

## Summary Report

# Gas Competence Seminar in Mozambique

Natural Gas – driving Social and Economic Development  
East and Southern African Perspective

On 22-23 September 2015, the International Gas Union (IGU), in collaboration with The World Bank Group, and supported by SE4ALL, organized a regional Gas Competence Seminar in the city of Maputo, Mozambique. The seminar was also supported by the Government of Mozambique.

The gathering provided an opportunity for high-level government representatives and industry leaders to share knowledge, raise awareness and discuss strategic options that natural gas offers for sustainable access to energy and social and economic development. This by-invitation-only event attracted more than 100 delegates. Speakers included experts from the energy industry; both local and global companies; governmental officers; international organizations including SE4ALL, UNESCO and the African Development Bank; as well as other invited participants.

Many of the participants and speakers had long experience from other nations and regions that have gone through similar gas industry developments. The presentations and discussions pointed to the tremendous opportunities, but also challenges that exist in this geographical area. These are available through links provided at the bottom of this page.

The topics discussed at the seminar were the following:

- Regulatory and Institutional Framework
- Large Scale Industrial Development
- Gas and Power Development
- Project Financing & Structuring
- Gas Market Development
- Sustainable Energy & Social Development
- Long Term Competence Building --Next Steps

The discussions pointed to the tremendous opportunities but also challenges that exist, and can be summarized as follows:



### Gas Competence Seminar

*Natural Gas – driving Social and  
Economic Development  
East and Southern African Perspectives*



22-23 September 2015  
Maputo  
Mozambique

Existing partners:



### Opportunities

- Gas for the production of electricity
- Industrial development with gas as a feedstock to local industries such as fertilizers
- Improvement in the environment of cities in the region

### Challenges

- Growing concern over lack of competence as it relates to developing the gas industry
- Lack of training and educational institutions that focus on gas industry aspects
- Need to establish long-term business models for both competence and infrastructure development

The discussions also raised the concern that the speed at which frameworks, regulations, and business models are developing can have consequences for the region's development outcome. While some think the implementation is going far too slow, others are warning that implementation is too rapid. It is, therefore, important to ensure that great care is taken and respect shown to the regional particularities.

The last concern that was raised is the global economic climate. Development of the gas industry will require massive investments, and in the current environment they will be challenging to finance. Recommendations were given to look for new unconventional funding models and possibilities of funding in smaller increments.

The IGU and The World Bank thank all the sponsors and speakers that made this seminar possible.

### Attachments:

1. Seminar Pictures (more on link): <http://www.igu.org/news/gas-competence-seminar>
2. Participants List
3. WB-IGU Regional Gas Competence Seminar - Agenda
4. Presentation materials (link): <http://www.igu.org/news/gas-competence-seminar>

Attachment 1. Seminar Pictures



## Attachment 2. Participants List

### Speakers

Name	Title	Entity	Country
Mr. Alfredo Nampete	Permanent Secretary	Ministro dos Recursos Minerais e Energia	Mozambique
Mr Paulino Gregorio	VP Exploration & Production	ENH	Mozambique
Mr Mark R. Lundell	Country Director	World Bank	Mozambique
Mr. Pål Rasmussen	Secretary General	IGU	Norway
Mr Erik Kjaer	Manager, Country Action	SE4ALL	Austria
Mr Moussa-Elkadhum Djaffar	Country Director	UNESCO	Mozambique
Mr. Pal Arne Davidsen	Senior Advisor, Private Sector Development	NORAD	Norway
Mr John Pepper	Country Manager	Anadarko	
Mrs Sheila Khama	Director, African Natural Resources Center	AfDB	Côte d'Ivoire
Mr. Akmal Zaghloul	Business Development Director	TAQA Arabia, Egypt	Egypt
Mr Tavares Martinho	Commercial VP	ENH	Mozambique
Mr. Odd-Ivar Biller	Senior Vice President	Norsk Hydro	Norway
Mr Onno van Kessel	Afungi GTL Project Manager	Shell	
Ms Katia Daude Goncalbves	Senior Country Officer	IFC	South Africa
Mr Anas Benbarka	GGFR Regional Coordinator	World Bank	USA
Mr. Bert Kiewiet	Head of Section Gas System Management	DNV-GL	
Mr. Elbert Huijzer	Senior Strategist	Liander	
Mr Marco Caccavale	President GE Oil & Gas Sub Saharan Africa	GE	
Mr. Katan Hirachand	MD Energy Project Finance	Societe Generale	France
Mr. Mustafa Zakir Hussain	Senior Energy Specialist	World Bank	USA
Mr Paul Eardley Taylor	Head Oil & Gas Southern Africa	Standard Bank	South Africa
Mr Dong Hoon Kim	Incoming Secretary of Coordination Committee	IGU	South Korea
Mr. Jungho (John) Park	Team Manager / Planning & Management Dept.	KANGV (Korean Association for Natural	South Korea

		Gas Vehicles)	
Mr. Manwoo Han	Managing Director	ENH-KOGAS	South Korea
Mr. Simphiwe Mehlomakulu	Chairman	Reatile Gaz	South Africa
Mr Fernando Nhamtunbo	National Content Manager	Anadarko	Mozambique
Mr. Torstein Indrebø	Honorary Secretary General	IGU	Norway
Prof. AL J. Tsamba	Dean of Faculty of Engineering	Universidade Eduardo Mondlane	Brazil
Mr Antonio Sevilla	HR & Admin Director	Anadarko	
Mr Mats Fredriksson	Director	IGU	Norway
Dr. Peggy OTI-BOATENG	S&T and Coordinator ANSTI	UNESCO MSRO for Southern Africa	Zimbabwe
Mr Jae Ho Song	IGU VP	Korea Gas Union	South Korea

#### Delegates

<b>Name</b>	<b>Title</b>	<b>Entity</b>	<b>Country</b>
Mr. Acacio Langa	Commercial & Marketing - Domestic and Regional Director	ENH	Mozambique
Mr. Alex Battaglia	Business Development Advisor, Upstream International	Shell International Exploration and Production	
Mr. Alexandre Côté	Counsellor (Commercial) and Senior Trade Commissioner	Canadian High Commission	Canada
Mr. Amad ValY	Operations Administrator	ENHL	Mozambique
Mrs. Anne Njambi Kabugi	Senior Public Affairs Advisor	Tullow Oil	
Mr. Antonio Matola	Management and Operations Director	ENH	Mozambique
Mr Apogeu Siniquinha	Inclusive Business Advisor	SNV	
Mr. Atsunori Toyoda	GM Liaison office Maputo	Marubeni	Mozambique
Dr. Augusto Mucavele	Exploration Manager	INP (National Petroleum Institute)	Mozambique
Mr Rasmus Bakke	Counsellor-Economist	Royal Norwegian Embassy Maputo	Norway

Mr. Bruno Moniz	O&G ECLP	GE	South Africa
Mr Carlos Rafa Mate	Adviser	Royal Norwegian Embassy Maputo	Norway
Mr. Cesar Mussagy	Gas Specialist for the MAGTAP	WB Mining & Gas Sector TA project (MAGTAP)	Mozambique
Mr. Chocoroua Omar	Research Director	ENH	Mozambique
Mr Chris Johnson	General Manager - Global LNG	Shell	South Africa
Mr Dag Andre Moen	Country Manager	FMC Technologies	Mozambique
Mr. Derek Boulware	Senior Manager, Oil & Gas Advisory	PwC	South Africa
Mr. Dezlyn Makhetha	Oil and Gas Coverage	Standard Bank	South Africa
Mr. Ebrahim Takolia	CEO	South African Oil & Gas Alliance	South Africa
Dr. Edmundo Matesso	Comercial Director	autogas	Mozambique
Ms. Emma Sayers	Free-lance consulter	CTA	Mozambique
Mr. Ernesto Ramatane		Institute for the Promotion of Small and Medium Enterprises (IPEME)	Mozambique
Mr Ernesto Gouveia Gove	Business Development Coordinator	Mitsui	Japan
Mr. Estevão Rafael Pale	CEO	CMH	Mozambique
Mr Eugene Okpere	Senior VP Africa	Shell	
Ms Eunice Ferreira	Technical Assistant, Communications & Public Relations	ENH	Mozambique
Mr. Gervásio Lifaniça	Strategic Portfolio Management Director	ENH	Mozambique
Mr. Hanwoong Yun		ENH-KOGAS	Mozambique
Mrs. Heike Lingertat	Operations Officer	World Bank	USA
Mr Helge Rune Nyttun	Business Development Manager	DNV GL	
Ms Iva Garrido	External Affairs Coordinator	Anadarko	Mozambique
Mrs. Joana Coelho	Head of Investment Banking	Banco Unico	Mozambique
Mr. Joao das Neves	General Director	autogas	Mozambique
Mr Joao Machedo	Managing Partner	Deloitte	Mozambique
Mrs. Jorgina Manhengane	Project and Development Manager	INP (National Petroleum Institute)	Mozambique
Mr. Jose Tembe		Institute for the Promotion of Small and Medium Enterprises (IPEME)	Mozambique
Mr. Joseph Ribeiro	Resident Representative, Mozambique	African Development Bank	Mozambique
Mr Jupiter Ramirez	Regional Marketing Manager	Anadarko	Mozambique

Mr Kiichiro Muto	General Manager, Energy Department	Mitsui	Japan
Ms Kjersti Lindøe	First Secretary	Royal Norwegian Embassy Maputo	Norway
Mr. Leonardo Nhavoto	Legal Advisor	Statoil Oil & Gas Mozambique	Mozambique
Ms Maria Esperanca Macovela	Director Communications & Public Relations	ENH	Mozambique
Mr Mario Fernandes	Director	Deloitte	South Africa
Mr Masayuki Takishima	Senior VP and Divisional Operating Officer, Energy & Mineral Resources Division	Mitsui	Japan
Mr. Nam Gee Choi	Head	Kogas. Mz office	Mozambique
Ms Namwaka Omari	Program Coordinator	Uongozi Institute	Tanzania
Mr. Nuno Fernando	Technical Director	autogas	Mozambique
Mr Øyvind Udland Johansen	Charge d'Affaires	Royal Norwegian Embassy Maputo	Norway
Mr. Pascoal Mocumbi	Commercial & Marketing International Director	ENH	Mozambique
Mrs Paula Gonzales	Country Manager	ERM Mozambique	Mozambique
Ms. Paulinda Manhique	Production Director	ENH	Mozambique
Mr. Pierre Bartholomeus	Director Gas Consulting	DNV GL	
Mr. Pitsanupop Chalakornkul	Project Coordinator	PTT Exploration and Production Public Company Limited (PTTEP)	Mozambique
Mr. Rodney MacAlistair	Co-Founder	Monetizing Gas Global	
Mr. Rui Marques	Branch Manager	Siemens SA	Mozambique
Mr Shawn Barber	High Commissioner of Canada		Canada
Mr. Shigeru Yamaguchi	Regional Director	Marubeni	Japan
Mr. Stéphane Solé	Sr. Vice President, East Africa	Technip	France
Mr. Stephen Rothman	CEO	Virtual Gas Network (PTY)LTD	South Africa
Mr. Sungsik Yun	Project Development Director	ENH-KOGAS	South Korea
Mr. Taeksang Kwon	Advisor	International Gas Union	
Mr. Takashi Tomita	Manager	Mitsui	Japan
Ms Talumba Katawala	Staff Admin Assistant	Anadarko	Mozambique
Mr Thomas Viot	Senior Extractives Officer	African Development Bank	Cote d'Ivoire
Mr. Ton Negenman	First Secretary, Economic Affairs, Food Security and Private Sector	Embassy of the Kingdom of Netherlands	Netherlands

	Development		
Mr. Yuichiro Konishi	Representative Director	Chiyoda Mozambique	Mozambique
Mr. Zazi Dladla	Director	NGV Gas (PTY)LTD	South Africa
Ms Nilza Abdula	VP Engineering & Project Development	ENH	Mozambique
Jinseok Jeong		KOGAS	
Andre Almelda Santos		AfDB	
Alzido Mause		Anadarko	
Santiago Goicoechea	Senior Manager	Deloitte & Touche Mozambique	Mozambique
Mr. Jeu Zango	Senior Manager Client Coverage	Standard Bank	Mozambique
Catia Cossa	Manager Client Coverage	Standard Bank	Mozambique
Celia Cosseia		INP	
Natalia Camba		INP	
Mr. Paolo Marra	Turbomachinery Regional Manager, Oil & Gas Sub Saharan Africa	GE Oil & Gas	South Africa
Jesus Gavilan Marin	Programme Officer, Civil Infrastructure Sector	Delegation of the European Union to the Republic of Mozambique	
Carlos Almeida Pareira	Director	KOCH Mozambique	Mozambique
Mariano Salto	Energy Economist	WB Mining & Gas Sector TA project (MAGTAP)	
Julian Nhaouilm		ENHL	
Ronaldo Toledo	Director da Banca de Investimentos	Standard Bank	Mozambique
Amar Imamchar		Shell	
Lorenzo Astegiano	Country Manager	OrionGroup	Mozambique
Yves Planquel	Director	AVISO	Mozambique