Reviving the construction sector in India post COVID-19

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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 approx. INR 61 trillion¹, are under various stages of development and implementation (approx. 19 trillion under development and 42 trillion under implementation stage), most of which would have been impacted by COVID-19

- India’s goal of becoming a USD5 trillion economy² rests on the completion of critical infrastructure under the National Infrastructure Plan

- It is critical to revival of the economy, as the Indian construction sector employs over 49 million people, close to 12 per cent of the nation’s working population³. Real estate itself is one of the largest employment generator and has a multiplier effect on around 250 allied industries⁴.

- There are several companies supporting laborers at sites with physical work progress on a standstill, this is adding to the stress in the value chain. 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.

- The current period until monsoon sets in for most parts of the country, is most productive and hence critical for construction sector

- Projected subdued demand in sectors such as real estate⁵, available surplus resources will require rapid re deployment to minimise incremental impact of COVID. Modular construction methods and upskilling will become increasingly relevant.

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2. Budget 2019: India to become $5 trillion economy in 5 years, February 2019
3. Wikipedia- Construction industry of India
4. 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
Planning a revival for the sector: What are the next steps?

**Dimension 01**
Prioritise projects

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

**Dimension 02**
Revisit 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 safeguard construction projects from future emergencies? Can they become anti-fragile?

**Dimension 04**
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:

<table>
<thead>
<tr>
<th>Ability to immediately kick start: Launch projects based on geographic spread and impact from COVID-19</th>
<th>Ability to generate immediate and sustained employment across value chain (labour, contractors, engineers, etc.)</th>
<th>Degree of immediate and incremental impact from COVID-19 (supply chain disruptions for construction materials such as Steel, Cement etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alignment of the project with strategic intent, national cause (e.g. Health care)</td>
<td>Ability to generate immediate, near term revenue</td>
<td>Immediate, mid and longer-term capital requirements</td>
</tr>
<tr>
<td>Dependencies: Analyse interlinkages with success of other projects</td>
<td>Status and impact of ongoing, potential litigations</td>
<td>Status of pending approvals, land acquisition, other ongoing issues</td>
</tr>
</tbody>
</table>
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:

### 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:

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<th>Discipline</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project definition</strong></td>
<td>Revisit strategic alignment of the project, plan phasing, de-scoping</td>
</tr>
<tr>
<td><strong>Engineering</strong></td>
<td>Optimise engineering, layouts with a focus on target value design</td>
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<tr>
<td><strong>Procurement</strong></td>
<td>Undertake procurement optimisation (alternate sourcing, re-packaging, re-bidding)</td>
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<tr>
<td><strong>Labour</strong></td>
<td>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</td>
</tr>
<tr>
<td><strong>Plant and Machinery</strong></td>
<td>Review availability and mobilisation of Plant &amp; Machinery and operators, serviceability of equipment due to disruptions</td>
</tr>
<tr>
<td><strong>Construction technology</strong></td>
<td>Explore off-site, modular construction technologies to optimize time and resources while enabling controlled working environment for labours</td>
</tr>
<tr>
<td><strong>Scheduling</strong></td>
<td>Review front availability on account of lockdown, re-draw schedule based on revised engineering, procurement, resourcing strategies and weather impact</td>
</tr>
<tr>
<td><strong>Budget and cashflow</strong></td>
<td>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</td>
</tr>
<tr>
<td><strong>Contracting</strong></td>
<td>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</td>
</tr>
<tr>
<td><strong>Governance</strong></td>
<td>Revisit project management processes to remove inefficiencies, promptly identify and remove external stakeholder interface bottlenecks.</td>
</tr>
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5. DowntoEarth-COVID-19: Bihar farmers suffer labour crunch, despite govt guidelines, April 2020

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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. vision-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.
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
- Setting out clear guidelines on facilities to be provided by contractor for workers, which need to be mandated by project owners in the contract
- Possibilities of contractual relief to be passed on by the project authorities and project owners to the contractors, sub-contractors
- Stipulate uses of technology as a part of the contract to track workers’ movement and health
- Clauses on minimum wage guarantee for labour during emergencies. Labour registration for adequate transfer of benefits and tracking of their deployment etc. during emergencies
- 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.
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:

- Prioritisation of your portfolio projects
- COVID-19 impact assessment on projects
- Post COVID-19 project delivery strategy assessment and implementation support
- Digitally enabled portfolio and project transformation
- Setting up an outcome driven program and project management office
Acknowledgement:

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