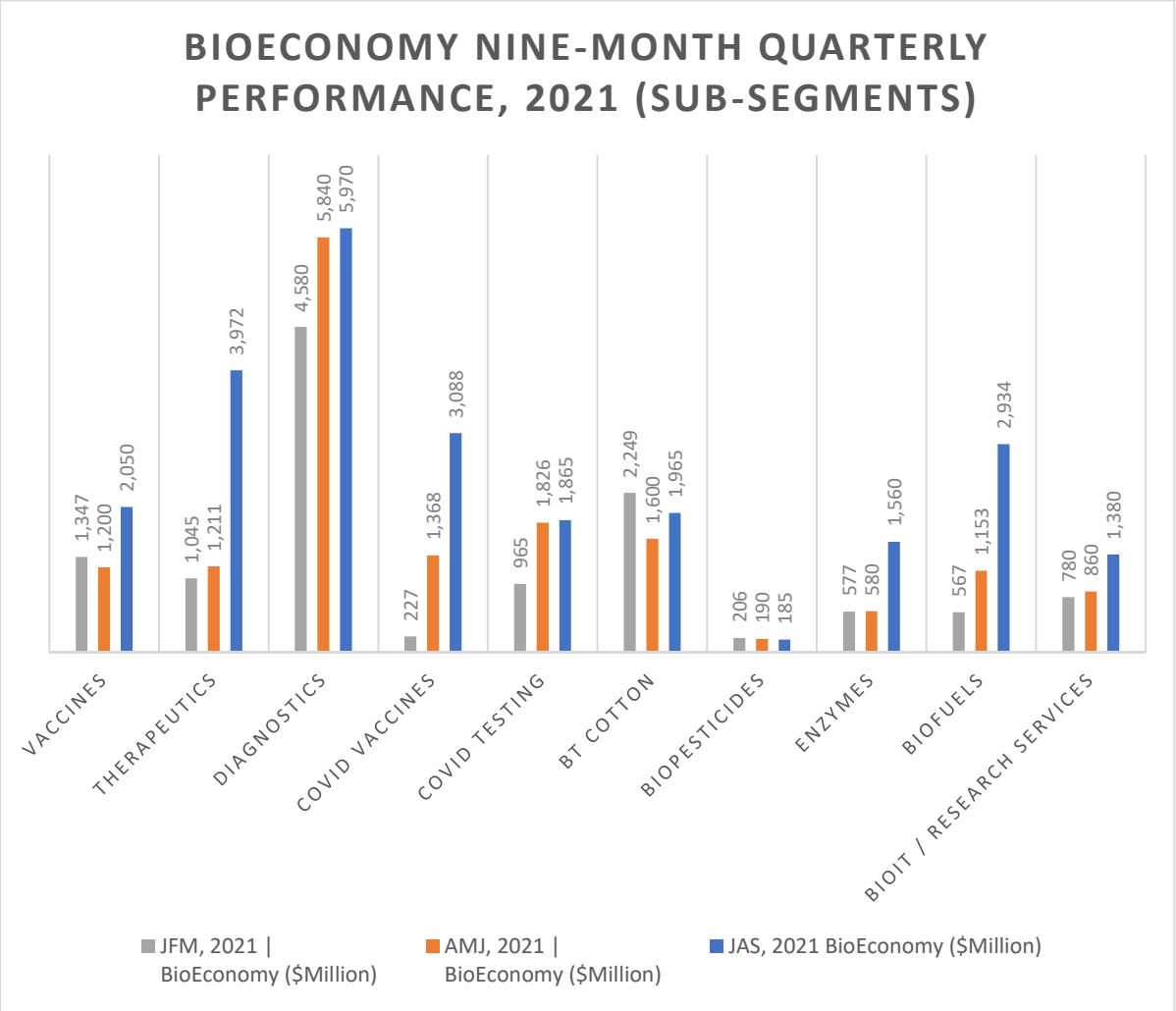
BioIndustrial segment too started to see more momentum as specially with growth of blending. The Biofuels segment is estimated at $5.2 billion. The enzymes market to saw a push to $2.1 billion. The Bt Cotton was the only segment that didn't see sharp rise. The Bt Cotton economy is estimated at $5.1 billion.

The BioEconomy in the first nine-months of CY2021 recorded 38 percent growth compared to the same period in CY 2020.

QUARTERLY PERFORMANCE

The July-September quarter has been a good quarter for almost all sectors.

BioPharma recorded 45 percent growth, while the Covid Economy resulted in 55% jump from the AMJ Quarter. BioIndustrial segment accounted for 160 percent. The BioIT and CRO segment is growing as well and registered 60 percent jump. At the current rate the Indian BioEconomy for the full quarter is likely to touch $75-80 billion by the year end.



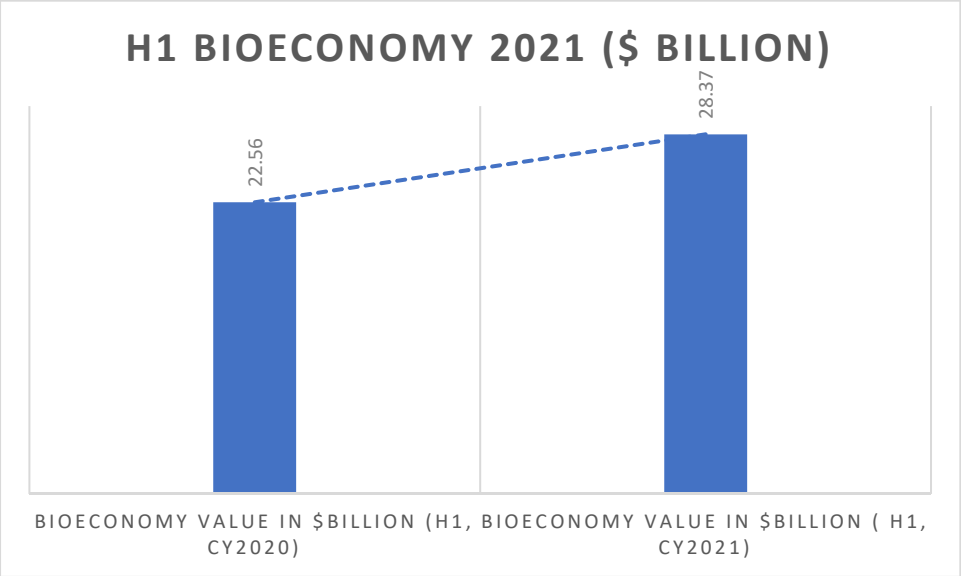
BIOECONOMY NINE-MONTH, CY 2021

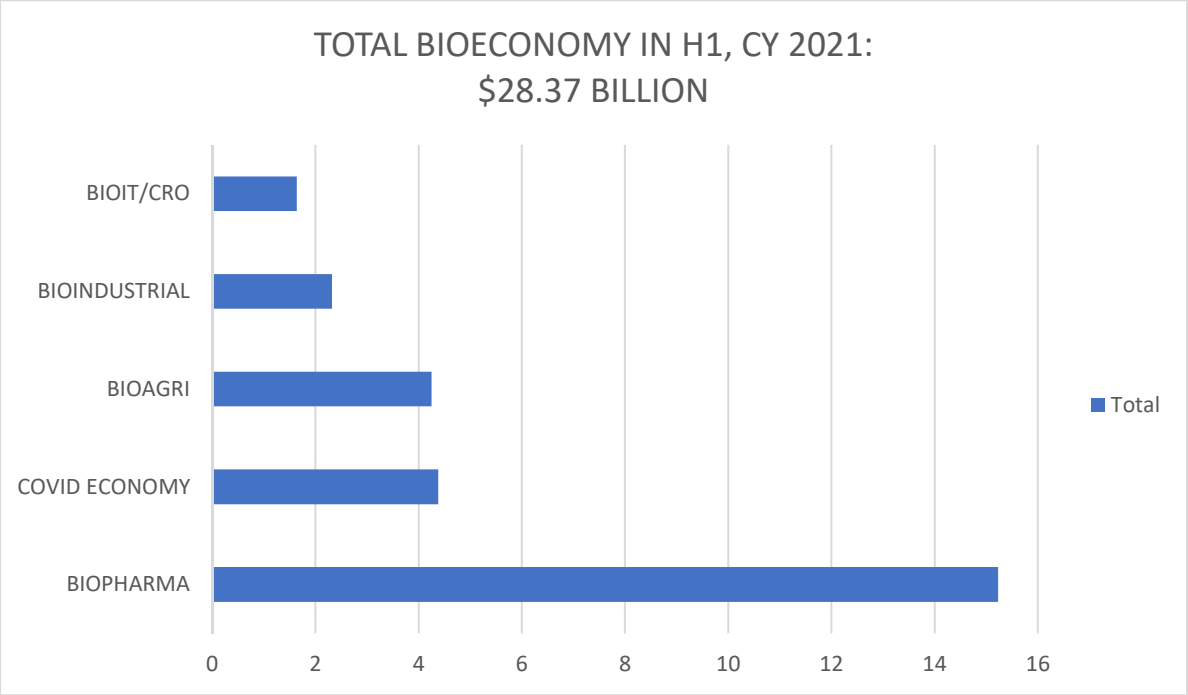
SEGMENT	JAS, 2021 | BioEconomy ($Million)	AMJ, 2021 | BioEconomy ($Million)2	JFM, 2021 | BioEconomy ($Million)	Change over AMJ	Change over JFM
BioPharma	11992	8251	6962	45%	19%
Covid Economy (Vaccines + Testing)	4953	3194	1192	55%	168%
BioAgri	2150	1790	2455	20%	-27%
BioIndustrial	4494	1734	1144	159%	52%
BioIT / CROs	1380	860	780	60%	10%
Grand Total ($ Million)	**24969**	**15829**	**12533**	**58%**	26%
Grand Total ($ Billion)	**24.97**	**15.83**	**12.53**	58%	26%

Sl	Sub-segment	JAS, 2021 BioEconomy ($Million)	AMJ, 2021 | BioEconomy ($Million)	JFM, 2021 | BioEconomy ($Million)
	BIOPHARMA	**11,992**	**8,251**	**6,972**
1	Vaccines	2,050	1,200	1,347
2	Therapeutics	3,972	1,211	1,045
3	Diagnostics	5,970	5,840	4,580
	COVID ECONOMY	**4,953**	**3,194**	**1,192**
4	Covid Vaccines	3,088	1,368	227
5	Covid Testing	1,865	1,826	965
	BIOAGRI	**2,150**	**1,790**	**2,455**
6	Bt Cotton	1,965	1,600	2,249
7	BioPesticides	185	190	206
	BIOINDUSTRIAL	**4,494**	**1,733**	**1,144**
8	Enzymes	1,560	580	577
9	Biofuels	2,934	1,153	567
	BIOIT / RESEARCH SERVICES	1,380	860	780
	TOTAL ($Million)	**24,969**	**15,828**	**12,543**

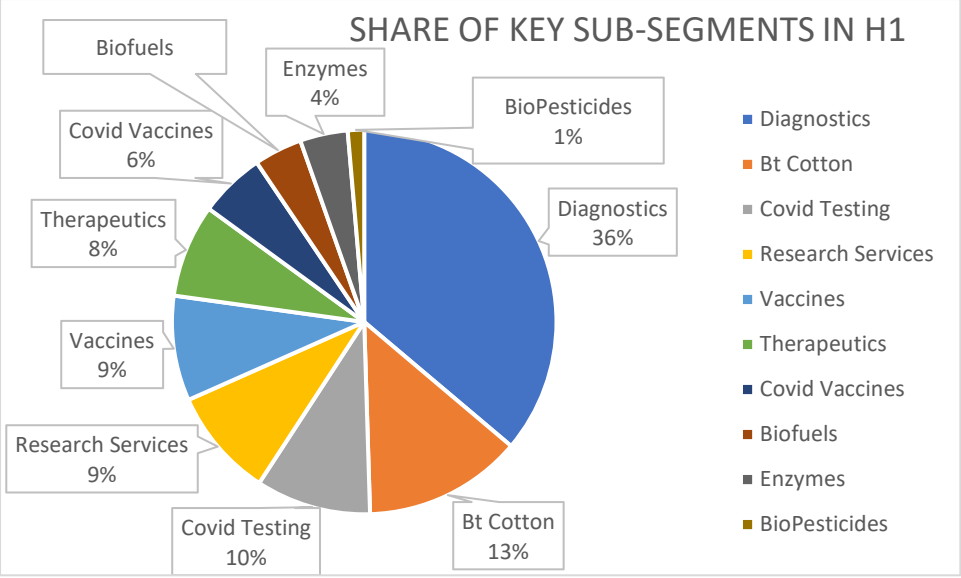
HALF-YEARLY BIOECONOMY, CY 2021

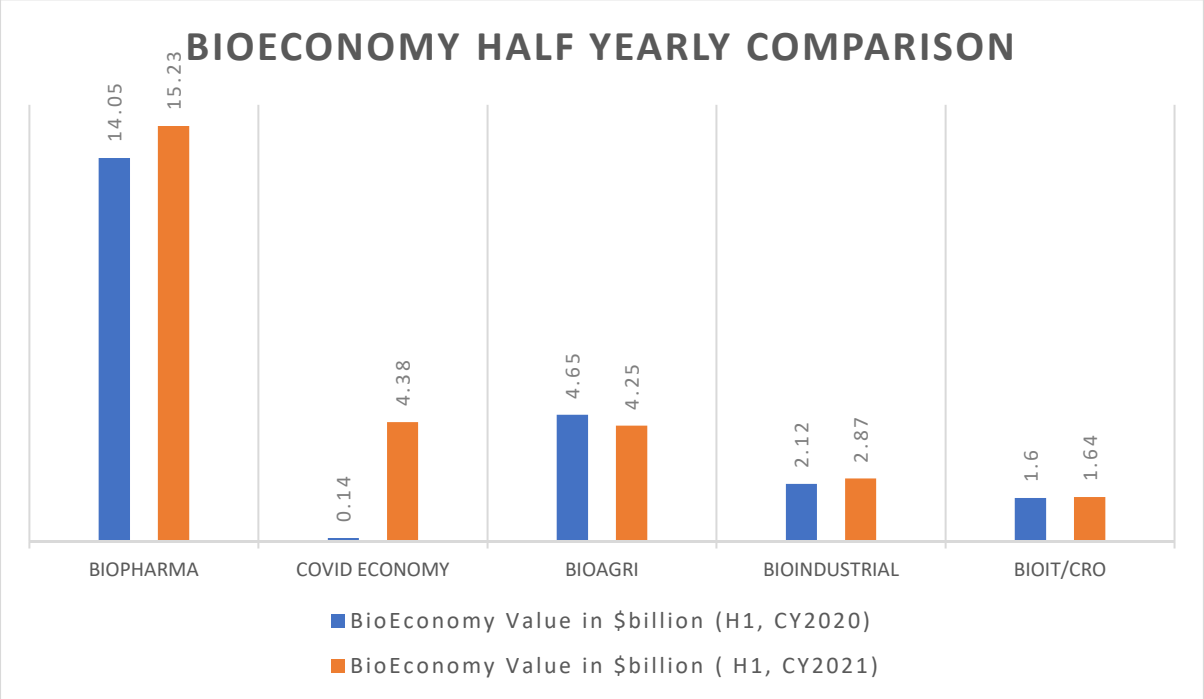
The Indian BioEconomy during H1, 2021 stood at **$28.37** billion. The growth has come from the Covid economy, which is estimated at $4.4 BioEconomy. The H1 BioEconomy registered 25.7% growth over H1, 2020. If not for the Covid Economy, the BioEconomy would have recorded only 4% Growth.



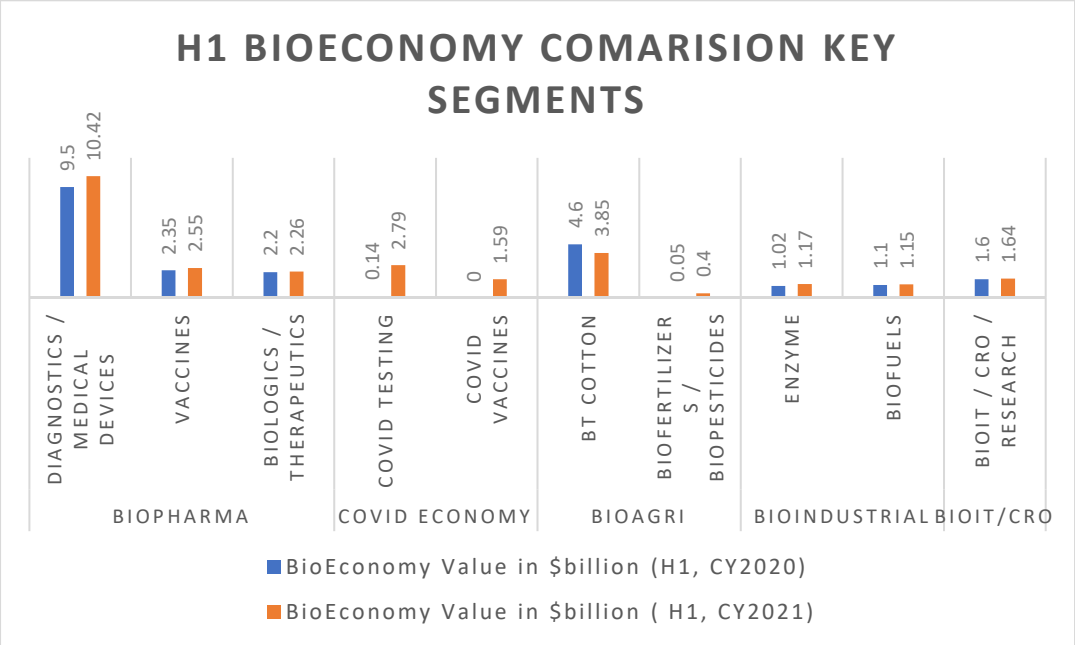


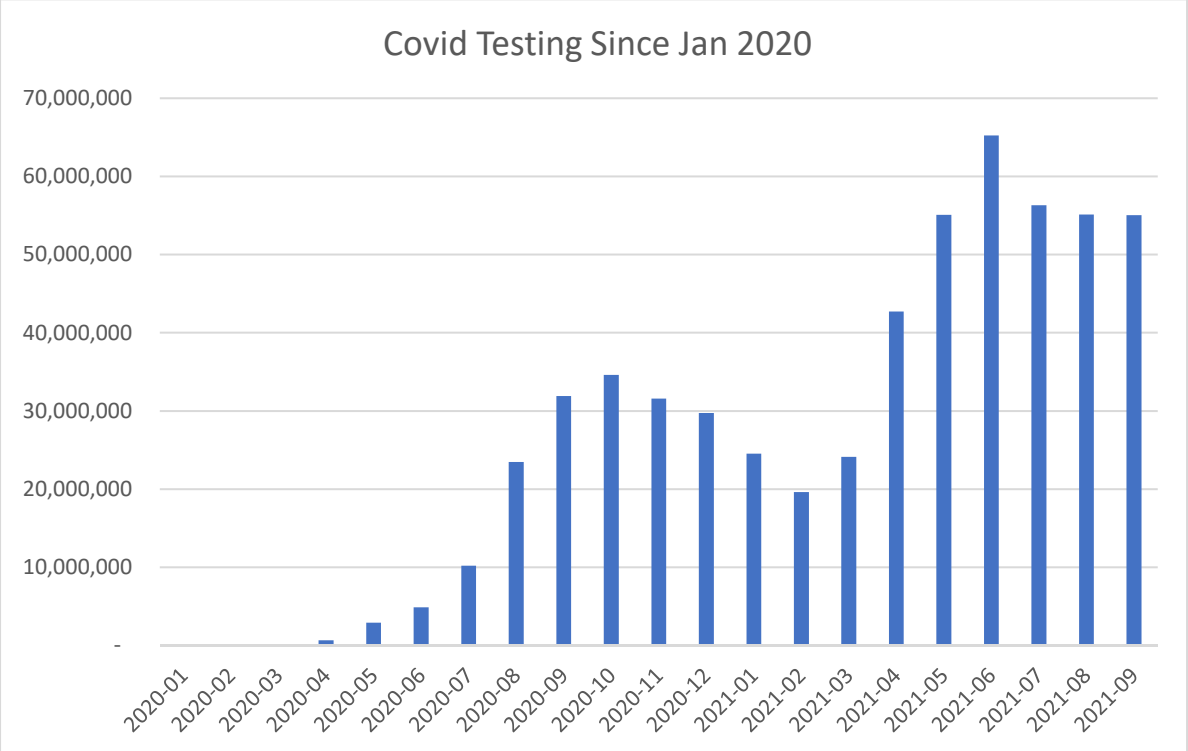
Sub-segment	H1, 2021 ($ Million)
Diagnostics	10,420.00
Bt Cotton	3,849.00
Covid Testing	2,791.00
Vaccines	2,547.00
Therapeutics	2,256.00
Research Services	1,640.00
Covid Vaccines	1,595.00
Biofuels	1,720.00
Enzymes	1,157.00
BioPesticides	396.00
TOTAL ($ Million)	28,371.00
TOTAL $ Billion)	28.37

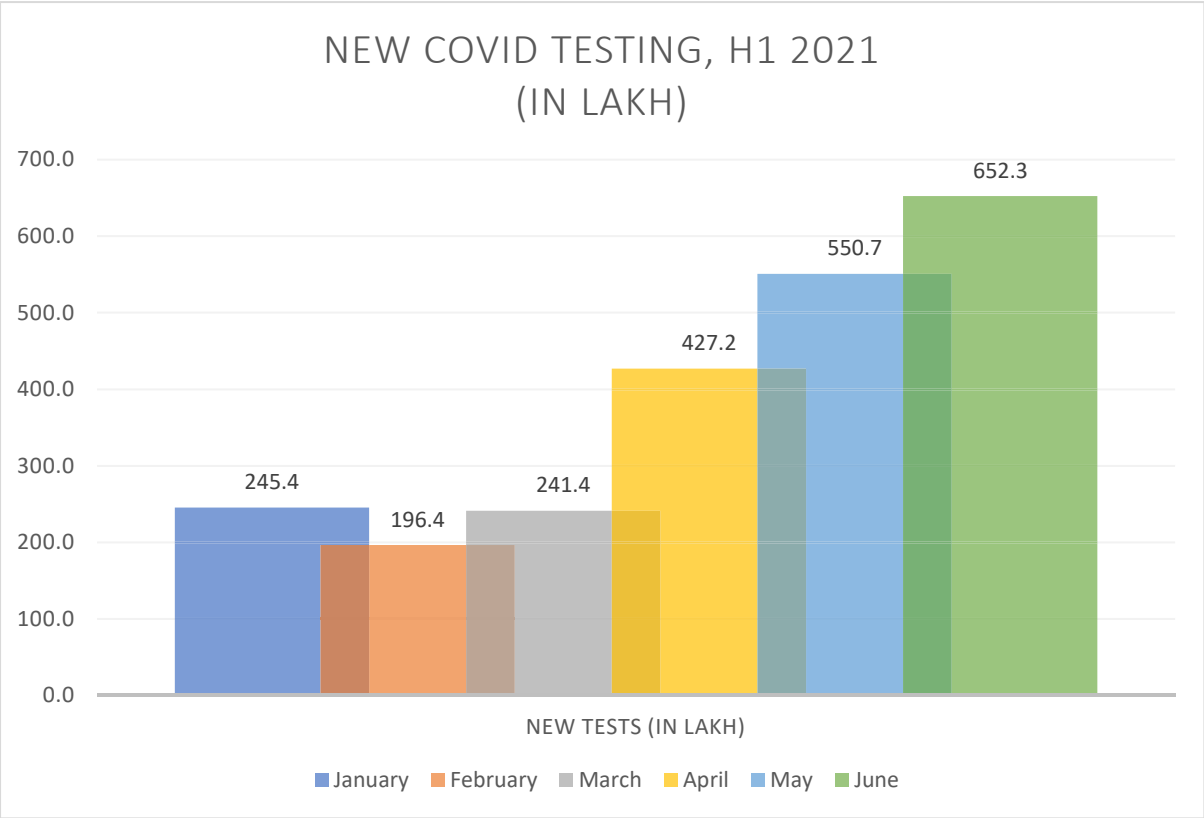


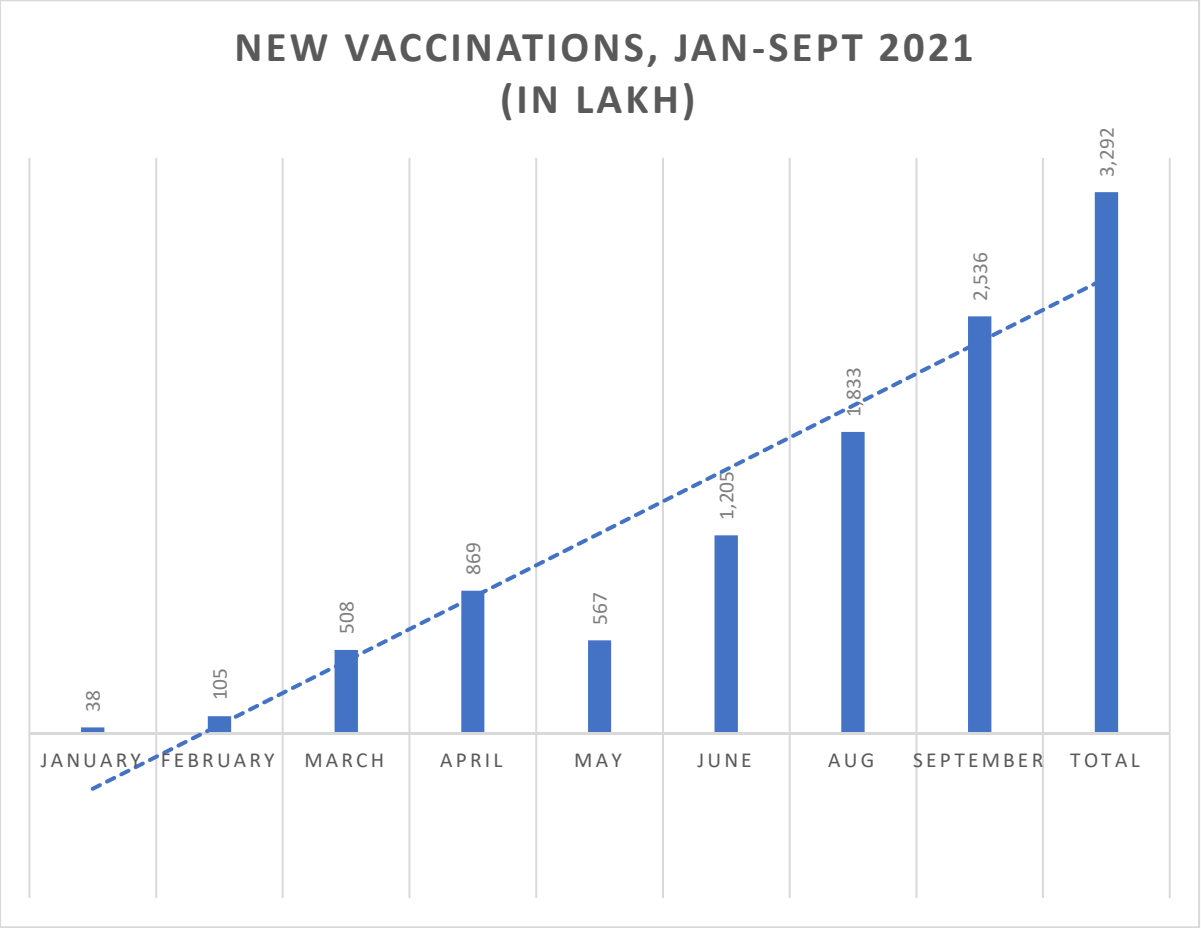


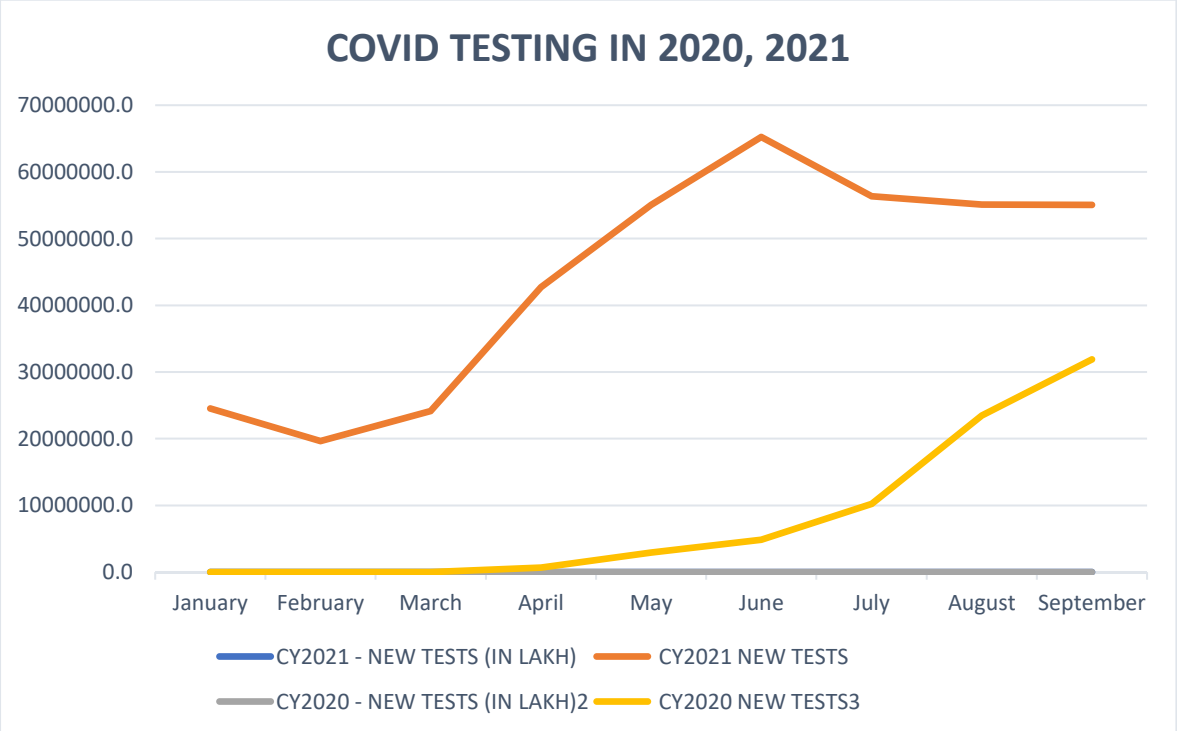
The BioPharma segment for the first six months saw 8 percent growth compared to the the first half of 2021. The Covid Economy in H1 2021 saw 3029 percent growth compared to the previous year as Covid vaccination got launched in January 2021.

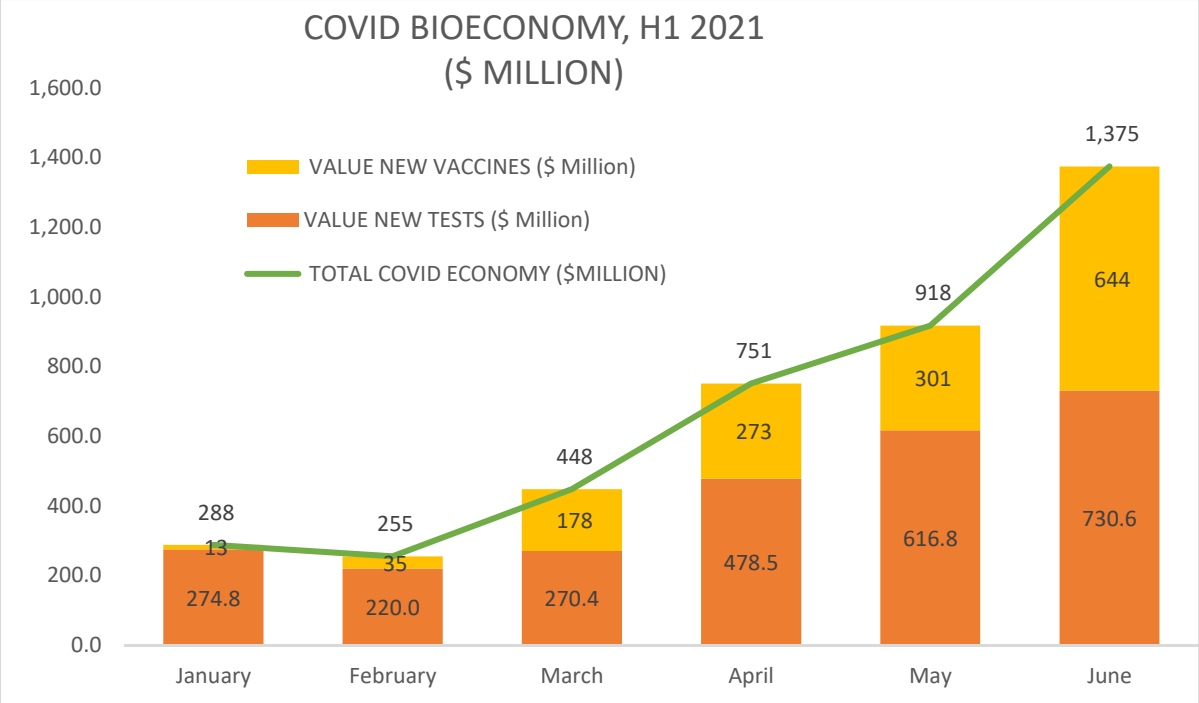

H1 BIOECONOMY COMARISION KEY SEGMENTS
9.5
10.42
2.35
2.55
2.2
2.26
0.14
2.79
0
1.59
4.6
3.85
0.05
0.4
1.02
1.17
1.1
1.15
1.6
1.64
DIAGNOSTICS / MEDICAL DEVICES
VACCINES
BIOLOGICS / THERAPEUTICS
COVID TESTING
COVID VACCINES
BT COTTON
BIOFERTILIZERS / BIOPESTICIDES
ENZYME
BIOFUELS
BIOIT / CRO / RESEARCH
BIOPHARMA
COVID ECONOMY
BIOAGRI
BIOINDUSTRIAL
BIOIT/CRO
BioEconomy Value in $billion (H1, CY2020)
BioEconomy Value in $billion (H1, CY2021)

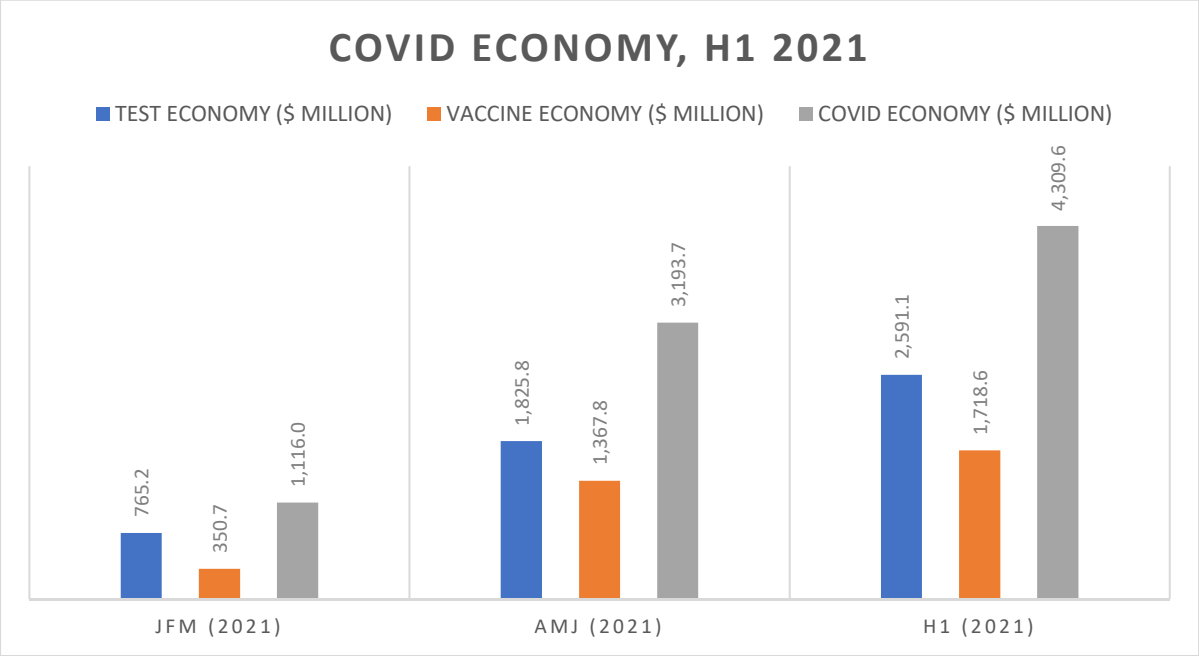

Covid Testing Since Jan 2020
70,000,000
60,000,000
50,000,000
40,000,000
30,000,000
20,000,000
10,000,000
-
2020-01
2020-02
2020-03
2020-04
2020-05
2020-06
2020-07
2020-08
2020-09
2020-10
2020-11
2020-12
2021-01
2021-02
2021-03
2021-04
2021-05
2021-06
2021-07
2021-08
2021-09

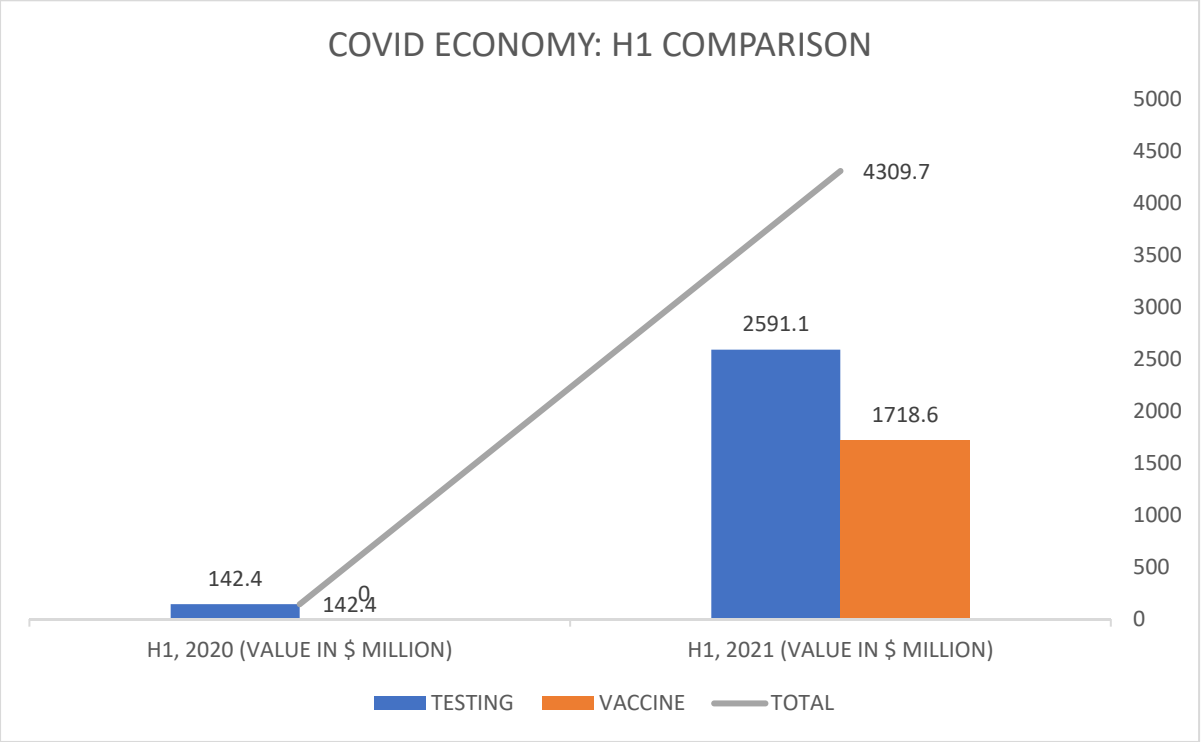

NEW COVID TESTING, H1 2021
(IN LAKH)
700.0
600.0
500.0
400.0
300.0
200.0
100.0
0.0
245.4
196.4
241.4
427.2
550.7
652.3
NEW TESTS (IN LAKH)
January
February
March
April
May
June


NEW VACCINATIONS, JAN-SEPT 2021
(IN LAKH)
38
105
508
869
567
1,205
1,833
2,536
3,292
JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
AUG
SEPTEMBER
TOTAL


COVID TESTING IN 2020, 2021
70000000.0
60000000.0
50000000.0
40000000.0
30000000.0
20000000.0
10000000.0
0.0
January
February
March
April
May
June
July
August
September
CY2021 - NEW TESTS (IN LAKH)
CY2021 NEW TESTS
CY2020 - NEW TESTS (IN LAKH)2
CY2020 NEW TESTS3

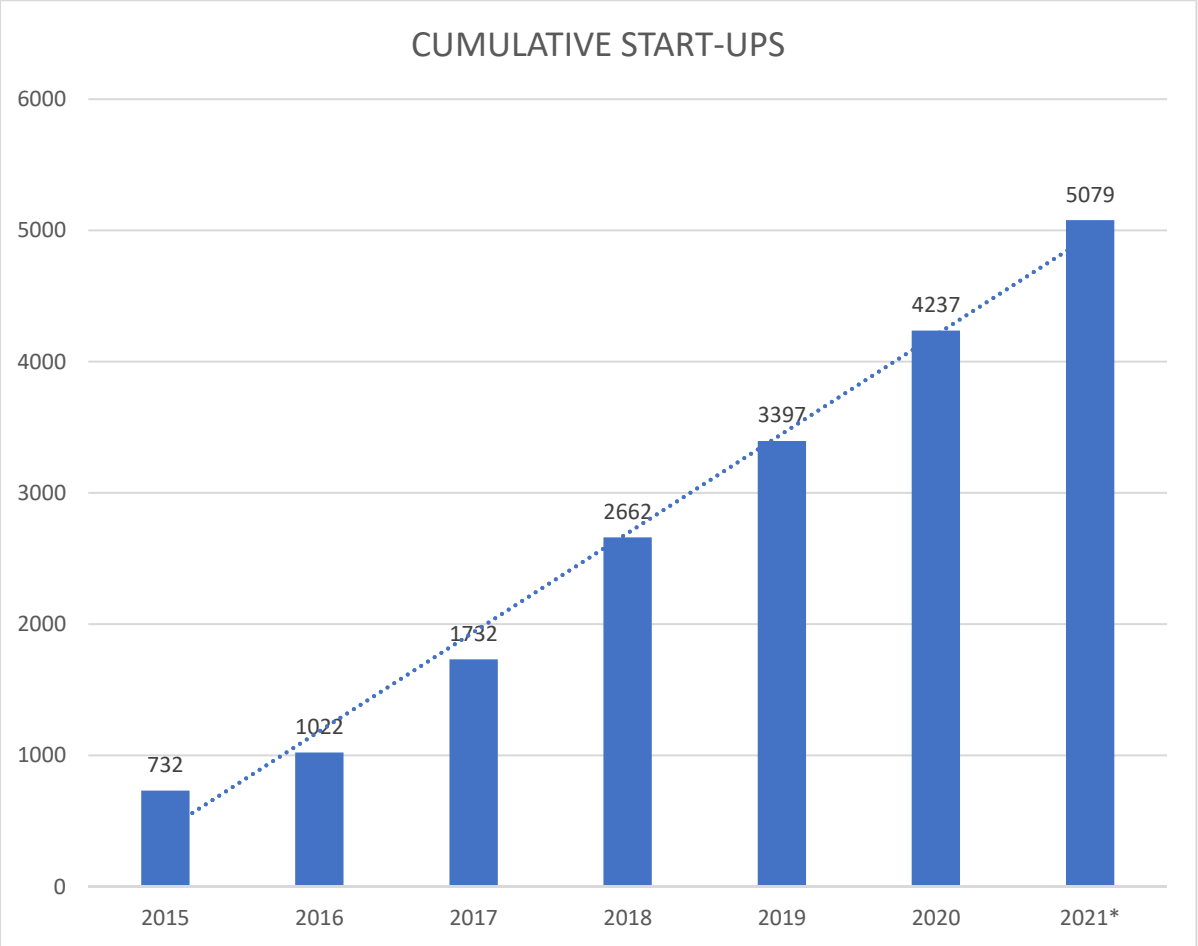

COVID BIOECONOMY, H1 2021
($ MILLION)
1,600.0
1,400.0
1,200.0
1,000.0
800.0
600.0
400.0
200.0
0.0
VALUE NEW VACCINES ($ Million)
VALUE NEW TESTS ($ Million)
TOTAL COVID ECONOMY ($MILLION)
288
13
274.8
255
35
220.0
448
178
270.4
751
273
478.5
918
301
616.8
1,375
644
730.6
January
February
March
April
May
June


COVID ECONOMY, H1 2021
TEST ECONOMY ($ MILLION)
VACCINE ECONOMY ($ MILLION)
COVID ECONOMY ($ MILLION)
765.2
350.7
1,116.0
1,825.8
1,367.8
3,193.7
2,591.1
1,718.6
4,309.6
JFM (2021)
AMJ (2021)
H1 (2021)


COVID ECONOMY: H1 COMPARISON
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
4309.7
2591.1
1718.6
142.4
0
142.4
H1, 2020 (VALUE IN $ MILLION)
H1, 2021 (VALUE IN $ MILLION)
TESTING
VACCINE
TOTAL

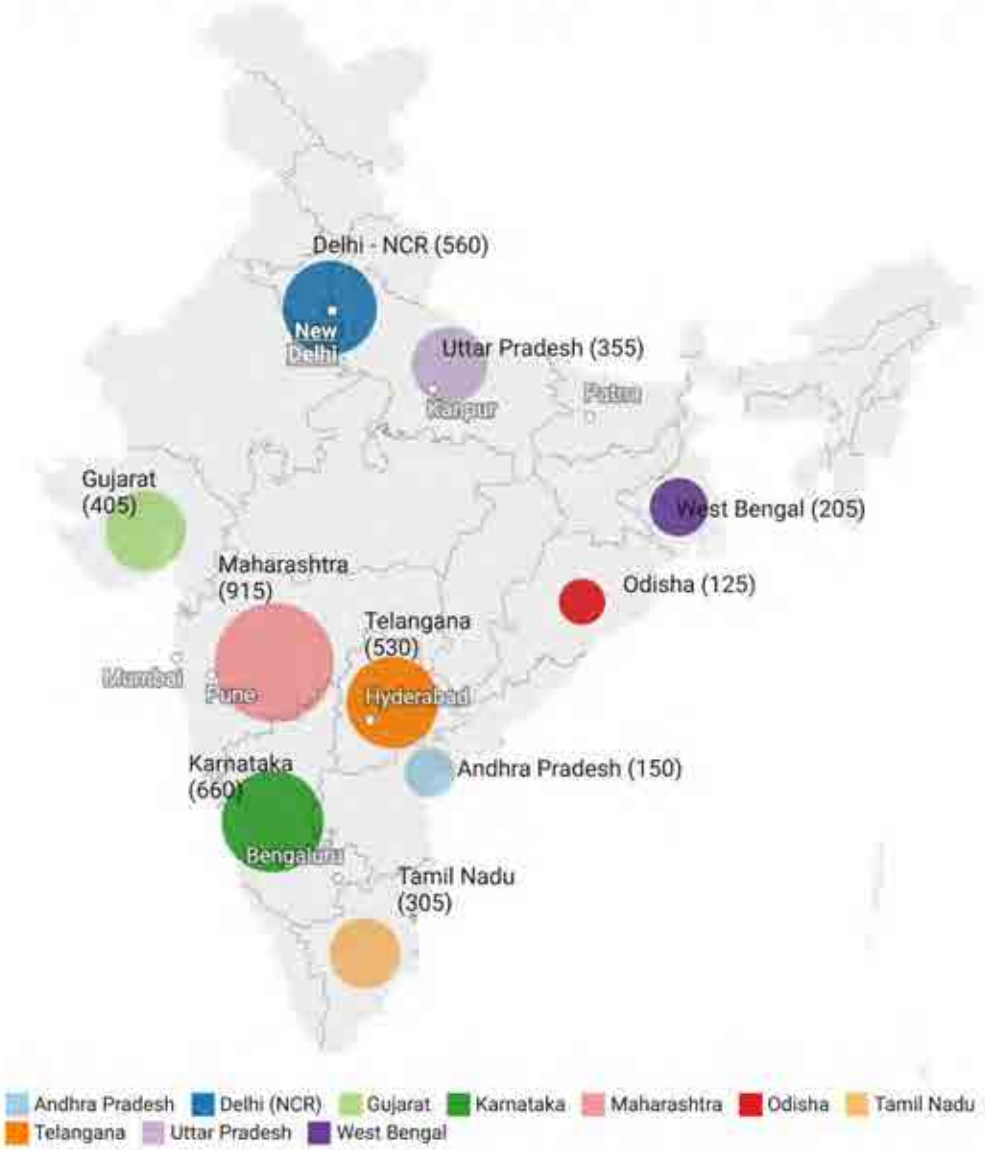
START-UPS

India's biotech start-ups base (i.e., total number of companies registered since 2010) continued with the growth momentum in 2021 as well. The country's total biotech start-up base has expanded to 5079 companies from the base of 4,237 companies in 2020. The start-up base witnessed nearly 20 percent jump within the first nine months. The term "Cumulative" mentioned in the graphs and paragraphs below means the total base. The term used for companies formed in a specific year is "New Start-ups".



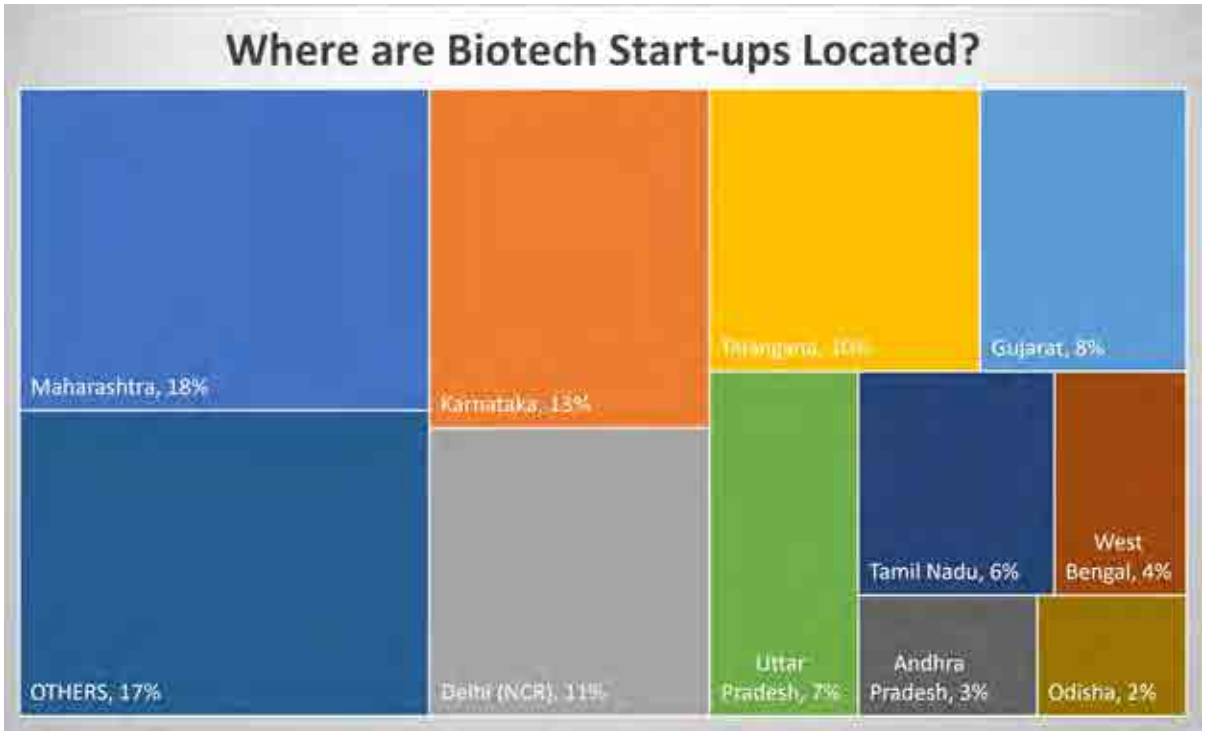
START-UPS BY LOCATION

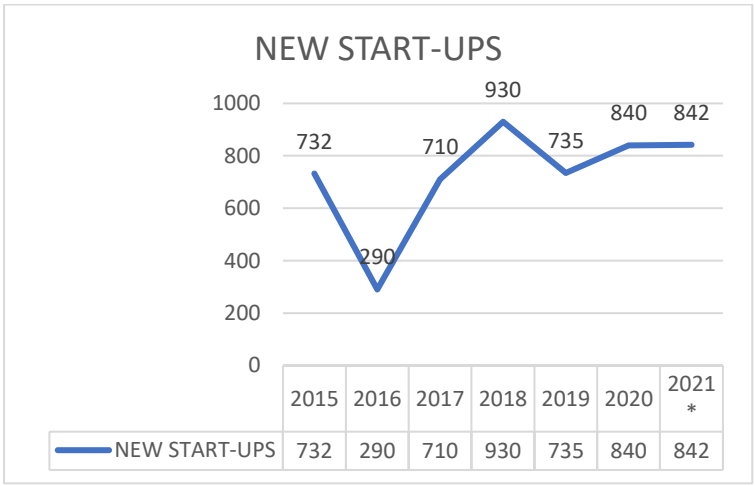
Where are the start-ups located?
Maharashtra has the largest number of start-ups. It is followed by Karnataka and Delhi - NCR

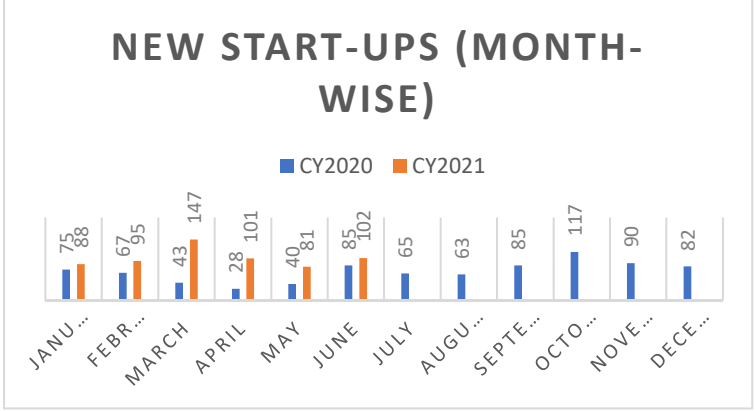


TOTAL STARTUPS - 5079

Source: Source: ABLE IBER • Map data © OSM • Created with Datawrapper

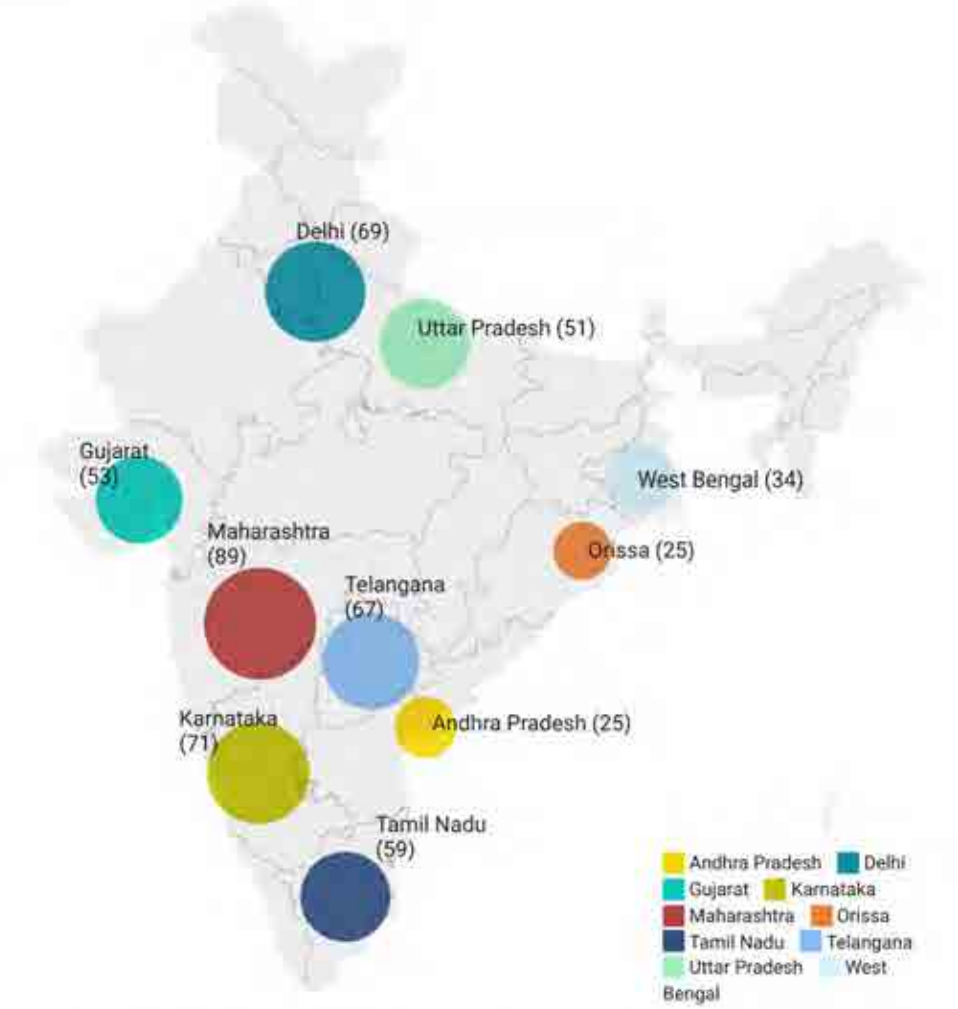

Where are Biotech Start-ups Located?
Maharashtra, 18%
Karnataka, 13%
Telangana, 10%
Gujarat, 8%
OTHERS, 17%
Delhi (NCR), 11%
Uttar Pradesh, 7%
Tamil Nadu, 6%
West Bengal, 4%
Andhra Pradesh, 3%
Odisha, 2%


NEW START-UPS
1000
800
600
400
200
0
732
290
710
930
735
840
842
2015
2016
2017
2018
2019
2020
2021 *
NEW START-UPS
732
290
710
930
735
840
842


NEW START-UPS (MONTH-WISE)
CY2020
CY2021
75
88
67
95
43
147
28
101
40
81
85
102
65
63
85
117
90
82
JANU...
FEBR...
MARCH
APRIL
MAY
JUNE
JULY
AUGU...
SEPTE...
OCTO...
NOVE...
DECE...

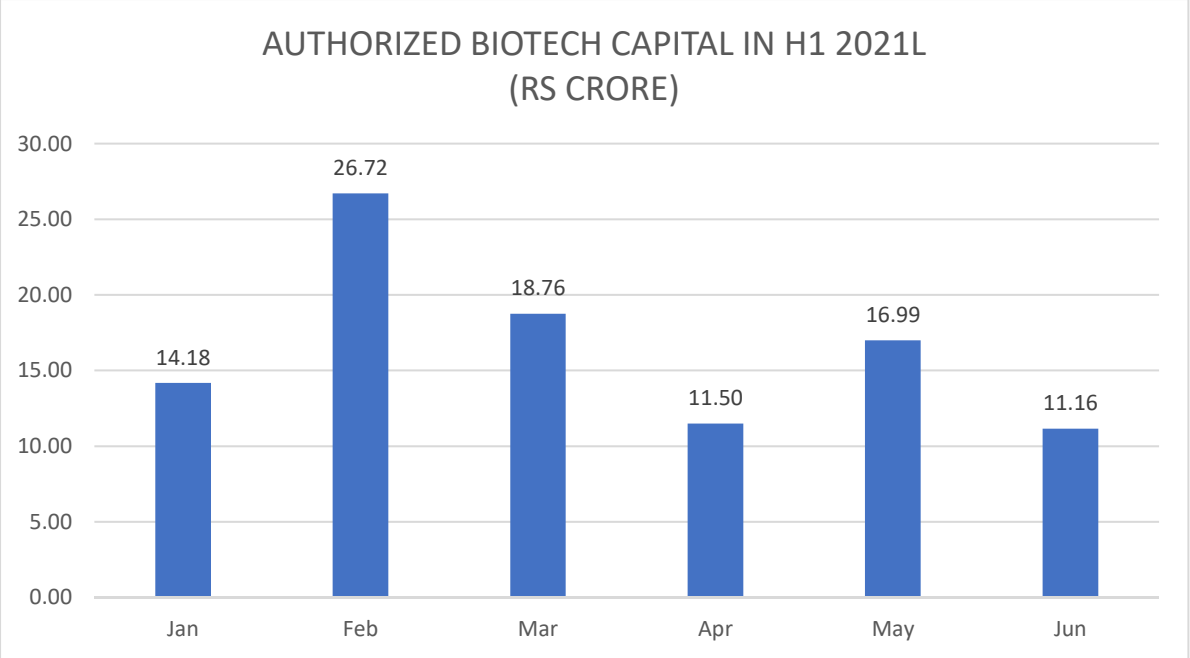
NEW START-UPS IN 2021
TOP 10 STATES
(Jan. - Sept. 2021)

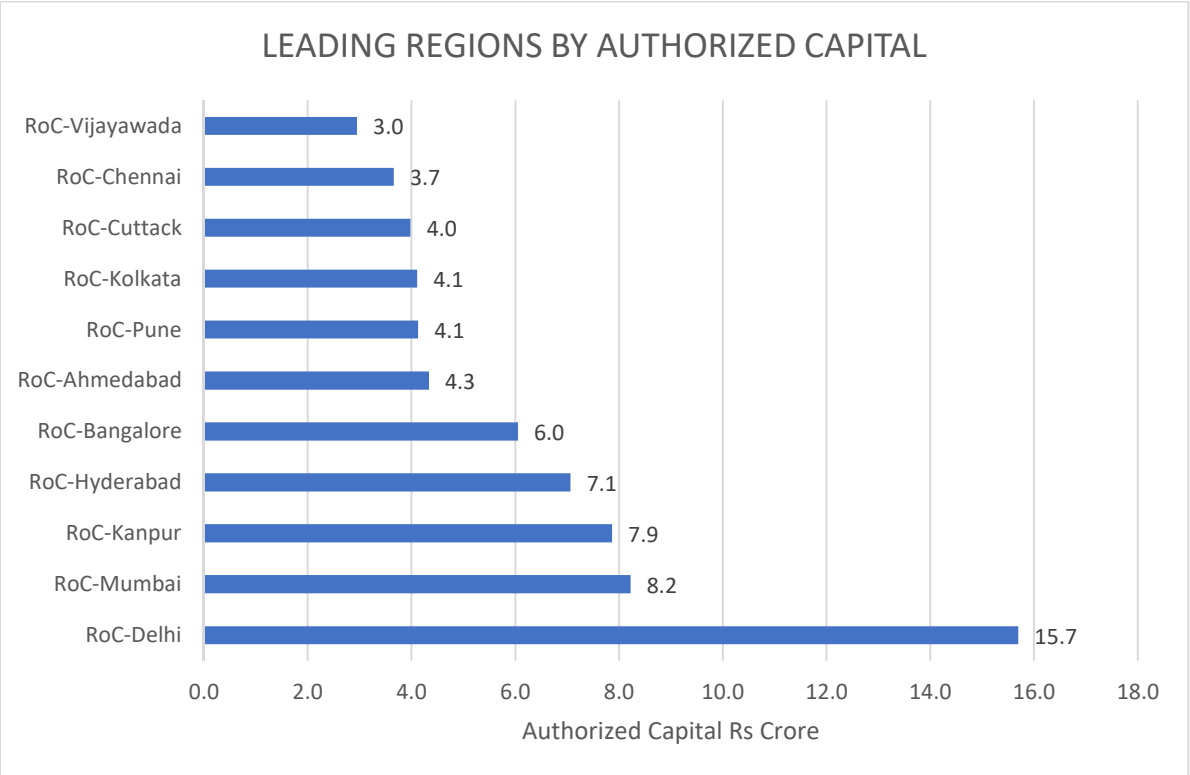
Where did the start-ups register in 2021?
Maharashtra witnessed the largest number of new registrations in 2021 (so far). It was followed by Karnataka and Delhi - NCR



Maharashtra - 10.6%; Karnataka - 8.4%; Delhi - (NCR) - 8.2%; Telangana - 8.0%; Uttar Pradesh - 6.1%; Tamil Nadu - 7.0%; Gujarat - 6.3%; West Bengal - 4.0%; Andhra Pradesh - 3.0%; Orissa -3.0%; Others 35.5% Total New Start-ups registered in 9-months, 2021 - 842

Source: Source: ABLE IBER - Map data: © OSM - Created with Datawrapper


AUTHORIZED BIOTECH CAPITAL IN H1 2021L
(RS CRORE)
30.00
25.00
20.00
15.00
10.00
5.00
0.00
14.18
26.72
18.76
11.50
16.99
11.16
Jan
Feb
Mar
Apr
May
Jun


LEADING REGIONS BY AUTHORIZED CAPITAL
RoC-Vijayawada
RoC-Chennai
RoC-Cuttack
RoC-Kolkata
RoC-Pune
RoC-Ahmedabad
RoC-Bangalore
RoC-Hyderabad
RoC-Kanpur
RoC-Mumbai
RoC-Delhi
3.0
3.7
4.0
4.1
4.1
4.3
6.0
7.1
7.9
8.2
15.7
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
16.0
18.0
Authorized Capital Rs Crore

ANALYSIS OF KEY SEGMENTS

BIOINDUSTRIAL

BioIndustrial segment is categorized into BioFuels / BioEnergy and Enzymes. BioIndustrial segment is estimated at $8.75 billion

BioFuels Market Value

The Biofuels market in India is gaining momentum this year due to the increased push by Government to support clean energy. was estimated to be valued at $1.15 billion during H1, 2021. Biodiesel and Blended petrol; Fuel Ethanol; and Bioplastics and other renewal derivates have been primarily taken into consideration in arriving at the BioFuels value.

India's monthly production of biodiesel was nearly 20 million liters per month. The total production during the first half of 2021 was 120 million liters and approximately 190 million liters by September end. At nearly $1.08 per liter, the Biodiesel value is estimated to be $205 million.

All the oil-marketing companies (OMCs) in India are having increased focus on biofuels. Biodiesel is an advance form of biofuel produced from an animal or vegetable fat based renewable fuel. Even, used cooking oil (UCO) is used to produce biofuel and of great use in diesel vehicles.

Most of the common blend includes B2 (2% biodiesel, 98% diesel), B5 (5% biodiesel, 95% petrodiesel) or B20 (20% biodiesel, 80% petrodiesel).

He is an example of the consumption. Delhi and Gurugram together consume about 16,99,000 tons of diesel every year. Just for an estimated use, if 5% of biodiesel is blended with petroleum diesel then 84,950 tons of diesels will be saved per year.

The government has approved 20% blending of ethanol in petrol and 5% blending of biodiesel in diesel. There is push for RUCO – Repurpose Used Cooking Oil, an ecosystem that will enable the collection and conversion of used cooking oil to biodiesel.

Ethanol blending in India has crossed over 7.2% in the first four months of this year — the first time it has reached this level. Recently the oil companies floated the tender to buy ethanol for progressively raising the percentage of ethanol mixed in petrol to 20 per cent (80 per cent petrol, 20 per cent ethanol). According the oil companies 173 crore litre ethanol was procured last year and 5 per cent blending was achieved during ethanol supply year(ESY) 2019-20 (December 2019 to November 2020). The target for ongoing year ESY-2020-21 (December 2020 to November 2021) is 325 crore litre which will take the blending to 8.5 per cent.

Actual achievement during ESY - 2020-21 so far has been 243 crore litre, accounting for 8.01 per cent blending.

This puts the country on course to meet the target of 10% blending by 2022.
In states such as Goa, Karnataka, Maharashtra, Gujarat, Uttar Pradesh, Haryana, Punjab, Delhi, Uttarakhand, and Himachal Pradesh 5% to 10% ethanol is being blended with petrol.
Oil marketing companies have asked for 4.57 billion litres for 2020-21. Of this, sugar companies have finalized bids for 3.25 billion litres. Against this, around 2.98 billion litres of ethanol has been contracted. Of this 1 billion litres (around 33.5%) has been supplied, while the rest is in the process of being delivered.
Around 770 million litres has been produced from B-heavy molasses and sugarcane juice, which will lead to a shortfall of 800,000 tonnes of surplus sugar

Meanwhile State-owned Indian Oil Corp (IOC) plans to build two second generation (2G) bio-refineries in the southern states of Telangana and Andhra Pradesh as part of the government's aim to increase ethanol production in the country, a company source said on Thursday.

Each of the 2G biorefineries will be set up at a cost of $83m and will be able to produce 500,000 litres/day of ethanol from spoilt and surplus food grain from the Food Corporation of India (FCI) as well as agricultural waste such as wheat and paddy straw, the company source said.

These form part of the Indian government's planned 12 biorefineries to be built across 11 states in the country, namely, Punjab, Haryana, Gujarat, Uttar Pradesh, Madhya Pradesh, Bihar, Assam, Odisha and Maharashtra.

In January 2021, the Indian government brought forward its target of achieving 20% ethanol blending in fuel by five years from 2030 to 2025.

"The government has mandated the blending of 10% of ethanol in fuel. However only around 6% ethanol is being added to fuel. Nearly 4bn litres of ethanol will be required to achieve the 10% ethanol blending ratio.

Uttar Pradesh leads in ethanol production

Uttar Pradesh has emerged as the largest ethanol-producing state in the country. A total of 58 crore litres of ethanol was produced by 54 distilleries established across the state.

By mixing ethanol in petrol, the Uttar Pradesh government was able to contribute to saving a total of $75.58 million of India's forex reserve, giving a big boost to the economy in these testing times.

Blending of ethanol with petrol in Uttar Pradesh, the country's largest producer of the bio-fuel, has reached 9.89% — the highest among all states. It may be recalled that the distilleries of sugar mills and other units had produced a record 1.77 crore litres of sanitizer which was not only supplied within the state but also exported to other states.

Karnataka grabbed the second spot with 9.68% blending as of July 12, followed by Maharashtra (9.59%), Bihar (9.47%), Madhya Pradesh (8.87%) and Andhra Pradesh (8.73%).

According to the data, against a total requirement of 4,576 million litres for ethanol supply year (ESY) 2020-21, which runs from December to November, oil marketing companies (OMCs) had finalised 3,578 million litres. Of that, contracts for 3,347 million liters have been executed till July 12.

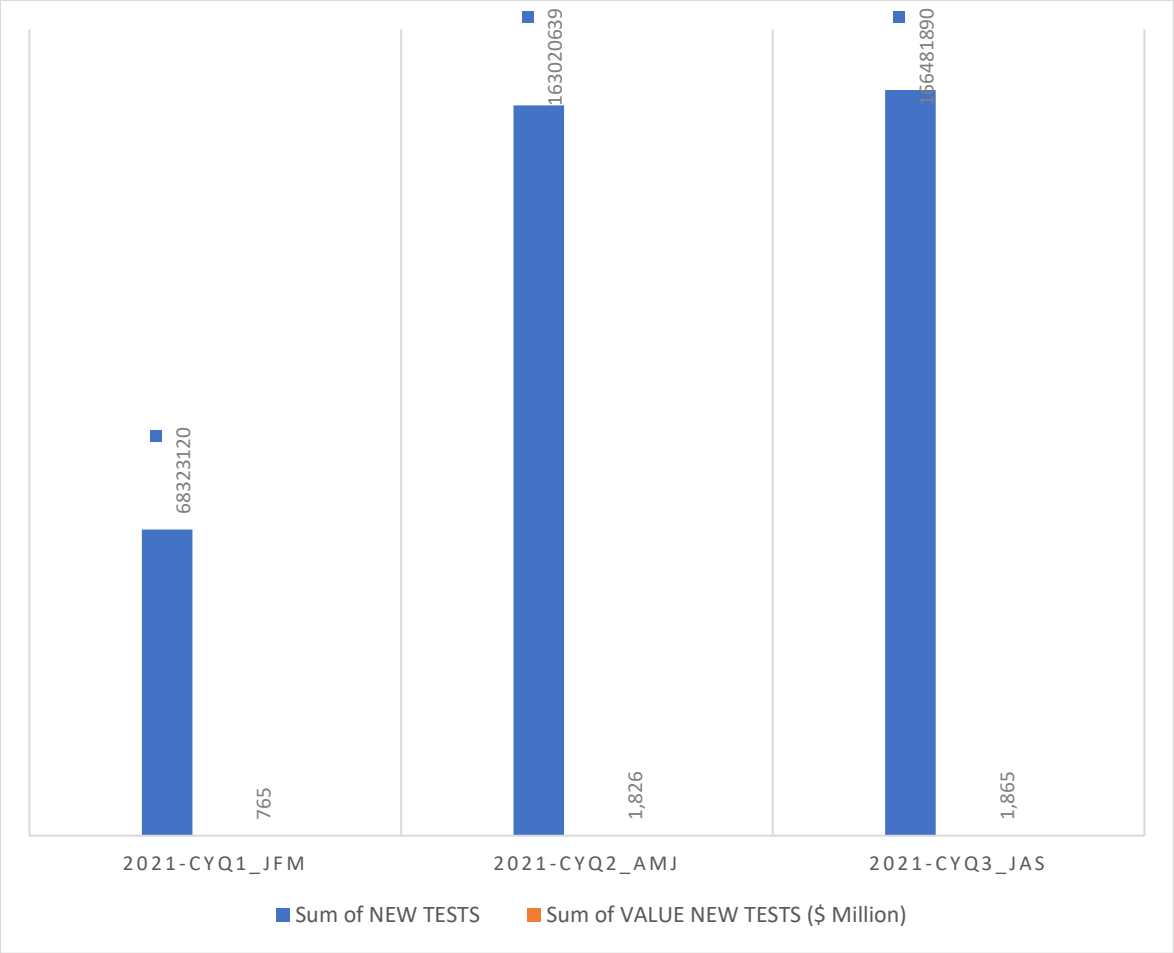
Against this, 1,902 million liters have already been lifted by the OMCs, which is 57% of the contracted quantity and 53% of the finalized quantity, with the average blending percentage standing at 7.93%.

According to the roadmap unveiled by the Prime Minister, the 20% blending of petrol with ethanol will result in annual savings of $5 billion, or Rs 30,000 crore, in India's oil import bill.

COVID ECONOMY

COVID-19 TESTING

The rise of COVID-19 pandemic cases in H1 has created a huge demand for diagnostics. About 2.3 crore Covid-19 cases were recorded between January 1, 2021 to September 15. The months of April, May, and June alone saw nearly 1.8 crore Covid-19 infections, accounting for nearly 78 percent of the total Covid-19 infection during the first nine months of this calendar year. The quarter from April to June 20201 accounted for 1.8 crore.



- This rapid rise in COVID-19 infections in India led to the growth of Indian COVID-19 diagnostics market. From January 1, 2021 to June 30, 2021, a total of around 23 crore COVID-19 tests were conducted. In the nine months of 2021, the Covid Testing reached 37.8 crore. **Even at a conservative value of $11.5 per test, the Testing economy would be nearly $4.35 billion in value.**
- The ramp up has been possible because of the Indian Government's push through Department of Biotechnology (DBT), its Autonomous Institutions (AIs) and the Public Sector Undertaking, Biotechnology Industry Research Assistance Council (BIRAC), has extended support to

the manufacturers of kits, reagents, and equipment for COVID-19 diagnostics through several contracts.

- DBT had identified 21 City /Regional clusters to scale up covid testing as a part of the Hub and Spoke model. Nine Autonomous Institutes (AIs) of DBT have been approved as testing centers for COVID-19 diagnosis. These DBT AIs have also been identified as hubs for their respective regions. For Jan-June 2021 duration, 3 hubs/spokes have been supported, for the manpower and consumable component.

- The government supported 141 projects through DBT-BIRAC COVID-19 Research Consortium Call for production of PCR and serology-based diagnostic kits at mass scale and indigenous development of good quality primers and probes.
- Under the guidance of the Principal Scientific Adviser to the Government of India, an Indigenization of Diagnostics (InDx) program was anchored at C-CAMP with the aim to build large capacity of COVID-19 molecular diagnostic kits and reagents. This was to promote public-private-partnership and bring together different stakeholders in order to ensure necessary supply of Covid-19 molecular diagnostics reagents.
- First Indigenous kit for diagnosis of COVID-19 developed by a BIRAC supported start up (MyLab) in Pune, is producing nearly one lakh kits per week. More than 90 lakh kits have been manufactured
- Ubio Biotechnology Systems and Dhiti Life Sciences developed indigenous Antibody and Antigen detection kits are in market. Apart from this, Molecular Transport Medium (MTM) and Nucleic acid extraction kits developed by HuwelLifesciencs are also available in market.
- The total number of diagnostic laboratories has reached 2876. Of which dedicated government laboratories are 133 and private laboratories number stands at 1635.

NUMBER OF TEST KITS

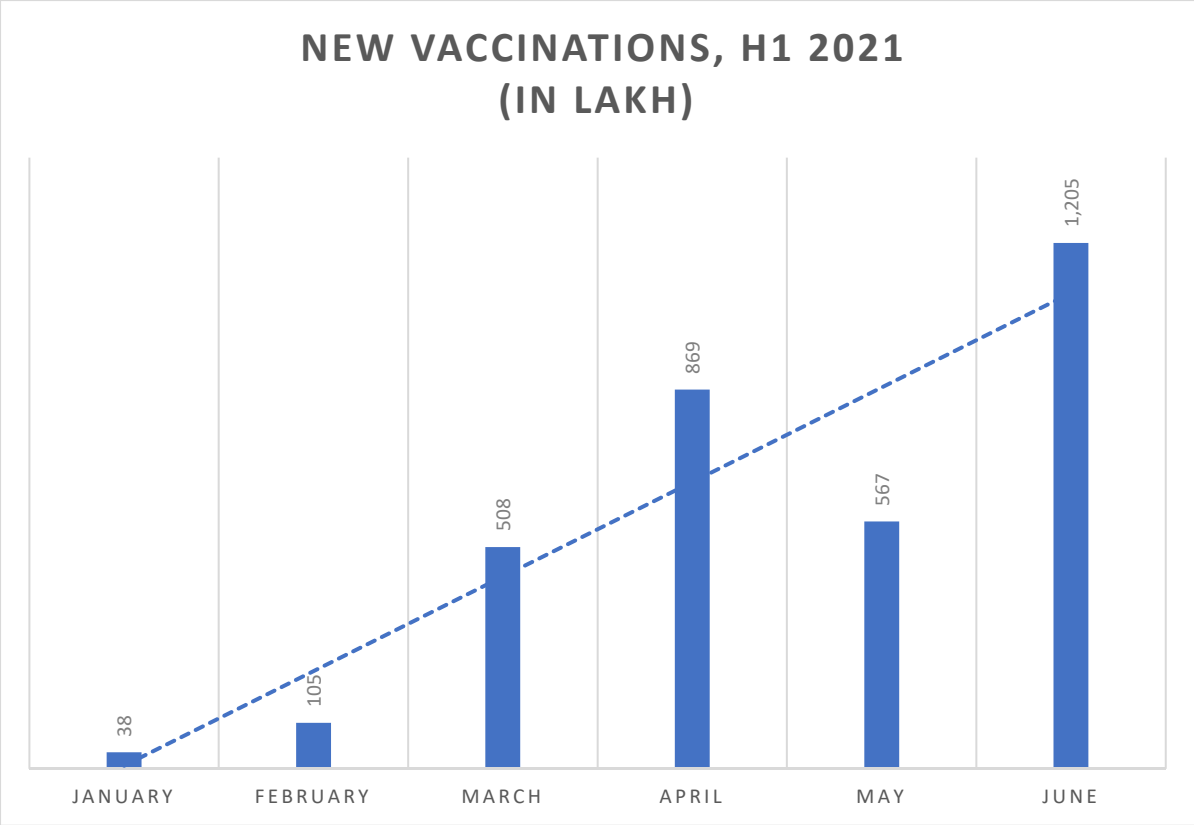
Type of Kit	Number of Approved Kits
RT-PCR	**1859**
Rapid Antigen Test Kits for COVID-19 (Oropharyngeal / Nasopharyngeal swabs)	**123**
Home Test Kits	**3**
Source: ICMR	

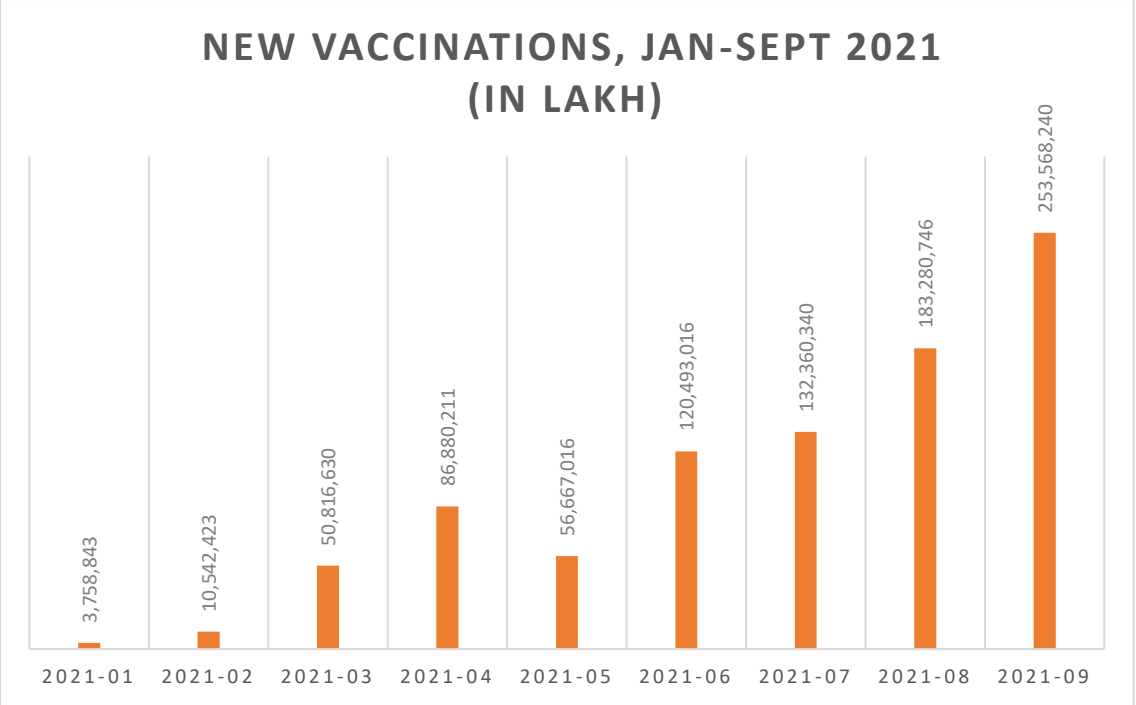
NUMBER OF GOVERNMENT AND PRIVATE LABORATORIES IN INDIA WORKING FOR COVID-19 TESTING

Testing Performed by Laboratories	No. of Govt. Laboratories	No. of Private Laboratories	Total No. of Laboratories
Real-Time RT PCR	665	1.194	1,859
TrueNat Test	616	335	951
CBNAAT Test	43	88	131
Other Molecular-Nucleic Acid (M-NA) Testing Platforms	9	18	27
Total	1,333	1,635	2,968

COVID VACCINATION

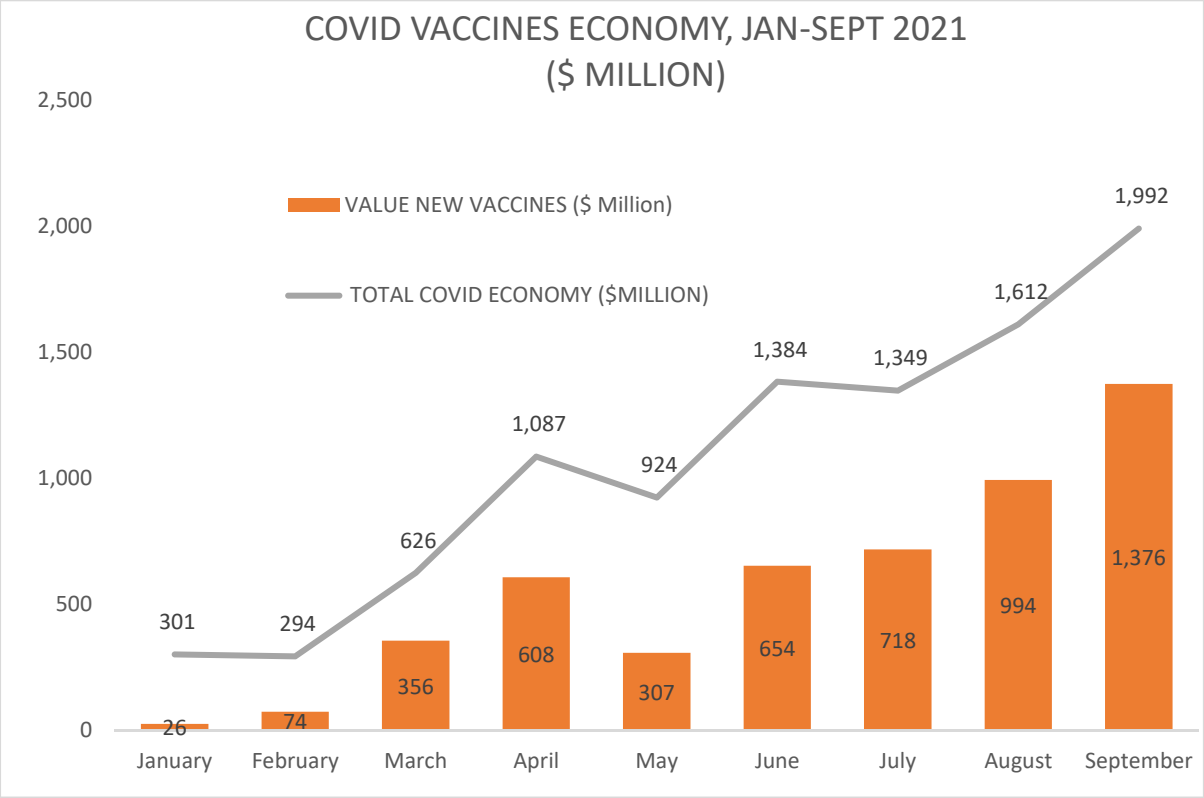
India's vaccination program started in January 2021 in line with WHO guidelines and International Practice in prioritization of population groups for COVID-19 Vaccination. Pune-based Serum Institute of India and Hyderabad-based Bharat Biotech International Limited were the first companies that got Emergency Use Authorizations in India for producing vaccines against Covid-19. The first three months were focused on vaccinating the healthcare workers and the vulnerable groups as identified by National Expert Group on Vaccine Administration for Covid-19 (NEGVAC).





During January-March 2021, India's vaccination touched a total of 6.5 crore doses. The government worked on enhancing vaccine procurement from April. The Department of Biotechnology, Government of India, had announced that it was providing financial support as Grant to vaccine manufacturing facilities for enhanced production capacities. The support was towards doubling production capacity of indigenously developed Covaxin vaccine by May-June 2021 and increasing the production from 1 crore vaccine doses in April, 2021 to 6-7 crore vaccine dose per month in July – August. The government's aim was to get 10 crore doses per month by Sep 2021.

India's Covid Vaccine economy is estimated at $5.1 billion during the first nine months with nearly 89 crore estimated doses by September end. In arriving at the BioEconomic value of each dose is considered at nearly $5.7 per dose, which includes cost of the vaccine along with delivery cost, technical assistance, and financial costs.



The announcement was part of the Atmanirbhar Bharat 3.0 Mission COVID Suraksha scheme which is being implemented by Department of Biotechnology (DBT) Government of India. Three public sectors companies are also being supported to increase the capacity of vaccine production. These include **Haffkine Biopharmaceutical Corporation Ltd**, **Mumba**i, a State PSE under State Govt of Maharashtra, **Indian Immunologicals Limited (IIL), Hyderabad**, a facility under National Dairy Development Board and **Bharat Immunologicals and Biologicals Limited (BIBCOL)**, Bulandshahr, a CPSE under Department of Biotechnology, Govt of India. An amount of Rs 200 Crore has been allocated for supporting augmentation of capacities for manufacturing and enhance the production capacity to nearly 100 million doses/ month by December 2021.

Further, after the initial hiccups, the production has been ramped up. Recently the **Union Government placed orders for 66 crore vaccine doses of Covishield and Covaxin worth Rs 14,505 crore ($1.9 billion).** The order is in line with the Government's estimated target of procuring 135 crore doses between August-December. Apart from the order for 66 crore doses, the government has made an advance payment to reserve 30 crore doses of Hyderabad based Biological-E's Corbevax vaccine. If Corbevax gets regulatory approval, then total commitment is nearly 96 crore doses during August-December.

The total production of Covishield and Covaxin in August-December is placed at 88 crore doses. Covaxin production is estimated at 38 crore for this period.

Apart from Covishield, Covaxin and Corbevax, the government's estimate of 135 crore doses also included Sputnik V and Zydus Cadila's vaccine.

In August Cadila's vaccine, which is the world's first COVID-19 DNA vaccine, got emergency approval for vaccination in adults and children over 12 years of age.

Cadila aims to make 100 million to 120 million doses of ZyCoV-D a year.

Meanwhile Serum Institute has enhanced its production capacity of Covishield. It expects to supply 22 crore doses in October both to Government of India and private hospitals.

Further, over 22 per cent of India's adult population have received both doses of COVID-19 vaccine and nearly 65 per cent have got at least one dose.

Association of Biotechnology Led Enterprises (ABLE)

Founded in 2003, India's leading biotechnology industry organization, ABLE has been engaging the members and key stakeholders in the biotech community to raise the country's efforts in the direction of a robust bio-based BioEconomy since the concept of was first enunciated in 2012.

ABLE can be reached at www.ableindia.in for suggestions, inputs and support to this national endeavor.

FOR FURTHER INFORMATION PLEASE CONTACT:

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