

MAINTAINING A SOCIAL LICENSE TO OPERATE AS MINING SHIFTS FROM CONSTRUCTION TO OPERATIONS

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I. INTRODUCTION

Local acceptance, and ideally approval, of a company's operation— put otherwise, a social license to operate – is more fundamentally important for certain industries, activities and stages of the project cycle than for others. This paper recounts one copper-mining company's approach to social license for the forced removal of population and the taking of agricultural lands during the construction and early operations phases.

Unlike many projects which are one-time investments with a relatively short timeframe, open-pit extractive mining requires continuous land acquisition over decades as mining follows the ore seams across the landscape. The company's relationship with local communities is therefore defined by their actions over the years, for people well remember what was done and what was not done in previous operations.

II. THE PROJECT/PROGRAM

The mine has undertaken three operations, with more to come in the future. All three operations have affected farmers living in villages or small towns. The livelihood restoration program therefore emphasized replacing land for land, although there has been from the outset recognition that a micro-enterprise program would be necessary in time. Meanwhile, the relocation operations offered people the option to stay in their rural or urbanized areas, or, if they wanted, to move to town.

Surprisingly perhaps, rehousing has to date been the more experimental and interesting activity in this program, although land-take has affected many more families than rehousing. The first operation (2005-2009) cleared land in order to open the mine and build the processing plant. This operation moved 380 rural families in three villages and economically impacted 1,938 farm families. The second operation (2010-2012), which closed off a new mining zone at the western end of the concession, displaced another 100 families and economically impacted 793 farm families resident in a small town. The third operation (2013-2016) cleared out a problematic settlement across the road from the company's base camp. Here, 329 families were moved and 809 lost fields. To date, 805 families have been relocated and 3,540 families have lost 6,443 ha. of land outright, and another 12,184 ha. where access has been restricted, that is, no new fields were to be opened in those areas.

III. LIVELIHOOD RESTORATION

From the outset, the emphasis of the livelihood restoration program was i) to replace significant land loss, and ii) to support farmers in the transition to modern (or industrial) agriculture.

Land replacement was the key to the agricultural program. Any land loss above a quarter of a hectare was reimbursed in kind. PAPs could take land the project provided or they could seek out their own replacement land. In the latter instance, once the project agronomist approved the quality of the replacement land, the project negotiated with the traditional areal chief and the land chief over payment price. Inasmuch as traditional tenure was treated as having the same force as legal title, traditional transfer of land was considered adequate locally.

Agricultural support provided seed and fertilizer for three years. The notion here was that after three years of input supply, farmers would be familiar with modern agriculture and so would shift to the project's community support program for input supplies at market prices.

Monitoring of the entire program tracked individual success and identified project failings. The monitoring program was extensive. The agronomists detailed each farmer's production practices over the cropping season (e.g., use of fertilizer, timing and adequacy of mounding and weeding), and took systematic crop cuttings in order to estimate yields on each plot. The social staff conducted household interviews each year that delved into income sources and income, as well as household furnishings and agricultural equipment. They also undertook monthly market studies of the cost of a basket of basic goods in order to assess the extent of inflation.

Graduation of farmers from the support program occurred when their income for two consecutive years surpassed their baseline income at the start of the program.

Programmatic change was introduced into the program incrementally and only after careful consideration. For example, initially, land loss of a quarter of a hectare or more was compensated with an equal amount of land of similar or better quality. That decision rule did not, however, take into account the possibility of cumulative losses. As a result some farmers lost a small piece of land one year, then another small piece the next year, but got no compensation even though they could have lost almost half a hectare in two years. The program was therefore adjusted to compensate for all losses that cumulatively surpassed the quarter-hectare threshold, and the decision was made retroactive in order to treat all farmers equally.

Similarly, the boundaries established for mining operations sometimes made fields inaccessible, even if the fields themselves were not taken. Such situations arose as the mining company marked off ever more areas for their operations, making more and more land less accessible. Thus management decided, in advance of the third operation and on the recommendation of the resettlement team, to treat remnant fields the same as land taken permanently.

The fertilizer support program was controversial from the beginning. Although well intentioned, the economics of corn production in that area and at that time did not support industrial production (i.e., artificial fertilizer). The program also required a great deal of staff time to stockpile and then distribute the inputs. But management maintained the program because farmers would potentially revolt if the program was reduced or eliminated. The only change to date was the expulsion of farmers who sold their fertilizer allotment instead of using it on their fields.

IV. REHOUSING

Generally speaking, the first rehousing operation established the template, and the two subsequent programs have drawn on the lessons of the previous operations. That generalization masks a great deal of experimentation with the company's approach to social license.

In the first resettlement operation, all of the people affected lived in three small villages of subsistence farmers. Project management offered people several options: move to a newly built rural replacement village where people would have access to most of their existing fields; move to the urban area where the company would provide replacement fields; or take building materials and rebuild elsewhere on their own. About a third of the families affected (136) chose relocation in new rural villages nearby; two-thirds opted for better schooling and economic opportunity in town; and only a few (6) decided to rebuild on their own.

The second resettlement operation tinkered with the original approach. This time, all PAPs lived at the edge of a small town abutting the mining zone. Thus, everybody would be relocated to a new housing development on the outskirts of town. This second community was laid out in a large oval, with provisions for social infrastructure (e.g., local market, soccer field) in the central space, rather than, as

previously, a grid. Each house was provided its own shower and latrine because people in the first community used the latrine as a shower, which filled up the pit. Also, every pair of neighbors in the first community shared a latrine pit, which led to debates about who was responsible for pumping out the pit. Nonetheless, the basic model of project-provided housing remained the same so people would feel they were being treated equally and equitably.

A number of issues arose during the first two operations. By far, the biggest issue for company management once the mining operation had begun was the cost of replacement housing. Taking into account all of the costs of building residential housing (but not social infrastructure); each house cost \$60,000 in the first program and \$45,000 in the second program. While these numbers are not out of line with building costs for structures of this quality,¹ the cost-per-house was an eye-popping figure bound to get anyone's attention, particularly in view of the size and quality of most local housing, which were one-room adobe houses.

To deal with the cost question, the company offered two options in the third operation. Either the PAPs could opt for project-provided housing in a new resettlement to be built a distance from their community (and jobs). Or, they could buy an existing house in town that, with improvements would meet company standards. This program was called 'Assisted Self-Relocation' (ASR).'

As in the first operation, over half the families chose urban ASR (186 families) over company provided housing at the new, but more distant, site (135 families).

ASR had several advantages over company-provided housing. The period of time to refurbish old houses – and even to build anew – was under a year, compared to the two years or more required by the company construction unit. More importantly, the average cost of ASR replacement housing was one fifth or less the cost of company-built housing (Table 1).

Table 1:
Minimum, Average and Maximum Cost of ASR, by PAP Option

	Least Cost	Average Cost (No. HH)	Highest Cost
Second Lot and House Owned by PAP	\$ 4,586	\$ 8,532 (3)	\$ 16,424
Existing Lot and House Bought and Repaired	\$ 9,527	\$ 12,351 (60)	\$ 16,425
Vacant Lot Purchased and New House Build	\$ 11,405	\$11,460 (5)	\$ 15,151

Clearly ASR was time- and cost-effective. It also reduced company expenses for social infrastructure, which needed to be improved rather than installed from scratch. And, perhaps most importantly, PAPs moved individually into existing neighborhoods, which not only facilitated their integration into the local social fabric but also maintained people's control over their own lives.

¹ Upon investigation, it turned out that housing costs are highly variable and difficult to compare. Site preparation is a significant factor in overall cost, and this cannot be left to local contractors. Also size of the structure and type of building material affect cost significantly, as do fluctuations in the international price of materials and shipping costs. As a result, costs elsewhere could approach these figures. For example, sandcrete houses in a neighboring country cost about \$30,000 apiece.

V. CONCLUDING OBSERVATIONS

1. This case is important for several reasons. Unlike many other projects where land take is effectively a one-time affair, open-pit (seam) mining is continuous and long-term, so maintaining a social license requires careful balancing of today's needs against yesterday's programs and criteria. Also, unlike middle-income countries where self-relocation has long been an option because of viable housing markets (e.g., Brazil, Turkey), poor rural areas lack viable housing markets. But, rapid urbanization due to economic development, as in this case, develops housing markets and makes ASR a viable possibility.
2. The local population is not monolithic: there is no one solution for everyone. Programs need to take into account that some people are more risk-adverse than others. This observation should have been obvious in the first resettlement operation when well over half the affected rural farm population opted for relocation to urban areas in order to take advantage of greater economic opportunity and better education for their children. In fact, the point became patently obvious only in the third operation, where self-resettlers were more independent and happier than project-housed relocatees.
3. Various factors contributed to the success of this program. Most importantly, top management knew the company could lose money if it did not develop and maintain good local relations. They therefore supported a well-staffed resettlement unit with close community contact, which gave them credibility and trustworthiness. People believed these teams, who were appreciated at least as much as the physical benefits the company provided.
4. Everything did not go well. Project-built housing, for example, poses various difficulties. For one, the company had to devise an approach to title transfer so responsibility for house maintenance transferred to the residents. Until this could be done, needed repairs remained a company responsibility, which caused dissatisfaction locally. At each juncture, company management and its resettlement team worked diligently to resolve the issues responsively and thus to maintain their social license.
5. The bottom line is: there is no one 'right' approach to social license. Therefore, the watchword is: Stay attentive and flexible, and be prepared to make adjustments. Getting everything right at the outset is unlikely. Fine-tuning so that PAPs are all treated equitably is usually possible. But basic change that is locally viewed as a reduction in benefits (or rights) will be sensitive and will require close local knowledge and extensive local consultation. So field staff and individual monitoring are essential to inform program decisions, small and large, that sustain local support and collaboration – and the company's social license to operate.