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## **Bread from stones: no single recipe**

Peter Sullivan

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# Bread from stones: no single recipe

Peter Sullivan  
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## Abstract



Mining companies' main business is to focus on their core expertise — best-practice mining development and operation. Resolute Mining Limited has over two decades of expertise, and is one of the largest gold producers listed on the Australian Stock Exchange. In Africa we mine, or have mined, in Mali, Tanzania and Ghana, and have explored in Côte d'Ivoire. We have an underground operation at Ravenswood in Queensland. Mining companies often need to focus on community development in the region of a mine because that forms a key plank of harmonious operations, and Resolute has a strong history in this respect also. Agriculture is only one of the important components in partnering with communities. Health and education are other examples of community development that can be advanced through mining company inputs, both in the local area and via taxes and royalties to the country's government. There are multiple opportunities for mining companies in Africa, depending on the country and area of operation. Although it takes persistence and effort to be successful with these opportunities, mining companies offer a cost-effective platform for others to continue and build on.

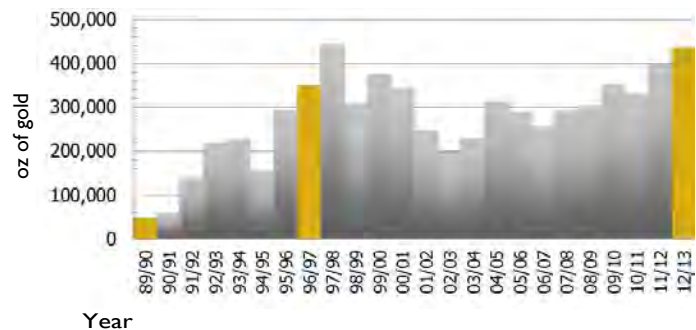
My company, Resolute Mining, has been mining in Africa for 15 or 16 years as a gold producer — and exploring, developing, operating and closing mines for around two decades. Our production history covers development, operation and closure of some seven gold mines, in Africa and Australia. Our first African mine was in Ghana followed by Tanzania in the late 1990s — so we have a fair bit of experience of mining in Africa.

Currently our main asset is Syama, a mine in Mali. We are about three years into what is probably a 10–15-year operation there. In Tanzania, we operate the Golden Pride Mine, which is near the end of its 15-year life. Before Golden Pride we operated the Obotan Mine in Ghana, which we closed in around 2004. The company also has an operation in Australia, in Queensland (Figure 1).

The context in this talk, about gold-mining companies, can be applied to mining in general. Essentially we are in the business of producing gold (or other metals) in the most efficient way we can, to deliver the best returns we can for the stakeholders in that particular resource. Stakeholders are not only the shareholders and the financiers of the mine; they also include the employees and the host countries where we are operating. The key to running an efficient mine is the ability to maximise the return on the resource, so revenue can flow through to the host country. Our operations are geared around ensuring



Figure 1. Resolute Mining currently has mines in Mali and Tanzania. Resolute's production of gold in Africa since 1996–97 is included in the graph below.



that we have a safe workplace, that we have a workforce that is engaged, being trained and improving, coupled with an environmentally responsible operating plan, and trying to minimise our impact and our 'footprint' in the countries or in the areas where we operate.

In addition, we work with a sensitivity to the communities that surround our mine, and we do the best we can in terms of assisting those communities so that we can be seen as a company that would be welcome in any country in Africa.

### Dispelling some expectations

There is often confusion between what is expected of mining operations internal to countries, versus the reality of what a mining enterprise is. There are some points that have to be understood about mining operations in African countries. First, a mining company is not an arm of the government. We do not want to be seen as an arm of government, nor to be operating at the behest of government. We like to focus on our own work so that taxes and royalties that are paid on mining can flow to government. Then it is the government's

responsibility to redistribute that wealth, as they are elected to do: it is not for the mining company to decide how that distribution should occur. That is the general philosophy. Second, a mining company is neither a charity nor an aid organisation. Investors and bankers provide the funds that back the ability of management and expert teams to go in and develop gold mines — and mining can be a very dangerous and difficult and technical operation to conduct successfully. Those shareholders are looking for returns, as is normal in the commercial world we operate in, and so we are not at liberty to distribute, on their behalf, the returns that they might otherwise be expecting, as if we were a charity or an aid organisation.

There is also a view that mining companies have plenty of money and you can use them to further whatever cause may be current in a particular area. Again, that is a situation that we try not to get involved with.

We also have to be careful in finding a balance between the funds we invest into local communities to assist those communities, which we rightly do as operators in those areas, and the contribution that the nation receives from mining. We have at times faced comment and pressures from people saying we may be doing too much in a particular area relative to the rest of the country. There is a limit to how far a mining company can go in this without actually generating ill-will from further afield; we can only sensibly contribute in an area confined to the surroundings of our mine.

### **Resolute's programs in local communities**

I will now explain how we operate in a community, and the nexus of that with agriculture. Essentially our community programs (e.g. Figures 2–5) are driven from the bottom up. We have consultative groups that operate within the various communities around our mines. We ask them to determine the key things that they would like to build in their communities, and we ask them also to make contributions to those particular selected projects.

In our experience the key issues where the local communities want assistance are health, education, water and agriculture, and so we focus on helping in these matters. Mostly we put infrastructure in place that will be sustainable over the long term.

Mining companies bring infrastructure and expertise to an area; we are there, on the ground, and while we get on with our own programs there is an opportunity for others to perhaps use our systems to adapt the way their programs are administered and conducted in communities. We have assisted a number of groups that felt the company systems could facilitate a more efficient way for them to deliver their particular projects.

The 'footprint' of company activities in support of a mine has its own impacts, and this is another situation where we have to work within the local communities. When a mine is established we have an influx of employees into an area that otherwise may not have had that development. Those new people can put pressure on the existing community, and of course we have to help to ensure that pressure is not unreasonable. We also have to deal with



| Agriculture              | Water                  | Environment                     | Training & Education             | Health                         |
|--------------------------|------------------------|---------------------------------|----------------------------------|--------------------------------|
| Improved livestock & dip | Open Pit (closure)     | Fuel efficient stoves           | Agriculture & environment        | Surgery theatre & sponsorships |
| Cattle, pigs, poultry    | Uchama water Treatment | Tree Seedlings                  | Health practitioners & awareness | Donations - Paediatric cancer  |
| Seed & Seedlings         | Bores                  | Mine-site & Community Nurseries | Schools & ablutions housing      | Malaria control                |
| Beehives                 | Pumps                  |                                 | Desks, materials                 | Patient transport              |
| Cattle troughs           | Maintenance            |                                 | Fees & sponsorship               | Clinics & Dispensaries         |
| Runoff dams              |                        |                                 | Small business                   | Generators                     |

Figure 2. Some community programs Resolute Mining has run in Tanzania.

employment issues in communities. There are only so many jobs at a mine, and in African communities where we have worked there may be far more people looking for jobs, and keen to take up jobs, than we have opportunities to employ. Managing the people who get jobs or do not get jobs, from a range of catchments, is a difficult process; it is another situation that we have to administer with the communities.

We have conducted a matrix of general activities. Figure 2 shows what we have done in Tanzania over the 15 years: not only in agriculture but also with water and the environment, and with health and education. Over time we have been involved with some activities that have been successful, and others that have not. It is difficult to be prescriptive about what you should or should not do.

At our Ghanaan asset, now closed, we ran some interesting agricultural projects. We spent a fair bit of time prior to closure engaging with the communities and with the various authorities in Ghana to get some sort of structure around ensuring this was able to be a continuing sustainable development. There was planting vegetables, animal husbandry, fish farming (Figures 3a, 3c). We developed fish farming in a number of the mining pits that filled with water. We also helped the communities develop the general skills of being able to propagate the stock and harvest it, and to go about the process of selling it into their market places.

Another project at Obotan was citronella cropping. We helped them by funding an extraction plant for the citronella oil (Figure 3b), and the set up of cooperative arrangements so that they could grow the citronella to take to the extraction plant and then market it.



Figure 3. Ghana.

(a) (top three photos) Initial success came via early stakeholder participation to adopt and adapt for agricultural production, involving the Department of Cooperatives, Ministry of Food and Agriculture, District Assembly, and Farmers Resource Centre; 25 Cooperatives formed to produce citronella, fish, oil palm, vegetables, cassava, snails, pigs, bees.



Farmer



Citronella



Citronella Oil Extraction

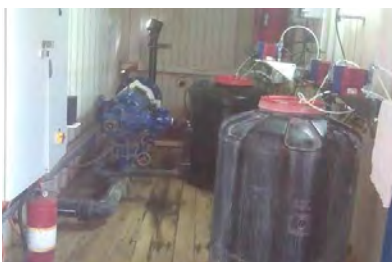


Figure 3b. (middle two photos) At Obotan, Resolute has helped with a fish-farming program: open pits and community ponds have been dug, and 79 ponds have been stocked. This program involves 39 communities. Stakeholders include the Regional Fisheries Directorate.

Figure 3c. (bottom three photos) The citronella program includes oil extraction; the communities produce perfume, soap and insect repellent for the local market; there is a Business Development Committee and Plan, a Union of Citronella Farmers Cooperatives and Management Committee, and support from a Rural Enterprise Project loan.



Figure 4. Tanzania. Top three photos: The Uchama water treatment plant and distribution kiosks responded to the town's growth as a result of mining. The program built community capacity and capability, and meant the company left a positive legacy.



Below, with insets: The Bundomo creek diversion project to create a permanent water enclosure.



The biogas project (2002–06) at Isanga (below) provided cooking and lighting for two school houses and was a demonstration unit for other communities. It required group effort and commitment.





In Tanzania, the company put in a water treatment facility at Uchama (Figure 4) to service Nzega, which is a relatively big town near the mine site. The town experienced quite a large influx of people as a result of the mine. We wanted to create a potable water facility there so the town could sustain itself with fresh water, and so we put in a treatment plant. The water is reticulated from that plant to various kiosks around the town which then charge a fee for the water. That saves people walking or carting it long distances. That was a self-sustaining program where the funds were to be used to maintain and continue to have that facility operating long-term.

At our Golden Pride Mine, one of the things that we will be doing is filling that pit with water. This part of Tanzania in particular is very dry. It has a wet season but the weather is very dry for much of the year, so we will be putting in a major water source there for that community to see how they can best use it. It will be a permanent water source for that area, and it will be interesting to see what programs could flow from that.

The school at Isanga, also in Tanzania, was a project where we helped the community in conjunction with an AusAID program. In this case they put in a biogas facility (Figure 4). It only lasted from 2002 to 2006 and then was discontinued for a number of reasons. But it was an interesting project in the sense that we helped AusAID disburse program funds into that part of Tanzania.

Our latest initiative is in Mali, and it is only in the early stages. We have introduced bee-keeping to enable the communities to produce honey (Figure 5a). We have helped the local women with equipment to use karité nuts to create shea butter and soap from the oils, and edible material as well: it is a food base as well as a cosmetic (Figure 5b). That project has had a very successful start. Of course we also have market gardens created in the villages near our mine sites which sell vegetables to the mine (Figure 5c), and that program is well underway.



Figure 5a. Beekeeping training, a typical hive and honey, in Mali.



Figure 5b. (above) Production of shea butter and traditional soap in Mali.

Figure 5c. (below) Resolute Mining has helped communities in Mali to grow vegetables to generate income and supply the mine, providing seed and training, such as to the Lolé women's group, and the Dieu village vegetable garden.



Overall, we have had many successes, and a number of failures. I think there are a few key requirements — training, competency and governance — that are critical components, both in starting projects and in enabling them to be sustainable. These are vital, and we find any of these can upset projects so they do not last. Also, overdependence on machinery — it needs maintenance and consumables, and these are economic costs which can be difficult for communities to meet, which affects a project's sustainability.

We conclude from our support of community development projects that success beyond the closure of mining is underwritten by several factors. A family unit will be free and want to support a project if they can see a direct and ongoing benefit that is worthy of their time and effort. Participants will achieve the competency to independently run their project from being coached through repeated work cycles before handover. The scopes and designs of projects need to cope with possible changes in weather and markets, or the departure of community members who have acted as project champions. And fundamentally the robust projects are typically 'low tech'.

In summary, we are a mining company first, but we are also community oriented. We work to do the best we can so the communities can have a harmonious existence. Agriculture is just one part of the program for us. It is an important part and I think there is a lot of opportunity for development.



Peter Sullivan is Chief Executive Officer of the Australian/African gold producer Resolute Mining Limited. He was appointed CEO in 2001 and during his tenure has overseen a corporate restructure of the group and a resurgence in its gold mining activities. Prior to joining Resolute Peter specialised in providing strategic corporate, financial and investment advice to predominantly resource sector companies. Peter is qualified as an electrical engineer and has completed an MBA.

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