DEVELOPMENT REIMAGINED

AGRICULTURAL COOPERATION UNDER THE FOCAC UMBRELLA

Authors:

W. Gyude Moore and
Anna Christina Baisch

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DEEPDIVE – AGRICULTURAL COOPERATION UNDER THE FOCAC UMBRELLA

For African Policymakers

SECTION 1 – INTRODUCTION

For the first time in a global context dramatically changed by the COVID-19 pandemic, the 8th FOCAC Ministerial Conference will be held in Senegal in the fourth quarter of 2021. The pandemic has had a significant negative impact on Africa's economy, with many countries facing declining GDP and economic growth rates. Beyond this, the past months have helped shine a light on policy areas that require further attention. This context necessitates a reflection on past Africa-China cooperation under the FOCAC umbrella, as well as an exploration on how to best adapt it to newly highlighted policy priorities. At the 2018 Forum on Africa-China Cooperation, President Xi explicitly used two Chinese four-character idioms to describe the Africa-China relations – "不可限量，大有可为" ("Unlimited and promising"). From the top leaderships to different levels of governments, there is no doubt that African countries and China see significant hope and potential in the partnership.

About two thirds of Africa's economically active population is employed in the agricultural sector,[1] but its full potential has not yet been reached. Agriculture has largely remained concentrated on subsistence-oriented smallholder farms,[2] with many lacking skills to enhance productivity and further process agricultural products. Even though Africa possesses 60% of the world's uncultivated and arable land, it has remained a net importer of food.[3] This is especially pertinent considering the rapid population growth on the continent, climate change and connected fears over food security. Beyond this, agricultural development holds potential to reduce poverty, create jobs and empower women.[4] In its 2014 report on the state and promise of African agriculture, the African think tank, ACET, argues that "agriculture can lead economic transformation in many countries in Africa—if farm productivity is raised and farming is linked to manufacturing and other sectors of the economy through agro-processing, other agriculture-based manufacturing, and finance, logistics, and other upstream and downstream services."[5] Yet this potential remains largely unrealized.

This deepdive, intended for African policymakers, draws on desk research, and exchanges with both Chinese and African experts and government officials. These include an interview with the Permanent Representative of the African Union to China, the August 2021 CAITEC *African Needs Assessment under FOCAC Consultation Meeting with African Embassies*, and Development Reimagined's September 2021 *African Ambassadors to China Retreat*.

Following an overview of Sino-African cooperation in agriculture to date, as well as challenges to African agricultural productivity in this introductory section, section two of this deepdive analyses previous FOCAC policy on agricultural cooperation. It includes overall trends, categorises commitments and takes stock by assessing interim results of agricultural cooperation under the FOCAC umbrella. This is

[1] https://www.giz.de/en/worldwide/61109.html
[2] Xinqing, (2020)
[3] Arnoldi (2021)
[4] https://www.giz.de/en/worldwide/61109.html
[5] https://acetforafrica.org/media/stakeholders-dialogue-on-transforming-agriculture-to-power-economic-growth/

followed by four country cases, each highlighting an issue area of agricultural cooperation: Liberia, Mozambique, Senegal, and Kenya. Finally, based on the preceding analysis, this deepdive provides a number of recommendations to African policymakers in order to further improve Sino-African agricultural cooperation in anticipation of the 8th FOCAC Ministerial Conference and beyond.

1A) Overview of Sino-African Cooperation in Agriculture to Date

Chinese involvement in African agriculture has a long history dating back to a 1959 food grant to Guinea. China's model of agricultural cooperation in Africa has largely been an attempt to apply lessons from its own agricultural development to the African continent. As such, China conceptualises it as an entirely new paradigm: Chinese agriculture did not develop through traditional DAC-guided aid, nor will African agriculture.[6] Agricultural assistance mostly consisted of bilateral cooperation mechanisms until the introduction of a multilateral mechanism with FOCAC and trilateral mechanisms through cooperation with IOS such as the UN and FAO, non-profits, and developed countries.[7]

The Africa-China cooperation story in the agricultural sector can be separated into three broad phases,[8] with an ever-increasing move towards mutually beneficial cooperation and the combination of aid, investment and trade activities.

The aforementioned perceived paradox of an abundance of land and food insecurity is considered the central issue to be addressed by agricultural cooperation. Chinese and African perspectives (for instance in the follow-up to CAADP) have aligned in viewing technology transfer as a central avenue to address this paradox.[9]

Phase One: From State Farms to Support for African Smallholders – 1960-1982

During its first phase, Chinese engagement mostly took the shape of bilateral, one-way, donation-based provisions of technical aid.[10]

In the 1960s, Chinese projects mostly were large state-owned farms such as Tanzania's Mbarali state farm. From the 1970s onwards, China started to move away from large scale farms towards smaller demonstration farms.[11] Furthermore, agricultural experts were dispatched.[12] Here, the focus lay on helping African countries 'achieve ''self-reliance" (duli zizhu 独立自主) and solve food insecurity problems. The ''Eight-Word Agricultural Constitution" and collective farming, ''Dazhai (大寨)", both salient in domestic China during the 1950 to 1970s, were extended to African countries.'[13]

Phase Two: Consolidation and Experimentation – 1982-1995

During their second phase, Chinese agricultural engagements in Africa stressed the technical and economic dimensions of agricultural aid, and started to blur the lines between aid, south-south cooperation and investment while emphasising the goal of making relations between China and Africa mutually beneficial. Tripartite cooperation in agriculture was also introduced: China provided experts to UN social development funds which then set up projects in African countries. Finally, investment and public-private partnerships took centre stage.[14] As many

[6] Buckely (2013)
[7] IFPRI (2018)
[8] Brautigam and Xiaoyang (2009)
[9] Xiuli Xu et al. (2016: 83)
[10] https://en.cnki.com.cn/Article_en/CJFDTotal-NYSK201104001.htm ; Buckley (2013)
[11] Brautigam and Xiaoyang (2009)
[12] Xiuli Xu et al. (2016: 83)
[13] Xiuli Xu et al. (2016: 83)
[14] https://en.cnki.com.cn/Article_en/CJFDTotal-NYSK201104001.htm

African countries had taken on debt through Chinese aid loans, China was able to use debt equity swaps to take over projects it had previously helped realise.[15]

Phase Three: Going Global – 1995-Present

Following a significant aid reform in 1995 and the Chinese "going global" policies, the idea that agricultural engagement should be mutually beneficial has gained further prominence. Aside from diplomatic efforts, food security for both China and Africa has become an important motivating factor for cooperation in the agricultural sphere.[16]

This third phase has seen a further combination of aid, investment and trade activities. "Going out" policies encouraged Chinese firms to invest in Africa; China's joining of the WTO has led it to support African economic liberalisation and integration into the global agriculture commodity market.[17] Agricultural aid is mainly focused on technology transfer, capacity building, the dispatch of experts and the construction of ATDCs.[18] ATDCs can be understood as an expression of the Chinese technocratic perspective on agricultural aid and development which especially developed during the previous decades.[19] Investment is further encouraged within the BRI framework. Trade, on the other hand, is pursued through zero tariffs for some LDCs and trade agreements, including the Mauritius-China FTA – the first of its kind.

Here, at the intersection of aid, trade and investment and within a complex web of actors, FOCAC can be situated. 'The Forum on Africa-China Cooperation (FOCAC) is the most comprehensive platform that promotes the Africa-China relationship. Since its inception in 2000, FOCAC has aimed to facilitate collective dialogue and practical cooperation between China and Africa.'[20] 'The creation of FOCAC…was in fact a response to African countries' request, who were seeking more coordination in their bilateral relationships. Ministerial conferences of the FOCAC take place every three years and are held in China and Africa alternately.'[21]

1B) A Sector Still Underperforming its Potential: Challenges to African Agricultural Productivity and The Path Forward

Its promise and potential notwithstanding, African agriculture continues to lag behind the rest of the world. Some gains have been made over the course of the last two decades, but the sector holds far greater promise and potential. A 2019 McKinsey report on the true potential of Africa's agriculture sector projected that the continent could add the equivalent of 20 percent of global grains and cereals. Similar projections hold true for horticulture and livestock. Thus, there are significant unrealized gains in the sector with broad room to grow.[22]

Much of Africa south of the Sahara remains stymied by an unproductive agricultural sector, the share of the labour force engaged in Africa remains stubbornly high and the potential of the sector for poverty reduction unfulfilled. Today, Africa's crop yield per hectare is less than half of the world average,[23] and the continent still consistently faces food insecurity with very high food prices. For example, in 2019 Nigerians spent about 57% of their income on food.[24] With a more

[15] Brautigam and Xiaoyang (2009)
[16] Xinqing (2020)
[17] (Grinsted and Chen, 2020; Buckley, 2013)
[18] (IFPRI, 2018).
[19] Xiuli Xu et al. (2016: 83)
[20] UNAIDS Briefing
[21] Ibid.
[22] https://www.mckinsey.com/industries/agriculture/our-insights/winning-in-africas-agricultural-market
[23] Shang and Zhang (2018)
[24] https://nairametrics.com/2020/05/11/nigerian-households-spend-n22-7-trillion-on-food-items-nbs/

productive agricultural sector, food prices, as a proportion of wages and share of income, should decline to less than 10 percent.

Yet, African countries still have the chance to address food insecurity. With a youthful and growing population, the continent faces an imperative to increase gender equality, economic growth and to reduce poverty levels. This is especially pertinent in light of the impact of the COVID-19 pandemic: agricultural production was predicted to decline by 2.6-7% for 2020.[25]

A consensus emerged at the 2021 Ambassadors' roundtable that the key to increasing agricultural productivity and food security in Africa does not lie in the expansion of the area under cultivation, a strategy often emphasised in light of the large share of land currently not under cultivation. Instead, the yields of the land that is already under cultivation should be improved. There are several variables that could be adjusted to unlock Africa's agricultural potential: improving agricultural infrastructure, increasing regional market integration, increasing levels of R&D, boosting public investment, and stabilising land property rights among others.[26]

To this end, African countries have been calling for international support in the form of funding, knowledge and technology to address these variables. While Africa receives insufficient funds from both foreign investors and traditional donors, there is space for China to provide funding and expertise.[27]

At the continental level, the Comprehensive Africa Agriculture Development Programme (CAADP) intends to improve agricultural growth and productivity in order to reduce poverty, achieve food security, encourage agricultural transformation, economic growth and prosperity. Since its enactment in 2003, it has required African governments to allocate a minimum of 10% of national expenditure to agriculture and rural development, and to record agricultural growth rates of at least 6% per annum.

CAADP has four priority areas:

1. Extending the area under sustainable land management and reliable water control systems

2. Improving rural infrastructure and trade-related capacities for market access

3. Increasing food supply, reducing hunger, and improving responses to food emergency crises

4. Improving agriculture research, technology dissemination and adoption.[28]

It is also important to note that it prioritises African ownership and leadership in achieving its goals.

[25] https://au.int/sites/default/files/documents/38326-doc-covid-19_impact_on_african_economy.pdf
[26] IFPRI (2018)
[27] Shang and Zhang (2018)
[28] https://au.int/en/agenda2063/continental-frameworks

SECTION 2 – PREVIOUS FOCAC POLICY ON AGRICULTURE

2A) Overall Trends in FOCAC Agricultural Policy

While agriculture was mentioned as part of the intended areas of cooperation at the first FOCAC meeting in 2000, it was far from being a priority issue, featuring at number eleven in the Programme for Africa-China Cooperation in Economic and Social Development agreed upon at the conference. From the next FOCAC conference onwards, however, agriculture has been a key issue under the economic development sections of the FOCAC Ministerial Conference Action Plans, evidencing its prominent position in Africa-China cooperation.

Considering the direction of Africa-China agricultural cooperation under FOCAC, it is important to note developments in both its agents and beneficiaries. Most FOCAC commitments involve China as the main agent. In the area of agriculture, African governments themselves first were highlighted as active agents rather than recipients within FOCAC commitments by committing to create an environment conducive to Chinese investment and economic activity on the continent at the 2015 FOCAC conference. With the 10-10 research arrangements, FOCAC 2018 first explicitly introduced a commitment involving both Africa and China as equal agents. Apart from this, China has remained the main agent of Africa-China agricultural cooperation under the FOCAC umbrella.

It is furthermore interesting to note a discrepancy in who is considered the beneficiary of FOCAC agricultural measures in the action plans. At the Third FOCAC Ministerial Conference in 2006, the Action Plan deviated from previous and following Action Plans in emphasising the role of agricultural cooperation in 'eliminating poverty, promoting development and ensuring food security for both sides.' This is in line with the reasoning of the third phase of Chinese agricultural engagement which is based on the notion that cooperation should be mutually beneficial. The previous and following Action Plans, however, were worded with a primary focus on the possible gains of African countries.

Announcements made in FOCAC Action Plans differ in terms of specificity. One can broadly distinguish (moving from least to most specific): announcements of broad goals of cooperation (e.g. supporting African economic development), announcements of areas of cooperation (e.g. in the area of fisheries), and commitments/action points. Commitments have usually been listed in a separate section of the action plans, although there is a very strong overlap between broadly aspirational commitments (e.g. recognising the importance of increasing African agricultural exports to China) and the areas of cooperation mentioned. Beyond this, there has been an increasing number of specific, quantified commitments in the FOCAC action plans. These types then have implications on the measurability of FOCAC (see section 2C).

Goals

Overall, eliminating poverty, ensuring food security and promoting development have featured prominently on the FOCAC agriculture agenda.

Our analysis shows that FOCAC agricultural goals have become more numerous and targeted over time. The choice of words in the action plans over the years is proof for this: while the section was merely called "Agriculture" from FOCAC 2 to FOCAC 5, FOCAC 6 saw an expansion to "Agriculture and Food Security," followed by a further extension to "Agriculture, Food Security and Food Safety" in the FOCAC 7 Action Plan. It is important to note that food security has been mentioned as a goal since the first FOCAC meeting, but this is the first time it has formed part of the title of the section of the Action Plan, pointing to its prioritisation. Finally,

the addressing of climate change was first added as a FOCAC goal at the most recent 2018 conference.

Commitments

Similarly, commitments made at FOCAC conferences have become more specific and increased in intensity over time (*deepening*) and a wider set of issues is being addressed (*widening*).

FOCAC commitments were quite vague in the 2000 conference, but became more specific over the course of the following conferences. Specific quantities were first mentioned in 2006 at the third FOCAC meeting. Historically, there has always been a focus on training, people flows and technology exchange with ATDCs first mentioned at FOCAC 3. There have been continued commitments to increase the number of ATDCs, deepening Africa-China agricultural cooperation (apart from the 2018 conference where no specific commitment to increase the number of ATDCs was made). In addition, one can observe a move towards institutionalisation at the 2018 Conference with the commitment to set up a China-AU Agriculture Cooperation Commission and to hold regular Africa-China Agriculture Cooperation Fora.

The number of commitments made significantly increased at FOCAC 6 (2015) – and then again at FOCAC 7 – in comparison to previous meetings. These commitments then also included a widening of FOCAC's areas of operation. Later commitment areas then, for instance, included emergency assistance and institutional cooperation.

For a detailed perspective on these developments, see table number 2 in the annex noting the individual FOCAC meetings and their decision-making on agriculture.

In light of the complexity and large number of FOCAC commitments, the following section will map them under a set of categories in order to gain further insight.

Categorising Commitments

As FOCAC commitments are thematically wide ranging, it may be helpful to categorise them in order to map the progress made up to date, changes in prioritisation and potential future avenues for expansion. It is important to note that the following analysis is non-exhaustive and mainly intends to point to new developments such as changes in direction or a deepening of commitments.

People Flow, Training, Research and Technology Dissemination

Commitments in the area of people flows, training, research and technology dissemination have featured prominently on the FOCAC agenda. FOCAC's flagship project, the ATDCs, form an important part of these commitments.

Explicit commitments began to be made at FOCAC 3 with the commitment to send 100 senior experts on agricultural technologies to Africa. This people flow and training continued at FOCAC 4 with the intent to send 50 agricultural technology teams to Africa and to help train 2000 agricultural technicians for African countries. As part of the 5th FOCAC conference, China committed to help institutionalise this training by sending Chinese teachers for vocational education in agriculture and helping to establish an agricultural vocational education system in Africa. Numeric commitments continued at FOCAC 6 with the intended aim to send 30 teams of agriculture experts and teachers (less than the 50 committed in FOCAC 4, although the actual quantity is unclear as team compositions may have changed). Finally, there was no reference to teams at the most recent FOCAC meeting, instead a reference to 500 senior agriculture experts.

Explicit references to research were only made from FOCAC 6 onwards (although this may previously have fallen under the remit of ATDCs without explicitly being mentioned). It is important to emphasise that this cooperation is intended as the collaboration of Chinese and African institutions and teams, for instance through a "10+10" cooperative mechanism among Africa-China agro-science research institutions or the establishment of a Africa-China Research Center for the Development of Green Agriculture. At FOCAC 6, the research areas mentioned were agricultural infrastructure construction, the increase of quality and yield of agricultural production, breeding and the production of seeds and plant protection. FOCAC 7 added the molecular detection and identification of plant diseases, pest risk analysis, seed health testing/certification, and the management of quarantine containment facilities for high risk materials with biosecurity classifications.

At the third FOCAC conference, the first commitment to build ATDCs – 10 in this case – was made. FOCAC 4 led to a commitment to double that number, FOCAC 5 gave no specific number, merely the goal of increasing the number of ATDCs, as did FOCAC 6. In contrast, ATDCs were not specifically mentioned in the 2018 FOCAC conference's action plan.

Infrastructure

Infrastructure commitments have mainly centred around irrigation, storage and transportation. Irrigation was first mentioned as an area of cooperation in FOCAC 2 but only became an actual commitment in FOCAC 6. Likewise, storage and transportation were first mentioned as an area of cooperation in FOCAC 3, but this was only followed by an explicit commitment in FOCAC 7. Commitments in both areas have not been specified numerically. The lack of agricultural infrastructure continues to stymy productivity in African agriculture. Irrigation alone requires an investment of up to $65 billion.

Trade

As early as the second FOCAC conference, both sides recognised the importance of increasing African agricultural exports to China and other markets. However, the issue of trade in agricultural products was only reintroduced in the action plan of the fifth FOCAC conference with the commitment to facilitate access for African agricultural products to the Chinese market. FOCAC 6 introduced further details to this commitment with the improvement of trade policies for trade facilitation and an African commitment to create an enabling environment for Chinese enterprises to invest and trade in agriculture in Africa and to offer support through preferential policies. This is noteworthy as most commitments are usually made by the Chinese side. Finally, at the most recent FOCAC meeting, special emphasis was placed on the trade in cotton and sugar cane.

Investment

The second FOCAC Ministerial Conference's Action Plan features the first mention of agricultural cooperation through investment although it emphasises that the Chinese government will continue to incentivise and support Chinese firms to develop agricultural cooperation projects in Africa through financial and policy incentives. At FOCAC 4, China committed to contribute US$30 million to the United Nations Food and Agriculture Organization (UNFAO) to set up a trust fund to support South-South cooperation between China and African countries under the framework of the UNFAO Special Program for Food Security. FOCAC 5 featured the Chinese commitment to encourage Chinese financial institutions to support the cooperation between Chinese and African companies in agriculture. FOCAC 6 placed agricultural financing under the framework of the CAADP.

Emergency Assistance

Emergency assistance first appeared in the form of commitments in the action plan of FOCAC 6 and became more detailed in the action plan of the most recent ministerial conference. Here, China committed to provide RMB 1 billion of emergency humanitarian food assistance to African countries affected by natural disasters. In a move towards institutionalisation similar to that seen in other areas of cooperation, both sides further pledged to cooperate to improve food security risk management systems and to establish an emergency response mechanism.

Institutional Cooperation

As aforementioned, FOCAC 7 saw a move towards the institutionalisation of Africa-China agricultural cooperation. This occurred specifically through the commitments to set up a China-AU Agriculture Cooperation Commission and to regularly hold a Africa-China Agriculture Cooperation Forum.

Case Study: Innovating The Enterprise + Smallholder Farmer Model – Wanbao Agriculture Park Project

Problem:

Following an economic boom after the civil war, Mozambique has witnessed a sound transformation in all facets. Specifically in agriculture, with a demand growth rate of 8.6% per year, rice has become the national staple in Mozambique. However, the gap between demand and production is noticeable – only 28% of the demand was produced by locals annually. The inefficiency of smallholder farming and immature rice industry are the warning alarms of food security in Mozambique. While the former one has hindered the production expansion, the latter one flags the need of technology upgrade.

Solution:

To test for the most suitable cultivation techniques in the Mozambique context, the Government of Mozambique and the Government of China officially launched the Wanbao Agricultural Park project in July 2011. Throughout the project, China Africa Development Fund has financially supported the Park through the means of equity investment. In the meantime, China Railway 20th Bureau Group took part in the R&D unity and daily operation. The project has offered guidance and training to local farmers, introducing a cooperation mode between the company and smallholder farmers. So far, around 1500 smallholder farmers have been trained through the agriculture technique training sessions. More sustainably, the project has launched relevant training session for future smallholder farmers, improving the local production and providing employment opportunities to the locals.

Reflection:

The project integrates the local smallholder farmers into the enterprise business model, increasing the incentives and overall revenue for local farmers. The project successfully imported the Chinese technologies in production, storage, processing, and sales and thus encourages more replication of the model.

2B) Interim Results of Africa-China Agricultural Cooperation Under The FOCAC Umbrella and Avenues for Further Opportunities for Improvement

Interim Results

Africa-China cooperation in agriculture has made significant headway since the first FOCAC Ministerial Conference in 2000. The tracking of outcomes is complicated by the broad nature of some commitments (both in terms of goals and destination country) and by the limited number of follow-up reports. Therefore, the following section will primarily focus on the numeric commitments made over the course of the past two decades. As such, this is of course non-exhaustive. Progress in areas of cooperation and broad goals of cooperation is even harder to track.

People Flow, Training, Research and Technology Dissemination

Overall, Chinese-led training activities have significantly exceeded those of Northern aid programmes.[29] By 2019, China had established over 20 ATDCs in 14 African countries covering a wide range of agricultural methods (see figures 1 and 2).[30]

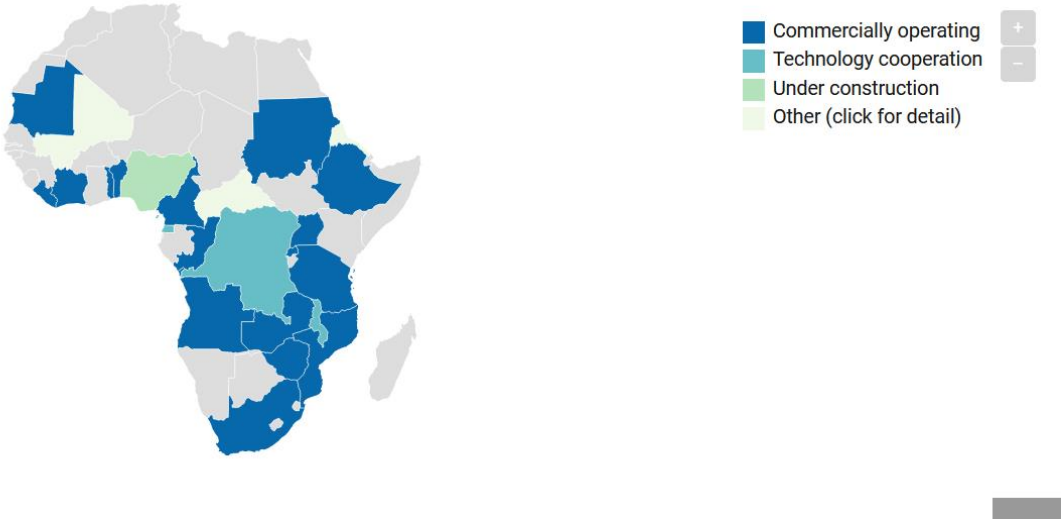


Figure 1: Chinese ATDCs in Africa and their stage of development

[29] Calabrese et al. (2018)
[30] DR paper on food security in Africa

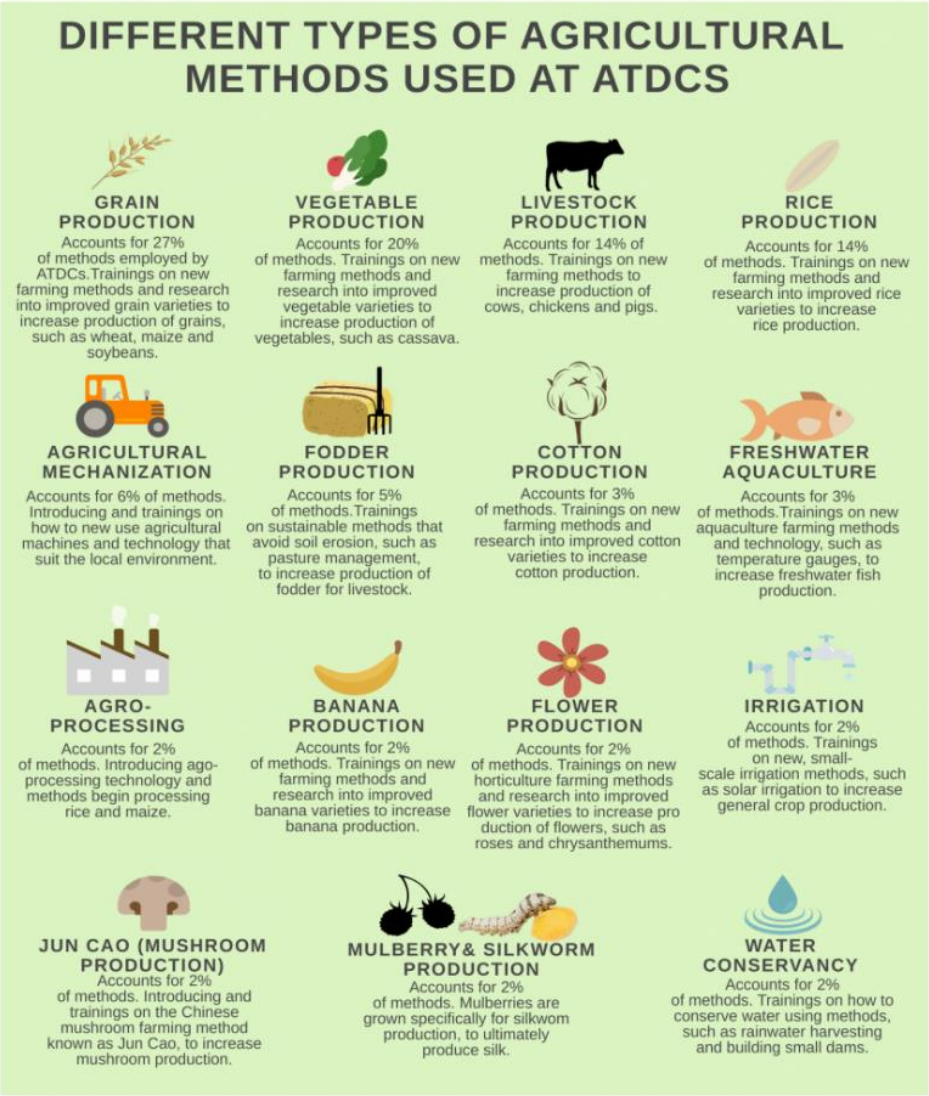


Figure 2: Types of Agricultural Methods used in ATDCs

In addition, China had launched cooperation programmes with agricultural research institutes in 12 African countries by 2019.[31]

Infrastructure

Sixty-one percent of China's concessional loans go to infrastructure development in Africa. China is currently involved in rural/agricultural infrastructure projects in 35 African countries, of which 70% are located in Angola, Nigeria, Sudan and Ethiopia. However, China is expanding the projects to other countries like Zambia. Chinese companies are working on the design and construction of 12 major grain storage facilities, covering a total area of some 30 000 square meters.'[32]

Projects intended to improve African countries' capacity to process and store agricultural products, reduce post-production waste and increase the value added of agricultural products

[31] Xitong and Shunda, 2019
[32] DR paper on food security in Africa

include a preliminary processing centre in Cape Verde, a corn flour production plant in Zambia, and grain processing and storage facilities in East Timor.[33]

Trade

Over the course of Africa-China cooperation under the umbrella of FOCAC, agricultural trade between China and Africa has grown rapidly: the total trade volume increased from 650 million U.S. dollars in 2000 to 6.92 billion dollars in 2018 with hopes on the Chinese side that the figure will reach 10 billion dollars by the end of the current decade.[34] By 2020, at least 23 Chinese companies were operating in Africa.[35]

Investment

Investment in the African agricultural sector has occurred both through direct investment and the Chinese private sector.[36] According to data from the Johns Hopkins China Africa Research Initiative, the Chinese FDI stock in Africa increased from about 9300 million US$ in 2014 to almost 44400 million US$ in 2019, thus also surpassing that of the US since 2012.[37] In the absence of comprehensive publicly available data on Chinese investment in the African agricultural sector, it can merely be pointed out that the agricultural sector has not featured in the top 5 sectors with the highest Chinese end of the year FDI stock in Africa from 2013 to 2019.[38]

FOCAC Commitments and CAADP

From 2009 onwards, FOCAC Action Plans have favourably mentioned CAADP and have since FOCAC 5 pledged to support its implementation. All four priority areas of CAADP are covered by FOCAC commitments, while there is room for further cooperation in the improvement of rural infrastructure under priority number two.

Priority 1: Extending the Area Under Sustainable Land Management and Reliable Water Control Systems

Land and water resource management was first mentioned as an area of cooperation in the FOCAC 2 Action Plan. FOCAC 6 the included a pledge to help African countries develop water conservancy and irrigation projects. Importantly, increasing resilience to climate change was first part of a FOCAC Action Plan at the 2018 Beijing Conference.

Priority 2: Improving Rural Infrastructure and Trade-Related Capacities for Market Access

Within FOCAC, the focus has mostly been on trade policies (see the trade section in the mapping commitments chapter) rather than specific rural infrastructure projects.

Priority 3: Increasing Food Supply, Reducing Hunger, and Improving Responses to Food Emergency Crises

Food security has been mentioned as a primary goal of Africa-China cooperation in agriculture since the first FOCAC conference. It can therefore be argued that the entire cooperation has been intended to work towards what has become priority three of CAADP. The improvement of

[33] Chinese white paper (2021)
[34] Xitong and Shunda, 2019
[35] Lynch et al. 2020
[36] Shang and Zhang (2018)
[37] http://www.sais-cari.org/chinese-investment-in-africa
[38] http://www.sais-cari.org/chinese-investment-in-africa

responses to food emergency crises found its expression in the 2018 FOCAC Action Plan's pledge to improve food security risk management systems and to establish an emergency response mechanism with China supporting its operationalisation.

Priority 4: Improving Agriculture Research, Technology Dissemination and Adoption

ATDCs have been intended to contribute to the dissemination of agricultural technology, with complementary vocational training supporting the adoption of said technologies. Especially since FOCAC 6, significant emphasis has been placed on agricultural research.

The SDGS and Africa-China Cooperation in Agriculture Under The FOCAC Umbrella

Based on our analysis, Africa-China cooperation in the agricultural sector has the potential to contribute to a multitude of the 17 UN Sustainable Development Goals, agreed in 2015. The following SDGs are likely to be most impacted. It is important to note that this table exclusively focuses on FOCAC actions listed under the "Agriculture" section of the FOCAC Action Plans. In connection with other FOCAC measures, such as those in the area of education, further benefits can be reaped.

Table 1: The Top 5 SDGs potentially benefiting from Africa-China cooperation in agriculture

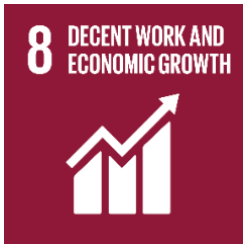
SDG	How can Africa-China agricultural cooperation potentially contribute?
	Target 2.3: 'By 2030, double the agricultural productivity and incomes of small-scale food producers' • China is drawing on its own experience with small-scale food producers • The combination of technological dissemination through ATDCs, vocational training, research collaboration is intended to help African countries reap the benefits of its arable land Target 2.4: 'By 2030, […] implement resilient agricultural practices [..] that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.' • More sustainable production methods and crops explored in research collaborations, ATDCs and through vocational training • Infrastructural advancements in storage and transportation to reduce waste and spoilage Target 2.a: 'Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services' • Investment increased through a number of avenues: direct Chinese investments, incentives for Chinese companies to invest in Africa, investment cooperation with international organisations (e.g. FAO), trilateral investments

Target 1.1: 'By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day'

- Vocational training, investment and technology dissemination can help smallholder farmers increase agricultural productivity which can in turn help increase incomes
- Diversification (e.g. through the bamboo and rattan training encouraging farmers to open a side business) can further help reduce vulnerability to external shocks
- Agriculture is especially suited as it is a means of inclusive and pro-poor growth

Target 4.4: 'By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship'

- Vocational training in agriculture can be a significant contributor in increasing the number of people with relevant skills



Target 8.2: 'Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors'

- Agriculture has high potential as a labour-intensive and high-value added sector
- With currently low levels of automatization, African agriculture has the potential to significantly increase its value added
- Productivity increases faster in agriculture than in the services and manufacturing sectors[39]
- Increased agricultural exports can contribute to economic growth

Target 13.3: 'Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning'

- first became a focus area at FOCAC 7:
  - area of cooperation: increase resilience to climate change
  - action point: establish a Africa-China Centre for the Development of Green Agriculture
- especially vital because the agriculture, forestry and other land use sector accounts for a large share of emissions across the African continent, up to 60% in countries like Cameroon, Nigeria and the DRC[40]
- efforts to scale up climate-resilient agriculture can help reduce vulnerability to changes in temperature and rainfall patterns in areas currently reliant on natural irrigation
- ultimately, by reducing dependency on rainfall patterns, agricultural productivity can be increased, thus allowing the linking of climate action and national development[41]

[39] Baymul and Sen (2018)

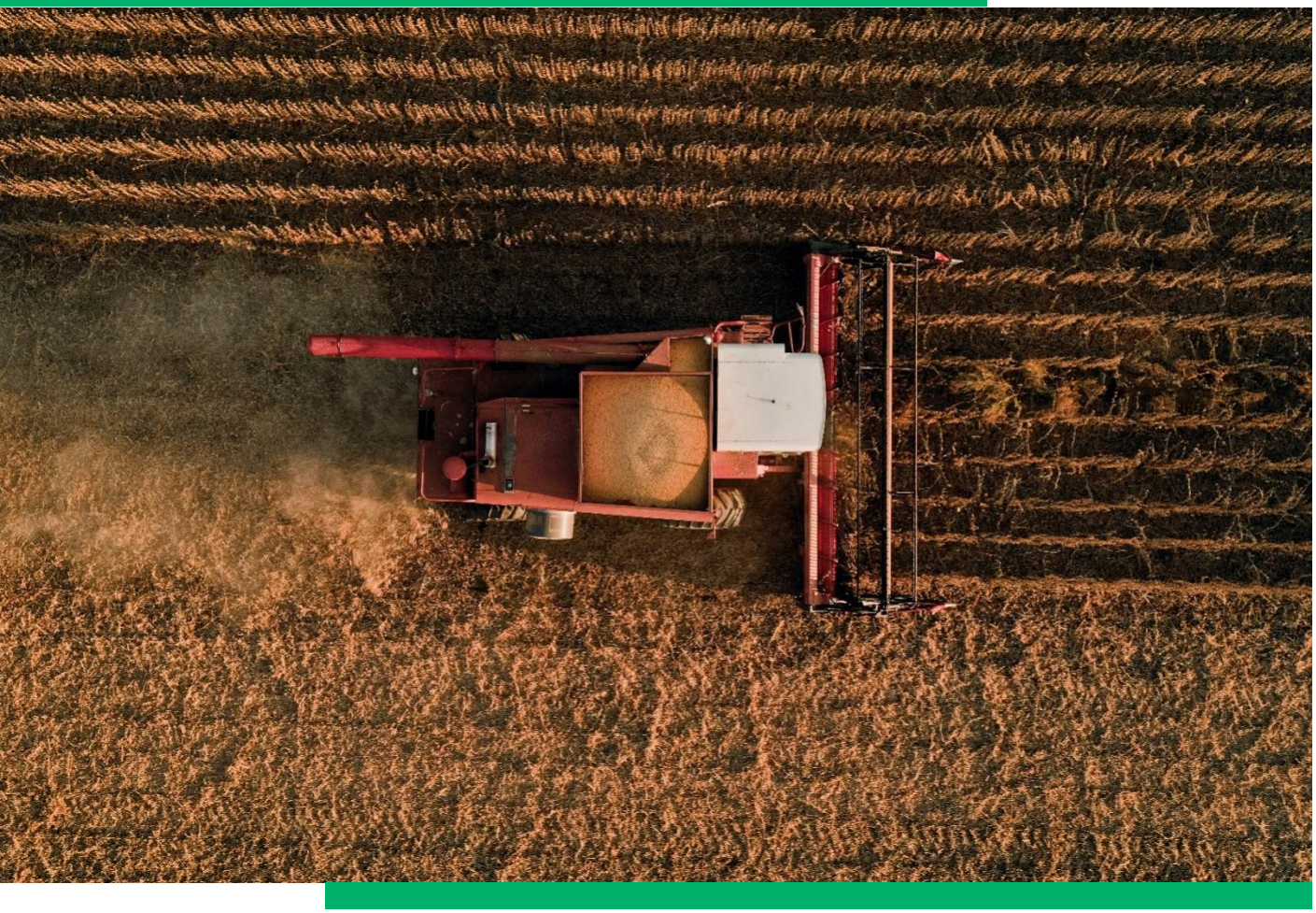
[40] https://afripoli.org/aligning-africas-nationally-determined-contributions-with-their-long-term-national-development-plans

[41] https://afripoli.org/aligning-africas-nationally-determined-contributions-with-their-long-term-national-development-plans

SECTION 3 – METHODOLOGY FOR COUNTRY SELECTION

In order to move from considering Africa-China cooperation in agriculture in abstract terms to understanding how cooperation functions in specific instances, this deepdive will focus on four cases of Chinese agricultural cooperation under the FOCAC umbrella: cooperation with Liberia, Mozambique, Kenya, and Senegal. These countries have been chosen in order to help demonstrate the reasoning behind our recommendations (see section five). Due to space constraints, the country cases are intended to give a general overview of the agricultural landscape, agricultural strategies, and Chinese involvement up to date. Finally, in each country case, this deepdive highlights one issue that is well exemplified by the experience of the country. Recommendations on how China and Africa can cooperate on addressing these issues are then made in the following section.

The issues chosen are not isolated cases but problems common to many other African countries and lessons can also be drawn for other African countries (while keeping local circumstances in mind). Particular attention has been paid to address issue areas that (1) could benefit from a streamlining of cooperation; and (2) which have only recently become FOCAC focus areas, thus representing a new path forward.



SECTION 4 – COUNTRY CASES

Liberia

Even though the agriculture, forestry and fisheries sector made up over 42% of GDP in 2020,[42] and employed 42.62% of employed people during the same period,[43] Liberia continues to import up to 60% of its staple food,[44] including more than 80% of its rice.[45] The sector continues to be largely dominated by subsistence agricultural production.[46] Cassava and rice are the primary staple food crops and there are more households engaged in cassava production than in the production of any other crop.[47] This performance is also evident in Liberia's agricultural efficiency score – 0.473 out of 1.[48] Cassava output in Namibia county (6-7 metric tonnes), for instance, is short of domestic demand as well as lower than the West African regional range of 10-18 metric tonnes.[49] Furthermore, Liberia currently exhibits the worst performance out of African countries (where data is available) in the implementation of the Malabo Declaration with a score of 0.9 out of 10.[50] Progress has especially been made in the completion of the CAADP Process and in the area of evidence-based policies, supportive institutions and corresponding human resources. However, there has been reduced annual growth of the agriculture value added (as share of agricultural GDP as well as per worker), in the yield for the country's priority agricultural commodities. Liberia's main cash crops include rubber, oil palm, cocoa and timber, with rubber accounting for 16.5% of the total export receipts.[51]

The Liberian government has recognised the large potential of the agricultural sector, viewing it as the driving force of the administration's Pro-Poor Agenda for Prosperity and Development (PAPD). As part of the Liberian Agricultural Sector Investment Plan (LASIP II) (2018-2022), sustainable socio-economic transformation is to be achieved by focusing on five pillars based on the hindrances to agricultural productivity identified in the report:[52] food and nutrition security; the development of global value chains and market linkages; the strengthening of agricultural extension, research and development; the support of sustainable production and natural resource management; and governance and institutional strengthening.[53] Within the LASIP II Report, the Liberian government recognises inadequate agricultural funding as contributing to low agricultural productivity, speaking of 'highly insufficient government commitment towards agriculture and the lack of technical knowledge about agriculture and agribusiness by formal and informal financial institutions.'[54] In fact, the 2020/21 budget allocated a mere 1.2% of the total budget to the agricultural sector, by far missing the 10% goal set out in the Maputo Declaration.[55]

Liberia is part of the BRI and has so has so far also benefited from Chinese assistance in the agricultural sector under the FOCAC umbrella. In a March 2021 meeting with the Liberian legislature, China reaffirmed its support to Liberia's agricultural programmes and technologies, as well as through the

[42] https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?locations=LR
[43] https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=LR
[44] https://www.ifad.org/en/web/operations/w/country/liberia
[45] https://www.trade.gov/country-commercial-guides/liberia-agricultural-sectors
[46] https://www.gafspfund.org/sites/default/files/inline-files/7.%20LIBERIA_Investment%20Plan.pdf
[47] https://www.trade.gov/country-commercial-guides/liberia-agricultural-sectors
[48] FAO (2021: 94)
[49] Dogba, Oluoch-Kosura and Chumo (2020: 168)
[50] https://www.nepad.org/caadp/countries/liberia
[51] https://www.trade.gov/country-commercial-guides/liberia-agricultural-sectors
[52] Hindrances to agricultural productivity were identified as: weak private sector and entrepreneurial skills; inefficient production systems; weak policy and business environment; human resource challenges; inadequate infrastructure; inadequate agricultural funding; subsistence farming; weak natural resources management; very low agricultural research and development – see the LASIP II Report pp. 26-8
[53] https://www.gafspfund.org/sites/default/files/inline-files/7.%20LIBERIA_Investment%20Plan.pdf
[54] https://www.gafspfund.org/sites/default/files/inline-files/7.%20LIBERIA_Investment%20Plan.pdf (p. 27)
[55] https://www.cabri-sbo.org/en/documents/national-budget-fiscal-year-2020-2021

provision of experts, equipment and facilities.[56] Chinese agricultural assistance is particularly evident in the Agricultural Technology Demonstration Centre in Liberia's Bong county focused on farm development that includes rice and vegetable production, training and technology exchange, the introduction of new agricultural varieties and research demonstration.[57] The centre is now entering the state of commercial operation.

Looking at the China-Liberia trading relationship, there is a significant trade deficit vis a vis China.[58] Having access to duty-free access to the Chinese market (with a few exceptions) through the Chinese DFQF scheme, there is scope for Liberia to increase its exports to China. The scaling up of cassava production and the processing of cassava, for example, would allow for exports of cassava to China, which is one of the largest cassava consuming markets.[59]

Special Focus: Extension and Diffusion

One of the authors had an opportunity to see and visit the Central Agriculture Research Institute (CARI) Agriculture Technology Demonstration Centre in Liberia. The demonstration centre was built by the Chinese government as one of the eight policy commitments toward Africa from the 2006 FOCAC, and constructed between 2009 and 2010. Chinese experts provided training in improved cultivation of rice, corn and vegetables and later animal husbandry. The country's breadbasket, however, is located in the north western corner while the demonstration centre was in the central part of the country. The road linking the two regions is only passable in the dry season, when farmers are likely to be indisposed as they clear and prepare the land for farming. Without extension services, diffusion of technical skills from the demonstration centre is suboptimal.

Demonstration centres, as a central piece of the agricultural knowledge transfer, presume that host countries have functional extension services for diffusion of skills and technical know-how to farmers across the country. Many smallholder farmers, living off the land and conducting subsistence farmers will be unable to make the trip from remote parts of the country to attend training sessions at demonstration centres. Their access to both improved planting materials (from research at the demonstration projects) and new agricultural skills will depend on agricultural extension service which is generally either non-existent or weak. Ultimately, there is limited diffusion of the training and skills at the demonstration centre.

Mozambique

In 2019, over 70% of those in employment in Mozambique were employed in agriculture,[60] and agriculture contributed to about 26% of GDP in 2020.[61] Nevertheless, Mozambique has not reached its full agricultural potential: in 2021, its agricultural efficiency score stood at 0.27 out of 1,[62] barely reaching a third of its potential cereal yields and staying far behind the average yields in southern Africa.[63] Small-scale farms continue to dominate (99.6% in 2017),[64] and only 7% of the total land area is under cultivation even though over 63% show potential for agriculture.[65] Similarly, there are 3 million hectares with potential for irrigated agriculture, but only a fraction (118,000 ha) were equipped for irrigation in 2015, and only 52% of these actually used for irrigated agriculture (most of which is by foreign

[56] https://frontpageafricaonline.com/front-slider/china-reaffirms-support-to-liberia-on-agriculture-technologies-cooperation-during-virtual-discussion-with-the-legislature/
[57] https://africachinareporting.co.za/2018/07/china-liberia-agricultural-technology-center-in-central-liberia-prospects-opportunities-and-challenges/
[58] DR Blueprint
[59] Dogba, Oluoch-Kosura and Chumo (2020: 168)
[60] https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=MZ
[61] https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?locations=MZ
[62] FAO (2021: 65)
[63] CIAT and World Bank (2017: 4)
[64] CIAT and World Bank (2017: 3)
[65] PwC in Armand et al. (2019)

commercial export cash crop farms).[66] Nevertheless, Mozambique has been making progress in the area of agriculture and is currently on track to implement the Malabo declaration. It has shown especially strong performance in the CAADP process completion, multi-sectoral coordination, the number of youth engaged in new job opportunities in agricultural value chains and access to productive assets in agriculture for rural women.[67] Areas that require attention include access to financial services, resilience to climate- and weather-related shocks, value added per worker in agriculture (in constant 2010 US$, the value added per worker in agriculture stands at 328 in Mozambique in comparison to the Sub-Saharan Africa and OECD averages of 1181 and 20849 respectively[68]), and public expenditure on agriculture as a share of total expenditure.

At an average of 6.4% of the total budget from 2004-2018, Mozambique falls below the Maputo target of 10%.[69] In fact, the share of total expenditure allocated to agriculture has been in decline, as well as the spending on agricultural R&D and extension.[70] This aligns with the observation that countries with a decentralised administrative structure generally tend to spend less on food and agriculture than countries where public expenditure is concentrated at the level of the central government.[71]

Agriculture was styled as one of the main avenues to reduce rural poverty through increased productivity in Mozambique's Agenda 2025.[72] The overarching agricultural strategy outlined in the Plano Estratégico de Desenvolvimento do Sector Agrário (PEDSA) 2011-2020 focuses on contributing towards food security and raising the incomes of agricultural producers in a sustainable manner while taking into account social and gender equity.[73] In addition, the Green Revolution Strategy (ERV) is focused on the development of "a prosperous, competitive, equitable and sustainable agricultural sector" whose main objective is "to contribute to food security, income and profitability of agricultural producers and to a rapid, competitive and sustainable increase in market- oriented agricultural production."'[74]

Chinese engagement in agriculture in Mozambique began with foreign aid and since then, China has assisted Mozambique through agricultural experts and the provision of agricultural machinery. Following the end of the civil war in 1992, joint ventures in agriculture were explored at the request of Mozambique.[75] In 2004, the Mozambique Hubei-Gaza Friendship Model Farm, which placed a special emphasis on rice, was established and from 2011, Chinese companies expanded their presence in the groundnuts, maize and cotton industries.[76] Mozambique further is the site of a 52ha ATDC focused on rice, maize, cotton and vegetables.

Special Focus – Diffusion and Response to Local Demand

Researchers have been able to observe a training session at the ATDC in Mozambique, the following section was adopted from their observations.[77] Trainees were farmers, technicians and officials from across the ten provinces, with smallholder farmers being especially prioritised, selected by the Mozambican MCT and MINAG. Six to seven ten-day training sessions focusing on basic and practical farming skills are offered to smallholder farmers. More advanced course content is offered to technicians in one-month training sessions three times per year. Finally, there are three to five one-day training sessions focused on management for agricultural officials per year; as well as study and internship opportunities for college students. Training sessions combined in-class teaching and fieldwork, but

[66] CIAT and World Bank (2017: 3, 6)
[67] https://www.nepad.org/caadp/countries/mozambique
[68] CIAT and World Bank (2017)
[69] https://openknowledge.worldbank.org/bitstream/handle/10986/32100/Mozambique-Agriculture-Public-Expenditure-Review-Assessment-and-Result-Focused-Expenditure-Management.pdf?sequence=1&isAllowed=y (p. xiv)
[70] FAO (2021: 34)
[71] FAO (2021: xv)
[72] http://www.fao.org/3/i5931e/i5931e.pdf (p. 2)
[73] http://www.fao.org/3/i5931e/i5931e.pdf (p. 2)
[74] http://www.fao.org/3/i5931e/i5931e.pdf (p. 2)
[75] Brautigam (2012: 486-7)
[76] Brautigam (2012: 490)
[77] Jiang et al. (2016)

remained flexible to allow for spontaneous adjustments. In order to deal with the language barrier between the Chinese experts and trainees, various adaptations were made: bilingual hand-outs were created and the staff from MCT and IIAM was included in the teaching process. Furthermore, theoretical in-class teaching was often substituted by in-field training for farmers who had little agro-technology experience.

However, challenges remained in the technology dissemination of the ATDCs, especially in responding to local contexts and demands. Mozambicans have commented on gaps between the demonstrations at the ATDC and the reality of the local smallholder farmers. In its training sessions, the ATDC is said to rely on expensive, big-scale machinery, irrigation systems and fertilizers, which local farmers do not possess and struggle to afford (XIuli Xu et al., 2016: 88; Nalwimba, Qi adn Mudimu, 2019: 150)

Furthermore, discrepancies have been reported in expectations as to the seeds used and tested at the ATDC. Chinese experts believe that it is their responsibility to introduce high-yield Chinese varieties to Mozambique as part of their technology transfer mission. In contrast, Mozambicans have expressed the hope that the ATDC could base more of their research around local varieties. In response to this, the Chinese side expressed that it was difficult to gain access to local seeds because of the low number of seed suppliers and because 'their Mozambican partners had done enough in terms of providing, or facilitating the access to local varieties for testing.' (Jiang et al., 2016: 18) Here, a parallel is evident to the experience with hybrid rice at the Tanzanian ATDC: the hybrid rice introduced at the ATDC in Tanzania was non-fragrant and not appealing to Tanzanians due to cultural reasons. This resulted in a very low level of technology adoption (Xiuli Xu et al., 2016: 87).

Finally, the fact that there are no formal follow-up or feedback mechanisms hinders the Mozambicans and the Chinese staff at the ATDC from aligning their expectations and improving their cooperation.

Senegal

According to World Bank data, 30% of those in employment in Senegal were employed in the agricultural sector in 2019.[78] In 2020, agriculture contributed to 15.81% of its national GDP.[79] Senegal remains far from agricultural self-sufficiency and food security: it continues to import almost 70% of its food,[80] and in 2020, 17% of the Senegalese population were considered acutely insecure.[81] Small rainfed subsistence farms are the norm, only 65% of Senegal arable land are farmed and only 30% of irrigable land used.[82] As such, its agricultural efficiency is quite low (0.25 out of 1).[83] Progress has been made in the completion of the CAADP process, the implementation of evidence-based policies, supporting institutions and corresponding human resources, public agriculture expenditure as a share of total expenditure, and intra-African agricultural trade. However, Senegal is not yet on track to fulfil the Malabo Declaration: there has been a decrease in the agricultural value added per arable land, fertilizer consumption remains low, as does the percentage of farmers with access to financial services and agriculture advisory services.[84]

Senegal's main agricultural commodities are ground nuts, rice, meat and millet, fruit and vegetables[85].

Over the 2004-2018 period, Senegal did not achieve the 10% of actual expenditure allocated to food and agriculture as set out by the Maputo declaration. Nevertheless, there has been an increase in said

[78] https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=SN
[79] https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?locations=SN
[80] https://www.ifad.org/en/web/operations/w/country/senegal ; top imports include rice, wheat, corn, onions, palm oil, sugar, and potatoes
[81] FAO (2021: 3)
[82] https://www.ifad.org/en/web/operations/w/country/senegal
[83] FAO (2021: 65)
[84] https://www.nepad.org/caadp/countries/senegal
[85] https://www.syngentafoundation.org/agriservices/wherewework/senegal

expenditure, both in nominal and real USD per capita terms.[86] The average share of donor funding to the food and agriculture sector in Senegal is 39%.[87]

As part of the Vision 2035 Emerging Senegal Plan (PSE), Senegal aims to become a middle income country by 2035 by, among others, including agriculture and agribusiness as growth drivers.[88] As part of this plan, the government has planned to invest $4 billion in agriculture, especially in irrigation and rural roads, access to finance through the creation of a Guarantee Fund, the construction of storage facilities, and the creation of an agricultural stock exchange market etc.[89] Through the Program for the Acceleration of Senegalese Agriculture (PRACAS), the government plans to build a competitive, diversified and sustainable agricultural market to be able to trade its agricultural commodities internationally and to provide stable revenues to rural communities.[90] In this effort, Senegal has been able to increase peanut production and nearly double high-value farming exports such as melons from 2012 to 2017.[91] Furthermore, the Agricultural, Sylvicultural and Pastoral Policy Law (LOASP) 2004-24 aims at reducing poverty and food insecurity in rural areas.

Senegal is part of the BRI and cooperates with China on agricultural matters. Cooperation has especially focused on the Senegalese groundnut sector. China has donated materials for projects such as the Great Agricultural Offensive for Food and Abundance (GAOFA) set up to promote the cultivation of Chinese sesame.[92] As part of trilateral China/FAO/Senegal cooperation, 22 Chinese experts were sent to Senegal for 2 years.[93] In addition, since 2006 there was an ATDC in Podor and Sangalkam which has been classified as completed, and other demonstration centres were planned during the joining Sino-Senegalese commission of September 2014.[94]

Special Focus: Processing and Value Added

Challenges to food security in Senegal are manifold, ranging from 'limited private investment as a result of the unfavourable business environment (land, taxation, etc.), inadequate infrastructure (energy, transport, water, ICT, etc.) and poor structuring/organisation of agricultural value chains (which employ about 60% of the working population). […], low agricultural productivity and high vulnerability to climate change.'[95] Another central issue is the low level of processing of agricultural products based on quality industrial processes, which stands at 13% at national level.[96] The PSE plans to cluster high-value added family farming cluster projects by creating a*gropoles* (agricultural centres) and *zones greniers* (breadbasket zones). *Agropoles*, small urban centres of up to 25,000 inhabitants, here, are intended to function as centres of information, supplies and services for the population. *Zones greniers,* in turn, are intended to '(1) connect small producers to the various global agricultural value chains; (2) offer financing to small producers benefiting from collective ("aggregation project") contract; and (3) share risks among farmers, manufacturers, and merchants.'[97] The agricultural value chains in Senegal with high potential for processing are fruits and vegetables, oils, dairy products, cereals and poultry.[98]

The processing and value-added of agricultural products has not yet been a central focus area under FOCAC. Engagements of Chinese companies in agricultural processing in Senegal (e.g. Sintrade and

[86] FAO (2021: 15)
[87] FOA (2021: 20)
[88] https://www.ft.com/content/fd0d1be2-3127-11e8-b5bf-23cb17fd1498
[89] https://www.trade.gov/country-commercial-guides/senegal-agricultural-sector
[90] https://www.syngentafoundation.org/agriservices/wherewework/senegal
[91] https://www.ft.com/content/fd0d1be2-3127-11e8-b5bf-23cb17fd1498
[92] Ndiaye and Lian (2019: 2)
[93] https://agritrop.cirad.fr/582223/1/Chinafrique%20CTA%20-en.pdf
[94] https://agritrop.cirad.fr/582223/1/Chinafrique%20CTA%20-en.pdf (pp. 30-1)
[95] AFDB (2020: vi)
[96] AFDB (2020: vi)
[97] https://books.google.de/books?id=gjoYEAAAQBAJ&pg=PT349&lpg=PT349&dq=senegal+agricultural+business+park&source=bl&ots=UEGmg6A4vo&sig=ACfU3U3soGwxuUKz1paKYMbGuTNXp3AQkw&hl=en&sa=X&ved=2ahUKEwj30dvJ3rXyAhWi_7sIHZbeD94Q6AF6BAgPEAM#v=onepage&q=senegal%20agricultural%20business%20park&f=true
[98] AFDB (2020: 1)

Xin Fu oil, which provide grain cleaning and hulling)[99] appear to be based on considerations of convenience rather than based on a concerted effort and guidance to invest in this specific area under FOCAC.

Projects such as the South Agro-Industrial Processing Zone by the African Development Bank have been created to address the inadequate level of agricultural processing in Senegal.[100]

Kenya

At over 35%, agriculture is the largest contributor to Kenya's domestic economy,[101] and in 2019, over 54% of those in employment were employed in agriculture.[102] Agricultural efficiency scores are slightly about average,[103] and Kenya currently is on track to implement the Malabo Declaration for Agriculture Transformation. The CAADP process has been fully completed, and Kenya performs especially well in terms of access to agricultural advisory services and financial services for farmers, it has significantly increase the size of irrigated areas and the number of youth engaged in job opportunities in agricultural value chains.[104] Nevertheless, 24% of the population remain undernourished, fertiliser consumption is low, and public agriculture expenditure as a share of total expenditure is insufficient.[105] While there has been a double-digit growth in agricultural spending from 2014-2018,[106] Kenya still does not fulfil the Maputo declaration goal of spending a minimum of 10% of public expenditure on agriculture.[107]

The agricultural sector forms an essential part of the Kenya Vision 2030 which aims for Kenya to be a middle-income country characterised by a high quality of life and a sustained economic growth rate of minimum 10% by 2030.[108] To this end, the Agricultural Sector Development Strategy (ASDS) (2010-2020) focused on two main avenues: increased productivity, commercialisation and competitiveness of agricultural commodities and enterprises; and the development and management of factors of production.[109] Finally, the Kenya Industrial Transformation Programme (KITP) which was launched in 2015 identifies agro-processing as a sector in which Kenya has a comparative advantage and which is to be further developed.

Kenya has an agricultural working group mechanism with China.[110] In 2019, Kenya signed a SPS agreement with China with the goal to export Avocados, Stevia, cut flowers, French beans and macadamia nuts among others.[111] Despite what appears to be a favourable investment environment, Chinese investment in Kenyan agriculture is still quite recent and mainly driven by migrant entrepreneurs driven by market considerations rather than government incentives in China or Kenya.[112]

Special Focus: Storage, Export & Trade

So far, Kenya has not been able to fully take advantage of foreign investment in agri-business and the trade agreement signed with China.

[99] https://agritrop.cirad.fr/582223/1/Chinafrique%20CTA%20-en.pdf (p. 40)
[100] AFDB (2020)
[101] Xia (2019: 15); https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?locations=KE
[102] https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=KE
[103] FAO (2021: 65)
[104] https://www.nepad.org/caadp/countries/kenya
[105] https://www.nepad.org/caadp/countries/kenya
[106] FAO Report: 14
[107] FAO Report: xvi
[108] https://www.tralac.org/documents/resources/by-country/kenya/665-kenya-climate-smart-agriculture-strategy-2017-2026/file.html
[109] https://landportal.org/library/resources/lex-faoc140935/agricultural-sector-development-strategy-2010%E2%80%932020
[110] IFPRI (2018)
[111] http://www.xinhuanet.com/english/africa/2019-09/12/c_138384812.htm
[112] Xia (2019: 3, 17)

Spill-over effects from FDI in agri-business have remained low due to the insufficient development of local supply chains, infrastructure and political and regulatory uncertainty.[113] Kenya has recognised this and planned to address this as part of the ASDS.

Agricultural exports, especially tea and horticultural products, are central to Kenya's export industry, with 70% of the country's exports having an agricultural focus.[114] Looking at Kenyan exports to China, the realities of the "Avocado Deal" have fallen short of expectations: required conditions for freezing and cutting avocados in order to fulfil phytosanitary standards has hampered the flow of trade, reducing benefits to farmers. Thus, instead of allowing small-scale farmers to export their fresh avocados to China, the deal has largely left them behind: unable to ensure supply, to process the avocados to the required standards, and to store and transport them in cold chain facilities.[115] So far, only two Kenyan companies have been able to fulfil the processing requirements to export avocados to China.[116] Thus, there is significant scope for improvements in processing and storage capabilities in Kenya. Finally, Kenya currently misses out on exporting value-added avocado products to China at a large scale.

[113] Xia (2019: 4)

[114] https://tradingeconomics.com/kenya/balance-of-trade; http://www.invest.go.ke/agriculture/

[115] XInqing (2020)

[116] https://developmentreimagined.com/2020/10/02/fresh-or-frozen-should-kenya-and-china-renegotiate-their-2019-avocado-deal/

SECTION 5 – RECOMMENDATIONS AND CONCLUSION

As has been shown, there is a large untapped potential for African agriculture. It is a widely held conclusion - from African regional organizations, multilateral institutions like FAO and IFPRI and research institutions, like ACET - that the agriculture sector in Africa continues to underperform its potential. A fast-growing population combined with the threat of climate change are and will be placing further pressures on the African agricultural sector in the following decades. It is vital to increase the resilience and productivity of African agricultural operations in order increase food security and to address the dependence of many African countries on food imports. In addition, the agricultural sector can play a key role in the economic development across the continent.

Sino-African agricultural cooperation under the FOCAC umbrella has already made great strides, as elaborated in sections two and three of this deepdive. Over the last decade (since 2009) FOCAC has consistently referenced Africa's own agricultural plans (CAADP), outlining commitments aimed at implementation of CAADP. However, there still is significant scope for agricultural cooperation to improve and enable African agriculture to play a transformational role in achieving national and continental goals, the SDGs and laying the groundwork for a transition to industrialization.

Informed by the above research and interactions with experts and government officials on both the Chinese and African side, this deepdive will now present a number of recommendations for Africa-China agricultural cooperation at the 8th FOCAC Ministerial Conference and beyond. These recommendations are closely linked to the special focus areas explored in the case studies.

It is important to note that these recommendations focus especially on the scope of further agricultural cooperation strategies for the African policy makers, recommendations for the Chinese policy makers follow in a second version of this report. Sino-African agricultural cooperation will significantly profit from an emphasis on mutual benefit and clear communication on the needs and expectations on both sides.

Finally, increased African agency and coordination will be necessary to advance agricultural cooperation with China. Just as FOCAC was formed at the request of Africa, it is now time for the African side to coordinate, identify its core priorities and communicate them to the Chinese side. As the analysis in section two has shown, the past two decades of Sino-African agricultural cooperation have been characterised by Chinese dominance in the setting of the FOCAC agenda. In turn, some actions have not aligned with African needs and priorities. "It is time to change this narrative" – this sentiment was echoed by African ambassadors at the recent Ambassadors' Retreat hosted by *Development* Reimagined. One option would be to use regional organisations to coordinate on FOCAC priorities and to negotiate with China in these groupings. This could always be extended to a continental level, if so desired. Africa CDC has already shown the value of coordination in its successful vaccine acquisition efforts in the context of the COVID-19 pandemic. Increased coordination is likely to result in increased bargaining power vis a vis China and will allow for the targeting of agricultural cooperation under the FOCAC umbrella towards the achievement of continental and/or regional plans such as CAADP.

Considering the importance of this coordination and increased agency, the following recommendations will especially focus on areas where there is scope for African coordination and initiative.

A) Actively Cooperate to Ensure The Diffusion and Extension of Agricultural Skills and Technology

To date, as exemplified by the Mozambique case study, there is a gap in the adoption of agricultural skills and technologies demonstrated at ATDCs.[117]

[117] Lynch et al. (2020)

In the first instance, there are a number of hindrances to local participation in ATDC training sessions: the *per diem system* and the expectation that government officials and farmers are remunerated for their attendance.[118]

If training sessions are attended, technology adoption nevertheless often remains lower than commonly expected. The common theory of change does not take into account that technologies are embedded in social, economic, cultural, and political contexts and that this complicates diffusion.[119] It is especially important to highlight the variables of local demand, extension, costs, and follow-up support. (1) As highlighted by the case of non-fragrant hybrid rice in Tanzania, or the case of irrigation in Mozambique, if the technology introduced does not align with local expectations, demand, and circumstances, adoption can be expected to be dire. (2) There are differing perspectives on what extension and demonstration in the context of the ATDCs entails. From a Chinese experience, it is the responsibility of local governments or technology partners to extend technologies to farmers. Many Chinese agricultural experts working at ATDCs have experience in similar projects in China where a culture of dissemination is embedded locally. In contrast, from an African experience, it is the responsibility of the ATDC to demonstrate technologies outside the centre while taking into account the circumstances and needs of local farmers.[120] However, this is not to say that no ATDCs offer extension services: in Tanzania, for instance, Chinese experts have been observed to conduct regular farm visits and extension services.[121] (3) Often, costs prove a further hindrance to technology adoption. The high cost of fertilizers has limited the adoption of hybrid crops, while the high costs of technologies - be it machinery or irrigation systems - used at the ATDCs linked with the limited availability of financing to smallholder farmers has limited the adoption of technology.[122] (4) Without the existence of follow-up support or training for local individuals to provide said support, for instance to repair machinery, technology adoption can be short-lived.

Power tillers from China provide a positive example of technology extension and adoption: there was clear demand, the costs were low, the technology fit within a broader value chain, and there is support for repairs and servicing.[123] The case of cassava production in Liberia demonstrates the benefits of extension services: those farmers with access to more extension services have been shown to learn modern means to reduce production inefficiency. In addition, extension services have linked farmers to economic agents and markets, linking them to the cassava value chain.[124]

Recommendations for the African side:

1. **Addressing the question of demand and suitability: Clearly identify and communicate African demands and expectations of Chinese activities at ATDCs**

   In order to reap the benefits of Africa-China cooperation in agriculture, African needs need to be identified and communicated clearly to the Chinese implementing partners at the ATDCs. This applies to the type of seeds and equipment tested and the focus areas and means of instruction in training sessions. The introduction of formal feedback mechanisms on the ATDCs' activities may also prove advantageous to ensure mutually beneficial cooperation.

[118] Xiuli Xu et al. (2016)
[119] Scoones et al. (2016: 7)
[120] Xiuli Xu et al. (2016); Gubo Qi et al. (2015: 3); Nalwimba, Qi and Mudimu (2019: 151)
[121] Nalwimba, Qi and Mudimu (2019: 145)
[122] Nalwimba, Qi and Mudimu (2019: 150)
[123] Scoones et al. (2016: 7)
[124] Dogba, Oluoch-Kosura and Chumo (2020: 172)

This would, for instance, allow the African side to communicate the need of finding ways to adapt indigenous seeds to current realities to increase productivity, rather than introducing new seeds – as has been expressed by the Mozambique case study.

2. Addressing the question of extension and diffusion: plan the skills transfer from the demonstration centres to farmers across the country

Considering the fact that many ATDC host countries do not yet possess advanced extension systems, it is our recommendation that both host governments and their Chinese technical partners lay out a plan to transfer skills from the demonstration centres to farmers across the country. This will increase the levels of technology and skills adoption.

B) Actively Encourage Diversity in Farm Sizes Across The African Continent

In addition to the aforementioned suggestions, the diffusion question and the productivity question (in the absence of organized co-ops) can be partly addressed by policies that encourage diversity in farm sizes across the continent. As the large majority of African farmers work on smallholder farms, there is scope for some medium- and large-scale farms.

These operations normally have professional staff they would be able to send to the demonstration centre for training, thus diffusing learning by subsequently training others on their premises. Because they tend to be formal and legally registered businesses, medium- and large-scale farms are more likely to get approved for credit to make investment in irrigation or storage facilities resulting in increased yields and diminished post-harvest loss respectively. In addition, this would allow them to become centres for the storage and processing of agricultural products, and issue that will be further elaborated on in recommendation C).

Medium to large-sized farms also provide extension services to smallholders whom they serve as off-takers. In 2019, Twiga Foods, a Kenyan business to business tech platform that had begun by connecting small farmers to offtakers, issued a request for contract farms. The criteria for qualification included: a) at least 50 acres of available land b) an irrigation system or willingness to finance one c) willing to follow Twiga's Good Agriculture Practices and food safety standards. In exchange, the tech platform would provide a ready market at competitive prices. Online engagement with the announcement ranged from pointing out that the requirements ruled out 95% of Kenyan farmers to excitement about the opportunity. Both individual farmers and organized farming coops (pooling their land) could apply to become contract farmers. This would contribute to the expansion of productive use of agricultural lands and would allow smallholder farmers the certainty of a market for their products. This, in turn, would allow for a higher degree of planning security, possibly even investment in agricultural technology. In Liberia, the Firestone Rubber Corporation (a large farm) has an outgrower service department that provides extension services to smallholders. Smallholders are able to register with the farm and obtain a number. That number becomes a basis to discounted farming inputs and requests for technical assistance. While Firestone expects that these smallholders would sell their produce directly to Firestone, there is no requirement that they do so. Chinese companies have also engaged in contract farming in Africa. Yishan Agriculture, for instance, was subcontracting with over 3000 local households in 2015. In turn, these households are supervised by ten agricultural technicians who have also worked to adapt planting techniques to the local environment through a combination of water storage and seedling protection.[125]

However, this is not to say that medium- and large-scale farms are not accompanied by their own set of issues. Concerns include depriving farmers of the control over their own produce, and automatization replacing farmers and leading to unemployment.

[125] Xia (2019: 21)

Recommendations for the African side:

1. Addressing the prevalence of smallholder farms: introduce government policies to encourage diversity in farm sizes across the continent

While we do not encourage the replacement of smallholder farms, supplementing existing farms with larger farms could bring significant benefits, both in the diffusion of techniques, in increasing productivity, in attracting funding and serving as local hubs for storage and processing. This, in turn, will create an enabling environment for Sino-African cooperation.

2. Addressing the low productivity of smallholder farms: encourage the formation of groups and unions of smaller producers

In order to better articulate the financing and services needs of smallholder farmers, it is recommended that national governments encourage the formation of groups and unions of smaller producers. This could also help increase the productivity of smallholder farms. Existing Brazilian cooperatives could serve as a model.

C) Actively Cooperate on The Processing, Storage, Transportation and Trade of Agricultural Products

Currently, African agricultural trade is highly uneven. While African countries spend foreign exchanges to import processed - as well as unprocessed, (rice etc.) as has become evident in the above case studies - agricultural products, they primarily export primary agricultural products, and this at lower value. Looking at the Africa-China relationship, the Chinese market has high potential to contribute to Africa's development as a market for goods, but the low levels of value-addition in African agriculture could contribute to a further deterioration of the trade balance between the continent and China.[126]

In order to address the low value of African agricultural products, it is important to target all steps along the production chain and to create avenues of in-country value addition. So far, the main focus of African governments has been on increasing the volume rather than the value of trade to China, as demonstrated by the absence of Geographical Indications (GI) recognition in China.[127] Furthermore, even though some African countries are the dominant producers of certain agricultural products – such as coffee in Ethiopia or cacao in Cote d'Ivoire – processing often does not occur in-country and countries miss out on adding value to their products domestically which would allow them to achieve higher trade revenues. Moving on to the issue of storage, many traditional farmers in Africa produce crops in bulk and in the absence of storage facilities, the produce depreciates, which then impacts their production for the coming season. A further impediment to agricultural value addition is the often insufficient transportation infrastructure.

Creating new and reliable markets for agricultural products can be central to ensuring food security, contributing to CAADP and generating income for farmers.[128] It is important to note, and this sentiment has been echoed at the recent African Ambassadors' Roundtable, that African countries should follow a dual strategy of pursuing intra-African, as well as international markets.

African agricultural exports to China face a dual issue: (1) often, no trade agreements exist, demonstrated by a very low number of SPSs; but (2) even if SPSs exist, as the case of the Kenyan avocados has shown, technical requirements under SPSs agreements sometimes are

[126] DR Blueprint, p. 81
[127] DR Blueprint, p. 24
[128] DR Blueprint: 82

too stringent and thus hamper trade.[129] In addition, the negotiation of SPSs with China currently tends to take years, acting as non-tariff barriers to trade as well as partly explaining the low utilisation of DFGF rates by low income countries.[130] Efforts have been made on the African side to negotiate trade arrangements with China as regional blocs. However, negotiations were often commenced or planned but never completed, as in the case of the EAC, SACU and ECOWAS.[131]

Recommendations for the African side:

1. **Addressing the low levels of value-added agricultural products (1): take a cross-continental approach to identifying agricultural processing hubs and develop an SME policy**

   By identifying products where African countries have a comparative advantage, and potential hubs for their processing, one would take an important step in the value-addition to agricultural products. As has been expressed at the Ambassadors' Retreat, this endeavour can form part of regional integration in the area of agriculture, for instance through linking it with AfCFTA. These hubs would ensure value-addition on the continent and serve as clear targets of continent-wide – and Chinese – investment.

   The development of an SME policy at national level will further encourage the expansion of agricultural processing businesses on the continent, leading to local value-addition and an improved trade balance – through an increase in high-value exports and a lower need for agricultural imports.

2. **Addressing the low levels of value-added agricultural products (2): expand cooperation in the establishment of the agricultural product processing industrial chain**

   Storage and transportation have so far been mentioned at the fourth FOCAC Ministerial Conference, and a special focus on the cotton sector has been added at the most recent conference. Processing has only been introduced as a theme in the FOCAC action points at the FOCAC 7, with a special focus on bamboo, rattan and cotton. This remains a priority area for Africa: Chinese investment and capacity building in agricultural processing, packaging, storage, quality control etc would help improve product quality and facilitate the export of local agricultural products.[132] On the one hand, this would reduce the level of imports of processed agricultural products, while on the other hand increasing high-value exports of processed agricultural goods.

3. **Addressing the low levels of African agricultural exports: cooperate on trade facilitation measures in order to increase African agricultural imports to China**

   In order to expand and diversify agricultural exports to China, it is necessary to build on existing FOCAC action points in the area of agricultural trade.[133] A combination of several efforts is recommended. These are: (1) negotiate continent-wide protection of Geographical Indications to add more value to African products in China (e.g. Egyptian cotton, South African wines or rooibos); (2) encourage China to provide an enabling

[129] DR Blueprint, p. 23
[130] DR Blueprint, p. 82
[131] DR Blueprint, p. 24
[132] Summary report of a recent CAITEC Conference
[133] see section 2B)

environment for African agricultural imports; and (3) cooperate on an e-commerce infrastructure ecosystem for exports to China.[134]

4. Addressing the financing gap along the agricultural value chain: cooperate on the establishment of an SME fund

In order to achieve the aforementioned development of the agricultural value chain in African countries, substantial investment is needed. Irrigation alone requires an investment of up to $65 billion.[135] Currently, there is a financial gap of around US$ 155 billion in the financing of African SMEs due to a lack of affordable financing.[136] There is a missing gap for SMEs that need anywhere between 10,000 USD and 200,000 USD, and in many cases up to $5 million USD. This is because early-stage venture capital, angel investors, and mezzanine tailored financial instruments often have larger investment size preferences – due to concerns about the risk of default, as well as lengthy requirements for due diligence for each new investment. This leaves a financing demand gap for most SMEs. A SME fund would prove vital in encouraging locally-owned and -conducted value-addition and trade. The AU's continental frameworks including the recently launched African Continental Free Trade Area (AfCFTA) recognize SMEs as a catalyst towards fostering intracontinental trade. In light of the large number of SMEs in China itself, China could lend indispensable experience and financing support to Africa. For the agricultural sector, SMEs can invest in agri-technology, mainly producing more processed industrial and consumer goods. Nigeria, Cote D'Ivoire, and Tanzania are the leading African cashew nut exporters. If farmers and SMEs could expand to producing more value-added products like cashew milk, cashew cheese, or cashew butter, this would significantly bolster their value chain.

D) Conceptualise Agricultural Policy as an Integral Part of Industrial and Economic Policy

Expansion in agricultural productivity can be a foundational piece of industrial policy and the first step toward diversification of the economy. As the ACET transformation report puts it "African countries have the opportunity to pursue a dual-track to industrialization—one track that leverages their relative labor-abundance for labor-intensive and export-oriented light manufacturing, and another track that leverages their advantages in agriculture for globally competitive agriculturally based manufacturing." While this cooperation space has expanded, it has largely focused on food security. The agricultural sector holds significant potential, as productivity has been shown to increase faster in agriculture than in services or manufacturing while making use of current skill sets.[137]

National agriculture programs and bilateral assistance that continue to focus on food security and treat agriculture as siloed from the national development plan will underperform the true potential of the sector. A McKinsey report projects that the continent could double or even increase its agricultural production three-fold which would add "20 percent more cereals and grains to the current worldwide...output. Similar increases could be seen in the production of horticulture crops and livestock."[138]

Agricultural output on this scale will address both the food security and job creation problems. An increase in grain production on this scale will also lead to the growth of agro-processing and light manufacturing. Increasing productivity in agriculture then is not simply about food security and reducing poverty – it is the first step to industrialization. Because of the high cost of food in Africa, industrial labour in Africa is not competitive. Nigerians, for example, spent nearly 57%

[134] DR Blueprint, pp. 81-, 84

[135] (https://www.mckinsey.com/industries/agriculture/our-insights/winning-in-africas-agricultural-market)

[136] https://africanguaranteefund.com/wp-content/uploads/2021/04/AGF-Annual-Report-2019-Smaller-Version.pdf

[137] Baymul and Sen (2018)

[138] https://www.mckinsey.com/industries/agriculture/our-insights/winning-in-africas-agricultural-market

percent of household income on food alone. In a CGD paper, the authors note that "One common explanation for why Africa has failed to industrialize is that successful industrial development needs to be preceded by broad-based agricultural transformation (Johnston and Mellor, 1961).[139] This (a) provides cheap food for domestic consumption enabling a low-cost industrial labour force to survive, (b) drives up incomes of farmers to become consumers of industrial goods and (c) frees up labour for industrial and urban jobs and savings for investments. Using case studies, Henley (2012) suggests that this initial focus on agriculture is what mostly distinguishes East Asian countries from those in Africa.

Recommendations for the African side:

1. **Addressing the often-isolated nature of agricultural support programmes and cooperation: conceptualise agricultural cooperation as a vital building block in economic cooperation**

   From the second FOCAC Ministerial Conference onwards, agricultural cooperation has been classified as forming part of economic cooperation between China and Africa. Over the years, the development of the African agricultural sector has mainly been conceptualised as a means of ensuring food security. It is recommended that FOCAC policy expands its focus on the value-addition in the agricultural sector, conceiving agriculture as the first step in a country's industrial development.

2. **Acknowledging China's unique position: draw from the Chinese experience of approaching agricultural productivity as the first step in a multi-stage transition to manufacturing**

   China is in the unique situation of being an economy that – relatively recently – relied on smallholder farming, just as many African countries currently continue to do. Considering its speedy economic development, it is recommended that African countries draw lessons from Chinese agricultural and industrial policy and make this learning part of existing cooperation under the FOCAC umbrella, thus moving beyond a focus on food security.

E) Actively Cooperate on Increasing Transparency Around The FOCAC Cooperation Process

As the research for this report has shown, there is a need for a comprehensive follow-up mechanism to track cooperation under the FOCAC umbrella. The number and shape (see section two) of commitments made at FOCAC Ministerial Conferences significantly complicates the evaluation and assessment of previous cooperation. A follow-up strategy would allow for learning from previous cooperation efforts and would help improve the allocation of funds to projects which have a proven track record or have previously not been prioritised sufficiently.

Recommendations for the African side:

1. **Addressing the absence of a formal FOCAC follow-up mechanism on the African side: cooperate on the creation of an African FOCAC follow-up mechanism**

   While China has a FOCAC follow-up committee led by MOFA and MOFCOM, there is no African counterpart. Lessons from this committee could be applied to the creation of an African follow-up committee. The AU has already expressed that it may potentially provide the forum for such a mechanism. This effort could be part of the wider coordination effort intended to increase African bargaining power in negotiations with

[139] https://www.cgdev.org/sites/default/files/does-poor-mean-cheap.pdf

China and to align FOCAC action points with African needs and continental and regional plans.

2. **Addressing the absence of a formal follow-up mechanism at the Africa-China level: cooperate on the creation of a joint FOCAC follow-up mechanism**

   This would significantly simplify the assessment of previous FOCAC policies and the agenda-setting for subsequent FOCAC conferences.

3. **Addressing the absence of a common assessment mechanism for cooperation under the FOCAC umbrella: cooperate on the development of assessment indicators and metrics**

   The creation of joint indicators and metrics for the assessment of previous FOCAC policy can firstly help facilitate the proposed joint FOCAC follow-up mechanism. In addition, metrics can help entrench responsibilities on both sides and thus ensure that the three years between ministerial conferences are spent efficiently advancing Sino-African agricultural cooperation.

Africa-China cooperation in the agricultural sector under the FOCAC umbrella has come a long way since the first ministerial conference in 2000. However, as has been shown, the African agricultural sector continues to lag behind its potential, employing large parts of the population but continuing to rely on food imports. The above recommendations, intended for African policymakers, aim to help reimagine Africa-China cooperation in the agricultural sector in order to increase food security in light of increasing population and climate pressures, and to help turn the African agricultural sector into a stepping stone for overall development. Increasing coordination and cooperation at the regional and continental level will be vital in creating 'Africa Reimagined,' by moving from fragmented projects to projects that will contribute towards the achievement of the Agenda 2063 goals.

SECTION 6 – Annex

Table 2: Decisions Regarding Agricultural Cooperation at FOCAC Conferences Throughout The Years

(Note: this table is intended to track CHANGES in commitments and therefore only lists previously mentioned challenges if there has been a deepening (or the reverse), and new commitments)

	NEW COMMITMENTS IN THE AREA OF AGRICULTURE
FOCAC 1 (2000) - Beijing	**Adopted the Programme for Africa-China Cooperation in Economic and Social Development**[140] Goals of cooperation: Agricultural development presented as a means to: Eliminate poverty Ensure food security Means of cooperation/action points: Expressed readiness to share experiences in the fields of agricultural development and fisheries Agreed to explore avenues of trilateral cooperation between China, African countries and international institutions such as the FAO
FOCAC 2 (2003) - Addis Ababa	**Adopted the Forum on Africa-China Cooperation Addis Ababa Action Plan**[141] Goals of cooperation: Added the improvement of peoples' livelihoods in Africa as a goal Areas of cooperation: Becomes more explicit as to the areas of agricultural cooperation: Land and water resource management Agro-infrastructure development Farming Breeding Aquaculture Food security Exchange and transfer of applied agricultural technology Skills transfer Technical assistance Manufacturing of farm machinery Processing of farm produce Means of cooperation/action points:

[140] https://www.mfa.gov.cn/zflt/eng/ltda/dyjbzjhy/DOC12009/t606797.htm
[141] https://www.mfa.gov.cn/zflt/eng/ltda/dejbzjhy/DOC22009/t606801.htm

	Recognised the importance of increasing African exports to China and other markets China will encourage and support Chinese firms through financial and policy incentive schemes to develop agricultural cooperation projects in Africa *This is the first time this is explicitly mentioned but the action plan says China will CONTINUE to do so not a new action, just the first time this is explicitly mentioned*
FOCAC 3 (2006) – Beijing	**Adopted the Forum on Africa-China Cooperation Beijing Action Plan**[142] Goals of cooperation: Emphasised the role of agricultural cooperation in 'eliminating poverty, promoting development and ensuring food security *for both sides'* (the previous action plan focused on the opportunities for Africa) Added the promotion of development Areas of cooperation: For the first time specifically mention sanitary and phytosanitary measures, and epidemic control + agricultural biotechnology (mentioned under the Cooperation in Science and Technology, Information, Air and Maritime Transport and Quality Inspection section) Means of cooperation/action points *(this is the first time specific quantities are mentioned):* Send 100 senior experts on agricultural technologies to Africa Set up 10 Agricultural Technology Development Centres No specific mention of African agricultural exports
FOCAC 4 (2009) - Sharm el-Sheikh	**Adopted the Forum on Africa-China Cooperation Sharm El-Sheikh Action Plan**[143] Goals of cooperation: Focus appears to shift more towards Africa again (although the role of food security for the international community is acknowledged), there is no specific reference to China's benefits from agricultural cooperation Areas of cooperation: For the first time explicitly mentioned grain production, and the storage and transportation of agricultural products Means of cooperation/action points: over the course of the next three years: send 50 agricultural technology teams to Africa help train 2000 agricultural technicians for African countries increase the number of ATDCs to 20

[142] https://www.mfa.gov.cn/zflt/eng/ltda/dscbzjhy/DOC32009/t280369.htm

[143] https://www.mfa.gov.cn/zflt/eng/ltda/dsjbzjhy/hywj/t626387.htm

	commence activities in ATDCS: experiments, demonstration projects, training projects in crop seed selection, farming, fish breeding and animal raising contribute US$30 million to the United Nations Food and Agriculture Organization (UNFAO) to set up a trust fund to support South-South cooperation between China and African countries under the framework of the UNFAO Special Program for Food Security
FOCAC 5 (2012) - Beijing	**Adopted the Forum on Africa-China Cooperation Beijing Action Plan (2013-2015)[144]** Areas of cooperation place special emphasis on and reiterate the importance of food security Means of cooperation/action points: no numeric commitments send Chinese teachers for vocational education in agriculture and help establish an agricultural vocational education system in Africa increase the number of ATDCs finance and investment: Encourage Chinese financial institutions to support cooperation between Chinese and African companies in agricultural planting, processing of agricultural products, animal husbandry, fishery and aquaculture (first mention of Chinese financial institutions) Facilitate access for African agricultural products to the Chinese market (reintroduced after it was last mentioned in FOCAC 2)
FOCAC 6 (2015) - Johannesburg	**Adopted the Forum on Africa-China Cooperation Johannesburg Action Plan (2016-2018)[145]** Areas of cooperation: First mention of forestry Means of cooperation/action points: Build or upgrade ATDCs Send 30 teams of agriculture experts and teachers to provide vocational education in African countries (less than the 50 teams committed in FOCAC 4) Increase the number of African personnel trained in agro-technology and management Help African countries develop water conservancy and irrigation projects (has been mentioned as an area of cooperation in FOCAC 2 already, but this is the first time it is not mentioned as an area of cooperation but as an action point) Implement the “Agriculture Leads to Prosperity” project in 100 African villages Provide African countries with emergency food assistance Support feasibility studies on agricultural infrastructure construction encourage and guide China's agro-science research organizations and enterprises to work with their African counterparts to carry out experimental demonstrations for high-quality and high-yield agriculture

[144] https://www.mfa.gov.cn/zflt/eng/ltda/dwjbzjjhys/hywj/t954620.htm

[145] https://www.mfa.gov.cn/zflt/eng/ltda/dwjbzjjhys_1/t1322068.htm

	establish "10+10" cooperative mechanism among Africa-China agro-science research institutions focus on facilitating joint research on breeding and the production of seeds as well as plant protection, specifically focusing on increasing outputs of grain, cotton and other key crops in African countries improve trade policies to facilitate agricultural trade explore prospects of working with other institutions and countries to realise further agricultural cooperation with Africa the African side will create an enabling environment for Chinese enterprises to invest and trade in agriculture in Africa, and offer support that includes preferential policies in agriculture, land, agricultural infrastructure, fiscal financing and insurance service, in accordance with local law
FOCAC 7 (2018) - Beijing	**Adopted the Forum on Africa-China Cooperation Beijing Action Plan (2019-2021)**[146] Goals of cooperation: help Africa achieve general food security by 2030 Areas of cooperation: first mention of organic farming first mention of increasing resilience to climate change first mention of cotton and sugar cane production first mention of waste treatment Means of cooperation/action points: establish African agricultural machine dealerships capable of after-sale support and service support township and village industries' development implement 50 agricultural assistance programs provide RMB 1 billion of emergency humanitarian food assistance to African countries affected by natural disasters send 500 senior agriculture experts to Africa train entrepreneurs in agri-business The two sides will work together to improve food security risk management systems and establish an emergency response mechanism and China will support its operationalization Provide assistance for the development of new research thrusts in the crops, including molecular detection and identification of plant diseases, pest risk analysis, seed health testing/certification, and management of quarantine containment facilities for high risk materials with biosecurity levels set up a China-AU Agriculture Cooperation Commission hold Africa-China Agriculture Cooperation Forum regularly establish a Africa-China Research Center for the Development of Green Agriculture

[146] http://www.focac.org/eng/zywx_1/zywj/t1594297.htm

	strengthen cooperation with cotton-producing African countries to help establish high quality standards and enhance their capacity for industrial planning, production, processing, storage, transportation and trade, move them up the cotton production value chain, and expand Africa's market share in the international cotton market
	foster and further develop the Africa-China cooperation with regard to the sugar cane sector and explore possibilities to facilitate its trade
	explore avenues of collaboration with regard to livestock in terms of technical cooperation in waste treatment system
	set up a Africa-China bamboo centre to help Africa make bamboo and rattan products (mentioned in Xi Jinping's 2018 FOCAC opening speech)

SECTION 7 – GLOSSARY

ACET – African Center for Economic Transformation

AfCFTA – Africa Continental Free Trade Area

ASDS – Agricultural Sector Development Strategy

ATDCs – Agricultural Technology Demonstrations Centers

BRI – Belt and Road Initiative

CAADP – Comprehensive Africa Agricultural Development Program

CAITEC - Chinese Academy of International Trade and Economic Cooperation

CARI – China Africa Research Initiative

CDC - Center for Disease Control

COVID-19 – Coronavirus Disease

DAC – Development Assistance Committee

DFGF – Duty Free Quota Free

EAC – East African Community

ECOWAS – Economic Community of West African States

ERV – Green Revolution Strategy

FAO – Food and Agriculture Organization

FDI – Foreign Direct Investment

FOCAC – Forum on China-Africa Cooperation

FTA – Free Trade Agreement

GAOFA – Great Agricultural Offensive for Food and Abundance

GDP – Gross Domestic Product

ICT – Information and Communication Technology

IFPRI – International Food Policy Research Institute

IIAM – International Institute for the Advancement of Medicine

ISO – International Organization for Standardization

KITP – Kenya Industrial Transformation Programme

LASIP II – Liberia Agricultural Sector Investment Plan

LDCs – Least Developed Countries

LOASP – Agricultural, Sylvicultural and Pastoral Policy Law

MCT – Ministry of Science and Technology

MINAG – Ministry of Agriculture

OECD – Organisation for Economic Co-operation and Development

PAPD - Pro-Poor Agenda for Prosperity and Development

PEDSA – Plano Estratégico de Desenvolvimento do Sector Agrário

PRACAS – Program for the Acceleration of Senegalese Agriculture

PSE – Plan Sénégal Émergent

SACU – South African Customs Union

SPS - Sanitary and phytosanitary measures

SME – Small and medium-sized enterprises

UN – United Nations

UNFAO – United Nations Food & Agriculture Organization

WTO – World Trade Organization

R&D – Research and Development