Addressing China's Rising Influence in Africa

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Key facts and figures

- China is now the largest trading partner for the African continent, and China's Export-Import Bank aims to invest more than $1 trillion in the continent by 2025. In addition, China has now surpassed the United States government in total agriculture R&D funding. China has increased its presence in African development—a trend that will persist because its model is extremely attractive to both China and many African nations.
- China's growing contributions to African development should not automatically be feared, but their increased presence should create a recalibration in US approaches to development. Current US National Security Advisor and former Ambassador John Bolton in his announcement of the administration's Prosper Africa initiative cast China's presence in Africa as a strategic challenge for the United States.
- The market opportunities on the African continent are enormous. Consumer expenditure is expected to reach $2.1 trillion by 2025 and $2.5 trillion by 2030. The World Bank estimates that the African food market alone could be worth $1 trillion by 2030, more than tripling the current $300 million market.
- China's ability to directly finance and construct infrastructure projects with fewer conditions is unique and has raised worries in some quarters about the expropriation of natural resources, environmental hazards, labor displacement, unstable debt burdens, and land grabs.
- In addition, China's investment strategy leaves notable gaps that the United States, leaning on its expertise, can fill. The most direct and sustainable mechanism for moving people out of poverty is investment in agriculture—in particular, smallholder agriculture. US leadership on global water, food, and nutrition security is essential to catalyze the innovations and development necessary to achieve US foreign policy and development goals on the continent.
- To maintain its global leadership in this strategically important continent, the United States should consider prioritizing technical assistance for water sustainability and thereby support sanitation and agricultural growth. The United States must also continue to find ways to deepen its relationships with African partners to demonstrate US commitment to building resilience and self-reliance in these communities for the long term.
- Simultaneously, the United States and its allies should work through international institutions to encourage China to adopt policies that achieve shared global objectives in economic development, security, human welfare, and sustainability.

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Introduction

The United States has been one of the African continent's most important partners for decades, but new dynamics are changing the status quo. Specifically, China's foreign investment has increased significantly in the past two decades, rising to prominence and beginning to fundamentally reshape the physical and political landscape of the continent.

Measuring this increased investment from China is difficult because the bureaucratic structure of this investment is often opaque, and China's central government does not widely share data.[1] But multiple recent external studies show a pattern of uneven but growing economic ties between Africa and China.[2] These ties include major efforts to expand trade relationships and increasing direct investments in infrastructure, such as hydroelectric dams and other development programs. While China's Export-Import Bank has yet to exceed the World Bank in annual investment in Africa, it is expected to in the near future if trends continue.[3]

China's increased presence in Africa arose and will persist because it is extremely attractive to both China and many African nations. For some nations, a partnership with China is irresistible because of the significant and urgent need for infrastructure, which China is willing to finance. Many nations also believe China-supplied money for projects is more readily accessible and less conditional than Western loans.[4] For China, projected critical natural-resource shortages and the need to expand the global demand for Chinese goods make Africa a valuable target for investment.[5]

The United States should recognize this new reality and recalibrate its strategy in Africa for two reasons. First, although China-backed financing may be easier to secure than loans from other countries, the loan and grant conditions used by Western countries, such as the United States, have been honed through more than 50 years of experience to encourage long-term sustainable development. By comparison, some US officials have criticized China's current development model as predatory and unsustainable, leaving African nations' strategic resources and infrastructure exposed to exploitation and expropriation.[6]

Second, as noted by the former US Ambassador to the United Nations and current US National Security Advisor John Bolton in his announcement of the current administration's Prosper Africa initiative, China's presence in Africa poses a strategic challenge for the United States.[7] As African nations develop, they become potentially substantial economic partners for the United States. African consumer expenditure is expected to reach $2.1 trillion by 2025 and $2.5 trillion by 2030.[8] The World Bank estimates that the African food market alone could be worth $1 trillion by 2030, more than tripling the current $300 million market.[9] Rising investment from China could change America's status as a leading trading partner as African economies mature. Therefore, the United States must adjust its strategy in Africa to ensure its place as a future key trading partner and to achieve its foreign policy and development goals in the region.

African development needs are enormous. The African Development Bank (ADB) believes the continent requires between $130 billion and $170 billion a year in new infrastructure to meet its development needs, given the 12 million young Africans entering the job market every year.[10] Closing this gap requires $67.6 billion to $107.5 billion in funding, even after considering all donor financing commitments. Without attracting more private capital or development assistance to close the gap, urgent needs cannot be met. Specifically, unreliable water access, sanitation, and health (WASH) and agricultural production are consistently identified as limiting factors in African economic productivity and as contributing factors in violent conflict.[11] The opportunity for the United States, which has extensive agricultural knowledge and a history of successful food-security programming, is significant, even considering China's escalating financial interests.

It is a challenging environment, characterized by increased but potentially unsustainable investment from China and growing African needs that must be met to ensure the continent is secure and reaches its economic potential. The best way forward for the United States is to demonstrate the strength and value of its development assistance model and deepen its relationships with partners across the region. Simultaneously, the United States and its allies should work through international institutions to encourage China to adopt policies that achieve shared global objectives in economic development, security, human welfare, and sustainability.

The US recognition of China's expanding presence in Africa should be guided by intensified investment in African infrastructure that strengthens diplomatic relationships with African nations in which the United States has a presence; invests in sectors and locations where China is unable to operate effectively; expands agricultural trade with Africa while also investing in African agricultural productivity; and motivates China, through international engagement, to improve its own development practices.

The United States has a long, bipartisan history of supporting a wide range of development and humanitarian efforts in Africa. In recent years, there have been impressive results from addressing food and water security, specifically.[12] Therefore, the rising investment from other economic powers should not slow US investment in Africa. The United States and China are actively engaging in programming in Africa. The United States should deploy a new strategy to ensure sustainable prosperity for both Africa and the United States.

Understanding China's state-sponsored economic engagement in Africa

The African continent will see substantial population and market expansions over the next few decades, especially in the rapidly developing Sub-Saharan region. By 2050, the African population is projected to be 56 percent urban and represent a full quarter of the world's working-age population.[13] Consumer expenditure on the continent is expected to reach $2.1 trillion by 2025 and $2.5 trillion by 2030.[14] Thus, the market opportunities on the African continent are enormous.

Countries that invest in Africa in this time of growth would build a favorable trade network for goods and ensure future food and resource security. And China is now the largest trading partner for the African continent.[15] In fact, in absolute terms, China–Africa trade greatly overshadows China's aid and foreign direct investment in Africa.[16] In 2009, China–Africa trade eclipsed US–Africa trade; by 2017, it was more than four times larger, at $204 billion.[17]

In addition, at home, China is intensifying a focus on agriculture. In 2009, the country surpassed the United States in spending on agriculture research and development and has continued to outpace all countries since.[18] The country is also engaging in a global expansion of trade networks; for example, its Belt and Road Initiative (BRI), announced in 2013, aims to re-create infrastructure and trade connections between China and much of the world. As a corollary of this widespread expansion, the Export-Import Bank of China is planning to invest more than $1 trillion in Africa by 2025.[19]

Why is China investing in Africa?

Domestically, China's rapid population growth and modernization suggest that the country will face critical scarcities in food, water, energy, and mineral resources.[20] By 2025, more than 520 million Chinese people will be considered upper-middle class and will control 60 percent of the nation's accumulated wealth. Higher incomes and a growing middle class have created rapidly rising demand for higher-value products—in particular, for meat.[21] Although China raises much of the livestock it consumes and produces more pork than any other country, it still imports millions of tons of corn and soybeans primarily for animal feed.[22] The country claims more than 20 percent of the global population but only about 9 percent of the world's arable land. Despite dramatic gains in domestic agricultural production, especially for cereal grains, China will most likely need to depend on food imports to meet domestic demand.[23] China–Africa trade flows are currently dominated by China exporting to Africa, but the former has expressed clear interest in developing trade networks. These networks would not only import more African goods and raw materials but also build new markets on the African continent.[24]

Water scarcity is also one of China's greatest challenges. Climate change, intensive use of current resources, and inefficient irrigation have put food and energy production at risk in China's most productive agricultural regions.[25] Since the 1980s, increasingly severe water shortages have directly threatened China's sustained growth. By 2050, the country's total water deficit could be as high as 80 percent of its annual capacity.[26]

These challenges have made development in Africa critical to China's own future development. Shipping African agricultural products to China still remains too costly.[27] Over the long term, however, with better infrastructure of the sort built by BRI, it may be possible for China to create favorable trade networks for importing water-intensive goods. By developing these networks now, China is installing the infrastructure that could support this burgeoning market for generations to come.

How much and where is China investing in Africa?

China's investment portfolio in Africa is led by large infrastructure projects (such as hydroelectric dams) in areas of strategic value for China and, to a lesser degree, by WASH projects. Most investments have been made in the energy and transportation sectors, specifically in hydropower and oil development. Focus has remained consistent in these sectors, which constituted 58 percent of all of China's investments from 2005 to 2018 and 60 percent of investments over the past two years.

Agriculture, meanwhile, accounted for just over 3 percent of China's total investment in Africa from 2000 to 2012.[28] During this time, agricultural funding mainly took the form of grants, loans, or technical assistance. According to a Chinese funding database maintained by the American Enterprise Institute, 10 out of 39 Sub-Saharan countries received 60 percent of all China's projects in the region from 2005 to 2018.[29] Of these 10, China focused the majority of its projects in Angola, Ethiopia, Kenya, Nigeria, and Zambia. It is important to note the overlapping investments of China and the United States; Ethiopia, Kenya, and Nigeria are Feed the Future target countries, and Kenya and Nigeria are also US Water for the World Act priority countries.[30]

The Export-Import Bank of China is planning to invest more than $1 trillion in Africa by 2025.

China's investment in Africa primarily takes the form of loans that tend to be narrowly focused on the construction of individual infrastructure projects rather than broad-based development support. China's state-owned banks sometimes directly pay its state-owned construction firms to complete the projects. This practice streamlines the process for lending and building, but it also limits benefits to the broader economy and means projects are much less transparent to the global community.[31] By some estimates, Chinese state-owned enterprises receive more than 95 percent of total China's foreign direct investment.[32]

While there is no question that China is heavily and increasingly investing in Africa, the volume of announced lending seems to be significantly larger than the number of projects the country actually funds and completes. For instance, a 2016 study found that only slightly more than half of the loan agreements publicized actually materialized.[33] When China invests as a member of a multilateral institution, however, its projects show better records of both transparency and due diligence in financing.[34]

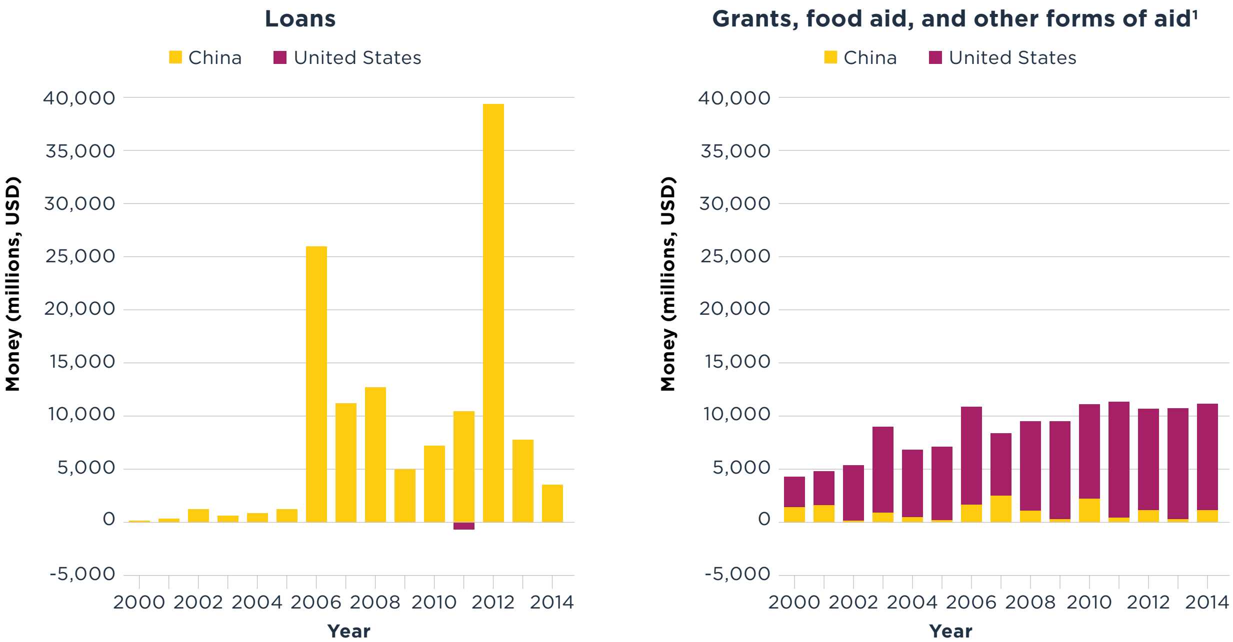
China's emerging development patterns in Africa

In general, China's development efforts in Africa have a different character from Western aid efforts. All nations' aid and development efforts are necessarily tied to their strategic foreign policy objectives. But China's striking ability to directly finance projects that are then built by state-owned firms means its investment is a clearer expression of China's foreign policy objectives.[35] This direct financing has raised worries about the expropriation of natural resources, export of environmental

Figure 1

China's and US activities in Africa are fundamentally different

China predominantly gives loans, while the United States focuses on grants and other flow types



Note: From 2000 to 2014, US aid loans to African countries were never higher than $96.97 million (2003) and in most years (2005 to 2014) were less than zero, as interest repayments from recipients were higher than yearly loan amounts.

[1] "Other" consists of grants, food aid, debt rescheduling, and technical cooperation. For the United States, "other" is 83.8% grants, 11.7% technical cooperation, and 4.5% food and debt.

Source: AidData, OECD iLibrary

hazards, labor displacement, unstable debt burdens, and land grabs.[36]

Policies of mutual benefit and nonintervention

The self-described principles of China's economic engagement in Africa are mutual benefit and nonintervention.

Investment and development projects funded by both China and the United States are influenced by a policy of mutual benefit, which assumes that development efforts should generate benefits for both donor and target countries. However, in practice, China and the United States vary greatly in interpretation of this principle.

China's government interprets mutual benefit to mean that it should invest chiefly in individual projects of interest to foreign governments that promote its overseas economic and foreign policy objectives.[37] China has even been deliberate in requiring that its loans and foreign projects return discrete benefits to the donor. Western development efforts, by comparison, have often focused on official development assistance in the form of foreign aid, administrative-capacity assistance, and food assistance. US official development assistance is primarily aimed at improving economic development and promoting welfare in the target country, and it frequently offers concessional financing rates that are more favorable than market rates.[38] This development aid is typically used for broad-based institutional support.

Foreign aid of this sort makes up a small portion of China's total investment in Africa.[39] And China's concept of mutual benefit heavily influences the projects they select. Specifically, China often focuses on building trade infrastructure through contract caveats such as preferential export agreements and, in some cases, loans secured by African resources.[40]

These arrangements, while successful in some places, have also ultimately proved to be too complicated for China to complete in politically unstable places.[41] China does not have a foreign aid or development agency that corresponds with, for instance, USAID. All of its funding and development policy is carried out by its Ministry of Foreign Affairs, Ministry of Commerce, and policy development banks (such as its Export-Import Bank and the China Development Bank). Debt relief and multilateral aid are handled separately by the Ministry of Finance.

African governments' demand for development assistance is high and rising.[42] And the needs in Africa are much broader than those which can be shown to have direct returns for China. However, unsurprisingly, African governments see some particular advantages in loans from China, which frequently have fewer conditions than loans from Western sources.[43]

The principle of nonintervention describes China's belief that its investment decisions should not be guided by attempts to influence other governments' policies or behaviors, further differentiating Western development patterns from China's. The complexity of Western arrangements is intended to ensure that they are beneficial for the parties involved, are less vulnerable to corruption, and encourage shared global goals for environmental security, human welfare, and sustainable economic development.[44]

Meanwhile, this principle has allowed China to sidestep regulatory, debt-stability, and environmental-impact concerns by focusing on particular infrastructure projects while ignoring the context and long-term consequences of their construction.[45] The principle implies that these concerns are the full responsibility of the receiving government. China has framed nonintervention in terms of respect and "South–South cooperation," which is attractive to African governments.[46]

Box 1

Reception of China's Development Model in Africa

Opinions of China's development in Africa by Africans are mixed and complex.[47] Analysis of Pew Research Center findings shows favorable opinions of both the United States and China, with a greater share favoring the United States. Afrobarometer finds that the United States was seen as the better model of national development averaged across surveys, but only by six percentage points above China. So China's state-sponsored economic engagement in Africa is, on average, seen by Africans as aligning with their domestic development goals, but assessments of its value vary considerably by nation.[48]

Africans' negative attitudes about China are driven chiefly by the perceptions that Chinese products are of poor quality, China's involvement takes jobs from locals, and China is extracting resources and conducting land grabs in Africa.[49] Tensions between African workers and Chinese supervisors have arisen periodically, mainly over pay and the higher percentage of Chinese workers on state-funded projects.[50] A Pew survey finds that Africans strongly reject China's state capitalism in favor of the US free-market model. They also believe that China will one day outpace the United States as the world's superpower.[51]

The high need for financing coupled with the easier availability of funding from China can create tough choices for African governments. For example, while all projects, even those directly financed by China's state banks, are supposed to undergo environmental assessments, they regularly defer to the African governments' standards and approval.[52] This can put the government's economic and environmental interests into direct conflict, causing it to waive standards to secure the loan.[53]

In the meantime, the pace of China's lending and its lack of transparency have created concerns among some US government officials that the debt burden from China's loans is unmanageable for African countries.[54] US Agency for International Development (USAID) Administrator Mark Green, for instance, has said that China "lures borrowers with promises of easy money but then saddles them with unsustainable levels of debt."[55] In at least one case in 2017, China seized physical assets—a China-built port and 15,000 acres of surrounding land—from the Sri Lankan government, which was unable to pay back an infrastructure loan.[56] Unsustainable debt from similar projects on the African continent could lead to seizures and slower growth for African countries that must put more money into servicing debt.

However, despite the occurrence in Sri Lanka, seizing land is unlikely to be part of an intentional strategy by the Chinese government. After all, high levels of debt expose China, a major international lender, to significant economic liabilities.[57]

Corruption and engagement with authoritarian regimes

The stakes of global leadership through foreign policy and diplomatic relationships are high. Both democracy and authoritarianism are increasingly prevalent on the African continent. The Bertelsmann Transformation Index (BTI) is a systematic comparison utilized by the British, German, and US governments to asses partner countries. Of the 44 African governments (out of the 54 on the continent) that the BTI quantified the status for in 2016, 22 were scored as some form of democracy of varying stability and 22 were scored as some form of autocracy. More countries than ever before in West and Central Africa are now under democratic systems, but South and East Africa have experienced a regression of political freedoms.[58] The United States has historically made efforts to support the growth of democratic governance in Africa.[59] Some have expressed concern that China's nonintervention principle allows it to support authoritarian regimes and encourages corruption.[60] Therefore, without continued US engagement, it is possible that the advancement of democracy on the continent is at risk.

While China is willing to work with less stable, authoritarian regimes, the very fact that the regimes are less stable and authoritarian has severely limited China's ability to achieve favorable outcomes in those countries.[61] Evidence suggests that the presence of China's aid projects is positively correlated with increased local corruption.[62] And recent regression analysis shows that China's financing disproportionately flows to political leaders' birth regions and areas populated by their ethnic groups, while no such relationship exists for World Bank funding.[63] Further, aid projects in corrupt areas have shown little to no positive local economic impact.[64] In fact, the combination of China's nonintervention attitudes and existing local corruption could lead to ineffective projects and a weakening of local political institutions.

Alternative strategies in water and agriculture development: A case study

Differences between China and the United States in the development model of Africa's water resources and agriculture offer some particularly illuminating views of China's investment and highlights opportunities for American leadership.

China's water development model

China's BRI publicly states that its water-related projects will focus on three major categories: hydropower, irrigation, and WASH. However, while China has made some investments in WASH and irrigation projects, massive hydropower efforts dominate China's water-development portfolio.[65]

Irrigation and WASH projects that do commence tend to serve other state goals or support hydropower projects.[66] Although WASH and agricultural water needs are highly critical in many of the countries where China has a presence, the government's overwhelming emphasis on hydropower suggests that interest in them is peripheral.

This emphasis on hydropower seems to be driven by demand in Africa, combined with China's unique capacity to quickly finance and build large-scale infrastructure. Hydropower development is expensive and technically complex, yet it is attractive to China, which has deep experience and technical capacity in dam building and power generation. China has completed more than 22,000 large dams (higher than 15 meters), of which more than 4,800 are mega-dams (higher than 30 meters), totaling more dams in the past 50 years than the rest of the world combined.[67]

Of the new hydropower projects in Africa, 58 percent are built by Chinese companies. In East Africa alone, 60 percent of new power capacity is due to Chinese hydropower dams. And while projects are divided among multiple construction firms throughout the continent, 90 percent of Chinese power projects in Africa are built by Chinese state-owned enterprises.[68]

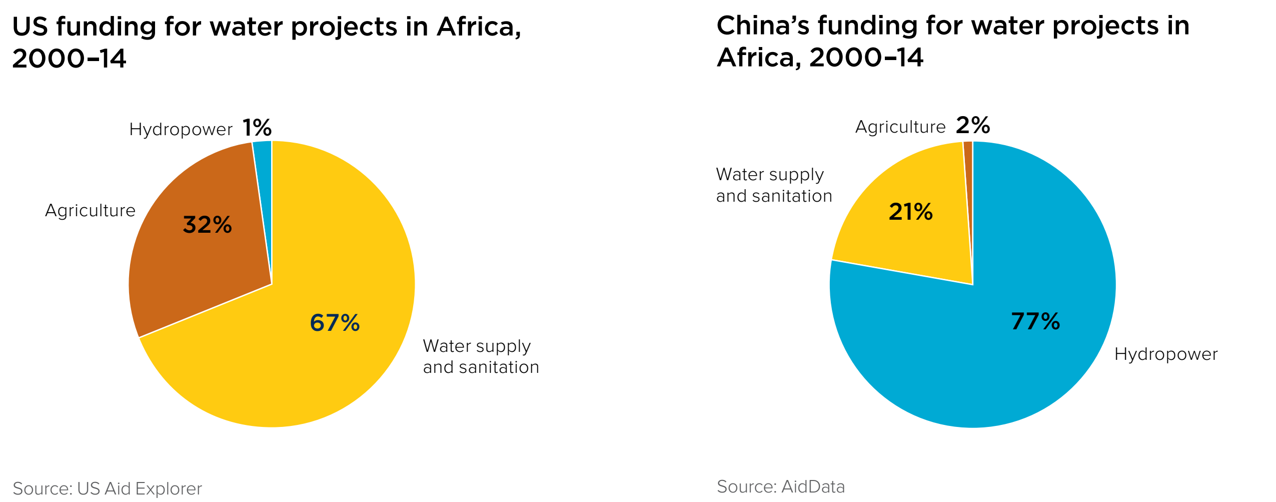
China has a comparative advantage in building large infrastructure.[69] Africa's broader needs for water and agricultural development, beyond solely hydropower construction, present an opportunity for the United States to use specialized expertise. This alternate focus does not preclude the United States from building large infrastructure (such as projects conducted by the Millennium Challenge Corporation or USAID's Power Africa), but it does suggest expanding what the United States already excels at: food security, WASH, and agricultural water management. However, the window of opportunity for these investments is closing.

China's agricultural development model

As stated, China's water development is currently focused on hydropower, and no substantial investments in agriculture or irrigation have been made under the aegis of BRI. However, Chinese state banks have made large loans to both Chinese agribusiness working in Africa and to African governments to establish large, state-owned farms in the Chinese model.[70] Although early agricultural development efforts included hopes of developing foreign farms to directly support China's needs, the objective has shifted steadily toward encouraging Chinese companies to expand their business into

Figure 2

Funding for China's and US water projects



Africa.[71] To bring China's technical capacity to the African agricultural sector and to build a market for its improved seeds, China has conducted a number of education exchange programs with African farmers and officials and built agricultural-tech demonstration stations in Africa.[72] These demonstration centers were transferred to African management but have struggled without sustained support.[73]

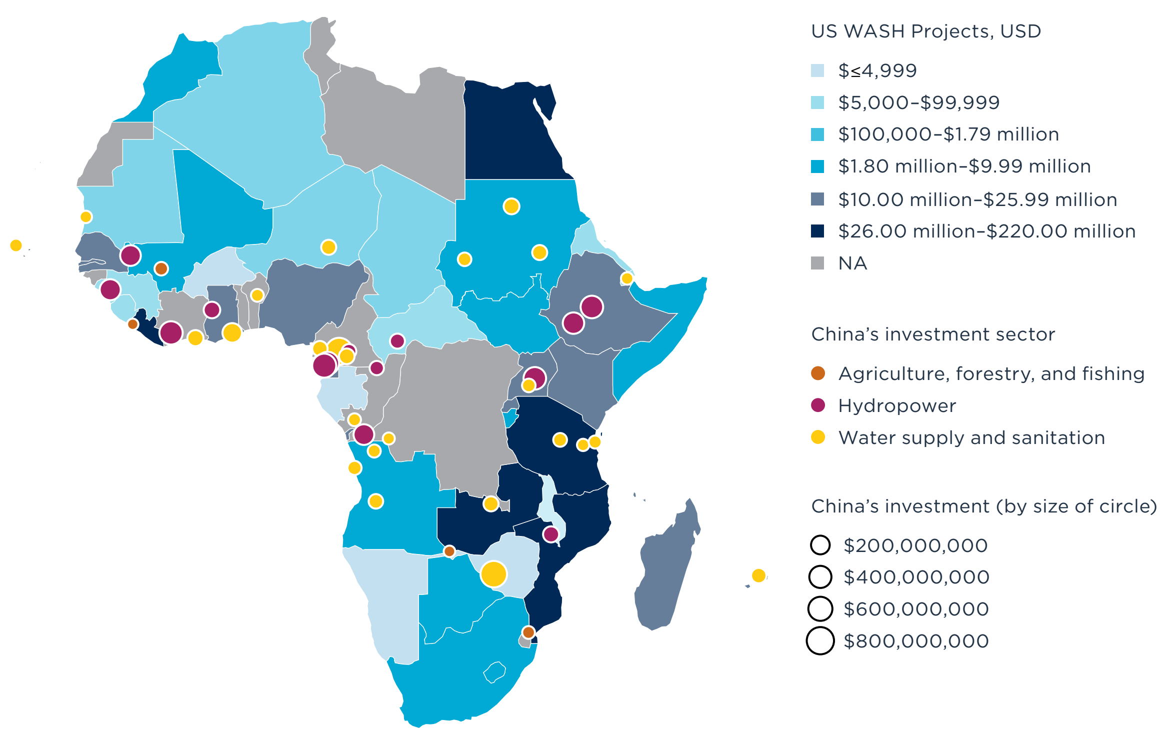
In addition to farmer exchanges, China has also increased its efforts to train Africans in agriculture and development policy by as many as 10,000 students a year.[74] Currently, these programs (operated by prominent Chinese universities, state departments, and private companies in mainland China) are characterized by diverse development philosophies, with agriculture and natural-resource management as the top priorities. The goal is building positive relationships between China's government and potential future leaders of African policy, establishing China as the most familiar partner for development and policy advice. The United States was previously a leader in training promising young leaders from Africa at US land grant universities, but these programs have waned because of a lack of funding in recent years; they have been steadily replaced by Chinese training programs.

Perhaps the most significant challenge for China's water development in Africa is the apparent environmental unsustainability of such projects. The electrical benefits provided by hydropower may be quite valuable, but they must be evaluated against the well-documented negative environmental and human consequences of major hydropower projects.[75]

Dams also bring questions of water sustainability over time as agricultural activity intensifies in Sub-Saharan Africa.[76] In this area, as in the rest of the world, agriculture is predominantly rain fed. But in order to meet growing demand, farmers will likely

Figure 3

China's and US water projects in Africa, 2010–14



Source: USAID 2019; AidData, 2019

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need to expand irrigation use or bring more land into production—or some combination of the two.[77] However, both approaches add further stress to water resources.

US development model

The US approach to food and water development across the globe, including in Africa, differs significantly from China's. In 2017, the US government published their Global Water Strategy, defining all cross-agency development objectives in the water sector. These objectives included promoting WASH services, managing freshwater resources, resolving conflicts over shared water, and strengthening water measurement and governance.[78] That same year, the government also released a five-year Global Food Security Strategy to guide its agricultural development efforts. Both of these strategies emphasize establishing institutional focus rather than building infrastructure with the intent to improve local governments' capacity for investing in and managing water and agricultural resources.

USAID, in coordination with the State Department, is the main US conduit for global food security programming. It has also built its own water strategy around two objectives: improving health outcomes through WASH and improving water management across rain-fed and irrigated agricultural systems. This strategy emphasizes expanding infrastructure to support adoption of water-management technologies and changes in behavior toward water management.[79]

The US sense of mutual benefit in development, as indicated by its quite different patterns of financing, is significantly less focused on direct economic or strategic returns on individual projects in the short term.[80] Instead, Western lenders have tended to take the position that improving food and water security, agricultural productivity, education, and democratic governance creates an environment of mutual economic and security benefits for the future.

Since 2010, annual aid disbursements from the United States toward global water-related activities have fluctuated, ranging from $600 million to $900 million.[81] USAID reports that in any given year, 30 to 60 percent of US water-related investment is allocated for WASH-related activities and water-resource management, while a relatively smaller amount is earmarked for water development related to agriculture. And funding for food-security efforts, which has hovered around $1 billion per year for 10 years, has a similar deficit of funding toward water-related activities.[82] African countries have remained prominent recipients of both water- and food-related funds: in 2016, for example, roughly $300 million of the $700 million in water aid went to the continent.[83] Furthermore, eight out of 12 Feed the Future target countries are in Africa.[84]

In particular, USAID has targeted seven "high-priority countries" in Africa for water-based investments (WASH and other water programming), allocating roughly $10 million to $12 million per country in the 2016 fiscal year.[85] In the agricultural sphere, these investments have often gone toward small-scale, self-sufficient irrigation systems and capacity building in water management. Outcomes and impacts of these projects are primarily measured in terms of health, environmental sustainability, and the performance of farmers.

As such, USAID presents project components in a more comprehensive light. A prime example is the Water for Africa Through Leadership and Institutional Support program, which places infrastructure and irrigation within the context of better governance, improved behaviors toward water management, and knowledge sharing.[86] USAID metrics indicate that from 2008 to 2016, WASH programs increased access to drinking water for 12.3 million people and improved sanitation access for 9.8 million people.[87] In conjunction, Feed the Future programming has resulted in 23.4 million more people living above the poverty line, 3.4 million more children living free of stunting, and 5.2 million more families no longer suffering from hunger.[88]

However, US global influence on water development extends far beyond its stated country-specific strategies. Because the United States is a leading contributor and governing force in many regional and global development banks, its role in facilitating large-scale infrastructure development is not always easy to monitor. For example, in 2018, the World Bank maintained a lending portfolio of 177 water-based projects, amounting to $24.5 billion in investments (11 percent of the World Bank total).[89] Large-scale water infrastructure remains a significant component of this lending portfolio—particularly irrigation works, flood management, and dam construction at the watershed level.[90]

To contribute to the sustainability of the loan, Western donors (such as members of the Organisation for Economic Co-operation and Development's Development Assistance Committee) are encouraged to make loans conditional on efforts by recipients to be transparent, prevent corruption, and limit negative externalities of new projects. The purpose is to ensure that no single loan works at cross purposes to other development goals. China is a "nonmember economy" but has built working relationships with the OECD on a number of activities, including trade, competition policy, corroborate governance, and foreign-direct-investment policies.

Vibrancy, self-reliance, and sustainability: A case for continued US investment in African agriculture and water development

Food insecurity—a humanitarian imperative—contributes to instability, violence, extreme poverty, illness, and migration. After 10 years of declining world hunger, the number of undernourished people has begun to increase again. As of 2017, globally, more than 151 million children under five (one in five) are affected by stunting, and 821 million people (one in nine) are undernourished.[91] Severe food insecurity is most prevalent and rising in Sub-Saharan Africa, reaching nearly 27 percent of the population in 2016.[92]

The most direct and sustainable mechanism for moving people out of poverty is investment in agriculture—particularly in smallholder agriculture.[93] Agriculture provides 32 percent of Africa's GDP and employs more than 60 percent of its countries' labor force.[94] The 33 million smallholder farms in Sub-Saharan Africa make up 80 percent of the total farms in the region.[95] These farmers are working on fewer than five acres of land, many making the equivalent of $1 to $2 a day. Studies of the countries that have the quickest reduced poverty rates show that more than half of these gains resulted from growth in agricultural incomes.[96] US investment in food security and agricultural production in Africa is capable of reducing poverty and providing new opportunities for economic growth. Water infrastructure, including WASH infrastructure, is key to unlocking this production and decreasing malnutrition.

In turn, when incomes rise and hunger decreases, consumers in developing markets increasingly demand a wider variety of agricultural products as well as all kinds of value-added products, thus benefiting the US economy.[97] Agricultural growth abroad increases the demand for farm inputs and machinery, as well as for digital technology and consumer packaged goods. As the United States remains a global leader in many of these agricultural industries, with a strong history of innovation and development, it is well positioned to continue addressing agriculture and food-systems development globally.

The irreplaceableness of US-led development efforts

The rationale for continued US support for development remains compelling and strong. Meanwhile, China is currently locked into a strategy of development with a narrow focus, designed to meet its own critical economic and resource-scarcity issues over the long term. And trade relationships between Africa and China are extensive and growing. As a result, development of African infrastructure and markets is rightly seen by China's government as an essential element of its own ability to grow. This suggests China's development will remain focused on projects that achieve this goal and for which they have ready technical expertise. The sectors in which China is most active, including hydropower construction, demonstrate this reality.

Over the long term, however, China's ability to benefit from this infrastructure will depend on a vibrant economy across the continent. In order to strengthen the economy, Africa will require additional support in many sectors, including agriculture. Thus, it is likely that China will begin to expand its development focus and approach.[98]

Significant mutual benefits to continued US support of smallholder agriculture include improved food security, reduced hunger, and opportunities to expand markets for American agricultural technology. China has not taken a strong interest in this sort of investment, despite its importance for building long-term stability and productive bilateral relationships with African nations. If China has a competitive advantage in building large-scale infrastructure, the United States has its own advantage in agribusiness and supporting agricultural productivity.

Moreover, little evidence supports the notion that increased investment from China weakens the effects of Western aid, giving credence to the possibility of parallel investments in African development aid. The differences in scale and intent of China and US aid mean that many projects are complementary rather than competitive.[99] It is also important to recognize that China is a relatively new actor at scale in African development, and its strategy will likely continue to evolve. Given the extent of the needs on the African continent, influencing China to pursue development projects that are more consonant with the West's historical objectives would be a major success for African nations, China, and the United States. These objectives should include more joint policy development, which allows China to share its own experience of rapid development. An existing example of this is China's partnership with the World Food Programme; in 2016, its Centre of Excellence in China began to conduct policy dialogue, research, and technical training activities to learn from China's experience moving from an aid recipient to a major economy.

The United States has been (and will continue to be) an important partner with African countries. The high levels of projected growth in Africa over the coming decades suggest an enormous opportunity for the United States to continue being an important partner with African countries and investing in African development, particularly in food and water.

Items for policymakers to consider

This report outlines strategies and evidence in an effort to shed light on this area of growing importance. The following are not specific recommendations for action but instead potential methods for policymakers to strengthen US development strategies in Africa within the context of an increased presence from China.

This distinctive point in history must be understood in the context of China's trajectory. China's GDP was the sixth-largest in the world when they joined the World Trade Organization in 2001; today, it is the second-largest economy in the world, poised to overtake the United States as the largest.[100] China has undertaken a deliberate plan to expand and enhance its role in global trade as part of this economic growth, with BRI as a prime example. Given its own recent history as a developing country, China's development activities also represent a recognition that the road to massive market opportunities can be paved with engaged relationships. Its expanding role in global affairs should be understood as consistent with China's growing economy and emerging global leadership.

China's growth in the African development space should not automatically be feared, but it must be understood. Its presence in international development, relatively new and fundamentally different in approach from the United States, is tied directly to its future economic growth and ability to finance foreign debt—both of which are uncertain. China and the United States are competing for leadership and future market share in Africa, and appreciating this context is important to engage in a productive policy dialogue on US development.

Expand support for African agriculture and water development

While the United States invests more than China in African agriculture and water development, it could still expand its investment. The Global Water Strategy calls for more water-development support, which would improve food security, national security, and economic development simultaneously. This support could involve prioritizing water management in the activities of key agencies identified in the Global Water Strategy and permanently authorizing the Global Food Security Act, which underpins the US government's flagship food-security program.

The best response to China's increasing investment in Africa is for the United States to demonstrate the value of its own model and expertise by supporting food and water security, especially for smallholder farmers, while continuing to offer transparent concessional loans and other forms of direct aid. Over the long term, even if there proves to be more than enough space for both China's and US development efforts in Africa, a failure of US engagement may result in global trade networks that are significantly more favorable to China's interests than those of the United States.

For African nations and the United States to take advantage of expanding business opportunities, the private sector must play a massive role in development, and the research and development community must fully participate. Since the African food market is set to expand dramatically, American agribusiness has an opportunity to contribute to making the market profitable, sustainable, and capable of meeting global food-security goals. The BUILD Act of 2018 created the US International Development Finance Corporation, a new development finance agency, with $60 billion authorized in funding.[101] These funds are intended to support American businesses and nongovernmental organizations operating abroad and has some parity with China's model. The major difference is that, in the US model, the companies receiving investment are not state owned. This kind of agency support can be useful, though it cannot substantially replace official US development assistance.

US leadership on global water, food, and nutrition security is essential to catalyze the innovations and development necessary to achieve goals in Africa. In the face of rising investment from China, the US administration should employ all foreign policy tools available, emphasizing technical assistance and training for water sustainability to support agricultural growth—all to maintain global leadership in strategically important regions. Water challenges will only get worse if left unaddressed, and the incredible development gains over the past 50 years (namely, reduced poverty and improved global health) could be lost.

Strengthen relationships and build the capacity of Africa partners

The United States must deepen relationships with African partners to demonstrate US commitment to long-term support. Africa's finance development gap shows a need for extensive engagement—and the United States is uniquely positioned to assist in incorporating responsible natural-resource management into agreements and into policy-development processes at the national and subnational levels.

Policymakers should consider increasing support for traditional levers of influence, such as university support, fellowships, government-to-government collaboration, or even trade. The dramatic expansion expected in the African food market is an exceptional opportunity to share American knowledge about agricultural business and sciences and to train future African agricultural leaders. For example, joint research projects with African and US universities could focus on critical needs, such as sustainable water management and irrigation intensification in Sub-Saharan Africa.

From 2008 to 2016, WASH programs increased access to drinking water for 12.3 million people and improved sanitation access for 9.8 million people.

Global competition for leadership and the need for more cooperation on development financing from donor countries are a given. Thus, the United States must consider identifying deeper leadership opportunities with partners abroad, especially when those relationships enhance trade ties and economic opportunities for US farmers, agribusiness, and water-management experts in new markets. Such efforts could maximize US impact, mitigate redundancy, and streamline use of US tax dollars.

Notably, the administration's Prosper Africa and USAID's Journey to Self-Reliance initiatives might pose a significant opportunity to use American expertise in environmental standards and technical skills to support sustainable development. Promoting agricultural development and food security supports the three main tenets of the Prosper Africa strategy: economic development, countering terror threats and violent conflict, and efficient use of US aid funding. The entirety of Africa is included in the Journey to Self-Reliance initiative, which seeks to build countries' capacity to implement solutions to their own development challenges. Since many African economies rely heavily on agriculture, the program's commitment metrics of economic development and export growth cannot be separated from agricultural development.

Invest where China cannot

China's investment strategy leaves notable gaps that the United States, leaning on its expertise, can fill. US development must utilize the strength of US private-sector innovation and emphasize investments in small-scale distributed and sustainable infrastructure along with key large-scale water infrastructure projects—all while building the markets and technical support needed to maximize gains.

Therefore, the United States must focus development efforts on areas of mutual advantage to grow African markets for US trade by using US comparative advantage and investments in smallholder agriculture and sustainable water development. The United States can and should support small-scale infrastructure projects, especially on capacity building, that are targeted to the needs of small farmers in countries of strategic interest.

Box 2

Farmer-led Irrigation

The growing need for sustainable, distributed, irrigation systems for smallholder farmers in Africa offers an example of the opportunities the United States has to have a robust influence on African development. Intensification of small-scale, farmer-directed irrigation schemes is an example of the sort of projects that have not been attractive for China's investment but which have real value for African farmers. Targeted US investment to support farmers and the private sector companies working in this space could provide real opportunities to improve food production and farm income. Additionally, there must be investments made in receiving market infrastructure (for example, roads, trustworthy shipping, storage, and market-price information), without which farmers have little reason to improve production. The incentive to adopt available technology depends on the existence of a place to sell what farmers produce. The United States has the unique capacity and experience to support this sort of development by assisting smallholders.

Encourage sustainable and resilient development practices

The United States needs to insist that China becomes more transparent in its development efforts bilaterally and multilaterally. Transparency will illuminate development gaps, potential collaboration, and possible coordination—particularly in those areas of significant investment to both China and the United States.

Evidence shows that when China invests as a member of a multilateral institution, its projects are more financially transparent and practice greater financial due diligence.[102] The recently formed Asian Infrastructural Investment Bank (AIIB) announced in 2018 that it will begin co-financing projects with the ADB. Egypt and Ethiopia have already become members of AIIB, alongside 67 other countries. AIIB's multilateral donor base significantly increases both transparency and the prospects for successful investment. The United States, though not a member, can further support these better practices by identifying co-lending opportunities with investment institutions in which it is a partner, such as the World Bank.[103] Even in international partnerships, China's aid focus seemingly remains relatively narrow.

Compared with loans from China, Western infrastructure loans provide more meaningful protection for populations and the environment. Such protections could be encouraged through greater international standards for lending and more transparency and by focusing on locations where China is currently working to raise the profile of displaced people and mitigate problems. In addition, there should be continued efforts to find political will and commonality through US involvement in, or alongside, the AIIB. AIIB's environmental standards are comparable to those of other multilateral development agencies, demonstrating the value in co-financing for coalescing around global standards.[104]

China's narrow focus on hydropower projects creates the potential for conflict over transboundary waters. Large dam projects, which alter the flow of water across borders, have been a consistent source of tension among communities that share water resources.[105] For example, China financed large dams in upstream Nile Basin countries that some believe are contributing to growing hostility over access to the water for irrigation and power.[106]

The United States should offer support by using its expertise to build capacity and strengthen institutions to support cross-border water treaty development—and land grant universities could play a critical role. The United States has successfully negotiated cross-border water sharing treaties and could take a leading role in supporting and designing transboundary water-sharing agreements.

On the state level, the United States manages local conflicts over water resources using a comprehensive and diverse set of best practices, which could be useful to local and regional governments in Africa. These practices include alternative regulatory regimens for groundwater extraction, water accounting, and community water rights negotiations, as well as efficient use of agricultural extension workers for water sustainability.

> ***The best response to China's increasing investment in Africa is for the United States to demonstrate the value of its own model and expertise by supporting food and water security, especially for smallholder farmers, while continuing to offer transparent concessional loans and other forms of direct aid.***

Conclusion

China has expanded its development presence in Africa dramatically in the past two decades, swiftly catching up to or even surpassing Western investment. China's state-sponsored economic engagement in Africa shows a definite pattern of investment in large-scale power infrastructure, financed with loans from China's state-owned banks given to China's state-owned companies. This development model is different than the one the United States has historically pursued. China expects tangible returns on its investments and has shown less concern about preventing environmental damage, working with politically unstable governments, or ensuring recipient countries' debt sustainability.

Nevertheless, the serious need for infrastructure in rapidly growing parts of Africa largely ensures that China will continue to forge trade and investment relationships with African governments. The United States—in order to remain competitive in the African marketplace while best supporting its strategic interests in food security, national security, and economic productivity—should take China's greater presence in Africa quite seriously. Yet also important to note is that China is constrained by its narrow focus. The United States has competitive advantages in agribusiness and sustainable water development, which it could invest in more deeply. The die is far from cast on role of either China or the United States in Africa's development, but change has been rapid. The United States must put forth a concerted effort to expand opportunities for US–Africa trade, diplomatic relationships, and sector-specific investments in agriculture and water-resource development.

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