ICS WEDNESDAY WEBINAR

China-Zambia Economic Relations: Perspectives from the Agricultural sector

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REPORT

The Chair, Amb. Rajiv Bhatia began by noting that the monograph titled "China-Zambia Economic Relations: Perspectives from the Agricultural sector" put together by Dr. Veda Vaidyanathan and her colleagues, is a crucial input in the shaping and conduct of India's external relations and India's bilateral relations with China and Africa and therefore we are grateful to ICS for taking this laudable initiative. Arguing that Africa will have a great role to play in world affairs in the 21st Century, he stressed that we need to fully understand as to what it does not or more international actors have been doing in Africa, because until and unless we understand that, it would not be possible to accurately shape and conduct our relations with Africa. So in that context, the focus today is going to be on China. We have multiple views on China but broadly three schools- Chinese media and Chinese officialdom from which we hear, quite understandably, all the positive things about China's role in Africa; secondly, the writings of China scholars in the West, at a time also in India is that there is nothing that China does is right in Africa; and thirdly, writings from Africa which are also somewhat divided among critics and admirers, but overall the Chair's impression is that African view on China's role is far more positive than Western and other critics of China. So in that broad intellectual context, the scholars of today have chosen Zambia wherein agriculture plays a very significant role in the overall economic situation. A quick word on the monograph- this is a new study about China-Zambia on the whole spectrum of economic relations but the focus will be on the agricultural sector, and the purpose, Amb. Rajiv Bhatia stresses is to draw some practical and appropriate lessons for the benefit of India. This study serves, first of all, the interest of academics and it certainly will be very useful to Indian policymakers and Indian public opinion. Finally, the striking features of this study: firstly, it is a broad study of economic relationship; secondly, it has been done by a group of scholars who belonged to and based in Zambia, India and China and thirdly, not only through desk research but also through ground-level interviews, the authors have come up with case study that draws some specific conclusions for the Indian government, Indian business and industry and Indian academics. Hence, this deserves some close attention. Amb. Rajiv Bhatia makes a final point by highlighting the role played by Dr. Veda Vaidyanathan and welcomes other panelists who all have a sterling background and requests Dr. Veda to take over and talk about her piece.

SPEAKERS:

Veda Vaidyanathan began by thanking the Chair for the introduction and onto her presentation "China-Zambia economic Relations: Introduction and Overview". This study is part of the ICS 'China in the world' research vertical which aims to understand China's place in the world and its global footprint. For the uninitiated China is today Africa's largest trading partner and the single biggest creditor, it's also the single largest financier of African infrastructure. It is important to look at what China is doing in Africa from an Indian perspective because several countries in Africa have been historical partners for India and they have now evolved into very important development partners. Zambia is important to study because the China-Zambia relationship is also historic: the Tazara Railway that China built is often considered a watershed moment in China-Africa relations, and more importantly, the government of Zambia has taken a special interest in attracting Chinese FDI. For instance, several officials from different ministries in Zambia go to these 'Road shows' in China, different job fairs and expos to try and attract Chinese investment, the ZDA (Zambia Development Agency) has also hired a Chinese citizen to help this process easier. The authors not only did their desk research but also conducted in-the-field interviews of farmers, entrepreneurs, agronomists and officials to get multiple perspectives. The aim is largely to inform policymakers and industry of what's happening in these regions and in these sectors but also hoped to contribute to larger Africa-China discourse.

Illustrating her point through a graph, Dr. Veda showed that Chinese investments in Zambia grew exponentially after 2015, and that the sectors getting most of the investments were manufacturing, mining and construction, among which mining was at the core of this relationship. Chinese actors have been increasing their footprint across the value chain. Similarly, infrastructure development is also a huge part of the relationship. While Chinese infrastructure has been vital for Zambia, there also has been a lot of criticism around the fact that some of these projects could be “white elephant projects”, in the sense they have not created the backward and forward linkages or generated the kind of employment as expected. Furthermore, manufacturing is a sector that suddenly received a lot of investments as well.

So then why study agriculture? Agricultural sector in Zambia contributes 20 per cent to GDP and employs over 70 per cent of the population. Zambia also has high arable land and agro-climatic conditions, suitable for a number of crops. More importantly, the government in Zambia has several incentives for foreign investors- necessary for economic growth and poverty reduction of the country. These foreign investors can lease land usually for a period of 99 years. Beyond large scale farming, agriculture also has immense business potential in supplying farm inputs and equipments, irrigation systems, agro-processing commodity trading etc. Indian Chinese companies are present across the agro-business value chain as well. As a matter of fact, Dr. Veda mentioned that there were many Indian farmers active in the Zambian agricultural sector and this shows that the agro-business industry is something that the Indian entrepreneurial industry is very interested in, and that is one of the reasons why they chose to study the agricultural sector. Going ahead, Dr. Veda now cedes the floor to her colleagues.

Caesar Cheelo presented on “Bilateral Trade Relations between China and Zambia over 2000—2018” and expounded on how their relationship has evolved over the past two decades. He also drew insights on the important considerations that Zambia’s open economy needs to take based on potential implications. His presentation focused on the agro-trade between China and Zambia.

He began by noting the difference between China and Zambia in terms of economy. Between 2015 and 2018, Zambia's annual average GDP was around US$24 billion, while China's average GDP was US$12 trillion. During the same period, higher productive capacities were observed in China where manufacturing value contributed 29 per cent to its GDP, while the same added only eight per cent to Zambia’s GDP. There was difference in export levels as well. In 2019, Zambia's exports were US$7.5 billion compared to China's exports of US$2.5 trillion per year. It has been observed that Zambia has a notable bilateral trade surplus over China. This is despite the fact that Zambia's exports to China grow at a much smaller rate than China's exports to Zambia. On account of the bilateral trade surplus that Zambia has over China, Zambia exports more to China than China exports to Zambia. However, on analysing the quality of the bilateral exports, certain observations came to light.

China's exports to Zambia are diversified and they are focused on high-value, sophisticated products. On the other hand, Zambian exports to China are very much concentrated in one commodity, predominantly in copper. According to Mr Cheelo, this demonstrates China's great domestic productive capacities and their ability to take advantage of even small markets like Zambia. He gave an example of the supply deficit that traditionally existed for fish in the Zambian market. China noticed this trend and took advantage of it which resulted in the increase in fish exports from China to Zambia. China was able to do so by conducting research and discovering that the most popular type of fish in Zambia is Tilapia. They then harvested genetic materials from Zambia, transported them to China and started production lines in China of Tilapia, which they then exported to Zambia. He notes this case as an important lesson for developing economies who wish to replicate China's model in terms of building productive capacities.

In conclusion, Mr Cheelo highlighted Zambia's need for strategies to attract Chinese FDI to help them build domestic productive capacities at home. This would lead to various benefits including improving the ease of doing agro-business, commercialization, modernization, and so on. He also added that Zambia needs to further harness the debt from China as a development finance option by appropriately allocating the resources and building up productive capacities. Currently, debt from China is estimated to be around 27-35% of Zambia's total public debt stock.

Musadabwe Chulu, Policy Analyst, Ministry of Agriculture, Government of Zambia presented his paper focusing on "Enhancing Zambia's human capacity? The dynamics of China-Zambia agricultural skills and knowledge transfer". He stated that agricultural sector in Zambia is one of the major economic sectors that support over 50 per cent of the population and over the past five-six years agricultural sector has contributed nine per cent of GDP. One of the key challenges has been low productivity. In order to address this, one mechanism that has been identified is skills development. He also pointed out that the

Chinese government through Forum on China-Africa Cooperation (FOCAC) has provided opportunity for the Zambian government to have some of its staff trained in agricultural skills and knowledge. There has been an increase in Chinese investment in agricultural sector which comes from the state government, national government and provincial government as well as individual farmers. He highlighted that some of the skills gained by Zambian staffs in China can be applied to these investments.

Key Findings of the Study: Since the year 2000, over 984 Ministry of Agriculture (MOA) staff has undergone training in China. Interestingly, there is at least 40 per cent female participation in the training. Major modes of delivery for the trainings were seminars and workshops that were held in China for duration of two-three weeks. One of the biggest challenges in these trainings was that some of the courses that were offered were not fully linked to the training needs development plan of the MOA. Notwithstanding the applicability of the trainings to the Zambian situation, however, the differences in the technology between Zambia and China make it a bit difficult to implement in Zambia and more adaptation of the training to the Zambian situation is needed. It was also noted that most of the training that were done in China were not fully supported in Zambia by either the Zambian or the Chinese government.

Conclusion and Recommendations: The skill transfer targets appropriate staff and the benefits of this training are likely to be passed on to the small scale farmers. It is also noted that the training should be adapted to the Zambian context. It is recommended that mechanization centres should be established to support the training in the country. This will help to bridge the gap between the technology used in China during the training and the technology that is available in Zambia. He also highlighted what India can learn from this approach. He added, South to South Cooperation remains key in skills transfer. India also has some form of training with MOA which might take form of workshops. His recommendation is to undertake in-country training and also adapt the training to Zambian needs apart from workshops outside Zambia.

Mr Muyobozi Sikalubya presented on the topic "Artificial Intelligence in Zambian Agriculture: Case Study of a Chinese firm-Guangzhou Jifie Technology Co., Ltd. (XAG

广州极飞科技有限公司)". XAG is a Chinese firm headquartered in Guangzhou which manufactures agricultural drones. In Zambia, it is working with farmers to provide advisory services for sowing, land preparation, application of fertilizer and pest control. By using AI in the form of drones, it aims to combat certain pests that have ravaged Zambian crop fields, such as the "fall armyworm (FAW)". The Zambian government merged with XAG and adopted AI in the agriculture sector to combat the FAW. As a result, XAG managed to spray over 270 hectors of cropland and successfully eliminated the FAW.

Thus, based on the concrete application of AI, a science-driven Integrated Pest Management method has been established and incorporated to specifically fight against fall armyworm and locusts. AI-tech such as these drones has also attracted a number of youths with enormous potential into the agriculture industry as it is a new development that is intriguing to the younger generation. The adopted technological devices avail information on meteorological conditions, soil grades, breeding, precipitation, pest infiltration and descriptions using drones and remote sensing. To that effect, the future of farming fundamentally hinges on the adoption of cognitive solutions like AI in the agriculture sector.

Summarizing the presentation, Mr Sikalubya stated that the adoption and application of AI in the Zambian agriculture sector have enabled local Zambian farmers to mitigate factors that are deterring agribusiness growth. However, despite all these efforts to foster the application of AI in the agriculture sector, he notes that there is still a deficiency of expertise in using high-tech machinery among small-scale farmers in Zambia as innovative research in agriculture is still at the infant stage, which is why the industry is still decidedly underserved. Finally, Mr Sikalubya points out that there is scope for India to venture into this sector by collaborating with the Zambian government. By investing in this sector, India could provide AI and also help in ensuring that all the farmers are equipped to use these AI devices to their maximum potentials.

Tong Wu, independent China-Africa consultant focused on three case studies on the diversity in China-Zambia agricultural co-operation. She started by highlighting the findings of Agriculture Technology Demonstration Centers (ATDC), which is the flagship project of Chinese agricultural aid programme in Africa. ATDC project was first proposed in 2006 and by 2012 over 23 ATDC projects were operational. ATDC is examined to be market oriented and of sustainable cooperation model. The Chinese government provides infrastructural construction and agricultural equipment and only covers operational fee of the ATDC for first three years. In most cases, each of the ATDC countries is connected with provinces. For instance, in Zambia, it is supervised by government of Jilin province and all the experts from Zambia's ATDC are from the Jilin University. Currently, the ATDC has five Zambians and six Chinese staffs. The centre's work is based on four pillars: scientific research, technical demonstration, technical training and extension of the technology. This year ATDC examined over 460 local varieties of crops, introduced tools and farming techniques to local farmers, organized 59 workshops, trained over 1000 people.

Secondly, the Zhongken Estates Ltd. is one of the oldest farms in Zambia. It is a state owned enterprise and was established by China state farm agriculture cooperation in 1993. The Chinese manager, in charge of this farm is directly appointed by Beijing. Zhongken farm is highly dependent on chicken. However, the income from the chicken breeding has been decreasing due to local competition. The total amount of crop production is around 3000-4000 tons each year, most of which is sold to the local market. The farm currently employs four Chinese citizens and 12 Zambian managers and 150 formal employees. Zhongken pays lot of attention to local manager training and they have sent nine managers to China for training for a period of one-two months.

Thirdly, Zhongyang Eco-friendly Agriculture Industry Park founded by Zhongyang construction group Co. Ltd. which is a private Chinese company and it doesn't have any experience in agriculture sector. However, it has ambition to build Eco- agriculture industrial park as modern, advanced, demonstration centre with 10 zones (crops, food processing, digital agriculture stance, allocation, lifestyle choice, animal, fruits, aquatic products and recreation) and two centres (ministry and employees centres).

She briefly pointed out the common challenges. She highlighted that unstable Kwacha (Zambian currency) affects agricultural business and high tax rates and increasing operational costs bring agricultural business thin profit. ATDC provided a new model of aid program and is replicable but Zambian and Chinese agriculturists operate separately. Zhongken, being one of the oldest Chinese farms in the country seems to have established ties with local workers although their biggest competitors are entrepreneurs who used to work in their farms. Zhongyang's ambition to build a modern multi-function eco-agriculture park represents the confidence from Chinese investors on agricultural sector. COVID-19 pandemic has slowed down the progress of the park and pushed back the ambitious plan. She also highlighted several takeaways from the three case studies. Currently there are more than 40 private Chinese farms operating in Zambia and their products vary from crop to poultry. Most farms target local market and there is no evidence to suggest that these Chinese agricultural investments are focused on exporting products to China. The backgrounds of these investors are very diverse. Some of them don't have any farming background but were driven by profit. Most of the investors see agriculture as business opportunity or a type of investment. Some farms are very small and only plant the crop providing for the Chinese communities in Zambia.

Dr. Veda concluded the presentation with the following key insights:- (a) the trade currently between China and Zambia is incredibly lop-sided (b) Investments from China have been exponential these haven't created significant forward or backward linkages, largely because of the technological and skills gap between local Zambian firms and Chinese firms. (c) The local manufacturers are not able to compete with crisis of Chinese imports. (d) China is seen to be prioritizing on the skills and knowledge transfer. (e) There were anti-Chinese sentiments in Zambia which can be attributed to several socio-cultural stresses; lack of integration, low working safety standards, lower compared to Western countries or even Zambian companies and also ignoring local sensibilities. Zambia's increasing debt to China is also a cause of concern. (f) There is a larger diaspora being formed with increasing Chinese entrepreneurs coming to Zambia as for instance, the 'China-Zambia Association'. (g) There is excessive dependence on copper and on China. (h) Nevertheless, China has been thinking beyond traditional frameworks of cooperation and seeking out innovative methods of engaging with different stakeholders.

Takeaways for India:- Incentivize investments into Zambia, setting up an India desk or consultant at the ZDA who could connect Indian and Zambian industries; harness Indian technological and fin-tech startups to work with Zambian actors to address challenges; conduct an assessment of existing initiatives, and provide industry-specific capacity building opportunities, as this will help leverage Indian strength with Zambian requirements; Indian higher education institutions could also be paired with partner institutions in Zambia and have exchange programs in place; liberalize and encourage states to directly invest as sub national entities, and connect civil society organizations; diaspora institutions can be strengthened and organized to create avenues of cooperation.

In the Q&A session, questions were raised about the positive and negative traits of Chinese economic contribution to Zambia's economic growth. Concerns were raised about significant debt to China, and the non-transparency of the contractors. However, the debt is much more effective than other forms of debt in the sense that it is materialized in delivering significant portion of intended benefits such as infrastructure, productive capacities, education facilities etc compared to Eurobonds which cannot be tied to specific projects. Another positive trait is getting access to Chinese market, and growing less dependent on Copper exports; whereas very little export oriented investments in Zambia was another negative trait. The drones used in agriculture were operated by both Chinese and Zambians, however there is a gap in the transfer of technical know-how on maintenance and repair of the drones which is entirely done by the Chinese. In sum, Chinese "generosity" has failed to enhance manufacturing capacity of Zambia, and as such Indian investment can contribute to manufacturing capacity of Zambia, in turn giving China a "good run for their money".