

# NIKO RESOURCES LTD

## SAFETY, HEALTH, ENVIRONMENT AND SOCIAL RESPONSIBILITY 2012 – ANNUAL PERFORMANCE SUMMARY



### COMMITMENT

*Niko Resources Ltd. (Niko) is committed to the safety and health of our staff, contractors, and the communities affected by our operations. We strive to minimize our impacts on the environment, to demonstrate a high level of social responsibility, and to meet or exceed regulatory compliance.*

### SAFETY, HEALTH, ENVIRONMENT AND SOCIAL RESPONSIBILITY MANAGEMENT SYSTEM

Our Safety, Health, Environmental and Social Responsibility Management System (SHESR MS) is based on international standards, *ISO 14001:2004* and *OHSAS 18001:1999*. Primary production facilities (at Hazira and Surat) were first certified compliant with these standards in 2008, and were most recently recertified in January 2012 (valid until March 2014). We require all our major contractors to have well safety, health, and environment management systems. Bridging procedures and bridging documents are developed as necessary.

### GLOBAL ASSET AND ACTIVITY

In 2012, Niko's operations areas of activity involved India, Trinidad, Indonesia, Iraq, Madagascar, Bangladesh and Pakistan. Operated production was centered in India while active drilling programs were focused in Indonesia and Trinidad.

#### India

Niko operates 2 blocks (Hazira & Surat) and 3 non-operated blocks. Non-operated blocks are operated by Reliance Industries. The Hazira field includes 36 wells (12 offshore, 17 from Land-based Drilling Platform and 7 land wells), a gas and oil processing facility and an oil unloading facility at Ankhleswar. The Hazira facility currently produces gas @ 308,000 scmd and oil @ 295 bopd. Gas is transported via pipeline and oil and condensate via truck transport. Surat Block Production ceased after completion of FDP of the approved reservoir.



#### Indonesia

Niko Resources Indonesia maintains its position as the largest holder of deep-water exploration acreage in Indonesia, with 22 Production Sharing Contracts ("PSC"); of these, 17 blocks are operated by Niko. As part of Niko's commitment each PSC will undergo an Environmental Baseline Assessment (EBA) prior to the commencement of operational activities. To date, this process has covered 17 blocks; 14 blocks have received EBA approval and three blocks (new PSC namely Aru, Obi, and South East Seram) are in progress. Niko has signed a four year contract with an option of an additional year with Diamond Offshore for the Ocean Monarch, a deep-water semi-submersible rig. Drilling commenced in the fourth quarter of 2012.

#### Trinidad

In 2012, Niko successfully completed offshore 3D seismic programs in NCMA 2 & 3 as well as an onshore 3D seismic in the Guayaguayare Block. An offshore 2D seismic program was also completed in the MG Block. Geophysical data from the various

**Global Asset and Activity cont'd**

**Trinidad cont'd**

seismic programs was further processed and analyzed in 2012. Niko continued its exploration in Block 2(ab) with two exploration wells: Shadow -1 and Maestro-1.

**Bangladesh**

Niko operates two gas fields (Feni, Chattak) and associated gas processing facilities and has a non-operating interest in Block-9 with Tullow. From November 2004 through Apr 2010, Feni has produced 3.48 bcm as well as condensate. Feni is currently shut in and plant operations are suspended. No production has come from Chattak due to unresolved matters arising from a blowout in 2005. Bangora gas production is 2.8 mm scmd (gross).

**Pakistan**

Niko continued evaluation of seismic data and is actively seeking a partner for its two well offshore exploration program.

**Madagascar**

Niko holds exploration rights to the offshore Grand Prix block off the central West coast of Madagascar. Activities in 2012 involved further analysis of geophysical data, preparation of draft Terms Of Reference (TOR) for the drilling Environmental Impact Assessment (EIA), and solicitation of partner interest. Niko obtained approval for the drilling EIA TOR from the National Office for the Environment (ONE) in the first quarter of 2012.

**Iraq**

Niko signed a Relinquishment and Termination Agreement for the Qara Dagh Block with the Kurdistan Regional Government, shut down the regional office, and released all staff, ending Niko's involvement in Kurdistan, Iraq.



**SHESR PERSONNEL**

By the end of 2012, Niko employed or contracted a total of 39 Safety, Health, Environment and Social Responsibility (SHESR) personnel. Where no full time HSE position has been staffed, Niko's Corporate Manager SHESR assumes responsibility until activity levels warrant permanent staffing.

**Dedicated Safety, Health, Environment & Social Program Personnel as of December 31, 2012**

Corporate	India	Indonesia	Trinidad	Bangladesh	Madagascar	Iraq	Pakistan
1	17	17 <sup>a</sup>	3	1	0	0	0

a. 8 full time and 9 part time staff.

## EMPLOYMENT OF NATIONALS

As of December 31, 2012 Niko employed a total of 441 staff and or internal contractors outside Canada. Of these, 406 (92%) are nationals.

### Employment of Nationals as of December 31, 2012<sup>a</sup>

	India	Bangladesh	Iraq	Madagascar	Trinidad	Indonesia	Pakistan
<b>Nationals</b>	269	21	0	3	27	85	1
<b>Expats</b>	1	0	0	0	5	29	0
<b>Total</b>	270	21	0	3	32	114	1

a. Tally's based on the location in which the personnel are normally located.



## GENDER EMPLOYMENT

Of Niko's 469 personnel, 72 (15%) are women. Positions held by women include senior technical and administrative functions.

### Employment by Gender as of December 31, 2012<sup>a</sup>

	Corporate	India	Bangladesh	Iraq	Madagascar	Trinidad	Indonesia	Pakistan
<b>Males</b>	21	253	19	0	2	17	84	1
<b>Females</b>	7	17	2	0	1	15	30	0
<b>Total</b>	28	270	21	0	3	32	114	1

a. Tally's based on the location in which the personnel are normally located.

## REPORTABLE INCIDENTS – 2012

No significant, safety or environmental incidents were experienced by Niko employees in 2012. Niko contractors recorded one Lost Time Incident in 2012 (Trinidad). No fatalities have occurred on Niko projects in over 16 years of operations.

	Corporate	India <sup>(a)</sup>	Bangladesh	Iraq	Madagascar	Trinidad	Indonesia
Total Person Hours Worked	46,240	745,247	51,791	0	4,656	72,800	1,091,331
Lost Time Incidents	0	NIL	0	0	0	0	0
Spills/Pollution Events	0	NIL	0	0	0	0	0
Property Damage	0	NIL	0	0	0	0	0
Near Misses	0	19	0	0	0	3	0

a. Since JAN-2004 , Total million hours worked without LTI Hazira (6.5 Million Man Hrs) + Olpad (2Million Man Hrs) = 8.5 Million Man hrs) and Nine years of safe Operations.





## SHESR MS AUDITS /INSPECTIONS– 2012

Niko routinely conducts or otherwise arranges periodic inspections of all its operations as proscribed under its Safety, Health, Environment and Social Responsibility Management System.

### INDIA

Second and Third Party/Statutory Audit viz. DNV/DGH/OISD/BVQI/DGMS / ELECTRICAL CONSULTANT/GPCB	7
Internal/ Site Specific Audits as per SHEMS / Standard Requirement.	37
PTW Audit	99
Vehicle Inspections (Forklift, Hydra & Crane)	6



**Team meeting during DNV audit to ISO 14001 & OHSAS 18001 standard, India 2012**

Fire Extinguishers, fire hose hoses, re hydrants, (monthly) and fire pumps (Weekly)	72
Oil Tanker Inspection	48
Pool Vehicle/Equipment Inspection	160
Produced Water Tanker Inspection	11
Level 1 SHE MS Inspection (Area wise)	39
Level 2 SHE MS Inspections (Includes contractor safety inspections) ONSHORE	3
Level 2 SHE MS Inspections (Includes contractor safety inspections) OFFSHORE	1

### TRINIDAD

HSE Audit of seismic vessel	5
Offshore Rig Inspections (Niko HSE Officer)	5
Offshore rig inspections (Regulator)	1
Onshore seismic inspection (Niko HSE Officer)	2
Onshore seismic inspection (Regulator)	1
Weekly HSE audits during office construction and regular HSE monitoring thereafter	1

Level 3 SHE MS Inspection	2
Internal HSE Audit based on ISO & OHSAS	2
Pipeline Inspection	1


### BANGLADESH

Feni plant inspections (Niko HSE Officer)	1
Chattak plant and site inspections (Niko HSE Officer)	1

### INDONESIA

Office HES Inspection (formal)	2
Pre-spud Rig HES inspection (Regulator)	1
Wareship HES Inspection	1
Management Site Visits	2
Contractor HES audits and visit to contractor sites.	7

### MADAGASCAR /PAKISTAN/ IRAQ / CANADA

No formal inspections	
	

**HES Inspection at POSB, Indonesia 2012**



*Stress management training, India 2012*



*Mutual aid mock drill LBDP, India 2012*

## SHESR MS TRAINING AND RELATED INITIATIVES – 2012

Niko recognizes training as a core element of promoting competency, confidence, professional development and career satisfaction among our employees.

### INDIA – Training 2012

Subject	Participants	Subject	Participants
Fire Fighting Training	94	Search & Rescue	13
First Aid training both Basic & Advanced	87	OJT training (Module-1-4,Module-2-8,Module-3-6,Module-4-4,Module-5-3 & Module-6-5)	30
Asset Integrity	13	Emergency Response Plan	17
Confined Space	24	HSE Inductions	855
Permit to Work	13	Ground Disturbance	7
Root Cause Analysis (E)	9	Crane (E)	2
Training on Gas testing	21	Electrical Safety including Lock out tag out, safety standby	14
Traffic control for security and drivers	8	Oil spill containment boom training	19
Hazardous area classification	28	Technical Presentation on Gas Chromatograph	11
Technical Presentation on Pipeline Integrity	11	Technical Presentation on Glycol	13
Life Raft Demonstration	23	Technical Presentation on Captive Power Generation	14
Ergonomics Training	19	Spot Risk Assessment	149
D.R.A.B.C & Stretcher Handling	12	ISO & OHSAS Awareness Training	6
Security Guards training by checkmate	40	Whistle Blower, Code of Ethics, Business Conduct & Anticorruption Policy Awareness (To departments heads & site supervisors)	21
Health and Hygiene Training for Offshore Cooks.	2	Managing contract through assessment/ audit (E)	1

Note: E = external third party training.

<b>INDIA – Training 2012 cont'd</b>			
<b>Subject</b>	<b>Subject</b>	<b>Subject</b>	<b>Subject</b>
Stress Management Medicine Free life training (E)	12	Hydraulic crane safety	10
Safe Operation of welding and Grinding	10	Technical Presentation on Scanweian Flow Meter & Fire Water Pressure Monitoring through SCDA	6
Technical Presentation on Gas Generator	19	Vibration Analysis by SKF (E)	6
		Safety at Hydrocarbon Sector by OISD (E)	3
Technical Presentation on Gas Dehydration	10	Technical Presentation on Distillation	11
On-Job Training (Duties, Responsibilities & Emergency Handling ) by Checkmate (E)	18	ERP training for contractors	8
Stress Management through spirituality training (E)	21	Training on snake bite	18
Heat Stress	32	Training on Health & Personal Hygiene	22
Statutory Compliance for storage tanks & pressure vessels (E)	3	Chemical hygiene training	12
Noise Protection Training	4	National Pollution Response Exercise –IV (E)	1
Wells Safety & Operations	32	SHEMS Awareness (Risk & Aspect Register awareness training)	15
Defensive Driving Training	8	Occupational & Health Hazard Awareness training on 12 major OHH	14
OHSAS 18001/2007 Internal Auditor Training (E)	7	Certificate Course in Basic Fire Prevention and Fire Fighting (E)	40
HUET (E)	5	PST (E)	3
HLO (E)	2		

Note: E = external third party training



**Oil spill containment boom deployment training, Shell LNG Hazira beach, India 2012**



**Training in fire fighting , Hazira, India 2012**



## INDIA – Training 2012 cont'd (THROUGH HSE VIDEO)

Subject	Participants	Subject	Participants
Safety change attitude increase knowledge with video show	11	Safety Video Presentation on Behavioral Safety	14
Safety Awareness through movie (Safety Movie Fatal Exposure Tragedy at DUPONT.)	5	Safety Video Presentation on Death in Oil Field	14
Safety Awareness through movie (Safety Movie Fuel Gas Safety & Iron in the fire )	11	Safety Video Presentation on Electrical Safety in Industries	10
Safety Video Presentation on Bhopal Gas Tragedy	16	Safety Video Presentation on Propane Gas Leak	14
Safety Video Presentation on Methanol Tank Explosion	16	Safety Video Presentation on Bayer Crop Science Incident	14
Safety Video Presentation on Dangers of Hot work	13	Video Presentation on Piper Alfa Incident	26
Global Warming (Environment .Movie)	13		
<b>MOCK DRILLS</b>			
Olpad – weekly evacuation drills	49	Hazira Offshore Drills	28
Olpad - other drills	16	Hazira Onshore Drills	18

## MUTUAL AID MOCKDRILLS

Organised and participated in joint mock drills with 6 major mutual aid partners on different scenarios.

## INDIA 2012 - Other HSE Achievements & Promotional Activities

- No major non-conformities or non-compliance.
- Achieved all one year SHESR MS implementation targets.
- National Fire Services Day, 14<sup>th</sup> April 2012. Included fire oath, fire & safety equipment demonstration & fire hose drill competition.
- National Road safety week, January 2012.
- National Safety Day, 4<sup>th</sup> Mar 12 held at Hazira and Olpad to promote 100% safe work practices. Activities included competitions such as Safety Quiz, Safety Play, Safety Speech, Contractor Audit, Tool box talk etc.
- World Environment Day Program, 5<sup>th</sup> June 2012.
- Best Safety Performer awards and Incident Safety awards given to Helpers, Security and Operators.
- World Health Day Celebration 9. July 2012.



**National Safety Day presentation at Niko Hazira, 2012.**

- Gift vouchers issued to personnel for their significant contribution and participation in promoting/improving HSE standards of NIKO.
- Annual Health Challenge Program 2012 held at Hazira & Surat Block. Employees participated in Badminton, 100mtr Run, Short Put, Ball Throw & Cricket.



## **INDIA 2012 – SHESR Planning, Communications and Related Activities**

- Review and update of SHESR MS Manuals
- Completion of HSE In-House Documentary Movie of Niko India Operation
- Introduction of spot risk assessment.
- Reviewed Petroleum and Natural Gas (Safety in Offshore Operations) Rules, 2008'
- Oil Spill Contingency Plan jointly reviewed and updated as per Indian Coast Guard Guidelines.

## **INDIA 2012 – Occupational Health Highlights**

- Noise monitoring carried out on a regular basis by paramedic.
- Bio Medical waste & expired medicines are being disposed as per regulatory requirements based on regular checks.
- Routine inspection of water carboys done for all drinking water consignments. Quarterly analysis for drinking water done to monitor its potability.
- Pest control activity twice / month.
- Periodic Medical Examination provided to all staff & contractors.
- Mutual Aid Mock drill on Medivac (Multiple Causalities) with the neighbouring Industry M/s. Hindustan Chemical Company conducted in March 2012.
- Refresher Basic First Aid Training to all Staff & contractors of Hazira & Surat Block.
- Conducted Heat Stress Awareness Program.
- Prepared Health Cards of Employees of Hazira & Surat Block.
- Hygiene Inspection of Hazira & Surat Block on Regular Basis.



## **INDONESIA - Training 2012**

<b>Subject</b>	<b>Participants</b>	<b>Subject</b>	<b>Participants</b>
Basic Offshore Safety Induction and Emergency Training (BOSIET)	12	Safety Induction sessions with Contractors	65
Incident Management Team Training	22	Media Relations Training	6
On site oil spill response exercise at Jayarani-1	20	Corporate Social Responsibility Workshop	2
Defensive driver training	1	Wellness training	60
Well Control Training	12	Weekly safety drills (eg. Muster, Fire , Medical, H2S, Man over Board)	Variable
Office Building evacuation and muster drill.	All Employees	First Aid Training	23



## INDONESIA – SHESR Planning, Communications and Related Activities

- Project Risk Assessment .
- Drilling Well On Paper (DWOP) safety workshop.
- Table Top Emergency Response Drill prior to spud.
- Daily HES and Operations Meeting.
- Weekly HES Team Meetings.
- Monthly HES Committee Meetings.
- Contractor HES Meetings.
- HES working meetings with Directorate General of Oil and Gas (Ministry of Energy and Mineral Resources), Ministry of Environment, Local Environmental Agency, and SKK Migas.
- Achievement of 90% of 2012 HES Objectives (10% higher than target) and identification of 2013 objectives and targets.



**Oil Spill Response Drill at Jayarani-1, 2012**



**Table Top Emergency Response Drill, Indonesia 2012**

- Completion of Niko Indonesia HESMS
- Completion of Waste Management Plan
- Oil spill and cutting dispersion modeling
- Malaria Awareness Program implemented
- Food Safety Management Program implemented
- Fit For Work Program implemented
- Fruit Day (weekly)
- Niko Indonesia Intercultural Workshop
- Safety alerts and awareness program on Jakarta area flooding.
- Health Talk by Company Doctor
- Pre-employment and Annual Medical Check-Ups
- Safety awards program implemented

## TRINIDAD – Training 2012

<u>Subject</u>	<u>Participants</u>	<u>Subject</u>	<u>Participants</u>
HSE Inductions	35	Night Medevac Drill held for drilling programme	1
Office building fire drill	All	Presentation on operations and HSE challenges encountered by regulator.	1

## TRINIDAD – SHESR Planning , Communications and Related Activities

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| <ul style="list-style-type: none"> <li>➤ HSE emergency contact cards for staff, expats and contractors.</li> <li>➤ Weekly discussions in Manager’s meeting on HSE issues.</li> </ul> | <ul style="list-style-type: none"> <li>➤ Office safety pamphlets produced.</li> <li>➤ National Safety Week Presentation and Quiz.</li> </ul> |
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## Bangladesh, Madagascar, Pakistan and Canada - Training

No training or related initiatives undertaken.



## SUSTAINABILITY INITIATIVES

As part of its overall corporate policy, Niko encourages activities which reduce our impacts and promote more sustainable resource use. Programs undertaken in 2012 are summarized below.

<u>INDIA</u>	<u>INDONESIA</u>
<ul style="list-style-type: none"> <li>➤ Waste reduction and management: Reduction of lube oil consumption for the year 2012 was 2935 liters. Cost saving of INR 469600.</li> <li>➤ Ongoing resource recovery and conservation (Chemicals, Paper, Plastics, medicines etc).</li> <li>➤ Re-filtering compressor's packing drain oil for reuse resulting in 15% reduction in waste oil.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Environmental Baseline Assessments (EBA) for 5 further offshore blocks submitted and accepted by government (14 accepted as of Dec 31, 2012).</li> <li>➤ Environment Sensitivity Area Mapping around the project area.</li> <li>➤ Participation in Carbon Disclosure Project.</li> <li>➤ Socialization to local government and local community prior commencing drilling.</li> <li>➤ Continued implementation of Reduce, Reuse, Recycle program.</li> <li>➤ HES Dept. provided 100 personal water bottles to use with dispensed water to reduce the use of single use, throw away plastic water bottles.</li> </ul>
 <p><b><i>Niko India employees planting trees on World Environment Day, 2012</i></b></p> <ul style="list-style-type: none"> <li>➤ Re-use of printer cartridges by refilling for less generation of E-Waste.</li> <li>➤ 150 Saplings were planted at Niko plant &amp; well sites as part of green belt enhancement.</li> <li>➤ 3.45 % reduction in electricity consumption compared to 2011.</li> <li>➤ Participation in Carbon Disclosure Project.</li> </ul>	 <p><b><i>Community socialization meeting in Rajat Ampat, Indonesia 2012</i></b></p>







## SUSTAINABILITY INITIATIVES cont'd

<u>TRINIDAD</u>	<u>MADAGASCAR</u>
<ul style="list-style-type: none"> <li>➤ Active energy conservation.</li> <li>➤ Waste segregation and recycling initiative at office.</li> <li>➤ Discussion with Government on National Oil Spill Response.</li> <li>➤ Compilation of up-to-date lists for active fishing vessels for north, east and south coasts of Trinidad.</li> <li>➤ Providing reusable stainless steel water bottles to staff and contractors to reduce plastic bottle use.</li> <li>➤ Participation in Carbon Disclosure Project.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Continued energy conservation effort (switching off unneeded lights, computers, air conditioning and accessories).</li> <li>➤ Continued paper use reduction effort focused on double –sided paper use, use of recycled paper and avoiding unnecessary printing.</li> <li>➤ Participation in Carbon Disclosure Project.</li> </ul>
<u>CANADA</u>	<u>BANGLADESH</u>
<ul style="list-style-type: none"> <li>➤ Recycling (plastics, papers, tins, toner cartridges, batteries, bottles etc).</li> <li>➤ Promotion of energy conservation.</li> <li>➤ Participation in Carbon Disclosure Project.</li> <li>➤ Continued elimination of quarterly mail-out which has saved approximately 50,000 sheets of paper per year.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Reduce, reuse, recycle program ongoing.</li> <li>➤ Promotion of energy conservation (use of energy efficient bulbs, reduction in number of lights).</li> <li>➤ Participation in Carbon Disclosure Project.</li> </ul>
	<u>PAKISTAN</u>
	<ul style="list-style-type: none"> <li>➤ Participation in Carbon Disclosure Project.</li> </ul>







## CORPORATE SOCIAL RESPONSIBILITY

Niko periodically undertakes broader, good-neighbour initiatives intended to promote improved conditions in local communities. Programs undertaken in 2012 are summarized below.

### INDIA

- Niko sponsored malaria awareness program given to 182 people, June 2012.
- First Aid Training conducted in Hazira secondary school. Attended by 87 children and teachers.
- Social health workers & AIDS Control Society Team with Niko Hazira + Olpad conducted campaign on AIDS Awareness Day for 150 people in community, Dec 2012 .
- Pulse Polio Immunization administered to 458 Children.



*Pulse Polio immunization Hazria, 2012*

- Repairing and strengthening of village approach roads at Surat block
- Provided fire fighting support by supply of 45,000 of water to M/s. Cotton Yarn Unit near Niko Bheema Plant.
- Provided environmental awareness program and promotional activities to 41 children in Hazira Secondary School.
- Developed a green belt at Hazira Primary School.
- INR 170000 contributed for construction of Hazira police station.



*Malaria awareness talk being given by Niko medical staff to local community, 2012*

### TRINIDAD

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| <ul style="list-style-type: none"> <li>➤ Public meetings for Guaya Block drilling programme</li> <li>➤ Introductory meetings for NCMA 2&amp; 3, MG Block and Block 4b drilling programmes</li> <li>➤ Renewable energy workshop and training conducted with 5 coastline communities</li> </ul> | <ul style="list-style-type: none"> <li>➤ Provided training to communities involved in onshore seismic survey</li> <li>➤ Worked with other operators on Environmental Sensitivity Mapping for Trinidad</li> <li>➤ Facilitated floral and faunal survey with Forestry Division in largest wildlife sanctuary in Trinidad.</li> </ul> |
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## CORPORATE SOCIAL RESPONSIBILITY cont'd

### INDONESIA

- Cataract surgery for 12 people of local community in Kofiau Block, Papua Barat.
- Infant nutrition campaign for mothers in Kofiau Block, Papua Barat.
- Basic personal hygiene campaign for elementary student in Kofiau Block, Papua Barat.
- Introduction of Basic English conversation for local teenagers.



**Participants in Niko-sponsored infant nutrition community education program, Indonesia 2012**



**Teenagers participating in Niko-sponsored Basic English training program, Indonesia 2012.**



**Doctor participating in Niko-sponsored cataract clinic, Indonesia 2012**

- Basic first aid awareness training for local teenagers.
- Blood donation (in-coordination with building management).
- Donation for elementary school facility (School books, stationery, white boards, sport equipment, etc).
- Education games provided for Elementary Students .



**Niko doctor providing first aid training to teenagers, 2012.**

### IRAQ

- Donation of equipment and supplies (eg. medical) to local groups, hospitals, agencies.