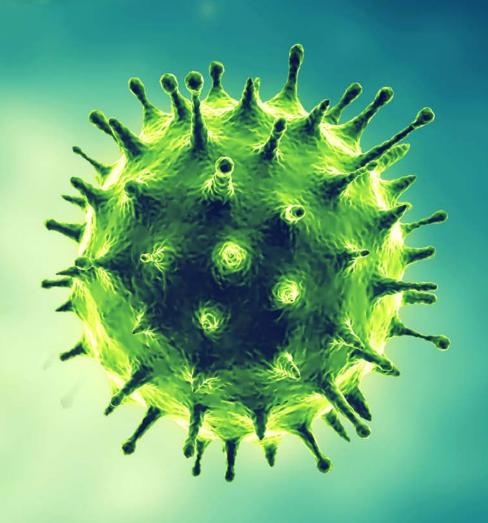


Reviving the construction sector in India post COVID-19

https://home.kpmg/in/covid-19

April 2020

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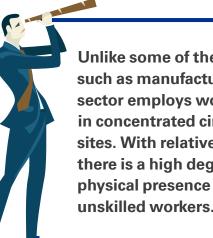


What has transpired since last few weeks?

We examine a real, live project to outline the impact that the COVID-19 crisis is having on the construction sector in India.

- Project status: In advance stages of construction
- Capital expenditure: INR60 billion (approximately)
- **Labour deployment:** Over 4,500 labourers with over 100 pieces of plant and machinery.
- **Labour status:** 60-65 per cent are in reverse migration mode with 30-35 per cent on a lockdown at site in labour camps
- **Supply chain status:** Some of the critical offshore equipment are being sourced from overseas, which are either in manufacturing or dispatch phase, deliveries of such equipment to the site location will be impacted
- **Contractual impact:** Some of the vendors may invoke claims due to COVID-19 leading to additional cost to the Project Owner

- **Schedule impact:** Over-run of at least 2-3 months. Detailed assessments need to be conducted only when the restrictions are lifted, and preliminary conversations indicate timelines could be extended given supply chain and workforce disruptions
- **Cost impact:** Estimated in the range of 4-5 per cent of the total project cost, however more clarity will emerge once detailed assessments are completed.



Unlike some of the other key sectors impacted such as manufacturing and retail, construction sector employs workforce that is deployed in concentrated circles in and around project sites. With relatively low levels of automation, there is a high degree of dependency on physical presence for both skilled and unskilled workers.

Speed and scale of recovery will be critical to overall economy



- Total projects worth more than INR 59000billion¹, are under development in India, most of which would have been impacted severely by COVID-19
- India's goal of becoming a USD5 trillion economy² rests on the completion of critical infrastructure under the National Infrastructure Plan
- The Indian construction industry employs over 49 million people, close to 12 per cent of the nation's working population³. Further, it has a multiplier effect on nearly 250 allied⁴ industries
- One of the largest construction company in the country is spending about INR150 million per day to provide support for 230,000 plus laborers staying at labour camps and provide them with food and basic amenities, wages, sanitation and

- medical facilities. With number of such companies supporting the essential needs of laborers at sites and physical work progress on a standstill, this is adding to the stress in the value chain
- Construction productivity gets impacted during the monsoon period. This current period until June/July, when monsoon sets in for most parts of the country, is critical to not loose high productivity
- Given the forecasted subdued demand in sectors such as real estate⁵, the available surplus resources including labor, equipment, et all would require rapid alternate deployment to minimise incremental impact of COVID. Modular methods and up-skilling will become increasingly relevant.

COVID-19 impact across the economy is sudden and wide-spread, but this presents an unprecedented opportunity for us to respond and reset some of the baselines in the construction sector in India

Report of the Task Force on National Infrastructure Pipeline for 2019-2025 released by Smt. Nirmala Sitharaman, December 2019

^{2.} Budget 2019: India to become \$5 trillion economy in 5 years, February 2019

^{3.} Wikipedia-Construction industry of India

Indian real estate and construction-Consolidating for growth, KPMG, NAREDCO, APREA Publication, September 2018

^{5.} Potential impact of covid19 on the Indian economy, KPMG, April 2020





Prioritise projects

How do we prioritise our portfolio of projects amidst post COVID resource constraints?



Dimension 02
Re visit project
definition and
delivery strategy

How do we make construction projects viable again in the short term while minimising impact of COVID-19?



Dimension 03
Build resilience

How do we safe guard construction projects from future emergencies? Can they become anti-fragile?



Strengthen contractual provisions

How do we continue to build and not get distracted with litigations / disputes?

1. Prioritise projects



Labour and capital can be expected to be in short supply once the restriction ends and therefore there needs to be a framework in place to prioritise projects over a 30-45 days window:



Ability to immediately kick start: Launch projects based on geographic spread and impact from COVID-19



Ability to generate immediate and sustained employment across value chain (labour, contractors, engineers, etc.)



Degree of immediate and incremental impact from COVID-19 (supply chain disruptions for construction materials such as Steel, Cement etc.)



Alignment of the project with strategic intent, national cause (e.g. Health care)



Ability to generate immediate, near term revenue



Immediate, mid and longer-term capital requirements



Dependencies: Analyse interlinkages with success of other projects



Status and impact of ongoing, potential litigations



Status of pending approvals, land acquisition, other ongoing issues

2. Revisit project definition and delivery strategy



In a time-bound manner, project owners should chalk out a plan to minimise the impact of COVID-19 and ensure viability and sustenance of projects going forward in a changed environment. KPMG in India has developed a ten-point assessment framework, project owners can use to assist with this:

Discipline	
Project definition	Revisit strategic alignment of the project, plan phasing, de-scoping
Engineering	Optimise engineering, layouts with a focus on target value design
Procurement	Undertake procurement optimisation (alternate sourcing, re-packaging, re-bidding)
Labour	Review labour availability (given migration and crop harvesting season ⁵ will alter available pools of skilled/un/semi-skilled), anticipate crew sizing and revisions in productivity norms
Plant and Machinery	Review availability and mobilisation of Plant & Machinery and operators, serviceability of equipment due to disruptions
Construction technology	Explore off-site, modular construction technologies to optimize time and resources while enabling controlled working environment for labours
Scheduling	Review front availability on account of lockdown, re-draw schedule based on revised engineering, procurement, resourcing strategies and weather impact
Budget and cashflow	Review budget availability and contingency utilisation, financial impact of lockdown, outstanding and anticipated delayed client payments, ad-hoc vendor/contractor mobilisation advance requirements, enhanced costs of health and safety norms
Contracting	Explore deploying mutual risk and reward sharing contracting options (e.g.: integrated project delivery model (IPDM), revisit milestone versus running account billing contracting options to facilitate contractor cashflows
Governance	Revisit project management processes to remove inefficiencies, promptly identify and remove external stakeholder interface bottlenecks.

^{5.} DowntoEarth-COVID-19: Bihar farmers suffer labour crunch, despite govt guidelines, April 2020

3. Build resilience



Gathering learnings from the experience of the COVID-19 crisis to better insulate construction projects in the future. A three-pronged approach can be used to address this:

01



Enhancing labour health and safety norms

- Strengthen guidelines for the stay of labour at site and enhance labour training curriculums
- Stagger labour working hours between day and night shifts
- Use appropriate digital technologies to enable the timely detection and prevention of spread of illnesses (e.g. vison-based analytics, thermal imaging, digital fencing etc.)
- Supplement with stringent contract terms and ongoing monitoring.

02



Strengthening project governance

- Establish high-powered task force to expedite project approvals, settle arbitrations/disputes, land acquisition to prevent project delays
- Undertake capacity building by setting up of independent, empowered project monitoring units
- Need to establish a standard protocol to have an effective response mechanism during such scenarios for construction projects.

03



Leveraging business continuity planning

- Implement a business continuity plan including clear guidelines for critical project and organisation operations
- Provide digital enabled environment for remote working including online project monitoring, necessitate Building Information Modelling (BIM) etc.
- Institutionalise risk management process as an early warning indicator.

4. Strengthen contractual provisions



Post COVID-19, the construction sector could consider the introduction of new clauses in future contracts to set out clear guidelines for action and relief in extreme eventualities, and to minimise disputes that may arise at such a time.

Set out explicit relief provisions as a percentage of outstanding work with the caveat that main contractor passes similar percentage in all subcontracts

Possibilities of contractual relief to be passed on by the project authorities and project owners to the contractors, sub-contractors

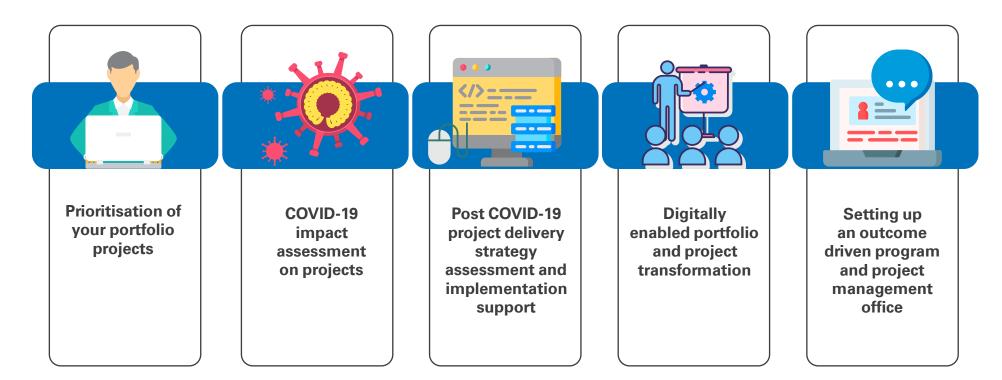
Clauses on minimum wage guarantee for labour during emergencies. Labour registration for adequate transfer of benefits and tracking of their deployment etc. during emergencies Setting out clear guidelines on facilities to be provided by contractor for workers, which need to be mandated by project owners in the contract

Stipulate uses of technology as a part of the contract to track workers' movement and health

Mandate Integrated Project Delivery Framework, which is a project delivery system based on a joint contract between the key stakeholders within a project and share mutual risks and rewards, with overall focus on successful project delivery.

How we can help?

KPMG in India, Major Projects Advisory team of professionals can assist project stakeholders on an immediate basis in the following areas, helping you make informed decisions and managing your projects effectively post COVID-19. Some areas we can help in include:



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