

## **DRDO Scientists developing products essential to fight COVID-19**

*The Defence Research and Development Organisation (DRDO) scientists are in the process of developing many products essential to tackle coronavirus. DRDO Chairman, Dr G Satheesh Reddy told news agency ANI that hand sanitizers developed by the organization are already being distributed to many people*

New Delhi: The Defence Research and Development Organisation (DRDO) scientists are in the process of developing many products essential to tackle coronavirus. DRDO Chairman, Dr G Satheesh Reddy told news agency ANI that hand sanitizers developed by the organization are already being distributed to many people.

"In the last 15-20 days, we have supplied more than 20,000 sanitizer bottles to various agencies," Reddy said.

"We have also developed N-99 and 3 layered masks, we have produced more than 20,000 masks and supplied to various agencies, including Delhi Police," he further added.

"Some time back DRDO developed a ventilator along with Society for Biomedical Technology (SBMT), its technology has been transferred to the industry. An industry in Mysore is producing the secondary version of that ventilator now"



Since Prime Minister Narendra Modi has announced the 21-day lockdown to combat coronavirus there has been a panic buying of essential items. Things like hand sanitizers and face masks have become high demand, high-priority items that people have been buying on a large scale.

Coronavirus has thus far infected over 600 people in India killing 13. Worldwide, the death toll due to COVID-19 has surpassed the 20,000 mark.

<https://www.indiatvnews.com/news/india/drdo-scientists-developing-products-essential-to-fight-covid-19-601760>



## **Manufacture masks, ventilators at DRDO: Telangana Health Min to centre**

*Telangana Health Minister Eatala Rajender on Thursday urged Union Health Minister, Dr Harsh Vardhan, to allow the manufacturing of N-95 masks, personal protection equipment, and ventilators at Defence Research and Development Organisation (DRDO), Bharat Dynamics Limited (BDL), and Electronics Corporation of India Limited (ECIL) in Hyderabad*

Hyderabad: Telangana Health Minister Eatala Rajender on Thursday urged Union Health Minister, Dr Harsh Vardhan, to allow the manufacturing of N-95 masks, personal protection equipment, and ventilators at Defence Research and Development Organisation (DRDO), Bharat Dynamics Limited (BDL), and Electronics Corporation of India Limited (ECIL) in Hyderabad. Rajender during the video conference held with the Union Health Minister also said that products like drugs, medical equipment, and essentials are not crossing the state borders.

Vardhan said the next two weeks are crucial and those from abroad are asked to be under observation and not to leave the home quarantine. A total of 649 confirmed cases of COVID-19 have been reported in India so far, the Ministry of Health and Family Welfare informed today.

Prime Minister Narendra Modi had on Tuesday announced a 21-day lockdown in the entire country effective from midnight to deal with the spread of coronavirus, saying that "social distancing" is the only option to deal with the disease, which spreads rapidly. (ANI)

*(This story has not been edited by Devdiscourse staff and is auto-generated from a syndicated feed.)*

<https://www.devdiscourse.com/article/law-order/978609-manufacture-masks-ventilators-at-drdo-telangana-health-min-to-centre>



*Fri, 27 March 2020*

## **DRDO to produce 5,000 ventilators to treat coronavirus patients**

New Delhi: Defence Research and Development Organisation (DRDO) Chairman Dr. G Satheesh Reddy on Thursday said his organisation is working to produce 5,000 ventilators per month which are required for the treatment of COVID-19 patients. "Some time back DRDO developed a ventilator along with Society for Biomedical Technology (SBMT), its technology has been transferred to the industry. An industry in Mysore is producing the secondary version of that ventilator now. The Bharat Electronics Limited has also joined in and another private industry is also coming in,"

Reddy told ANI. Reddy said their lab in Mysore has supplied some critical parts for the ventilators and that industry can produce around 5,000 ventilators per month now. By increasing their capacity, they can take it up to 10,000 ventilators per month to meet the shortages.

"My laboratories have already helped in the distribution of 20,000 bottles of hand sanitizers which are being given to different organisations including the Delhi Police, the three armed forces and other security agencies," Reddy said.

DRDO Chairman said many other private players including Anand Mahindra have also shown interest in this and if they come in, the production output can be taken much higher.

"We have also developed N-99 and 3 layered masks, we have produced more than 20,000 masks and supplied to various agencies, including Delhi Police," Reddy highlighted.

DRDO is also working for providing ready to eat meals for government and health sector workers through its Defence Food Research laboratory in Mysore which specialises in providing such meals to armed forces' personnel. (ANI)

<http://idrww.org/drdo-to-produce-5000-ventilators-to-treat-coronavirus-patients/>.

# कोरोना से युद्ध में हमारे हाथ मजबूत करेगा DRDO, विकसित किया स्वदेशी वेंटिलेटर

*डीआरडीओ के अध्यक्ष, डॉ जी सतेश रेड्डी ने कहा कि कुछ समय पहले DRDO ने सोसायटी फॉर बायोमेडिकल टेक्नोलॉजी (SBMT) के साथ एक वेंटिलेटर विकसित किया, इसकी तकनीक को इंडस्ट्री लेवल पर वेंटिलेटर तैयार करने के लिए दे दिया गया है।*

**नई दिल्ली:** कोरोना के संकटकाल में भारत का रक्षा अनुसंधान और विकास संगठन भी आगे आया है। भारत में कोरोना के कारण उपजी स्वास्थ्य समस्या को देखते हुए DRDO ने उन्नत तकनीकी वाला वेंटिलेटर विकसित किया है। इसकी तकनीक को वेंटिलेटर इंडस्ट्री को सौंपा गया है।

ताकि इसे तुरंत ही बड़े पैमाने पर बनाकर प्रयोग में लाया जा सके। युद्धक स्थितियों में भारत को मजबूत बनाने वाला DRDO कोरोना से भी युद्ध में देश को कमजोर नहीं पड़ने देगा।

## कोरोना से लड़ाई में सिर्फ दो हथियार आएंगे काम

दरअसल कोरोना के बढ़ते संकट के बीच सबसे बड़े दो ही हथियार हैं, एक है सोशल डिस्टेंसिंग और दूसरा है बेहतर स्वास्थ्य सुविधाएं। प्रधानमंत्री मोदी की अपील और घोषणा के बाद भारत में 21 दिन का लॉकडाउन लागू है। ऐसे में लोग सोशल डिस्टेंसिंग तो फॉलो कर रहे हैं,

लेकिन इससे पूरी तरह निपटने के लिए बहुत बेहतर स्वास्थ्य सेवाओं का होना जरूरी है। क्योंकि अगर कोरोना बड़े लेवल पर लोगों को अपना शिकार बनाना शुरू करेगा तो इस स्तर पर अस्पतालों में अलग आइसोलेशन वॉर्ड और वेंटिलेटर की कमी से जूझना पड़ सकता है।

## DRDO अध्यक्ष ने दी जानकारी

इस बारे में खुद DRDO के अध्यक्ष ने जानकारी दी है। उन्होंने खुद इस वेंटिलेटर के बारे में बताया और कहा जल्द ही इसे तैयार कर लिया जाएगा। डीआरडीओ के अध्यक्ष, डॉ जी सतेश रेड्डी ने कहा कि कुछ समय पहले DRDO ने सोसायटी फॉर बायोमेडिकल टेक्नोलॉजी (SBMT) के साथ एक वेंटिलेटर विकसित किया,

इसकी तकनीक को इंडस्ट्री लेवल पर वेंटिलेटर तैयार करने के लिए दे दिया गया है। मैसूर की एक इंडस्ट्री इसका निर्माण कर रही है और यह उन्नत वेंटिलेटर का सेकेंड एडिशन है।

## 42 नए मामले सामने आए हैं

स्वास्थ्य मंत्रालय की ओर से जारी आंकड़ों के मुताबिक बीते 24 घंटों में देशभर में कोरोना से चार मरीजों की मौत हो गई है जबकि 42 नए मामले सामने आए हैं। स्वास्थ्य मंत्रालय के संयुक्त सचिव लव अग्रवाल ने जानकारी देते हुए कहा कि देश में कोरोना से पीड़ित मरीजों की संख्या बढ़कर 649 हो गई है।

<https://zeenews.india.com/hindi/zee-hindustan/national/drdo-will-strengthen-our-hand-in-war-with-corona-developed-indigenous-ventilator/659352>

Fri, 27 March 2020

## **Covid-19: India involves DRDO and OFB in fight against the coronavirus pandemic**

*By Rahul Bedi*

New Delhi: India's Ministry of Defence (MoD) has pressed the state-owned Defence Research and Development Organisation (DRDO) and Ordnance Factory Board (OFB) into making assorted medical supplies and equipment to battle the ongoing Covid-19 coronavirus outbreak in the country.

Officials told *Jane's* that the DRDO has already begun producing hand-sanitising liquid and other disinfectants at its laboratories, while the OFB has launched a pilot project to make personal protective equipment (PPE) for medical personnel.

The OFB will eventually manufacture this equipment at some of its 41 units across India, once the first batch meets the mandated medical standards, officials said.

Meanwhile, the DRDO is in consultations with private-sector manufacturers to make badly-needed ventilators, as India struggles to enforce the biggest-ever lockdown of its population of 1.3 billion until 14 April in order to contain the spread of the virus.

<https://www.janes.com/article/95121/covid-19-india-involves-drdo-and-ofb-in-fight-against-the-coronavirus-pandemic>

## **Telangana Today**

Fri, 27 March 2020

### **Allow DRDO, ECIL to manufacture masks: Etala Rajender**

*In a video conference with the Union Health Minister, he said that allowing such top class scientific organisations will go a long way in meeting the huge demand for safety equipment needed for health care workers, while they tend to Covid-19 positive patients.*

Hyderabad: The State government on Thursday requested Union Health Minister Dr Harsh Vardhan to permit Hyderabad-based research facilities including Electronic Corporation of India Limited (ECIL), Bharat Dynamics Limited (BDL) and Defence Research and Development Organisation (DRDO) to manufacture safety medical equipment including Personnel Protection Equipment (PPE), ventilators, N95 masks and other medical equipment needed in Intensive Care Units (ICU).



In a video conference with the Union Health Minister, he said that allowing such top class scientific organisations will go a long way in meeting the huge demand for safety equipment needed for health care workers, while they tend to Covid-19 positive patients.

Rajender also raised the issue of teething troubles in transporting vital goods including life saving drugs and other medical equipment between inter-state borders. The State government requested Dr Harsh Vardhan to intervene to clear such bottlenecks.

Dr. Harsh Vardhan appreciated the State government efforts in containing the novel strain of coronavirus and said the next two-weeks will be crucial in containing the coronavirus pandemic.

<https://telanganatoday.com/allow-drdo-ecil-to-manufacture-masks-etala-rajender>

## With single ventilator service can be provided to several persons

ఒకే వెంటిలేటర్తో

# అనేక మందికి సేవలు



• వైరస్ సోకనివ్వని బాడీ సూట్ • రూపకల్పన చేసిన డీఆర్డీవో

ఈనాడు, దిల్లీ: కరోనాపై పోరులో తన పంతు చేయూతనందించడానికి భారత రక్షణ పరిశోధన సంస్థ (డీఆర్డీవో) సిద్ధమైంది. వైరస్ వైరస్ ఉద్భవించిన పసిగట్టిన ఈ సంస్థ ముందు నుంచే దానిపై దృష్టిసారించి నివారణ పరికరాల ఉత్పత్తిపై దృష్టి సారించింది. అందులో భాగంగా.. అనేక మందికి సేవలు అందించే వెంటిలేటర్, కరోనా వైరస్ సోకని వ్యవస్థ బాడీ సూట్, తక్కువ ధరల్లోనే శానిటైజర్, ఎన్-99 మాస్కులకు రూపకల్పన చేసింది.

◆ ఒకే వెంటిలేటర్ ద్వారా అనేక మంది రోగులకు సేవలందించే విస్తృత వెంటిలేటర్కు బెంగుళూరు డీఆర్డీవో ల్యాబ్ రూపకల్పన చేసింది. తొలి నెలలో 5వేలు, ఆ తర్వాత పదివేల చొప్పున వీటిని తయారు చేయడానికి సంస్థ సిద్ధమైంది. ఇందుకు అనువైన ఉపకరణాలను మహింద్ర సంస్థ రూపొందించనుంది. ఈ వెంటిలేటర్లను వేగంగా తయారుచేయడానికి వీలుగా దాని డిజైన్ను తొమ్మిది కంపెనీలకు బదిలీ చేయడానికి ఔషధ శాఖ శాఖ కార్యదర్శి ఆమోదముద్ర వేశారు. ఒక్కో వెంటిలేటర్ ధర రూ.4 లక్షలు ఉంటుంది.

దేశంలో కరోనా రోగుల సంఖ్య 30కి చేరే నాటికే ఆప్రమత్తమై దీని నివారణకు అవసరమైన వైద్య పరికరాలను భారీ సంఖ్యలో ఉత్పత్తి చేసి, సరఫరా చేయడానికి సంస్థ నడుం బిగించింది.

◆ లీటరు శానిటైజర్ను రూ.120కే ఉత్పత్తి చేస్తోంది. రోజుకు 20వేల నుంచి 30వేల లీటర్లను గ్యాలియర్లోని డీఆర్డీవో ల్యాబ్ ఉత్పత్తి చేస్తోంది. దాన్ని 200, 500 మిల్లీ లీటర్ల సీసాల్లో బహిరంగ మార్కెట్లో విక్రయాలకు ఆసుగు

జంగా సిద్ధంచేసింది.

◆ రోజుకు పదివేల ఎన్-99 మాస్కులు తయారు చేసేలా డీఆర్డీవో డిజైన్ రూపకల్పన చేసింది. ఒక్కో మాస్కు ధర రూ.70.

◆ రోగులకు సేవచేసే వైద్యులు, వైద్య సిబ్బంది, పారిశుధ్య కార్మికులు కరోనా బారిన పడకుండా ఉండటానికి వీలుగా పకడ్బందీ బాడీ సూట్కు రూపకల్పన చేసింది. ఇది వైరస్ను పూర్తిగా నిరోధిస్తుంది. ఉతకడానికి వీలైన ఈ సూట్ 'అమెరికన్ సొసైటీ టెక్స్టింగ్ ఆండ్ మెటీరియల్ స్టాండర్డ్స్' పరీక్షలోనూ నెగ్గింది. రూ.7వేల విలువైన ఈ సూట్.. వైద్య సిబ్బందికి కరోనా సోకకుండా సోకకుండా రక్షిస్తుందని డీఆర్డీవో, ఇతర సంస్థల పరీక్షల్లో తేలింది. వీటిని రోజుకు పదివేల చొప్పున ఉత్పత్తి చేయడానికి సిద్ధమైనట్లు డీఆర్డీవో అధిపతి జి. సతీష్ రెడ్డి తెలిపారు.

## DRDO war on corona

# కరోనాపై డీఆర్డీవో సమరం

- » యుద్ధప్రాతిపదికన నాణ్యమైన వస్తువుల రూపకల్పన
- » శానిటైజర్లు, వెంటిలేటర్లు, మాస్కులు, బాడీ సూట్ తయారీ
- » ప్రైవేటు కంపెనీలతో కలిసి ఉత్పత్తి ప్రారంభం
- » త్వరలోనే అందుబాటులోకి తీసుకొస్తాం
- » ఆంధ్రజ్యోతితో డీఆర్డీవో చైర్మన్ సతీష్ రెడ్డి

హైదరాబాద్, మార్చి 26(ఆంధ్రజ్యోతి): మహమ్మారి కరోనాపై సమరంలో.. డిఫెన్స్ రిసెర్చ్ అండ్ డెవలప్ మెంట్ ఆర్గనైజేషన్ (డీఆర్డీవో) నేను సైతం అంటోంది. వైరస్ నిరోధంలో కీలకమైన హ్యాండ్ శానిటైజర్లు, క్రిటికల్ కేర్ వెంటిలేటర్లు, ఎన్-99 అడ్వాన్స్డ్ మాస్కులు, బాడీ సూట్ల తయారీకి నడుంబిగించింది. సంస్థ శాస్త్రవేత్తలు కేవలం మూడు వారాల్లోనే వీటిని రూపొందించడం విశేషం. దేశంలో కరోనా వ్యాప్తి నేపథ్యంలో ఈ వస్తువులను త్వరలోనే అందుబాటులోకి తెస్తామని డీఆర్డీవో చైర్మన్ సతీష్ రెడ్డి తెలిపారు. ఇందుకోసం ప్రైవేటు పరిశ్రమలతో ఒప్పందం పూర్తయిందని, ఉత్పత్తి కూడా ప్రారంభమైందని చెప్పారు. వైరస్ను అరికట్టడంలో డీఆర్డీవో పాత్రతో పాటు పలు కీలక విషయాలను చైర్మన్ సతీష్ రెడ్డి 'ఆంధ్రజ్యోతి'తో పంచుకున్నారు. ఈ సందర్భంగా ఆయన మాట్లాడుతూ.. సైన్యం కోసం ఉపయోగించే వస్తువులను ప్రత్యేక పరిస్థితుల దృష్ట్యా ప్రజలకు అందిస్తున్నట్లు తెలిపారు. డీఆర్డీవో, ప్రైవేటు పరిశ్రమల మధ్య ఒప్పందాలు అంత సులభంగా జరుగవని, కానీ, విపత్తు దృష్ట్యా అనుమతులు ఇచ్చినట్లు చెప్పారు. సరికొత్త సాంకేతికత ఉపయోగించి తమ శాస్త్రవేత్తలు తక్కువ సమయంలోనే నాణ్యమైన వస్తువులకు రూపకల్పన చేశారని ఆభినందించారు. చాలా తక్కువ ధరకే వీటిని అందించనున్నట్లు తెలిపారు. ఆయన తెలిపిన వివరాల మేరకు..

### రోజుకు 30 వేల లీటర్ల శానిటైజర్ తయారీ

కరోనా నిరోధంలో ముఖ్యమైన హ్యాండ్ శానిటైజర్ను రోజుకు 20 వేల



డీఆర్డీవో శానిటైజర్లు

నుంచి 30 వేల లీటర్ల వరకు తయారు చేస్తున్నాం. ఒక్కో బాటిల్ ధర రూ.120. ఇప్పటికే 4 వేల లీటర్ల శానిటైజర్ను సైన్యానికి అందించాం. పార్లమెంట్కు 300 లీటర్లు, ఇతర రక్షణ విభాగాలకు 500 లీటర్లు సమకూర్చాం. డిల్లీ పోలీసులకు వెయ్యి లీటర్ల శానిటైజర్ పంపిణీ చేశాం.

### మల్టీ పేషెంట్ వెంటిలేటర్స్

ఒకేసారి పలువురు రోగులకు ఉపయోగించేలా మల్టీ పేషెంట్ వెంటిలేటర్ను రూపొందించాం.

ఇవి వారం రోజుల్లో అందుబాటులోకి వస్తాయి.

మొదటి నెలలో 5 వేలు, తర్వాత నెల నుంచి 10 వేల వెంటిలేటర్లను అందించగలం. ఒక్కో దాని ధర రూ.4 లక్షల వరకు ఉంటుంది.

### ఐదు లేయర్లతో మాస్కులు

ప్రస్తుతం మార్కెట్లో ఉన్న ఎన్-95 మాస్కులను మించిన మన్నికతో ఎన్-99 మాస్కులను అభివృద్ధి చేశాం. ఈ మాస్కు ఐదు లేయర్లతో ఉంటుంది. వీలో రెండు నానో మాష్ లేయర్లు. కరోనాను అడ్డుకునేందుకు ఇది ఎంతగానో ఉపయోగపడుతుంది. రోజుకు 10వేల మాస్కులను తయారు చేయనున్నాం. ఒక్కోదాని ధర రూ.70.

### నాణ్యమైన పాలిస్టర్తో బాడీ సూట్

చికిత్సలో పాల్గొనే వైద్యులు, ఆరోగ్య సిబ్బందితో పాటు పారిశుధ్య కార్మికులను వైరస్ నుంచి రక్షించేందుకు శరీరాన్ని ఆసాంతం కప్పి ఉంచేలా నాణ్యమైన పాలిస్టర్తో బాడీ సూట్ రూపొందించాం. రోజుకు 10 వేల సూట్స్ తయారు చేస్తాం. ఒక్కోదాని ధర రూ.7 వేలు.

# అమెరికా ఆస్పత్రులు కిట్ కిట్

» కరోనా రోగులతో నిండిపోతున్న వైసం

» యూఎస్ లో వెయ్యి దాటిన మరణాలు

వాషింగ్టన్, న్యూయార్క్, లండన్, మార్చి 26: ప్రపంచ వ్యాప్తంగా కరోనా పాజిటివ్ కేసుల సంఖ్య 5 లక్షలు దాటింది. గురువారంతో 22 వేల మంది పైనే మృతి చెందారు. వైరస్ రోగుల సంఖ్య పోజెత్తుతుండటంతో అమెరికా, యునైటెడ్ కింగ్డమ్ (యూకే)లో ఆసుపత్రులు కిట్ కిట్ లాడుతున్నాయి. కేసులు 75వేలు మించడంతో అమెరికాలో అయితే మూసివేసినవాటిని సైతం తిరిగి తెరుస్తున్నారు. న్యూయార్క్ నగరంలో సిటీ కన్వెన్షన్ సెంటర్ ను తాత్కాలిక ఆసుపత్రి చేశారు. లూసియానాలో పార్కులను ఐసోలేషన్

## దేశాల్లో మరణాలు

అమెరికా	1,080
ఇరాన్	2,234
స్పెయిన్	4,145
ఇటలీ	8,165
ఫ్రాన్స్	1,331
చైనా	3,287
యూకే	477

కేంద్రాలుగా వినియోగిస్తున్నారు. బ్రిటన్ రాజధాని లండన్ లో ఓ సమావేశ మందిరాన్ని 4 వేల పడకల ఆసుపత్రిగా మార్చేశారు. ఫిలిప్పీన్స్ లోనూ ఇదే పరిస్థితి నెలకొంది. ఆసుపత్రులు నిండిపోతుండటం, రక్షణ సామగ్రి లేకపోవడంతో దేశంలో 9 మంది వైద్యులు మృతి చెందారని అధికారులు తెలిపారు.

## భారత సంతతి బాలికకు వైరస్

వాటికన్ లోని క్రైస్తవ మత పెద్ద పోప్ నివాస గృహ ఉద్యోగికి వైరస్ సోకింది. సింగపూర్ లో భారత సంతతి బాలిక (3) వైరస్ కు గురైంది. రాజ ప్రాసాదంలోని ఏడుగురు ఉద్యోగులు కౌవిడ్ బారినపడ

టంతో మలేసియా రాజ దంపతులు స్వీయ క్వారంటైన్ కు వెళ్లారు. ఇటలీలో గత నెల రోజుల్లో 67 మంది మత గురువులు చనిపోయారు. స్పెయిన్ లో రోజు వ్యవధిలో మరో 665 మంది మృతి చెందారు. ఇటలీలో మృతుల సంఖ్య 8 వేలకు చేరింది. చైనాలో కొత్త కేసులేమీ నమోదు కాలేదు.

## డబ్ల్యూహెచ్ఎ తీరుపై ట్రంప్ గుర్రు

కరోనా సంక్షోభం విషయంలో డబ్ల్యూహెచ్ఎ పూర్తిగా చైనాను వెనకేసుకు వచ్చిందని అమెరికా అధ్యక్షుడు ట్రంప్ మండిపడ్డారు. ఈ విషయంలో సంస్థ తీరుపై చాలామందికి అసంతృప్తి ఉందన్నారు. కరోనాపై నమరంలో జి-20 దేశాల సమాఖ్య కీలక నిర్ణయం తీసుకుంది. ఆర్థిక అనిశ్చితి నివారణకు ప్రపంచ మార్కెట్లకు 5 ట్రిలియన్ డాలర్లను జోష్పించనుంది.

<https://epaper.andhrajyothy.com/c/50350301>



Fri, 27 March 2020

## Army medical teams, 2 Navy ships ready to help friendly nations

*Defence Minister Rajnath Singh holds a review meeting*

Army medical teams and two Indian Navy ships were on standby to provide required assistance to friendly countries in the neighbourhood, the Defence Ministry said on Thursday. The Defence Research and Development Organisation (DRDO) had manufactured and supplied masks and sanitizers to various organisations, including the Delhi Police, it noted.

Defence Minister Rajnath Singh held a review meeting with senior defence officials, including the three Service Chiefs and the Chief of the Defence Staff, on the action plan to deal with the COVID-19 situation.

“The Army medical teams deployed in the Maldives have since returned after completion of their mission,” the Ministry said in a statement after the meeting.

A team of six doctors and eight paramedical personnel of the Army was deployed in the Maldives since March 13 for setting up a viral testing lab.

### **Sanitizers, Masks Readied**

The statement said that DRDO laboratories had manufactured 20,000 litres of sanitizer and supplied them to various organisations, including 10,000 litres to the Delhi Police. “DRDO has also supplied 10,000 masks to Delhi police personnel. It is tying up with some private companies to make personal protection equipment such as bodysuits and ventilators,” it said.

The Ordnance Factory Board (OFB) has also ramped up production of sanitizers, masks and bodysuits and Bharat Electronics Limited (BEL) was engaged in manufacturing ventilators.

The Ministry said that various quarantine facilities of the armed forces have, so far, handled 1,462 evacuees and discharged 389. Presently, 1,073 persons were being provided care at the facilities in Manesar, Hindon, Jaisalmer, Jodhpur and Mumbai.

Separately, the Indian Air Force (IAF) said the Command Hospital Air Force Bangalore had been designated as its first laboratory to undertake COVID-19 testing. “IAF aircraft are continuing to fly in medical supplies and doctors to Leh and fly out blood samples for COVID testing to Chandigarh and Delhi,” it said in a statement.

The IAF had created nine quarantine facilities of 200-300 personnel capacity each across the country.

<https://www.thehindu.com/news/national/army-medical-teams-2-navy-ships-ready-to-help-friendly-nations/article31173950.ece>

**DAILYEXCELSIOR.COM**  
The Largest Circulated Daily of Jammu and Kashmir

*Fri, 27 March 2020*

## **Rajnath asks armed forces to ramp up efforts to check spread of coronavirus**

New Delhi: Defence Minister Rajnath Singh on Thursday asked the armed forces, defence public sector undertakings and other military organisations to provide all possible assistance to civilian authorities in their efforts to halt the spread of coronavirus in the country.

He issued the directive while chairing a high-level meeting to review overall preparedness of the defence ministry in containing the spread of the coronavirus which has infected over 600 and killed at least 10 people in India so far.

India is under a 21-day lockdown from Tuesday midnight as part of efforts to check COVID-19.

In the meeting, Singh appreciated the proactive role played by the armed forces and various departments of the defence ministry in evacuating Indian nationals as well as foreigners from coronavirus- affected countries and ensuring their proper care at various quarantine facilities.

“He urged the armed forces and other departments to gear up their preparedness and provide all required assistance to the civilian administration at various levels,” the defence ministry said in a statement.

Giving details of contribution by various defence entities, it said the DRDO laboratories have manufactured 20,000 litres of sanitiser and supplied to various organisations, including 10,000 litres to Delhi Police.

The Defence Research and Development Organisation (DRDO) has also supplied 10,000 masks to Delhi Police personnel. It is tying up with some private companies to make personal protection equipment such as body suits and ventilators, officials said.

The ministry said the Ordnance Factory Board has also ramped up production of sanitisers, masks and body suits while DPSU Bharat Electronics Limited is engaged in manufacturing of ventilators.

At the meeting, officials briefed Singh on various measures and assistance provided so far by the armed forces.



The Indian Air Force has made several sorties and evacuated Indian nationals from countries like China, Japan and Iran.

Various quarantine facilities of the armed forces have handled 1,462 evacuees and discharged 389. Currently, 1,073 people are being provided care at the facilities in Manesar, Hindan, Jaisalmer, Jodhpur and Mumbai.

Additional quarantine facilities are on standby with for 950 people.

The meeting was attended by Chief of Defence Staff Gen Bipin Rawat, Defence Secretary Dr Ajay Kumar, Chief of Naval Staff Admiral Karambir Singh, Chief of Air Staff Air Chief Marshal R K S Bhaduria, Chief of Army Staff General M M Naravane, Secretary (Defence Production) Raj Kumar and DRDO Chairman G Satheesh Reddy. (agencies)

<https://www.dailyexcelsior.com/rajnath-asks-armed-forces-to-ramp-up-efforts-to-check-spread-of-coronavirus/>

# ThePrint

Fri, 27 March 2020

## Army starts Covid-19 testing in its hospitals, issues fresh guidelines to fight pandemic

*The IAF, meanwhile, has designated Command Hospital Air Force, Bengaluru, to conduct Covid-19 testing*

*By Amrita Nayak Dutta*

New Delhi: The Army has initiated Covid-19 testing in their hospitals as India gears up to test more people amid the coronavirus pandemic.

According to senior Army officers, five Army hospitals have been conducting testing of Covid-19. These facilities are Armed Forces Medical College, Pune, Command Hospitals in Udampur, Lucknow, Bangalore, and the R&R Army Hospital in Delhi.

The decision in this regard came earlier this month, Army sources said.

The move comes at a time when the country — with just 52 government laboratories — clearly lacks adequate testing facilities.

With the rising number of confirmed cases, India has already expanded Covid-19 testing to private labs and asked every state to earmark at least one hospital to treat coronavirus patients.

The Indian Council of Medical Research, the country's apex health research body, has put out a series of guidelines for Covid-19 testing in private laboratories.

### **Army to be trained to fight Covid-19**

Sources said Army personnel are being nominated for training in various reputed medical institutes across the country, such as the National Institute of Virology, Pune, PGIMER, Chandigarh, King George's Medical University, Lucknow, and AIIMS in New Delhi to be better prepared to deal with the pandemic.

The Indian Air Force, meanwhile, has designated the Command Hospital Air Force, Bengaluru, to conduct Covid-19 testing.

“To monitor the prevailing situation and provide immediate response and assistance as required, a 24×7 crisis management cell has been set up at Air Headquarters and various Command Headquarters. IAF aircraft are continuing to fly in medical supplies and doctors to Leh and flying out blood samples for Covid testing to Chandigarh and Delhi,” an IAF statement read.

The Defence Research and Development Establishment (DRDE) in Gwalior has also started conducting tests for Covid-19.

The DRDE, which is a part of the Defence Research and Development Organisation (DRDO), is the nodal lab for the development of chemical-biological defence technologies.

## Army issues fresh guidelines

The Army Thursday issued fresh instructions on measures required to fight the pandemic.

This included identifying additional infrastructure for setting up of quarantine or isolation centers in each station for the troops, extending the Army's network of hospitals and laboratory facilities to assist civil administration in areas affected by the novel coronavirus.

The instructions further said a plan should be prepared for sidestepping medical personnel from lesser-affected areas to augment healthcare in severely-affected areas if required, and additional training of the Army's own medical personnel at various hospitals to be better prepared to fight Covid-19.

The armed forces have put in place over a dozen isolation facilities across the country, of which, five are housing 1,073 people — most of them have been evacuees of different countries.

ThePrint had earlier reported that the military has put in place strict drills to stop coronavirus from getting into its bases, which included disallowing entry of civil contractual staff and staggered office and meal timings.

Meanwhile, Defence Minister Rajnath Singh Thursday met Chief of Defence Staff (CDS) General Bipin Rawat, Army Chief General M.M. Naravane, IAF chief Air Marshal R.K.S. Bhadauria and Navy chief Admiral Karambir Singh to review the action plan of the Defence Ministry with regard to dealing with Covid-19.

<https://theprint.in/defence/army-starts-covid-19-testing-in-its-hospitals-issues-fresh-guidelines-to-fight-pandemic/388770/>



Fri, 27 March 2020

## Provide assistance to civilian authorities: Rajnath Singh to armed forces

*The defence minister appreciated the efforts in evacuating Indian nationals as well as foreigners from coronavirus- affected countries*

New Delhi: Defence minister Rajnath Singh on Thursday asked the armed forces, defence public sector undertakings and other military organisations to provide all possible assistance to civilian authorities in their efforts to halt the spread of coronavirus in the country.

He issued the directive while chairing a high-level meeting to review overall preparedness of the defence ministry in containing the spread of the coronavirus which has infected over 600 and killed at least 13 people in India so far.

India is under a 21-day lockdown from Tuesday midnight as part of efforts to check COVID-19.

In the meeting, Singh appreciated the proactive role played by the armed forces and various departments of the defence ministry in evacuating Indian nationals as well as foreigners from coronavirus-affected countries and ensuring their proper care at various quarantine facilities.

"He urged the armed forces and other departments to gear up their preparedness and provide all required assistance to the civilian administration at various levels," the defence ministry said in a statement.

Giving details of contribution by various defence entities, it said the DRDO laboratories have manufactured 20,000 litres of sanitiser and supplied to various organisations, including 10,000 litres to Delhi Police.

The Defence Research and Development Organisation (DRDO) has also supplied 10,000 masks to Delhi Police personnel. It is tying up with some private companies to make personal protection equipment such as body suits and ventilators, officials said.

The ministry said the Ordnance Factory Board has also ramped up production of sanitisers, masks and body suits while DPSU Bharat Electronics Limited is engaged in manufacturing of ventilators.

At the meeting, officials briefed Singh on various measures and assistance provided so far by the armed forces.

The Indian Air Force has made several sorties and evacuated Indian nationals from countries like China, Japan and Iran.

Various quarantine facilities of the armed forces have handled 1,462 evacuees and discharged 389. Currently, 1,073 people are being provided care at the facilities in Manesar, Hindan, Jaisalmer, Jodhpur and Mumbai.

Additional quarantine facilities are on standby with for 950 people.

The meeting was attended by Chief of Defence Staff Gen Bipin Rawat, Defence Secretary Dr Ajay Kumar, Chief of Naval Staff Admiral Karambir Singh, Chief of Air Staff Air Chief Marshal RKS Bhadauria, Chief of Army Staff General M M Naravane, Secretary (Defence Production) Raj Kumar and DRDO Chairman G Satheesh Reddy.

<https://www.telegraphindia.com/india/provide-assistance-to-civilian-authorities-ranjnath-singh-to-armed-forces/cid/1759415>

**hindustantimes**

*Fri, 27 March 2020*

## **Covid-19: PM Modi directs ministries to scale production of medical equipment**

*The railways is mulling using its vast pool of coaches to be converted to isolation wards*

*By Anisha Dutta*

New Delhi: Prime Minister Narendra Modi has asked government ministries to find innovative ways of using their resources to set up manufacturing of medical equipment like ventilators and scaling up their production. The cabinet meeting chaired by the PM on Wednesday discussed ways of using state-owned facilities and production units for boosting manufacture and supply of medical equipment and setting up quarantine facilities.

The railways is mulling using its vast pool of coaches to be converted to isolation wards. It has already begun work on using locomotive production units to manufacture ventilators and other medical equipment. "There is a plan to use vast pool of non-AC coaches for setting up isolation wards and about 20,000 such coaches had been identified for the same. Railways has also begun production of masks, sanitisers and other supplies," a railway ministry official said.

Indian Railways has also been tasked with using its large manufacturing and locomotive production units and workshops for manufacturing essential medical equipment such as ventilators, hospital beds, and stretchers, among others, on a war-footing.

The national carrier has issued directions to production units - the Integral Coach Factory in Chennai and Diesel Loco Works in Varanasi - among others. The Railway Board has asked production units and workshops to assess the feasibility to manufacture these items in large quantities, as may be required, at a short notice.

Ministries like defence and the heavy industries and public enterprises have also been asked to utilise their resources for ramping up production of medical gear. Defence ministry's production units like R&D organization the Defence Research and Development Organisation (DRDO) are exploring collaborations with private companies for production of ventilators. The Ordnance Factory Board (OFB) too have been tasked with production of medical supply. State owned aerospace and defence company Bharat Electronics Limited has also been engaged in manufacturing of ventilators.

The ministry of heavy industries has reached out to automobile manufacturers for utilising their manufacturing facilities for production of ventilators. The ministry has written to automakers seeking their help to aid the government.

“We are working on an automated version of the Bag Valve Mask ventilator (commonly known as Ambu bag). We hope to have a proto ready in three days for approval. Once proven this design will be made available to all for manufacturing,” Pawan Goenka, managing director of Mahindra and Mahindra Limited, said.

The availability of ventilators will be a key determinant in India’s success to keep the mortality rate of Covid-19 patients down, should community transmission sets in. India needs around 2.1 ventilators per 10,000 patients to battle the Covid-19 outbreak, according to medical experts.

On March 21, a panel of senior scientists cleared an industry proposal to ramp up production of ventilators in the country to minimise shortages in the context of an increasing number of people testing positive for the Sar-CoV-2 virus, which causes the Covid-19 infection.

The textile ministry has also pointed towards the shortage of body coveralls and N-95 masks for healthcare staff. An emergency control room has also been setup by the ministry to monitor production and supply of medical textiles including N-95 mask, body coveralls and melt-blown fabric.

<https://www.hindustantimes.com/india-news/covid-19-pm-modi-directs-ministries-to-scale-production-of-medical-equipment/story-gKgZxcaaZEzD8ZGhnt2j6J.html>

# hindustantimes

Fri, 27 March 2020

## India pulls out all stops to combat Covid-19 pandemic

*India is currently under a 21-day lockdown to break the chain of transmission of coronavirus which has infected over 650 people so far in the country*

New Delhi: India is pulling out all the stops to fight the coronavirus pandemic by drafting in state-owned facilities and production units and private companies to boost manufacture and supply of medical equipment and setting up quarantine facilities.

Prime Minister Narendra Modi on Thursday asked Central government ministries to look for innovative ways of using their resources to set up manufacturing of medical equipment like ventilators and scaling up their production to check the spread of coronavirus that has now affected over 650 people in the country and taken more than 10 lives so far.

The country is currently under a 21-day lockdown to break the chain of transmission of coronavirus.

The Defence Research and Development Organisation (DRDO) has also joined the fight against Covid-19.

“Some time back DRDO developed a ventilator along with Society for Biometrical Technology (SBMT), its technology has been transferred to the industry. An industry in Mysore is producing the secondary version of that ventilator now,” DRDO Chairman Dr G Sateesh Reddy said according to ANI.

“DRDO scientists are working on the development of many products to tackle Covid\_19. Sanitizers developed by us have been distributed to many people. In the last 15-20 days we have supplied more than 20,000 sanitizer bottles to various agencies,” Reddy said.

The chief of the National Disaster Response Force (NDRF) said it is ready to act any time.

“12 battalions and 50 sub-units deployed across country on standby. 400 personnel geared with Personal Protective Equipment (PPEs) are present in every battalion. We are ready to act anytime if states need,” ANI quoted NDRF Director General SN Pradhan as saying.



The government has tasked the Railways with using its large manufacturing and locomotive production units and workshops for manufacturing essential medical equipment such as ventilators, hospital beds, and stretchers, among others, on a war-footing.

Ventilators will be a key determinant in India's success to keep the mortality rate of Covid-19 patients down if community transmission sets in. India needs around 2.1 ventilators per 10,000 patients to battle the Covid-19 outbreak, according to medical experts.

The government has also tapped automobile manufacturers for utilising their manufacturing facilities for production of ventilators. The ministry has written to automakers seeking their help to aid the government.

RC Bhargava, Chairman at Maruti Suzuki India Limited, said the carmaker is looking at manufacturing ventilators following a meeting of government representatives.

The ministry of railways is also considering using the national transporter's vast pool of coaches as isolation wards.

The textile ministry has set up an emergency control room to monitor production and supply of medical textiles including N-95 mask, body coveralls and melt-blown fabric for healthcare staff.

Defence Minister Rajnath Singh who chaired a high-level meeting Thursday to review overall preparedness of the defence ministry in containing the spread of coronavirus, asked the armed forces, defence public sector undertakings and other military organisations to provide all possible assistance to civilian authorities in the fight against the pandemic, PTI reported.

Various quarantine facilities of the armed forces have handled 1,462 evacuees and discharged 389. Currently, 1,073 people are being provided care at the facilities in Manesar, Hindon, Jaisalmer, Jodhpur and Mumbai.

<https://www.hindustantimes.com/india-news/india-pulls-out-all-stops-to-combat-covid-19-pandemic/story-qllAug2bT3HpIHXZI8QFZP.html>

## THE TIMES OF INDIA

*Fri, 27 March 2020*

# **Rajnath asks armed forces to further step up their efforts in combating Covid-19**

*By Rajat Panit*

New Delhi: With the number of coronavirus cases increasing in the country, defence minister Rajnath Singh on Thursday asked the armed forces to further step up their efforts in combating the pandemic and providing assistance to the civilian administration at various levels.

With civilian testing labs for Covid-19 being inadequate in the country, the armed forces have also begun to conduct the tests at the AFMC in Pune, Army R&R Hospital at Delhi, Army command hospitals at Udhampur and Lucknow and IAF command hospital at Bengaluru.

During the top-level review meeting, Singh appreciated the "proactive role" played by the armed forces in evacuating Indian and foreign nationals from Covid-19 affected countries like China, Japan and Iran as well as ensuring their proper care at various quarantine facilities.

The quarantine facilities set up by the Army, Navy and IAF have handled 1,462 evacuees till now. At present, 1,073 persons are being provided medical care at the facilities in Manesar, Hindan, Jaisalmer, Jodhpur and Mumbai. "Additional quarantine facilities are on standby with 950 beds capacity," said an official.

DRDO labs, in turn, have manufactured and supplied 20,000 litres of sanitizers to various organizations, including 10,000 litres to Delhi police. DRDO, which has also supplied 10,000 masks to Delhi police, is tying up with some private companies to make personal protection equipment such as body suits and also ventilators, said officials.

The Ordnance Factory Board factories have also ramped up production of sanitizers, masks and body suits, while defence PSU Bharat Electronics Limited is also engaged in the manufacturing of ventilators.

Officials said the Army medical teams deployed in the Maldives have returned after completion of their mission there. "Army medical teams and two warships of Navy are on standby to provide required assistance to friendly countries in the neighbourhood if required," said an official.

The meeting was attended by Chief of Defence Staff General Bipin Rawat, Navy chief Admiral Karambir Singh, IAF chief Air Chief Marshal R K S Bhadauria, Army chief General M M Naravane, defence secretary Dr Ajay Kumar and DRDO chief Dr G Satheesh Reddy, among others.

<https://timesofindia.indiatimes.com/india/rajnath-asks-armed-forces-to-further-step-up-their-efforts-in-combating-covid-19/articleshow/74830858.cms>



Fri, 27 March 2020

## Rajnath Singh asks armed forces to ramp up efforts to fight COVID-19

*Defence Minister Rajnath Singh issued the directive while chairing a high-level meeting to review overall preparedness of the defence ministry in containing the spread of the coronavirus*

New Delhi: Defence Minister Rajnath Singh on Thursday asked the armed forces, defence public sector undertakings and other military organisations to provide all possible assistance to civilian authorities in their efforts to halt the spread of coronavirus in the country.

He issued the directive while chairing a high-level meeting to review overall preparedness of the defence ministry in containing the spread of the coronavirus which has infected over 600 and killed at least 10 people in India so far.

India is under a 21-day lockdown from Tuesday midnight as part of efforts to check COVID-19.

In the meeting, Mr Singh appreciated the proactive role played by the armed forces and various departments of the defence ministry in evacuating Indian nationals as well as foreigners from coronavirus-affected countries and ensuring their proper care at various quarantine facilities.

"He urged the armed forces and other departments to gear up their preparedness and provide all required assistance to the civilian administration at various levels," the defence ministry said in a statement.

Giving details of contribution by various defence entities, it said the DRDO laboratories have manufactured 20,000 litres of sanitiser and supplied to various organisations, including 10,000 litres to Delhi Police.

The Defence Research and Development Organisation (DRDO) has also supplied 10,000 masks to Delhi Police personnel. It is tying up with some private companies to make personal protection equipment such as body suits and ventilators, officials said.

The ministry said the Ordnance Factory Board has also ramped up production of sanitisers, masks and body suits while DPSU Bharat Electronics Limited is engaged in manufacturing of ventilators.

At the meeting, officials briefed Mr Singh on various measures and assistance provided so far by the armed forces.

The Indian Air Force has made several sorties and evacuated Indian nationals from countries like China, Japan and Iran.

Various quarantine facilities of the armed forces have handled 1,462 evacuees and discharged 389. Currently, 1,073 people are being provided care at the facilities in Manesar, Hindan, Jaisalmer, Jodhpur and Mumbai. Additional quarantine facilities are on standby with for 950 people.

The meeting was attended by Chief of Defence Staff Gen Bipin Rawat, Defence Secretary Dr Ajay Kumar, Chief of Naval Staff Admiral Karambir Singh, Chief of Air Staff Air Chief Marshal R K S Bhadauria, Chief of Army Staff General MM Naravane, Secretary (Defence Production) Raj Kumar and DRDO Chairman G Satheesh Reddy.

<https://www.ndtv.com/india-news/coronavirus-updates-defence-minister-rajnath-singh-asks-armed-forces-to-ramp-up-efforts-to-fight-cov-2201199>

## Defence minister reviews military action plan to fight COVID-19

*'Army all set to extend network of hospitals, labs to assist civil administration'*

*By Pradeep R Sagar*

Defence Minister Rajnath Singh held a review meeting at his office in South Block with senior officials of Ministry of Defence (MoD) on the action plan to deal with the COVID-19 situation on Thursday. The Army has been asked to identify additional infrastructure for setting up of quarantine or isolation centres in each military station.

Various quarantine facilities of the armed forces have, so far, handled 1,462 evacuees and discharged 389. Currently, 1,073 persons are being provided care at the facilities in Manesar, Hindan, Jaisalmer, Jodhpur and Mumbai. Additional quarantine facilities are on standby with 950 beds capacity, the defence ministry stated in a PIB release after the meeting.

"The Indian Army is prepared to extend its network of hospitals and laboratory facilities to assist civil administration at COVID-19 hotspots. To plan for augmenting public health experts in severely affected areas, the Army is preparing for sidestepping medical personnel from lesser affected areas to augment health experts in severely affected areas if required. The Army is also providing training of its own medical personnel at various hospitals to be better prepared for COVID-19," Army sources said.

It added that the Defence Research and Development Organisation (DRDO) laboratories have manufactured 20,000 litres of sanitisers and supplied to various organisations, including 10,000 litres to Delhi police. DRDO has also supplied 10,000 masks to Delhi police personnel. It is tying up with some private companies to make personal protection equipment such as body suits and also ventilators.

Ordnance Factory Board has also ramped up production of sanitisers, masks and bodysuits. Bharat Electronics Limited (BEL) is also engaged in manufacturing of ventilators.

"Army medical teams deployed in the Maldives have since returned after completion of their mission. Army medical teams and two ships of Navy are on standby to provide required assistance to friendly countries in the neighbourhood," the ministry informed.

While expressing appreciation on the proactive role played by the armed forces and various departments of the defence ministry in evacuating Indian nationals as well as foreigners from COVID-19 affected countries and ensuring them proper care at various quarantine facilities, Rajnath Singh has urged the armed forces and other departments to gear up their preparedness and provide all required assistance to the civilian administration at various levels.

The meeting lasted for more than two hours and was attended by Chief of Defence Staff General Bipin Rawat, Defence Secretary Dr Ajay Kumar and three service chiefs along with DRDO Chairman Dr G. Satheesh Reddy. During the meeting, Singh was briefed on various measures and assistance provided so far like Indian Air Force's several sorties for evacuating Indian nationals from affected areas in China, Japan and Iran.

<https://www.theweek.in/news/india/2020/03/26/Defence-minister-reviews-military-action-plan-to-fight-COVID-19.html>