

Ripe with potential



The world needs Africa's agricultural sector, which could be worth more than \$1.6 trillion, to grow. **Zekarias Hussein** and **Hubert Danso** plough the grounds

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Africa's Green Revolution is yet to take root, but we may not have to wait long. While the focus has grown, it is not clear of the sector's potential worth. The Africa Group partnered with *Africa investor* last year in our seminal Africa Wealth Cheque report to discover the continent's dormant wealth potential. We hope our work to pencil in figures behind the sector's potential will reap a ripe harvest for those willing to take on the challenge.

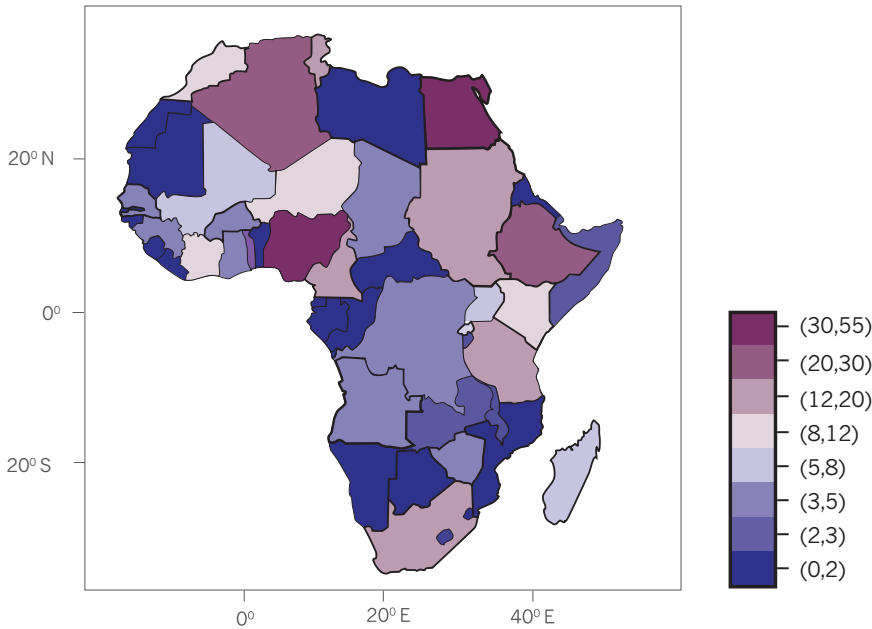
An innovative thought-experiment that threw numbers behind the continent's intrinsic value, we conservatively baselined the current economic value of the agricultural sector at US \$161.1 billion. We then estimated potential wealth in the sector at about \$390.2bn in possible GDP annual output. However, under a static and expansive "asset" model, we found this figure explodes to more than \$1 trillion. We estimated the potential value of agricultural assets, broadly defined, to be about \$1.6trn if all arable land, as

Stats corner: our Ai-TAG Wealth Cheque methodology

We devised a systematic approach to estimate the wealth of the biggest sector in Africa. As a first step, we divided agriculture into crops and livestock sectors. Then we identified major assets within each subsector. For the crop sector, a distinction was made between produced assets like physical stock of capital and non-produced assets, which is basically the available crop land. The same approach was used to arrive at the value of assets from the livestock sector. We used a similar approach to estimate the value of produced assets (the physical stock of capital) in both crops and livestock sub-sectors. The combined current economic value of capital stock was estimated to be \$2bn while potential is valued at \$51bn. The next step was to estimate the economic value of both crop land and pasture land. The land market in several African countries is either distorted or altogether absent. This

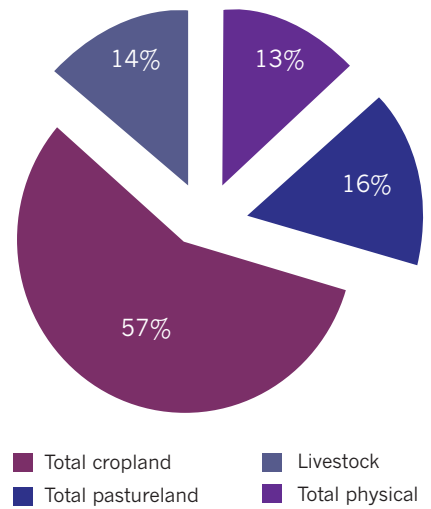
makes it hard to derive meaningful economic value. We followed an approach developed by the World Bank. The estimated current economic value of crop land in Africa is \$113bn, while the sector has a potential to produce value worth \$220.9bn. The latter figure is arrived at by assuming that output is sold at international prices. If we adjust the price of output for the gap between the average African and world produce price, then the potential output of the crop land sector will be \$145.8bn. The current economic value from pasture land is \$8bn while the estimated potential is \$64.4bn. If we adjust the prices as we did above, then the potential economic value will be \$53.1bn. The value of livestock is estimated as the annual output for animal products at local market prices. The current economic value of this asset is \$7.2bn, while the potential could be as much as \$53.8bn.

Agriculture Wealth Cheque (US \$ billion)

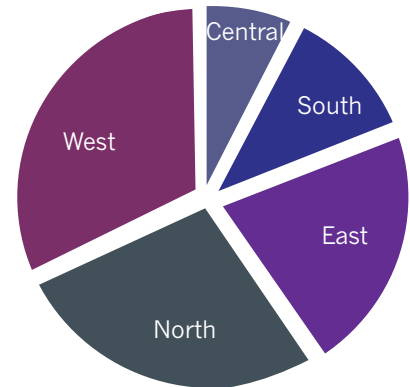


Source: Ai-The Africa Group, Africa Wealth Cheque Report

Share of assets in total agriculture wealth



Regional distribution of agriculture wealth in Africa



Source: Ai-The Africa Group

Growing a new focus

In 2003 the African Union adopted the Comprehensive Africa Agriculture Development Program (CAADP), an ambitious initiative that holds two major objectives: increase the amount of government budget devoted to agriculture and achieve a 6% annual growth rate within the agricultural sector. Some eight years later, 22 signatory countries have launched concrete plans to achieve the ambitious targets. NEPAD's Ibrahim Mayaki confirmed that by the end of 2010, ten countries will have "significantly" exceeded the agriculture growth target. The effort chimes with a global effort

to promote agricultural productivity in Africa. The United States recently made a renewed commitment to continue funding research through the Feed the Future Program, while the Gates Foundation has devoted about \$1.4bn since 2006 for grants that aim to help farmers improve their productivity. The 2009 LAquila summit also saw an unprecedented agreement among the G8 leaders to fund investments and research in African agriculture.

"The focus on agriculture has come in circles," says Alain De Janvry of UC-Berkeley.

defined by FAO, is used in production, output is sold in the international markets, and future 20-year returns from the asset are taken into account. Even if the price of output is adjusted for the gap between the average African and world producer price when the return from the assets are computed, the potential wealth would be roughly \$1.1trn. Models aside, we published the annual \$390bn potential annual output figure as we felt it had the most defensible foundation. Our hypothesis also drew on the fact that as Africa's agricultural and transportation

infrastructure improves, output will continue to increase based on efficiency gains from technology as well as volume from farming other arable land. Overall, it appears Africa farms only a fraction of its potential and could easily produce 2.4 times more than current output. According to UN data, Africa's combined economic output was about \$1.4trn in 2009. This means that Africa and the rest of the investing world is missing out on approximately a third of the continent's annual income.

Behind the potential

The first thing to note is the continent's utter glut of arable land. "Africa has about ten times the total land mass of India but not as many people to feed," says Akinwumi Adesina of UNCTAD and AGRA. Our estimates show that land (both for crop and pastures) constitutes about 73% of the total potential of the agricultural sector. Livestock (14%) and the potential from capital stock (13%) complete the remaining balance. Second, there are some noticeable regional variations in terms of potential wealth that could be

derived from the sector. Western Africa dominates in terms of potential while north and east Africa closely follow. West Africa's dominance comes mainly from the abundance of fertile land and the relatively good weather conditions. Clearly, the availability of arable land is highly correlated with the size of a country. It should come as no surprise that bigger countries dominate the overall picture. Major players in the region include Nigeria, Algeria, Egypt, Ethiopia and South Africa.

For frontier market investors interested in African agriculture, uncertainty is the name of the game for any high-yield investment, but several positive market signals are emerging. The belief that agriculture is an engine of growth has come back and this time to stay.

"Throughout much of the past decade, agriculture investments were considered 'unfashionable' in comparison with other high growth sectors," says Bryce Fort, Managing Director at pan-African private-equity shop Emerging Capital Partners (ECP). As food security becomes a higher priority issue for developed and emerging economies alike, investor attention has focused on Africa's potential as a food producer due to its abundance of untapped arable land, for home markets as well as abroad.

"Supplying local demand is an area with significant potential," says Fort, whose ECP recently exited Somdiaa, the largest sugar manufacturer in central Africa. "There are still a lot of products being imported, resulting in strong growth potential for businesses that grow and manufacture these goods within Africa".

Policymakers are part of the trend, if government budgets are anything to go by. In 1990, governments in Africa spent about \$7.6bn on agricultural research. By the end of 2005 this stood at \$13.8bn.

Achieving that proven potential will no doubt be a herculean task, and many policies still need to change, but the green shoots are on their way. **Ai**

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What next

While there is no consensus on how Africa can rapidly transform itself into the breadbasket of the world, The Africa Group finds three pertinent themes to consider

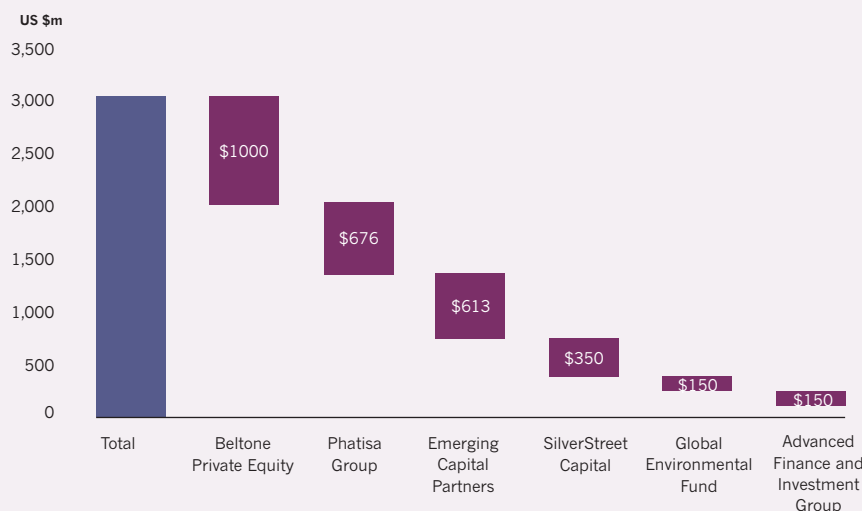
1. People run businesses and better people run better businesses. Africa is making modest strides developing the managerial skill necessary to run the complex interworking of sustainable commercial agriculture but more should be done to build a stellar class of entrepreneurial managers. The initial flow of large investment is going to involve foreign companies forming joint-ventures with emerging local champions. Institutions that can train and productively deploy sharp human capital will win the first slice of serious capital. Concrete partnerships between leading universities specialising in agriculture and African states should be encouraged. For example, Texas A&M and Rwanda have already spent a couple of years in unique partnership through the SPREAD project.

2. Agribusiness is one of the best entries to African agriculture. Africa lacks the infrastructure and capital to kick-start mechanisation of agriculture right away, making large-scale farming ever more expensive. Smallholders are key to bringing out the best of Africa's agriculture as the backbone

of the sector. Increasing smallholder productivity would have a multiplier effect that would eventually increase farming capabilities and create the necessary wealth to lead to large-scale farming. Consequently, efficient interventions, both public and private, targeted at small-scale farmers will help bridge this gap. IDE's micro-irrigation technologies tailored to the immediate needs of smallholders in Ethiopia and Ghana represent a strong example of an NGO effort that complements the long-term private growth needs for this sector.

3. Food production must double by 2025 to feed sub-Saharan Africa. Globally, a 70% hike in food production is required between 2005 and 2050 to feed 9.1 billion people, according to FAO. This translates to increased demand for investment by firms to transform crops to food. The growing demand and the ever expanding middle-class should create a sufficient market to attract any investor. This has direct importance on tertiary investments and adjacent "ag-sector" related sectors. Investors need to complement the pure agricultural explosion with innovations in rural logistics and lean value-chain management to cut down on waste and fatten margins.

PE funds with focus on African agriculture (\$US m)



Source: Reuters