

# CASE STUDY

Creating a Shared Approach to  
Improving Safety in Mining

*"A White Flag Every Day"*

Centre for Sustainability in Mining and  
Industry

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## **"What can be done to achieve a step-change in safety performance?"**

While safety performance has improved over the last 10 years with AngloGold Ashanti (AGA), for example, reducing accident frequency rates by almost 70%, it is possible for improvements to stall or even deteriorate should these advances not be consolidated and built upon.

Although mines such as Mponeng close to Carltonville in the West Rand are setting new standards in safety practice in gold mining by achieving a million fatality free shifts in both Jan 2005 and again in June 2008, achieving an injury free environment remains a serious challenge. Tragedies are not yet a thing of the past in AGA. In 2008, 11 workers lost their lives in mine accidents and by September 2009, mine accidents claimed the lives of 10 more workers.

Stakeholders in the mining sector agree that both accidents and health-related illness from the workplace should be eliminated. At present there is no clear strategic approach to move mining operations materially towards delivery of the vision of Zero Harm. While many companies are engaged in initiatives to improve safety awareness and tighten focus on work practices, a number recognise that these initiatives support short term improvement but do not provide a framework for long term sustainable improvement and the delivery of the vision of Zero Harm.

In 2008, AngloGold Ashanti approached the Centre for Sustainability in Mining and Industry (CSMI) to explore ways of engaging meaningfully with other stakeholders to create an accident free workplace. The overriding concern was: "What can we do differently to ensure a step-change in safety performance?"

AngloGold Ashanti agreed to pilot within their South African operations an alternative approach to safety planning and share the outcomes with the industry as a whole. The flying of a white flag at Anglo Gold Ashanti mine sites signifies that the working day has been injury free – hence the project name.

This case study describes the process of building a shared approach to safety, the initiatives that have been undertaken jointly and the status quo,

nine months since the initiative was launched. Interviews with key informants from the stakeholders were conducted in October 2009 to elicit their views on the effect of the process.

### **Who needs to be involved in safety planning?**

Co-creating a safety strategy with multiple stakeholders in the mining industry is a complex task. Priority stakeholders are mine management, labour and the regulator, all of whom at the outset agree that safety is a priority for the mining industry. It is a complex task because the historical legacy of mining has placed mine management and labour at opposite ends of the negotiating spectrum. The regulator, on the other hand, is generally regarded as having a large and complex scope of work for which they are under-resourced to deliver. Yet safety requires a collaborative approach if it is to work for all.



### **How important is it for different stakeholders to work together for safety?**

While statutory requirements for mine health and safety are in place through the Mine Health and Safety Act (MHSA), compliance remains an issue. An analysis of the results of the 2008 Presidential Mine Occupational Health and Safety Audit Report revealed that the weakest levels of compliance are associated with occupational health risk management and mandatory codes of practice. In addition, questions in the audit enquiring about employee

consultation and participation tended to yield low average scores. The Report states, “this suggests deficiencies in collective and co-operative actions which are vital to addressing health and safety and which underpin the MHSA.”<sup>1</sup>

The safety system is diverse and covers technical specialisations, occupational health and safety professionals, senior and middle mine management, workers and external regulators. It depends on safe practice in relation to technical areas like mine design and maintenance, machinery and explosives, and also depends on individual and collective safety practice. Safety cannot be imposed or enforced, it requires collective will and responsibility by all, albeit that the primary responsibility for safe workplaces rest with the employer.

### **Tripartite steering committee-led process of stakeholder engagement**

CSMI partnered with Reos, an international organisation using Change Lab methodology to address complex social problems, to begin a process of engagement and dialogue about safety with the relevant stakeholders; the Mine Health and Safety Inspectorate of the Department of Mining and Energy (DME), the National Union of Mineworkers (NUM), United Association of South Africa (UASA), Solidarity and AngloGold Ashanti. A steering committee with representatives from each of these organisations was convened to lead the process.

### **The whole system approach to stakeholder engagement and dialogue**

At the heart of the pilot process of stakeholder engagement was a commitment to get the “whole” system involved in dialogue. The process used to convene the whole system in an initiative was called the “Change Lab”. The Change Lab brings together a diverse group of stakeholders into a collective inquiry around a common challenge. This approach involved each member of the tripartite steering committee identifying individuals who contribute meaningfully to safety at each level of the AngloGold Ashanti

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<sup>1</sup> November 2008. Analysis of the results of the Presidential OHS Audit. Prepared by the Centre for Sustainability in Mining and Industry (CSMI) at the University of the Witwatersrand

operation from senior mine management to workers in the stopes. It was agreed to pilot the initiative in the West Wits and Vaal River operational areas.

The engagement of stakeholders began with in-depth interviews. Key representatives from each stakeholder, who were also representative of the different components of the safety system, were interviewed on their thoughts and reflections on safety. Over twenty interviews were conducted during October and November 2008. Each interview was scheduled for 1 to 2 hours and participants were encouraged to share their personal stories and experience of safety practice. The interview also provided an opportunity for the interviewers to introduce participants to the idea of a Change Lab.



### **In-depth interviews provide insight into underlying issues that impact on safety**

A general perception among stakeholders was that “going underground” on the mines is important in understanding the context of safety.<sup>2</sup> This was used as a metaphor around which the interview report was structured. Hence the interview synthesis report was structured into three broad areas, “Going Underground: The Problem Situation”, “Going Underground: Sources of Change” and “Roles and Perceptions of Each other.”

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<sup>2</sup> 9 December 2008. “White Flag Everyday” Safety Improvement Process. Perspectives from the Field. Reos/CSMI.

Emerging themes from the interviews were<sup>3</sup>:

1. **Hierarchy** – This reflects the strong culture of authoritarianism in the sector emerging from a long and complex history, dominance of a top-down approach and the need for involvement of workers in a more consultative manner.
2. **Racial and language divisions** – Race directly and indirectly impacts on the reality of safety in mines. This is often reflected in communication where people find it difficult to communicate across the racial groups. The use of Fanagolo is still an issue of contestation on the mines. Also the majority of people who die underground are black and the large majority of managers are white. This reality is then open for interpretation and influences perceptions of what value is placed on black lives and the extent to which mine management care.
3. **Tension between the safety agenda and the production agenda** – Although mine management stress the value of “safety first” it is often middle management in the mine hierarchy who manage the tension in practice between production targets and safety practice. A quote from an interviewee included in the synthesis report captures this challenge, “Production targets remain the same regardless of changing safety conditions.”
4. **Incentive structures** – In general, incentive structures award production more generously than safety through production-related bonuses. Mine closures and other penalties issued by the regulator can also be viewed as negative incentives. Incentives are often associated with fear. Fear of not making the production target or losing the confidence of the regulator.
5. **Approach to risk** – South Africans are perceived to have a risk-taking culture which has implications for safety underground.
6. **Mistrust, fear and blame** – There is a continuum between laying the blame and problem solving collaboratively. Fear and blame occurs because people don’t trust each other and because problem solving does not tend to happen collaboratively. It cuts across race and all levels of management. Blame also creates conflict between management, unions and government.

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<sup>3</sup> “9 December 2008. “White Flag Everyday” Safety Improvement Process. Perspectives from the Field. Reos/CSMI.

7. **Skills shortages** – There are not enough skilled people to assess and prevent risky situations underground. Existing training programmes are seen to be inadequate and unstructured. There is also a perception that some black people are advanced quickly without the necessary capacity.
8. **Unhealthy living conditions** – The historical nature of mining hostels (single sex and only for mineworkers) has resulted in proliferation of many social problems including high rates of HIV and AIDS. (The transformation of hostels into family units has been slow.) The long working hours, not getting the chance to eat properly and not getting the appropriate recognition for workers who risk their lives every day are also part of the unhealthy living conditions.

### **A Change Lab provides a safe environment to engage with the issues from the synthesis report**

The themes of the interview synthesis report framed the agenda and content for the Change Lab. The Change Lab, held over three days in January 2009, included over 30 participants in a residential workshop. The majority of the Change Lab participants were individuals who had participated as interviewees, but there were additional individuals identified through the interview process who also joined the Change Lab.

The flying of a white flag at an AngloGold Ashanti Mine indicates a fatality and serious injury-free shift and this symbol was chosen as a focus for the Change Lab.

#### **What to expect from a Change Lab?**

A collective effort to address a vital, complex challenge in a given social system.

An alliance of committed and influential government, business and civil society leaders at all levels that form a strategic microcosm of the problem situation.

A container for reflecting, transforming and acting.

A structured process for building up a shared understanding of our current reality and our role in it; of what is possible and what is needed of us; and of what we do in order to co-create a new reality.

The aim of the “White Flag Everyday” Change Lab was five-fold. It aimed to involve stakeholders in co-creating:

- (1) A safe environment to have the difficult conversations
- (2) A shared understanding of perspectives and roles on the safety “system” we are part of
- (3) Respectful and resilient relationships.
- (4) Capacity to address our tough systemic problems in innovative ways
- (5) Consensus on a set of key initiatives (new and/or existing) to improve the system, and on how these will be put into action.<sup>4</sup>

The Change Lab provided a unique workshop experience because it encouraged participants holding vastly different interests to have the difficult conversations about safety. Participants were encouraged to reframe their understanding of the issues around safety by appreciating the whole safety system and by the development of a shared understanding of the important issues. This was achieved through a structured workshop process that included innovative ideas such as participants going on a learning journey outside the mining sector to reflect on how they learn and interpret situations and time for sharing personal stories.

### **What stakeholders had to say at the Change Lab**

“It is easy to sit in the office and believe the (safety) value versus being underground and believing in the value”

“I wish that when we close ...we walk the talk. We need to drive the passion and the caring attitude and the honesty. It’s time to be honest with each other and to respect. I believe then we can make a difference.”

“The solutions are not technical it is more about people and process.”

### **Five innovations result from the Change Lab**

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<sup>4</sup> 19-22 January 2009. “White Flag Everyday” Change Lab, Suikerbosrand Protea Hotel. Reos/CSMI.

Five innovations emerged at the end of the Change Lab process with immediate commitment by AngloGold Ashanti to action them. The innovations reflect the central themes emerging from the Change Lab, such as:

- we can work together
- we can make our values a lived reality
- we can build opportunity for workers to talk about safety, to exercise their rights and for elected health and safety representatives to become effective in their role.



**Innovation 1: The South Africa (SA) Division Tripartite Health and Safety (H&S) Initiative** – This involves the creation of two new committees, the SA Division H&S forum (that brings together the tripartite partners in matters of health and safety in the South African AngloGold Ashanti operations) and the SA Division Labour Safety Committee (this aims to elevate the level of safety information accessible to labour). These committees will monitor and drive all the Change Lab innovations.

**Innovation 2: Effective safety representatives** – A monitored 6 month pilot project where safety representatives will have the full-time responsibility for safety and not hold other roles.

**Innovation 3: Mogogo – Small Change Big Difference** – This initiative aims to create a learning culture through the medium of storytelling to enhance the white flag approach amongst all employees, building relationships of trust, camaraderie, care and empowerment.

**Innovation 4: Empowerment of employees to make safe decisions** – This initiative will work through a health and safety committee that has the mandate to actively encourage and support employees to exercise their right not to work under unsafe conditions, improve the health and safety induction process for workers, and develop sessions where underground teams can bond, build care for each other and develop a sense of pride in the team.

**Innovation 5: Living our values** – This initiative will actively work towards ensuring that all stakeholders support the following values. These are: safety is our first value, it's ok to stop a workplace if it's not safe, to work towards and believe in a white flag everyday and to create a caring culture. The key first actions of this innovation are:

- **“Safe money”** will investigate how to align bonuses with “safety is our first value.”
- **“In safe hands”** – This action recognises the critical role of leadership in living our values.
- **“Fear factor”** – This action recognises that fear is not conducive to living our values. The Mine Health and Safety Council will consider leading practices in accident investigations and consider what there is to learn from past mine accidents by comparing the internal mine investigation and official external inquiry report.

## What did the stakeholders have to say about the outcomes of the Change Lab?

“You have proven me wrong – I thought I could do things alone BUT together we can make a big difference.”

“I am humbled because the power of stakeholders working together can make a huge difference. I am inspired because the mining sector is a microcosm of the challenges we face in South Africa. If we can do it here, it is a lesson for the country.”

“The need to connect a bit deeper has been planted.”

## What has happened a year after the Change Lab?

During October 2009, interviews were held with key informants from the stakeholders to assess their thoughts and reflections of the Change Lab in the period that followed, to assess progress made in terms of taking forward the initiatives decided at the Change Lab and to assess whether the Change Lab has had any effect on the industry in general.

Emerging themes from the interviews were:

- i) **A shared approach to safety is possible** – All stakeholders interviewed felt that the change lab had resulted in a new way of working together with safety as a goal that is shared by all. The all-inclusive process that has been set up and followed has meant that there has been a significant shift in minds, and that it has created a common platform to talk and engage with each other about safety. There appears to be appreciation that the agenda is created by ALL stakeholders and is not created by any single stakeholder. This is seen as markedly different from other safety initiatives where the agenda and plans are already developed by companies and Labour is “TOLD” to sign off on it. The respondents all felt that the power of the Change Lab lay in the participation of all stakeholders which “open doors for people to say things they want to say.” This was seen as a significant shift away from the typical hierarchical structures that define mines, where

there is very little sharing and communication between different sections.

- ii) **The role of the DMR is complicated** – While the DMR was involved in the Change Lab and has participated in the initiatives that arose from the lab, it has decided that it cannot be part of any decision-making processes. The role of the DMR as the regulator would be compromised, and hence it has decided that its role should be more one of support and facilitation. The stakeholders felt that the presence of the DMR was important, and that the role of the DMR should move in the direction of a less punitive and more co-operative approach. This initiative suggests that the DMR will have to define a clear role for itself in such co-operative and participative processes, so that it is able to play an effective role, while not undermining its efficacy and integrity as regulator.
- iii) **Effective leadership is crucial to sustaining the effort** – It was evident from the interviews that leadership and direction is crucial to creating and maintaining the momentum for things to change. The initiatives from the Change Lab where leadership has changed or was not properly established appear to be lagging behind the initiatives where there are leaders who are driving the initiatives. The leadership of AGA was appreciated, and they were seen as “walking(ing) the talk.” Meaningful engagement by AGA has been seen as a move away from the “blame culture” that tends to characterise this industry.
- iv) **The Safety initiatives that grew out of the change lab are moving in the right direction** – Most of the innovations decided at the Change Lab have been moving forward. “The committees that are happening are working well – people attend and are committed.” The H&S committee has been meeting regularly, and the storytelling initiative has been ongoing. The regular meetings of the Health and Safety committee is seen as a place where there is a move beyond looking at and reviewing safety stats, to a place where collective “solutions are taken to Manco that needs to be implemented.” A team has been established which has been tasked with meeting safety committees to discuss issues like “whether it’s ok to stop work if deemed not safe.” There have, however, been problems with the safety rep committee, which was initially led by the DMR, but will have to be reconstituted in light of the DMR decision to play a different role. It was also highlighted that the failure to establish the underground work teams is a significant disappointment, as understanding what happens underground, and

getting workers underground to be part of the initiative, is seen to be crucial to ensuring ongoing safety standards.

- v) The Change Lab and its ongoing commitment to achieve change in safety has the potential for leading safety improvement in the industry – other companies in the industry have also embarked on safety initiatives, and there is potential to transfer the learning’s between companies to encourage the sharing of ideas. The DMR has been trying to share the idea of the “white flag everyday” concept with other companies, and are hoping that their “open door policy” of encouraging stakeholders to work with them will result in an improvement in safety across the industry. It was suggested by a range of stakeholders interviewed that the Change Lab process should be documented and communicated with the industry – we “need to get the model of the Change Lab process out there to get others to follow.” There were suggestions that the Change Lab process be shared widely through a paper or presentation, or possibly through the curriculum for miners and engineers. “We need to celebrate good practice and share it.”

### **Where to now?**

The overriding sense from stakeholders is that the Change Lab represents a different way of engaging - through dialogue and debate, rather than as adversaries with incompatible perspectives and competing ideas about strategy. The participation of all appears to be facilitated by the creation of a shared agenda where no single role player is seen to be dominating the context for engagement, and different experiences of what affects safety in the workplace can be considered. The success of this is supported by a



common point of departure which is safety is important for all – all stakeholders have a deep interest in seeing a reduction in accidents, injuries and fatalities.

The Change Lab process enables factors associated with the past, production pressure, working conditions and communication which are seen to hold back progress, become issues for joint action rather than reasons for abandoning efforts to find a way forward. It creates a process which is structured, yet allows those involved to have difficult yet honest conversations, and develop a more complete understanding of current reality and roles, imagine and design possibilities that may exist, and seek solutions to co-create a new reality.

The vision of a White Flag everyday cannot be under-estimated in terms of the complex set of factors needed to ensure an improvement in safety performance. The process of the last year has clearly illustrated that dedicated effort, consistent and meaningful dialogue and ongoing attempts to widen the involvement of all in the environment are all key factors – yet these too are not enough. The implementation of the innovations from the Change Lab has shown us that roles are complicated, particularly the case for the DMR who need to support the process but retain their objectivity as regulator, and that hearing the voices of those underground is not an easy task. It takes time, ongoing effort, resources and strong leadership to drive it. It requires energy to drive the momentum and create the conditions to change safety practice – hence the road ahead will require ongoing effort and constant honest reflection on what is working well, and what needs to improve.

Improving safety performance is a learning and iterative process, there is no one clear answer or solution, but it is through processes such as the Change Lab which invite equal participation by all that achieving a step change in safety performance becomes more of a reality. The process undertaken so far has not been perfect, there are many areas that need to be worked at, stakeholders still need to embed the culture and processes of dialogue and debate within their constituencies so more voices are heard, and the use of dialogue and debate is better appreciated, for itself and within the context of other modes of engagement. There is, however, overall agreement that this initiative represents a step in the right direction.

## **Acknowledgements**

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