



# UNECE International PPM Forum

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## Selected Successful BRI Projects

May 2018



# Adama I and II Wind Farm (Ethiopia)

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- The Adama I wind power project has an installed generation capacity of 51 MW. The wind farm has a total of 34 towers each with a generating capacity of 1.5 MW. It was located on the outskirts of Adama town, 98 km east of Addis Ababa.
- The project cost was \$117 million, 85% financed by China EXIM Bank, the remaining 15% by the Ethiopian Government Hydro China and CGOC.
- In December 2012, Adama I was inaugurated.
- Adama II is located between Adama and Modjo towns, was designed to have 100 turbines, each with a generation capacity of 1.5 MW and construction by Hydro China and CGOC.
- The cost of the project was \$345 million, with \$293 million funded by China EXIM (85%).
- In May 2015, Adama II wind farm was inaugurated with the capacity to produce 153 MW of electricity, which made it the largest wind farm in sub-Saharan Africa at that time.



# Pupin/Zemun-Borča Bridge (Belgrade, Serbia)

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- Is now the 2<sup>nd</sup> bridge over the Danube river in Belgrade, a city of 2 million, which for the prior 70-years had only 1 bridge over the Danube.
- The 1,507 meters long bridge connects Belgrade neighbourhoods of Zemun and Borča and has shortened the travel time from more than an hour to just 10 minutes.
- The €170 million construction costs were funded 85% by a 15-year loan with a 3-year grace period and 3% interest rate from China EXIM; the remaining 15% by the Government of Serbia and the City of Belgrade.
- The Bridge was constructed by China Road and Bridge Corporation (CRBC).
- Construction started October 2011 and ended December 2014 (it was originally scheduled to be completed in 2013). Up to 45% of subcontractor jobs and materials used were Serbian.
- This represented China's first big infrastructure investment on the European continent.
- Since its opening, the bridge has substantially improved transport across the Danube in Belgrade and led to additional infrastructure projects involving CRBC and Serbia.



## Energy 21 (Czech Republic)

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- In 2010, Mid Europa, a CEE based PE firm, backed Energy 21 with an initial €60 million investment. Since then it has gone on to become the largest independent Czech operator of photovoltaic power plants. It owned over 30 plants with a combined capacity surpassing 61 MW.
- Energy 21 went on to become the second largest solar power company in the Czech Republic, behind local energy major CEZ.
- In January 2016, CEE Equity Partners, which manages the China CEE Investment Cooperation Fund, agreed to take an equity stake in Energy 21. The Fund was launched by China EXIM.
- By February 2018, CEE Equity Partners, which serves as the investment advisor to the first China-CEE Fund, had overseen 16 transactions in 5 countries in the CEE region totalling over \$500 million.



# Coca Codo Sinclair Hydroelectric Facility (Ecuador)

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- Is the largest energy project in Ecuador's history. Located in the Amazon Basin, 100 km east of Ecuador's capital Quito, the 1,500 MW project is a run-of-river development on the Coca River.
- Sinohydro was awarded a contract to build the plant in 2009. Construction on the project started in 2010. The first four of the eight turbines became operational in April 2016, while the remaining turbines came online in the second half of 2016.
- The eight turbines alone produce enough electricity to satisfy all household demand for 16 million in Ecuador but also to users in Columbia.
- Coca Codo's cost of \$2.245 billion, was financed through a mixture of debt (63%) and equity (37%). China EXIM extended a \$1.68 billion loan payable in 15-years, with the remaining funds coming from the Ecuador Government.
- By year end 2016, Ecuador consumed 85% renewable energy; in 2017 was expected to have more than 90%, one of the highest on the planet.



## Colombo Port/Port City (Sri Lanka)

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- In 2011, China Merchants Ports Holdings (CMPH) acquired a 55% stake in the Colombo International Container Terminals Limited (CICT) project for \$500 million. In 2012, CMPH increased its stake in CICT from 55 to 85%; Sri Lanka kept 15% under a 35-year BOT agreement.
- In August 2013, Sri Lanka opened a \$500 million container terminal at Colombo Port, the biggest investment in Sri Lanka. The terminal, built and operated by CMPH will handle 2.4 million containers a year and boost Colombo's capacity by almost 50%. A further two terminals, again with a capacity of 2.4 million TEU, were part of the planned expansion.
- In 2014, the first container terminal was completed by CMH. The container terminal is the first in South Asia capable of handling 18,000 TEU vessels.
- CICT handled 2.0 million TEUs in 2016, up from 1.56 million in 2015, its first full year of operation. Approximately 70% of this volume was achieved through Ultra Large Container Carriers or ULCCs. CICT is expected reach maximum capacity of 3.2 million TEUs by 2019.
- In 2016, it was announced that a \$15 billion Port City Colombo would be built, mostly from reclaimed land adjacent to the port. In early 2018, a consortium led by China Harbour Engineering Company (CHEC) will invest \$1 billion to build three 60-storey office towers.



## Addis Ababa Light Railway Transit (Addis Ababa, Ethiopia)

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- A 31.6 km electrified light rail transportation system, with two lines; the east-west line extends 17.4 kms and a north-south line which is 16.9 kms . It was designed to facilitate transportation in a city of 5 million clogged with other forms of transportation.
- The railway was contracted by China Railway Group; Ethiopian Railways Corporation began work on the project in December 2011. The north-south line commenced operations in September 2015, the east-west line in November 2015.
- The project was funded by a \$475 million loan from CEXIM (85%) with the remaining 15% by the Ethiopian Government and managed by Shenzhen Metro Group.
- Each train was planned have a capacity to carry 286 passengers for a maximum capacity of 300,000 passengers/day. By January 2017, the system had carried over 50 million customers.
- This light-rail system was the first to be built in sub-Saharan Africa.



# Mombasa–Nairobi Standard Gauge Railway (Kenya)

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- The Mombasa–Nairobi Standard Gauge Railway is a standard-gauge railway (SGR) that connects Kenya's port city of Mombasa to Nairobi.
- The prime contractor was the China Road and Bridge Corporation (CRBC).
- Cost was \$3.6 billion, funded 90% by CEXIM – 10% from the Kenyan Government.
- Completed in 2.5 years; 18 months ahead of schedule.
- Since 1<sup>st</sup> June 2017 opening, transported over 1 million customers; 300,000 tons of goods.
- Cut the transportation cost between Nairobi and Mombasa by 40%.
- Helped increase Kenya's GDP by 1.5%; Created 46,000 local jobs.



## “Great Stone” Industrial Park (New Minsk, Belarus)

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- The China-Belarus industrial park (Great Stone) is a territorial entity with the area of 91,5 sq. km with a special tax status, located 25 km from Minsk, near the international airport, railway lines and the Berlin-Moscow transnational highway.
- The agreement to launch was signed until mid-2013. Shareholders are 60% by CAMC Engineering Co. (CAMCE), 30% to the Minsk Regional Executive Committee and 10% by Horizont holding. The construction period was for 30-years, with plans to attract 10,000 employees by 2020 and 130,000 the employees by 2030.
- The park was designed to attract global high-tech enterprises with a focus on electronics, biomedicine, fine chemistry and engineering. Key Chinese companies involved include Sinomach, ZTE, Great Wall Industry Corp.
- In January 2018, it was announced that contracts have been signed to invest \$1 billion in Great Stone. Since the beginning of 2017 the industrial park has attracted 17 new companies, with the number of residents up to 25. Great Stone management stated that plans the number of resident companies will reach at least 35 in 2018 and 60-70 by 2020.



# Yamal LNG (Russia)

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- YAMAL LNG is an integrated project encompassing natural gas production, liquefaction and shipping.
- The Project consists of construction of a liquefied natural gas (LNG) plant with an output capacity of around 16.5 million tons per year (by 2019), using the South Tambey Field as a resource base.
- The field's proven and probable reserves are estimated at 926 billion cubic meters making this the world's biggest Arctic producer of liquefied natural gas.
- Extensive transportation infrastructure is being built in the scope of the Project, including a sea port (began in 2013) and the Sabetta Airport using as many as 30,000 Russian workers from Central/Southern Russia.
- Shareholders (after a series of transactions) are: Novatek (50.1%), Total (20%), CNPC (20%) and Silk Road Fund (9.9%). In 2016, Yamal also received \$12 billion loans, payable over 15-years, by CDB and China EXIM.
- The project, which became operational in Q4 2017, is seen as vital in opening up Russia's arctic and in addressing China's energy needs.



## Abdal-Havelian Expressway (E35) (Pakistan/CPEC)

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- This motorway, built in northern Pakistan, links Pakistan with China, and is an important infrastructure upgrade as part of CPEC.
- It is the second motorway project in Khyber Pakhtunkhwa Province after the M-1 motorway linking Peshawar to Islamabad. The motorway comprises 30 bridges and flyovers, 31 underpasses and 157 box culverts and was completed on schedule in 3-years.
- Financing for the \$327 million project came from The Asian Development Bank (ADB) for \$205 million and the United Kingdom Department for International Development (DFID) from a grant for \$121.6 million.
- The new expressway was considered a missing link in Pakistan's transit route. It links the northern mountainous region with existing north-south motorways to boost the connectivity within Pakistan as well as positioning Pakistan as a trading hub between Western and Central Asia by transforming adjoining towns and industrial zones into economic corridors.
- Once inaugurated in December 2017, over 28,000 vehicles were expected to commute on the Hazara Motorway.



## Abu Dhabi Port/Industrial Park (Abu Dhabi)

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- In 2016, Abu Dhabi Ports, which operates Khalifa Port, signed a 35-year concession agreement with Cosco to operate a new \$700 million terminal that will add 2.4 million twenty-foot equivalent units (TEUs) a year to existing capacity of 2.5 million TEUs. Cosco Shipping also has an option to increase the capacity by a further 1.1 million containers.
- In September 2017, five Chinese companies have agreed to spend a total of \$300 million in a deal with Abu Dhabi Ports. The companies are from China's eastern Jiangsu province and will boost investments in pharmaceuticals, electronics and aluminium smelting.
- In Q1 2018, Abu Dhabi Ports and Cosco broke ground for the construction of a new container terminal at Khalifa Port. A new agreement between Cosco and Abu Dhabi Ports was also signed for development of a container freight station, which will be the largest in the region. It forms part of ambitious plans to more than double the container-handling capacity at Khalifa Port over the next several years.



# Exporting the Chinese Model to BRI Countries

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## Cambodia as a Case Study

- This paper initially analyses 16 Phase 1 projects (defined below) including 6 renewable energy projects and 10 infrastructure projects, during the period of 2011-2017, all funded by Chinese partners.
- The combination of efficiently managed Chinese infrastructure spend to further lift an economy already ranked 6<sup>th</sup> globally in average growth and possessing a stable government has produced an even more attractive environment for corporate investors across countries and industries.
- FDI increased by 25% during 2016; momentum which continued into 2017.
- While China has represented the lead FDI investor (we analyse Chinese corporate investments by sector and by specific investments over \$1 billion) there has also been increased investment from major corporates based in Japan, Korea, Hong Kong, Singapore and France.

# Thank you

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