

# NEWSLETTER



Volume VII – June 2018

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## Message from the Director General

My dear colleagues:

It is a pleasure to present to you the "Asian Council on Contracting & Construction" newsletter, volume VII of 2018. This publication is a compendium of relevant news, reports, and analyses on recent developments in the contracting and construction business in Asia Pacific countries.

The articles contained in this issue show that infrastructure projects in Central Asia, energy projects in Russia and Pakistan, and construction business in Cambodia, are booming. To confirm the strength of the growth, demand for construction workers in New Zealand and Hong Kong is strong.

The infrastructure boom is indeed happening and the situation is dynamic. Construction projects are sustaining economic growth.

We hope that this newsletter helps you appreciate the importance of contracting and construction in the national economy. Enjoy your reading!

**Ernest Lin**  
**Director General**  
**CACCI**

## Building materials market maintains stability

Vietnam News, 28 May 2018



*The country's ceramic tile production stood at 257 million sq.m, up 9% against the same period in 2017, while porcelain construction production reached 5.3 million products, an increase of 10%. - Photo bauxaydung.com.vn*

HANOI - The domestic building materials market has remained stable and is growing well in the first months of 2018, meeting consumer demand, the Ministry of Construction (MoC) said.

The MoC said total cement consumption nationwide reached about 29.83 million tonnes by mid-second quarter of 2018, a year-on-year increase of 13%. The production of building glass products was estimated at 105 million sq.m, up 9% compared to the same period last year.

The country's ceramic tile production stood at 257 million sq.m, up 9% against the same period in 2017, while porcelain construction production reached 5.3 million products, an increase of 10%. Nationwide production of

unleaded bricks was estimated at 2.45 billion units, up 11%.

The MoC is currently completing the master plan for the exploration, exploitation, and use of minerals as primary building materials by 2025, with an outlook through 2035. The master plan will be submitted to the Prime Minister by the end of the second quarter of 2018.

In the immediate future, the MoC will boost the handling and use of ash in high-power plants and chemical plants, and fertilisers as raw materials for construction materials and construction work, as stated in a Prime Minister's decision issued last year.

<http://vietnamnews.vn/economy/448756/building-materials-market-maintains-stability.html#LVMRhX1PFEioAIW5.97>

## Construction begins on US\$5.4 Bln petrochemical project

Vietnam Business Forum, 26 February 2018

HANOI - The Long Son petrochemical complex, jointly invested by the Thailand's SCG Group and Viet Nam Oil and Gas Group (PVN), is located on the area of 464 ha on land and 194 ha on waters with the total investment of US\$3.77 billion and could be increased to US\$5.4 billion.

Once completed, it will be one of the largest of its kind in Viet Nam, with a production capacity of 1.6 million tons of olefins per year.



*PM Nguyen Xuan Phuc on February 24 attended the groundbreaking ceremony of US\$4.5 billion Long Son petrochemical complex in Vung Tau City of the southern province of Ba Ria-Vung Tau*

It is also designed to produce all kinds of petrochemical products, including necessary materials for plastics with the capacity of more than 2 million tons per year.

The project is expected to come into operation by 2022, creating around 20,000 jobs during the construction process.

Speaking at the groundbreaking ceremony, the PM urged the investors to ensure the project progress and apply advanced technologies for the project while strictly following Viet Nam's regulations on environmental and social protection as well as labor safety.

He also asked ministries, agencies, the PVN and Ba Ria-Vung Tau authorities to facilitate the implementation of the project-a symbol of the Viet Nam-Thailand Strategic Partnership.

SCG Group President and CEO Roongrote Rangsiyopash expressed his belief the project will help further stimulate the ongoing remarkable economic growth of Viet Nam.

He also expected the project will help encourage long-term investment in related industries in order to improve the competitiveness of the products and reduce import of petrochemical products.

Investor representatives committed to strictly obeying international regulations on safety, environmental friendliness and sustainable development throughout construction and operation.

[http://vccinews.com/news\\_detail.asp?news\\_id=35575](http://vccinews.com/news_detail.asp?news_id=35575)

## Turkish construction giant Rönesans signs 4 deals in Russia including key gas processing plant

Daily Sabah, Anadolu Agency, 26 May 2018



*This file photo shows the liquefied natural gas (LNG) facility project undertaken by Rönesans Holding in northern Russia's Yamal Peninsula. (Sabah Photo)*

ST. PETERSBURG - One of Turkey's largest conglomerates, Rönesans Holding, has signed four agreements in Russia, the Turkish holding announced.

The holding company signed agreements for projects of the Amur Gas Processing Plant, Sberbank, Administrative Divisions of Moscow and Trams in St. Petersburg under the scope of the St. Petersburg International Economic Forum (SPIEF), it said in a press release.

The 1.3-billion-euro (\$1.52 billion) agreement with an Italian engineering and construction company Maire Tecnimont includes Russian energy giant Gazprom's Amur Gas Processing Plant's building works, which will be completed by 2023.

"We undertook with this agreement Gazprom's largest gas processing plant in Russia," Alptekin Tizer, president of the Rönesans Heavy Industries, said.

He said the plant would have 42-billion-cubic-meter production capacity and it will process Yakutia and Irkutsk's gas. The plant will carry Russia's gas to China and it will support Amur and East Siberia regions' social, economic and industrial development.

Another agreement -- Memorandum of Understanding -- for building the Yuniy transfer station, Yujnaya subway station and Kolpino tramway project investment cost will be planned for 20 billion rubles (some \$321 million), the press release said.

The agreement with the Administrative Divisions of Moscow includes projects in medical services, offices and hotel complexes, and investment appeals. Meanwhile, Sberbank and the Rönesans Holding signed an agreement to cooperate in several areas such as investment banking and financing activities.

The holding -- established in 1993 -- operates in over 20 countries, including Russia, Germany, Switzerland, Qatar, Finland, Belgium, Gabon and Japan.

<https://www.dailysabah.com/energy/2018/05/26/turkish-construction-giant-ronesans-signs-4-deals-in-russia-including-key-gas-processing-plant>

## Reports: Pakistan pushes through accelerated plan for TAPI

Eusasianet, 2 May 2018



*Media in Pakistan claim deliveries of gas through the TAPI pipeline could begin by 2019. (Photo: Turkmenistan presidential administration).*

KARACHI - Depending on whom you believe, the TAPI (Turkmenistan, Afghanistan, Pakistan, India) pipeline is either going to be built super-fast or not at all.

Work on the pipeline — named after the initials of the four participating countries, Turkmenistan, Afghanistan, Pakistan and India — entered a crucial phase of construction earlier this year, but skeptics insist the project faces too many hurdles to be feasible.

Karachi-based newspaper Express Tribune is now reporting that participants of the project have now green-lit a sped-up plan to make sure gas is flowing by 2019. All the gas is being sourced from Turkmenistan's Galkynysh mega-field.

"[The] steering committee of the TAPI pipeline project has approved a plan in this regard," said an unnamed official cited by the Pakistani newspaper on May 1.

According to the official, the revised construction plan proposed by Pakistan envisions laying down the pipeline without installing compressor stations. In fact, late 2019 had previously been floated by Turkmenistan as a potential target launch date, although the Express Tribune report suggests the new plan brings the date forward from 2020. As the Karachi newspaper's source notes, however, the technical shortcuts required by the revised timetable mean that only one-third of the route's 33-billion-cubic-meter capacity would initially be utilized.

Another detail revealed by Express Tribune's source is that the project has been divvied up into nine separate sections and that different companies are to be awarded contracts on the various sections to ensure quick implementation.

The apparent haste motivating this change of plan will be music to the ears of Turkmenistan, which is desperate to find new markets for its gas.

Officials in Iran are busy trying to dampen enthusiasm for TAPI, however, and proposing entirely alternative arrangements for getting Turkmen gas to the South Asian market.

"It is unlikely that the Turkmen gas pipeline to Pakistan will be constructed," Hamidreza Araqi, the managing director of National Iranian Gas Company, or NIGC, told Fars news agency.

Araqi, who seems to be warming to his Cassandra role over the TAPI saga, is instead proposing another swap-based alternative. That would require Tehran taking gas from Turkmenistan and then selling an equivalent amount of its own reserves to Pakistan. Turkmenistan has two pipelines joining it to Iran — Korpedzhe-Kurt Kui and Dauletabad-Sarakhs-Khangiran — with a combined capacity to carry around 20 billion cubic meters of gas annually.

"We have announced our readiness to Turkmenistan that we are ready to export their gas to Pakistan, but have not yet received any response from them," said Araqi.

Quite how Iran would get its gas to Pakistan is not explained by Araqi. Tehran has latterly resumed pushing for the revival of a long-stalled plan to build an Iran-Pakistan pipeline with a capacity for 40 billion cubic meters (a figure that has varied through the years). This initiative is strongly resisted by rivals like Saudi Arabia and Iran's ultimate archenemy, the United States.

It is anybody's guess how far Iran will go to stymie TAPI. Some in Afghanistan have alleged that it would even resort to violent means to derail the project, although it is never easy to know quite how much credence to lend such claims. The Taliban in February surprised many by pledging their support for TAPI, insisting that it was an "important element of the country's economic infrastructure." The would-be Islamic Emirate's record of concern for the fate of infrastructure is patchy, to say the least, so it is probably not too bold to speculate that this is a thinly disguised shakedown.

Indeed, providing security, by whatever means, is an expensive business, and the revised Pakistan plan on TAPI does not appear to address this awkward point in the slightest. Nine construction tenders means negotiating with all those different companies and their assorted financial requirements and timetables. Nobody is really certain how much this whole enterprise is going to cost, although the round figure of \$10 billion is the one being thrown about most



these days. More than eight-tenths of that cash is supposed to be raised by Turkmenistan, whose government is haplessly failing to cope with an economic meltdown.

There is another TAPI outcome that lies somewhere between soon and never, as detailed in a very underreported timeframe that emerged in February, when the state-run Afghan Gas Enterprise signed an engineering design deal with Austria-based ILF Consulting Engineers. (ILF Consulting Engineers is an industry player well experienced in the region and has advised extensively on the various strands of the Turkmenistan-China pipeline network.)

According to an Afghan presidential administration press release on that deal, Mines Minister Ghezal Habibyar said that between signing agreements, designing the project, conducting social and environmental studies, de-mining, undertaking a survey of the pipeline's route, expropriation and practical work, the whole operation could take up to four years. Going by those remarks, a more realistic date for total completion would be 2022.

<https://eurasianet.org/s/reports-pakistan-pushes-through-accelerated-plan-for-tapi>

## Tajikistan calls on EBRD to participate in construction of Roghun hydropower plant

Asia Plus, 26 April 2018



DUSHANBE - Tajikistan has called on the European Bank for Reconstruction and Development Bank (EBRD) to participate in construction of the Roghun hydroelectric power plant (HPP). The call has reportedly been made during a meeting of Mr. Jamoliddin Nouraliyev, First Deputy Head of the National Bank of Tajikistan (NBT), with Mr. Jürgen Rigterink, First Vice-President of the EBRD.

The meeting took place in Washington on the sidelines of the Spring Meetings of the Boards of Governors of the International Monetary Fund (IMF) and the World Bank Group (WBG).

Mr. Jamoliddin Nouraliyev as well as Tajik Finance Minister Faiziddin Qahhorzoda and NBT head Jamshed Nurmahmadzoda participated in that meeting that took place on April 16-22.

During a meeting with Mr. Rigterink, Jamoliddin Nouraliyev noted that implementation of projects in the energy sector is one of priorities of Tajikistan's economy and proposed to expand cooperation in that direction, calling on the EBRD to participate in construction of the Roghun HPP, according to the NBT press center.

Tajikistan stemmed the flow of the Vakhsh River for construction of the Roghun HPP in late October 2016. Explosions were used on October 29, 2016 to block the main riverbed of the

Vakhsh River, marking the first substantial step toward building the dam. The work on the Vakhsh River has not affected existing hydroelectric facilities downstream.

Roghun HPP is an embankment dam in the preliminary stages of construction on the Vakhsh River in southern Tajikistan. It is one of the planned hydroelectric power plants of Vakhsh Cascade.

The Roghun HPP was first proposed in 1959 and a technical scheme was developed by 1965. Construction began in 1976 but the project was frozen after the collapse of the Soviet Union.



*President Rahmon and Salini Impregilo CEO hold talks in Dushanbe to discuss cooperation*

An agreement on finishing the construction was signed between Tajikistan and Russia in 1994; however, as the agreement was not implemented, it was denounced by Tajikistan parliament.

In October 2004, Tajikistan signed an agreement with Russia's RusAl aluminum company, according to which RusAl agreed to complete the Roghun facility and rebuild the Tursunzoda aluminum smelter. In August 2007, Tajikistan revoked a contract with RusAl, accusing it of failing to fulfill the contract.

In April 2008, Tajikistan founded OJSC NBO Roghun with an authorized capital of 116 million somoni for completing the construction of the Roghun HPP. Current authorized capital of OJSC NBO Roghun reportedly amounts to more than 12 billion somoni.

To raise funds to complete construction of the Roghun HPP the government started to sell shares in Roghun to people on January 6, 2010. Tajikistan has reportedly issued 6 billion somoni worth of Roghun shares. The sale of Roghun shares has reportedly earned the government 980 million somoni.

In response to the request of the bordering countries and especially Uzbekistan, the World Bank has financed the Techno-Economic Assessment Study (TEAS) conducted by consortium of Coyne et Bellier, Electroconsult and IPA Energy + Water Economics, and Environmental and Social Impact Assessment (ESIA) conducted by Poyry. The ESIA was published on June 16, 2014 and the TEAS in July 2014. Overall, the ESIA stated that “Most impacts are rather small and easily mitigated, if mitigation is required at all.” and that “There is no impact of the category “strong negative, mitigation not possible,” which would have to be considered as a no-go for the project.”

In 2016, construction duties on Roghun were assigned to Italian company Salini Impregilo. It is estimated that the project will cost \$3.9 billion to complete.

The project is broken down into four components, with the most expensive one involving the building of a 335-meter-high rockfill dam — the tallest in the world — which will entail costs of around \$1.95 billion.

If built as planned, the dam will be the tallest in the world at 335 meters and have a capacity of 3600 MW. Tajik President Emomali Rahmon on January 31 received Mr. Pietro Salini, Chief Executive Officer (CEO) of Salini Impregilo.

After a meeting with the Tajik head of state, Mr. Pietro Salini told reporters that he promised Emomali Rahmon to introduce the first unit of the Roghun HPP into operation on November 16, 2018.

<http://www.asiaplus.tj/en/news/tajikistan/economic/20180426/tajikistan-calls-on-ebd-to-participate-in-construction-of-roghun-hydropower-plant>

## **Andrew Tan's Skytrain project set to start construction this year**

**The Philippine Star, Iris Gonzales, 29 May 2018**

MANILA - Infracorp Development Inc., the upstart infrastructure company of tycoon Andrew Tan's Alliance Global Group Inc. (AGI), is ready to begin the construction of its proposed P3-billion two-kilometer Skytrain monorail project this year after the Department of Transportation (DOTr) granted it original proponent status (OPS).

Infracorp president Kevin Tan said it would take the company two years to complete the project.

"We can start the project before the year ends and this will take us two years to complete it. By early 2021, we can open the Skytrain to the public," he said.

The AGI infrastructure unit submitted the unsolicited proposal to the government last year. In its proposal, Infracorp offered to build the Skytrain and transfer its ownership to the government, with Infracorp having the sole right to operate the Skytrain.

The Skytrain monorail project will utilize the automated cable-propelled monorail technology and promises to reduce travel time from Fort Bonifacio to MRT Guadalupe Makati and vice versa to only five minutes – at no cost to the government.

Furthermore, in its proposal, Infracorp said the project would also make provisions to interconnect with other transport hubs operating within the area where the monorail passes through. It envisions to benefit around 60,000 to 100,000 passengers daily going to and from the bustling business districts of Makati and Taguig.

More importantly, Tan said the project would connect Makati to Taguig and vice versa.

"These two largest business districts in the country need an efficient and fast transport system that is at par with what the other business districts in cosmopolitan cities like Tokyo and Sydney have," he said.

With the DOTr's endorsement of the project, the proposal would now go through a review by the National Economic and Development Authority – Investment Coordination Committee.



AGI, one of the country's biggest conglomerates, formed Infracorp last year, marking its entry into infrastructure projects, particularly to participate in the government's private-public partnership (PPP) projects.

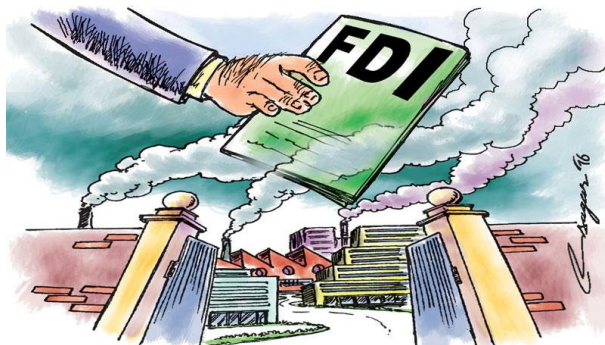
The company is also part of the NAIA Consortium that submitted a proposal to rehabilitate and expand the Ninoy Aquino International Airport, along with some of the country's largest conglomerates.

Moving forward, Tan said the company is looking into other potential infrastructure projects, particularly on transport solutions, in several business districts around Metro Manila and in key growth areas around the country.

<https://www.philstar.com/business/2018/05/29/1819474/andrew-tans-skytrain-project-set-start-construction-year>

## 9MFY18: China invests \$1.4b in Pakistan's power, construction sectors

Daily Times, Abrar Hamza, 18 April 2018



KARACHI - Foreign Direct investment (FDI) in Pakistan grew marginally by 4.4% in first nine months of the current fiscal to \$2.00 billion as compared to \$ 2.09 billion invested during the same period of the previous fiscal year, State Bank of Pakistan (SBP) data shows.

China emerged as the single largest foreign investor in Pakistan with total investment of \$1.44 billion made during the nine months of Fiscal year 2017-18 (FY18), up from \$833

million invested during the same period of last fiscal year.

FDI from China mainly arrived in the power and construction sectors. Besides power and construction, firms in exploration and production (E&P) and financial sector also attracted FDI, though their quantum remained relatively moderate.

The contribution of United States of America (USA) in FDI was second biggest to the tune of \$ 614.4 million which is far higher than the investment of \$37.5 million made during the same period of last fiscal year nine months of FY17.

Other major contributors to the FDI were United Kingdom (UK) with \$142 million FDI in Pakistan, Malaysia with \$122.4 million FDI, Switzerland with \$63.4 4million, Singapore with \$25.7 million, Sweden with \$19 million, and Turkey with \$18 million in July- March period of FY18.

The SBP said nonetheless, the stagnation in FDI calls for a more concerted policy effort. Though improved power supply and law and order situation have provided some comfort to the

business community, a lot remains to be done to advance the business friendly image of Pakistan among foreign investors.

In March 2018, FDI fell by 48% to \$ 152.7 million, from \$ 318.3 million recorded a year ago in same month, according to the latest data released by the Central Bank. The SBP's data on FDI showed that portfolio investment recorded impressive 73.1% growth in first nine months of FY18 to negative \$ 93.3 million from negative \$ 346.3 million in same period of FY17.

During the period under review, the communication sector witnessed significant outflow in the tune of \$183.6 million while foreign telecommunication companies pocketed \$162.5 million from Pakistan in nine months of current fiscal.

Power sector remained the main attraction of foreign investors in the Pakistan during the period under review as sector attracted major chunk of investment which is evident from the inflows of foreign investment of \$712.4 million while sub-sectors of the power group including hydel power generation, thermal power generation and coal based power plants attracted \$109.2 million FDI, \$16.9 million and \$586.3 million FDI respectively.

Due to rapid infrastructure development in Pakistan under CPEC related projects, the other prominent sector to attract foreign investment was construction which received \$ 525.4 million.

The communication sector lost 38.8 million FDI million during nine months of FY18 while financial businesses attracted \$255.5 million during the same period. Trade received \$72.3 million of which transport equipment received \$62.7 million.

<https://dailytimes.com.pk/229360/9mfy18-china-invests-1-4b-in-pakistans-power-construction-sectors/>

## Housing construction in Australia on a high

Herald Sun, Sophie Foster, 7 December 2017



*House building is seeing sustained strength in customer demand. Picture: Jodie Richter.*

SYDNEY – A strong rise in new orders saw house building hit its highest pace of growth in four months, with the sector's sub-index up by 8.2 points to 61.3pts, the latest construction index has found.

The Australian Industry Group/Housing Industry Association Performance of Construction Index - which increased 4.3 pts to 57.5pts in November - found ongoing strength in house building activity and engineering construction.

“House builders continued to be positive in their assessment of business conditions, noting sustained strength in customer demand, including

rising first homebuyer activity. However, apartment builders cited relatively soft new orders and reduced investor activity,” the Australian PCI report said.

While apartment building activity continues to contract, the level of decline has eased with the sub-sector up by 0.9pts to 47.7pts in November. “This activity reading was still well below the solid growth outcome recorded in May this year (68.5 points).”

<https://www.realestate.com.au/news/housing-construction-on-a-high/?rsf=syn:news:nca:hs:article>

## **Better cities are not just about height**

**The Sydney Morning Herald, Karen Wright, 25 March 2018**

CANBERRA - With strong views regarding height limits in the ACT, The Canberra Times asked four leading architects to share their thoughts on the impact Canberra's changing skyline might have on the city.

The recent debate in the Legislative Assembly on building height in town centres, the community response to masterplans and the need for greater urban renewal reflects a discussion our community needs to have. While we are fortunate to live in one of the more privileged cities in Australia, if not the world, what is the legacy we are leaving for current and future generations, as they grapple with responding to climate change, housing affordability and intergenerational concerns about access to employment and lifestyles that support health and well-being.

These issues may seem unrelated to height and in some respects they are, but that is because the issue is not really height but that of increasing population densities - particularly in key centres to allow more people access to services including rapid public transport, health, shops and employment. Focusing denser development in town and group centres brings numerous benefits, such as more housing close to jobs and transport, and it should be supported. This builds on Canberra's planned framework, of a hierarchy of centres to service surrounding areas.

Karen Wright is president of the ACT Division of the Planning Institute of Australia and a planning consultant.

The high-rise apartment tower plays an important role in delivering this supply. There is legitimate concern, however, that developing at higher densities will have negative, long-term impacts for Canberra, eroding Canberra's celebrated landscape and liveability. There are valid concerns about creating a legacy of apartments that are of poor quality – homes that lack access to light, air and an outlook - and diminish the quality of the streets and parks below by blocking sunlight, increasing wind drafts and obstructing sky views. In the city and town centres, the quality of public spaces is critical – even more so as these city residents retreat from their compact apartments to use the city's streets and parks as their living rooms.

So yes, why not have well designed, slender apartment towers that are judiciously located and spaced, and infill that includes townhouses, duplex and other housing forms. Contrary to popular assumption, not all Australians want to live in detached houses, particularly when other

factors such as proximity to employment, schools, family, friends and shops as well as housing costs are considered. Grattan Institute studies focused on Sydney and Melbourne have shown that people will tend to favour medium-density development as their preferred housing option when considering these various trade offs. Unfortunately the market provision of this housing type typically does not meet demand.

Geocon Republic, when complete, will contain 1213 apartments and Canberra's tallest tower.

Apartments may form part of the answer, but how density is achieved is not simply through increasing height limits and creating taller and taller buildings. Medium-rise, high-density developments can also achieve ambitions for greater housing choice, access to open space, as well as to the benefits of an urban lifestyle including shops, cafes and workplaces within walking or cycling distance.

Great cities of the world come in a variety of shapes and sizes. Examples such as Paris, Washington DC, London and Barcelona demonstrate that higher densities are possible, while still achieving people and place friendly design, yet without the need for towering skyscrapers on every corner. Graduated or gentle density that is responsive to existing neighbourhood character and that provides for a variety of housing development types in appropriate locations means that suburban lifestyles in inner and outer areas can still exist, while those who live closer to centres, may trade off a big backyard for proximity to services.

This being said, it is vital that density and amenity are closely integrated and that higher amenity and higher quality public domain comes with higher density. Issues such as access to useable private open space, as well as public open space and developer contributions to public realm improvements need to be worked out to ensure that new development and urban renewal achieves its desired aim, of making Canberra a more liveable city, with greater housing options for all and improved public places that benefit all residents.

Let's see more smart development, density done well and integrated design thinking. Let's facilitate and incentivise design excellence, resource our planning agencies to do their job properly, and let's create a future generation of educated planning practitioners that have the skills to realise our aspirations for a human and landscape centred city that is also compact and urban with diverse and liveable neighbourhoods.

Housing innovation is not just about design and height, but also a variety of financing and tenure options and performance based standards that reflect the desired built form outcome. Creating good design outcomes requires integrated thinking, adequate resourcing to planning agencies and clearly articulating agreed master plan recommendations in statutory controls and budget allocation. Demonstration projects can provide a pathway to testing innovative models, however these need to be then translated into common practice and the rules and regulations that control these outcomes.

*Karen Wright is president of the ACT Division of the Planning Institute of Australia and a planning consultant.*

<https://www.smh.com.au/opinion/better-cities-are-not-just-about-height-20180301-h0wur1.html>

## Infrastructure development in Asia: 12 Things to Know

ADB, 8 May 2017

1. Infrastructure in developing countries in Asia and the Pacific has improved rapidly but remains far from adequate. More than 400 million Asians still lack electricity; roughly 300 million have no access to safe drinking water and 1.5 billion lack basic sanitation. In many countries, power outages constrain economic growth. City traffic congestion alone costs economies huge amounts daily in lost productivity, wasted fuel, and human stress.
2. Developing countries in Asia will need to invest \$26 trillion in infrastructure from 2016 to 2030, or \$1.7 trillion per year, if the region is to maintain its growth momentum, eradicate poverty, and respond to climate change, according to the Asian Development Bank report, [Meeting Asia's Infrastructure Needs](#).
3. Between 2016 and 2030, the region needs to invest \$14.7 trillion for power, \$8.4 trillion for transport, \$2.3 trillion for telecommunications, and \$800 billion for water and sanitation improvements.
4. East Asia accounts for 61% of the investments needed through 2030.
5. As a percentage of gross domestic product, the Pacific requires investments valued at 9.1% of GDP, with South Asia at 8.8%, Central Asia at 7.8%, Southeast Asia at 5.7%, and East Asia at 5.2%.
6. In terms of sectors, power accounts for 56% of needed infrastructure investments with transport 32%, telecommunications 9%, and water and sanitation accounting for 3%.
7. The costs of mitigating climate change in Asia and the Pacific are estimated at \$200 billion per year. This primarily comes from investments in the power sector, including in renewable energy, smart grids, and energy efficiency.
8. In the transport sector, shifts from more carbon-intensive modes of travel (private cars) to less carbon-intensive modes (public transit and railways) will require supportive policies and regulations as well as investments.
9. The costs of climate proofing are estimated at \$41 billion annually with most of that – \$37 billion – going toward transportation investments, including climate-proofing roads and elevating road embankments to protect from flooding.
10. Currently, developing economies in the Asia and Pacific region annually invest an estimated \$881 billion in infrastructure.
11. Multilateral development banks like ADB have an important role to play in public and private sector infrastructure financing. ADB is scaling up its operations by 50% from \$14 billion in 2014 to more than \$20 billion in 2020, with 70% of this amount for sovereign and non-sovereign infrastructure investment.
12. A growing proportion of ADB finance is expected to go to the private sector. ADB is also working with bilateral donors and providers of private foreign capital.



<https://www.adb.org/news/features/infrastructure-development-asia-12-things-know>



## BTK railway to help Georgia succeed within Silk Road project

Azernews, Trend, 16 March 2018



BAKU - The Baku-Tbilisi-Kars railway (BTK) will help Georgia succeed within the Silk Road project, Georgian Finance Minister Mamuka Bakhtadze said, Georgian media reported.

Presently, the freight trains are running on the BTK route in a test mode, but it is planned to start full-fledged freight traffic in six months, according to him.

The minister added that after the full-scale operation of the BTK, work will be launched on organizing passenger transportation along the

route.

The official opening ceremony of the BTK railway was held in Baku Oct. 30, 2017. The BTK railway was constructed on the basis a Georgian-Azerbaijani-Turkish intergovernmental agreement.

The railway's peak capacity will be 17 million tons of cargo per year. At an initial stage, this figure will be one million passengers and 6.5 million tons of cargo.

[https://www.azernews.az/news.php?news\\_id=128921&cat=business](https://www.azernews.az/news.php?news_id=128921&cat=business)

## Japan eyes big projects

The Daily Star, Rejaul Karim Byron and Tuhin Shubhra Adhikary, 19 February 2018

DHAKA - A dozen Japanese firms show interest in 8 projects including 2<sup>nd</sup> Padma bridge, 2<sup>nd</sup> metro rail under G2G initiative

Under a new government-to-government initiative, more than a dozen Japanese companies have shown interest in investing in eight infrastructure projects, including a second Padma bridge and another metro rail.

More than one Japanese company has expressed interest in each project and sought detailed information on those, said several officials of Bangladesh's Public Private Partnership Authority (PPPA).

On February 7, the PPPA, which represents Bangladesh in the process, held a meeting with different agencies involved in the projects and asked their officials to provide it with the maps and other particulars of the projects within two weeks, they said.

“In the first phase, the process of implementing three to four projects will start by this year. We have got very positive response from the Japanese companies,” said a high official of the PPPA, seeking anonymity.

“The projects to be implemented in the first phase will be selected at a government-level meeting in Japan in May or June,” said the official.



Under the new arrangement, Japanese companies will invest under the government-to-government system without participating in any bidding.

At the first meeting of the Japan-Bangladesh Joint PPP Platform on December 6 last year, Bangladesh's PPPA sought multi-billion dollar support from Japan for implementing 18 infrastructure projects.

The Joint PPP platform was formed following the signing of a memorandum of understanding between the two countries in Tokyo in June last year.

Early this year, Japan's land, infrastructure, transport and tourism ministry talked to Japanese companies and over a dozen firms showed interest in the eight projects, according

to PPPA officials.

The companies include Kajima Corporation, Shimizu Corporation, Nippon Koei Co Ltd, Marubeni Corporation, Oriental Consultants Global Co Ltd, Mitsui and Co Ltd, and Mitsubishi Corporation.

The projects involve construction of a second Padma Multipurpose Bridge at Paturia-Goalanda, an inland container depot near Dhirasram Railway Station in Gazipur, multimodal hubs at Kamalapur Railway Station and Dhaka Biman Bandar Railway Station, circular railway line around Dhaka city, Outer Ring Road along with six transportation hubs, and Dhaka Mass Rapid Transit Development Project (MRT Line-2), and improvement of Chittagong-Cox's Bazar Highway.

The PPPA on February 7 held a meeting with officials of Bangladesh Railway, Roads and Highways Department, Bangladesh Bridge Authority and Dhaka Transport Coordination Authority (DTCA), and asked them to give it documents, including maps of project areas and reports on feasibility studies.

The railway is involved in four projects -- container depot, multimodal hubs and circular railway line -- and the DTCA in two projects -- the Outer Ring Road and the MRT Line-2.

The Bridge Authority is involved in the second Padma bridge, and the RHD in the Chittagong-Cox's Bazar Highway project.

Talking to this newspaper, DTCA Executive Director Syed Ahmed said, "We will submit all the documents related to our projects within the stipulated time."

"These two projects [a second metro rail and the Outer Ring Road] are in the revised Strategic Transport Plan," he told The Daily Star on February 14.

## **SECOND METRO RAIL**

The MRT Line-2 is dubbed the second metro rail project. Its proposed route is Ashulia-Savar-Gabtolli-Azimpur-Buet-Kamalapur covering around 40 kilometres.

"The MRT Line-2 has been conceptualised to meet the huge demand of over 1.1 million passengers on the proposed route every day," says the project's concept paper.

The DTCA recently submitted a proposal involving Tk 13 crore to the road transport and bridges ministry for conducting a pre-feasibility study on the MRT Line-2, officials said.

## **OUTER RING ROAD**

As per the revised STP, three types of ring roads have been proposed for Dhaka city.

The Inner Ring Road is along the Balu and the Buriganga rivers, while the Middle Ring Road is in alignment with the Dhaka Bypass Road.

The route of the Outer Ring Road will be Hemayetpur-Kalakandi-Madanpur-Danga-Bypile-Gazipur, and its estimated cost will be \$2,875 million.

The length of the Inner Ring Road will be 73.2 km, the Middle Ring Road 108 km and the Outer Ring Road 129 km, as per the revised STP.

The DTCA also requested the Local Government Engineering Department (LGED) to conduct a pre-feasibility study on Outer Link Road project, and the LGED agreed to do that, officials said.

Ahmed said he is visiting the project areas to select places for six transportation hubs.

## **SECOND PADMA BRIDGE**

The 6.1km-long second Padma Bridge will link Paturia to Goalondo, connecting Dhaka directly with the western and south-western districts.

It will also connect the capital with Benapole and Darshana land ports, according to the project's concept paper.

The estimated cost of the project is \$3 billion which includes land acquisition and resettlement costs.

## **MULTIMODAL HUBS**

Two multimodal hubs will be built at Kamalapur Railway Station and Dhaka Biman Bandar Railway Station at a cost of \$700 million.

Officials said the hubs will have road and rail connectivity as well as flyovers for facilitating easy movement of commuters.

However, both the projects are now at an initial stage as no pre-feasibility study has been conducted yet, they said.

### **CIRCULAR RAILWAY LINE**

The estimated cost of Circular Railway Line around Dhaka City is \$1,000 million.

The government has already done a pre-feasibility study.

Railway Secretary Mofazzel Hossain said they have already launched a feasibility study on the project.

### **DEPOT NEAR DHIRASRAM**

Construction of an inland container depot near Dhirasram Railway Station involves \$146 million.

A feasibility study on the project has already been done.

### **CTG-COX'S BAZAR HIGHWAY**

The estimated cost of the project is \$1,462 million.

The two-lane highway will be turned into a four-lane one under the project, said PPPA officials.

<http://www.thedailystar.net/frontpage/japan-eyes-big-projects-1536736>

## **Chinese demand drives construction boom in Cambodia**

**The Cambodia Daily, Prak Chan Thul, Reuters, 16 January 2018**

PHNOM PENH - The value of construction projects in Cambodia rose more than 22% to \$6.4 billion in 2017 from the previous year, according to official figures released that showed the impact of a boom driven by Chinese investors.

The Ministry of Land Management, Urban Planning and Construction said it approved a total of 3,052 projects, covering more than 10 million square meters (108 million square feet) last year.

The ministry did not give a breakdown by residential and commercial projects, nor did it give the nationality of the developers.

But the high level of Chinese investment is evident from the skyscrapers that have shot up with apartments and condominiums in Phnom Penh, and the hotels and casinos being built to serve Chinese buyers in the resort city of Sihanoukville.

Many of the apartments and condominiums were being built for Chinese investors, said Chrek Soknim, CEO of real estate firm Century21 Mekong.

“People who buy these properties don’t live here, they buy as investments,” he told Reuters. China is by far the biggest foreign investor in Cambodia - accounting for some 30% of recorded investment in 2016, according to official figures.

China’s Prince Real Estate and Yue Tai Group were both scheduled to launch major projects in 2018, said Tom O’Sullivan, CEO of realestate.com.kh. But he added there was a growing market for local buyers too with condominium sales in the \$22,000 to \$90,000 range.



“The reality is that Phnom Penh needs more homes to cater for the middle income earner,” he said. Political turbulence last year had little impact on investment, property specialists said. Cambodia’s main opposition party was banned after the arrest of its leader, Kem Sokha, on treason charges he says were politically motivated to eliminate him from an election in 2018.

Despite criticism from Western donors of Prime Minister Hun Sen’s government for its moves against the opposition, China has stood beside Cambodia. Chinese Prime Minister Li Peng signed a raft of new aid and investment deals in Phnom Penh last week.

“Chinese investors are not concerned about the up coming election,” O’Sullivan said. There has been little open opposition to the growing Chinese presence in Cambodia.

But in a rare sign of friction, Cambodian police arrested 74 Chinese nationals who had been working on a condominium project in Phnom Penh. Uk Heisela, chief of investigation at the immigration department, said they were suspected of working without permits and staying illegally. (*Reporting by Prak Chan Thul; Editing by Mark Potter*)

<https://www.cambodiadaily.com/news/chinese-demand-drives-construction-boom-cambodia-134616/>

## Business Insider: Maintaining Phnom Penh's construction boom

The Phnom Penh Post, Robin Spiess, 19 February 2018



PHNOM PENH –The construction boom in the capital has created an opportunity for specialised engineering firms to carve out a niche in the Kingdom. The Post’s Robin Spiess sat down with Masato Sanae, general manager of the Cambodian branch of Japan-based Taihei Engineering Company, to discuss how garden landscaping and construction maintenance can flourish in the capital.



## Why has Taihei Engineering chosen to expand to Cambodia?

We believe opportunity and potential are here. Our head office in Tokyo will likely start seeing business decline in the next few years, because we've already built so much there and Japan is such a small country. We can work on renovations there, but in Cambodia, we can use what we've learned as a company so far to support the people.

We plan to do this by creating a better environment here by focusing on creating landscapes and gardens first. Japan went through the same process Cambodia is going through now, with rapid development that isn't always environmentally friendly, and we don't want them to make the same mistakes we did. We have the technology available now to make expanding cities more environmentally friendly, and we know we need to strike a balance between building tall structures and planting trees to ensure our future is bright.



## How are you intending to localise your services?

We have not brought all of our services from Japan to Cambodia, because we are different countries and it is important to determine what this country needs first. My strategy is to begin with landscaping and then to start teaching maintenance, for both gardens and for buildings. We hope to start our first big landscaping project in the Kingdom at the start

of next month.

We're also going to be offering classes soon, teaching people about the importance of nature and explaining how to incorporate environmentally friendly concepts, like hydroponics, into their building concepts. Hydroponics, for example, allows you to use the organic waste from fish in a local pond to enrich the soil you use for your gardening.

## What kind of technologies will you be using?

We are working with the Cambodian government to legally import a drone right now. It is only for construction work. I know drones have a bad reputation when they're used improperly, but we can equip one with an infrared camera to help with maintenance and surveying, and it could do a lot of good. For example, if you have a tall building, we can use the drone to find the cracks and broken areas on the face of the building to detect where there are water and air leaks, and we can fix them. We can also use the drone to fly over the ground at a site where we might be building to use the camera to make sure there's nothing there. It can detect if there are landmines, and can tell us the history of the land before we start building.

## Why would your company rather move into building maintenance rather than construction?

There is a lot of construction here, but there isn't much preventive maintenance. We want to keep buildings in good condition so they can survive for decades, which will save building owners money in the long run. Phnom Penh, I think, is especially in need of this process,

because so many buildings are going up here so rapidly – which happens in a lot of rapidly growing cities – that there are sometimes shortcuts taken in construction. If we can find the problems before they get too severe, buildings will stand solidly a lot longer.

### **Do you have any other specific expansion plans for Cambodia in the future?**

For our landscaping projects, I think it would be great to team up with local artists to begin integrating their work into our gardens. When I was young I worked with a sculptor, taking commissions to install artwork in gardens, and I think it comes in one package – artwork and nature go hand-in-hand.

We'd also like to expand outside of Phnom Penh and into other cities and then some more rural areas in Cambodia. With landscaping as our starting point right now, we're targeting restaurants, hotels and private owners and to promote our interior and exterior landscaping projects, which we can normally complete within the week. There are people here who are looking to cultivate the type of environment that will attract more people and promote ecological awareness.

*This interview has been edited for length and clarity.*

<https://www.phnompenhpost.com/business/business-insider-maintaining-phnom-penhs-construction-boom>

## **More glamorous image for Hong Kong's construction industry in the pipeline with STEM effort**

**New group sounds call for more young talent in sector and the need to embrace technology**

**The South China Morning Post, Ernest Kao, 14 March 2018**



HONG KONG - Members of Hong Kong's construction industry, a sector known to be traditionally averse to the adoption of new technology, are calling for young blood to join its ranks to keep pace with the fast-changing times.

The newly formed Institute of Construction said it hoped to convince new talent that their sector offered many opportunities and welcomed technological applications.

It predicted that Hong Kong would need about 5,000 to 10,000 more skilled construction workers in the next five to six years.

The group operates under the statutory Construction Industry Council, a representative body for the sector, and has launched a STEM Alliance with 68 local secondary schools.

The alliance is aimed at helping teachers in secondary schools by providing support and teaching resources that would aid pupils in the understanding of STEM (Science, Technology, Engineering and Mathematics) – concepts, especially those related to construction and engineering. This would be done through thematic seminars, workshops and competitions.

Professor Lee Chack-fan, chairman of the institute's management board, said there was high demand for STEM talent in the industry and that the alliance would help Hong Kong prepare the next generation of workers to ensure long-term competitiveness.

Lee said the government's push in this area would become "more effective with our progressional knowledge, enthusiasm and closer communication", adding that the school subjects were closely entwined with the construction industry.

"STEM creates architectural, engineering and construction opportunities. We are strengthening those applications in [our] training," he said.

The latest technological applications that the institute hoped young people would be inspired by included robotics, 3D building information modelling (BIM), prefabricated construction and drone and virtual reality surveying.

Institute director Dr Francis Wong Kwan-wah said that while many new engineering projects down the line would be less labour intensive, a lot of them, including those in repair and maintenance, would be dependent on skilled workers.



"One objective of our institute is to raise the image and profile of the industry. By [setting up this alliance] we hope more youngsters will consider joining us," he said.

About HK\$300 billion (US\$38.3 billion) in construction output has been forecast in the next five to 10 years, according to official data, but 40% of registered construction workers are already over the age of 50. Undersecretary for Education Christine Choi Yuk-lin said the efforts were in line with the Education Bureau's push to promote STEM education in schools.

"Everyone's talking about smart cities now so we need more people

with these professional skills," she said. "Hopefully we can let more primary and secondary school students see what the latest technologies are and how relevant they are to our society."

<http://www.scmp.com/news/hong-kong/education/article/2137047/more-glamorous-image-hong-kongs-construction-industry>

## Robots reshaping construction industry

**The Standard, City Talk, Terence Chea, AP, 23 Mar 2018**

HONG KONG - As a teenager working for his dad's construction business, Noah Ready-Campbell dreamed robots could take over the dirty, tedious parts of his job, such as digging and leveling.

Now the former Google engineer is turning his dream into a reality having founded Built Robotics, a startup that develops technology to allow bulldozers, excavators and other construction vehicles to operate themselves.

"The idea is to use automation technology to make construction safer, faster and cheaper," said Ready-Campbell, standing in a San Francisco site where a small bulldozer moves earth without a human operator.

The San Francisco startup is part of a wave of automation transforming construction, which has lagged behind other sectors in innovation. Tech startups are developing robots, drones, software and other technologies to boost construction speed, safety and productivity.

Autonomous machines also help an industry struggling to find skilled workers while facing a backlog of projects.

"We need all of the robots we can get - plus all workers working - to have economic growth," says Michael Chui, a partner at McKinsey Global Institute in San Francisco.

Workers at Berich Masonry in Englewood, Colorado, spent weeks learning how to operate a bricklaying robot known as SAM - for Semi-Automated Mason, a US\$400,000 (HK\$3.12 million) machine made by Victor, New York-based Construction Robotics.

SAM can lay about 3,000 bricks in an eight-hour shift - several times more than a mason working by hand. Its mechanical arm picks up bricks, covers them with mortar and places them to form the outside wall of an elementary school. On a scaffold, workers load the machine with bricks and scrape off excess mortar.

The International Union of Bricklayers and Allied Craftworkers does not fear robots. "There are lots of things SAM isn't capable of doing that you need skilled bricklayers to do," says director Brian Kennedy. "We support anything that supports the masonry industry. We don't stand in the way of technology."

The rise of construction robots comes as the industry faces a severe labor shortage. It is hard to find qualified people to handle a loader or a haul truck, grumbles Mike Moy, a mining plant manager at Lehigh Hanson. "Nobody wants to get their hands dirty."

At his firm's mining plant in Sunol, California, Moy saves time and money by using a drone to measure piles of rock and sand his firm sells for construction. The quadcopter can survey a huge site in 25 minutes. Previously, a contractor would take a day to measure the piles with a truck-mounted laser.

The drone is made by Silicon Valley-based Kespry, which converts survey data into 3D maps. The startup also provides drones and mapping services to insurance firms checking homes damaged by natural disasters.

"Not only is it safer and faster but you get more data - as much as 10 to 100 hundred times more," says Kespry CEO George Mathew.

[http://www.thestandard.com.hk/section-news.php?id=194101&story\\_id=50008468&d\\_str=20180323&sid=5](http://www.thestandard.com.hk/section-news.php?id=194101&story_id=50008468&d_str=20180323&sid=5)

## Metro Rail to add 31 km to connect Hyderabad airport

The Hindu Business Line, Kv Kurmanatht, 25 March 2018



*The Telangana government has announced setting up a Special Purpose Vehicle to extend Corridor-III from Biodiversity Park to the airport, covering a stretch of 30.7 km*  
KVS Giri

HYDERABAD - With the Metro rail getting good response from the residents of Hyderabad, the Telangana government has decided to extend the service to the Rajiv Gandhi International Airport at Shamshabad in the second phase works.

The government has announced setting up a Special Purpose Vehicle (SPV) to extend the Corridor-III from Biodiversity Park to the airport, covering a stretch of 30.7 km.

While the Hyderabad Metro Rail (HMR) would have 51% stake in the SPV, the Hyderabad Metropolitan Development Authority (HMDA) will take the rest.

The State government has released a Government Order, giving details about the SPV. "It calls for planning, building, maintaining, operating, designing and running the metro rail and other mass transit connectivity to airports in Hyderabad and other cities," Arvind Kumar, Principal Secretary (Municipal Administration and Urban Development), Telangana, said.

The SPV would also undertake road capacity improvement works for decongesting the city by constructing new roads and other modes of transport. This would include running cabs.

A Board of Directors, headed by a non-executive Chairman, will govern the SPV. SK Joshi, Chief Secretary, has been appointed as the Chairman and HMR Managing Director NVS Reddy as Managing Director of the SPV.

The HMR had launched the Phase-I of the project in November 2017 by opening a 30-km stretch connecting Miyapur-Ameerpet (13 km) of Corridor-I with Ameerpet-Nagole (17 km) of Corridor-III. "So far, about 85% of the project has been completed in the remaining phases of Phase-I," he said.

<https://www.thehindubusinessline.com/todays-paper/tp-others/tp-states/article23351968.ece>



## China-Iran joint construction of belt and road leading to win-win cooperation

Iran Daily, Wu Peimin, 11 March 2018



BEIJING - China and Iran are countries with thousands of years' civilization. The ancient Silk Road witnessed long-lasting friendship between the two peoples. Since the inception of China-Iran diplomatic ties in 1971, leaders of the two countries have had frequent visits and contacts at all levels and China-Iran relationship has maintained abundant fruits in political, economic, cultural and other fields.

In 2013, Chinese President Xi Jinping raised the initiative of jointly building the Silk Road Economic Belt and the 21st Century Maritime Silk Road, which attracted close attention and positive response from Iran.

China and Iran are joining hands together in strengthening mutual communication and collaboration, widening the channels of cooperation, and promoting the healthy development of bilateral relationship.

It is reaffirmed in the report of 19th National Congress of the Communist Party of China that Beijing will stay committed to the basic policy of opening up and making new ground in pursuing opening up on all fronts. China will actively promote international cooperation through the Belt and Road Initiative. In doing so, we hope to promote policy coordination, facilities connectivity, unimpeded trade, financial integration and people-to-people bonds and thus build a new platform for international cooperation to create new driving force for shared developments. We have seen much accomplished in cooperation of belt and road between China and Iran, a multitude of successful economic and commercial cooperative projects have emerged based on the deepening of cooperation on Five-Pronged Approach, which shows huge development potentials of economic and trade cooperation between China and Iran.

For policy coordination, during President Xi's visit to Iran in January 2016, China and Iran signed 17 memorandums of understanding, including the MoU on Jointly Promoting Silk Road Economic Belt & 21st Century Maritime Silk Road Construction between the government of the People's Republic of China and the government of the Islamic Republic of Iran, and memorandums of understanding on energy, industrial capacity, financing, investment, ICT, culture, technology, etc. These documents complement the development strategies of our two countries by leveraging our comparative strength.

For facilities connectivity, when visiting Iran, President Xi had in-depth communication with President Hassan Rouhani on the topic of regional interconnection. This year we witnessed signing the contract of the high-speed upgrading of Tehran-Mashhad Railway and the Tehran-Isfahan Railway has already been under construction, which our two governments attach great importance to and vigorously promote. Furthermore, Chinese enterprises have participated in many infrastructure projects in Iran, which played an important role in enhancing local economy and improving people's livelihood. For example, Norinco International and CITIC participated in building Tehran Metro Line 5 and Tehran Metro Line 1 and Line 2 respectively.

For unimpeded trade, China and Iran have great complementarities in natural resources and industrial structure and the trade between China and Iran has always been mutually beneficial. Over the years, China has been Iran's largest trading partner and Iran's largest export market for oil and non-oil products. In 2017, Iran's export to China reached 18.58 billion dollars, up 25.3% over the same period of last year. The share of the Chinese market in Iran's total exports has been rising year by year. China has successfully opened the market for Iran's petrochemical products, mineral products, metal products and agricultural products. In November 2018, China will hold the first China International Import Expo, set up a new platform for economic and trade cooperation, and further open the market to the world. This will be another great opportunity for Iranian products to enter Chinese market. At the same time, Iran's imports from China have been developing steadily. Chinese goods have addressed gaps in Iranian consumer market and enriched people's choice. Just take Huawei for example, its mobile phone sale in stock reached 11.2 million, accounting for 32% of Iran's market share, and becoming popularity for ordinary people.

For financial integration, in meeting with President Rouhani, President Xi pointed out that financial cooperation is a "booster" for pragmatic cooperation between the two countries.

China's financial institutions are willing to provide financial support for bilateral economic cooperation. Chinese Banks and insurance companies have signed MoUs with their Iranian partners, and both sides are working on specific projects, trying to explore new forms of financial cooperation in the post-sanctions era.



For people-to-people bonds, the Chinese government and people treasure the friendship with Iran. The purpose of the cooperation between China and Iran is to build a garden full of flowers that China and Iran share together. Bilateral economic and trade cooperation is deeply rooted in improving people's livelihood and strengthening industrial development. In the meantime, Chinese enterprises actively carry

out public welfare undertakings and shoulder their social responsibilities. In November 2017, a strong earthquake broke out in the Kermanshah area. There were many Chinese companies and individuals that made their own contributions among which the Chery MVM Company quickly set up a disaster relief service team for aid.

The concept of peaceful development and win-win cooperation is rooted in the rich soil of Chinese civilization. The Belt and Road Initiative raised by President Xi precisely reflects the spirits of the Chinese traditional culture, provides an implementation path of policy, infrastructure, trade, financial, and people-to-people connectivity, brings together the aspirations and dreams of relevant countries for development and peace, and is a link to promote civilization dialogue, exchanges and cooperation. We believe that under the guidance of the Belt and Road Initiative, with the joint efforts of the peoples of China and Iran, China and Iran will embark on a path of win-win cooperation.

*\*Wu Peimin is the commercial counselor of the Chinese Embassy in Iran.*

<http://www.iran-daily.com/News/211495.html>

## At 30, Seikan undersea tunnel requires maintenance, need for speed

The Asahi Shimbun, 27 March 2018



*Hokkaido Shinkansen train travels through Seikan Tunnel at about 140 kph on March 6. (Hiroaki Abe)*

HOKKAIDO - Hokkaido Railway Co. (JR Hokkaido) has spent a whopping 30 billion yen (\$286 million) since fiscal 1999 to plug water leaks, replace rusted pipes and repair other deteriorations in the undersea Seikan Tunnel.

However, the railway company is not content with just fixing the tunnel, which marked its 30th anniversary of operations on March 13. Plans are in the works to raise the speed limit for bullet trains in the 53.85-kilometer tunnel that connects Hokkaido and the main Japanese island of Honshu.

JR Hokkaido also wants to rectify the 25-minute “dead zone” for mobile phone connections that Shinkansen passengers in the tunnel have complained about.

The Seikan Tunnel’s history is filled with ups and downs. It is currently taking measures to ensure passenger numbers in the aging tunnel remain on track.

### Origins of Seikan tunnel

In 1954, the Toya Maru passenger ferry and four other vessels, including cargo ships, sank in a typhoon that struck the Tsugaru Strait, killing 1,430 people.

The disaster fueled momentum to construct the undersea tunnel. After the passenger ferry service was abolished, trains using the Seikan Tunnel became the main means of crossing the Tsugaru Strait.

In 1988, when the tunnel opened for operations, more than 3 million passengers used it to travel between Honshu and Hokkaido. The annual number later plunged to less than 2 million.

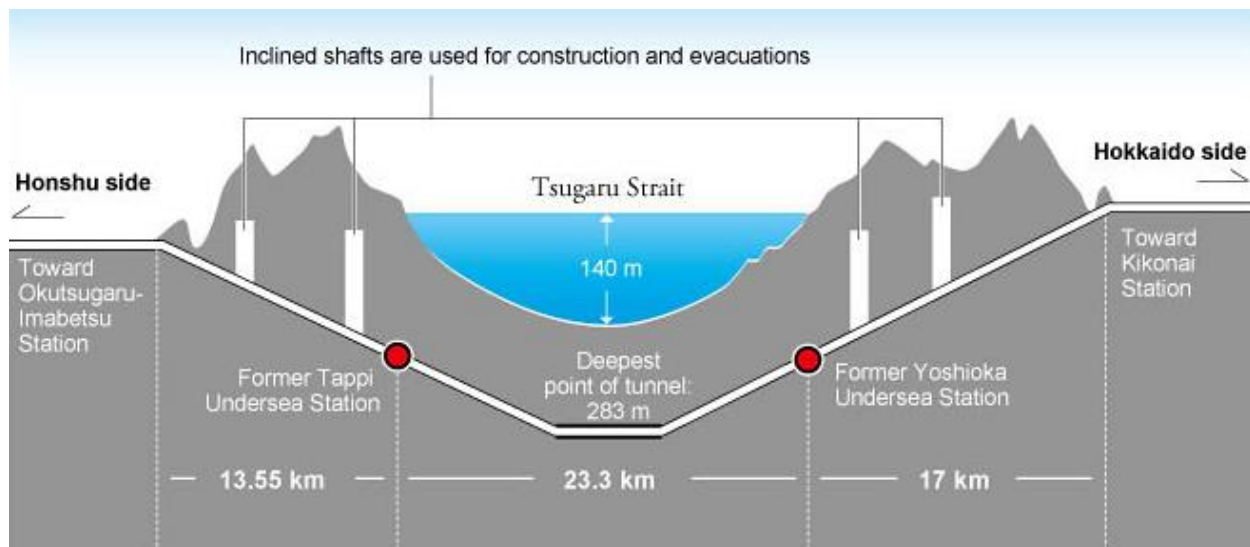
But in fiscal 2016, the number rebounded to the 2-million level for the first time in 21 years. That’s because on March 26, 2016, the Hokkaido Shinkansen Line started services on the section linking Shin-Aomori Station in Aomori Prefecture and Shin-Hakodate-Hokuto Station in Hokuto, Hokkaido.

### The economic ripple effects were huge

In 2017, the number of foreign lodgers in Aomori Prefecture hit a record high of about 239,000, up about 67% from the previous year. It was the sharpest growth among all prefectures in Japan.

“With the opening of the Hokkaido Shinkansen Line, (Aomori) has become a destination for foreign tourists combined with the popular destination of Hokkaido,” said an official of the

Aomori prefectural government. Nevertheless, the number of tourists who visited Hakodate in fiscal 2017 is expected to drop year on year after a record high in fiscal 2016.



A JR Hokkaido official also said the company will likely fall short of expectations for a large increase in the number of tunnel users by fiscal 2030, when the Hokkaido Shinkansen Line is expected to be extended to Sapporo.

### Tackling the aging problem

To regain momentum, the financially struggling railway company needs to first deal with problems caused by the aging of the tunnel and its facilities.

In 2014, JR Hokkaido confirmed for the first time that a roadbed had elevated in part of an advancing drift tunnel used for ventilation and drainage, and the width of the tunnel had shrunk. JR Hokkaido has taken measures to fix the problems.

An official in charge of civil engineering works at the company said deterioration is inevitable in a tunnel that is 30 years old. "It's difficult to deal with the deterioration because unprecedented incidents could occur," the official said. "But we will strive to attentively implement measures and maintenance to quickly detect abnormalities."

The government's draft budget for next fiscal year also includes support measures for JR Hokkaido to fix the mobile phone connection problem.

### Inside the Seikan Tunnel

JR Hokkaido on March 6 showed the inside of the tunnel to reporters. At the deepest level of the Seikan Tunnel, 283 meters below the surface, a breeze of 3.6 kph blew through an advancing drift.

Water had constantly gushed into the tunnel from the solid bedrock. Several drainage pumps located in both Hokkaido and Aomori Prefecture had removed about 20 tons of water per minute from the tunnel.

About 1,100 meters of piping that had been sending cooling water to these pumps were rusted. The replacement of all the corroded pipes was included in the 30 billion yen of repairs and upgrades.

JR Hokkaido also installed disaster prevention equipment in the tunnel for emergencies such as accidents and fires. The Shinkansen operation control center in Sapporo manages conditions in the tunnel, according to Atsushi Fujita, 58, head of JR Hokkaido's Hakodate Shinkansen construction department.

Fujita said the control center has developed a number of ways to detect malfunctions.

An aid station and portable toilets were set up in a shelter inside the tunnel that can accommodate 1,000 people. Drinking water, emergency provisions, cold weather protection sheets and other supplies are stored at the station.

### **Quest for speed**

To increase passenger numbers, JR Hokkaido wants to raise the speed limit for Shinkansen trains inside the tunnel.

Bullet trains must not exceed 140 kph in the tunnel to prevent the generated wind pressure from knocking off loads on freight trains when they pass by. That speed limit matches the top speed of conventional limited express trains.

Currently, the fastest Shinkansen trains can connect Tokyo and Shin-Hakodate Hokuto stations in four hours and two minutes.

Starting in spring, the Ministry of Land, Infrastructure, Transport and Tourism and JR Hokkaido will run tests on increasing the maximum speed of bullet trains in the tunnel to 160 kph. The eventual goal is 200 kph so that the service can cover the Tokyo-Hakodate route in less than four hours and compete better against airlines.

### **Shared section between freight trains, Shinkansen**

On March 6, a freight train departed from Hakodate bound for Aomori.

After traveling for about an hour from Goryokaku Station in Hakodate, the 18-car freight train, towed by an electric locomotive, reached a section of the route shared with Shinkansen.

The shared section features a dual-gauge track using three rails: a Shinkansen rail, a rail for freight trains; and a shared rail for Shinkansen trains and freight trains.

As soon as the freight train left the sub-zero weather and entered the tunnel, where the temperature tops 20 degrees and the humidity level is kept at 80% or more, the locomotive became shrouded in mist.

A small white light appeared in the distance. It was a Hayabusa (Peregrine falcon) No. 19 bullet train that had departed from Tokyo Station and was heading for Shin-Hakodate-Hokuto Station.



The sleek Hayabusa is among the fastest of all Shinkansen trains. If it had gone through the tunnel at its top speed, the strong air pressure created would likely have dislodged the onions, potatoes and auto parts from the fully loaded freight train.

Instead, driving within the 140 kph speed limit, the bullet train, with the distinctive long green nose of the lead car, and the freight train passed each other without incident.

After the freight train traveled for 37 minutes through the Seikan Tunnel, snow falling on the Tsugaru Strait came into view on the left.

“This is the only section that Shinkansen and freight trains share in Japan,” said Daisuke Takahashi, the 43-year-old driver of the freight train who has 23 years of experience on the job. “Driving a train on this section is my secret pride.”

*(This article was compiled from reports by Hiroaki Abe, Son Yummin and Hitoshi Kujiraoka)*

<http://www.asahi.com/ajw/articles/AJ201803270007.html>

## Public infrastructure projects to be given priority in Malaysia

**Fernando Fong, 7 April 2018**

KUALA LUMPUR - The government had identified 13 high-impact public infrastructure projects across the country since 2009 and Barisan Nasional would continue with some of these projects which are still under construction if it is returned to power.

Selected airports in the country -Langkawi International Airport, Kota Baru Airport and Sandakan Airport - will be upgraded with an allocation of RM1.3 billion.

Penang, despite being an Opposition held state for the last ten years, will also see an upgrade of its international airport.

Selected airports in the country -Langkawi International Airport, Kota Baru Airport and Sandakan Airport - will be upgraded with an allocation of RM1.3 billion.

Penang, despite being an Opposition held state for the last ten years, will also see an upgrade of its international airport. New airports will also built at Mukah and Lawas with an allocation of RM758 million.

Rail connectivity will be improved with the Rapid Transit System (RTS) linking Johor Baru and Singapore and the Kuala Lumpur-Singapore High Speed Rail (HSR).

The east coast will not be left out, thanks to the construction of the East Coast Rail Link (ECRL) from Port Klang to Pengkalan Kubor.

An electrified railway line from Subang Jaya to the Subang Skypark Terminal will also be built as part of the integration of railway transportation.

## PEOPLE'S INFRASTRUCTURE AND ENHANCING CONNECTIVITY

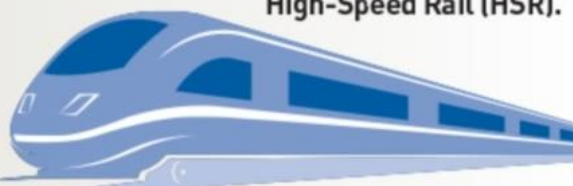
- Upgrading Penang International Airport, Langkawi International Airport, Kota Baru Airport and Sandakan Airport involving an allocation of **RM1.3b**



- Building a Rapid Transit System (RTS) linking Johor Baru and Singapore.
- Increase usage of electric buses in stages to reduce emission of carbon dioxide.



Building the Kuala Lumpur-Singapore High-Speed Rail (HSR).



- Building the East Coast Rail Line (ECRL) from Port Klang to Pengkalan Kubor.
- Building the Gemas-Johor Baru dual-track railway line.



Build world-class modern port on Carey Island with an investment of

**RM200b**



- Upgrade Langkawi's jetty facilities, terminal and CIQ Complex with

**RM86.5m allocation**

- Building an electrified railway line from Subang Jaya to the Subang Skypark Terminal.

- Establish new modern and green urban developments along public transportation lines such as the ECRL, HSR and Gemas-Johor Baru Dual Track Railway Line.

- Upgrade the Klang Valley dual-track railway line involving repair work along **42km** of railway tracks.



- Complete West Coast Expressway from Banting to Taiping by 2020.

- Build Central Spine Road connecting Kelantan, Pahang and Negri Sembilan to reduce traffic congestion.

- Complete third phase of the East Coast Expressway.

- Upgrade and maintain federal roads on a regular basis as an alternative to tolled highways.



- Increase Klang Valley's public transportation network with the construction of Phase 3 of the LRT and MRT.

- Establish an integrated Intelligent Transportation System (ITS) that covers every type of transportation and traffic throughout the country.

Repair works will be carried out for KTM coaches, locomotives, railway tracks and bridges in the east coast, while the Sabah railway track from Halogilat to Tenom will also be upgraded.

In expanding the road network, the government will complete the West Coast Expressway from Banting to Taiping by 2020 and also the third phase of the East Coast Expressway.

The Central Spine Road will also be build to connect Kelantan, Pahang and Negeri Sembilan, reducing traffic congestion and drive new economic growth in the East Coast Economic Corridor.

In Sabah and Sarawak, transportation networks and interconnectivity will be strengthened by upgrading 12,500 kilometres of rural roads. The government is also dedicated to upgrade and maintaining federal roads on a regular basis as an alternative to tolled highways. In caring for the environment, the usage of electric buses will be increased in stages to reduce emission of carbon dioxide.

New modern and green urban developments along public transportation lines such as the ECRL, HSR and Gemas-Johor Baru Dual-Track Railway Line will also take place. The use of electricity will be optimised through installation of smart metering and LED lights which is set to benefit 8.5 million users nationwide.

At sea, the government will significantly propel Malaysia's competitiveness in the region's port services industry by building a world-class modern port in Carey Island as the latest maritime hub with an investment of RM200 billion.

Langkawi's jetty facilities, terminal and Customs, Immigration and Quarantine (CIQ) Complex will be upgraded with an allocation of RM86.5 million to attract more tourists and foreign investment.



*The MRT project is an example of how the government had helped transformed the nation's transportation infrastructure. Picture by SADDAM YUSOFF*

CIQ Complexes will also be built in Tebedu, Sarawak and Kalabakan, Sabah to increase economic growth and increase border security. Roads and traffic dispersion at existing ports will be improved to control congestion and increase trade.

On the transportation of energy, the Multi Products Pipeline (MPP) project coverage area will be expanded by 600 km to increase distribution efficiency in Peninsular Malaysia.

The MPP project involves the transportation of petroleum products from refineries in Melaka and Port Dickson to Central and Northern region of East Peninsular Malaysia.

A 140km natural gas pipeline will also be build from Ayer Tawar to Ipoh. In Sabah and Sarawak, electricity supply will be expanded with an allocation of RM2.3 billion.

The Trans Sabah Gas Pipeline (TSGP), worth RM4.3 billion, will be build to stabilise electricity supply and spur economic growth in Sabah. At the same time, the government will transform Malaysia's public transport sector to greater heights.

Public transport infrastructure in the Klang Valley's will be improved with the construction of Phase 3 of the Light Rail Transit (LRT) and the Mass Rapid Transit (MRT).

Special student discount cards will be introduced to reduce the costs of transportation, government services and education-related necessities. The government will also upgrade the Electric Train Service (ETS) coaches.

People's infrastructure projects such as village roads, bridges, streetlights and sewerage projects are not forgotten as well.

Drainage and irrigation systems in 143 locations will be improved to increase paddy output throughout the country. Interconnectivity between rural areas will be enhanced through construction of 383 small bridges throughout the country.

The government will build and upgrade 830 km of plantation roads to increase accessibility to small farms, while 422 km of roads in FELDA areas will also be improved. More street lights, signage and road markings will also be added in FELDA settlements along 1,240 km of roads to increase road safety.

The government will also build and upgrade bridges in critical areas such as in Batang Lupar, Temerloh, Kota Tinggi and Batang Kali. These projects may contribute little to economic growth but are immeasurably significant to ensure the people's wellbeing, said BN in its manifesto.

In the Federal Territory of Labuan, transportation infrastructure will be upgraded through the construction of bridges and ferry terminals to attract investors and tourists.

The government will also establish an integrated Intelligent Transportation System (ITS) that covers every type of transportation and traffic throughout the country.

<https://www.nst.com.my/news/nation/2018/04/354494/public-infrastructure-projects-be-given-priority>

## **NZ desperately seeking 50,000 construction workers**

**Stuff, Susan Edmunds, 26 March 2018**

AUCKLAND - New Zealand is facing a shortfall of tens of thousands of construction workers over the next five years, which could stymie efforts to build more houses.

There are about 256,000 people employed by the construction sector. But it is expected that about 55,000 to 60,000 more workers will be needed over the next five years – and that is before any additional building through the Government's KiwiBuild programme is taken into account.

Half of those will need to be trade qualified and BCITO, the industry's biggest training provider, said it was on track to only produce a third of that number. Only 10% of construction firms train staff at any one time.



Almost 70% of the long-term skilled job shortages as calculated by Immigration NZ are related to the construction industry.

"It reflects the real under-investment in skills during the global financial crisis," chief executive Warwick Quinn said. "The whole thing is exacerbated by that shortfall."



*It is expected that about 55,000 to 60,000 more workers will be needed over the next five years.*

Economist Gareth Kiernan, of Infometrics, said more recruitment was required to build the houses Auckland needed than had happened after the Canterbury earthquakes. At that time, a lot of migrant workers were called into Christchurch to help recovery efforts.

"I don't think anyone expected at that point in time to have to keep on pouring more labour resources in but that has turned out to be the case."

He said there were concerns about the quality of labour that some building firms were having to hire. There were reports of some workers being used who could not attach cladding properly. "People are rushing to get things done. There's concern that in five or 10 years' time there could be another leaky building issue."

John Tookey, head of department for built environment engineering at AUT, said a lack of tradespeople was a global concern. "For many years we have had society transition to university for everything, degrees for all sorts of things that historically would have been school-leaver jobs. The trades have been looked down upon," he said.

In the UK, the average annual salary for a scaffolder is now £40,942 (NZ\$79,300), compared to an architect's £38,228. In New Zealand, graduate architects were earning between \$40,000 and \$80,000 in 2013. Construction workers are estimated to get about \$51,000.

Tookey said it was hard to see where the people required would come from, especially as the Government moved to cut immigration.

Grant Florence, chief executive of the Certified Builders Association, said a survey of his members conducted before Christmas showed that hiring was their biggest concern.



Almost 70% of the long-term skilled job shortages as calculated by Immigration NZ are related to the construction industry.

There are suggestions to help forge a solution, though.

The cyclical nature of the industry made it hard for building firms to take on staff, Florence said. "The Government should support employers to take on apprentices [in downturns] to help take



the peaks and troughs out. They are the largest client in the commercial area – they could be doing work on an anti-cyclical basis."

If the Government pledged to carry out its work during periods when the industry was quieter, it would help employers and could reduce the government's costs, he said.

Quinn said the prohibition on industry training organisations directly providing training should be removed and their ability to offer higher-level qualifications should be improved. The Government should also partner with the construction industry to trial a financial incentive programme to support employers who trained staff.

Pamela Bell, of PrefabNZ, said prefabrication on a large scale could help to reduce the number of workers needed. She said the Government was aware its projections were based on traditional construction methods, not those in which houses were manufactured off-site.

Trade Me said there had been a 27% drop, year-on-year in the number of labouring roles advertised on the site.

### Where are the workers?

Chinese construction company Fu Wah New Zealand formed a joint venture with a Chinese recruitment company. In February, the company asked Immigration NZ for approval to import 174 Chinese decorators to finish the interior fit-out of its \$200m Park Hyatt hotel on Auckland's waterfront.

The Government will do the same for KiwiBuild. Immigration Minister Iain Lees-Galloway confirmed a special KiwiBuild visa for migrants to build homes was being created.

Using migrant workers is not a new idea. Leighs Construction has been hiring carpenters from the Philippines since 2012.

Labour-hire company Adecco general manager Teresa Moore said it had "jumped on the migrant worker bandwagon" too and employed 260 migrant workers to supply to companies here. Questions had been raised over the pay and conditions the migrant workers enter into when they arrive.

E Tū spokesman Joe Gallagher said his union refused to support Fu Wah's immigration application after seeing the migrant workers' employment contracts. They would be paid \$20 an hour, which would need to be spent on their own accommodation and travel costs. The pay on offer was not good enough to genuinely attract local trades workers, he said.

BCITO boss Warwick Quinn said New Zealand tradespeople could not pick up the temporary work because they already had jobs. He expected more construction companies to continue to source international workers for at least a few more years. "I do not think this is the end of it."

Immigration was an important tool for construction companies to use when labour was tight, but it should not be used as a default option to get skilled workers, Quinn said.

<https://www.stuff.co.nz/business/102427066/construction-industry-facing-shortfall-of-thousands-of-workers>



#### **About CACCI:**

Founded in 1966, the Confederation of Asia-Pacific Chambers of Commerce and Industry (CACCI) is a regional non-governmental association principally composed of the national chambers or associations of commerce and industry in Asia and the Western Pacific. Its current membership of 28 countries and independent economies cuts across national boundaries to link businessmen and promote economic growth throughout the Asia-Pacific region. CACCI holds Consultative Status in the Roster Category of United Nations' Economic and Social Council (ECOSOC)

Published by: **The Secretariat, Confederation of Asia-Pacific Chambers of Commerce and Industry**

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