Tracer Studies: Evaluating the Longer Term Impact of IM4DC Programs

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Research aims:

This evaluation traced six of the IM4DCs programs in order to understand:

- the longer term benefits to participants
- the longer term outputs and outcomes
- the characteristics critical in generating outcomes; including facilitators, hindrances and overarching themes

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IM4DC
Action Research Report

International Mining for Development Centre

www.im4dc.org

Summary of Action Research Activity

Tracer studies: evaluating the longer term impact of IM4DC programs

The International Mining for Development Centre's (IM4DC's) activities have been designed and implemented to generate significant changes and outcomes in developing countries over the last three years. This report presents the results of an evaluation project which had the aim of tracing some of IM4DC's most successful programs in order to understand the benefits to participants as well as the longer term outputs and outcomes generated. This work was also designed to uncover some of the characteristics that were critical in generating outcomes from IM4DC activities. The information gathered complements other evaluation initiatives that IM4DC has been engaged in, so that these investigations collectively provide a broader picture of the impact of IM4DC activities.

IM4DC personnel, program facilitators, program participants and collaborators were interviewed to provide a holistic overview of the outcomes of six selected activities for individuals, organisations and communities. Initial contact was made with 26 individuals and 21 interviews were conducted.

To provide a comprehensive understanding of the outcomes that these cases have achieved, the interview responses were analysed using the IM4DC Theory of Change framework. This framework had been developed to capture a causal process and associated progression through which IM4DC activities are intended to generate impact. The framework was employed to identify 1) Outputs (e.g. improved knowledge, active engagement and discourse on change, tailored interventions addressing development needs); 2) Intermediate Outcomes (e.g. developing leaders, coalitions, organisational capacity and empowering change agents, change, generating advocacy for policy change, efforts to build knowledge basis; 3) Outcomes (e.g. themes around institutional arrangements); 4) High level outcomes – equivalent to social impact (e.g. evidence, traces or expected impact). In addition to these outcome-related themes, the evaluation sought to identify facilitators and hindrances of impact.

Outputs, outcomes, facilitators and hindrances are discussed for individual activities and common themes articulated across all activities, along with recommendations for enhancing future programs and addressing the IM4DC's overarching aims.

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EXECUTIVE SUMMARY

The International Mining for Development Centre's (IM4DC) activities have been designed and implemented to generate significant changes and outcomes in developing countries over the last three years. The activities were designed and delivered by academics, researchers and professional staff. Although changes have been identified for individuals, groups, organisations and communities, it remains largely unknown whether IM4DC activities have had any longer term impacts within developing countries. This report shows the results of an evaluation project with the aim to assist IM4DC in tracing some examples of success activities/programs in order to understand participant benefits as well as the longer term outputs and outcomes generated by IM4DC's work. Moreover, this work was also designed to uncover some of the characteristics that were critical in generating outcomes of IM4DC activities. The information gathered in this process complements other evaluation initiatives that IM4DC has been engaged in, so that these investigations collectively provide a broader picture of the impact of IM4DC activities.

In consultation with IM4DC, the Accelerated Learning Laboratory at The University of Western Australia (ALL@UWA) interviewed a range of individuals regarding six cases of IM4DC activities. These cases had been identified as examples of successful stories by IM4DC personnel. The IM4DC personnel who had championed each case as a success story were interviewed to provide the researchers with a better understanding of each case and activities, and why IM4DC considers these cases to be particularly successful. Furthermore, participants and collaborators were interviewed for each case to provide a holistic overview of the outcomes that these activities have generated for individuals, organisations and communities. Initial contact was made with 26 individuals and 21 interviews were conducted.

To provide a comprehensive understanding of the outcomes that these cases have achieved, the interview responses were analysed using the IM4DC Theory of Change framework. This framework had been developed to capture a causal process and associated progression through which IM4DC activities are intended to generate impact. In particular we employed this framework to identify 1) Outputs (e.g. improved knowledge, active engagement, and discourse on change, tailored interventions to support addressing development needs); 2) Intermediate Outcomes (e.g. developing leaders, coalitions, organisational capacity and empowering change agents, change, generating advocacy for policy change, efforts to build knowledge basis; 3) Outcomes (e.g. themes around institutional arrangements); 4) High level outcomes - equivalent to social impact (e.g. evidence, traces or expected impact). In addition to these outcome related themes, we also sought to identify facilitators and hindrances of impact for each case.

Through our investigation of the impact generated by the six IM4DC activities we identified outputs in five of the cases (e.g. increased awareness, knowledge and engagement), intermediate outcomes in all six cases (e.g. forming of professional networks) as well as some actual outcomes, also in all six cases (e.g. changing regulations,

publications). Although no higher level outcomes were reached there were promising signs that the activities actually complement each other within the overall program and build towards higher level outcomes in the future. Cases were flexible enough to adapt to new challenges and opportunities, if the initial strategy had proven to be unsuitable. A refocus on the aspects that might be more attainable and linked to available opportunities could be identified in most cases.

Our analysis also highlighted facilitators and barriers that may have affected the impact of the IM4DC activities. Key facilitators that were mentioned in the interviews concerned the involvement of local experts and key players, co-funding by project partners, the reputation of the Australian universities and the mining sector, as well as the building of relationships. Recurring hindrances concerned the initiatives' transfer to workplaces, cultural barriers and uncertainty of future funding. The results of the analysis suggest that IM4DC's activities' impact can be enhanced in the future by explicitly considering such factors at the project development stage and throughout project implementations.

In sum, the themes identified in these cases cover the entire spectrum of outputs and intermediate outcomes covered within the theory of change as well as some actual outcomes. Although there is no direct evidence yet of high level outcomes (i.e. outcomes traditionally understood as social impact), a range of outcomes were mentioned in the interviews, which have the potential to develop further. Going forward, the development of these early signs of outcomes is best supported through continued engagement in relation to these cases with the local partners involved.

Disclosure:

We disclose that the Accelerated Learning Laboratory at The University of Western Australia (ALL@UWA) who produced this report is involved with several IM4DC projects, including the design and delivery of an annual Occupational Health and Safety Leadership short course for the IM4DC during 2012-2014, four action research projects, one fellowship, and four commissioned evaluation research projects (including this report). We took steps to minimise any potential bias in this evaluation. Specifically, we hired Dr Laura Fruhen, who had recently joined the ALL@UWA to take part in this evaluation. Dr Fruhen has extensive expertise in conducting qualitative research and had no previous knowledge or involvement in IM4DC activities. We also hired Ms. Jelena Opacic to assist with the data analysis and writing up the report. Ms. Opacic had been involved in previous IM4DC evaluation projects but had no involvement in the design and delivery of any IM4DC educational programs.

1 PROJECT BACKGROUND AND METHOD

1.1 PROJECT AIMS

The aim of this project was to trace back six examples of IM4DC's successful activities/programs in order to assess not only their outputs but also their outcomes and longer term impacts. In addition, it was aimed to understand the factors that might facilitate and hinder outcomes and higher level outcomes in relation to the IM4DC activities. It was also aimed to integrate themes and topics across the cases so that a high-level view of IM4DC activities' impact can be identified.

Established in October 2011, the IM4DC organises and delivers a variety of mining-related development courses, programs, and other activities every year. The purpose of these activities is to lift the quality of life in resource-rich developing countries, through developing the knowledge, skills and capabilities of key personnel in those nations.

Being jointly supported by The University of Western Australia and The University of Queensland, most IM4DC activities have been designed and delivered by academics, researchers, and professional staff across these two universities over the last 3 years. While there is some preliminary evidence suggesting that IM4DC activities might lead to longer term and higher level impact in developing countries, IM4DC sought to understand the outcomes and impact that have been achieved in a more systematic manner and with more depth than hitherto.

IM4DC partnered with the Accelerated Learning Laboratory at The University of Western Australia (ALL@UWA) to conduct an evaluation of outcomes and long term impact of IM4DC activities by collecting in-depth information from six success story cases. In each case, key informants were interviewed to identify outputs and outcomes that resulted from IM4DC activities. These cases are used to both indicate what types of outputs and outcomes have been achieved and to elicit some of the mechanisms and processes that deliver these outputs and outcomes.

This project complements two previous evaluations that have been conducted for IM4DC. One of these prior investigations focused on understanding the perspectives of past participants involved in a range of activities delivered by IM4DC (Andrei, Wang, Opacic et al, 2015). The second explored the perspectives of the internal university providers (Wang, Opacic, Andrei et al, 2015). The aim of these two previous projects had been to identify a broad and diverse set of opinions on IM4DC activities. The present evaluation adds to these previous reports, by adopting a more in-depth approach, focusing on providing a deeper understanding of activities that the IM4DC identified as being representative and most likely to have delivered impact. The current evaluation integrates the perspectives of the IM4DC staff involved in coordinating and supporting the activities with the perceptions of the program participants.

1.2   SOCIAL IMPACT

The aim of IM4DC in commissioning this study was to investigate the longer term impacts or wider impacts of their programs. We understood these longer term impacts in terms of "social impact" and also considered different levels, or stages of program outcomes that lead to social impact. As part of this investigation, we also identified the facilitators and hindrances that are related to social impact for each case. In order to identify the wider social impact that IM4DC programs have achieved in developing countries, it is important to first understand what social impact is and how it is best measured.

The Centre for Social Impact at UWA defines social impact as the "*net effect of an activity on a community and the well-being of individuals and family*" (http://www.csi.edu.au/about-social). Other existing definitions of social impact focus more on the assessment component in terms of analysing, monitoring and managing the intended and unintended social consequences (both positive and negative) of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions (Vanclay, 2002).

These definitions of the social impact assessment highlight the need to go beyond looking only at impact as an end product. It appears equally important to understand the mechanisms, or the chain of effects that lead to those results. Understanding how and why a program works requires to adopt a broader perspective that includes both positive and negative, intended and unintended consequences as well as those contextual factors that might contribute to or hamper the success of an intervention. Only such a comprehensive and learning oriented approach to evaluating social impact can lead to improvements in the programs and interventions that are then reflected in increased value for individuals and communities.

1.2.1 THEORETICAL PERSPECTIVES OF SOCIAL IMPACT

Whilst some mechanisms and causal effects regarding social impact may operate at the individual level, they can also extend to the context or situation in which the individual is embedded, such that individual outcomes (like attitudes and behaviours) generate macro-level outcomes such as community employment (Astbury & Leeuw, 2010). To unpack the social impact of an intervention or a set of activities, two dimensions need to be considered (Ebrahim & Rangan, 2010): the theory of change and the operational strategy.

1] Theory of change (also referred to as a 'logic model') lays out the plausible cause-and-effect relations that might exist between inputs, activities, outputs, outcomes and impacts. Developing a theory of change, or logic model, provides a picture of the early- and intermediate-term changes in a given community that are needed to reach a long-term goal.

The related literature has highlighted that theories of change for different interventions can be situated at different levels of complexity. Some interventions might operate on a simple theory of change - one in which the logic is clear, focused, and straightforward. The relationship between the cause (i.e. the intervention) and the effect is direct and can be

clearly understood. Interventions that focus on emergency and basic services such as providing food/ water/ medicines to people that are going through an emergency situation are considered classic examples in this category (Ebrahim and Rangan, 2010).

A complex theory of change is one where the logic is unclear, there are multiple causal factors, and it is difficult to attribute change solely to the intervention. Programs targeted at changing public policy, or at international development are typical examples (Ebrahim and Rangan, 2010). They involve complex efforts and actions, and their success is not entirely dependent on the intervention itself. Other factors contribute and shape the end results therefore the mechanism is not easy to understand or attribute to a specific action.

The development of a theory of change model usually starts with identifying the longer term goals of an intervention or program. Then, working backwards, it identifies all the necessary intermediate mechanisms to support those goals. From these, the necessary inputs and preconditions are also identified. A theory of change typically distinguishes the following elements (Taplin & Clark, 2012).

- *Long term goals (or Impact):* define the overall purpose of a program or the aim that an intervention is trying to reach. It is usually formulated in terms of a desired state or condition that does not exist at the time of the intervention but must be in place for the intervention to work (e.g. increased employment for certain groups, increased participation in certain decision-making processes, etc.)
- *Outcomes:* are preconditions, or stages that are necessary for achieving the end goal. They represent the pathways or chain of different outcomes that need to happen for the long term goals to be achieved. Some interventions or programs might identify several pathways of linked outcomes that lead to the long term goal. They might also identify different levels of outcomes ranging from very specific outputs from activities to intermediate and overall outcomes.
- *Assumptions and preconditions:* are those resources that are needed for successful delivery of the program. Assumptions refer to those resources that are believed to already be in place (e.g. infrastructure), while preconditions are those resources that can be obtained or generated through the intervention (e.g. new jobs available). Sometimes these elements are referred to as inputs into the program.
- *Strategy, intervention or activities:* are the steps undertaken in order to generate the outcomes. A strategy usually refers to an overall series of coordinated interventions. An activity usually refers to specific actions that are undertaken within a given intervention.
- *Indicators:* refer to quantitative or qualitative evidence of the extent to which different goals are met, as well as visible signs that indicate the degree to which an outcome has been achieved.
- *Narrative:* is a summary of the overall theory that explains and links together the different elements of the theory of change model and builds arguments to support the initiative. The narrative may also go beyond the theory of change

itself and reflect on the context of the initiative, history as well as the overall vision in a wider context.

Finally, building a theory of change model can be initiated at any stage of an intervention program and usually the point at which it is formulated is related to the ways in which the theory of change model is used. Building a theory of change at the onset of an initiative is associated with benefits in terms of planning and structuring the initiative. But a theory of change model can also be built and refined based on evaluation of data that is collected throughout the intervention as an emerging process. A theory of change can also be developed retrospectively, mostly during evaluations at the end of programs in order to inform future plans.

2 IM4DC'S THEORY OF CHANGE MODEL

IM4DC has developed and refined a Theory of Change Model through its activities. The resulting framework outlines the ways in which the different components of the program would deliver outcomes that are needed for the overall goal of contributing to *sustainable minerals and energy governance delivering shared benefit for all beneficiaries, enabling inclusive and sustainable economic growth and social development* to be achieved (see Figure 1).

The building of the IM4DC Theory of Change Model was initiated at the onset of the program. The initial framework went through a sustained and continuous refinement process throughout the life of the program. The latest model has been heavily informed by evaluation and monitoring data generated from the interventions included in the program.

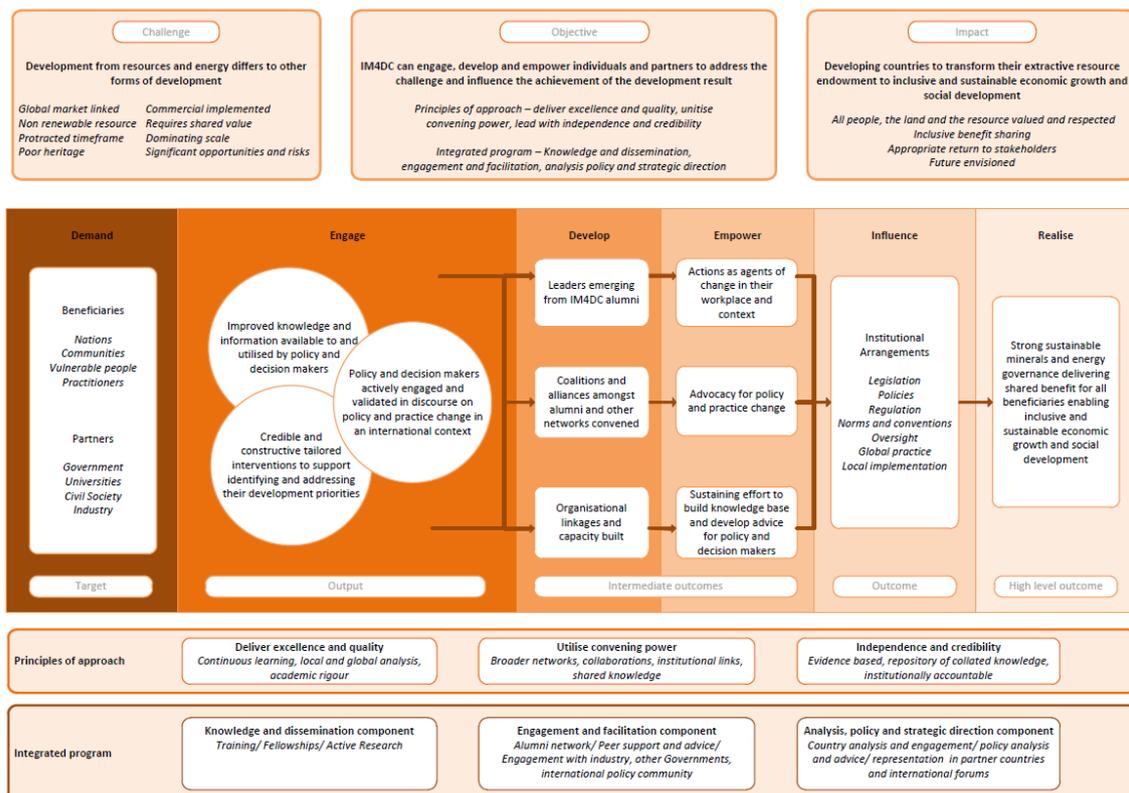**Figure 1.** IM4DC Theory of Change Model

The theory of change that IM4DC has proposed can be seen to be complex. It highlights several intervention categories (Integrated programs) as well as principles of approaching these categories. The framework also differentiates between different levels of outcomes ranging from *outputs* (immediate results from the integrated programs), *intermediate*

outcomes (intermediate term changes) and *outcomes* (longer term changes) as well as different causal mechanisms that link these together. The final result of this process is *higher level outcomes*, which are equivalent to long term goals of the entire program.

In this report, we will base our analysis on the IM4DC Theory of Change framework. Therefore, we refer to outcomes and the long term goals using the IM4DC framework language. Outcomes will be referred to in terms of *outputs, intermediate outcomes and outcomes* respectively and the long term goal will be referred to in terms of *higher level outcome* as defined in the framework.

2] Operational strategy refers to the degree of complexity of the activities involved in implementing the initiative, from simple or focused (e.g., a highly specific task or function) to complex (multiple tasks or functions). The combination of these dimensions creates four quadrants: niche, integrated, institutional and ecosystem results, each with different implications for measurement (see Figure 2).

Figure 2. Matrix showing different measurement approaches according to the theory of change and operational strategy (from Ebrahim and Rangan, 2010).

For a very simple theory of change model and focused operational strategy (highly specific), it often is most feasible to focus on assessing inputs, activities, and outputs, since niche efforts do not typically have longer-term impacts. At this level the theory of change and activity is assumed to not be broad enough to achieve a long-term impact.

However, if impact is to be reached at a large scale, the activities and the theory of change need to be complex and cross multiple levels. This is shown in the 'ecosystem results' quadrant. Problems that fall within this quadrant are not well understood (complex theory of change) and interventions involve multiple partners (complex operational strategy) with goals of achieving synergistic results that affect the wider system.

2.1   ADOPTING A MULTILEVEL PERSPECTIVE ON IMPACT

As mentioned in the previous section, the outcomes of interventions can be realised at different levels (i.e. individual, organisation, society). We would like to unpack this issue in more detail here. The different levels of an intervention become especially relevant for programs that target larger social outcomes (or ecosystem results). Such programs usually bring together multiple interventions to influence the same outcomes (as seen in the IM4DC Theory of Change Framework). Parker et al. (unpublished research report), highlight that initiatives in these cases might often be directed towards individuals, so that it is not a given that these interventions automatically affect organisations or wider communities.

For example, IM4DC interventions or programs might create positive outcomes for individuals who went through the program by improving their knowledge, skills and networks. However, this does not automatically translate into outcomes for the organisation they work in or their wider community. Reasons for this disconnect between outcomes at the individual level and wider outcomes can be manifold. For example, the individuals might leave the organisations or the community of which they are currently part of (sometimes even as consequence of their improved knowledge, skills and networks). Therefore, it becomes critical to consider interventions and causal chains across different levels, to pre-empt such potential issues (Parker et al, unpublished research report). An overview of how mechanisms at different levels can contribute towards a wider impact is shown in Figure 3.
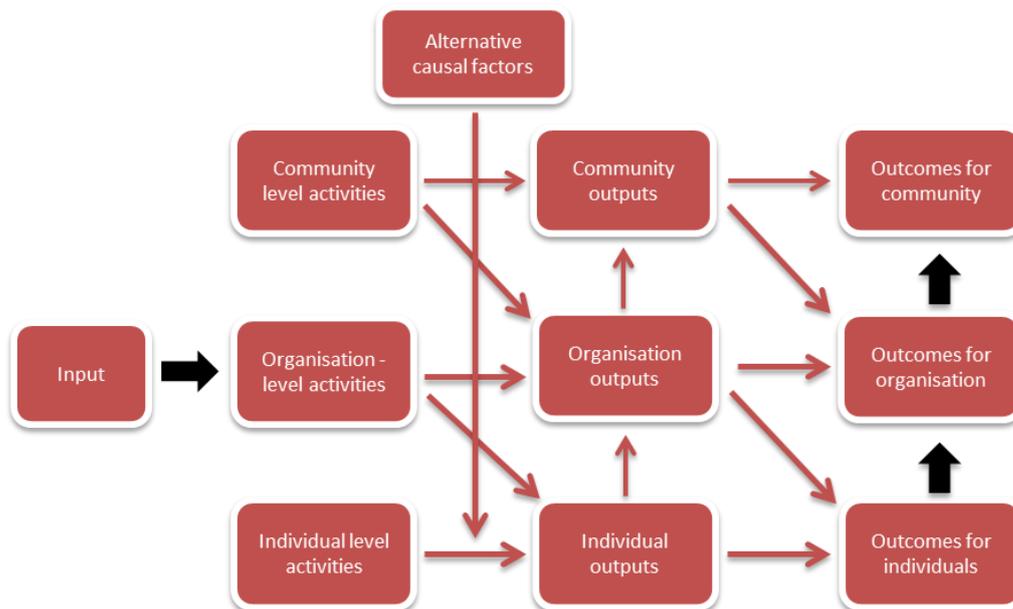
Figure 3. Interventions and causal chains across different levels

What can be observed from Figure 3 is the fact that when the long term goal of a program targets wider societal changes, individual level activities need to be backed up with appropriate interventions at the organisational and community level. While there is a

path from individual activities to wider community outcomes, this is the longest pathway and the hardest to achieve.

Looking back at the IM4DC Theory of Change Framework, we see that programs at the individual level are the ones that are articulated best and they are complemented with some activities targeting communities. Also, the different levels can be identified in the mechanisms with all three levels being considered. What is less clear is how exactly these mechanisms are supported – directly through interventions at the appropriate level or indirectly through interventions at other levels

In sum, if wider social impact is the long term goal to be reached, as is the case of the IM4DC program, the intervention needs to be complex and should occur across all levels.

2.1.1 MEASURING SOCIAL IMPACT

Organisations often need to demonstrate the impact that their programmes have on individuals and the community they operate in (Parker et al., unpublished research report). Internally, assessing outputs and outcomes of programmes can focus the organisation's attention on potential missing links in the process towards wider impact as well as the key drivers that are already in place and make a significant contribution towards change. In doing so, organisations can ensure that they stay on track towards their targeted impact. Furthermore, many organisations aim to demonstrate that their impacts are long lasting rather than short-term, and that they are independent from any impact contributed by other organisations and government agencies.

Due to the complex nature of social impact, tools differ in focus, approach and purpose. We describe the main frameworks, methodologies and tools that can be used to measure the impact that may be attributed by an initiative below.

Randomised Control Trials (RCT) and Quasi-Experiments

This method involves randomising participants into control and intervention groups (that is, one group receives the treatment while the other does not), and then evaluating the effects. The reason for randomisation is to minimise recruitment and allocation biases which potentially affect the outcome. Quasi-experiments are almost the same as RCT, except the randomisation process is not included. Experiments help to solve the problem of accounting for other factors that might potentially influence on the evaluation as the intervention is singled out. However, the weakness of this methodology is that it can only be applied to single effect or intervention, as opposed to multiple effects or interventions (Hems & Flatau, 2011). This approach is also very complex logistically as it involves engaging individuals or groups/communities who are <u>not</u> involved in an intervention. For these reasons, this approach is less well suited to evaluating IM4DC activities.

Participatory evaluation

The participatory evaluation approach refers to a process by which the evaluators collaborate in some way with the individuals, groups and communities who have a vested interest in the program and evaluation, requiring active seeking of perspectives and insights of all stakeholders, beneficiaries as well as project implementers (Cousins & Whitmore, 1998). One weakness of this method is that it has been criticised for treating participation as a means for defending evaluation and gain acceptance of findings. However, this method has the advantage of using expert knowledge, thereby enabling richer descriptions, insights and evaluation. We evaluate this approach as well suited to an evaluation of IM4DC activities and it is utilised in this report.

Social Return on Investment

Social return on investment (SROI) involves applying a quantitative framework to account for the social value generated by an organisation (SROI Network, 2009). Social value is the value of the social impact (or economic value of social benefits) relative to investment required to generate that impact (Lingane & Olsen, 2004). Although the SROI method has been widely used by a wide range of organisations to measure social impact, there has been a lack of consensus and consistency across SROI approaches. Without standardisation, there is uncertainty about the effectiveness of the SROI approach. SROI might be used at a later point by IM4DC, but at this point, a more exploratory identification of social return is needed.

Program Theory Evaluation

Program theory (or often referred to as theory-based) evaluation refers to a process of developing a causal model linking program inputs and activities to intended or observed outcomes and then utilising this model to guide evaluation (Rogers, 2000; Weiss, 1997). In general, this approach involves both a conceptual component (in which evaluators develop the program theory or theories) and an empirical component (in which evaluators systematically test and refine the program theory). This method, although sometimes being critiqued for not adequately representing complex realities, helps to depict how elements in a system are related and helps to stipulate the cause-effect sequence through which long-term outcomes and benefits are generated. This approach is well suited to evaluating IM4DC and we employ it here in combination with participatory evaluation.

In sum, to examine the social impact generated by select IM4DC activities, we used a combination of participatory evaluation and program theory evaluation. Consequently, the interviews were conducted with key IM4DC staff/personnel that oversaw the projects and supported their selection of successful stories, with program deliverers/leaders (academics/researchers who led each specific activity) and with participants in each program (alumni or collaborators/partners in the case of action research activities). At the same time, we sought to ensure that the results were mapped onto a causal model. In this case IM4DC's Theory of Change framework (see Figure 1) was drawn on. Specifically, we

sought to identify outputs, intermediate outcomes, outcomes and higher level outcomes, into the themes that emerged throughout our qualitative data to understand how the proposed theory of change is working and at what level the IM4DC cases considered have delivered outcomes. We also complemented this approach with the identification of possible facilitators and hindrances experienced in trying to bring about outcomes.

2.2 RESEARCH METHODS AND PROCESSES

We conducted this project through four key stages. A roadmap of these stages with an associated timeline is illustrated in Figure 4, and more details about each stage are provided below.

Stage 4: Jan - May 2015

Analyse data collected and produce overall project report.

Stage 3: Oct - Jan 2015

Conduct semi-structured interviews

Stage 2: Oct 2014

Systematically develop interview plans and protocols

Stage 1: Oct 2014

 Identify six cases to be investigated
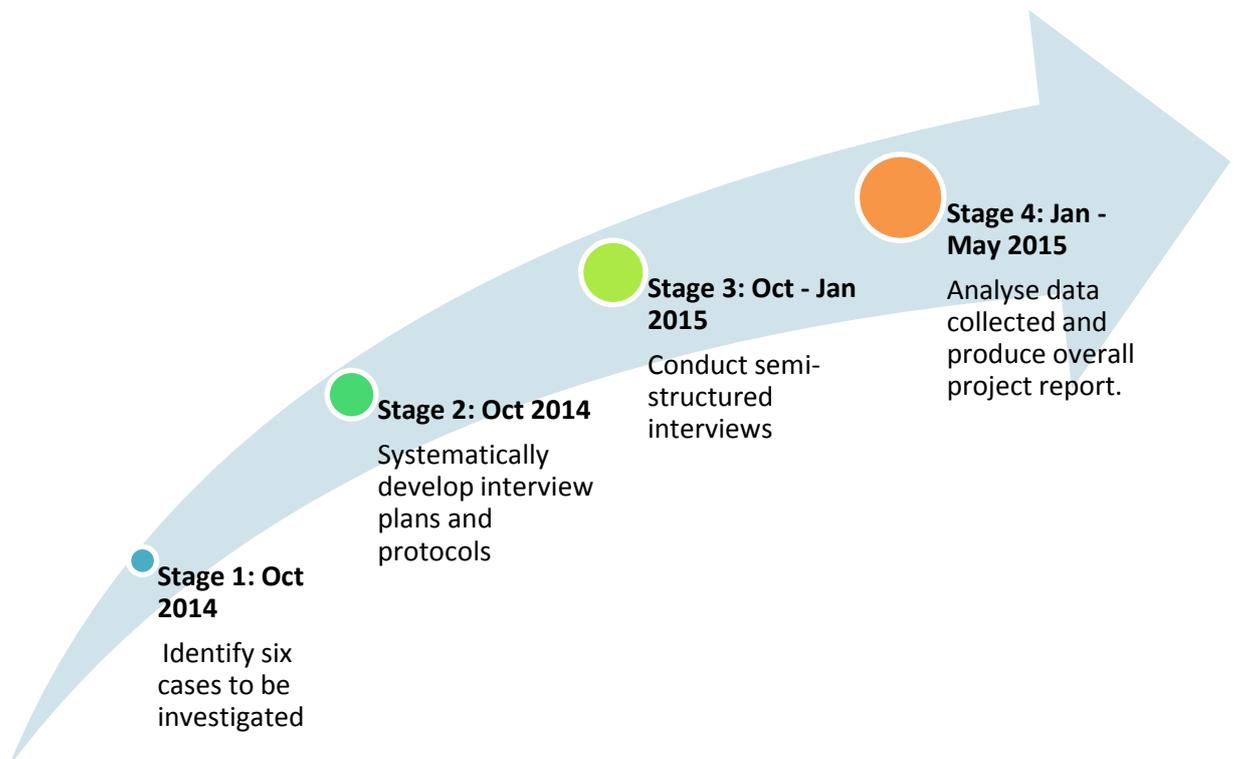
Figure 4. Roadmap of the IM4DC Evaluation of Impact project

- **Stage 1: Identify six cases to be investigated**: IM4DC identified six examples of successful cases that could be used to investigate social impact. These six cases were identified by IM4DC staff/personnel who selected the activities they perceived were highly successful.
- **Stage 2: Systematically develop interview plans and protocols**: The interview plans and protocols developed had two purposes. The first purpose was to understand the intervention in-depth (in order to be able to link it with

outcomes/impacts). The second purpose was to inform our understanding of the outcomes generated by each case (according to the IM4DC Theory of Change framework – Figure 1).

- **Stage 3: Undertake interviews.** Interviews were undertaken mostly between October 2014 – January 2015. We contacted 30 possible interviewees; however not all of them were available to be interviewed. Thus, 23 interviews were successfully conducted in a three step process shown below. All interviews were audio recorded and then transcribed to comprehensively retain the data. A total of 2 interviewers were involved in conducting the interviews; both were trained Industrial/Organisational Psychologists and experienced interviewers.

    1. **Interviews with IM4DC staff/personnel.** Initially IM4DC staff/personnel were interviewed. IM4DC staff/personnel were individuals directly employed by IM4DC. A total of six interviews were carried out with three IM4DC staff/personnel. The interviews with IM4DC staff/personnel helped to explore why IM4DC considers these cases a success in terms of their impact. At the end of each interview the staff/personnel were asked to indicate other key individuals involved in the delivery of the program.

    2. **Interviews with the program deliverers/leaders.** The program deliverers/leaders were then contacted (6 people in total) and interviewed. These individuals were mostly based at universities – University of Western Australia or University of Queensland – and had been in charge of program delivery. As part of their interviews, the program deliverers/leaders were asked to provide 3 to 5 names of participants involved in the activity.

    3. **Interviews with in-country program participants/collaborators.** The final set of interviews was conducted with the program participants (for those cases that had an educational component) and/or partners/collaborators (for those cases that implied a research or development collaboration relationship). We contacted at least three program participants/collaborators for each case and contacted some of them on multiple occasions via email. Despite our efforts, only eleven program participants responded and participated in the interviews. Throughout the report, program participants will be referred to as alumni, or collaborators/partners in the case of action research activities.

Stage 4: Transcribing interviews, analysing data and writing up the final report:

    1. **Transcribe and summarise interview data**. This step involved the following process. First, all interviews were professionally transcribed. Following that, all interviews were analysed and the results were summarised by the core team members of this project.

2. **Synthesise and analyse interview findings and produce project report.**
    Level 1 Analysis: Integrate interview data in accordance with designed interview questions and identify common themes emerging for each case.

    Level 2 Analysis: Re-analyse the themes to map onto the output and outcomes categories as specified in the *IM4DC Theory of Change Framework* for each case.

    Level 3 Analysis: Integrate Level 2 results for each case and across the cases, and analyse communalities emerging across the cases investigated.

3. **Summarise and write up report.** The report is organised by cases, with stories, and participants' quotes provided as evidence. An integrative section follows the presentation of the cases.

3 ILLUSTRATIVE IM4DC SUCCESS STORIES

3.1 CASE 1: COURSES ON HEALTH AND SAFETY FOR MINES INSPECTORS IN ZAMBIA

This case concerns the development and delivery of health and safety courses for mines inspectors in Zambia. To evaluate this IM4DC program, we interviewed one IM4DC staff member, who was involved in the development of the course, two program deliverers/leaders who were involved in the development and the delivery of the course, and three mines inspectors who participated in the training program.

3.1.1 GENERAL OVERVIEW

AusAid identified the Zambian Mines Safety Department as likely to benefit from assistance and capacity building around health and safety issues. IM4DC responded to this issue by sending experts to Zambia, who carried out a needs analysis. This needs analysis was conducted via interviews with Inspectors in the Zambian Mine Safety Department, particularly the Chief Inspectors and also a number of the other field inspectors. The interviews concerned the inspectors' roles more generally, as well as the type of training they had already previously been involved in and what other skills they thought were needed. The overview of the mines inspectors' training needs in Zambia was then related to a competency model that had previously been proposed for the Australian Mining Inspectorate both in terms of technical skills and other skills. This process led to the identification of priority areas that needed to be addressed.

Based on the needs analysis, suggestions for short courses were made and three courses were delivered with a focus on risk management and incident investigation. The engagement has also led to mines safety department staff participation in courses in Australia. Several programs, including a mining inspection leadership program, were carried out in this context. While the program was initially intended for Zambia only, international inspectors from some of the neighbouring countries, namely Namibia, Malawi and Tanzania also participated. This case also engaged universities in Zambia (Copperbelt University and The University of Zambia), who were involved in the short courses. In addition to trainers from Australia presenting the training courses in Zambia, it was also a 'train the trainer' program to enable those skills to also be passed on through the Universities so that the programs could be sustained beyond the Australian initiatives. Notably, the course materials and delivery were recently handed over to the partners at The University of Zambia, who are now preparing to deliver the courses to industry themselves.

3.1.2 TRACES OF OUTCOMES AND IMPACT

For this case traces of impact were identified at all levels specified in the IM4DC impact framework. It should be noted that the majority of these indicators reflect outputs and intermediate outcomes. Further, the outcome and potential high level outcome identified

for this case had not been fully realised, however early indicators that point towards these being realised in the future were recognised.

Outputs	Intermediate Outcomes	Outcomes	Hoped for/Potential High Level Outcomes
• Inspectors conduct their work differently • Root cause analysis of accidents • Inspectors think differently about their training needs	• Alumni network and other professional networks • Improved university enagagement with industry •Better legislation implementation	• Changing mine workers mindsets *(not realised yet)*	• Reduced accidents *(not realised yet)*

Figure 5. Overview of the impact traces of the courses on health and safety for mines inspectors in Zambia

3.1.2.1   Outputs

The majority of changes described by the participants and the program deliverer/leader we interviewed in relation to this program can be classified as outputs as defined by the IM4DC Framework.

Improved approaches to the way inspectors carry out their work

The participants we spoke to indicated that, as a result of the training program, they had changed the way they conduct their inspections, particularly in relation to operating procedures. The quote below illustrates how, following the training, this inspector considers whether procedures are in place and are executed, as well as the extent to which employees are actually aware of them and apply them in their work.

> *"So as we are going we are looking to, for the purpose of this operating procedure, they have different systems, asking who is responsible in developing them, who is also responsible in making sure that these procedures are executed and also finding out from the workers themselves are they aware of the fact that procedures are in place and are they aware of what they're supposed to do. These are some of the activities that we are undertaking."*

Another issue that was observed by the program deliverer/leader we interviewed touched upon the fact that the new techniques taught via the course were not only implemented by the participants, they were also well received by the mining companies. This effect of the training suggests that it has the potential to change the reputation and effectiveness of mines inspectors in Zambia in the future.

"I had some feedback from one of the Inspectors that they had used the new techniques that they had been introduced to and that one of the big mining companies that was their role to be involved in had actually been quite impressed by the process that they had used so there was some very positive feedback from that point of view."

The IM4DC personnel that we interviewed also indicated that they had recognised this output of the training. Particularly, they recognised the fact that one of the participants in the course had been involved in a fatality investigation, where they used the taught approach, and received positive feedback from the company involved.

Investigation into the root causes that contribute to accidents

One of the mines inspectors we interviewed indicated that the training had provided them with a changed perspective on accident causation. For example, this individual is now working on a project which aims to investigate some of the root causes of accidents. He started this initiative after recognising that despite the recommendations made by the inspectors and mining companies following accidents, these accidents still continued to occur. In this project, the mines inspector is planning to identify systematic patterns in accident causes and how these can be best addressed. However it clearly has the potential to have an impact on the strategic approaches of the mines' inspectors in their work and it can also help reduce accidents in the future.

"I'm trying to understand if we investigate and we give our recommendation, within the mines themselves they also investigate and they give also their recommendations, but why do we still have the accidents we are getting, following that trend and the numbers are still high. So what I did is when we came back I had a discussion with the Director of Mine Safety. He fully supported that idea and it is something which we had spoken about even before we started it officially because he was also worried that we are having these accidents but still they keep repeating themselves."

Changes to the way the inspectors think about their training needs

A university collaborator based in Australia indicated that one of the results from conducting a training needs analysis was a shift in the mines inspectors' understanding of their training needs. Particularly, it appears that the mine inspectors had a focus on technical skills in their training and that no ongoing continuous training program for the mines inspectors existed. This example illustrates how conducting an evaluation or an assessment prior to training development can function as a tool for change in itself in that it widens awareness of some of the needs that current training programs may not address. Thus, the training needs analysis may have had a function beyond simply assessing what should be included in the training; it may have helped to generate momentum for change as well.

"I think it's the recognition within the Mines Inspectorate that they need ongoing training as well so there are a number of skills some of which were identified in that first training needs analysis that are not just simply technical skills."

Outputs for program deliverers

The IM4DC employees engaged in this initiative also identified that they have personally benefitted from engaging in the activities. Particularly, the quote below illustrates the benefit of being engaged in a cross-cultural initiative in broadening the perspectives and skills of the individuals involved.

"I think from a presenter's point of view I learnt a lot as well and that shouldn't be underestimated sometimes; the value that it was to the people in Australia as well as the value to the people in Africa and it certainly improved my skills in terms of dealing with people from different cultures so it was a very positive experience for me as well."

3.1.2.2   Intermediate outcomes

Three intermediate outcomes that fall within the "develop" category in the IM4DC framework were identified for this case. Two of these can be classified as intermediate outcomes related to development, the other one as reflecting empowerment.

Development of useful alumni and other professional networks

An intermediate outcome that was indicated was this program's capability to improve the professional networks of mines inspectors. This outcome reflects the building of coalitions and alliances between alumni and other networks that are convened through the IM4DC activities. Such network building was described by inspectors who took part in the training and connected with other Zambian inspectors. Additionally, it was indicated that the training supported the participants to make connections beyond Zambia, which is likely to allow them to exchange about practices in other countries, which has the potential to enable them to improve practices in the long term.

"Yes, there are also the relationships that were developed between the students and I mean I'm not aware of how much they use their alumni network but there is certainly that as well but certainly the interactions."

"It gave them a perspective from different countries – not just Australia but from other African countries as well and enabled them to make connections that they can continue on with."

University engagement with mining companies based on the training

Another intermediate outcome identified concerns organisational linkages and capacity building that has been facilitated by the IM4DC program. Particularly, this outcome concerned the impact of The University of Zambia on the mining industry and the ways in which their engagement in the program has helped to position them as experts in this area. Notably, it was indicated that this drive for interaction was initiated by the industry, rather than the university. In the long run, the program will have initiated The University of Zambia's improved engagement with industry.

The IM4DC staff member we interviewed in relation to this case also evaluated the facilitation of links with industry and The University of Zambia as one of the core intermediate outcomes of this program.

"The University of Zambia has presented the Accident Investigation and reported back to the industry at the request of industry so that's I think a fairly clear demonstration that they actually reached that."

Improved implementation of new legislation

Another intermediate outcome that has been identified falls within the empower bracket of intermediate outcomes. It should be noted that this is not an outcome that has been realised at this stage; rather it is described by one of the contacts we interviewed as a potential follow on outcome of the program. This potential future outcome concerned the capability of the mines inspectorate to implement new legislation. The quote below indicates that this capability will be, at least in part, derived from the newly gained skills concerning risk management and accident investigation.

"For the Inspectors to have the skills to understand risk management and for them to have the skills to understand how to effectively evaluate accidents and incidents that will assist them in effective implementation of that new legislation when it's eventually sort of finalised."

3.1.2.3 Outcomes

One outcome was described by the contacts we spoke to. It should be noted that at this stage there was not sufficient evidence to suggest this outcome had been realised.

Changes to the ways in which mine workers think about safety and the inspectors' work

This outcome of the program refers to culture change in the mining companies. As such it fits with the outcome of influencing norms and conventions as a result of IM4DC activities. This change in beliefs and values was described by the interviewees in relation to the way employees see the work of the mines inspectors.

"Yes, they welcome what we are doing although much of this was changing the mindset of the employee. And a last note, one thing which you can't achieve in a short time. It takes time so that we will change the way these workers think, the way they do their things."

3.1.2.4   High level outcomes

While at this stage no clear evidence of high level outcomes was indicated, the participants, IM4DC personnel and program deliverer referred to the potential future impact of the program.

Reduced accidents

One of the core high level outcome aims identified by the people we spoke to in relation to this program was a long term reduction in accidents and a safer industry. At this stage it is not clear to what accident rates and the safety of the industry have started to move in this direction and whether any such change could be attributed to the program.

"What we are trying to achieve is to make sure that we reduce the accidents of workers in the mines and also to have a workforce that is enlightened as to what they are supposed to do, yes. So that at the end of the day we have an industry that is safe, where somebody would be happy to report in the morning and they will come back."

"Everyone who gets training for nine months are new inspectors. It is good to see a long band -- reduction in accidents, which bother me in the mines."

3.1.3 FACILITATORS AND HINDRANCES

3.1.3.1   Facilitators

One facilitator mentioned was the continued engagement in this work over a long period of time as having helped to engage in actions that are likely to generate sustained impact. In addition using local partners, such as local universities and experts was described as having helped in generating local ownership, which was crucial in reaching the programs outcomes

A facilitator mentioned by a program collaborator from the Australian universities concerned the fact that the Australian competency framework fit well to the training needs of the Zambian mines inspectors. This was also evaluated to be a good sign, as the Australian competency framework had been developed in much detail and over a number of years.

"The competencies fit very nicely on the competency framework – that is the Australian agreed competency framework. So I would say in that way that was really useful because that was a major Australian activity so it saved a lot of time and could actually be used."

Another facilitation of the training's outcomes concerned the relevance of the training to the mines inspectors' work, which was derived from its targeted approach, concerned actual situations and cases that they would incur in their work. This practice oriented approach was, according to the quote also developed based on ongoing input from the participants.

> *"So I do think that one of the most useful things around this training needs analysis was to not just look at the Mines Inspectorate and what their training needs were but simultaneously to actually involve the Universities in those discussions so that was a big deal in that we weren't just going, "Oh what do you need?" in isolation. It was well, where would you get your training from internally within the countries and what kind of skill sets are the future engineers getting who would be filling the roles in the Mines Inspectorate."*

> *"The training that was provided to them was quite targeted at the type of situations that they might face as Mines Inspectors and as part of the training we had quite a bit of input from them as the training progressed."*

Further, the reputation of the Australian mining industry concerning health and safety and the know-how that underpins this was also indicated as having supported this program.

> *"I think one of the nice things was that the Australian industry does have a very good reputation in terms of Health and Safety and so they were very keen to see some of the ways in which our Inspectors are trained and some of the training that our Inspectors do because they did recognise that we have a well-trained and an effective Inspectorate in Australia and that's one of the reasons that we have good safety."*

Finally, collaborators identified collaboration with the right people as a core facilitator. This included both involvement and support from the senior managers in the mines inspectorate and the local universities. Particularly involving the local university was seen as an enabling approach that supports the country from within.

> *"We were pretty lucky in that we had very, very good cooperation from the senior people within the Mines Inspectorate. They were very keen."*

> *"It was made much simpler by having the strong relationships with the local Universities as well as the Inspectorate."*

3.1.3.2 Hindrances

Some of the barriers that were identified by the collaborators and the participants concerned funding and professional practice related issues. These included a lack of the local universities' ability to use training and education programs in a commercial fashion and to recognise this as an opportunity to do so. This issue was described as associated with the extent to which the university contacts were used to working through personal relationships rather than links that would be understood as business associations in Australia. However this issue also concerned lack of resources availability from the partners within Australia. Due to such lack of resources courses concerned with communication and leadership skills although identified in the training needs analysis were not implemented.

> *"One of the things that was hugely lacking within the University systems that we saw was the ability to engage industry around the needs of being able to recoup costs and have this sort of viable professional training, ongoing professional development and training which would then feed into the professional training required by the Mines Inspectorate. This was also because the Mines Inspectors need the same type of professional development and training that other Engineers in the workforce becoming let's say the Safety Managers of the mines. So you would be able to see that you could create viable training courses by having this but what's missing is that commerciality but for these individuals to be able to communicate with each other so the Mines Inspectors – they didn't necessarily have the skill sets about how to engage industry from a large scale."*

Another theme within the hindrances concerned the nature of the mines inspectors' work. These issues included their high workload and the extent to which they have time available to engage in this type of personal development activities. It was also recognised that there are high levels of fluctuation within the mines inspectorate as they can be tempted to work for industry, where pay is often better. For a development program as this one, this poses the risk that the trained skills will be lost within the inspectorate. However viewed from the overall skills that are available within the Zambian mining industry this can be understood as a sideways shift, as these skills will not be lost to the industry as a whole.

> *"They are paid a lot less in their Inspectorate than they would be in industry so it's very hard to retain people and not lose them to industry."*

> *"The inspectors have a fairly high workload themselves was something that has the potential for causing problems."*

The last theme indicated was that the inspectors are a small group, and although this had also been described as a facilitating factor, it was recognised as having made it difficult to pull inspectors out of their job to take a course for a week, so there is limited time available for the people to go on the course. Notably, it was reported that only a very small group of the trainees (20%) had subsequent to the training taken the necessary steps towards a follow-up assessment to gain a certificate of their qualification.

3.2 CASE 2: ADDRESSING GENDER BASED VIOLENCE IN MONGOLIA

This case deals with gender based violence in mining communities, focusing on women in Mongolia who often withstand the worst of the negative social impacts from mining. Unfortunately, to investigate this case further and the impact that it has had on developing countries we were only able to interview two individuals. One was an IM4DC staff member who oversaw the activity, and the other had been in charge of the program delivery. Repeated emails had been sent to key informants located in Mongolia to ask them for an interview, but unfortunately, no responses had been received over a period of three months. Therefore, the results presented here need to be interpreted with caution as they don't represent all the different perspectives relevant to fully understand the impact of the activities. We will continue to contact key informants for this case and present an updated version of the findings should we be successful.

3.2.1 GENERAL OVERVIEW OF THE CASE

This case is an investigation into the prevalence and nature of Gender Based Violence (GBV) in mining communities in South Gobi, Mongolia. Mongolia is undergoing a widespread and rapid minerals boom that is changing the social and cultural landscape of the nation. This is most obvious in communities that reside in close proximity to large-scale mine operations. Evidence suggests that women often withstand the worst of the negative social impacts of mining. The increase GBV is an example of such impacts. The purpose of this research was to improve understanding of the extent to which GBV is experienced in mining communities in Mongolia. The project was undertaken in three stages to: 1. Maximise access to often-sensitive information 2. Increase the uptake of recommendations 3. Promote understanding of GBV issues more broadly.

The first stage focused on engagement with the Mongolian partners to exchange mutual expertise on the mining industry and the Mongolian gendered cultural context. This approach assisted the team to understand the organisational culture of the minerals industry and to appropriately access sensitive data and personnel in the affected communities. During this stage, the team consulted a number of Non-Governmental Organisations (NGOs) and mining companies, and undertook fieldwork in the affected communities.

The second stage involved compiling the collected information into a report and presenting the findings at a roundtable discussion hosted by the Mongolian government's National Committee on Gender Equality. This approach brought together NGOs, mining companies and a diverse range of government officials and multilateral agencies, and provided a platform to discuss views and opinions on GBV and the recommendations presented in the report.

The third and final stage involved the preparation and release of the research report and recommendations, free to access over the internet, in both English and Mongolian. The research findings suggested that the rate of GBV has increased since the onset of mining in the communities. Specifically, victims and informants reported that domestic violence,

prostitution and alcohol-fuelled violence have increased and caused personal trauma, family break-ups, health related issues and broad community insecurity. The scale and type of GBV differed between the research sites and may be attributed to different types of infrastructure developments (transport corridors, stockpiles, etc.) in different areas and towns with differing proximity to mines. A set of recommendations was produced and agreed upon at the roundtable discussion to assist policy makers in reducing violence against women, men and children in the communities surrounding mining operation

3.2.2 TRACES OF OUTCOMES AND IMPACT

The interviewees mostly described the outputs and outcomes of this project. There was no mention of intermediate outcomes. The results from the two interviews both were combined to ensure the confidentiality of the informants. No specific high-level outcomes were indicated (i.e. social impact), however potential social impacts were described, which could be reached with the continued support of the project.

Outputs	Intermediate Outcomes	Outcomes	Hoped for/Potential High Level Outcomes
• Increased awareness and engagements concerning gender based violence	• Not identifiable	• Agreement between mining companies and government • Investments in family friendly infastructure • Wider interest in the issues • Follow-on projects	• Country wide projects related to GBV *(not realised yet)*

Figure 6. Overview of the impact traces of Addressing gender based violence in Mongolia

3.2.2.1 Outputs

Increased awareness and engagement

Prior to the project, there was a lack of awareness and recognition around gender based violence in mining communities in Mongolia. Because of the project, the awareness for this issue has risen, and mining companies and the government are now more aware about required actions.

"During the round table discussion, the government of Mongolia and the biggest mining companies in Mongolia which operates in one of the worst areas, sat at the table and they were really quite disturbed about what we had found."

"There was a growing awareness and recognition by community people that this was an actual issue, so they were quite thankful for us coming to talk about it as it was something that had not being on their radar for mining companies and the government."

3.2.2.2 Outcomes

A signed agreement between a mining company and government

An agreement was signed between the government and a local mining company to implement some security upgrades in the communities. This agreement would ensure that the issue in gender based violence of women was improved for the individuals and for the community.

"The mining company committed half a million dollars to the local community and assisted local community in building street lights for women, a women's health centre, also to make the town family friendly they have built parks, where children can play instead of being on the streets and also they have done training with mining companies personnel themselves."

Interest from other organisations

After the agreement had been signed between the mining company and the government, the report gained media attention. Many other organisations indicated an interest in the findings, and wanted to address this issue within their own organisation. Other companies contacted IM4DC to discuss these findings further, in the hope to incorporate similar actions in their future plans, to stand for violence against women.

"I was invited to speak at an UN event about gender based violence and mining, specifically about empowerment, and tools to address gender based violence. I spoke to a room of people from 60 different countries around gender based violence."

"XXX [organisation, removed for confidentiality] got hold of the report and sent an email saying they have gone to their company and talked about gender based violence as an issue in the community. They were having some forms of resistance, so they showed them the report, and are now putting resources in place for this issue; to address gender based issue violence."

Stimulation of further projects

This case has opened up additional discussions in Mongolia and has stimulated further research and projects. Due to the success of this project, there had been a significant interest from individuals from other developing countries as well.

> *"Due to the outcome of the project, we have engaged with IM4DC to set up another forum, on gender based violence and gender based issues which we are hoping to do later this year."*

3.2.2.3 High level outcomes

Although some successful outcomes were associated with this case, which reflect changes at the individual level to the community/government level, we weren't able to identify clear and solid evidence of high level outcomes from the interviews. Long term effects were mentioned that individuals were hoping to achieve. One included the hope for continuous industry engagement on the topic across Mongolia, and the hope that those issues are explored in more detail as a social impact of mining activities.

Many of the outcomes achieved from this project were not planned, and so the future of social impact at this stage is unknown.

> *"The action research is seed funding, so in many ways it is unclear how the project can advance in the future. They did not necessarily expect it to achieve the outcome it did achieve. With the action research projects, the IM4DC's involvement is more in the background."*

To help achieve these high level outcomes, one individual mentioned the need for continuous support from organisations, further research to understand why GBV is an issue within mining communities, the need for this project to remain on the agenda of IM4DC and the appropriate resourcing of individuals to continue developing and working on this topic.

3.2.3 FACILITATORS AND HINDRANCES

3.2.3.1 Facilitators

Pre-existing relationships with NGO's

The pre-existing relationships with NGOs were important in facilitating the outcomes. The relationship with the Mongolian partners was very beneficial, especially during the planning of the round table discussion. As IM4DC were responsible for inviting key individual to join this discussion, their pre-existing networks were drawn upon to reach these individuals, and facilitate this discussion.

IM4DC's International Reputation

One IM4DC member spoke of the ways in which being part of IM4DC and working for IM4DC was a benefit for them during the project. The reputation behind IM4DC was critical because IM4DC was external to all other agencies within Mongolia, and was therefore perceived as independent. Secondly, IM4DC is internationally recognised, resulting in heightened levels of trust in their capability to conduct this research.

"Being perceived as an external and independent agency was helpful in the Mongolian context and that it wasn't driven by government, industry or local NGO agenda."

"Having the IM4DC name, gave us strength to get the message across more strongly. There are a lot of researchers out there and some people don't trust researchers, but when you have someone like IM4DC behind you ……they are international well regarded in the developing world"

Hindrances

Cultural barriers

Cultural barriers prevented conversations about some of the issue in greater detail. Specifically in relation to specific examples around gender based violence, which it required knowledge of the specific language use, and choosing diplomatic, non-threatening terms. Furthermore, speaking about particular examples of where gender based violence had occurred within these mining communities, could potentially discourage people from investing into mining companies, so these issues needed to be carefully worded to ensure that this sensitive information was accurately conveyed.

Managing stakeholders

A further challenge of this case was the involvement of the different stakeholders as it involved individuals from the community, mining companies and the government. To manage the stakeholders, it was important to ensure that all parties were treated respectfully and that individuals were not blamed for problems, so that all stakeholders took responsibility for issues collectively. It was also important to not blame anyone especially as IM4DC was an external agency.

"Violence against women is hugely sensitive to government; they don't want people from outside telling them they are treating women badly."

3.3 CASE 3: BENCHMARKING SAFETY IN A GLOBAL SAMPLE

This case concerns the benchmarking of safety behaviours and organisational safety values across developing countries. To investigate the benchmarking process and the outcomes and impacts through which this work has contributed to developing countries, we interviewed one IM4DC staff member who supported the selection of this case among the six examples of success stories. We also spoke to one academic that coordinated the delivery of this activity and two collaborators who were associated with the program and based in a developing country. The academic was involved in the development of the benchmarking study, and the collaborators were involved in the in-country implementation of the research and safety data collection.

3.3.1 GENERAL OVERVIEW OF THE CASE

Benchmarking the "Status of Safety": Safety risks, practices and beliefs in developing countries was an action research activity funded by IM4DC. The goal of this action research was to start a process of systematically collecting safety related data in developing countries. Such data was evaluated as improving the understanding of the ways in which individual and organisational factors contribute to safety behaviours in these countries.

The idea of this action research developed from a course on Organisational Health and Safety Leadership organised by IM4DC in collaboration with ALL@UWA. Following the completion of this course, a survey study related to safety issues was identified as a great opportunity to keep in contact with alumni and involve them in the research. During the training course the participants showed interest in safety issues and many reported the lack of safety data beyond incidents and accidents in their country. As some of the Return to Work Plans revolved around the need to obtain such data, the ALL@UWA team decided to develop a cross-cultural survey on safety beliefs, practices and risks. The overall purpose for this action research was to provide a tool that would be useful to all the countries involved, in that the trainees and others could easily use it. Moreover, such a cross-country data collection was identified as a unique opportunity to collect, analyse and compare results across developing countries.

This project collected data on several organisational and individual level aspects of safety behaviour, such as risk perception, safety practices and beliefs. Based on this data benchmarks were assessed for each of the participating developing countries. This information can be used to identify areas of safety that require targeted interventions. It also provides initial benchmarks that inform regulators and training agencies of the state of safety in the respective countries.

Data were collected using the International Safety Survey – a survey that assesses 17 distinct factors contributing to safety at the individual, team and organisational level. Surveys were completed by 875 respondents from eight countries: Mongolia, Zambia, Kenya, Gambia, Nigeria, Ivory Coast, Indonesia and the Philippines. Employees from various levels within organisations completed the survey. Most recently the project has

been extended so that data collection in Latin American countries has also been undertaken.

The results from the survey showed that respondents from all countries identified a large number of risks as present in their worksites. Besides the most common risks present in the mining sector in Western countries, a number of additional risks that are specific to mining in developing countries were identified such as: hygiene and sanitation, poor working conditions and the adequacy of safety equipment and protocols. At the individual level, participants tended to believe safety was important. However, individuals generally tended to comply with safety requirements more than they actively participated and promoted safety in the organisation. At the organisational level, the most positively rated subscales were related to perceptions of overall organisational safety visions and values that are oriented towards safety.

3.3.2 TRACES OF OUTCOMES AND IMPACT

The participants and collaborators that we interviewed mostly described the outputs and outcomes of this project. There was no mention of intermediate outcomes. The results from the three interviews were combined, due to only having one IM4DC personnel. There were no specific high-level outcomes achieved (i.e. social impact), however there were mentions of potential social impacts that could be reached, with the continuous support of the project.

Outputs	Intermediate Outcomes	Outcomes	Hoped for/Potential High Level Outcomes
• Increased knowledge • Improved measurements of safety	• Network development • Collabaration with global organisations	• Institutional partnerships • Good working relationships of individuals	• Improved safety practices *(not realised yet)*

Figure 7. Overview of the impact traces of Benchmarking safety in a global sample

3.3.2.1 Outputs

Increase in knowledge

One collaborator spoke about having a better understanding of what aspect of safety needed to be changed, and how to address this as an output of the benchmarking study. Specifically, enhanced knowledge concerning safety beliefs and the ways in which a thorough understanding of safety-related development needs to be implemented. Moreover, this was identified as a potential guiding principal for the activities that organisations need to engage in, in order to reach a certain standard. The benchmarking study results can also inform on what groups to focus change initiatives. One collaborator stated the following:

> *"The manager of the mine site, not of the corporate but mine site is the one that has the power to make the change. So the right influence is concentrated in this person. So the advice finally is to work with them and to change them, then they will share this feelings and ideas and beliefs in the lower [levels of the organisation]"*

Another individual stated that this project led them to identify some of the changes that need to occur within their organisation, particularly in the ways in which they measure safety (i.e. collecting data on near miss reporting). Collecting data around near miss reporting and beliefs could help them prevent future accidents occurring.

One collaborator spoke about the ways in which the project had helped the establishment of a database and create initial baseline measurements. Prior to the project, a baseline data/profile to compare mining industries and developing countries had not been available. Establishing initial benchmarking data enables consistent and bias free comparisons of industries, organisations and countries. The project not only increased individual knowledge concerning the state of safety in various contexts, it improved knowledge about sectors and companies and made these insights available to the wider community.

3.3.2.2 Intermediate outcomes

Networks developed and global organisations reached

The project initially started off with little interest from global companies. However it was eventually recognised by a wide range of organisations as a valuable venture. The initial study has led to a second wave of surveys, and generated more research funds and support to continue this work. The program has led to fellowships, further research and the continuous engagement with alumni through their involvement in the data collection for the benchmarking study. Beyond the data collection, the project generated additional, related activities, such as workshops in Latin America that focussed on issues related to benchmarking safety, dissemination of the data to area wider audience and reaching global industry partners.

"It also started a little bit of interest from the global companies, so some of the companies that we work at the Centre for Safety became really interested in our research in developing countries because they have lots of operations in those countries. So now we are thinking of continuing these actions with the help of global industry partners that would be able to take up some variation of this design and implement in the operations that they have in developing countries to understand the mechanism more in depth."

Some individuals, particularly the collaborators stated that the benchmarking project has increased their networking with individuals from various organisations. These collaborations involved big organisations, and concerned carrying out safety benchmarking with these partners or getting endorsements from them. Being involved with the project empowered collaborators to speak at different forums and generate support for the project. One individual spoke about organising meetings once a month to continue this on-going collaboration with organisations, which had been initiated by the safety benchmarking safety study.

"I was in a way, doubtful for the bureau to be the endorsement for us… so I just tried to sit and talk with the Director and then open up and then I discussed all endorsements. They appreciated this move, because they felt that it's good that international communities look at safety, because you don't have the safety of the Philippines. We're still waiting on the results and I feel happy that I initiate this discussion with them, so that would be great to feedback into the companies."

"In South America there is very wide industry participation and people are very actively involved in this survey and it was a more active partnership that implemented it. So I would say the decision-makers in the industry would know more and be more involved in the project so the impact could be higher than in other countries. In other countries we had just people go do the survey for this and nothing else so I think it's very varied outcomes across the countries but maybe our mission would be then to try to support even more the strongest collaborations for the greatest impact."

3.3.2.3 Outcomes

Creation of institutional arrangements and active partnerships

The benchmarking project has created linkages between the The University of Western Australia and other international universities, between different companies and professional associations in each country and between universities and companies in different countries.

The project has generated a wide interest from different organisations across the world. One academic mentioned conferences in the Philippines and South America. These conferences were regarded as opportunities for other countries to attend and hear about the data. Informing others of the project could potentially lead to a higher impact, if more organisations become interested in participating. The interest of global companies in developing countries is a possible sign of higher impact that may occur in the future. However, this impact may vary from country to country.

One individual stated that the current research collaborations around this project are a starting point for its potential wider impact. The relationship between collaborators in the countries and industries were evaluated positively. The survey has helped them to create better relationships and start collaboration between these partners, which can continue and expand beyond the project itself.

> *"So we are definitely not seeing the impact that we would have liked, so we haven't seen countries or different companies or more people in the countries that we've implemented a survey in trying to take it up and expand it or collect more data. So we're not there yet in those terms. There is a wider impact, or a start of a wider impact, with this kind of research collaborations I think because if we succeed to maintain them that would mean that we will develop more or different research designs that will be able to look at different aspects or neglected aspects in these countries so I think that's a good start for a wider impact."*

Continuous collaborations and relationships with people

Another outcome of this project concerned good working relationships and the professionalism that all key staff demonstrated. Especially the collaboration between the ALL@UWA and IM4DC were positively evaluated. Other key individuals mentioned that the collaborators in developing countries, who were responsible for data collection, were critical in moving the project forward. The continuous collaborations, discussions and personal relationships that were formed through this work helped to progress the project and bring it to completion.

3.3.2.4   High level outcomes

No higher level outcomes (i.e. social impact) were identified for this case. The intervention itself was not complex enough to guarantee such an impact, so that most of the results occurred at the levels of outputs and outcomes. However, one individual described the impact that they were hoping to achieve with this project in the long run. This high level outcome concerned the results of the benchmarking study improving safety practices within developing countries. Benchmarking can contribute to awareness and better practices in mining practitioners, and help build and develop key individuals into leaders, who are focused on developing a safety based model in their organisations.

3.3.3 FACILITATORS AND HINDRANCES

3.3.3.1   Facilitators

Position of individuals within industry

The knowledge, personal relationship and positions of the contacts in industry were a facilitator of this project in that they helped to move along the project and to obtain data from various industries within developing countries.

> *"It was good to have this IM4DC support and framing because then people were very open to us and discussing with us and it was really good for them to have been here before and knowing us and having these discussions with us. For the people who worked in the industry it was a facilitator that they knew the industry really well and they knew or they used their personal relationships to collect the data. For people who were in the Academia at the same, they knew how to establish relationships and gain access and collect data in a very structured way. "*

Interconnection with other IM4DC courses

The Organisational Health and Safety Leadership course facilitated individuals to open doors for the benchmarking project and provide examples of leading safety practices in the Australian mining industry. The knowledge acquired through the course helped to progress with the benchmarking project and to have some content to refer back to when interpreting the findings. Also, alumni designed return to work plans which incorporated the benchmarking and this helped to involve individuals in the project. The training allowed all alumni to establish a connection with each other, and create shared goals.

> *"[Return to work plan] was a facilitator because some of the collaborators just decided to do this as their return to work plan, if it makes sense for what they were doing. So that helped basically to get them involved in the process. It also creates a sense of community, so everything becomes easier when you're trying to connect people who have been a part of some IM4DC's activities. It creates an idea of shared goals and a community of people and that makes it really easier when you are calling somebody or trying to get someone involved. It facilitates communication even without any action. It's just the idea of belonging to a group of people."*

3.3.3.2 Hindrances

Coordinating individuals

One common barrier mentioned by individuals was the coordination of people from different countries. It was described as hard to coordinate all individuals involved, to make sure they understood the project, what data needed to be collected, and to understand the appropriate research and design behind it. Other individuals spoke about issues in organising meetings with the appropriate organisations and health committees. It was often mentioned that these groups only meet up once a month to discuss a range of projects, so that it was challenging to keep the project progressing.

> *"I think it's very dependent on who our collaborators are and what their position is, and what their understanding of research is. I think a key factor for us was the collaboration relationship with the people in the countries that were responsible for the data collection. So, yeah, that's a facilitator and a hindrance at the same time."*

Country barriers

Other common hindrances mentioned involved the distance between the countries and the differences between them. Working on this project meant that collaborators were doing this work on top of their usual work, which sometimes meant that the project progressed more slowly. Other country barriers included language barriers and translating work.

> *"There were language barriers some of the times, not all the times, but also it's really difficult to coordinate translations in all these kinds of languages, and it's very hard to find specialists here to do that."*

3.4   CASE 4: NEGOTIATION SKILLS CAPACITY BUILDING

This case consists of a series of activities aimed at building capacity in negotiation skills in several African countries. To investigate this case, we relied on four interviews, one interview with the IM4DC program director involved in the organisation and supervision of the activities. We also interviewed an UWA academic staff member that led the implementation of the program and two people who participated in different activities of the program.

3.4.1 GENERAL OVERVIEW OF THE CASE

Negotiation skills capacity building brings together several activities implemented over a number of years and directed towards capacity building in international negotiation in developing countries. These activities started with a scoping mission that was supported by AusAID and conducted by two academics from UWA and The University of Sydney in Mozambique. Following this mission a series of recommendations for capacity building were made (Code of Conduct for negotiation trainers and providers, Negotiation Coordinating Team, Preparation Framework and Best Practice Workshops). As a result, a negotiation session was organised during the IM4DC Conference that facilitated a meeting between the academic involved in the scoping mission and people in key positions in developing countries that worked in negotiation and were interested in building capacities in this area. This led to a round table discussion that was organised in Cameroon and brought together various stake holders (universities, training institutions, people involved in negotiations) to identify main challenges and needs. These participants formed the African Resources Negotiation Network (ARNN) bringing together different people from various African countries. They decided to develop a negotiation handbook that provides guidance to officials on how to negotiate mining contracts with mining companies. This book has since been developed and published and is currently in the process of being translated into French. The group also started to work on a training manual associated with the handbook that could be used by developing countries to build their capacity around negotiations. From here, the activities expanded, with members of the ARNN also being involved in a mediation accreditation course and courses being expanded to other countries such as Fiji, Indonesia and the Philippines. Another round table to discuss the ways in which the training manual and the future of the ARNN can be moved forward was also organised. Most recently, in March 2015 IM4DC supported a "train the trainer" course in Ethiopia. This course was a three day training workshop aimed at enabling participant countries to develop capacity and sustain development activities in negotiation and mediation by independently using the tools and knowledge developed within this series of activities. In this course and workshop, selected participants from the previous round tables were trained as future trainers in negotiation with the aim that in the future they will continue training people involved in negotiations in their country.

3.4.2 TRACES OF OUTCOMES AND IMPACT

For this case, we identified outputs, intermediate outcomes as well as outcomes and potential high level outcomes.

Outputs	Intermediate Outcomes	Outcomes	Hoped for/Potential High Level Outcomes
• Negotiation handbook & educational tools • Open dialogue between stakeholders • Changes in knowledge, skills and mindsets	• Identifying and empowering new leaders • Establishing networks and organisational linkages	• Implementing the course in various formats • Implementing an interaction model	• Negotiate better contracts that will result in better outcomes and shared benefit for the stakeholders involved

Figure 8. Overview of the impact traces of Negotiation skills capacity building

3.4.2.1   Outputs

Throughout the interviews conducted for this case, a series of themes that emerged could be classified as outcomes according to the IM4DC theory of change framework.

New, tailored informational and educational tools

One of the outputs that were mentioned frequently for this case revolved around the joint development of a handbook and training manual. The handbook was conceived as a highly accessible guide to negotiating mining contracts that could be used widely by people involved in negotiations. The training manual aims to assist local training programs around negotiation and mediation. The Handbook, outlining negotiation strategies had already been launched and was very positively received. It is now being translated into French in order to increase its accessibility in African countries.

It was also apparent that new sessions, new topics and even new countries and participants grew out of the initial interactions and activities around this subject.

> "…we actually produced that and launched that in September and that's a great little handbook. That's just a really cool little, you know, nice light read on what you need to look out for in negotiating mining contracts…"

The IM4DC personnel involved in this case mentioned specific outputs resulting from the activities. The Handbook of Negotiation that was written was evaluated as a very practical output and is very visible and high in demand. Although no data is available to document the impact of its use in actual negotiations, the fact that people are demanding it is a sign of its utility. Another mentioned outcome was a change of focus during the course of the actions taken. A shift occurred from working towards achieving specific goals in negotiation to a more global aim of capacity building. This change in focus helped to deliver a more tailored intervention that better addressed developmental needs. Finally the IM4DC representative also mentioned the fact that the different activities succeeded to bring together people with different skills and areas of expertise in an open dialogue and collaboration to improve capacity in negotiation.

Open dialogue between diverse stakeholders

Another theme that repeatedly appeared throughout the interviews reflected on the activities themselves as a facilitating open dialogue between a very diverse set of stakeholders. As is outlined in the next section, this approach served as a new model of interaction and involvement for participants, who are now successfully using it in their actual activities.

> *"In May last year we got the ARNN people back again and we put them through the week long Mediation Accreditation Course and also some others from Fiji and Indonesia and the Philippines."*

> *"…Universities, training institutions and people, you know negotiators – we got this cross section of people there and we basically just talked about what the need was."*

> *"…so at least the conversation is happening around what negotiation support actually looks like. It's not your expert coming in and doing it for you"*

Changes in knowledge, skills and mind-sets

Finally, although not frequently mentioned, direct learning outcomes were also indicated. The alumni we interviewed mentioned changes in their own knowledge and skills levels. The academic collaborator reflected on broader changes in the participants' mindsets about negotiation overall, about interaction with institutions that provide assistance, and the overall pedagogy and interactions involved in a training environment.

> *"See we're changing – it's the changing of that. If you change the way you teach you change the way people think so that's what we've been aiming for. Change the way of the pedagogy and the workshop and then that changes the whole outlook that you have because if you get people in a room and you straight away are saying, "Well, we're not the experts here. This is peer learning this whole room"*

> *"I think most of the expectations were met, I learnt several things about negotiation and mediation and (conflict) resolution issues in general."*

> *"I think to start with, [it helped us] in [showing] how to structure the curriculum, the course that we are supposed to run, the training (…) helped. Setting the objectives for each module, or each aspect of the course that we were supposed to run."*

3.4.2.2   Intermediate outcomes

Intermediate outcomes were mentioned most frequently in relation to this case.

Empowering identified future leaders

One of the most evident themes that emerged from the interviews reflected on the process of identifying emergent leaders, or those people that are capable of taking the activities further and have the potential to generate larger outcomes. The mentioned qualities of such emergent leaders related to them having influential position, but even more so to their internal drive and passion to progress.

> *"Out of that what became quite clear is you can really see the leaders, the people that were really going to continue this and had the fire in their belly…"*

> *"I mean I know it's slow but I think that we've found the champions. We've found the people who are enthusiastic and we still need to go with that and hopefully it will grow. …"*

> *"So I think like he's a champion for it and I can't see him stopping so you know, I suppose it's like anything isn't it, it's the leaders …"*

Our analysis also identified that the identification of leaders was not limited to the beneficiary countries themselves. The activities also stimulated a process of identifying leaders within the Australian provider institutions. Leaders in the developing countries need to be supported by effective leaders in Australia who are capable to move their institutions forward, addressing the problems and interest of the developing countries effectively, and can promote activities in these areas. Likewise effective leaders in Australia need to be capable to bring in new resources and generate a heightened interest in developmental problems so that institutional arrangements are formed and function beyond IM4DC's funding of specific activities.

> *"So it's just finding the right people although I think we've done quite well. You know you do quite well I think if you find one. We've got four so I think it will be up to them …"*

> *"Well I think XX [name removed to preserve anonymity] at DFAT has been instrumental in that. He actually built negotiation and mediation skills into all the Australia Africa Awards that were just recently – they're the short courses – a lot of short courses that are funded by DFAT and he made sure that those skills were in all the training courses for agriculture, for public policy and for mining so XX [name removed to preserve anonymity] is a great advocate for it.…"*

Although not directly specified, it was clear from the interviews that at least one of the IM4DC participants emerged as leader, who drove many of the activities and outcomes of the program. It was also identified that these activities actually succeeded to connect different Aid activities in different countries so that synergies were created. Moreover, other linkages were also developed and new funds were attracted in developing this initiative further.

New networks and organisational linkages established

Another topic that emerged from our interviews revolved around the setting up of new networks and agreements for collaboration. At the outset of the project, a new network was formed as a result of the initial activities described here – the African Resources Negotiation Network. There is however also clear evidence that the network-building process has been expanding and other institutions have been involved.

> *"…involved with the Columbia CCSI – Columbia Centre for Sustainable Investment. It used to be the Vale Columbia Centre which is (…) and they've sort of got this negotiation support thing running at the same time and they're getting funded by (…) so they get a lot of funding and she's running this support. They've got a portal up which has all the different tools for negotiation support including [the] handbook now […] Now the Negotiation Preparation Framework, that's been taken up by CCSI."*

Further, more formal agreements between UWA and The University of Ghana have been mentioned. These agreements appear to be now expanding beyond the initial activities supported by IM4DC and more institutional linkages are likely to be formed in the future.

> *"The UWA Law School and University of Ghana partnership which was really being pushed by XX [name removed to preserve anonymity] at IM4DC and myself so that was sort of a thing that we thought would be good so that's been happening."*

> *"Other staff are going to the University of Ghana finally so some will be there while I'm there."*

These additional partnerships were described as relevant mechanisms that might generate further effects of the activities in the future as parties involved are willing to extend the partnership even though the financial support for the specific activities has seized.

> *"I don't know! I think I'll continue to work with the University of Ghana. I think I'll continue to work with XX [name removed to preserve anonymity] in Cameroon and I could possibly continue to work with XX [name removed to preserve anonymity] in Malawi."*

Finally, the models of networking and collaboration that were put into place through the activities have been adopted by alumni. One of the interviewees reported that they were "able to build a core network of experts who have been interacting" in their own country.

3.4.2.3 Outcomes

The interviews conducted for this case highlighted some clear outcomes. These outcomes were also backed up indirectly by the other key informants. All outcomes can be summed up under the "Local implementation" theme. This is explained by the shift in focus that the UWA implementer has mentioned, with capacity building being the main aim of the activities. For example, active partnerships led to many of the aspects of the training being integrated in new courses for professionals and postgraduates in Ghana.

Updated courses implemented

Different types of courses have been developed based on the initial activities. These courses range from short courses targeted at professionals (these are already underway), to short courses and a Master Program that has been prepared (both currently in the process of being accredited and planned to be rolled out next year).

Regarding the course that targets professionals, the accounts of our interviewee reflect a very active course, with a large cohort already going through the course. This course has already been implemented.

> *"Yes it is being implemented. We developed a curriculum which is using the (…) model in Ghana. So we started running that training, we've run two sessions so far and the third session will run next month, that is this coming March. And actually the curriculum incorporated aspects of the negotiation module that we've been on in Australia. But (…) curriculum is a broad [one], focusing more on mining law and policy in development. But incorporated in that curriculum is the negotiation matter. […] Well, the truth is… I… we intend on running it for long as we're able to run it but so far the sessions that we held, the very first session I think we had about 25 or so, I don't know the exact number, but anyway above 20 participants. The second session, a similar number. The third session that we are supposed to run in March, this coming Monday, we have about 36 people having expressed interest but so far there's few who have confirmed, about sixteen. But we're expecting that target to be before the timeline (deadline). So all in we have 've (trained) about seventy something participants in the course of… by the end of next week.*

The individuals we interviewed mentioned that similarly tailored courses had also been developed in other countries.

"I think the Fijians have gone on to do some of their own training in that I saw from the IM4DC website"

Besides these locally developed courses, there are concrete plans for two other types of programs: one focused on mediation strategies and the content of negotiations, as well as a Master level program.

Let's see… we have the mining project, we have the company, the mining company, we have the …, we have the opinion leaders, the community members, and other stakeholders. So what we've tried to do is to train people from all those (groups) of different and diverse interests which all share similar aspirations of development… and ()… and all that. So we have lawyers, from the mining industry or working in that area, we have corporate executives, we have government sector people from (…) [indiscernible] and we have NGO participants."

"So we've plans of, on a very short time period, more likely in April, running a program here in Ghana where we will focus more on the negotiation and mediation aspect mainly. That will be similar to the broad one that will be running on mining policy where mediation and negotiation aspects are incorporated in it. But here it will be that right from the beginning, focus mainly on mediation and negotiation and that will target professionals and [indiscernible] [00:16:49]. And it will be a short course, likely a founding course or a short course, focused mainly on that".

"But the expectation is that there will be a, the main expectation is that we will eventually run a Master's program, that incorporates aspects of the mining law and policy and also the negotiation and mediation that we did. So we are yet to roll out that Master's program. So the Master's program will be for graduates, postgraduate..."

Implementation of an interaction model

Beyond the immediate effect of implementing actual knowledge and models into curricula, the model of interaction developed by the IM4DC activities has also been implemented. This model of interaction allows for very different stakeholders to come together and discuss issues in an open environment.

In the interviewee's account, this learning outcome had been equally important, or even more important than the technical learnings about curriculum development. Going forward this individual is purposefully working towards embedding the model of interaction in the new programs. In fact, the implementation of this model of interaction was evaluated to have the biggest potential for generating transformational change

concerning the ways in which contracts are negotiated and to improve the outcomes of the negotiations.

I think it was very helpful, we actually we left Australia from this curriculum building program with the full curriculum, right from Australia, straight to Ghana… but then bearing in mind the Ghanaian context, the Ghanaian knowledge dynamics. In some we felt at liberty, (…) it helped, it really did, even this, the (…) even the core people that were also trained because it was in the brainstorming session that we realised that there are different people, there are varied interests, but then it is a, there was a common goal, that was the sustainable developed economy or society. So… and mining community was not going to thrive well if they don't have the resources well developed, the same thing with the companies, they are going to have less work and less profit if they are always engaged in conflict with the community and does not understand it. So we realised that the interests are very different, but then, the goal, the objectives they are the same. So practically it was the kind of stakeholders that we need to bring on board for those trainings that we are developing. So the training in Australia was very useful in training us those things and also in developing the curriculum itself.

3.4.2.4   High level outcomes

As with the other cases, no high level outcomes have been clearly mentioned or documented in the interviews associated with this case. However, several indicators of positive transformations suggesting potential future high level outcomes were identified. Some of the mentioned issues related to the new model of dialogue and interaction that has been implemented, which has the potential to drastically change current practices around negotiations leading towards better results.

"Bring on board a very broad spectrum involving key stakeholders, people from the environmental protection agency, the minerals commission and several entities in Ghana and also key mining companies that are operating in Ghana […] and the community people as well. So all these people have really been there and one key thing that was observed, especially in the very first session, it started with some sort of tension, among the participants, because here you are having people that more or less have divided interests… and they starting with picking a very intrinsic issue, speaking very passionately about his community and the degradation that the mining companies are … But then, as the course progressed, and as we were talking, they tend to appreciate the interest that you see, the common interest (…). At the beginning all they think about it's the various interests and the rest. Eventually as we can see from the evaluation comments, they say it's very useful, they have come to appreciate the common interest and also the need for them to work together."

Finally, it is overall hoped that the people who have been trained in the IM4DC activities will be able to implement the learnings and further assist parties to negotiate better contracts that will result in better outcomes and shared benefit for the stakeholders involved.

"As a leader in this, he has the fire in his belly to help other African Governments or any other country to develop really good mining contracts..."

3.4.3 FACILITATORS AND HINDRANCES

Overall there were not many facilitators and hindrances mentioned by the interviewees, and most of the ones mentioned below have been identified indirectly from their responses to interview questions that were targeted at other aspects.

3.4.3.1 Facilitators

Some of the facilitators mentioned concerned the calibre of the people who participate in the activities. For any outcome to be achieved, the right people need to be carefully selected to be not only highly skilled, but also influential and intrinsically motivated to initiate change.

A second facilitator that was mentioned in the interviews was related to integrating the national context and perspective throughout all the phases of the project. It was mentioned that the initial activities were based on a collaborative approach of diagnosing educational needs together, but also how products of the activities such as the handbook and the new curricula and programs have been adapted to the specific context.

Finally, having a broader financial, logistical and political support framework through IM4DC was also mentioned as a facilitator to push things further.

> *"It's like sort of a paradigm, a mind shift from the trainings so people have recognised their need. Governments have recognised they need it and I suppose what we're doing is putting another model in place."*

3.4.3.2 Hindrances

Some of the hindrances that were mentioned were just the reverse of the facilitators – for example not having the appropriate people involved in the activities. This is seen as making transfer into actual positive outcomes more difficult.

An interesting barrier that was mentioned by one of our interviewees was the rigidity of the university environment that might be slow in taking up and supporting activities such as the one described here. This issue was described in terms of supporting the academics' involvement in the activities. It should however be noted that in this specific case support is actually slowly developing.

Another aspect that had been mentioned several times in the interviews is the lack of certainty about future funding that might affect follow up activities and continuous support. But in this case it was encouraging to see that the individuals involved in the activities are committed to maintaining a certain level of collaboration in the future.

3.5   CASE 5: COMMUNITY CONSULTATION AND ENVIRONMENTAL IMPACT STUDY DIALOGUE PROCESS WORKSHOPS IN PERU

This case concerns two consecutive two day workshops that were focused on dialogue processes in the mining sector and their role in conflict management and prevention of environmental impact of mining activities through Environmental Impact Study (EIS) assessments and approval processes. To investigate this case's impact on developing countries, we interviewed three individuals. One was an IM4DC staff member who coordinated the activity, the other had been in charge of the program and one was a participant. Two other individuals were recommended to be interviewed, however due to lack of time, lack of response and language barriers these interviews were not carried out. Therefore the results presented here need to be interpreted with caution as they don't reflect the full range of different perspectives involved in this case. Efforts are to include other participants' perspectives are on-going and an updated version of this report will be provided should these efforts prove successful.

3.5.1 GENERAL OVERVIEW OF THE CASE

This case was initiated by an earlier IM4DC Action Research grant. Further to this, a need for these workshops was expressed by Peruvian people who had an interest in these topics. An interest from IM4DC in engaging in a knowledge exchange was also a key contributing factor to this project being realised. A series of workshops which ran over four days were designed and looked into the role of dialogue in regulatory processes and how it is connected to conflict in regulatory processes.

There was a rigorous recruitment process for the participants of the courses. IM4DC used their networks and collaborations to select people who are experienced in the field and came from a range of countries. There was a need for people from different areas with completely different perspectives on this issue, as a variety of topics needed to be considered. The topics were determined prior to the workshops, through collaborations with a range of associations and individuals.

The first workshop entitled "Open dialogue on mining and sustainable development in the mining sector: building on the Latin American experience" focused on the experiences from multiple Peruvian and Latin American dialogues initiatives in the mining sector. The second workshop on "Political and Institutional Aspects of Environmental Impact Study Approval Processes in the Mining Sector: Conflict management and prevention" dealt with ways to enhance conflict management and prevention during EIS assessments and approval processes. Participants at both workshops were invited to reflect and share ideas based on concrete Latin American experiences and these workshops built on the results of previous CSRM research. The two workshops attracted 51 and 54 participants respectively, with some participants attending both workshops. Participants were largely from Peru and also from Chile, Argentina, Colombia, Brazil, Panama, Dominican Republic, Ecuador and Guatemala. Civil society organisations, dialogue spaces on mining and sustainable development, academia, government and industry were represented.

Participation was by invitation through a process that was managed in conjunction with local stakeholders.

The overall aim of these workshops was to engage local partners, presenters and countries in mining issues. It involved Peruvian partners, most notably a dialogue group on mining and sustainability that connects industry, academics and communities to talk about mining and community issues, which is a conflict-related issue in Peru.

3.5.2 TRACES OF OUTCOMES AND IMPACT

The interview conducted in relation to this case indicated outputs, intermediate outcomes and outcomes as having resulted from the actions taken. High level outcomes were not identified, however some hoped for/potential high level outcomes were mentioned.

Outputs	Intermediate Outcomes	Outcomes	Hoped for/Potential High Level Outcomes
• Increase knowledge and discussion • Increased engagement	• Development of networks and future collaborations	• Publications in Americas Quarterly • Further interest from stakeholders	• Wider impact for the country, with continous projects *(not realised yet)*

Figure 9. Overview of the impact traces of Community consultation and environmental impact study process workshops in Peru

3.5.2.1   Outputs

Increase in knowledge and discussion

The feedback from the participants indicated that the workshops added to the body of knowledge and shared understanding on dialogue and stakeholder engagement. The variety of individuals involved and the different types of knowledge and background they provided to many of the discussions contributed to this output of the activities. Another IM4DC staff member commented on the ways in which the workshops had resulted in wider discussions and debates amongst participants.

> *"Actually, a consequence of the workshop was not necessarily intended but happened was because we were bringing people from different countries to come to Peru, then they were able to have another meeting there in Peru that wasn't programmed and then we developed a relationship with XXX [organisation, removed for confidentiality].*

Increase in engagement

One IM4DC member commented that the involvement of different government agencies was not always easy. However this case/project stimulated exchange across government agencies. Individuals from various backgrounds and countries had come together to discuss various topics. Because of the collaboration with Mining and Sustainable Development, IM4DC was able to draw from their large network.

3.5.2.2 Intermediate outcomes

Development of networks and future collaborations

Both IM4DC staff members mentioned relationship and network development with the participants in the workshops. The variety of people involved in the workshops stimulated further collaborations, relationships and projects with various individuals.

> *"And then, you know, you always get from these people – then you get requests so I've had requests for collaboration from XXX [organisation, removed for confidentiality] in Peru and recently from the XXX [organisation, removed for confidentiality], which is a regulatory agency there that looks after environmental impact and monitoring. They want me to help review or possibly write part of a new document that they're thinking about. This is just a very recent development. I don't know if they're going to be able to get the funding for that, but it kind of makes people interested in more collaboration with us."*

3.5.2.3 Outcomes

Publication in Americas Quarterly

Both individuals mentioned that the main outcome achieved was a publication in Americas Quarterly that resulted from this work. Another individual stated that more publications were in process at the moment.

> *"There have already been publications about the workshops, one in the Americas Quarterly and we also translated that into Spanish so it's due for publication and I think there is another one. There are a couple coming up which are the memoirs of the workshops and as a result of this work."*

> *"I was invited by the National Office of Dialogue and Sustainability of Peru to give a keynote in this event that had like 400 people from all over Peru and Latin America about dialogue and the outcomes of this. So the outcomes have been shared very widely and internationally through the Americas Quarterly and through events. And then of course from that relationships develop and ideas for projects also develop."*

> *"The results of the workshops, because we were so fortunate to be able to – it was not an intended publication, the article in the Americas Quarterly, but the opportunity presented itself."*

Stimulated further interest from organisations

As a result of the workshops, an IM4DC member was invited to talk about the work at a high profile event organised by government agencies in Peru. Another IM4DC member mentioned additional interest from other organisations.

3.5.2.4 High level outcomes

Similar to the other cases, this case was unable to reach high level of outcomes. However, some traces of impact that could potentially lead to high level outcomes in the future were present. For example, the workshops utilised a wide network of interested parties, via pre-existing networks of the university partners. This left IM4DC in a good position for a continuous conversation with the Peruvian government, for similar projects in the future.

> *"Sharing them in the Office of Dialogue and Sustainability, that was never intent, that outcome, and it was not immediate; it was about a year after, but it just came from the relationships that developed…. The same article has been shared, you know, for example, here in Columbia amongst company people. I know the Government of Uruguay have also looked at it. Because it was published in such a popular platform I think a lot of people have actually seen that."*

Other individuals spoke of hoped for impact, that similar programs and workshops will be repeated and followed up in the future. Others stated that continuing to provide a meeting place between various stakeholders and strengthening these collaborations may result in long term impact. Going forward, more opportunities to continue these sorts of projects and to produce more publications, around these topics can be pursued.

"And long term I see an opportunity to continue that line of enquiry and turn it into more publications. I think this topic is really important. Usually people look at conflict and dialogue, okay, or they look at a regulatory processes as a technical thing, but it is very, very rare that people look at dialogue at the same time with regulatory processes and conflict transformation and the technical part of environmental impact assessment. And they are all very difficult to separate so I think long term that's an important research interest for me, to continue, I know, that part of the enquiry."

3.5.3 FACILITATORS AND HINDRANCES

3.5.3.1 Facilitators

Use of networks and pre-existing relationships with NGOs'

Both IM4DC staff mentioned that the use of local partners and pre-existing relationships helped to facilitate this workshop. Furthermore the networks were very supportive, and helped with the organisation of the workshop.

"The thing was meant to be like a 30-people workshop and then there was so much interest. It was meant to be much smaller but then a lot of people were interested in coming and IM4DC was welcoming of that; you know, they said, "Okay, we will have these more people". It was also very helpful that other organisations we were linked to, to provide support, for example, Care Peru, they let us meet at their facilities for the planning sessions. We had planning sessions at their offices."

"Well, the relationships are ongoing because there was already a very strong network. The dialogue group for Mining and Sustainable Development – the 500 people, they had a strong network, they meet regularly, so they already had a network that met. What we did was to draw on that network of very experienced, very senior people and bring them to deal with some specific topics that we knew that that they weren't necessarily being looked at from the particular perspective we looked at."

International Reputation of IM4DC

The reputation behind IM4DC in developing countries helped this case to become a success, as IM4DC acts as neutral organisations between various stakeholders. This is very important as individuals can be suspicious of other organisations. This reputation behind IM4DC also allows voices to be heard and dialogue to generate policy proposals.

3.5.3.2   Hindrances

Involving different agencies

It was a challenge to involve different agencies, as different agencies and people from different countries tend to operate in their own space and in different ways.

> *"Involving different agencies was an issue – people tend to operate in their own space and this is a potential barrier to impact. Getting people's time and attention. Going forward there are some issues related to changes in the organisations of funding for aid programs in Peru."*

Organisational logistics

Some difficulty in organising the workshops and making sure that the project progressed in a successful way were indicated. The administration side of the project was difficult in terms of coordination as an IM4DC staff member did not have an appropriate office, or staff to help with such tasks.

> *"And in terms of things that were difficult, I think it was difficult that, say, I didn't have an office in Peru or support from my own institution. I had to draw on people who had all these things and there were difficulties in identifying the video provider and that wasn't a great provider. The main difficulty was kind of organising the logistics of it because our institution is so far away and it's just complicated because, say, my collaborators in Peru spoke Spanish but our institution is not a Spanish-speaking institution so we are just dealing with all the administration of providers, of suppliers, across the language barrier, that was a huge challenge for me."*

3.6 CASE 6: CAPACITY BUILDING AROUND MINE SAFETY AND GOVERNANCE IN INDONESIA

This project involved the Education and Training Agency of the Indonesian Ministry of Energy and Mineral Resources and delivered training for mines inspectors. To investigate this case's impact we interviewed one IM4DC staff member at the case-identification stage, and subsequently interviewed three individuals connected with this program in Indonesia. This included one participant of a mines inspector training, one participant of a 'Governance Masterclass' around mining issues and a collaborator (in country) who has been involved in the further development of the mines' inspector training program, including the development of the course into an online based educational program. We should note down the fact that for this case, there wasn't a main Australian academic project leader or deliverer, so all the three interviewees were participants/collaborators activating in Indonesia. These individuals were thus involved in the activities surrounding this case from different angles and the nature of their involvement also illustrates the multi-faceted angles of the engagement.

3.6.1 GENERAL OVERVIEW OF THE CASE

The aim of this activity was to help the Ministry to build the capacity of their mines inspectors, who work on behalf of the regulator, inspecting mines to make sure they are safe and operate under the agreed license to operate. At the time when the program was agreed, Indonesia had 10,000 registered mining cites and only 48 fully qualified mining inspectors. Thus a need to train more inspectors was identified by the Indonesian government in order to provide sufficient supervision of the mining activities. This demand-driven need for training was indicated by the IM4DC staff member that the researchers spoke to in relation to this case as a critical success factor. The IM4DC staff member identified this issue as having crucially generated a very clear need for action that is relevant for aid work to address the partners' needs. Further, at the time of the program development the responsibility for inspections was devolved to regional/ province governments. These regional government branches often do not have the resources and sufficient personnel that are sufficiently qualified to work as mines inspectors. So IM4DC helped with the development of the training curriculum and training the trainers in Indonesia. Since the program has started, the training has been delivered to the targeted 1000 mines inspectors (target set by Indonesian government). However, issues emerged concerning the quality of the training itself and the level of competencies gained through the process. So the Indonesian collaborators have since revised the training based on competency needs that were identified. This revision has resulted in an online training resource that gives a general introduction to mining to the trainees, and which will be rolled out soon. Additionally, a course on resource conservation is currently also in development in Indonesia as a follow-on to this project.

The IM4DC staff member we spoke to identified this case as a success on the basis of not only the initial collaboration, but particularly from the strong partnership and relationship that they had developed with the training agency, and with the department of mining and

the industry, as well as the director of minerals and coal. Other outcomes identified as making this case a success were the trust that has been developed and the spill-over effects that have occurred for developing other mining related policies and for community engagement in mining. Also, following the initial aims to train a certain amount of people, the focus has been shifted from the target to train a certain number of people to focus on quality outcomes, such as well supervised mining operations in the interest of the state through competent mining inspectors who do not operate as police officers but as mentors and auditors. This was evaluated by the IM4DC staff member as ensuring that the Indonesian mines do not only generate profits for companies but benefit the state, the environment, the communities, and the people who work there.

3.6.2 TRACES OF OUTCOMES AND IMPACT

The IM4DC staff member that was interviewed for this case stated that they do not expect clear traces of impact to be evident at this stage. The interviewees mostly described intermediate outcomes of this project.

Outputs	Intermediate Outcomes	Outcomes	Hoped for/Potential High Level Outcomes
• 1000 mines inspectors trained	• Exchange across countries and network building • Development of an online discussion platform • Program of participants as change agents in the workplace •E-learning tool	• Better legislation • Changes to the regulations of community issues	• Reduction in incidents *(not yet realised)* •Female empowerment

Figure 10. Overview of the impact traces of Capacity building around mine safety and governance in Indonesia

3.6.2.1   Outputs

Not many outputs were explicitly described by the individuals we spoke to in relation this case. But during the interview with the IM4DC staff member it was highlighted that an initial output of 1000 mines inspectors trained was achieved early in the program.

3.6.2.2   Intermediate outcomes

Exchange across countries and networks built

An intermediate outcome described by the individuals that we interviewed is the extent to which this program has supported them in developing professional networks. This can be classified as building alliances amongst alumni and other networks, thus fitting in the development section of intermediate outcomes. Particularly, one feature of these networks mentioned by the participants was the fact that it was multinational and enabled them to take on perspectives from other countries. Consequently, they learned from other countries' expertise and experience. Participants also mentioned the benefits of attending an Alumni day. Some example quotes highlight this new perspective offered to participants through the training program as an outcome of this case.

> *"It was the Governance Master Class- It was really good because we were mapping the problems that we are facing in each of our countries to map what is the problem. I think what IM4DC wants to focus is to find the problems by mapping it and by learning from other Governments"*

> *"We are sharing a lot because maybe some of us are lawyers so we are learning from each other e.g. Health and Safety regulations, is there any Environment regulation or are there any Mine Inspectors, how is that regulation going to affect the business, how that regulation can minimise the corruption in that particular country so it very much exposed the corruption and health and safety*."

The IM4DC staff interviewed described improvements in the interactions between different parties involved at different levels, particularly achieved through the identification of key change agents who do not operate at the frontline, yet are influential in generating change, for example in increasing community engagement. These individuals were not primarily involved in the course development but have nonetheless developed into crucial partners, so a broader level of engagement has been achieved in this way. The same interviewee also mentioned steps towards expansion of networks to include major decision makers.

Participants and inspectors stay connected through the discussion platform included in the e-learning

A potential intermediate outcome described by one interviewee was the suitability of the online-platform attached to the online learning course as a forum for mines inspectors to engage with each other and to stay up to date with current developments and knowledge. Because mines inspectors are scattered around Indonesia and often work on their own, they are not easily connected to their communities of practice. The online-platform attached to the e-learning course was described as giving an opportunity for participants

to stay connected and to continually be educated throughout their careers as mines inspectors.

> "I think this group now realise that this visit is very global and we are connecting one into another and that we are going to strengthen our regulations in order to have a good mining business in our country."

> "So it's actually easier for people or Alumni to interact with one another so it should increase their quality of their work in some ways because previously when the owners go back to their regions sometimes they just lost contact and when they have a problem they don't really have the framework or they don't have a facility to interact with one another but sometimes in many cases they were allocated into a different region so they were trained as Mine Inspectors but they were working on another job so we're hoping by engaging these people online we could keep them on track."

One particular outcome highlighted by the IM4DC staff we interviewed concerned changes in the way the Indonesian partners defined the target of the program, namely from moving beyond the aim of training a certain number of mines inspectors (i.e. 1000) to aiming to train them well.

Exchange of ideas with other inspectors who had not participated in the training

Another intermediate outcome identified describes the participants of the IM4DC action as change agents in the workplace. The contacts we spoke to described that participants stimulate other inspectors, who had not participated, to change how they conduct their inspections. Related to this issue they also emphasise that they share the knowledge they have gained from attending the training with other local inspectors in Indonesia, who had not participated. Thus the training may have affected more inspectors than the ones who participated in the course directly.

> "Actually maybe it's just sharing it with other Mining Inspectors that did not join in with the training. So we kind of encourage them to see how other people do inspections – other mining inspections and we also share any knowledge about how the Australian Government established the system but until now I'm not producing any system."

E-learning training developed

The next intermediate outcome identified from the interviews reflects sustaining effort to build a knowledge base and develop advice for policy and decision makers, as it concerns the development of an e-learning tool. These follow-on activities resulted from the initial mines inspector training by IM4DC. The e-learning approach was described as new to Indonesia, and as having the benefit of enabling the department to train more mines inspectors, more cost-effectively. Moreover, the move to online training was also described as suitable for other courses in the future, allowing further reductions in costs.

"The Mine Inspector training program development -Indonesia generally has a Mine Inspector training program but it runs for like almost three months and it costs us a lot of budget. So we want to create a different approach for this training so we are trying to make a difference by making a part of the training to be put online and some of the practical training is to be held onsite so it will reduce the duration of the training significantly."

"This training will be made annual so it will reduce our expenses for the training significantly as well annually and the second one is we want to improve the quality of the substance of the training program."

"This distance learning platform that we've been developing with IM4DC could be applied for another course as well."

3.6.2.3 Outcomes

Better legislation generated

The most immediate outcome that should be expected from a course that trains mines inspectors on regulations and good governance is improved regulations and changes to the ways in which these are enforced. In fact, the people we spoke to mentioned that the course has given them better knowledge about regulation and described the ways in which the course has helped them to think about regulation differently and improve the regulation itself. These changes in thinking about regulation differently particularly concerned aspects linked to communities and environmental issues attached to mining.

"Yeah, for me that course really helped me for my work, helped me to draft better regulation especially in the social thing because when we compared one country to another country at that time, at that course I think Indonesia is quite advanced in health and safety, environment Mine Inspectors but not in social – we are still lacking in regulation."

"I want to make the regulation more accountable and more effective and implementable because if you make a regulation that cannot be implemented because of one or two things it's not going to push anything. So when you make a regulation you have to do your research and no we don't have it here and by doing some courses like what IM4DC offers, it's going to enrich my knowledge, improve my knowledge of how other countries are making their regulations, how other countries have pushed this regulation without having to sacrifice environment without having to sacrifice their community so that kind of regulation is going to have full support from the community and from the company so I think we have to change the way of thinking."

Additional changes related to developing regulation that addresses community issues

One participant described the issues attached to relocating communities for mining activities and how this can be conducted in a community friendly way, by taking social issues into account. Related to this issue the participant described the relevance of transparency in such processes. It was also mentioned that further educational involvement was sought to learn more about the procedures and processes that are in place in Australia. The education involvement and support from the University of

Queensland was described as being planned to be developed into new regulation that can be put forward to the relevant Minister.

> "They think that this sector is going to damage the entire relocating some communities to another place but it's not supposed to be happening if we have a good system in the social sector so for me it's really helpful in a social – how to empower the community? How to create this transparency and accountability? We really need to focus on that one and I think it continues until today. I will have another project with the University of Queensland because we want to draft the Minister of Regulation about this community environment and how CSR are going to be integrated or not integrated or it's still in the research program that we are going to that way so we are now researching about the CSR. We want to put our research to the Minister of Regulation and hopefully it's going to be enacted this year so for me that's really helpful."

3.6.2.4   High level outcomes

Two high level outcomes could be identified from the descriptions of this case. One was described as not yet realised and concerned a reduction in incidents and better environmental protection. The second high level outcome, concerning female empowerment, was indicated as acting locally at this point. It has however the potential to have a wider effect on the Indonesian society in the future.

Reduction in health and safety incidents and increase in environmental protection

One potential and hoped-for high level outcome was described by one of the individuals we interviewed. This concerned the effect of the training and related activities on health and safety outcomes as well as environmental consequences related to mining activities. This impact is anticipated by the person who mentioned it, indicating that this has not yet occurred.

> "It will also reduce the health and safety incidents significantly and also lower the pollution occurrence costs by mining activities and environmental damage by mining activities by increasing the surveillance and the monitors by the Mine Inspectors."

Female empowerment and consequential progression into more senior position

One potential impact of the training process was identified from the interviews. Notably this is not a wider societal impact, however it hints at one potential change that continued engagement in these types of trainings could generate.

Specifically in this case, a female participant identified the training as not only having helped her to recognise the extent to which females are under-represented in her profession in Indonesia, but also to challenge herself to be more confident in her job function as a woman following the program. Most tangibly her participation has resulted in her seeking a promotion to a more senior role. This example of social impact on the female role in the mines inspectors' profession, while in the individual case a powerful

example, might however be anecdotal (i.e. it might not be a systematic and wider trend generated by the program) and needs to be evaluated as such at this instance. The following quote section illustrates this issue.

> "Well because I was just – IM4DC they are supporting to have more Mining Inspectors that can join with their program. I do agree that they also encouraged us to send our Mining Inspectors, not just only males but also for females so I think it is a very good support because maybe the ratio for male and female here for Mining Inspectors is maybe 1:4 or 5 so one female Mining Inspector and three male mining inspectors. When I was joining the training I was the only female that joined the training so it also gave me a new perspective that I need to increase myself as well to join or to be in the male world. Some people say that it is only for males but I don't think so. It encouraged me to dare to speak out what is in my mind so I am not as afraid as before I was joining the training. It helped me to encourage myself. I became more confident that maybe I am the youngest one but also I am female but it just made me more confident to know more about the mining business."

3.6.3   FACILITATORS AND HINDRANCES

3.6.3.1   Facilitators

Facilitators mentioned by the program participants and collaborators concerned the didactics of the education program, particularly its function as a setting in which participants could develop networks and exchange experiences with other participants. IM4DC was also described as having had a catalytic role in relation to the e-learning implementation of the course. Also, the consultant provided by IM4DC was seen as having made a valuable contribution to the program. Notably, the respondents did not reflect on wider societal or legislative facilitators.

> "IM4DC was a catalyst to this process. I think if we didn't have the cooperation with IM4DC this distance learning thing will only become a topic of discussion for years and years later but it's happening now."

> "I think how they present the program itself. They usually have a presenter to talk about the theory and then we have a group discussion to talk about our own practice in our own country about that practical matter and then we have a presentation so each of the group has to present what are the problems and then we have a discussion so the method is really effective so we can hear from one to another and we present ourselves so it is quite effective."

> "We are especially really thankful for the Consultant that IM4DC has chosen to help us develop this project."

The IM4DC personnel we spoke to about this case identified that one of the initiative's strengths and its facilitator was the fact that the project addressed an existing demand. Also, the IM4DC personnel identified the fact that this project had been a co-funded by the project partners, in this case the Indonesian government, as a facilitating factor. This collaboration at the funding level resulted in the developing country and its participants to become partners in the process rather than clients. The IM4DC personnel also

evaluated the longer term involvement of the different partners also having facilitated the process.

Another factor mentioned by the IM4DC personnel related to the Indonesian ministry of mining's training facilities an infrastructure, so that facilities and trainers were available for the program. Finally, the university involved was seen as having helped as a reputation of evidence based organisation that stands behind the program.

3.6.3.2 Hindrances

Hindrances described by participants and collaborators concerned the extent to which the levels of experience and qualifications of Australian and Indonesian mines inspectors overlap. However it is not clear how the interviewee views this issue as hindering program outcomes and impacts.

> *"To become a Mining Inspector in Australia you should be at least a Manager in mining companies so in Indonesia we did not do that. We don't do that here until now. We don't do that. Okay, so we recruit the fresh graduate to become a candidate for a Mining Inspector so it is a different way because we are less experienced than the Mining Inspector in Australia so we learn a lot about that because to become a Mining Inspector in Australia they have huge experience that we don't have maybe here."*

Another issues raised by a collaborator we interviewed concerned whether e-learning is a well-enough established method of learning, as distance learning was described as not that common in Indonesia.

> *"Actually there are some worries here because most Indonesians are not really accustomed with this distance learning so there is always a chance that it will fail."*

Finally, a participant we interviewed identified changes in legislation due to political change as a potential issue that may affect the work of mines inspectors generally, as well as the ways in which they will be educated in the future.

> *"...consistency of the Government because when the Presidents change and the mining policy also changes."*

Hindrances mentioned by the IM4DC personnel concerned the tendency of competent people in the team having a very high workload. Related to this issue may be the shortage of people described by the interviewees. They reflected on the capacity limitations of the experts in the areas, as they evaluated the knowledge as being available in Australia however the availability of people is limited. They also described that it had been necessary to engage in a continuous process of identifying mutual priorities throughout the project. Finally, cross cultural issues were also identified as hindering some of the project's impact, however only to a limited extent.

4 Summary Evaluation of Social Impact

Figure 11 summarises the core outputs, intermediate outcomes, outcomes and high level outcomes that have been identified for all six cases included in this impact study. We were able to identify clear outputs intermediate outcomes and sometimes clear outcomes that went beyond immediate outputs in all the cases that we analysed. Most high level outcomes that had been identified were still not fully realised or not realised at all. In these cases, the potential high level outcomes were anticipated by the individuals we spoke to, which suggests that there are early indicators that point towards a trajectory of the impact being realised in the form of high level outcomes in the longer run.

Our analysis suggests the following:

- Outputs were traced for all of the cases. Themes within these outputs include awareness raising, education outputs in terms of knowledge, skills and abilities, including the tools through which these outputs can be reached, as well as increased engagement as a consequence of the activities.
- Intermediate outcomes were identified most frequently for the cases and this is likely a reflection of the time frame in which the analysis has been conducted in relation to the activities. Network building was a theme in the intermediate outcomes that applied to all cases for which this level of impact was identified (note that for Case 2 we could not identify intermediate outcomes).
- We identified outcomes for all cases, however a number of these were not fully realised or there was insufficient evidence to suggest they had been realised. The outcomes were actually quite varied across the cases, however often involved broadening the scope of the actions and in some cases agreements and actions from governments.
- High level outcomes were not yet identifiable for the six cases. Again this is likely to be a reflection of the relatively brief gap between the actions taken by IM4DC and this impact assessment. There were however pointers towards potential high level outcomes in three of the cases, particularly related to reduced accidents and incidents, country wide initiatives, and female empowerment.
- Key facilitators that were mentioned in the interviews concerned the involvement of local experts and key players, co-funding by project partners, the reputation of the Australian universities and the mining sector, as well as the building of relationships.
- Recurring hindrances concerned the initiatives' transfer to workplaces, cultural barriers and uncertainty of future funding. These factors should be considered in the future as they might be really important for understanding how longer-term outcomes can be achieved.

Case	Outputs	Intermediate outcomes	Outcomes	High level outcomes (potential)
Case 1: Mines inspector courses in Zambia	• Inspectors conduct their work differently • Root cause analysis of accidents • Inspectors think differently about their training needs	• Alumni network and other professional networks • Improved university engagement with industry • Better legislation implementation	• Changing mine workers' mindsets	• Reduced accidents
Case 2: Addressing gender based violence (GBV) in Mongolia	• Increased awareness and engagements related to GBV	• Not identifiable	• Agreement between mining companies & the government • Investment in family friendly infrastructure • Wider interest in the issue • Follow-on projects	• Country wide projects related to GBV
Case 3: Benchmarking for safety	• Increased knowledge • Improved measurement of safety	• Network development • Collaboration with global partners	• Institutional partnerships • Good working relationships of individuals	• Improved safety practices
Case 4: Negotiation Skills African Countries	• Negotiation handbook and other educational tools • Open dialogues between stakeholders • Changes in knowledge, skills and mindsets	• Identifying and empowering future leaders • Establishing networks and organisational linkages	• Implementing the course in various formats • Implementing an interaction model	• Negotiate better contracts that will result in better outcomes and shared benefit for the stakeholders involved
Case 5: Community consultation in Peru	• Increased knowledge and discussion • Increased engagement	• Network development and future collaborations	• Publications in Americas Quarterly • Further interest from stakeholders	• Wider impact for the country, with continuous projects
Case 6: Governance in Indonesia	• Trained mines inspectors	• Network building • Ongoing development of an online discussion platform • Program participants as change agents in the workplace • E-learning tool development	• Better legislation • Changes to the regulation of community issues	• Reduction in incidents • Female empowerment

Figure 11. Outputs, intermediate outcomes, outcomes and high level outcomes across all six cases

In summary, promising contributions to long-term and higher-level impact could be identified for the cases. However, it needs to be recognised that there are multiple causal factors operating and some of the IM4DC individual activities tend to be 'niche' or at most 'institutional' in scope.

Expanding on the previous point, we need to highlight that the IM4DC Theory of Change Framework reflects the theory of change for the overall IM4DC program. Here, we have analysed and traced back specific activities or interventions that might operate with a similar theory of change model, but in terms of operational strategy they are typically much more focused and less complex. As we have already highlighted, when the operational strategy is more focused (Figure 2) existing literature recommends that evaluations of impact should not go all the way to higher level outcomes (or long term goals) and should instead focus mainly on outputs and outcomes. This might explain why high level outcomes were not identified in our interviews. At the same time, the complexity of the IM4DC operational strategy results from putting together and coordinating many interventions like the ones presented here. Given that individual interventions seem to give rise to the intermediary mechanisms expected for the overall program, we have reasons to believe that these are good signs for the overall program being on track to achieve the higher level outcomes. It is likely that such higher level outcomes have simply not emerged yet due to the short time passed since the conclusion of the activities. The extent to which outputs and intermediate outcomes transform into high level outcomes should be inspected in the future.

One last point should also be made about high level outcomes. As we pointed out in the introduction, these outcomes can be very general and the program may not be capable of achieving them in its own right. In these cases indicators of high level outcomes should be determined that relate to aspects of the outcomes that can be attributed to the initiatives. We feel that this applies to the higher level outcomes specified by IM4DC. Existing theory suggests that a vision of change can sometimes go beyond the outcomes that an overall program is capable to achieve solely based on its activities. Many other (causal) factors need to converge in order for this aim to be achieved. In these cases an accountability ceiling should be established under this goal and the long term impacts to indicate that the organisation delivering the program cannot be fully accountable for the higher level goal (Taplin & Clark, 2012). The ways in which the IM4DC team has formulated their long term goal, suggest it to be closer to an ultimate goal or vision for which other multiple causal factors need to come into play. Therefore, it is not clear where the accountability ceiling of IM4DC is situated and what the specific long term outcomes that IM4DC can achieve directly are. A more specific inclusion of the accountability ceilings, as well as specification of alternative causal factors that intervene at different levels would better support the evaluation process.

5   THEMES FOR MAXIMISING OUTCOMES AND IMPACT

In this section we identify and reflect on some of the key themes that we see emerging as common across the cases that we analysed. These themes may have already been identified and discussed within the cases. The main aim is to integrate similarities across the cases in order to better understand the factors that might facilitate outcomes and higher level outcomes from the type of activities that IM4DC is supporting.

5.1   EMERGENT ORGANIC PROCESS

The fluent and adaptive nature of the six cases is possibly their most important feature. The adaptive nature of the cases is reflected in different processes that we will unpack here.

5.1.1 FLUID STRUCTURE

The emergent character of the activities related to the cases resides first in the fact that the structure of the activities is with very few exceptions not fixed to one well defined activity. Most of the cases include a series of activities that are linked with each-other and that flow naturally from one another as a result of the identification of new opportunities to take the work further. We can identify a pattern in that the cases are usually initiated with starting activity that has more or less the role of identifying actual needs, identifying possible collaborators and agents of change. This activity is then followed by other activities in the same area that are intended to further support the addressing of needs and to build capacity towards more elaborated outcomes. In doing so, the focus in each case appears fluent and as an evolving matter.

5.1.2 OPENNESS TO OPPORTUNITIES

Second, identification of achievable outcomes and the recognition of opportunities to generate such outcomes also emerged as a pattern across all cases. All activities presented here had some initial well defined outputs, but the intermediate outcomes and outcomes, were achieved as part of an emergent process of identifying opportunities, identifying change agents, pushing for things to happen, for new activities and linkages and also tolerating ambiguity concerning the results that these activities are going to lead to.

5.1.3 FLEXIBLE APPROACH

The cases also reflected that the activities were flexible enough so that initial foci could be changed if they had proven to be unreasonable or impracticable. The recognition of the intended approaches' weakness then often led to a refocus on more attainable aspects that were associated with better actual opportunities in the collaboration itself. The extent to which a strategy would be more suited often depended on participants involved, their strengths and the environment. This issue is linked to another common theme that appeared throughout the cases, namely the identification, support and empowerment of

key leaders amongst the participants. In doing so self-sustained, local activities and outcomes beyond the IM4DC supported activity itself were realised. Through this approach, networks and partnership were formed with leaders/key agents that can sustain what the IM4DC initiatives had stimulated. Those network/partnerships are likely to be critically in paths to high level outcomes and in supporting local expertise and growth. This identification of key individuals seems to be one of the core processes through which the activities are like to succeed in delivering further outcomes in the future.

Given the complexity of the environment in which the IM4DC program operates, we believe that these elements of emergence and flexibility play a crucial role. We highlighted in our introduction that in order for larger impact to be achieved, the complexity of the intervention needs to match the complexity of the environment or the problem that is being addressed. By allowing for emergence and flexibility, the IM4DC activities can grow in complexity and at the same time address and build on actual opportunities, hence maximising chances of further outcomes.

5.2   GROUNDED IN IDENTIFIED LOCAL NEEDS

We identified a component of development needs analysis in all the six cases. In some cases this form of analysis involved a formal activity, in others a more informal approach was taken based on previous direct experience with the specific context. Moreover, initial activities focused on understanding actual development needs and were usually conducted in a collaborative, participative model in which future participants in the activities were actively involved. The activities that followed seemed to have been shaped by this process of need identification as much as by available resources and knowledge that could be generated through the IM4DC network.

We believe that such deeper understanding of the actual context and needs ensured that the content of the activities addressed relevant issues and was more readily transferrable. The engagement is also likely to have generated a sense of ownership of the activities in participant's thereby motivating them to push for implementing the learnings generated through the activities.

5.3   ACTIVE PRESENCE AND PERSONALISED COLLABORATION THAT EXTENDS BEYOND THE ACTIVITY

Most of the cases that we analysed had a very strong personal involvement from the university providers or coordinators as well also from key IM4DC staff. Concerning the academic providers, it became very clear that their involvement was not restricted to the activities themselves. In some cases their involvement preceded the activities (they had already been actively involved in related activities), it also manifested itself actively throughout the different stages of the activity and is expected to continue to a certain degree even after the activities were finalised or the funding for the activities stops.

Further, this involvement is backed by support and involvement at a more generic and strategic level through IM4DC staff members. IM4DC staff members were often mentioned as key supporters, usually pushing for further development of the activity or for integration of different resources that were available to support a case.

5.4   SIMULTANEOUSLY INVOLVING REPRESENTATIVES OF THE DIFFERENT KEY STAKEHOLDERS

All of the cases described activities in which representatives from different stakeholders were able to come together, interact and work together. Some of the interviewees stressed the idea that this engagement is a necessary process for different people to be able to practice some perspective taking and reflect on their common overarching goal. Doing so was described as critical in order to move beyond each individual's specific interests that might appear incompatible at first towards a mutual goal. This idea was also found to be one of the key principals that were acquired by participants beyond the actual knowledge content.

5.5   DELIVERING BEYOND SPECIFIC OUTPUTS

In all the cases that we have analysed here, we identified consequences that went beyond specific outputs of the program. This is a very encouraging sign as most of the activities that made up the cases are typically not large scale, huge investment projects. They usually consist of specific small action research grants, a series of workshops or short courses or training/train the trainer the trainer courses or a combination of these.

Also, taken together, the themes that emerged from the interviews could be easily analysed within the overall theory of change framework that has been proposed for the overall IM4DC program. However, looking at these cases can bring some insights into how well this framework reflects what has occurred within the specific activities of the program. It was clear to us in analysing the specific cases that the emergent themes reflected some core mechanisms highlighted in the framework. However, not all mechanisms were found to be active or functioning in the same way in all cases. For example, one case might rely more on creating networks and spaces for open dialogue, while another might focus more on identifying and empowering emergent leaders.

5.6   NOT THE STANDARD IM4DC COURSE PROGRAM

When we asked participants for their thoughts about the reasons why IM4DC selected this particular case as an example of a success story, participants identified that each case was special. Interestingly and somehow unexpectedly, none of these case studies are actually depicting a more standard course-based program. For example, none of the flagship courses that make up a significant part of the IM4DC activities is represented in these cases. There are training components to the cases, but they are usually more targeted, within a country, or short and successive training activities, as opposed to the more 'standard' one month-long residential course within Australia.

However, this should not be interpreted to indicate that the flagship courses are not delivering outcomes. In fact, if we look into how these cases came to happen, the initiation of some of them was related to a larger IM4DC activity such as a flagship course in Australia or an IM4DC conference. Thus the flagship activities were often critical starting points or initiators for these special cases. More targeted, emergent and fluid activities like the ones described in these cases might be the mechanisms by which larger programs that are more difficult to tailor and follow up are carrying on their effects into outcomes beyond simple outputs.

6 CONCLUSIONS AND RECOMMENDATIONS

In summary, our investigation of the impact generated by six IM4DC activities showed that the themes identified in these cases cover outputs and intermediate outcomes as well as some actual outcomes, as defined in the theory of change. We are confident that these are promising signs that the activities actually complement each other within the overall program and build towards higher level outcomes in the future. It is likely that such higher level outcomes have simply not emerged *yet* so that the extent to which outputs and intermediate outcomes transform into high level outcomes should be inspected in the future.

For most of the cases some preliminary indicators of potential high level outcomes were mentioned by the individuals we spoke to. We were able to identify clear intermediate outcomes and sometimes clear outcomes that went beyond immediate output in all the cases we analysed. The fact that high level outcomes were mentioned suggest that the individuals involved in the activities were aware of such higher level, overarching aims as driving the activities. This suggests that a connection between the steps towards higher level outcomes (i.e. outputs, intermediate outcomes, outcomes) and the overall social impact that can be achieved through these activities have been recognised.

However, the lack of clear indication of higher level outcomes is likely to be a reflection of the complexity of social change. Social change does not only take time, it can also manifest itself in various ways, making it hard to track. Moreover, it needs to be considered to what extent other factors that are external to IM4DC interact with their actions and may be weakening their impact. Thus it needs to be considered that it may be difficult to directly link changes with interventions.

Notably, the analysis conducted indicates that IM4DC's change framework can be applied to the outcomes and outputs that their work generates. As such the work presented in this report functions as an indirect validation of the framework. We did not struggle to allocate the changes described in the interviews into the different components of the model, which speaks to it being suitable to capture changes resulting from the IM4DC initiatives.

Our analysis also highlighted facilitators and barriers that have affected the impact of the IM4DC activities. We note that such factors are not considered in the IM4DC change framework. We propose that IM4DC's activities' impact can be enhanced in the future by explicitly considering such factors at the project development stage and throughout project implementations. This proactive approach can support the organisation in effectively managing barriers and take these into account to ensure maximum impact of its actions. In the same way, consideration of facilitators can enhance the impact of activities and there is a potential benefit in specifically identifying such factors and actively using them to the organisation's advantage.

7 REFERENCES AND FURTHER READING

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8 APPENDIX: INTERVIEW SCHEDULES

Identification of examples success cases – Interviews with IM4DC personnel

Introduction

We are conducting interviews to understand the changes that take place in the wider environment as a consequence of the program activities of IM4DC. At this stage, I am looking to gain insights into a case that you identify as a success story and some of the factors that make you classify it as such. So I am interested in understanding your views on a specific case that you identify as an example of a successful impact of the program. I would like to consult you and tap into your expertise and want to learn from you today, since you have high level insights into the case that you consider a success.

As a psychologist I am bound to confidentiality and I can assure you that your individual data will be de-identified and kept confidential at the UWA. However, de-identified quotes that cannot be traced back to you might be used in reports. If you don't want to answer some of the questions, please feel free to say so.

I would like to tape this interview, however, only with your permission. All data will be kept confidential and the tape will be wiped once we have transcribed the data. Do I have your permission to tape the interview?

Also, with your permission, I would like to use a transcription service to transcribe the interviews. The transcription service will also be bound to confidentiality. Would you permit me to do so?

Do you have any questions before we start?

Questions

1. *Can you describe the case you are putting forward as a success story of the IM4DC program?*
   - What was the project about?
   - Who were the participants involved?
   - Who were the individuals that made it a success?
   - What makes you evaluate this case as a success story?
2. *What were global changes you observed?*
   - Where there changes in the wider environment (e.g. societal, environmental, and legislative) that the people involved in the program initiated?
   - What were consequences that went beyond the immediate impact of the program?
   - Were there changes that did not immediately results from the program, but were a follow-on effect?
   - What were long-term effects of the changes initiated by the initial program?
   - What were changes that went beyond the participant and his or her immediate environment?

3. ***What were contextual factors that supported these changes to happen?***
   - What made it easy for the changes to take place?
   - What made it difficult?
   - In your view, why did these changes take effect?
   - Why do you think this project had such wider effects, while others didn't?

4. ***What was the role of IM4DC in bringing about these wider changes?***
   - How did IM4DC support this process?
   - What resources from IM4DC were relevant in bringing about these wider changes?
   - What were the relevant things that the participants learned through IM4DC that supported them in initiating the change?

Finish

These are all the questions I have prepared for our conversation - Thank you very much, for your participation. Do you have any questions about the interview? Any feedback?

Please feel free to contact me via e-mail, if you have any other questions or would like more information regarding the project.

Identification of impact – Interviews with UWA and UQ personnel, as well as program participants

The IM4DC has proposed 6 success stories to be analysed and traced back in order to better understand the impact of their programs. The project you were involved in, …., is among these 6 success stories. We have already spoken with the IM4DC representatives that supported the selection of this case and have gathered some initial insights regarding the project and their reasons for selecting it.

But in order for us to better understand the activities associated with the project and their (potential) impact)we need to have more details around the program and also need help in identifying key informants that we could further interview. You were identified as the most appropriate person to talk to obtain this information for this specific activity/project.

The information you provide will be de-identified so that it cannot be traced back to you. Can I confirm whether you are happy for me to tape the interview?

First of all, I would like to explore the activities/project itself with you.

1. Can you briefly describe the projects you were involved in and the activities it comprised?
    a. How did the project come about?
    b. What were the initial goals of the project? What impact were you hoping for?
    c. What were the intended outcomes at the beginning of the project?
    d. In your view, how was the project/activity supposed to achieve these outcomes (process/theory of change)?
2. In your view, what activities of the project were most effective in reaching these outcomes?
    a. Who were the main participants involved?
    b. What were the main activities that took place?
    c. Maybe probe for which levels were the activities targeted (individual, organisational, community)
3. What were the observed outcomes of the project/activities?
    a. What were the immediate outcomes of the project/activities?
    b. What were changes that went beyond the immediate impact of the program?
    c. What actions/further changes did this project initiate?
    d. What were the factors that facilitated/contributed to these further consequences?
    e. What were the factors that prevented further impact?
    f. In your view, why/how did the changes/impact take effect?
4. What do you expect to be the long term impact of the project/activity?
    a. What indicators for ongoing effects of the project/activity do you have?
    b. Were there unexpected developments/consequences as a result of the project/activities?

      c. Why do you think this project/activities has been selected by IM4DC as a success story?

      d. Why do you think this project/activity had wider impact/outcomes compared to other IM4DC projects?

5. What was the role of IM4DC in bringing about this wider impact?

      a. How did IM4DC support this project/activities?

      b. What resources/ activities from IM4DC were relevant in bringing about this wider impact?

      c. What resources/ activities other than IM4DC were relevant in bringing about this wider impact?