

# IM4DC Highlights

## 2011-2014



### International Mining for Development Centre

FUNDED BY



Australian Government  
Department of Foreign Affairs and Trade



IMPLEMENTING PARTNERS



THE UNIVERSITY  
OF QUEENSLAND  
AUSTRALIA



THE UNIVERSITY OF  
WESTERN AUSTRALIA

## Glossary of terms

AAPF	Australia Africa Partnerships Facility
ALL	Accelerated Learning Laboratory
AMDC	African Minerals Development Centre
AMEC	Association of Mining and Exploration Companies
ARRN	African Resources Negotiation Network
AusIMM	Australian Institute of Mining and Metallurgy
BGR	Bundesanstalt für Geowissenschaften und Rohstoffe (German Federal Institute for Geosciences and Natural Resources)
CCIWA	Chamber of Commerce and Industry, Western Australia
CMEWA	Chamber of Minerals and Energy, Western Australia
CMLR	Centre for Mined Land Rehabilitation
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CSRM	Centre for Social Responsibility in Mining
CWIMI	Centre for Water in the Mining Industry
DFAT	Department of Foreign Affairs and Trade, Australia
GASI	General Agency for Specialised Inspection, Mongolia
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Agency for International Cooperation)
IDEP	The Academic Institute for Economic Development and Planning
MISHC	Minerals Industry Safety and Health Centre
MOU	Memorandum of Understanding
NGO	Non-Government Organisation
OHS	Occupational Health and Safety
SIMTARS	Safety in Mines Testing and Research Station, Queensland
SMI	Sustainable Minerals Institute
UNZA	University of Zambia
UQ	The University of Queensland
UWA	The University of Western Australia

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The University of Western Australia (UWA) and The University of Queensland (UQ), as founding partners in the International Mining for Development Centre, acknowledge the leadership and funding support from the Australian Government for the Centre, now in its fourth year of operation.

The UWA-UQ partnership behind the International Mining for Development Centre brings together world-leading minerals and energy expertise, knowledge and technical and research capability from two of the most resource-intensive states of Australia.

This capability is advancing economic diversity and growth, is enhancing social development in resource-rich developing countries and is strengthening diplomatic and economic linkages. IM4DC has created mutually beneficial opportunities for cooperation, stability and shared prosperity.

As key Institutes within our universities, the Energy and Minerals Institute (EMI) and the Sustainable Minerals Institute (SMI), in partnership with the global resources sector, continue to advance Australia's preeminent position in minerals and energy education, research, technological capability and thought leadership.

**Professor Paul Johnson**, Vice-Chancellor, The University of Western Australia

**Professor Peter Høj**, Vice-Chancellor and President, The University of Queensland

# Message from the IM4DC Board



Professor  
Chris Moran



Mr Tim  
Shanahan

As members of IM4DC's Board of Management and Directors of the two key university institutes that contribute to the array of programs offered through the International Mining for Development Centre, we are pleased with the positive assessment of the IM4DC in the mid-term review commissioned by the Department of Foreign Affairs and Trade. The review found that IM4DC's activities through UWA, UQ and other universities were of high quality and value for money. The review also supported IM4DC's programs as prime examples of economic diplomacy in action, and aligned with the new strategic framework for the aid program that was launched in June 2014.

We acknowledge the excellent work of the IM4DC team and the contributing network of university, government and industry professionals.

**EMI and SMI are proud to note that IM4DC has to date delivered 89 short courses involving more than 2,300 developing country participants from government, civil society, universities and the resources sector. Working with Australian universities, IM4DC has also helped to build institutional capacity in several partner countries through collaborative research, course development, and fellowships for senior personnel. The IM4DC alumni network has been recognised as a globally unique forum for peer-to-peer capacity building in minerals and energy governance.**

The IM4DC is a responsive, successful model of university collaboration, government engagement and quality program delivery. UWA and UQ are committed to realising the full potential of IM4DC and the significant national benefit that it will deliver over and above its impact in developing nations around the world.

#### **Tim Shanahan**

Director, Energy and Minerals Institute  
The University of Western Australia

#### **Professor Chris Moran**

Director, Sustainable Minerals Institute  
The University of Queensland

**"Our analysis suggests that alumni have developed leadership capability, initiated innovative activities and changes, strengthened their networks, and can potentially contribute to the improvement of the social, economic and environmental status of their home countries."**

Evaluation of Impact Report 2014, Accelerated Learning Laboratory,  
The University of Western Australia



## Director's message

This report on IM4DC's activities and impacts documents the success of its capacity building efforts, in collaboration with numerous partner organisations.

After just three years of operation, IM4DC has been able to demonstrate strong and positive impacts from its activities. Research has shown strong evidence of improved capacity for governance of mining within partner organisations, and that as a result of IM4DC activities, participants have made changes within their home organisations to enhance governance processes.

IM4DC supports partner countries to host mining well, and to do well from mining. It also seeks to build knowledge, skill and institutional capacity for sound mining governance within resource-rich countries. Improved capacity enables countries to reform policies and

regulation, and improve oversight of all phases of the mining lifecycle.

By adopting leading practice approaches to mining governance and sustainability, nations are better able to attract responsible investment, achieve broad-based and equitable returns and enhance the interests of communities and the environment.

IM4DC is a prime example of Australia's economic diplomacy strategy in action. The principle underpinning economic diplomacy is that if partner country economies grow, Australia too benefits. IM4DC's activities work across all four pillars of economic diplomacy - liberalising trade, boosting economic growth, encouraging investment and developing business. In supporting the economic diplomacy strategy, IM4DC works closely with the

IM4DC is a joint venture between The University of Western Australia and The University of Queensland, and is an Australian aid-funded program.

With more than 100 years of experience and a world-leading reputation in mining and processing technologies, and sustainable mining practices, Australia is supporting developing countries to realise the value of their mineral and energy endowments to create stable and sustainable development outcomes for their nations and people.

Australian government and its international representatives around the world.

Activating strong and inclusive economic development through mining is a globally recognised strength of Australia, and developing countries actively seek to learn from Australian knowledge and experience.

IM4DC harnesses the intellectual capital existing in the Australian higher education and resources sectors to transfer knowledge about leading practices in policy and governance. The Centre collaborates closely with universities in Australia and elsewhere, which possess integrated capacity to train and collaborate with personnel from developing countries in all facets of mining sustainability and governance.

IM4DC has developed strong partnerships both in developing nations and in Australia with

government agencies, universities and training institutions, civil society organisations and business. We value these relationships, which have not only resulted in the ability to draw on a wealth of knowledge and experience, but also to have built strong linkages between Australian and developing country institutions.

IM4DC is proud to be at the forefront of global efforts to build sustainable mining sectors in resource-rich countries to enable them and their people to enjoy the economic benefits and social progress that strong resources sectors can activate.

### **Ian Satchwell**

Director, International Mining for Development Centre

# About IM4DC

IM4DC supports developing countries to transform their extractive resource endowments into inclusive and sustainable economic and social development. It achieves this by building capacity through education and training, fellowships, institutional partnerships, action research, and advice to governments.



## Capacity building program

The IM4DC program is supporting an environment for change, building momentum for change, and creating leadership for change in mining and development.

IM4DC delivers an integrated capacity building program of activities that builds knowledge, networks and the capability of its participants and their institutions.

IM4DC collaborates with Australian and international institutions and business organisations to deliver its program. It works closely with institutions in developing countries in particular. This collaborative approach harnesses the intellectual capital that exists in these institutions and across the minerals and energy sector.

IM4DC supports the Australian government's economic diplomacy strategy and aid for trade agenda by helping partner nations to establish and implement the policies, legislation, institutions and oversight that help to develop and sustain resources sectors to benefit these nations and their communities.

IM4DC activities build on Australia's globally-leading reputation for mining investment, knowledge, technology and governance. Benefits flow to both partner nations and Australia.

Core to IM4DC's role is building knowledge and skill to enable change through reform of regulation and improving oversight relating to all phases of exploration and mining, encouraging investment, delivering returns, and enhancing the interests of communities and the environment.

## Regional participation snapshot



	Africa	Asia-Pacific	Latin America
Countries participating	43	11	11
Participants	1,071	877	366

## IM4DC approach

### Respond to demand

IM4DC works with and draws on the collective expertise and experience of beneficiaries and partners who seek better development outcomes from their resources and energy endowments.

### Targeted engagement

IM4DC engages through:

- Making improved knowledge and information available for utilisation
- Engaging people in active dialogue for change and validating good practice
- Supporting development of credible responses to local contexts.

### Develop and empower

IM4DC develops leaders, coalitions and organisations, empowering them to enact, advocate for and sustain positive change.

### Influence and realise

IM4DC supports its alumni and partners to apply their influence to realise sustainable and inclusive economic growth and social development through transforming their resource and energy endowments.

## Integrated program

IM4DC's integrated program of activities leverages Australia's expertise across the mining development lifecycle. Its capacity building activities include:

- Education and training
- Information, research and analysis
- Networks and partnerships.

These are aligned to IM4DC's strategic program goals to achieve:

- Implementation of well designed national policy and regulatory frameworks
- Alignment of mining-related economic activity with broad development objectives
- Enhancement of governance capacity at local, sub-national and national levels
- Improved processes used by industry and government stakeholders to engage with local communities
- Enhanced capacity of stakeholders to understand and manage the environmental impacts of resources projects
- Implementation of sound regulatory and management approaches for occupational health and safety in the resources sector.

# Impact highlights

IM4DC has delivered a strong program of activities that support an environment for change in mining and development. Our ultimate success, however, is determined by the ability of our alumni to achieve change through leadership.

## Key impacts:

### Sub-national governance of the mining sector

Partnership with Indonesian Government develops advanced training and e-learning for mines inspectors from regional governments

2014 resource governance masterclass engages participants from 12 countries

Study tour supports Malawian Government to design and administer an improved mineral revenue system

Negotiation program strengthens capacity of African governments and civil society organisations to administer mining agreements

African participants examine interactions of agriculture and mining during study tour co-presented with AAPF

## Key impacts:

### Environmental management and regulation

Environmental management flagship course engages 12 countries in 2014

Zambia hosts IM4DC waste management course for African countries

Linkages support delivery of mine water management training to 145 participants in Peru

Sierra Leone builds knowledge in mine site rehabilitation

Study tour shares Australia's water expertise with Mongolian Government

Lao Government benefits from Australian environmental management study tours

Collaboration supports 80 Philippines participants to improve understanding of mining and management of its impacts

## Key impacts:

### Regional and local, social and economic development

Three regional development flagship courses delivered in Australia and Africa

Major research project commissioned on development indicators in resource regions

26 university leaders gain knowledge of Australian mining education through collaboration with AAPF and industry

Local suppliers and supply chain capacity in Ghana enhanced in collaboration with Sekondi-Takoradi Chamber of Commerce

IM4DC roundtable in the Philippines engages 63 academics and stakeholders to build university capacity

## Key impacts:

### Health and safety of workforces and communities

Global OHS leadership course engages participants from 16 countries

Zambia's mines inspectors strengthen investigation and risk management capacity

Action research addresses gender based violence in Mongolia

Mongolia's senior mines inspectors build knowledge and skills in OHS and geotechnics

The status of safety benchmarked in developing countries

Action research targets health impacts of mining on miners and families

Action research addresses governance and OHS issues for small-scale and artisanal mining

## Key impacts:

### Minerals policy, regulations and agreements

IM4DC action research generates first open-access, regional geo-database for west-Central Africa

IM4DC short courses build capability in geographic information systems in Africa

Workshops in Africa support effective mining tax design and administration

Fellowships program supports Ghana's mines inspectors and Malian geologists

Australian study tours inform governments of Indonesia, Mongolia and Myanmar in aspects of mining governance

IM4DC collaborations strengthen consultations with indigenous peoples in Latin America

## Key impacts:

### Community engagement and consultation

IM4DC delivers capacity building in negotiation, mediation and conflict resolution globally

Community development flagship course supports community relations in 12 countries

Action research investigates dialogue, conflict and mining in Latin America

Collaboration delivers community development workshop to 54 representatives from the Mozambique Government

Action research project for Indonesia investigates company-community conflict



# Delivery snapshot 2011-2014

16 fellowships  
hosted in Australia



6

publications and guides  
to Australian practice  
delivered knowledge and  
good practice



88

short courses, workshops and  
study tours delivered in Australia and  
developing countries providing skills  
and knowledge to build capacity



13,556

participant training days  
delivered to build capacity in  
mining and development



955

delegates attended five conference  
and alumni events, building  
networks and coalitions to drive the  
mining for development agenda



30%

female  
participation  
in the program



66

action research projects  
addressed priority country  
needs through analysis and  
tailored solutions



65

developing countries participated  
in the program actively engaged on  
mining for development issues



2,314

participants from  
Africa, Latin America  
and Asia-Pacific

\*This data is from 31 October 2011 to 31 December 2014.

# Operations

IM4DC's operations seek to maximise the beneficial impacts of its activities for alumni, partner institutions and participating countries, and to deliver value for money for funding partners.

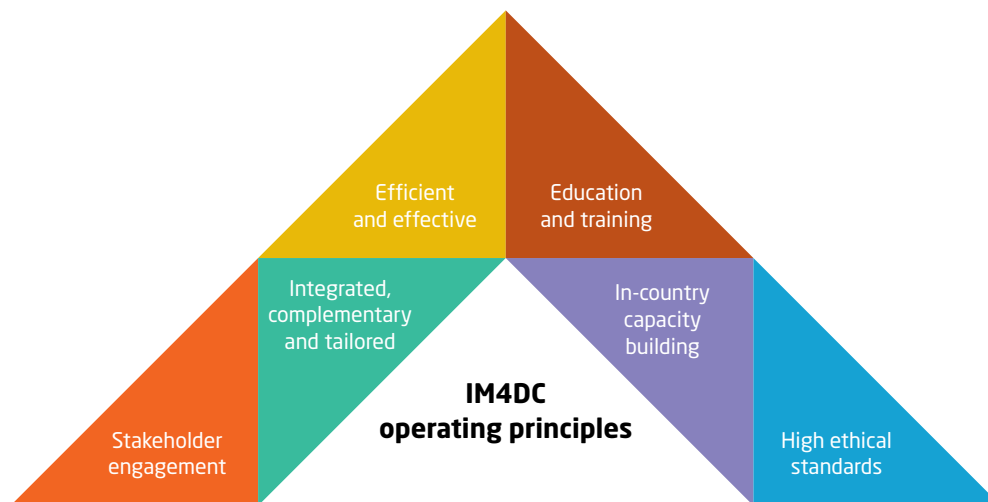
## Operating principles

### Stakeholder engagement

IM4DC works with Australian and international organisations on needs analysis and scoping studies for priority countries, consulting with stakeholders from government, civil society, universities and research institutions, and industry and donor organisations.

### Integrated, complementary and tailored

IM4DC's program integrates multiple activities that are agreed with national and regional governments in focus countries and tailored to meet their priority needs. IM4DC activities complement other energy, minerals and development activities.



### Efficient and effective

IM4DC seeks to deliver high quality capacity building activities that deliver value for money outcomes. It operates efficiently and effectively with accountability to partner institutions in developing countries, Australia's aid program, and UWA and UQ.

### Education and training focus

IM4DC activities focus on the core university strengths of knowledge formation, education and training and institutional partnerships to build human capacity and to strengthen institutions. IM4DC engages university and industry-based policy and technical capabilities to support development through research, fellowships and advice to government. It harnesses the knowledge and skills of Australian and international education and research institutions to access leading practice across all themes and activities.

### In-country capacity building

The IM4DC program enables ongoing strengthening of mining governance beyond the life of IM4DC, by transferring capability to in-country and in-region institutions through partnerships in research, joint development and delivery of courses, and fellowships for senior staff.

### High ethical standards

IM4DC applies high standards of ethics and probity to all of its activities and advocates similar standards in mining governance.

## Organisational structure

The University of Western Australia  
Energy and Minerals Institute

The University of Queensland  
Sustainable Minerals Institute

IM4DC Management Board

IM4DC Management

Director

Deputy Director  
Operations and Business Development

Deputy Director  
Education and Australian Capability

IM4DC Program and Administration Functions

Finance and data management  
Program management  
Alumni management  
Communications  
Administration

## Collaborative partnerships

**IM4DC is facilitating collaborative linkages between institutions in Australia and developing countries to strengthen their capacity to play key roles in energy, minerals and development. Co-development and delivery of courses with tertiary institutions and training institutions is a focus, as well as the strengthening of research capacity.**

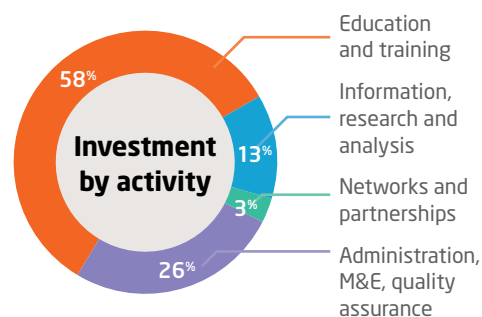
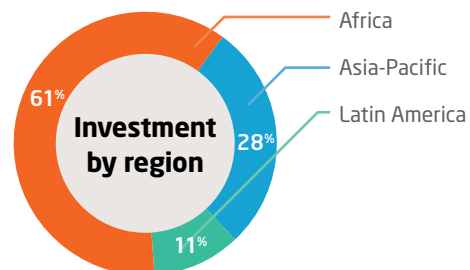
IM4DC's success is dependent on long-term partnerships, cooperative alliances and collaborations with governments, universities, and non-government and business organisations in Australia and overseas.

With 16 institutional partnerships, more than 1,400 active alumni across 65 developing countries, and support from companies in the mining and METS sectors, IM4DC continually develops and strengthens networks to enable knowledge sharing, ongoing communication and change leadership.

A full list of partners is provided on page 31.

## Investing in capacity building

IM4DC delivers a capacity building program to developing countries across Africa, Latin America and Asia-Pacific. The program represents an investment by the Australian Government in facilitating economic growth, poverty reduction and social development.



## Monitoring, evaluation and reporting

**IM4DC's monitoring and evaluation (M&E) framework seeks to identify and measure the impact of its activities. It links those activities to key steps in the process of alumni implementing changes in their home institutions, communities and countries.**

The M&E framework allows IM4DC to assess and continually improve its program performance and effectiveness, and to inform delivery partners of the impact of their investment.

Continual M&E has enabled IM4DC to respond quickly to the changing needs of participating countries and program participants. Two independent reviews have further assessed IM4DC's performance.

### Improving effectiveness

IM4DC has reviewed the results of its monitoring and evaluation and seeks to enhance its effectiveness by:

- Strengthening selection processes for participants
- Training participants in change management and leadership
- Providing support to alumni to implement change initiatives
- Supporting educators, researchers and institutions in other countries to build capacity
- Utilising participant knowledge and experiences to design, deliver and improve course material
- Strengthening the integrated approach to the program
- Building industry engagement in program design, delivery and participation
- Focusing on capacity building in management of gender issues.



"I want to keep investigating the relationship between indigenous peoples' rights and the extractive industry. In addition, I plan to investigate the implementation of the Consultation Law in Peru and its regulation."



"The work of IM4DC is valued by partner governments and key officials who have participated in education, training and research.

"Whilst it is still early days, the transfer of knowledge and skills has assisted participants from many countries to implement useful change in their return to work.

"The quality of Australian expertise provided through IM4DC has been high and Australia's reputation as a trusted partner in the mining field is well recognised.

"Australian support that will help improve governance and create a more stable environment for mining companies investing in developing countries is welcome."

**Mid-Term Review, Australian Department of Foreign Affairs and Trade, 2014**

A woman wearing a white hard hat and a high-visibility yellow and green safety vest is smiling and holding a large, irregular gold nugget. She is standing in front of a vast, deep open-pit mine under a blue sky with scattered white clouds. The mine's terraced levels and rocky walls are visible in the background. The image is partially overlaid by a dark orange diagonal shape on the left side.

# IM4DC impact

Maximising benefits from minerals  
and energy for developing nations

# Sub-national governance of the mining sector

Enhancing governance capacity at local and regional levels for multiple stakeholders in mining regions

## Global impact

### Global focus on resource governance

Improving understanding of the principles and concepts of governance in the resources sector was the aim of a four-week **Resource Governance Masterclass** delivered in July 2014. Twenty participants from 12 countries took part in the program, which included field trips and participation in the 2014 IM4DC Alumni Forum and AusIMM Life of Mine Conference.



The masterclass addressed the principles of policy and regulatory frameworks in key areas across the life cycle of mining operations, from exploration through to closure. It also addressed the role of various mining stakeholder groups.

Core topics included mining laws and licensing regimes, management of geological information, regulation of exploration, health and safety regulation, social impact management and community agreements, environmental regulation, and the role of local government.

> **PARTNERS:** UQ SMI-CSRM

> **PARTICIPATING COUNTRIES:** FIJI, GHANA, INDONESIA, KENYA, LIBERIA, MONGOLIA, NIGERIA, PAPUA NEW GUINEA, PERU, THE PHILIPPINES, ZAMBIA AND ZIMBABWE

**“My experience was very delightful and has changed my thoughts on extraction of resources. The positive impacts of extraction are clearer to me now than before. It was an eye-opener.”**



“To be an IM4DC alumnus is brilliant. I was a participant in the resource governance masterclass. The opportunity has effectively helped me to deliver better legal opinion to our stakeholders, as well as to negotiate mining contract amendments.”



“Governance leadership is the result of my participation in the IM4DC program. I have met with key environmental stakeholders to create a network of compliance and enforcement agencies with regulatory powers in Liberia’s mining sector. This group will create policies to enhance mining developments, and support each other for better governance.”





## Africa

### Study tour puts agriculture and mining in perspective

IM4DC hosted an **Agriculture and Mining Study Tour** in August 2013, in collaboration with the AAPF Mining Governance and Africa Down Under Study Tour.

The tour examined how agriculture and mining interact in the areas of water, land use, infrastructure, workforce, local economies and communities, and demonstrated leading practice in dry land agriculture and land rehabilitation. It also considered natural resource management, and water and land management in the context of mining and agriculture.

Thirteen participants from five African countries took part in the tour, which included field trips to Esperance and Ravensthorpe.

> **PARTNERS:** AAPF AND AGWEST

> **PARTICIPATING COUNTRIES:** BOTSWANA, LESOTHO, SIERRA LEONE, SOUTH AFRICA AND TANZANIA

**“I learned about the importance of government intervention and policies, especially in mining. The Ravensthorpe nickel mine was a classic case why mining has to involve government for local community development.”**

### Malawi’s ministries focus on managing revenue

Senior officials from the Malawian Ministries of Finance, Mines and the Mineral Revenue Authority participated in a **Managing Mineral Revenue Study Tour** held in April 2014 in Perth. Knowledge gained from the tour is supporting the Malawian Government to implement the Mining for Growth and Governance Support Project, with assistance from the World Bank.

The study tour aimed to strengthen understanding of the management of mining fiscal regimes, share best practice in mining tax administration, share effective strategies to encourage investment, and facilitate mining operations.

The program included visits to UWA and a number of Western Australian Government departments. Delegates also travelled to Canberra for discussions with Commonwealth Government agencies.

> **PARTNERS:** GOVERNMENT OF WESTERN AUSTRALIA, CMEWA AND THE AMEC

> **PARTICIPATING COUNTRY:** MALAWI

### Africa strengthens negotiation capacity

In collaboration with the Government of Cameroon, IM4DC hosted a **Negotiation Roundtable** in Yaounde, Cameroon, with 17 participants from six African countries. The purpose of the roundtable was to discuss and develop a negotiation handbook and training manual to help strengthen the capacity of African governments to negotiate extractive industry contracts.

**“This program is very useful in order to build the capacity of negotiation in Africa, which is the main weakness.”**

Delivered over two days in July 2013, the roundtable was the beginning of an ongoing collaboration between the Government of Cameroon with IM4DC and UWA.

A second **Negotiation Roundtable** was held in May 2014 in Perth with the African Resources Negotiation Network (ARNN) to finalise a negotiation handbook and negotiation training manual.

Participants discussed the merits of an international standard for resources negotiations, a code of conduct for negotiators and negotiation trainers, and planning for the development of the ARNN. Formation of the ARNN was an outcome of a scoping mission to Africa for DFAT to investigate key issues surrounding design and implementation of a negotiation program.

Many African countries have identified the need for capacity building in negotiating mining agreements and contracts. IM4DC has supported UWA to deliver a mining negotiation frameworks module at the African Institute for Economic Development and Planning (IDEP) short course on mineral policy and contract negotiations.

These activities are strongly linked to our other initiatives that support mining and development, such as mediation and conflict resolution capacity building.

> **PARTNERS:** GOVERNMENT OF CAMEROON, IDEP, AMDC AND DFAT

> **PARTICIPATING COUNTRIES:** CAMEROON, DEMOCRATIC REPUBLIC OF CONGO, GHANA, LIBERIA, MALAWI, MOZAMBIQUE AND ZIMBABWE

### Building skills in mediation and negotiation

The **Mediation in the Mining Industry Course**, presented in May 2014, introduced participants to the process and skills of mediation. The course provided an opportunity for its 17 African and Asia-Pacific participants to undertake formal assessment to achieve Australian national mediation accreditation status, enabling them to practice as a mediator. This course has links to a number of other IM4DC activities related to conflict resolution – an important aspect of mining.

Other outcomes of the six-day course were the strong linkages and collaborations established between the ARNN and IM4DC, and with the University of Ghana, National University of Colombia, the University of Yaounde in Cameroon, and government and training organisations.

> **PARTNERS:** UWA LAW FACULTY AND THE AUSTRALIAN NATIONAL UNIVERSITY

> **PARTICIPATING COUNTRIES:** CAMEROON, MOZAMBIQUE, MALAWI, LIBERIA, GHANA, FIJI, THE PHILIPPINES AND INDONESIA

**“I somehow mixed the roles of mediating and chairing meetings. Now I have learned the real role of a mediator and how to negotiate.”**



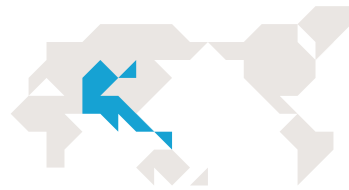


## Latin America

### Research focuses on global-local interface

An action research project was undertaken to increase understanding of governance dynamics that can limit or foster multi-stakeholder collaboration for sustainable human capital capacity building in mining regions in developing countries.

The resulting report, *The Global-Local Interface: Governance Dynamics for Sustainable Human Capital Capacity Building in Colombian Mining Regions*, also addressed mining development issues. The research focused on the apparent contradiction between skilled labour shortages in the minerals industry, and a lack of employment opportunities for the local population in two mining regions.



## Asia-Pacific

In Indonesia, IM4DC is in the third year of a partnership with the Education and Training Agency of the Ministry of Energy and Mineral Resources, Indonesia. The first phase, to support training for 1,000 new Indonesian mines inspectors, has transitioned to collaborative development of advanced level competencies and training curriculum, and e-learning modules for remote delivery of introductory courses.



### IM4DC builds capability for Indonesian Mines Inspectors

The Indonesian Government and IM4DC have collaborated since 2011 to improve the quality and effectiveness of the *Indonesian Mines Inspector Training Program*, and to build capacity in mines inspection and resources administration.

This activity is underpinned by an MOU with the Education and Training Agency within the Indonesian Government's Ministry of Energy and Mineral Resources.

**"In this forum I most liked the comparison between regulations in Australia and Indonesia. We could learn from our strengths and weaknesses."**

IM4DC held an *Introductory Seminar on OHS Management* in March 2012 for 40 new trainee mines inspectors from regional and local governments. This was followed by a ten-day *Indonesian Mines Inspector Training Course* in Brisbane in June 2012 for ten Senior mines inspectors from the Agency's Bandung Education and Training Centre for Minerals and Coal. The program included a competencies mapping exercise designed to further develop the program of ongoing support.

Subsequent seminars and curriculum development workshops were held in Bandung and Brisbane in 2013 and 2014. Training courses in specialised topics such as *Safe and Effective Blasting* and *Resource Conservation* have also been developed and delivered.

IM4DC is supporting the Agency in development and refinement of a modified and advanced level curriculum for mines inspector training across the full range of competencies. It is also supporting development of a remote learning system to provide introductory training in Indonesia's regions, and has established a website to allow IM4DC alumni to share information.



"In collaboration with IM4DC, the Indonesian Government has supported a comprehensive Mine Inspector Training Program for the past two years. Important milestones have been reached and significant improvements have been made. I am currently reviewing the program content and delivery methods. Implementing the new program will be a breakthrough in the Indonesian education community, as it will be one of the first vocational non-degree education courses run on a distance learning platform."



"Since attending the course in Brisbane, we now include mine waste management facilities in our annual safety mine audits."

# Environmental management and regulation

Enhancing capacity to understand and manage the environmental aspects of resource projects

## Global impact

Australia is a global leader in mines regulation, inspection practice and training. Australia's world-leading occupational health and safety performance in mining, and environmental outcomes, are influenced by progressive approaches to mining regulation and oversight.

### IM4DC focuses on mine and waste management

Since 2012, IM4DC has been delivering short courses on environmental management and regulation in mining to developing countries across Africa, Latin America and Asia-Pacific. A number of these have linked with international conferences, enhancing learning and interaction between practitioners.

The courses have included **Mine Closure** that addressed both environmental and social aspects of mine closure from policy and technical perspectives.

A **Life of Mine Management of Large Volume Waste Study Tour** to Australia and short courses in Ghana and Zambia were delivered to provide participants with an understanding of design, management and monitoring principles for large volume waste facilities associated with mining operations.

IM4DC's flagship course on **Environmental Management in Mining** was delivered in February 2014. The four-week program attracted 21 participants from 12 countries. It focused on environmental impact assessment processes, operational environmental management and monitoring, integration of land and water management, and mined land rehabilitation practices.

Following this course, several research, education and training linkages were established between UQ and universities and institutions from Peru, Nigeria, the Philippines, Uruguay, Liberia, Malawi and Ghana.

Industry contributions to these courses have been instrumental to delivering a well-rounded program and have included field trips, mine site visits and presentations from mining companies.

> **PARTNERS:** JK TECH PTY LTD, UQ SCHOOL OF GEOGRAPHY, PLANNING AND ENVIRONMENTAL MANAGEMENT, SMI-CMLR, UWA FACULTY OF ENGINEERING, COMPUTING AND MATHEMATICS, ALCOA, WA DEPARTMENT OF MINES AND PETROLEUM, AND AUSTRALIAN CENTRE FOR GEOMECHANICS

> **PARTICIPATING COUNTRIES:** GHANA, LIBERIA, MALAWI, NIGERIA, ZAMBIA, INDONESIA, FIJI, MONGOLIA, PAPUA NEW GUINEA, THE PHILIPPINES, PERU, URUGUAY AND TANZANIA

"The mine site visits to Alcoa were my favourite. They gave us the opportunity to see and experience directly in the field some of the topics addressed during the presentations."

### Building knowledge in water and mining

Achieving sound practice in mine water management was the key objective of the **Water in Mining Course** coordinated by IM4DC in 2013. The course also supported a survey of training and research needs related to water and mining, which involved 16 delegates from six countries.

The course resulted in linkages being established between UQ's Centre for Water in the Minerals Industry (CWIMI) and Pontificia Universidad Católica del Perú, to deliver training in mine water management.

> **PARTNERS:** JK TECH, UNIQUEST, UWA, QUEENSLAND DEPARTMENT OF NATURAL RESOURCES AND MINES, UQ SMI-CSRM AND CWIMI

> **PARTICIPATING COUNTRIES:** PERU, MONGOLIA, ZAMBIA, THE PHILIPPINES, INDONESIA AND GHANA

### Research studies water and mining issues

The 2012 IM4DC action research report, **Water Issues Associated with Mining in Developing Countries**, provided a structured analysis of mining-related water issues faced by governments and companies in eight developing countries.







## Africa

### Zambia hosts waste management course

Life of mine management of waste rock dumps and tailings storage facilities was the focus of the IM4DC **Management of Large Volume Waste Short Course** held in Zambia in 2012.

The aim of the program was to provide the 32 delegates with an understanding of design, management and monitoring principles for large volume waste facilities associated with mining operations, across the full life-cycle of a mine.

The five-day course included attendance at a University of Zambia mining seminar. Participants developed return to work plans that have indicated positive improvements to monitoring and mining degree curricular in their home countries.

> **PARTNERS:** UWA SCHOOL OF ENGINEERING, UNZA AND COPPERBELT UNIVERSITY

> **PARTICIPATING COUNTRIES:** ZAMBIA, GHANA, MALAWI, TANZANIA AND ZIMBABWE

**“After the course I instituted on-going monitoring activities on waste rock dumps and tailing storage facilities on mines within my work area.”**

### Sierra Leone focuses on mine rehabilitation

In collaboration with the Sierra Leone Government, IM4DC completed two action research projects and delivered a workshop to support mining for development in a post-conflict context.

The research projects were supported by the United Nations Environment Program and provided advice to the Sierra Leone Government on the rehabilitation of mining disturbed lands and mine closure policy reform. The **Mine Rehabilitation and Closure Workshop** was attended by 40 representatives from the country’s Environmental Protection Agency and various ministries, NGOs, mining companies and local environmental consultants.



## Latin America

### IM4DC collaborations build environmental expertise in Peru

Two workshops were held in Peru in November 2013 in support of a participative research project on **Dialogue Processes in the Mining Sector and their Role in Conflict Management and Prevention in Environmental Impact Study (EIS) Assessment and Approval Processes**.

The four-day workshops attracted 105 participants. The first workshop focused on the experience of multiple Peruvian and Latin American dialogue spaces for the mining sector. The second focused on how to enhance conflict management and prevention during the EIS assessment and approval process. These workshops built on the results of previous research and supported development of another action research report, **Dialogue Groups on Mining and Sustainable Development in Latin America**.

> **PARTNERS:** UQ-CSRM, SOCIETAS CONSULTORA DE ANÁLISIS SOCIAL, GRUPO DE DIÁLOGO, MINERÍA Y DESARROLLO SOSTENIBLE AND THE CANADIAN INTERNATIONAL INSTITUTE FOR EXTRACTIVE INDUSTRIES AND DEVELOPMENT

> **PARTICIPATING COUNTRIES:** PERU, CHILE, BRAZIL, ARGENTINA, COLOMBIA, PANAMA, DOMINICAN REPUBLIC, ECUADOR AND GUATEMALA

**“How the community relations themes regarding EIA’s have been solved in different countries was my most important learning.”**

“Since attending the course in Brisbane, we now include mine waste management facilities in our annual safety mine audits.”

“My return to work goal was to develop a curriculum for geoscience and mining engineering masters and doctorate programs, which is now being reviewed for accreditation by the Tanzania Commission for Universities. Once operational, this academic program will make a big impact in the region.”

“I have developed a life of mine and tailings management checklist for environmental impact assessment registration.”

## Land and water management workshops delivered in Peru

The Peruvian Ministry of Energy and Mines partnered with IM4DC to deliver three **Environmental Management in Mining Workshops** in June 2012 in various locations across Peru.

The workshops were attended by 145 participants who shared Australian and Peruvian perspectives on key themes relating to land and water management. Topics included governance and regulatory frameworks for environmental management in mining, land and water impact monitoring and management, mine closure and rehabilitation, and collaborative approaches for future work.

## Research builds Peru's mining development knowledge

IM4DC has funded action research projects that support capacity building for sustainable mining development in Peru. Outcomes from these projects included two reports:

### ***Institutional and Political Frameworks of Environmental Licensing Processes***

This project examined the influence of political and institutional factors on environmental licensing processes, including environmental assessment and approval processes for mining projects.

### ***Mining and River Ecosystem Services***

This project aimed to identify the opportunities and challenges for effective use of freshwater ecosystem service concepts in the context of assessing and managing sustainable development of mining in the tropical Andean nations. The project resulted in new collaborations between international universities, a research report and workshop presentations.



## Asia-Pacific

### **Mine waste workshop results in Philippines NGO declaration**

A workshop was presented by IM4DC and the Australian Centre for Geomechanics in February 2014 in collaboration with the Philippines-based Centre for Environmental Concerns (CEC) on the topic of **Mine Waste Landform Management and Closure**.

Attended by 80 participants from mining, government and community sectors, the workshop focused on providing a better understanding of the key issues associated with mining in the Philippines.

The workshop resulted in the CEC issuing a declaration stating a commitment to best practice application of environmental management, and called on the mining industry to similarly commit.

**"The water supply system, resource management and regulatory arrangements in Western Australia, was the most important information I learned."**

### **Mongolia builds technical expertise**

#### **Sharing water expertise with Mongolia**

Environmental management and regulation issues are a critical focus for Mongolia as it progresses towards more sustainable mining development. As a priority developing country, IM4DC hosted the Mongolian Government on a **Mining Infrastructure Investment Support Project Study Tour** in June 2013. The tour was part of a broader World Bank infrastructure support project with Mongolia.

The five-day tour focused on sharing knowledge and insights into how Western Australia manages water for mining regions. Industry and government partners supported the tour, which included visits to water infrastructure facilities in Perth and regional sites. The contribution from the Water Corporation, in particular, was significant and critical to the success of the tour.

> **PARTNERS:** WORLD BANK, WATER CORPORATION, WESTERN AUSTRALIAN DEPARTMENT OF WATER, GHD, INTERNATIONAL WATER CENTRE, UWA SCHOOL OF CIVIL, ENVIRONMENTAL AND MINING ENGINEERING

> **PARTICIPATING COUNTRY:** MONGOLIA



### **Geomechanics training supports Mongolia's mines oversight**

The Australian Centre for Geomechanics and IM4DC collaborated with Mongolia's General Agency for Specialised Inspection (GASI) to deliver training on the geomechanics of open pit mining.

The **Open Cut Slope Stability Training Course**, held in April 2014 for geology and mining inspectors from GASI, aimed to enhance knowledge of slope stability in open pit mines. It also aimed to build the capability of government personnel involved in overseeing the geotechnical aspects of mining operations.

Conducted in Mongolia with a translator, the ten-day program actively engaged participants in a theory course in Ulaanbaatar which focused on slope instability, approaches and difficulties in slope design, failure mechanisms and influences, hydrogeology, remediation techniques, and methods for stabilising and monitoring slopes. This was followed with a practical course and mine visits.

Recommendations and a schedule for process improvement were developed for implementation by GASI upon completion of the course.

> **PARTNERS:** UQ-CMLR, AUSTRALIAN CENTRE FOR GEOMECHANICS AND SIMTARS

> **PARTICIPATING COUNTRY:** MONGOLIA

# Regional and local, social and economic development

Aligning mining-related economic activity with societal development objectives

## Global impact

### IM4DC shares best practice on regional development

IM4DC delivered a **Regional Development and Mining Course** to share best practice knowledge and expertise that focused on how developing countries can enhance the economic and social benefits from mining. Two courses incorporating 35 training days were delivered in Australia and Africa to 34 participants from 11 countries across the globe.

The course investigated regional governance and investment, employment generations, enterprise development, infrastructure and service deployment, and landholder management.

Industry and government partners in Australia supported the program's five-day study tour of mine sites, facilities and regional development organisations in Perth, Kalgoorlie and Esperance.

Outcomes from these courses established IM4DC and UWA linkages with Copperbelt University in Zambia, the Ghana Institute of Management and Public Affairs, and with non-government organisations in Ghana.

> **PARTNERS:** GIMPA, KALGOORLIE CONSOLIDATED MINING GROUP, ESPERANCE PORT AUTHORITY, CMEWA, CCIWA, GOLDFIELDS ESPERANCE DEVELOPMENT COMMISSION AND THE INDIGENOUS HOUSING ASSOCIATION

> **PARTICIPATING COUNTRIES:** GHANA, ZAMBIA, KENYA, LIBERIA, NIGERIA, TANZANIA, ALGERIA, UGANDA, MONGOLIA, THE PHILIPPINES AND INDONESIA

**"I have come to understand that mining, when properly handled, can be a good tool for regional development - especially for Nigeria, which has focused on oil and gas for the past five decades."**



"Since completing the IM4DC training, I have been involved in delivering eight seminars on mining for non-mining professionals to 250 professionals, in collaboration with the University of the Philippines. Funds raised encourage high school students to take up geology, mining engineering and metallurgical engineering. We expect to reach 200 mining graduates this year, up from 20-30 per year."



"I am using new knowledge in social aspects of mining to provide input to the Kenya mining policy and regulations. I am also using the stakeholder analysis matrix which is helping in the review of public policy."



## Study tour supports industry collaboration

In collaboration with the AAPF and the mining industry, a five-day **Higher Education Study Tour** was held in Australia in June 2013 with a group of 26 university leaders from eight developing countries. The program incorporated the critical role higher education institutions have played in contributing to the development and understanding of the resources sector in Australia.

The tour included visits to universities, technical and research institutions in Perth, Kalgoorlie, Brisbane and Rockhampton. Participants prepared workplace plans and a number of alumni have reported making positive changes to support capacity building.

> **PARTNERS:** MINERALS COUNCIL OF AUSTRALIA, WA SCHOOL OF MINES, UWA, WA ENERGY RESEARCH ALLIANCE, CURTIN UNIVERSITY, KALGOORLIE CONSOLIDATED GOLD MINING GROUP, GOLDFIELDS INSTITUTE OF TECHNOLOGY, BHP BILLITON, HERON RESOURCES, EASTERN GOLDFIELDS COLLEGE, QUEENSLAND CENTRE FOR ADVANCED TECHNOLOGY, SMI, THE JULIUS KRUTTSCHNITT MINERAL RESEARCH CENTRE, CENTRAL QUEENSLAND UNIVERSITY, BLACKWATER INTERNATIONAL COAL CENTRE, EMI, MINING EDUCATION AUSTRALIA, COOPERATIVE RESEARCH CENTRE AND MASTERMYNE

> **PARTICIPATING COUNTRIES:** GHANA, MOZAMBIQUE, ZAMBIA, INDONESIA, MONGOLIA, PERU AND THE PHILIPPINES

**“We organised the Mongolian Mining Education Council and a short course, as well as a seminar to professors of the School of Mining Engineering, Mongolian University of Technology and Science.”**



**“I spent the whole of February in Western Australia, attending a short course on mining and regional development. Australia has developed a first class economy riding on its massive mining sector. Overall, it was a rich learning experience. I got to interact with senior executives of big extractives companies, politicians, and even Aboriginal communities. It was particularly impressive how easily these people shared information with us - both their successes and failures.”**

CHRIS MUSIIME, MANAGING EDITOR - OIL IN UGANDA



## Africa

### Enhancing economic and social benefits from mining

Six African countries participated in a two-week **Regional Development and Mining Short Course** that presented the theory and practice of development planning and management practices in the mining sector. Held in August 2013 in Ghana, the course was led by UWA's School of Earth and Environment (SEE) and attended by 20 participants from the private sector, government, academia and civil society organisations.

This training course was the result of an action research project commissioned by IM4DC, which evaluated participant feedback from the **Regional Development and Mining Course** held in Western Australia in March 2013.

> **PARTNERS:** UWA-SEE, REGIONAL EXTRACTIVE INDUSTRIES KNOWLEDGE HUB AND GIMPA

> **PARTICIPATING COUNTRIES:** GHANA, KENYA, LIBERIA, NIGERIA, TANZANIA, ZAMBIA, MONGOLIA, THE PHILIPPINES, INDONESIA, ALGERIA AND UGANDA



**“We held a training workshop for our members on how to successfully tender or package bids for both mining and government to help build capacity.”**

### Developing local suppliers in Africa

IM4DC has boosted knowledge and skill in how to develop local micro, small and medium enterprise suppliers (MSME) for the mining and energy sectors. The five-day **Developing Local MSM Enterprise Suppliers for the Mining, Oil & Gas Sectors Course** was held in Ghana in 2013 and attended by 35 representatives from four African countries.

Participants reported implementing a broad range of improvements on their return home. These included better interactions with the mining industry, hosting training workshops for MSME suppliers and developing supply chain capacity.

> **PARTNERS:** SEKONDI-TAKORADI REGIONAL CHAMBER OF COMMERCE AND INDUSTRY, BUILDING MARKETS, REVENUE WATCH AND SIROLLI INSTITUTE

> **PARTICIPATING COUNTRIES:** GHANA, LIBERIA, NIGERIA AND ZAMBIA



## Asia-Pacific

### IM4DC roundtable supports Sustainable Mining Institute for the Philippines

Developing the education, research and training agenda for a sustainable and responsible mining industry in the Philippines was the aim of the 2013 *Sustainable Mining and Governance Frameworks Roundtable*, held in Manila.

Conducted over three days, the roundtable engaged 63 academic, government and civil society stakeholders in discussions on building capacity in sustainable mining via the country's network of universities. In a significant step forward, the university network reconvened to develop a proposal for a cooperative Sustainable Mining Institute in the Philippines.

> **PARTNERS:** NATIONAL ENGINEERING CENTRE AND UNIVERSITY OF THE PHILIPPINES

> **PARTICIPATING COUNTRY:** THE PHILIPPINES

**"I learned that mining as an industry can be practiced responsibly if all the stakeholders agree on the terms, are aware of the operation's processes and its consequences, and share in its benefits."**

### Action research supports development in Asia-Pacific

In 2012, IM4DC commissioned an action research project that delivered the report, *Myanmar Country Profile Extractives Summary*. The report outlines the current development situation, provides a review of mineral and energy production, an understanding of governance and legislation, and a list of some of the areas relevant to capacity building. As Myanmar transitions to democracy, this research will support understanding of the need and conditions for more equitable, transparent and accountable development of its extractives industry.

An action research report, *Mining and Development in Indonesia: An Overview of the Regulatory Framework and Policies*, was the result of a project aimed at identifying current Indonesian regulatory frameworks and policies, and analysing their implications for mining. This project provided an overview of the history of mining legislation and policies in Indonesia, and an analysis of the current legislation and its impact within the mining industry.



## Latin America

### Chile hosts IM4DC course on human development and mining

The *Connecting Mining Activities to Human Development Goals Course* was held in Chile in November 2013. The course aimed to improve capacity to analyse and understand the connections between mining activity and socio-economic progress in mining regions.

Fifty Latin American participants attended the two-day course, which identified the opportunity to contribute significantly to human development, poverty reduction and social conditions in developing countries. This was followed by attendance at the three-day Social Responsibility in Mining Conference.

Underpinned by extensive research, the course focused on the failure of many mining endeavours to meet the human development needs of vulnerable and fragile communities. It provided a theoretical framework, group exercises and practical tools, and inspired discussions and knowledge sharing across a range of issues and contexts.

The course also provided IM4DC with the opportunity to engage with the Peruvian Government to discuss research collaborations in social responsibility and mining.

> **PARTNERS:** UQ SMI-CSRM AND FUNDACION CASA DE LA PAZ

> **PARTICIPATING COUNTRIES:** PERU, ECUADOR, COLOMBIA, BOLIVIA, CHILE AND URUGUAY



"I am now taking courses in sustainable development studies in our graduate program. I have integrated in the syllabus mine closure and mined land rehabilitation as important subject matter in the conservation of land and water resources. I am now also a member of the Research Committee in Responsible Mining."



"We are now building a virtual National Centre for Sustainable Mineral Industry in the Philippines where trained professors will be located. Our collaboration with The University of Western Australia and The University of Queensland is already supporting our graduates in building their capability in the sustainable minerals industry."

# Health and safety of workforces and communities

Implementing effective regulatory and management approaches for occupational health and safety in the resources sector

## Global impact

IM4DC is leading the delivery of education and training in occupational health and safety, with significant change being reported by a number of developing countries. These include Indonesia, Ghana, Mongolia and Zambia.

### Research investigates miners' health risks

An IM4DC action research project, *Mining + Health in Development*, focused on Africa and Asia-Pacific, aimed to create a register of materials to increase awareness of the unique health risks impacting miners, their families and communities. Completed in 2012, it also aimed to promote dialogue and social responsibility, and inform interdisciplinary studies among scientists, companies, regulators and mining communities. The resulting materials include:

- A centralised database of current health management activities, and
- A library of public regulations and governance documents that address health outcomes in the mining and oil and gas sectors within individual IM4DC target countries.

### Building expertise in safety culture and leadership

IM4DC collaborated with the UWA Accelerated Learning Laboratory (ALL) to deliver two global four-week *Occupational Health and Safety Leadership Courses* during 2012 and 2013. Thirty-five participants from 16 countries attended the courses, which included field trips in Perth and Kalgoorlie, supported by industry partners such as Wesfarmers Ltd and Alcoa.

The courses were developed and delivered utilising the safety and accelerated learning expertise of the ALL, and provided an overview of the nature and management of OHS in the resources sector. Topics included systems, hazards and risks, analysis tools, emergency response, regulatory frameworks, ergonomics, environmental management, and safety leadership and culture.

> **PARTNERS:** UWA-ALL, WESFARMERS LTD AND ALCOA

> **PARTICIPATING COUNTRIES:** CÔTE D'IVOIRE, ETHIOPIA, INDONESIA, LIBERIA, MALAWI, MONGOLIA, NIGERIA, PERU, THE PHILIPPINES, RWANDA, ZAMBIA, ALGERIA, KENYA, GAMBIA, GHANA AND URUGUAY



"The most important is safety culture. I learned how to build a safety culture in the workplace."

### Safety research targets priorities

Action research projects were also undertaken in 2013 by the ALL to support health and safety for workforces and communities. These included:

#### *Benchmarking the 'Status of Safety': Safety Risks, Practices and Beliefs in Eight Developing Countries*

The project aimed to identify the risks, practices and beliefs in mining-related companies across developing countries. It also aimed to identify which areas required targeted training interventions and initial benchmarks that can be used by regulators and training agencies.

#### *Facilitating Accelerated Development during IM4DC Short Courses*

The project aimed to analyse the engagement of IM4DC participants in an intensive training course in OHS, in order to inform future course design and delivery. It also aimed to understand how to enhance the transfer of training and implementation of alumni's return to work plans.



## Africa

IM4DC has worked closely with the **Zambian Mines Safety Department and the University of Zambia (UNZA) to build capacity in accident investigation and risk management training for mines inspectors. IM4DC has given its training materials in these areas to these institutions and they are now collaborating to deliver the training to mining companies operating in Zambia.**

### Zambia's mine safety capacity strengthened

The **Zambian Mines Safety Department** has strengthened its capacity to effectively investigate incidents and accidents, following the participation of 23 of its Senior Mines Inspectors in IM4DC's ***Incident and Accident Investigation*** and ***Risk Management Training Courses***.

The five-day courses, delivered in 2013, targeted the need for formal incident investigation and analysis training and skills in the **Zambian Mines Safety Department**. This was identified by a training needs analysis for Zambia. The courses also included participants from UNZA and Copperbelt University.

**"The whole course was an eye-opener for me and put into words things I only thought about and observed."**

The ***Incident and Accident Investigation Course*** included presentations, group exercises and examples of good practices in the application of incident investigations and analysis processes.

The ***Risk Management Training Course*** focused on training in risk management processes and practices, and included a visit to Mopani Mine.

As a result of the course, a number of participants completed assessments towards an equivalent of the Mines 7033 course, conducted by the Minerals Industry Safety and Health Centre (MISHC).

> **PARTNERS:** MISHC, UNZA AND COPPERBELT UNIVERSITY

> **PARTICIPATING COUNTRY:** ZAMBIA

**"This course brought good changes. It has improved inspection skills and improved risk assessment skills to develop risk management plans for mining operations. The accident prevention techniques can be used on staff inductions of mine workers and in staff training."**

**"The safety risk management process will help me as an Inspector to know the strength of different mines, and also for understanding and utilising risk management."**

### Research supports OHS in small-scale mining

IM4DC commissioned action research projects to support the health and safety of workforces and communities in Africa. Reports completed in February 2014 include:

#### ***Investigating Approaches to Working with Artisanal and Small-Scale Miners: A Review of Best Practice and Progress Reports from the Field***

The research investigated and documented approaches to working with artisanal and small-scale mining from a governance and training perspective. It also informed the ongoing development of return to work plans with IM4DC alumni.

#### ***Investigating the Occupational Health and Safety Issues Associated with Small-Scale and Artisanal Mining in Ghana***

This research aimed to understand the dynamics of small-scale and artisanal mining, to identify the safety challenges, and to gain knowledge to assist better management of associated flow-on effects related to environmental and social issues.

**"Since gaining new knowledge and skills from the IM4DC OHS course, I am educating 12 new inspectors in accident investigation and accident causation models."**

**"I have made changes by educating small-scale miners on health and safety issues and avoidance of occupational hazards. Some have now appointed Safety Officers, which are newly created positions."**

**"I am delivering mine safety training to artisanal miners across the country until next year, and as a result, I expect to see a decrease in the number of accidents."**



## Latin America

### Research supports improved safety in Peru

An action research report, *Benchmarking the 'Status of Safety': Safety Risks, Practices and Beliefs in Eight Developing Countries*, was prepared by the UWA Accelerated Learning Laboratory in 2014. The research project resulted in alumni from Peru undertaking return to work projects that support safer environments for mine workers.

**"I am planning to survey six mining companies in Peru about their safety beliefs in order to implement improvements in occupational health and safety culture."**

RAUL DIAZ OTOYA, HEALTH AND HYGIENE MANAGER, HOCHSCHILD MINING, AND PRESIDENT OF THE OCCUPATIONAL HEALTH COMMITTEE FOR THE NATIONAL MINING SOCIETY, PERU

**"The implementation of my return to work project is very advanced. The main things I have taken from IM4DC are confidence, strong relationships in order to build cooperation activities with Australian institutions, new knowledge about new trends, and techniques in OHS management."**

JOEL HULMER DIAZ LAZO, SECRETARY OF THE COUNCIL, COLEGIO DE INGENIEROS DE PERU, UNIVERSIDAD NACIONAL MAYOR DE SAN MARCOS, PERU



## Asia-Pacific

A program in Mongolia with the General Agency for Specialised Inspection (GASI) which initially involved training in management systems and occupational hygiene has now progressed to training in geotechnical fields to help build inspection capability for large scale open-cut and underground mines.

### Mongolia's inspectors build OHS skills and knowledge

IM4DC has worked closely with Mongolia's GASI since 2012 to help build a broad inspection capability for their Senior Mines Inspectors in risk-based inspection processes and auditing of mining operations in the country.

GASI has partnered with IM4DC in a number of education and training activities:

- An **Introductory Workshop on OHS Regulation and Management for Mongolian Mines Inspectors** was delivered in Mongolia in 2012 with 32 mining and labour inspectors. An outcome of the workshop was identifying additional courses that IM4DC could deliver in future, such as internal audits training, subsequently held in 2013.
- **Occupational Hygiene in Mining Training** was provided for 45 mines inspectors. The training was delivered separately in both south and north Mongolia in October 2012. Each training course involved four days of specialist training, followed by field days at various mine

sites to apply new knowledge and work with equipment on noise and dust monitoring.

- An **Internal Audits Training Course** was held for 31 mines inspectors in 2013. The course provided the opportunity to share the Australian experience of internal control in the minerals industry. It also included site visits to various mines and participation in a safety conference.
- A **Large Scale Underground Mining Study Tour** for the Mongolian Government was delivered in 2013, based on the needs identified by Mongolia. The tour, attended by eight participants from GASI, provided information on key environmental and OHS issues in the Australian minerals industry. The tour included a four-day field trip to north Queensland, enthusiastically hosted by a number of industry partners.

> **PARTNERS:** MISHC, THE SAFETY MANAGER, BGR, GIZ, SIMTARS, QUEENSLAND DEPARTMENT OF NATURAL RESOURCES AND MINES, JK TECH, GLENORE XSTRATA, SUN METALS CORPORATION, CHARTERS TOWERS REGIONAL COUNCIL, RESOLUTE MINING LTD, CITIGOLD CORPORATION LTD AND UQ SMI-CSRM AND CMLR

> **PARTICIPATING COUNTRY:** MONGOLIA

**"Of particular value was the combination of theory and practice. It has given us knowledge about measurement of equipment and improved our abilities."**

**"I really like that the trainers teach from their heart."**

### Research addresses gender based violence

An IM4DC action research project, *Mapping Gender Based Violence and Mining Infrastructure in Mongolian Mining Communities: A Comparative Analysis*, has resulted in a three-year MOU being signed between Mongolia's National Committee on Gender Equality and Erdenes mining company, to address gender based violence in mining areas.

The MOU will provide funding to address violence against women, men and children of the community of Tsogttsetsii. Actions include improving the safety of women, provision of a health support centre and local facilities, and fostering a stronger family-friendly community.

With Mongolia undergoing a widespread and rapid minerals boom that is changing the social and cultural landscape, the research has helped improve understanding of the extent to which gender based violence is experienced in Mongolia's mining communities.

**"The research and subsequent MOU has stimulated important debates concerning the often hidden issue of gender based violence in the minerals sector. To have a formal agreement between the private and public sector to tackle this issue is a very positive step for the Mongolian communities."**

OYUNTSETSEG OIĐOV, UNIFEM



# Minerals policy, regulations and agreements

Developing well designed mining and development policy and regulatory frameworks for strong governance

## Global impact

*"Africa is well endowed with mineral resources and has a long history of mining, but has so far not reaped the developmental benefits from these resources. This is largely due to the weak integration of Africa's mining sector into national economic and social activities."*

AFRICAN MINERALS DEVELOPMENT CENTRE



## IM4DC program strengthens resource governance

The *Resource Governance Flagship Program*, held in June 2014 and May 2013, focused on enhancing understanding of the principles and concepts of governance in mining. It also provided its 36 participants with an opportunity to map the quality of governance in their countries against the Natural Resources Charter to identify any gaps.

Held in Brisbane, the five-day course covered mining governance, policy and legal frameworks, mineral resource management and utilisation, social impacts and community relations, environmental regulation and OHS.

The masterclass has supported participants in matters such as the drafting of new mining legislation in Liberia, legislation for corporate social responsibility, and the role of Health and Safety Inspectors.

> **PARTNERS:** UQ-SMI

> **PARTICIPATING COUNTRIES:** AFGHANISTAN, GHANA, INDONESIA, LIBERIA, MONGOLIA, NIGERIA, PERU, THE PHILIPPINES, ETHIOPIA AND ZAMBIA

*"As a result of my participation in the course, I have been able to discuss issues and give input to the drafting of the Mineral and Mining Law 2013. The new amendments have incorporated artisanal and small scale mining, and the role of OHS Inspectors is clearly defined in the new law. I was able to make sure that the law is drafted in the best interests of the Liberian people."*



*"For the first time, the Minerals Commission is receiving Corporate Social Responsibility (CSR) reports from the mining companies. We are also developing a Mine Community Relations and Safety Week as part of our new focus on CSR, in collaboration with The Chamber of Mines."*



*"On my return to Mongolia, I prepared a one-week training course on mineral economics for colleagues and mineral economists, based on what I learned with IM4DC. I will also deliver an advanced economics class for mineral economists, who have already used their new knowledge to deliver a well-received mining project feasibility study for the Mineral Resource Authority of Mongolia."*





## Knowledge of mineral economics creates positive change

IM4DC delivered a four-week flagship *Mineral Policy and Economics Course* in June 2014, involving 20 participants from 14 countries. Held in Perth, the course provided an understanding of minerals policy that informs regulatory frameworks and economics in the resources sector. It also included a study tour to Kalgoorlie and attendance at the IM4DC Alumni Forum in Brisbane.

The flagship course was developed following IM4DC's 2013 five-day *Mineral Economics Masterclass*. The course provided an understanding of the fundamentals of investment decisions, project economics and evaluation of exploration and mining projects.

A number of participants reported using their new knowledge to improve university curricula, and to upskill colleagues and mineral economists in their home countries.

> **PARTNERS:** CENTRE FOR EXPLORATION TARGETING - UWA AND CURTIN UNIVERSITY

> **PARTICIPATING COUNTRIES:** MONGOLIA, PERU, THE PHILIPPINES, SOLOMON ISLANDS, INDONESIA, AFGHANISTAN, ZAMBIA, NIGERIA, LIBERIA, GHANA, SOUTH SUDAN AND UGANDA

**"Improvements have been made to the way we evaluate applications for mine projects and to how we review financial reports presented by mining companies."**

## Africa

### Strengthening Africa's mining tax and royalty design

In partnership with the World Bank and the AMDC, IM4DC delivered three multi-day workshops in 2014 on *Improving Mining Tax Administration and Collection Frameworks* for officials from finance and mines ministries in African countries. The workshops aimed to improve mining tax and royalty design, and to build the administrative capacity of African ministries and departments responsible for mining tax administration and collection.

The workshops were held in South Africa, Tanzania and Ethiopia and were attended by 101 participants from 26 countries.

The workshops focused on the principles of an efficient mining tax administration in the Africa region. Topics included royalty systems, costs deductibility, assessment and auditing, corporate income tax related to mining, mining fiscal policies, and budget forecasting of mining revenues.

> **PARTNERS:** WORLD BANK, AMDC AND CENTRE FOR EXPLORATION TARGETING

> **PARTICIPATING COUNTRIES:** BOTSWANA, MALAWI, MOZAMBIQUE, TANZANIA, ZAMBIA, ZIMBABWE, NAMIBIA, LESOTHO, CAMEROON, BURUNDI, ERITREA, KENYA, MADAGASCAR, NIGERIA, RWANDA AND UGANDA



## Asia-Pacific

### Study tours support Indonesian energy and minerals ministry

IM4DC hosted two study tours in October 2013 for Indonesia's Government and education institutions. The tours aimed to support minerals policy approaches and training and education of mining professionals.

The *Indonesian Coal and Minerals Policy Study Tour* gave 12 senior officials from the Indonesian Ministry of Energy and Mines an understanding of Australia's approaches to coordination of pit-to-port regional planning in coal regions. It also addressed policy approaches to encourage value-adding in downstream processing.

The four-day tour, requested by the Indonesian Government, included a field trip to central Queensland and Gladstone, and presentations from the Queensland Government and regional planning and coal processing experts.

> **PARTNERS:** JK TECH, YANCOAL AND THE QUEENSLAND GOVERNMENT

> **PARTICIPATING COUNTRY:** INDONESIA

**"The information was an eye-opener for Namibia's Revenue Department. We are currently in the reform process and through inefficiency in our system a lot of revenue is lost. We need to build the capacity and learn the best practices."**

### IM4DC OpenData shares access to African geodata

IM4DC has developed an open-access regional geoscience and geographic database - *IM4DC OpenData for West-Central Africa* - as part of its action research program. IM4DC *OpenData* enables mining and development stakeholders to download map-based information and the data behind it, about geology, natural resources, geography and infrastructure.

The purpose-built, online system provides all stakeholders with access to geodata and land information for west-Central Africa. It offers both regional and national data, and over time will be linked with each country's own web-based geo-databases when these become available.

The database can be accessed at <http://opendata.im4dc.org>

**Openly accessible and transparent information about geoscience - such as OpenData - supports a country's government, communities and people to manage natural resources for sustainable development outcomes.**



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**“I have learned a lot about the rules and regulations and the nature of environmental and social awareness in the mining sector of Australia.”**



The **Indonesian Geology Study Tour** provided a delegation from the Education and Training Agency of the Indonesian Ministry of Energy and Mineral Resources with an overview of Australia's leading practice approaches to training and education of geologists and mining professionals.

Held over one week in Perth and Kalgoorlie, the nine participants learned more about workforce planning, curriculum design, articulated learning pathways and applied research. A field trip to Kalgoorlie included site visits to education and training facilities in the Goldfields.

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> **PARTNERS:** GOLDFIELDS INSTITUTE OF TECHNOLOGY, CURTIN UNIVERSITY WA SCHOOL OF MINES, WA MINING MUSEUM, WA GOVERNMENT, CENTRAL INSTITUTE OF TECHNOLOGY, GOLDFIELDS INSTITUTE OF TECHNOLOGY AND KALGOORLIE CONSOLIDATED GOLD MINE

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> **PARTICIPATING COUNTRY:** INDONESIA

## **Australia shares mining governance approach with Myanmar**

A delegation from the Myanmar Government and civil society organisations participated in an **Australian Mining Sector Study Tour** in May 2013. The tour addressed Australia's governance approach to its resource sector, and how it maximises the benefits of the mining industry.

The delegation of 17, which included the Minister for Mines, attended both the Mining for Development and the Extractives Industry Transparency Initiative Conferences in Sydney. They also visited mining areas in New South Wales and Queensland.

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> **PARTNERS:** UQ SMI-CSRM, JK TECH, QUEENSLAND GOVERNMENT, NEWCREST, PEABODY ENERGY AND GLADSTONE PORTS CORPORATION LTD

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> **PARTICIPATING COUNTRY:** MYANMAR

## **Latin America**

### **Consultation focus deepens on indigenous peoples**

In September 2012, IM4DC conducted a 12-day study tour on **Consultation and Agreement-Making Processes with Indigenous Peoples for Mining and Resource Projects** for 17 Latin American participants.

The tour aimed to provide an understanding of the Australian frameworks for negotiating agreements between resource companies and indigenous communities. It also gave an overview of the Australian policy and regulatory framework on native title and land rights, and consultation and agreement-making processes.

Participants reported implementing a number of changes, such as developing a register of agreements in prior consultation processes, using materials gained from Australia's Native Title Tribunal. Another included more questions in their country's census regarding self-recognition as an indicator of belonging to an indigenous group.

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> **PARTNERS:** UQ SMI-CSRM AND RIO TINTO

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> **PARTICIPATING COUNTRIES:** PERU, BOLIVIA AND ECUADOR

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**“The presentation about the system of relations between Rio Tinto and Aboriginal people and the system of native title was my favourite session.”**

This course resulted in a follow-up workshop, held in Peru for the same participants, on **Indigenous Peoples and Mining for Latin America**. Attended by representatives from organisations such as Bolivia's Tolapampa Peoples and Peru's Interethnic Association for the Development of the Peruvian Rainforest, the five-day 2013 workshop provided an overview of relevant developments in the Latin American and global contexts.

Participants identified a number of areas that they wished to focus on to promote more effective processes in the area of consultation and agreement-making with indigenous peoples.

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> **PARTNERS:** UNIVERSITY OF BRITISH COLUMBIA AND UQ SMI-CSRM

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> **PARTICIPATING COUNTRIES:** PERU, BOLIVIA AND ECUADOR

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**“Deepening of the process of consultation with indigenous peoples with regards to mining extraction was important information I learned.”**



**“I have made policy makers aware of the need to address community relations in the mining sector and large infrastructure projects. As a result, the Ministry of Mining is considering establishing a community relations unit.”**



**“The system of dialogue and consultation that is implemented in Australia in the processes of negotiation and agreements between mining companies and Aboriginal people, were my most important learning.”**

# Community engagement and consultation

Improving engagement with local communities in mining regions

## Global impact

### Community focus in flagship CARD course

IM4DC's four-week *Community Aspects of Resource Developments Flagship Course* supported 36 participants from 12 countries to build their knowledge and expertise in understanding resource sector companies and the business imperative for establishing the social license to operate. Held in Brisbane in 2012, 2013 and 2014, the courses have equipped participants to better manage the complex community relations issues associated with resource projects.

Participants reported using their new knowledge to educate students and colleagues, and to improve university curricula.

> **PARTNERS:** UQ SMI-CSRM

> **PARTICIPATING COUNTRIES:** GHANA, LIBERIA, ZAMBIA, NIGERIA, SOLOMON ISLANDS, PAPUA NEW GUINEA, INDONESIA, THE PHILIPPINES, MOZAMBIQUE, KENYA, MONGOLIA AND PERU



## Africa

### IM4DC training supports Mozambique public policy

Guiding public policy-making in Mozambique on aspects of community relations and sustainable development of the mining sector was the aim of a 2013 *Community Development Workshop*. The four-day workshop was delivered in-country to 54 participants from the Mozambique Department of Mineral Resources.

Conducted in collaboration with the AAPF, the training included a one-day tour of resettled communities with Vale and Rio Tinto.

An additional outcome of the workshop was an academic paper, *The Other Side of the River: Conflict and Cumulative Impacts of Mining in Tete, Mozambique*, which was presented to the Australian Political Studies Association Conference in September 2013 in Perth.

> **PARTNERS:** VALE, RIO TINTO, AAPF AND UQ SMI-CSRM

> **PARTICIPATING COUNTRY:** MOZAMBIQUE



## Asia-Pacific

### Research reviews conflict case studies

An IM4DC action research project, *Mining Company-Community Conflict Analysis: Case Studies from Indonesia*, reviewed three notable cases of company-community conflict in Indonesia. The case studies exemplify three different models for retrospectively analysing conflict, although the underlying issues are common in conflicts elsewhere.

The project delivered teaching cases and materials focused on company-community conflict in Indonesia, and an introductory lesson on conflict analysis. Governments, multi-lateral agencies, NGOs and mining companies aiming to develop policies and tools for understanding and resolving company-community conflict, can benefit from this research.

**"The most important message I received from this course was the need to address social issues in any impact study."**



## Latin America

### Action research investigates dialogue, conflict and mining

IM4DC identified a need for targeted action research to be undertaken on community engagement, consultation and dialogue groups to benefit countries in South America. The resulting action research projects included:

#### ***Mining and Community Engagement in Peru: Communities Telling their Stories to Inform Future Practice***

This 2014 report presents an in-depth contextual framework for understanding the community experience of mining as a historical process. The research is informed by communities associated with two mine sites in Peru. The report supports facilitating an improvement in community-mine relations in a context that has been characterised by increasing social protest, conflict and violence.

#### ***Dialogue Groups on Mining and Sustainable Development in Latin America***

This project analysed the experience of key national level Latin American dialogue spaces on the mining sector and sustainable development. It identified the strengths and weaknesses of existing models, as well as strategic opportunities, advantages and contextual factors that might hinder or enhance dialogue outcomes.

#### ***Transforming Andean Space: Local Experiences and Mining Development in Peru***

This unique research was part of an ongoing PhD project to build an understanding of the transformations experienced by rural societies in the context of mining development in the Peruvian Andes.

The research followed the experiences of 14 families over the past 20 years in the vicinity of La Granja copper project, in Cajamarca, northern Peru. A key issue identified was that “a good part of the distribution of goods and services and many of the decisions dealing with mining development at a local level, are regulated by extended kinship networks, and not exclusively by state institutions or company policies.”

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**“I have disseminated knowledge to my students and fellow lecturers regarding community aspects of resource development and management of mine waste. I have also incorporated corporate social responsibility and social environmental aspects of mining into the mining degree curricular.”**



“We have formed a think tank - the Artisanal Mining Africa Network - with the IM4DC interest group Community and Resource Development. We are currently working with government on issues relating to artisanal mining in Ghana.”

“With different levels of government and leadership, we are witnessing the importance of ‘having everyone on the same page’ with regards to the end goals for the country. Extractive resource benefit can only come about once with mindful collaboration of community, all levels of government and transparent business entities.”

# Alumni engagement

Supporting emerging leaders in mining, energy and development

IM4DC's alumni program has assisted participants in IM4DC activities to implement learning in their regional and institutional contexts. It has also supported them to develop a community of practice where participants assist each other in addressing issues of extractive resource governance. The successful ongoing engagement of alumni and development of a global community of practice are critical success factors for IM4DC and the mining for development initiative.



## M4DLink keeps alumni connected

IM4DC has established a dedicated website, M4DLink, to facilitate knowledge sharing and ongoing interactions between alumni, academics, experts and others involved in the program.

## IM4DC focused on women and gender in mining

IM4DC has utilised its collaborative networks and action research program to focus on women and gender issues in mining. We collaborated with the AAPF to deliver a *Mining and Gender Forum* and an *African Women in Mining and Development Study Tour*. We also supported the new *Women in Mining and Resources in Latin America Forum* in delivering a series of workshops.

IM4DC has commissioned action research reports on issues relevant to women and gender in mining in Latin America. One such project has resulted in the signing of an MOU between the Mongolian Government and a mining company, to address gender based violence in Mongolia's mining areas.

However, there is more work to do to support women's economic empowerment and leadership in mining, energy and development. IM4DC will continue to collaborate with others to identify and support activities aligned to these goals. We will also continue our strong support for women's participation in our program.

## Supporting African leaders

The need for human capacity development to realise the benefits of resource developments is highlighted in the Africa Mining Vision.

The IM4DC short course, *Emerging Leaders in African Mining*, was held in South Africa in 2014, and has supported 26 young African leaders in mining. Facilitated by leading academics from UWA and UQ, the course focused on leadership, exercising influence, taking responsibility, and interacting with industry and government leaders.

**"I had struggled with the concept of leadership and management. Many a time I could not fully understand the thin line between them. With the presentations, I am now in a better position to be a better leader because I now understand the fact that managing is not necessarily leading."**

## Engaging alumni to expand knowledge and networks

IM4DC has hosted a number of key events since its inception to support mining and development and IM4DC alumni:

- 120 participants at the 2012 Mining for Development Roundtable
- More than 600 participants at the 2013 Mining for Development Conference
- 160 alumni from 27 countries at the IM4DC Alumni Forum events
- 66 participants attended an alumni event in Zambia.

These stimulating events bring together academics, government, donors, industry experts, non-government organisations and IM4DC alumni to share their insights, knowledge and practical experiences. These events also provide the opportunity to review the IM4DC program, discuss the challenges and opportunities of implementing change, and to expand alumni networks.

# Action research program

Sixty-six action research projects have addressed priority issues in mining for development since the IM4DC commenced. The Action Research Program aims to commission research that provides material to support and complement its wider activities, particularly the education and training program. The program also adds to the bank of knowledge in the mining for development field.

The research has focused on identifying and/or addressing mining for development issues in developing countries, and has been aligned with one or more of the Centre's strategic programming areas.

For more information on the action research program visit <http://im4dc.org/programs/action-research/>

**"IM4DC's delivery of education and training is underpinned by a high-quality action research program that focuses on measurable and objective learning and improvement."**

## Acknowledgements

IM4DC would like to thank all its program delivery partner institutions, governments, industry and support organisations for their important contribution and participation to activities, and the ongoing development of alumni.

### AUSTRALIAN UNIVERSITIES AND EDUCATION AND RESEARCH INSTITUTIONS

#### Australian National University

- Crawford School of Public Policy

#### Central Institute of Technology

#### Central Queensland University

#### Curtin University

- Western Australian School of Mines
- Graduate School of Business

#### Eastern Goldfields College

#### Goldfields Institute of Technology

#### The University of Western Australia

- Centre for English Language Teaching
- Cooperative Research Centre for Water Sensitive Cities
- Business School
  - Centre for Social Impact
- Faculty of Arts
  - Centre for Muslim States and Societies
- Faculty of Engineering, Computing and Mathematics
  - School of Civil, Environmental and Mining Engineering
  - School of Mechanical and Chemical Engineering
  - Australian Centre for Geomechanics (UWA, Curtin University and CSIRO)
- Faculty of Law
  - Centre for Mining, Energy and Natural Resources Law
- Faculty of Science
  - Accelerated Learning Laboratory
  - Centre for Safety
  - School of Earth and Environment

- Centre for Exploration Targeting (UWA and Curtin University)
- School of Plant Biology
- The Energy and Minerals Institute

#### The University of Queensland

- School of Geography, Planning and Environmental Management
- School of Law
- Graduate School of Business
- The Institute for Social Science Research
- University of Queensland International Development
- The Sustainable Minerals Institute
  - Centre for Mined Land Rehabilitation
  - Centre for Social Responsibility in Mining
  - Centre for Water in the Minerals Industry
  - Julius Kruttschnitt Mineral Research Centre
  - Minerals Industry Safety and Health Centre
  - WH Bryan Mining and Geology Research Centre

#### University of New South Wales

- Australian Centre for Sustainable Mining Practices

#### The University of Sydney

- Graduate School of Government

#### Murdoch University

### AUSTRALIAN FEDERAL AND STATE GOVERNMENT PARTNERS

#### Australian Government

- Austrade
- Australia Africa Partnerships Facility
- Australian Government Missions in Africa, Asia-Pacific and Latin America
- CSIRO
- Department of Foreign Affairs and Trade, Country Mining for Development and Extractives for Growth Programs
- Department of Foreign Affairs and Trade, Mining for Development Initiative
- Department of Treasury

#### Government of Western Australian

- AgWest
- Bunbury Port Authority
- Department of Agriculture and Food
- Department of Finance
- Department of Mines and Petroleum
- Department of State Development
- Department of Water
- Esperance Ports Sea and Land
- Goldfields Esperance Development Commission
- Shire of Esperance
- Shire of Ravensthorpe
- Water Corporation
- Western Australian Museum - Kalgoorlie-Boulder
- Gold Stealing Detection Unit, Western Australia Police

#### Queensland Government

- Charters Towers Regional Council
- Central Highlands Regional Council
- Department of Natural Resources and Mines
- Ipswich City Council
- Gladstone Ports Corporation Ltd
- Safety in Mines Testing and Research Station

### INTERNATIONAL INSTITUTIONS, PARTNERS AND DONORS

#### Global

- Extractive Industries Transparency Initiative
- International Council on Mining and Metals
- Natural Resource Governance Institute
- Oxfam
- Transparency International
- World Bank Institute
- World Bank Sustainable Energy, Oil, Gas and Mining Unit
- World Economic Forum
- World Vision

#### Africa

- Africa Minerals Development Centre
- African Institute for Economic Development and Planning
- Copperbelt University, Zambia
- Ghana Institute of Management and Public Affairs
- Ghana Minerals Commission
- Instituto Superior Politécnico de Tete, Mozambique
- Mines Safety Department, Zambia
- Office of the Prime Minister, Cameroon
- School of Mines, University of Zambia
- Sekondi-Takoradi Regional Chamber of Commerce and Industry, Ghana
- South African Institute for International Affairs
- The Ministry of Energy and Minerals, United Republic of Tanzania
- The Southern East African Minerals Centre, United Republic of Tanzania
- United Nations Economic Commission for Africa
- Universidade Eduardo Mondlane, Mozambique
- University of Ghana
- University of Mali
- University of Mines and Technology, Ghana
- University of Yaoundé II, Cameroon
- University of Zambia

#### Asia-Pacific

- Autonomous Region of Bougainville Administration
- Brawijaya University, Indonesia
- Centre for Environmental Concerns, the Philippines
- Education and Training Agency of the Ministry of Energy and Mineral Resources, Republic of Indonesia
- Directorate General for Mineral and Coal, Indonesia
- General Agency for Specialised Inspections, Mongolia
- Mineral Resource Authority of Papua New Guinea
- Minerals Resources Authority of Mongolia
- Mines and Geoscience Bureau, the Philippines
- Mongolian University of Science and Technology
- National Engineering Centre, University of the Philippines
- Papua New Guinea University of Technology
- Trisakti University, Indonesia
- University of Indonesia
- University of Papua New Guinea

#### Europe

- Federal Institute for Geosciences and Natural Resources, Germany
- German Agency for International Cooperation

#### North America

- Canadian International Resources and Development Institute
- Columbia Center on Sustainable Investment
- Foreign Affairs, Trade and Development Canada
- University of British Columbia

#### Latin America

- Fundación Casa de la Paz, Chile
- Grupo de Diálogo, Minería y Desarrollo Sostenible, Peru
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- Sociedad Nacional de Minería Petróleo Y Energía, Peru
- Universidad del Pacífico, Peru
- Women in Mining and Resources, Latin America

### BUSINESS AND COMMUNITY PARTNERS

- AIM WA
- Alcoa of Australia
- Amalgamated Prospectors and Leaseholders Association
- AngloGold Ashanti
- Association of Mining and Exploration Companies
- Australia-Africa Mining Industry Group
- Barrick Gold Corporation
- Blackwater International Coal Centre
- BHP Billiton
- Building Markets, Liberia
- Centerra Gold Inc, Mongolia
- Citigold Corporation Ltd
- Crawford Fund
- Emergency Response Training Group, Western Australia
- Fortescue Metals Group
- GHD Australia
- Glencore Xstrata
- Goldfields Land and Sea Council
- Heron Resources
- Indigenous Housing Association, Western Australia
- JK Tech
- Kalgoorlie Consolidated Gold Mines
- Maritime Union of Australia
- Mastermyne
- Minerals Council of Australia
- Mining Education Australia
- MMG
- Newcrest Mining
- Newmont
- Ngadju Conservation
- Peabody Energy
- Queensland Centre for Advanced Technology
- Ravensthorpe Agricultural Initiative Network
- Resolute Mining Ltd
- Riklan Emergency Management Services
- Rio Tinto
- Shell Australia
- Siroli Institute
- Sun Metals Corporation
- Sustainable Development Strategies Group
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- The Chamber of Minerals and Energy, Western Australia
- The Safety Managers, Queensland
- Tradelvest, Queensland
- Vale
- Wesfarmers Ltd
- Yamatji Corporation
- Yancoal Australia Ltd

## Participating developing countries



Afghanistan	Democratic Republic of the Congo	Madagascar	Seychelles
Algeria	Djibouti	Malawi	Sierra Leone
Argentina	Dominican Republic	Mali	Solomon Islands
Benin	Ecuador	Mauritania	South Africa
Bolivia	Eritrea	Mongolia	South Sudan
Botswana	Ethiopia	Morocco	Sudan
Brazil	Fiji	Mozambique	Swaziland
Burkina Faso	Gabon	Myanmar (Burma)	Tanzania
Burundi	Ghana	Namibia	The Gambia
Cambodia	Guatemala	Niger	The Philippines
Cameroon	Guinea	Nigeria	Togo
Central African Republic	Indonesia	Panama	Uganda
Chad	Kenya	Papua New Guinea	Uruguay
Chile	Laos	Peru	Vietnam
Colombia	Lesotho	Republic of the Congo	Zambia
Cote d'Ivoire	Liberia	Rwanda	Zimbabwe
		Senegal	

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