

Australia's **Paydirt**



A fertile partnership: Mining and agriculture combine in Africa

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Mining and agriculture: feeding African growth

Resolute has established a shea butter production programme in Mali

From the earliest days of European settlement, mining and agriculture have largely defined Australia's role in the global economy and driven the country's development, from the opening up of the Eastern seaboard to the growth of Western Australia's vast interior.

However, for much of that time the two sectors have been the best of enemies. Even today, with both long-established, there are clashes over interests. The recent flare up

over coal seam gas exploration on prime agricultural land in New South Wales and Queensland serves as a reminder of this uneasy connection.

In Africa, the relationship is also strained with the added pressures of poverty and food security thrown into the mix.

There is however widespread acknowledgement that the two sectors can feed each other, metaphorically as well as literally, and

particularly in Africa. Mining's rise in Africa can open up new markets for agriculture and present the infrastructure solutions that agricultural investment so desperately needs to build sustainable industries.

At the same time, small-scale, sustainable agriculture projects offer mining companies perhaps the most effective means of building long-term sustainability into their corporate social responsibility programmes. Aid pro-

“ However, when it comes to the issue of bulk food supply, mining companies more often than not, look to external procurement. The broader issue of ‘food security’ usually does not rank at all, because there are so many other more urgent competing social issues demanding attention... and farming is not a core skill of engineers and construction people involved in mine development work.



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grammes across the world are now focused on capacity building – hand ups rather than hand outs – and establishing robust, efficient farming communities that can thrive long after minerals have been mined is a worthy legacy.

So, why then is the relationship between the two sectors not stronger?

Bill Turner, chairman of the Australian African Mining Industry Group (AAMIG) and former managing director of Anvil Mining Ltd, believes the absence of direct linkages between the two sectors stems from a lack of understanding rather than any animosity.

The Australian mining sector has built a strong reputation for corporate social responsibility on the African continent but for Turner achievements in health, education and infrastructure have not been matched by agriculture.

“When senior executives of exploration

Nursery workers Rijenjie Nganami, Charles Luswaga and Jonas Jimila at Resolute’s Golden Pride nursery in Tanzania



Women farmers prepare their vegetables for sale at Anvil Mining's community programmes in the DRC

and mining companies in Africa think about delivering on their social responsibilities... they build roads and bridges for access, put in water wells for potable water, establish clinics at mine sites to support their workers, and build schools for the children of their workers," Turner said.

"They may also begin a small vegetable garden to supply the mine kitchen. However, when it comes to the issue of bulk food supply, mining companies more often than not, look to external procurement. The broader issue of 'food security' usually does not rank at all, because there are so many other more urgent competing social issues demanding attention... and farming is not a core skill of engineers and construction people involved in mine development work."

Denis Blight, chief executive of the Crawford Fund, Australia's preeminent agricultural aid organisation, shares a similar sentiment.

"I think there is a lack of understanding and therefore knowledge about each other from

both industries," Blight told **Paydirt**. "I certainly never appreciated just how big Australian investment in Africa's mining sector was but now I have seen that [estimated to be at least \$40 billion at last estimate] I can see the clear opportunity for mining and agriculture to partner in Africa."

Both Turner and Blight spoke at the annual Africa Australia Research Forum, held immediately prior to Africa Down Under.

representatives to explore aspects of the mining industry's role in Africa and raise topics for further research.

Previous forums have focused on mining's place in the wider development of Africa but this year the focus was narrowed to consider mining's interaction with the agricultural sector and how the two industries could find solutions to issues of food security and sustainable development.

The 2013 forum took on added significance as it was held jointly with the Crawford Fund's own parliamentary conference. The Perth event was the first time the Crawford Fund had held its own annual conference outside of Canberra and Blight said the fund had chosen to do so in recognition of the need for the two industries to be brought together in both Australia and Africa.

"The conflicts in Australia are what really stimulated Crawford to partner with the Africa Australia Research Forum. I think it will lead to a more thoughtful appraisal of the interaction between the two sectors,

“The experiences of many African countries with regard to the exploitation of their mineral and energy resources in particular, have historically not led to sustainable development and have certainly not been pro-poor.”

Now in its third year, the forum brings together African nationals, Australian and African mining companies, Australian and African academics, NGOs, and government

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both big and small,” he said.

The topic of the joint forum was “Mining, Agriculture and Development: Bread from Stones?” and while Turner’s comments referred to the interaction between mining and agriculture on the micro level, macro considerations were just as prevalent during the full day of discussion.

The notion of the “Dutch Disease” – whereby a reliance on natural resources results in a decline in the performance of a country’s manufacturing and agricultural sector – has mining acting as an agent against sustainable development in developing nations but in his keynote address to the forum, Mario Pezzini, director of the OECD Development Centre, said mining could act as a catalyst for structural transformation in developing countries, benefitting a range of industries including agriculture.

“Natural resources in themselves are not a curse, provided countries are not dependent on one natural resource,” Pezzini said. “Diversity in natural resources will enable countries to address bottlenecks that can benefit other sectors, strengthening government policy, building skills capacity and promoting valuable linkages.



Pezzini said the idea that Africa was already too dependent on natural resources for growth and development was a common misconception.

“On the contrary, Africa is not dependent enough on natural resources. Africa has 40%

of the world’s arable land but produces only 9% of the world’s agricultural output and in mining exploration expenditure per square metre, at \$US15/sq m, is far inferior to developed countries such as Australia and Canada where it is as high as \$US65/sq m.”



Selling produce grown as part of Anvil’s market garden programmes



The Crawford Fund/Africa-Australia Research Forum conference attracted more than 300 delegates from academia, government, NGOs, mining and agriculture

He said that agricultural transformation had been behind many economic success stories in Asia, Latin America and Europe. This was achieved on the back of policies which promoted investment in natural resources but in Africa the incentives were not in place.

"Indeed, agriculture is punished by the policies in place because of its perceived backwardness."

Botswana is widely acknowledged as Africa's most economically developed country. Despite having relied on revenues from the diamond industry, Botswana has managed to avoid falling foul of the Dutch Disease. Former President Festus Mogae told *Paydirt* on the sidelines of the forum that he shared a similar sentiment to Pezzini, arguing that extractive industries need not be a curse if the prevailing policy environment encouraged diversification.

However, he said for all its success, Botswana was not there yet.

"The only way you can sustainably develop is through economic diversity, which has not

been fully achieved," Mogae said. "The experiences of many African countries with regard to the exploitation of their mineral and energy resources in particular, have historically not led to sustainable development and have certainly not been pro-poor."

"Africa is a continent of plenty – an abundance



Festus Mogae

of mineral and energy assets, an abundance of agricultural land. Yet in this land of plenty there is enormous need. Some would say we have been cursed by this abundance of resources but I don't believe in curses and I especially don't believe in a resource curse."

Mogae said his own country's journey was not complete however its insistence on diversifying the economy would eventually bring success. Despite its largely arid climate, Botswana has built a reliable livestock industry and has also developed a buoyant tourism sector. In diamonds it is pushing downstream processing as a viable diversification and value-adding industry.

"Botswana managed to escape the pitfalls of any resource curse, ensure stable growth and save its wealth for use by future generations mainly through a relentless pursuit of a diversified economy and with good governance as the essential glue that held the policy framework and its implementation together."

Professor Kevin Urama, executive director of the African Technology Policy Studies



Network agreed with Pezzini's assessment, telling the forum that conceptions of the impact mining had on agriculture in Africa were based on assumptions rather than analysis.

"There are major knowledge gaps around the evidence of the impact of mining on agriculture and independent research of documentary evidence on the good practices needed to initiate change," Urama said.

While Urama, Mogae and Pezzini were able to offer a macro level perspective, Australian mining companies operating in Africa generally prefer to concern themselves with the realities and practicalities of working with host communities.

An indication of how government policy could directly impact individual projects came from Mozambique. There, the Government has established the Beira Agricultural Growth Corridor (BAGC), a partnership between government, private companies and donor agencies that seeks to promote increased investment in commercial agriculture in the designated region.

Based around Tete Province, which is at



Mario Pezzini

the heart of Mozambique's emergence as a globally significant coal producer, the BAGC has been created to identify and promote linkages between the nascent mining sector and the local agricultural sector.

"We don't expect miners to be farmers but we want them to be partners," BAGC executive director Emerson Zhou told the forum. "Mining offers opportunities for agricultural development, not only in terms of procure-

ment but also in infrastructure."

The BAGC is developing a number of infrastructure developments, including road, rail, ports, airports, which should provide better capacity for linking agricultural products to markets.

"The mining sector is expected to present high demand opportunities for agricultural products, especially during the construction phase. For the agricultural sector in Tete, there is a significant window of opportunity until 2020 due to rolling construction sequences across mining companies, power and infrastructure development," Zhou said.

However, the BAGC estimates that the legacy of this demand will last far beyond the construction phase.

"Demand for food by mines is currently met through imports from neighbouring countries due to supply-related constraints. Mining companies view the problem as purely a procurement one but what is missed in this debate is how mines can contribute to long-term regional development through the establishment of forward and backward linkages with



Not all of Africa's land is arable but a focus on livestock by mining companies can still bring sustainable practises

agriculture.”

Through its programmes, BAGC has already brought together local pork and poultry producers with Rio Tinto Ltd. Zhou said the deal with Rio Tinto had led to supply chain developments elsewhere.

“With support from the BAGC, Vanduzi [a large-scale horticultural company] has engaged smallholder producers as its partners in production of horticultural commodities for the mining market. These smallholder farmers are organised into associations which have been producing chillies, mangoes and sugar snap peas as well as fine beans.”

Elsewhere on the continent Australian companies do not have the advantage of enabling government policy and proactive agencies. Instead, they are left to come to their own conclusions through discussions with host communities.

The problem, as both Turner and Zhou pointed out, is that junior mining companies rarely have the capacity to address the situation effectively.

“We have had many member companies saying they had these parcels of land within their leases that they didn't know what to do with. They inevitably left it until the end of the development but they all know something

more can be achieved with them,” AAMIG chief executive Trish O'Reilly told **Paydirt**.

To better meet member needs in this area, AAMIG signed a letter-of-intent with the Western Australian Department of Agriculture and Food and its international development arm AgWest Food Security.

“We approached AgWest because it has world-class expertise in this area. Much of Africa has similar conditions to WA and AgWest can act as an adviser and consultant to

miners in the agricultural sector but I would like to see more research done into the wider impact of such programmes. You could see the impact they were having on a community level but I didn't see anything on the extent to which that has impacted practices in the entire country. That is probably something that could come about as a result of the forum because there is clearly potential for that.”

O'Reilly told **Paydirt** AAMIG had already organised a meeting between AgWest and three miners in the DRC – Tiger Resources Ltd, Mawson West Ltd and MMG Ltd – to investigate the impact of their individual programmes on a country-scale.

As one of Australia's most enduring investors in Africa Resolute Mining Ltd has delivered its share of successful CSR initiatives but managing director Peter Sullivan said

companies had to be careful their local programmes were not interpreted as their main purpose.

“There has to be a balance between what companies invest and the assistance they provide local communities with what the nation receives from the mining operation,” Sullivan told the forum. “Mining companies are not an arm of government. We make our contribution of tax and royalties to government but then it is the government's responsibility to distribute those receipts rather than the

“ I was really encouraged at the forum by the CSR activities being undertaken by the miners in the agricultural sector but I would like to see more research done into the wider impact of such programmes.

link companies with appropriate programmes. There are a lot of consultants out there and it can be very confusing for junior companies because they often don't know what they want or need and don't have money to waste.”

The Crawford Fund's Blight agreed, telling **Paydirt** the forum discussions offered ample examples of mining companies who were making commendable progress in upliftment in their host communities.

“I was really encouraged at the forum by the CSR activities being undertaken by the



Most African smallhold farmers are women. Engaging them from the start in community programmes can be vital to successful implementation

company's.

"Neither are we a charity or aid organisation. Investors and shareholders who back mining developments are looking for a return. Therefore we are not at liberty to distribute proceeds as would an aid organisation."

There are, however, key areas where mining companies can provide assistance. Resolute has implemented successful community programmes in Ghana, Tanzania and Mali and Sullivan said the areas that communities most wanted assistance in were health, education, water and agriculture.

These included fish farming in open pits, market gardening, beekeeping, citronella farming, shea butter production and cattle, pig and poultry farming.

Sullivan said programmes driven from the bottom up, with communities consulted from the beginning, were vital to ensuring sustainable outcomes.

"We have had a lot of success but also a lot

of failures. We believe the important things to get right are; building physical assets as they are robust and long standing, training, competency and governance, machinery maintenance and the cost of consumables. The failure of any one of these can upset projects."

ture in place and expertise in place and there is the opportunity for others to utilise that and have their programmes conducted through the mining operation's framework," Sullivan said.

It was a point Blight agreed with.

"There was talk [at the forum] about demand from mining creating new markets for agriculture which can then be used as a base for further development but no studies showing how it can happen beyond the mine boundaries. There is clearly potential for that," he said.

Distilled, this is what the Crawford Fund and Africa Australia Research Forum was looking

for out of the conference; a convergence of opinion and ideas in an effort to ultimately plug the knowledge gaps around community development in Africa. The challenge now is to create the practical programmes to ensure the debate was worthwhile.

– Dominic Piper

“Mining companies are certainly open to ideas about how better to engage with communities, particularly in agriculture. We have assisted other groups in building programmes.”

Sullivan said there were many more opportunities to be taken on the ground and companies such as Resolute welcomed discussions about how to provide assistance.

"Mining companies are certainly open to ideas about how better to engage with communities, particularly in agriculture. We have assisted other groups in building programmes. Mining companies have infrastruc-