ALIGNING CHINA'S DEVELOPMENT STRATEGIES AND COMMODITY TRADE TO ACHIEVE A SUSTAINABLE SOY SUPPLY CHAIN

For Chinese Policymakers and Companies

Executive Summary

In recent years, China has become a key global player in climate action, green finance and investment. Its 13th Five-Year Plan (2016-2020) includes three times as many sustainability related terms than the previous Plan[1]. Through its vision for an Ecological Civilisation, China aims to promote a development model that strengthens the synergy between environmental protection and economic growth[2].

China is a key player in international trade, and imported commodities are central to the country's economy, and its food security. China has the chance to use its role as a leading actor in promoting cooperation and development in commodity producer countries to drive sustainable agriculture systems and resilient supply chains. A key move would be to put in place safeguards to eliminate deforestation from the production of key forest-risk commodities such as soy.

In this policy brief, CDP will explore how China can better align its international cooperation and trade activities to green development policies and reinforce its role as a global environmental leader. By doing so, China has the potential to greatly influence the sustainability of global agriculture and food supply chains, while meeting national demand for imported soy, guaranteeing the country's food security, and reducing pressure on forests in producer countries.

Our recommendations for policy measures are:

- **Increase Green Investment:** As a leading actor in green investment, with the potential to shift capital to green finance, we recommend that China, in alignment with producer countries' development plans, increases its investments in sustainable agriculture.

- **Enhance Corporate Transparency:** Expand the recommendations of the Belt and Road Ecological and Environmental Cooperation Plan, including mainstreaming corporate reporting of companies engaged in imports of forests risks commodities.

- **Reduce Deforestation:** China should promote sustainable agriculture under bilateral and multilateral collaboration mechanisms, aiming to reduce deforestation in producer countries.

About CDP

CDP is an international non-profit that drives companies and governments to reduce their greenhouse gas emissions, safeguard water resources and protect forests. Voted number one climate research provider by investors and working with institutional investors with assets of US$87 trillion, we leverage investor and buyer power to motivate companies to disclose and manage their environmental impacts. Over 7,000 companies with over 50% of global market capitalization disclosed environmental data through CDP in 2018. This is in addition to the over 750 cities, states and regions who disclosed, making CDP's platform one of the richest sources of information globally on how companies and governments are driving environmental change.

1. 2018, TFA2020. *https://www.tfa2020.org/wp-content/uploads/2018/02/40020_White_Paper_Greening_Commodity_Supply_Chains_in_Emerging_Markets.pdf*
2. Wang-Kaeding, 2018. What does Xi Jinping's New Phrase 'Ecological Civilisation' Mean? Available at *https://thediplomat.com/2018/03/what-does-xi-jinpings-new-phrase-ecological-civilization-mean/*

China as a global player in green development

In recent years, China has become a key global player in green development and, through its vision for an Ecological Civilisation, it aims to promote a development model that strengthens the alignment between environmental protection and economic growth[3]. China's prominent role is already visible in the field of climate change, green finance and investments, and South-South cooperation initiatives.

China is now driving the global trend towards clean energy. It is the largest investor in domestic renewable energy, with annual investments exceeding US$100 billion. China is also investing unprecedented sums in renewable energy abroad and, in 2017, Chinese investments in large overseas green energy projects (valued at US$1 billion or more) exceeded $44 billion, compared to $32 billion identified in 2016[4]. Following this trend, in 2016, the People's Bank of China and six other authorities jointly issued the Guidance on Building A Green Financial System, the first comprehensive green finance policy framework worldwide, and in November 2018, the Asset Management Association of China has released a trial version of its Green Investment Guidelines.

The aforementioned initiatives by Chinese authorities demonstrate the knowledge and concern with environmental impacts of China's overseas investments and cooperation projects. While these are usually stressed in infrastructure and energy projects, these concerns should also be included in China's trade policies, especially in commodity trade. Given China's significant role in the international trade of commodities that secure its food supply, the country can lead the transition to investment in sustainable agriculture systems and resilient, zero deforestation supply chains. This would ensure China's food security in the long term, and also help to prevent dangerous climate change.

China's ambitious Belt and Road Initiative (BRI) mobilises $1 trillion in overseas investment infrastructure to boost trade and growth and provides the broader policy framework for China's investment abroad. Initiated in 2013 and expanded to incorporate Latin American and Caribbean countries in early 2018, the BRI now encompasses more than 65 countries and comprises more than 69% of the world's population and 29% of the global economy[5].

The previous Ministry of Environmental Protection's Belt and Road Ecological and Environmental Cooperation Plan[6], formulated in 2017, offers guidance on the environmentally-friendly implementation of BRI projects and connects the BRI with China's vision for an Ecological Civilisation Community and shared interests, responsibility and future. It aims to enable companies to play a major role in environmental governance (including environmental disclosure), to promote sustainable production and consumption, boost trade, and enhance supply chain management[7]. China represents one of the largest markets in the world. As such, aligning Chinese corporate behaviour with environmental protection can create important spillover effects that fundamentally impact global markets and change corporate behaviour.

3. What does Xi Jinping's New Phrase 'Ecological Civilisation' Mean? Available at *https://thediplomat.com/2018/03/what-does-xi-jinpings-new-phrase-ecological-civilization-mean/*

4. 2017, IEEFA. . China 2017 Review. Available at *http://ieefa.org/wp-content/uploads/2018/01/China-Review-2017.pdf*
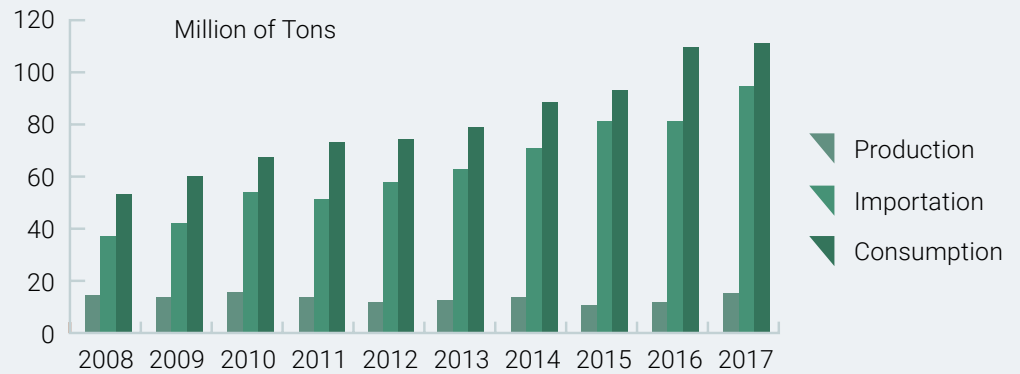
5. 2017, Green Finance Initiative. Greening the Belt and Road. Available at *http://greenfinanceinitiative.org/wp-content/uploads/2017/10/Greening-the-Belt-and-Road-English.pdf*

6. 2017, The Belt and Road Ecological and Environmental Cooperation Plan. Available at *https://www.yidaiyilu.gov.cn/wcm.files/upload/CMSydylgw/201705/201705140543014.pdf*

7. 2017, The Belt and Road Ecological and Environmental Cooperation Plan. Available at *https://www.yidaiyilu.gov.cn/wcm.files/upload/CMSydylgw/201705/201705140543014.pdf*
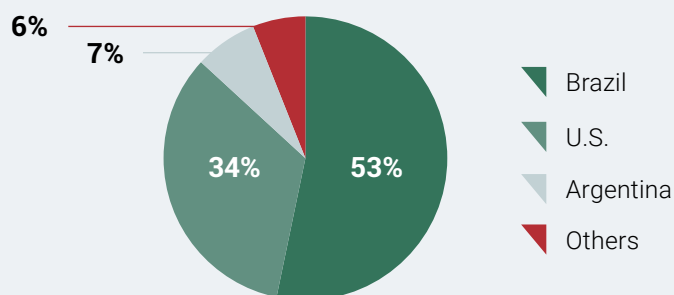
China and soy trade

Figure 1: Annual China's Soy Imports

Million of Tons

- Production
- Importation
- Consumption

[Bar chart showing Production, Importation, and Consumption in Million of Tons from 2008 to 2017. Y-axis ranges from 0 to 120.]

The growing global demand for soy has boosted production in the recent years. For example, Brazil's soy production has tripled in the past 20 years, driven particularly by the demand in China and Europe[8]. China is the world's largest soybean importing country, with 87% of its soybeans - 95.535 million tons in 2017 - dependent on foreign sources (Figure 1)[9]. Historically, imports have mainly come from Brazil, the United States and Argentina, accounting for 53%, 34% and 7% of China's total soy imports in 2017 respectively (Figure 2)[10].

Figure 2: Main Soy Importation Countries in 2017

6%

7%

34%

53%

- Brazil
- U.S.
- Argentina
- Others

8. 2018, ResourceTrade. *https://resourcetrade.earth*

9. *http://www.chyxx.com/industry/201808/667449.html*

10. *http://www.chyxx.com/industry/201808/667449.html*

Soybeans are primarily used for animal feed. Per capita meat consumption in China has increased sevenfold in the last 35 years, driven by accelerating urbanization and a growing middle class. The global average annual meat consumption is 34.2 kg per capita and average consumption in China is 49.2 kg per capita.[11] , and it is estimated that by 2030 this will increase by an additional 27kg[12]. This growth will spur a growing demand for soy and other crops, and estimates show that Chinese meat production will rise by 23.8 million tonnes by 2027, and that by the same year Brazil will become the largest soybean exporter, representing 41.8% of global soy production[13].

Soy production is one of the main drivers of native vegetation conversion in Latin America, and research shows that soy exports to China are significant in explaining the recent increase in deforestation in Mato Grosso, one of the most important agricultural regions in the world and home of 29% of Brazilian soybean production[14]. However, there is also evidence that existing demand for soy can be met through improved production on already converterd lands, without need for further deforestation[15].

11. *https://data.oecd.org/agroutput/meat-consumption.htm*

12. 2013, California Environmental Associates, "Dietary Trends in Asia: Environmental Impact and the Potential to Shift Meat Consumption Trends." 2013.

13. 2018, OECD-FAO Agricultural Outlook 2018-2027. Available at *http://www.fao.org/docrep/i9166e/i9166e_Chapter4_Oilseeds.pdf*

14. 2015, Fearnside and Figueiredo. China's Influence on Deforestation in Brazilian Amazonia: A Growing Force in the State of Mato Grosso. Available at *http://www.bu.edu/pardeeschool/files/2014/12/Brazil1.pdf*

15. 2016, Filho and Costa. The Expansion of Soybean Production in the Cerrado.

China's food security and the growing agricommodities trade with Latin America

China - USA trade uncertainty

Trade uncertainties between China and the US, have the potential to shift global soy trade pattern. In August 2018, China posed a 25% duty on a range of American products, including soy[16], resulting in huge drops in American soy importation and surge of soy imported from other regions, in particular, Brazil. In the 2018/2019 period, US soy exports to China are predicted to fall by 88.1%[17]. Meanwhile, soy exports from Brazil would grow 21% compared to 2017. China is expected to be the destination of 82% of all soy exported from Brazil in 2018[18].

Although China has introduced measures to mitigate the risks of the soy shortage, such as encouraging domestic soy production[19] and diversifying its soy sourcing countries [20,21,22], in the short-term, Latin America will remain the largest provider of soy to China. And while a diversification of trading partners, as a result of the trade war, may guarantee food security for China in the short-term, the long-term consequences of an increase of soy imports from Latin America also needs to be taken into account. Soybean production – through its impact on deforestation – can have serious consequences for the global climate and for food security.

Deforestation affects climate change and food security through several channels. The cutting of trees releases carbon dioxide and thus contributes to the greenhouse effect – around 11% of all greenhouse gas emissions are caused by deforestation. This in turn has important impacts on agricultural productivity, by changing temperatures, rainfall patterns and increasing the likelihood of extreme whether events[23]. The impact of substantial forest loss in the Amazon on mean temperature and rainfall, could cause soy yields to drop by up to 60% in some regions[24]. Some studies predict Brazil could lose 30% - 34% of its area for soy cultivation by 2030[25]. In the long run, rising deforestation can severely impact food production in Latin America which would in turn threaten China's Food Security.

By supporting sustainable agriculture in its international cooperation plans with producer countries, China has the opportunity to become a global leader in sustainable production and in the fight against deforestation in Latin America, which is highly consistent with China's vision of shared interests, responsibility and ecological civilization.

16. 2018, China.Org Available at: *http://www.mof.gov.cn/mofhome/nongyesi/zhengfuxinxi/bgtGongZuoDongTai_1_1_1_3/201804/t20180403_2858750.html*

17. 2018, ChinaGrain. Available at: *http://www.chinagrain.cn/axfwnh/2018/10/08/3709636709.shtml*

18. 2018, Folha de Sao Paulo. Available at: *https://www1.folha.uol.com.br/colunas/vaivem/2018/12/cresce-dependencia-do-agronegocio-brasileiro-das-importacoes-chinesas.shtml*

19. Ministry of Finance of the People's Republic of China. Available at: *http://www.mof.gov.cn/mofhome/nongyesi/zhengfuxinxi/bgtGongZuoDongTai_1_1_1_3/201804/t20180403_2858750.html*

20. 2018, General Administration of Costums, China. Available at: *http://www.customs.gov.cn/customs/302249/302266/302269/1901949/index.html*

21. 2018, General Administration of Customs, China. Available at: *http://www.customs.gov.cn/customs/302249/302425/1997497/index.html*

22. Ministry of Agriculture and Rural Affairs of the China. Available at: *http://www.moa.gov.cn/xw/zwdt/201811/t20181108_6162649.htm*

23. 2018, TFA2020. Available at: *https://www.tfa2020.org/wp-content/uploads/2018/02/40020_White_Paper_Greening_Commodity_Supply_Chains_in_Emerging_Markets.pdf*

24. 2015, Lawrence and Vandecar. Available at: *https://www.nature.com/articles/nclimate2430*

25. 2010, World Bank 'Impacts of Climate Change on Brazilian Agriculture: Refocusing Impact Assessments to 2050'

Recommendations for the inclusion of policies to reduce deforestation in China's international development strategies

Governments in producer countries need to work towards better governance, and effective implementation of regulation to reduce deforestation. At the same time, the Chinese government would introduce policies to guide Chinese enterprises to drive their trading partners through commercial power and jointly promote sustainable agricultural commodity trade. The combination of these measures should have a significant impact on forest protection..

As a key importer of agricultural commodities, China can play a central role in promoting sustainable trade. China has the chance to use its role as a leading actor in promoting cooperation and development in key commodity producer countries such as Brazil and Argentina to encourage sustainable agriculture systems and resilient supply chains. This could reduce the need for deforestation and contribute to the long-term productivity and supply of agricultural crops to guarantee China's food security. Many of the tools and policies that could help reduce deforestation and promote sustainable agriculture already exist. Mainstreaming these tools and policies into China's international cooperation plans and extending green investment principles and criteria to international trade could have a significant impact in commodity producer countries and reinforce China's role as an environmental leader. CDP's recommendations for policy measures are as follows:

1 Align China's green finance investments with sustainable international trade

Estimates suggest that land-based initiatives can provide up to 30% of climate solutions but currently only receive 3% of funding[26]. China plays a leading role in green investment and thus could shift capital to land based solutions to climate change. We recommend that China increases its investments in sustainable agriculture, both domestically and abroad.

In order to invest in more sustainable initiatives, investors need more information. The guidelines issued by the Asset Management Association of China on green investment encourages that asset and fund managers request the companies they invest in to disclose environmental information.

Nonetheless, the instructions in the above-mentioned guidelines are very general. We recommend that these are updated to include more specific guidelines on deforestation impacts caused by commodity trade, so that investors have a better understanding of the risks of investing in commodities such as soy. This will help investors to incorporate deforestation risks into investment decision-making and shifting capital to deforestation-free investments.

It is noteworthy that some Chinese companies have already started to explore how to reduce the deforestation impacts that Chinese soy importation have in producer countries through joining the China South America Sustainable Soy Trade Platform[27]. If investors send a positive signal to companies that have soy in their supply chains to pay attention to deforestation impacts of commodity trade, more companies will be likely to take actions to remove deforestation risk from their supply chain to attract more investment.

Finally, increasing investment in sustainable agriculture may also create space for closer cooperation between China and Latin America. In recent years Brazil has seen successful cases of green bonds being issued by Brazilian companies, which included investment in forestry and onservation. The knowledge generated by these initiatives could also be shared with Chinese investors, and promote the green bond market internationally.

26. 2018, GEF. Available at: https://www.thegef.org/news/global-business-government-and-agricultural-leaders-announce-land-focused-commitments-mitigate
27. http://www.sustainablesoytrade.org/

2 Enhance corporate transparency and expand the recommendations of the Belt and Road Ecological and Environmental Cooperation Plan

The Belt and Road Ecological and Environmental Cooperation Plan aims to facilitate trade of environmental products and services by escalating environmental management of import and export trade as well as disclosure of corporate environmental information[28]. More recently, the Green Finance Committee of China Society for Finance and Banking and the City of London's Green Finance Initiative jointly published principles on green investments for the Belt and Road[29]. These also included a request on corporates to disclose environmental information by conducting analysis of deforestation impacts of their investments and operations.

Corporate disclosure can be done through different tools. CDP operates an environmental disclosure platform for companies to report on their forests risk commodities, and assess deforestation risks and opportunities for action in their supply chains. In 2018, 49% companies (42 out of 86) disclosing through CDP on soy identified a forests-related risk (physical, regulatory, reputational and markets and/or technological) within their operations with the potential to have a substantive financial or strategic impact in their operations.

As well as promoting environmental disclosure, the Belt and Road Ecological and Environmental Cooperation Plan aims to promote sustainable production and consumption and boost green trade. While these recommendations are mostly focused on infrastructure and energy projects we recommend that the green requirements for the investments and projects under BRI should be expended to all areas of international cooperation and trade.

28. 2017, The Belt and Road Ecological and Environmental Cooperation Plan. Available in: *https://www.yidaiyilu.gov.cn/wcm.files/upload/CMSydylgw/201705/201705140543014.pdf*

29. 2018. Green Finance Leadership Program. Available at: *http://www.gflp.org.cn/index/index/newsdetail/id/34.html*

3 Reduce Deforestation: Promoting sustainable agriculture under bilateral and multilateral cooperation

We recommend that China works to enhance its collaboration with soy producer countries, through bilateral and multilateral mechanisms, to prevent deforestation. Such moves would ensure a sustainable soy supply for China's food security. The detailed recommendations are:

3.1 Increase traceability and transparency of soy supply chain

In line with existing regulations, soy can currently only be traced to the country level. This is not enough for Chinese soy importers to establish whether or not soy was produced in deforestation risk areas, and whether exporters they comply with their country's national regulation. We recommend that Customs of both China and the exporter country increase the level of traceability and transparency mechanisms of soy. By requesting more information on the origin of soy, China Customs and Chinese soy importers will help monitor and trace potential deforestation risks and ensure compliance with the Brazilian Forest Code and other national regulations.

3.2 Enhance satellite monitoring cooperation

In 1999, China and Brazil launched the China-Brazil Earth Resources Satellite, which is used to monitor deforestation in Brazil. An additional satellite that will also serve to monitor deforestation in the Amazon region is currently being tested and scheduled to be launched in 2019[30]. Studies show that improving monitoring and law enforcement was the main driver of the deforestation slowdown in the early 2000s in Brazil. These are also some of the most effective policies for reducing deforestation[31].

We recommend that these technological exchanges and cooperation practices are strengthened and further developed by China and other Latin American countries, such as Argentina, to promote an effective tool to monitor and control illegal deforestation.

30. 2018, Rio Times Online. Available at *https://riotimesonline.com/brazil-news/rio-politics/brazil-china-satellite-to-track-deforestation-slated-for-2019/*

31. 2013, Climate Policy Initiative. Available at *https://climatepolicyinitiative.org/publication/deterring-deforestation-in-the-brazilian-amazon-environmental-monitoring-and-law-enforcement/*

32. 2016, Viña, A., W.J. McConnell, H. Yang, Z. Xu and J. Liu. Effects of conservation policy on China's forest recovery. Sci. Adv. Available at *http://advances.sciencemag.org/content/2/3/e1500965*

3.3 Exchanges and learnings to strengthen forest governance and management

Over the past 20 years, China has achieved great success in tackling domestic deforestation. The Natural Forest Conservation Programme, a forest conservation and restoration initiative led by the Chinese government, has recovered nearly 61,000 square miles of forest in the country[32]. Through the implementation of this program, the protection of land resources has been strengthened and the deforestation caused by the indiscriminate agricultural cultivation has been effectively curbed. As a global leader in green development, China is expected to establish itself as a global leader to curb global deforestation, especially illegal deforestation.

We also recommend that China share its domestic experiences of forest recovery as part of its South-South cooperation strategy, and help other countries to similarly expand its forest coverage.

3.4. Include discussions on deforestation and biodiversity loss in the 15th Convention on Biological Diversity in 2020.

In 2020, China will host the 15th United Nations Convention on Biological Diversity (CBD), in Beijing, which will set the agenda and goals of biodiversity protection for years to come, and align these with the Sustainable Development Goals and with the Paris Agreement. The action agenda leading to 2020 aims to raise awareness on biodiversity loss, to implement nature-based solutions to environmental challenges, and increase cooperation among countries[33].

Deforestation linked to commodity supply chains is a major threat to biodiversity in producer countries. The Brazilian Cerrado and Argentinian Chaco are two example of extremely biodiverse regions that are being cleared for soy production.

As the host of the 15th CBD, China has a mandate to set the agenda and the ambition of this conference, and it can drive leadership in this area by creating ambitous targets for biodiversity protection. Therefore, we recommend that China includes the impact of commodity driven deforestationn on biodiversity as part of the agenda of the 15th CBD conference.

33. 2018, IISD. Available at *http://sdg.iisd.org/news/egypt-china-cbd-launch-action-agenda-for-nature-and-people/*

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This project is supported by: