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**RICON** FOCUS



KOREA  
RESEARCH  
INSTITUTE FOR  
CONSTRUCTION  
POLICY

# COVID-19 Crisis and the Korean Construction Industry

## COVID-19, Chaos and Shock

### COVID-19 Pandemic

- COVID-19 has shut down the world in 3 months after its outbreak and brings uncertainty to the global economy
  - WHO announced that COVID-19 is a pandemic since the novel influenza (H1N1) outbreak 11 years ago
  - The number of confirmed cases in early infected countries such as China and Korea tends to decrease but rapidly increases mainly in Europe and the U.S.
  - The US Centers for Disease Control expects the infection would reach the peak during the 2 upcoming months and then gradually decrease
- COVID-19 at early stage was compared with SARS, MERS but the countries infected, the infections, and the death are widespread and powerful in comparison with major infectious diseases in the 21<sup>st</sup> century

〈Comparison with major infectious diseases in the 21<sup>st</sup> century〉

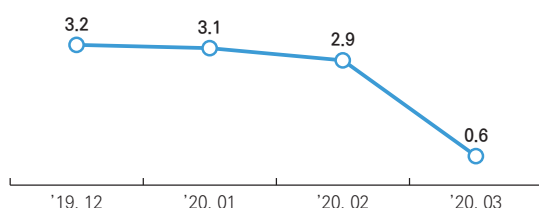
Category		SARS	MERS	COVID-19
Time of outbreak		Nov. 2002~Jul. 2003	Mar. 2015~Jul. 2015	Dec. 2019~
Country where outbreak took place		32 countries	25 countries	Worldwide
Infections (Death)	Global	8,096(774)	1,367(525)	2,023,423(133,444)
	Korea	4(0)	186(39)	10,613(229)

Note: COVID-19 infections and deaths are as of April 16, 2020  
 Source: WHO, Korea Center for Disease Control and Prevention, etc.

### Impacts on the World Economy

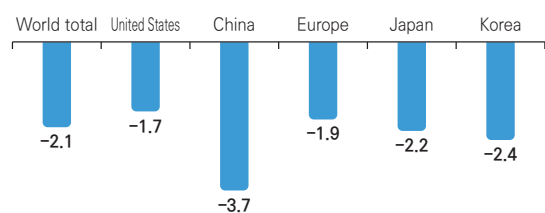
- The global spread of COVID-19 disrupts supply and demand networks. And the global economic growth rate has slowed down significantly as a matter of fact
  - The 181 countries all over the world placed direct and indirect restrictions on movement of human and materials
  - IMF warned that COVID-19 crisis may lead to economic recession at the level of a global financial crisis
  - Major investment banks(IB) also anticipated 'the worst recession during the shortest period of time' in the history of the global economy
- Due to the expansion of the negative effects of COVID-19, the global economic growth rate expected to be getting lower after March
  - These prospects are based on assumptions of the would-be recover at the 3rd quarter of this year. If the negative impacts get longer, hard to anticipate when to recover
  - Every country provides the support measures (financial and monetary) in response to the COVID-19 crisis to minimize economic recessions

〈Global economic growth rate forecasts by major IBs (average)〉



Source: International Finance Center (recited), Mar 26, 2020

〈Decreases of the global economic growth rate (World Bank)〉



Source: WORLD BANK, ECONOMIC UPDATE, Mar 30, 2020

## Impacts on Korean Economy

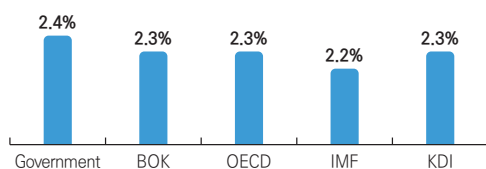
### Economic Growth Slow Down

- Early 2% of growth rate is hard to achieve
  - Since February, major institutions adjusted the growth rate downward to the 1% level
  - International credit rating institution (S&P) forecasted the negative growth of GDP such as at -0.6%
  - IMF expected Korea's GDP growth rate to be -1.2%, which adjusted by more than 3%p compared to the previous forecast
- The Korean government puts 140 trillion won against the COVID-19 and plans to inject more if necessary : 100 billion won for the public welfare and financial safety program, 32 billion won for the public economic program, 11.7 billion won by revised supplementary budget
  - Despite the government's financial supports, the growth rate is expected to fall due to sluggish consumption and investment.

### Forecasts by Scenarios

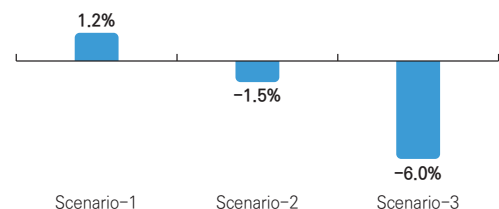
- The 2020 growth rate depends on the timeline of the end of COVID-19 crisis due to high dependence on the trade climate
- Scenario 1 → COVID-19 ends at 2<sup>nd</sup> quarter
  - Even with the contractions, but thanks to the expansive fiscal policy the 1% level of growth rate can be maintained
- Scenario 2 → COVID-19 ends at 3<sup>rd</sup> quarter
  - 1.5% negative rate is expected due to deterioration in all sectors of consumption, investment, export, etc.
- Scenario 3 → COVID-19 continues for the entire year of 2020
  - Worst growth rate of -6% as was in the IMF foreign exchange crisis of 1998
- RICON expects the COVID-19 crisis ends at 2<sup>nd</sup> quarter even under the uncertainty

〈Economic growth rate before COVID-19〉



Source: Concerned institutions

〈 Forecasts by scenario of COVID-19 development 〉



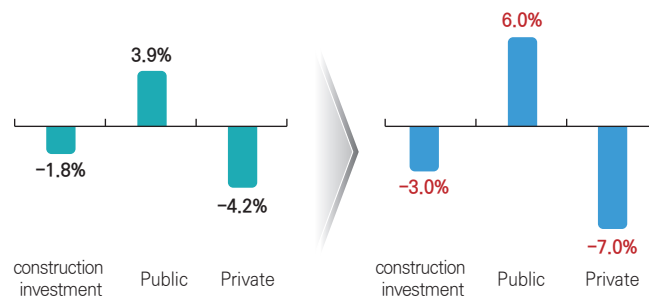
Source: RICON

## Hard Times of Construction Industry

### Reduction of Construction Investment

- Increased economic uncertainty due to COVID-19 crisis reduces the construction investment with a wide variability
  - The construction investment decreased more than expected at times of severe recessions such as the IMF foreign exchange crisis and the Global financial crisis
- Construction investment is expected to decrease more than the RICON forecast (-1.8% ⇒ -3.0%)
  - Public construction investment is planned to expand against the economic recession, while the private investments decreases.
  - If COVID-19 crisis does not end at the 2nd half of 2020, further decline in construction investment is likely
  - Major construction business cycle indicators also turned to be negative. The construction completed ratio in February decreased by 3.4%, and the number of employed by 10 thousand people
  - If COVID-19 crisis would be concentrated at the 2nd quarter or later due to time lag, the difficulties of construction companies would be doubled

〈Revised construction investment forecast of 2020〉

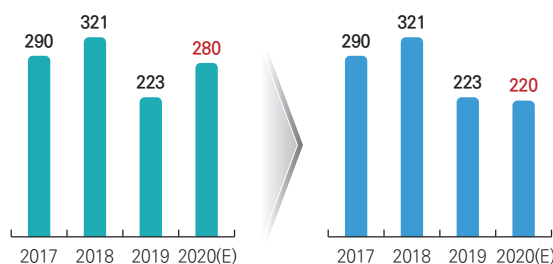


Source: RICON

### Decrease in Overseas Construction Contracts

- Negative effects of COVID-19 crisis appear to be more intense in overseas construction contracts (**28 bil. USD ⇒ 22 bil. USD**)
  - The delays and cancellation of overseas construction contracts are likely to occur in the Middle East and Asian regions.
  - Especially in the Middle East, which is major, the order decreased due to a drop in oil prices
  - Overseas contracts order improved to approach 10 bil. USD up to February, but its reduction is very likely after the 2<sup>nd</sup> half

〈Revised forecasts of overseas construction contracts as of 2020〉



Source: RICON

## Risk to Construction Industry

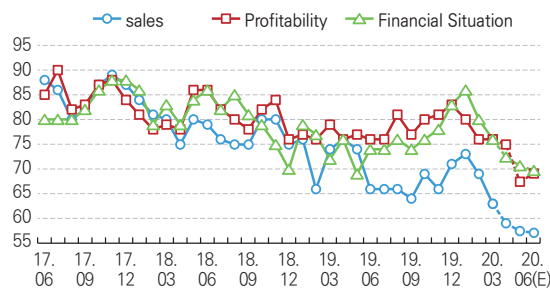
### Delayed Construction and Rising Cost

- The construction is suspended due to the confirmed and suspected cases of COVID-19
  - On March 11, 2020, a total of 15 COVID-19 confirmed cases occurred at 7 construction sites, and the construction was suspended at 30 construction sites
  - Upon suspension of construction, the tangible and intangible damage occurred such as costs of site management and preservation, and additional indirect cost because of extended construction period
- The impacts on the demand and supply of labor, materials and equipments give more pressure on the construction period and cost rise
  - 181 countries and regions banned the entry of Koreans (Mar. 31, 2020) and they limited their citizens' entry into Korea
  - The shortage of the substitutes of foreign labor force occurred at the framing constructions due to restrictions on arrival and departure of each country
  - Materials with high import dependency such as plywood, tile, toilet bowl, stone, etc. suffered from supply shortage due to trade reductions
- The multiple and simultaneous constructions after COVID-19 shall face the higher cost due to sharp increase in demands
  - The early execution of SOC and revised supplementary budget shall increase the new construction, which will raise the cost in the short run
  - The private constructions, of which the extension of construction period is impossible, will need more factors to compensate for the delayed completion
- Overseas construction projects are also in danger of delayed construction, shortage of materials and higher cost
  - Replacement of domestic manpowers is not possible and the substitute supply of foreign labor forces is hard as found in Korea
  - The delayed provision of materials such as Chinese steel bar and the shortages of masks and disinfectants makes it difficult to proceed with the constructions
- Disputes between construction companies and ordering bodies are likely due to delay and cost changes at both domestic and overseas constructions
  - Problems : uncertainty of the applicable scope of “epidemics as force majeure” according to domestic public contract law and regulations
  - According to the FIDIC (Red Book, 1999), epidemics are not defined as a force majeure events. Overseas ordering bodies will not accept the construction delays

## Financial Risks of Construction Companies

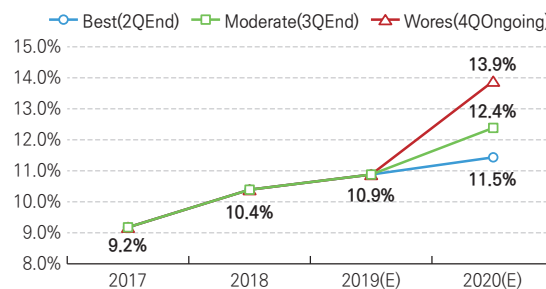
- Overseas risks for the large companies and liquidity risks for the SMEs are expected
  - Debt ratio of listed construction companies is 149%(2018) and the strained liquidity from cost rises would worsen the financial status
  - Large companies highly dependent on overseas construction face the cost turmoils which stem from the gap between delayed supply and demand for manpower/materials
  - SMEs focusing on domestic projects will suffer from low profitability due to construction recession and delays
- Increase of marginal company anticipated due to high debt ratio of large companies
  - For large companies engaged in overseas or large scale constructions, the increase of debt is anticipated due to worse profitability and short term loans for working capital
  - After the 2nd quarter, private construction investment is expected to decrease, and the large companies will face the less contracts ever
- The SMEs with funding difficulty will face the shortage of short term loans
  - SMEs face higher interest rate and lower credit line compared to large corporations, and face difficulty in getting the sufficient fund as needed
  - Demand for loans will sharply increase and the security of liquidity is an urgent issue for the SMEs
- According to the Bank of Korea survey, the recent BSI of construction industry has been falling sharply
  - And the outlook is getting worse
  - COVID-19 puts the strong negative impacts on corporate sentiment
- Due to increased financial risks of construction companies, marginal firms are expected to increase from 10.4% in 2018 to 11.5~13.9% in 2020
  - It is necessary to provide financial supporting measures to construction companies

〈Business indicators of construction industry during recent 3 years and outlook for the 1<sup>st</sup> half〉



Source: Bank of Korea, Corporate Business Survey

〈Marginal firms in construction industry and outlooks by scenario〉



Source: RICON

## Countermeasures : Construction Industry

### Government’s Supporting Measures for Construction Industry

- The government announced the supporting measures for construction industry facing difficulty in management due to COVID-19
  - Main issues are of “COVID-19 infection prevention rules” and “adjustment rules for changes in cost and schedule of constructions”





〈Government’s Supporting Measures for solving the COVID-19 Crisis〉

Ministry of the Land, Infrastructure and Transport	<ul style="list-style-type: none"> <li>- Establish dedicated system and set up response plan, and strictly observe the prevention rules for COVID-19 infection</li> <li>- Measures in case of suspected and confirmed cases of COVID-19 : individual guidelines of construction / suspension, delay and contracted price</li> <li>- For private constructions, recommend work adjustment and suspension action under autonomous decision</li> <li>- Implement the emergency special loan(interest at around 1.5%) and less guarantee fee, etc. of the Cooperatives (Construction Guarantee Cooperative and Korea Specialty Contractor Financial Cooperative)</li> </ul>
Ministry of Economy and Finance	<ul style="list-style-type: none"> <li>- In fulfillment &amp; management of contracts, the public ordering institutions shall follow the obligations of entrepreneur according to related laws and regulations</li> <li>- For any contracts on which construction suspension is not applied, both the exemption of compensation of deferment in case of delay and contract amount adjustment are possible in case of construction period setbacks</li> </ul>
Ministry of the Interior and Safety	<ul style="list-style-type: none"> <li>- Local governments and Education Offices implement contract period extension and increase the contracted price with SMEs</li> <li>- In case of new contracts for prevention, the exemption on contract qualification and private contracting are allowed</li> <li>- For some industries, the reporting and payment period for acquisition tax, municipal income tax, resident tax on employees and exemption of local taxes are applied</li> </ul>
Korea Land & Housing Corporation	<ul style="list-style-type: none"> <li>- Local governments and Education Offices implement contract period extension and increase the contracted price with SMEs</li> <li>- In case of new contracts for prevention, the exemption on contract qualification and private contracting are allowed</li> <li>- For some industries, the reporting and payment period for acquisition tax, municipal income tax, resident tax on employees and exemption of local taxes are applied</li> </ul>

Source: Announcements and press releases of institutions

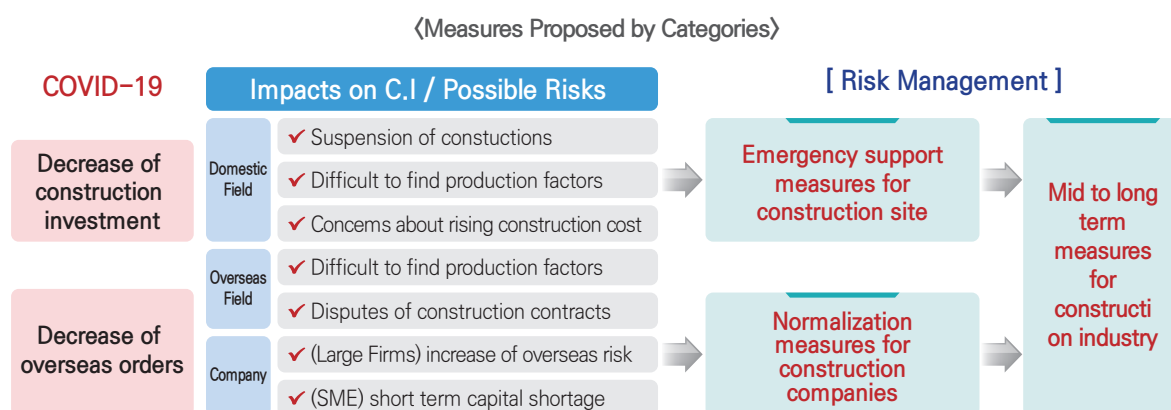
### Measures of Major Countries

- Major countries have similar measures for suspension of constructions and related issues

	<ul style="list-style-type: none"> <li>- In 4 states including New York, all activities including construction are suspended</li> <li>- In Cambridge and Boston, all construction sites are suspended</li> <li>- As of Apr. 2 in the US, delay occurred in 2,110 sites (US Construction Association)</li> <li>- US Small Business Administration provides a maximum of \$2 million loans(with low interest rate) to small businesses and non-profit organizations that incurred damages</li> <li>- President Trump pursues \$2 trillion scale infrastructure investment package from the aspect of 'COVID-19 new deal' (Apr. 1)</li> </ul>
	<ul style="list-style-type: none"> <li>- On Mar. 23, UK government announced lockdown (construction sites excluded)</li> <li>- From Mar. 20 to Jun. 30, VAT payment postponed to all UK businesses including construction companies</li> <li>- The Cabinet announced Procurement Policy on public procurement, including early payment by public project sponsors to the possible maximum, advance payment of 25% of contract amount, revision of contract provisions upon request from construction companies, etc.</li> </ul>
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	<ul style="list-style-type: none"> <li>- On Feb. 27, the guideline was announced to allow the temporary suspension to any contract winner at the construction site under direct supervision by the Ministry of the Land, Infrastructure Transport and Tourism for preventive purpose and to proceed with extension of construction cost and period</li> <li>- Construction industry promotion fund supports SMEs' by lending operating capital using the subcontracting safety net debt guarantee business and the management reinforcement lending system for regional construction industry</li> </ul>

## Recommendations for the Construction Industry

- COVID-19 crisis shall be the bottleneck to businesses such as reduction in both domestic construction investment and overseas contracts and less operating capitals
  - RICON proposes the countermeasures against risks in separate categories of site, company and industry



### Emergency Support Measures on Construction Sites

- **Early payment of construction completed in public projects → provisions of exception of the Enforcement Decree of National Contract Law**
  - Delayed payment of construction completed due to the difference between the completion ratio and the expected progress ratio
  - Early execution of payment of construction completed by applying the exception provisions such as ‘in consideration of performance prospect and period, etc.’ in the Enforcement Decree
  - Additionally, shortening of inspection period for execution of payment of construction completed
- **Expand the scope of the industrial safety and health expenses → Disinfection and quarantine cost are included in the industrial safety and health management expenses**
  - Expand the scope of the industrial safety and health management expenses and prepare the active guidelines
- **Clarification of related regulations to allow extension of construction period and contract adjustment → Revise the National Contract Law and Municipal Contract Law**
  - National Contract Law includes the epidemics as cause of contract adjustment (force majeure event), but there is lack of definition and detailed adjustment method, etc.
  - It is necessary to stipulate the related measures by connecting the causes of contract adjustment to the disaster rating rather than types of epidemics
- **Limited relaxation on reduction of labor hours → Improvement in labor demand and supply, together with compensating the reduced income**
  - Due to expected increase on labor demand after COVID-19 crisis, limited relaxation on reduction of labor hours is required



- **Administrative support on demand and supply of materials and manpower → Facilitating measures on demand and supply of manpower, equipment and materials supported in preparation of prolonged COVID-19 crisis**
  - Simplification of the custom clearance procedures on imported equipments and materials from China, Europe, etc. (applying fast track) and temporary relaxation of administrative regulations
  - Manpower demand and supply support such as expansion of the foreign manpower quota (E-9, H-2) and the change of visa type

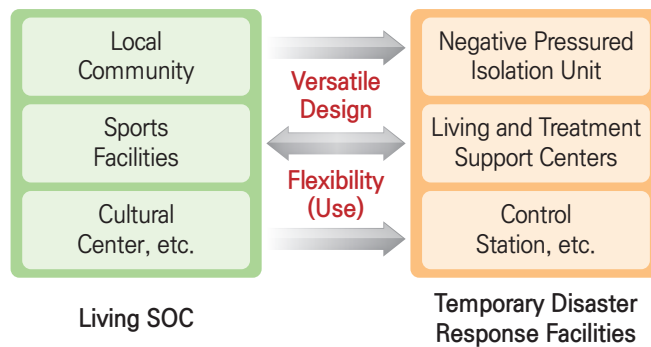
## Normalization Measures on Construction Companies

- **Provide public support fund → Secure liquidity status and expand financial support**
  - Current special loan by the Cooperatives (general contractors: 50 mil. won <Construction Guarantee Cooperative>, specialty contractors: 20 mil. won <Korea Specialty Contractor Financial Cooperative>) is less effective with its small limit
  - Vitalize the construction receivables insurance (0.1% of support for construction industry) and expand the insurance support to other areas (limited to Daegu/Gyeongbuk Province)
  - Expand the bridge loan applied to the public sector and large scale projects to the private sector and small projects
  - Lessen the screening procedures of public financial institution and share the screening with the Cooperatives for accessibility of companies
- **Expand Tax support → Lessen the worsening profitability by tax deferment and exemption**
  - Temporary deferment of residence tax(workshop tax) on employees prevents the restructuring of construction manpowers and can lessen the deterioration of profitability
  - Promote the deferment or exemption of taxes on financial transactions (guarantee and loan) and assets (materials, facilities) transfer price tax
- **Implement the construction welfare program with physical support → ‘Building Welfare Consumption Coupon’ provided for the self-employed in the changes in business field and interior decorations**
  - Building Repair and Remodeling Coupon for the self-employed and small firms hit hard by COVID-19
  - Support to building safety reinforcement (fire, firefighting, etc), housing repair (waterproofing, painting, windows and doors, etc.), shop/office interior work, etc.
- **Reevaluate the proper cost on public projects → Public action to the SMEs for recovery of local economy and creation of jobs for ordinary people is needed**
  - The temporary adjustment of private contracts to below 200 million won and early execution of small scale constructions
  - The temporary rise of the lowest bid limit : lowest limit on public construction not exceeding 10 billion won (rise by 10%p)
  - New measure of the contingency system for mid and small scale public constructions
- **Preemptive investment in safety infrastructure → Secure both normalization and safety by increasing the SOC investment focused on safety**
  - Implement the early execution of 13 trillion won investment for the golden time in sustainable infrastructure management
  - The revised supplementary budget for recovery of the SME construction companies in the regions affected by COVID-19 and the increase of 2021 SOC budget

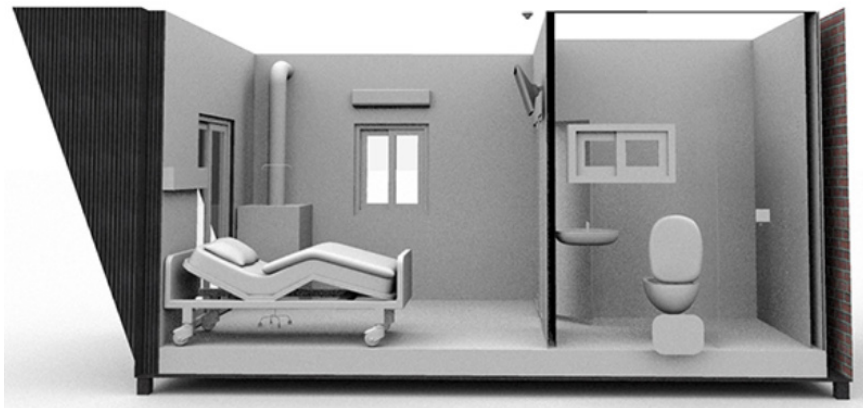
## Mid and Long Term Measures for the Construction Industry

- Establish the emergency system → Strengthen the counter-system of sites to epidemics, climate changes and disasters
  - Crisis management manual must be developed and distributed in the public constructions by unusual cases, scenarios and partners (ordering body, construction companies)
  - Provide incentives (points in selection of bid winner) to entities that actively participate in site crisis response training
  - Provide incentives (disaster management fund injection) to entities that contributed to development and distribution of private site crisis management manual
- Establish emergency procurement system for disaster response facilities → Systems by the locals and bases by utilizing the existing “Living SOC”
  - Provide budget for disaster response facilities : negative pressured isolation unit by using mobile modular, life treatment centers, etc.

〈Utilization of existing Living SOC〉



〈Disaster facility using mobile modular〉



Source: SY Group(주) <<http://www.syworld.kr/>>

- • **Establish the system for construction implementation and production factor supply → Foster the construction workers and organize the supply chain of construction materials**
  - Enhance the site operation by job training through customized apprentice education and operate the dual-tier between job seeker(fostered) and incumbent(enhanced)
  - Enhancing the education & training of engineers using employment insurance funds (Raise training allowance & training subsidy : currently 16,000 won per day)
  - Diversification of the supply network on materials of which the imports are concentrated on a specific country (China, etc.) (steel bar, plywood, tile, stone, etc.)

〈Construction production method and technology to minimize manpower〉



Source: Introduction to Kattera Factory

- • **Propose the revision of international standard contract condition to FIDIC → “Force majeure event” includes epidemics such as COVID-19**
  - Article 19 of FIDIC(Red Book, 1999) fails to stipulate the epidemics such as COVID-19 as an example of force majeure event
  - Any case of disruption in construction performance due to epidemics – upon WHO’s announcement of Pandemic – shall be stipulated as an example of force majeure
  - The occurrence of force majeure event shall be notified to the ordering bodies of overseas construction sites within 14 days and efforts shall be made to minimize the delay of contract fulfillment

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