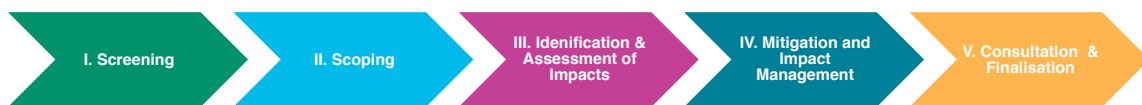# A

Annex A:

Additional Information on SWIA Methodology

A. SWIA Phases

The SWIA process follows well-established impact assessment steps. For each step of the process specific tools or approaches have been developed, which are described below.[481]

I. Screening	II. Scoping	III. Idenification & Assessment of Impacts	IV. Mitigation and Impact Management	V. Consultation & Finalisation

Box 26: SWIA Phases

I. Screening

Objective: Select economic sectors for a SWIA based on several criteria: ■ the importance of the sector to the Myanmar economy ■ the complexity and scale of human rights risks involved in the sector ■ the diversity of potential impacts looking across the sectors ■ human development potential ■ geographical area **Tasks:** ■ Informal consultations were held inside and outside Myanmar to develop and verify the selection of sectors.	**Key Outputs / Tools** ■ Selection of 4 sectors for SWIA: Oil & Gas, Tourism, ICT and Agriculture

II. Scoping the O&G sector in Myanmar

Objective: Develop foundational knowledge base to target field research for validation and deepening of data collection. **Tasks:** ■ Commission expert background papers on: the O&G sector; the legal framework; land and labour issues ■ Stakeholder mapping	**Key Outputs / Tools** ■ Scoping papers ■ SWIA work plan

III. Identification and Assessment of Impacts

Objective: Validate foundational knowledge base with primary	**Key Outputs /**

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data collected through field research from targeted locations across Myanmar.

Tasks:
- Two rounds of field team visits to three different locations each time collecting qualitative data on:
  - Livelihoods; Environment; Housing & Land; Community Consultation; Grievance Mechanisms; Public & Community Services; In-Migration; Cultural Rights; Vulnerable Groups; Labour; Security; and Worker Housing
- Compile and synthesise field data, including IHRB/DIHR trips to debrief with research teams in Yangon
- Further desk research

Tools
- Questionnaires
- Internal fact sheets on various business and human rights issues in Myanmar
- Ethical research policy
- Field safety guidelines
- Interview summaries
- Reports of stakeholders consulted

IV. Mitigation and Impact Management

Objective: Identify measures that will help avoid, minimise, mitigate potential impacts of the sector.

Tasks:
- Synthesise information on potential impacts at the three levels: sector, cumulative and project in order to identify considerations for companies and Government to prevent or mitigate potential impacts

Key Outputs / Tools
- Initial synthesis reports of field findings

V. Consultation & Finalisation of the SWIA Report

Objective: Present SWIA findings and conclusions, as well as recommendations to be validated through consultations with representatives of Myanmar Government, O&G companies operating/planning to operate in Myanmar, and representatives of civil society organisations, some of whom represent those affected by O&G operations in Myanmar, trade unions, international organisations, donor governments.

Tasks:
- Iterative drafting of main SWIA chapters
- Translations for consultations
- Consultations in Yangon, Naypyitaw and Europe
- Revisions to draft SWIA
- Finalisation, publication and dissemination of the O&G SWIA

Key Outputs / Tools
- Draft SWIA report in English and Burmese
- Slide pack summarising the SWIA findings for consultation
- Consultation report
- Final O&G SWIA report and dissemination programme

B. What is Different about a SWIA compared to a Project Level Assessment

- **Wider audience:** A project-level EIA, SIA or ESIA is typically carried out by or for a project developer to fulfill a regulatory requirement as a step in gaining permission to operate. SWIA are intended for a much wider audience: Government and Parliamentarians, business, local communities, civil society, and workers and trade unions.

- **Aims to shape policy, law and projects:** SWIA look at the national context, national frameworks, the legal contracts (where available) and business practices, and identifies what actions will help shape or impede better human rights outcomes for the sector. The findings inform the analysis and recommendations at the core of the SWIA for a range of audiences.

- **Information goes into the public domain**: Company-led HRIA are typically confidential, and ESIA may be also unless disclosure is required. The whole rationale behind the SWIA is to make the document a public good for the purpose of informing and thereby improving practices and outcome of business investment.

- **Looks at 3 Levels of Analysis**: The SWIA looks at the impacts of the sector and to do this uses three levels of analysis: sector, project and cumulative levels.

- **Does not replace a project-level ESIA/HRIA:** The SWIA does not replace the need for a project-level ESIA where such an ESIA is required or desirable. Nor would it substitute for a project-level HRIA if a company chooses to do one. Instead the SWIA helps *inform* a project level assessment, as it gives an indication of the kinds of human rights impacts that have arisen in the past in the sector. This helps to forecast what future impacts may be. A SWIA may be particularly relevant at the project scoping stage. The SWIA also alerts to potential legacy issues that incoming operations may face. Such assessments will have to examine the specific situation of the forthcoming project within the particular local context and in doing so, may also uncover new potential impacts that were not picked up in the SWIA. It is therefore not a checklist but a guide for considerations in subsequent impact assessments.

- **Does not replace a project-level conflict risk assessment:** Given the history of conflict in certain areas of the country, companies operating in those areas might want to carry out project level conflict risk assessments. The limited number of people interviewed and places visited within the framework of this SWIA is not sufficient to develop a comprehensive analysis of drivers of conflict. However, such a limitation is inevitable in the rationale for the SWIA, which cannot expect to get this level of detail across the country. Furthermore, the types of interviewees would need to be expanded in order to more effectively capture conflict impacts, including conflict experts, ethnic armed group and community leaders.

- **Takes a broad view of what a human rights impact includes.** As HRIA methodology evolves, there has been an accompanying discussion about what distinguishes a human rights impact from other types of social impacts in particular. The SWIA takes a broad view of what constitutes a human rights impact, as there are a wide variety of actions that can ultimately result in human rights impacts and because it is intended to support an approach to responsible business conduct in the country which will require addressing all these issues.

- **Takes a practical view on distinguishing different types of impact assessments.** In sectors such as O&G where ESIAs are often a routine requirement, there has been

discussions on what distinguishes an SIA from an HRIA, potentially diverting attention from getting on with the process of assessing and addressing potential impacts. The approach taken in this SWIA is that the labels that are given to the process are less important than getting the process and the content covered in a manner that is compatible with human rights and that a lot depends on the quality of the ESIA/SIA. A good quality ESIA/SIA comes close to addressing many human rights issues but may not pay sufficient attention to civil and political rights, and in considering risks to human rights defenders, which can be relevant to extractive projects.[482] See Box 27 below.

■ **Does not establish a baseline but instead describes the situation for the sector at a moment in time.** The SWIA does not purport to set out a baseline of conditions at the project level; this is a task for operator's project-level ESIA. Part 3 on Sector Level Impacts, and the national context discussions at the beginning of each of the eight chapters of Part 4 Project-Level Impacts and at the beginning of Part 5 on Cumulative-Level impacts, sets out the current context around the enjoyment of human rights at the national level, and gives some indication regarding future trends as well as particular areas that are high-risk based on past in-country experiences.

■ **Would provide relevant information for a sector master plan or strategic ESIA.** Sectoral master plans or strategic impact assessments have not been used to date in Myanmar but the Government is reported to be working on an energy master plan. The SWIA provides relevant information for consideration in such a master plan.

Box 27: Six Key Criteria for Assessing Human Rights Impacts

In order to adequately assess human rights impacts, the impact assessment process and content should reflect the six criteria listed below[483]

Standards
The impact assessment needs to be based on international human rights standards. Human rights constitute a set of standards and principles that have been developed by the international community. This establishes an objective benchmark for impact identification, severity assessment, mitigation and remedy.

Scope
The scope of an assessment should include actual and potential human rights impacts caused or contributed to by a company, including cumulative impacts, as well as impacts directly linked to a project through business relationships such as with contractors, suppliers, joint-venture partners, government and non-government entities.

Process and engagement
The impact assessment, including associated engagement and consultation activities, should apply the human rights principles of participation, non-discrimination, empowerment, transparency and accountability. This promotes

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[482] See: OHCHR, "Report of the Special Rapporteur on the situation of human rights defenders, Margaret Sekaggya", A/HRC/19/55 (2011), sections III & IV.
[483] Developed by the Danish Institute for Human Rights.

attention to process, not just outcome, and can help to create "buy-in" in the impact assessment among relevant stakeholders. Inclusive engagement throughout the impact assessment process is a key component, in a manner that is gender sensitive and takes into account the needs of vulnerable individuals and groups, providing capacity building or assistance where needed to promote their meaningful participation.

Assessing and addressing impacts
Impacts should be assessed according to the severity of their human rights consequences. This means including the assessment criteria of scope, scale and ability to remedy the impact, and taking into account the views of rights-holders and/or their legitimate representatives in determining impact severity. Addressing identified impacts should follow the standard mitigation hierarchy of "avoid-reduce-mitigate-remedy". Where it is necessary to prioritise actions to address impacts, severity of human rights consequences should be the core criterion.

Accountability and transparency
The impact assessment should consider the differentiated but complementary duties and responsibilities of government and non-government responsible parties for addressing identified impacts. For company responsibilities, this would include assigning to relevant staff members actions to avoid, mitigate and remedy impacts. The impact assessment process and its associated communications should be transparent and provide for effective ways for rights-holders to hold the responsible parties to account for how impacts are identified, prevented, mitigated and/or remedied.

Interrelated impacts
Identification and management of impacts should take into account the interrelatedness of various environmental, social and human rights impacts. For example, depleting a community water supply will have an impact on the right to water, but may also have interrelated impacts on the right to education of children who may need to walk longer distances to collect water and are therefore less able to attend school.

C. Limitations of the Oil & Gas SWIA

- **Non-attribution:** The team made a decision not to attribute practices, good or bad, to particular places, companies, or individuals and therefore have not listed specific stakeholders engaged during the research. The SWIA uses existing experiences to identify opportunities to improve new and existing projects in the sector.
- **Six locations visited:** The O&G SWIA field research focused on six regions where O&G is currently being produced that are representative of a range of O&G contexts in Myanmar: onshore drilling and production, coastal facilities where offshore drilling comes onshore, pipelines transporting O&G and also artisanal/ traditional oil drilling. While this does not include all areas where current or future O&G explorations are taking place, the Report's recommendations are representative enough to be generally applicable to O&G potential or producing regions of Myanmar that are not in conflict.

The findings highlight trends seen across the six research locations and are therefore not meant to provide detailed analysis of particular types of projects or regions.

- **Upstream & midstream focus:** This SWIA for the O&G sector looks at upstream and midstream (transportation) activities but not processing and sale as these are currently fairly limited activities in Myanmar.

- **Existing, not planned, operations:** It was specifically decided to do the field research in locations with existing O&G operations, rather than prospective areas for exploration or production. Given the tensions that have surrounded some O&G projects to date in Myanmar, there was a concern that asking about potential projects in certain areas (without knowing whether projects would actually materialise) might create concerns in communities and potentially build expectations (good or bad) that were not fulfilled. In addition, given the inexperience of many Myanmar communities with being able to express their concerns publicly, the relative lack of experience with O&G or other large footprint projects in the country to date, the project team decided that research with communities that had experience with nearby O&G projects would be able to provide more relevant data for the research. In addition, as Government permission was needed to carry out the research and given sensitivities surrounding the sector, it was considered more likely that Government permission would be granted to review existing rather than prospective projects.

- **Rapidly changing dynamics:** A challenge of conducting a SWIA at this moment of time in Myanmar is that the country is undergoing rapid social, economic, political and regulatory changes. As a result, changes mean that past experiences, both good and bad, may not always be relevant to future operations. Examples of good practice from the previous era where companies would rightly try to insulate themselves from interaction with the Government are far less likely to be appropriate in a new era of openness. Prompting the Government to support responsible business approaches may be a more appropriate approach.

- **Conflict expertise:** The interviewers were experienced social science researchers but did not have sufficient experience or training in questions of diversity and exclusion to sufficiently explore ethnic grievances and the dynamics of conflict (both armed conflict and inter-communal violence). Given Myanmar's recent history, addressing this would require very careful selection and intensive training of interviewers, and even then there would likely be remaining limitations with gathering all required information through qualitative information.

- **Offshore visits:** Offshore locations were not included in the O&G SWIA due to logistical and security constraints.

- **Limitations due to lack of permission:** In some instances no permission was granted to speak to workers of O&G companies or to community members, or permission was delayed, which resulted in limited time in order to conduct interviews. However generally both the authorities and most companies have been collaborative and open to granting access to the SWIA field teams and to sharing information.

- **Access limitations:** While the SWIA field teams tried to conduct workers' interviews outside of their workplaces and without the presence of management, this was not always possible. This may have led to different interview responses than if interviews were confidential.

- **No artisanal extraction focus:** Apart from having observed artisanal oil extraction and interviewed some of those working in the area, the research did not focus on

artisanal oil extraction.

D. Field Research Methodology & Interviews

Field Research Methodology

The O&G SWIA is comprised of both primary and secondary research. For the primary research, three teams of two researchers (plus a local facilitator, translator and driver as needed) visited six different locations (see location map below).

The field teams used qualitative research methods that were adapted to the local contexts to take account of the sensitivities of localised issues (such as potential conflict or tensions) while being sufficiently standardised to allow for coverage of all major human rights issues and comparison of findings.

The field researches used a set of assessment questionnaires to structure their meetings and guide their conversations (rather than as checklists). The questionnaires are based on DIHR's Human Rights Compliance Assessment Tool (HRCA),[484] a tool to enable companies to identify and assess human rights compliance in their operations (a more generalised copy of the interview questionnaires will be on the MCRB website).[485]

The questionnaires covered four overarching stakeholder groups and interviews were held one-to-one, in small groups and through focus group discussions:
- Managers of O&G companies and sub-contractors;
- Workers of O&G companies and sub-contractor;
- Communities;
- Other external stakeholders (local or national authorities, NGOs, international organisations, journalists, political parties, schools and monasteries).

Open questions were used as much as possible, in order to allow respondents to answer using their own thoughts and words, and raise the issues they considered as important. All interviews were documented with written notes and in most cased voice recorded with permission of the interviewees. Most interviews were conducted in Burmese, while local intermediaries translated in meetings with local community representatives where regional languages were used. The issues in Box 28 below were covered in the field research questionnaires.

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[484] DIHR, "Human Rights Compliance Assessment" (accessed 15 July 2014).
[485] http://www.myanmar-responsiblebusiness.org/

Box 28: Topics Covered in SWIA Questionnaires

- Community Impacts, including consultation and participation
- Land acquisition and resettlement practices
- Livelihoods of communities
- Impacts of in-migration and out migration on communities
- Housing
- Labour issues, including health and safety of employees, working conditions and opportunities
- Grievance mechanisms for communities
- Public services and community services
- Women and Children
- Indigenous Peoples
- Security Arrangements
- Conflict
- Environment and Ecosystem Services
- Ethical Business Practices

O&G Field Visit Locations

The SWIA field research was carried out in the following locations:

1st round of field visits – Dec. 2013:
A. Yenangyaung and Chauk (Magway Division)
B. Ngape Township (Magway Division)
C. Minbu Township (Magway Division)

2nd round of field visits – Jan. 2014:
D. Rakhine State (Ann and Kyauk Phyu townships
E. Shan state (Namtu and Namkham townships)
F. Tanintharyi Division (Dawei and Yebyu townships)

Overview of Stakeholders Consulted

Researchers often began visits to different towns by speaking with the local township or village authorities. This helped provide an initial understanding of some of the main issues affecting or concerning the community as a whole. Researchers then conducted individual interviews and focus group discussions to discuss in more detail but without the authorities present in order to gain insights from other perspectives. The interviews generally covered the issues in the questionnaires.

The table below presents a breakdown of the discussions with 295 individuals from different stakeholder groups – 214 within individual interviews and 81 attending focus group discussions. Approximately 20 individual meetings were held in Yangon with company representatives (both Myanmar and international) in addition to a group meeting with the socio-economic departments of four companies to explain about the SWIA project plan, to discuss their projects, policies, due diligence processes and grievance systems. Additional meetings were also held in Naypyitaw and Yangon with Government Ministers, MOGE, and MPs from field areas.

In addition, meetings were held with various O&G companies, industry associations, civil society groups and governments outside of Myanmar to explain the SWIA methodology and provide the opportunity to give input on the research.

Box 29: Stakeholder Interviews Conducted

COMMUNITIES	
116 interviews and 40 focus group members overall	

Yenangyaung and Chauk:
■ 15 interviews / 6 in focus groups
  • 9 Community members/groups
  • 2 Monks
  • 1 Media
  • 5 local businesses
  • 4 village administrators
Minbu:
■ 31 interviews / 7 in focus groups
  • 19 Community members/groups; 5 Monks; 1 Pagoda trustee; 6 Local businesses; 7 village administrators
Ngaphe:
■ 11 interviews / 6 in focus groups
  • 8 Community members/groups
  • 1 Monk
  • 2 local businesses
  • 7 village administrators
	Kyauk Phyu and Ann:
	■ 24 interviews / 7 in focus groups
	  • 13 Community members/groups
	  • 4 Monks
	  • 3 Local businesses
	  • 4 village administrators
	Tanintharyi:
	■ 7 interviews / 9 in focus groups
	  • 10 Community members/groups
	  • 1 Monks
	  • 2 Local businesses
	  • 3 village administrators
	Namtu and Namkhum:
	■ 28 interviews / 5 in focus groups
	  • 25 Community members/groups
	  • 2 Monks
	  • 5 village administrators
	  • 3 Local Businesses

WORKERS	
4 interviews and 17 focus group members overall	
Yenangyaung and Chauk:	**Kyauk Phyu and Ann:**
■ 1 interview / 4 in focus groups	■ 0 interviews / 5 focus group
Minbu:	**Tanintharyi:**
■ 2 interviews / 3 in focus groups	■ 0 interviews / 4 in focus groups
Ngaphe:	**Namtu and Namkhum:**
■ 1 focus group / 1 interview	■ 0 interviews/0 focus groups
GOVERNMENT	
39 interviews overall	
Yenangyaung and Chauk:	**Kyauk Phyu and Ann:**
■ 8 interviews	■ 6 interviews
Minbu:	**Tanintharyi:**
■ 5 interviews	■ 6 interviews
Ngaphe:	**Namtu and Namkhum:**
■ 9 interviews	■ 5 interviews
POLITICAL PARTIES	
13 interviews and 4 focus group members overall	
Yenangyaung and Chauk:	**Kyauk Phyu and Ann:**
■ 1 interview / 3 in focus groups	■ 3 interviews
Minbu:	**Tanintharyi:**
■ 1 interview	■ 1 interview
Ngaphe:	**Namtu and Namkhum:**
■ 2 interviews / 1 focus group	■ 5 interviews
CSOs, NGO, & INGOs	
20 interviews and 7 focus group members overall	
Yenangyaung and Chauk:	**Kyauk Phyu and Ann:**
3 interviews / 5 in focus groups	2 interviews
Minbu:	**Tanintharyi:**
3 interviews	5 interviews / 1 Focus Group
Ngaphe:	**Namtu and Namkhum:**
2 interviews / 1 focus group	5 interviews
O&G Company	
22 interviews and 13 focus group members overall	
Yenangyaung and Chauk:	**Kyauk Phyu and Ann:**
■ 12 interviews / 5 in focus groups	■ 4 interviews / 3 in focus groups
• 10 local / 7 international	• 5 local / 2 international
Minbu:	**Tanintharyi:**
■ 1 interview / 4 in focus groups	■ 3 interviews / 1 focus group
• 5 local / 4 international	• 3 local / 1 international
Ngaphe:	**Namtu and Namkhum:**
■ 2 interviews	■ 0 interviews
• 1 local/ 1 International	

The O&G SWIA Field Research Team

One of the objectives of the SWIA programme is to build the capacity of Myanmar researchers to understand human rights issues and their connection to business and to begin to develop researchers in Myanmar with this skill set. The intention was to equip the researchers to participate in assessing and contributing to consultations on issues of responsible business following their work with MCRB.

The O&G SWIA team consisted of a Myanmar SWIA manager (responsible for several current and future SWIA processes in Myanmar), one field team leader and six field researchers. The field team leader was an O&G sector expert and the field researchers had a background in conducting qualitative and quantitative social science research. All field staff received a thorough training before visiting the field. The training was carried out by local and international experts. It covered basic human rights and business training, an introduction to the practice of social impact assessment, sessions on human rights impacts of the O&G sector, sessions on how to conduct focus group discussions, ethical standards for conducting field research, discussion on environmental issues and ESIA, labour unions, foreign direct investment, and an introduction to the various SWIA questionnaires and desk research.

Following the first round of field visits, IHRB and DIHR experts debriefed the teams in Yangon to reflect on the team's findings and fine-tune the research approach and the subsequent data compilation process. Following the 2nd round of field visits IHRB and DIHR experts again debriefed the teams to get a comprehensive "download" of the 2nd round findings and discuss the root causes of the impacts before the final data compilation was completed.

The O&G and Tourism SWIA field researchers outside the MCRB office in Yangon (2013).

Annex B

O&G Operations and Operators in Myanmar

A. The O&G Value Chain
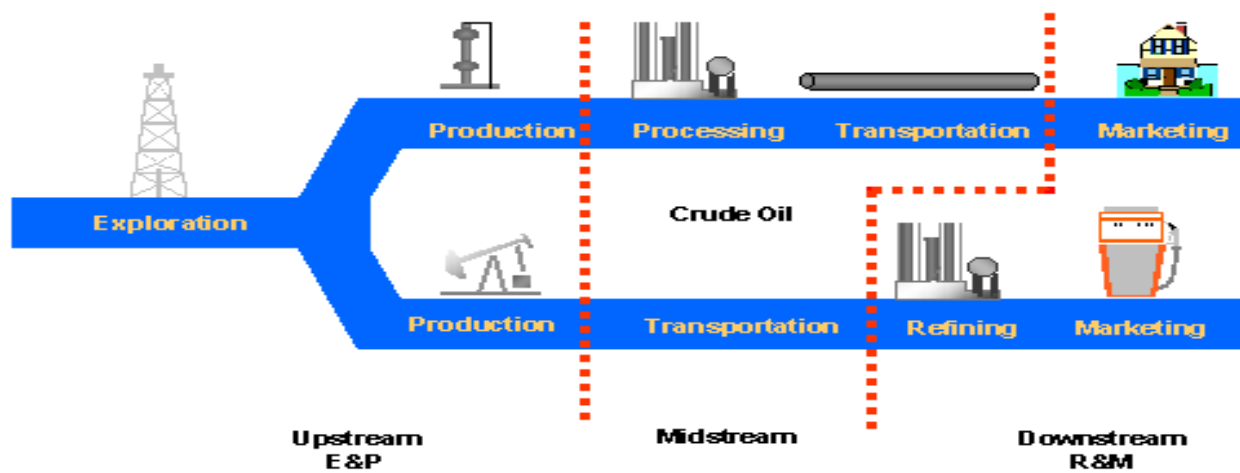
Upstream work, during the exploration and production process, accounts for over 75% of an oil company's capital output. The upstream process involves a large capital investment of equipment and technology to find the resource and to bring it to the surface. It consists of a number of sub-activities:[486]

- ■ **Geological investigations/evaluating potential concessions to bid for or buy**
  - • Interaction with Government authorities/other oil companies and review of geology, legal and commercial frameworks.
- ■ **Pre-feasibility**
  - • Exploration studies and surveys to plan exploration drilling within acquired concessions.
  - • At this stage the company has paid any signature bonus associated with the contract, is developing a commercial strategy for the asset should exploration be successful, and is also planning for exploration.
- ■ **Feasibility**
  - • Exploratory and appraisal drilling. This stage aims to assess and quantify if there are commercially viable reserves. For onshore concessions, exploration and appraisal drilling is the first stage at which there is an extensive local footprint. Where concessions are offshore, the on-shore footprint may still be much smaller and limited to logistics support activities only.

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[486] Based on information in World Bank Institute, "Contract Monitoring Roadmap" (accessed 25 July 2014).

- **Field Development/Construction**
  - This is the stage when the development of the field is planned in detail and then executed. Includes deciding where temporary and permanent facilities will be located and the route of pipelines, hiring contractors to supply equipment and undertake construction. Environmental and social impact assessments and associated studies on oil spill and emergency response planning, potentially any resettlement and compensation plans are being completed. Decision about location and further development of impact mitigation and management plans are underway.
  - On-shore activities reach a peak of visible activity and include: Site preparation, wellheads, separation/treatment facilities, power plant, increased oil storage, facilities to export, flares, gas production plant, accommodation, infrastructure, drill rigs.
- **Operation/production**
  - For both onshore and offshore projects this is the stage at which there is likely to be less visible activity than was the case during construction. Typically Government revenues will be low during initial years of production because exploration and development costs are being offset, but they will then start to rise. In many cases, fields are developed in stages, or other exploration blocks are let nearby, so that alongside production in some areas there is exploration or development activity also being carried out. Accompanying production, this is the stage where the greatest concentration of social investment activity typically occurs.
- **Closure/Decommissioning and rehabilitation**
  - Decommissioning and rehabilitation can occur after each of the above steps if wells prove unviable, or other risks are realised. In line with any previously agreed upon closure plan, activities are the plugging of wells, demolishing and removing installations, and restoring sites.

Midstream is the transportation and processing of oil and gas that can be done with tankers, trucks, or pipelines.

Downstream involves the processing, refining, and marketing of oil and gas products.

B. The O&G Industry Players in Myanmar

The industry is composed of a number of different companies and organisations that contribute to supplying refined products and natural gas to the end consumer. It is composed of:
- **Fully-integrated O&G companies**, which work in upstream, midstream, and downstream spectrum, often called supermajors. See the block lists below.
- **Independent producers** that are exploration and production companies and focus their expertise to compete with the fully-integrated companies and are often bought out or brought into production sharing agreements and/or subsumed by the supermajors.
- **Refiners and marketers.** In Myanmar, the Myanmar Petrochemical Enterprise (MPE) runs the country's three oil refineries in Chauk, Thanbayagan, and Thanlyin. There are both publicly and private run gas stations throughout Myanmar, such as Max Myanmar Company, and Htoo Trading Company.

- **Pipeline operators** that transport crude oil, refined products, natural gas and natural gas liquids using networks of pipes and pumping/compressor stations. Between 1963 and 1988 there were 17 pipelines in operation and after 1988 there were 36 O&G pipelines in Myanmar. The majority of these pipelines are operated by MOGE for local use while the international pipelines are foreign operated. For example, the Myanmar-China O&G pipelines are operated by CNPC (SEAGP/SEAOP); the Yadana and Yetagun gas pipelines are operated by Total, Chevron, PTTEP, and MOGE; and the Zawtika pipeline is operating by PTTEP.

- **Service companies** that provide specialised services into all aspects of the O&G value chain as well as include accounting and information management firms, financial institutions, and law firms. Given the wide scope of various services companies, they can range from enormous multinational companies to very small local companies. In 2013, the Energy Planning Department registered a list of 139 local service companies that could work with foreign firms. On the list are O&G focused service companies like Parami Energy along with specialist seismic companies like Suntac Technologies, and large construction firms like Shew Taung Developments.

- **Industry Associations.** Industry associations are nascent in Myanmar. There were no known industry associations at the start of the SWIA research in early 2013. More recently, a group of local O&G companies formed the Myanmar Oil and Gas Services Society (MOGSS).

C. Onshore Blocks and Companies

2011 Onshore Bid Winners[487, 488] (see map below)

Block (Area)	Winner	Country	Local Partner
EP-5 (Inbin-Tegyigone)	Pt Istech Resources Asia	Indonesia	Smart Technical Services
PSC-G, EP-2 (Taungdwingyi)	PTT E&P	Thailand	Win Prescious Resources
RSF-9 (Pyalo-Paukkong)	Geopetrol	Switzerland	A-1 Construction
RSF-2 (Tuyintaung, MyingS), RSF-3 (Gwegyo-Ngashadaung)	Petronas Carigali	Malaysia	UNOG
PSC-E (Myingyan)	Nobel Oil	Russia	Alister
PSC-1 (Hintada)	Jubilant	India	Parami Energy
RSF-10 (Kanma-Nattaung)	EPI Holding Ltd	Hong Kong	Aye Myint Khine

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[487] Mandalay Capital Research, "Myanmar Oil and Gas Sector" (Oct. 2013).
[488] Geopetrol International might not be a Swiss company but a registered Panamanian company according to; The Irrawaddy, "Burma's Frontier Appeal Lures Shadowy Oil Firms" (9 May 2013).

October 2013 Onshore Bid Winners[489] (see map below)

Onshore Block (Area)[490]	Winner	Country	Local Partner
PSC B2 (Zebyutaung-Nandaw)	ONGC Videsh Limited	India	Machinery and Solution Co. Ltd.
PSC C1 (Indaw-Yenan)	Pacific Hunt Energy Corp.	Canada	Young Investment Group
PSC H (Taungoo-Pyinmana)	Pacific Hunt Energy Corp.	Canada	Young Investment Group
PSC J (Mawlamyine)	Petroleum Exploration (PVT) Ltd.	Pakistan	Parami Energy Development Co. Ltd.
PSC K (Yamethin)	Eni	Italy	Myanmar Petroleum Exploration and Production Co. Ltd.
PSC O (Pathein)	Petroleum Exploration (PVT) Ltd.	Pakistan	Parami Energy Development Co. Ltd. + Precious Stone Mining Co. Ltd.
EP 1 (Kyaukkyi-Mindon)	Brunei National Petroleum Company Sdn. Bhd.	Brunei	IGE Pte. Ltd.
EP 3 (Thegon-Shwegu)	ONGC Videsh Limited	India	Machinery and Solution Co. Ltd.
EP 4 (Mayaman)	JSOC Bashneft	Russia	Sun Apex Co. Ltd.
RSF 5 (Ondwe)	Eni	Italy	Myanmar Petroleum Exploration and Production Co. Ltd.
IOR 4 (Pyay)	MPRL E&P Pte. Ltd.	Singapore	Myanmar Petroleum Exploration and Production Co. Ltd.
IOR 5 (Htantabin)	Petronas Carigali	Malaysia	UNOG Pte. Ltd.
IOR 6 (Myanaung)	MPRL E&P Pte. Ltd.	Singapore	Myanmar Petroleum Exploration and Production Co. Ltd.
IOR 7 (Shwepyitha)	Petronas Carigali	Malaysia	UNOG Pte. Ltd.

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[489] Deloitte, "Myanmar Offshore Blocks Second Bidding Round 2013" (accessed 25 July 2014):
[490] "PSC": Production Sharing Contract Blocks; "EP": Exploration Blocks; "RSF": Reactivation of Suspended Fields Blocks; "IOR": Improved Petroleum Recovery Blocks

MOGE 3 (Padaukpin-Natmi)	PTTEP South Asia Ltd. + Palang Sophon Offshore	Thailand	Win Precious Resources Pte. Ltd.
MOGE 4 (Myintha)	CAOG S.a r.l	Luxembourg	Apex Geo Services Co. Ltd.

2013 International Bidding Round for Onshore Blocks[491]
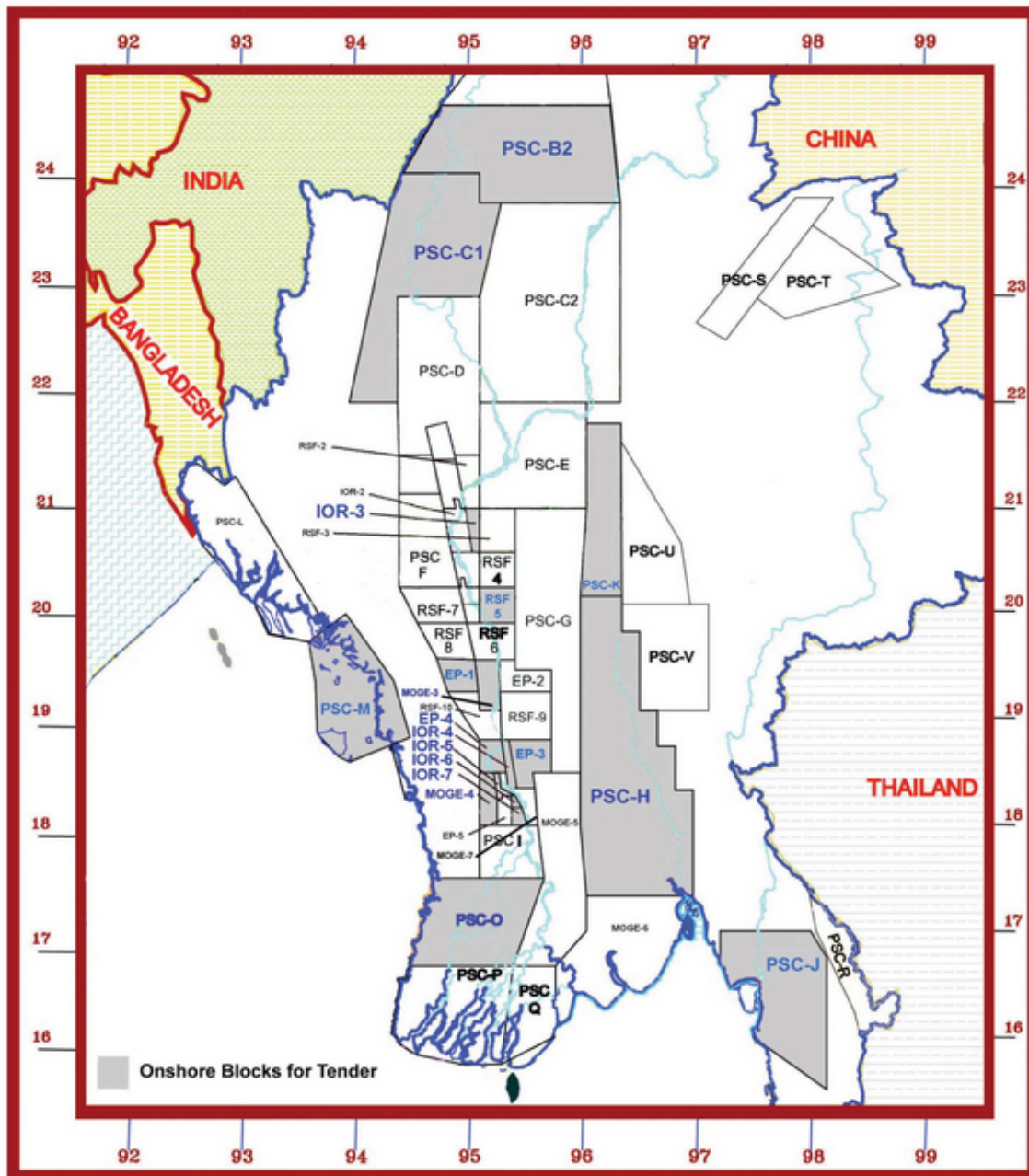
[491] Ministry of Energy, "Invitation for bids to conduct petroleum operations in Myanmar onshore areas" (2013)

D. Offshore Blocks and Companies

Offshore Activities as of June 2012[492] (see map below)

| Block	Company	Country
M-5, M-6 (Yadana Project)	Total	France
M-12, M-13, M-14 (Yetagun Project)	Petronas	Malaysia
A-1, A-3 (Shwe Project)	Daewoo International	South Korea
M-3, M-11	PTTEP	Thailand
M-10	CNOOC	China
AD-1, AD-6, AD-8	CNPC	China
A-6	MPRL E&P	Singapore
M-1	Rimbunan Petrogas	
M-2	Petrovietnam	Vietnam
AD-7	Daewoo International	South Korea
MD-4, MD-5, MD-6	Petronas	Malaysia
A-5, A-7, (Rakhine) M-15, M-16 (Taninthayi)	Korea-Myanmar Development Corporation (KMDC)	South Korea

March 2014 Offshore Block Winners (see map below)

Block	Companies	Area
Shallow Water Blocks		
A-04	BG + Woodside	Rakhine Offshore Area
A-05	Chevron (Unocal)	Rakhine Offshore Area
A-07	Woodside + BG	Rakhine Offshore Area
M-04	Oil India + Mercator Petroleum + Oilmax Energy	Moattama Offshore Area
M-07	ROC Oil + Tap Oil	Moattama Offshore Area
M-08	Berlanga Holding	Moattama Offshore Area
M-15	Transcontinental Group	Tanintharyi Offshore Area
M-16	M-16	Tanintharyi Offshore Area
M-17	M-17	Tanintharyi Offshore Area
M-18	Reliance Industries	Tanintharyi Offshore Area
YEP	Oil India + Mercator + Oilmax Energy	Tanintharyi Offshore Area
Deep Water Blocks		
AD-02	BG + Woodside	Rakhine Offshore Area
AD-03	Ophir	Rakhine Offshore Area
AD-04	No award/no bids	Rakhine Offshore Area
AD-05	Woodside + BG	Rakhine Offshore Area
AD-09	Shell Myanmar + MOECO	Rakhine Offshore Area
AD-10	Statoil + ConocoPhillips	Rakhine Offshore Area

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[492] MOE, "Opportunities for Cooperation in Myanmar Petroleum Energy Sector" (June 2012), slide 12.

AD-11	Shell Myanmar + MOECO	Rakhine Offshore Area
AD-12	No award/no bids	Rakhine Offshore Area
AD-13	No award/no bids	Rakhine Offshore Area
AD-14	No award/no bids	Rakhine Offshore Area
AD-15	No award/no bids	Rakhine Offshore Area
AD-16	No award/no bids	Rakhine Offshore Area
MD-01	No award/no bids	Moattama Offshore Area
MD-02	Eni Myanmar	Moattama Offshore Area
MD-03	No award/no bids	Moattama Offshore Area
MD-04	Eni Myanmar	Tanintharyi Offshore Area
MD-05	Shell Myanmar + MOECO	Tanintharyi Offshore Area
MD-06	No award/no bids	Tanintharyi Offshore Area
YWB	Total E&P Myanma	Tanintharyi Offshore Area

March 2014 International Bidding Round for Offshore Blocks[493]

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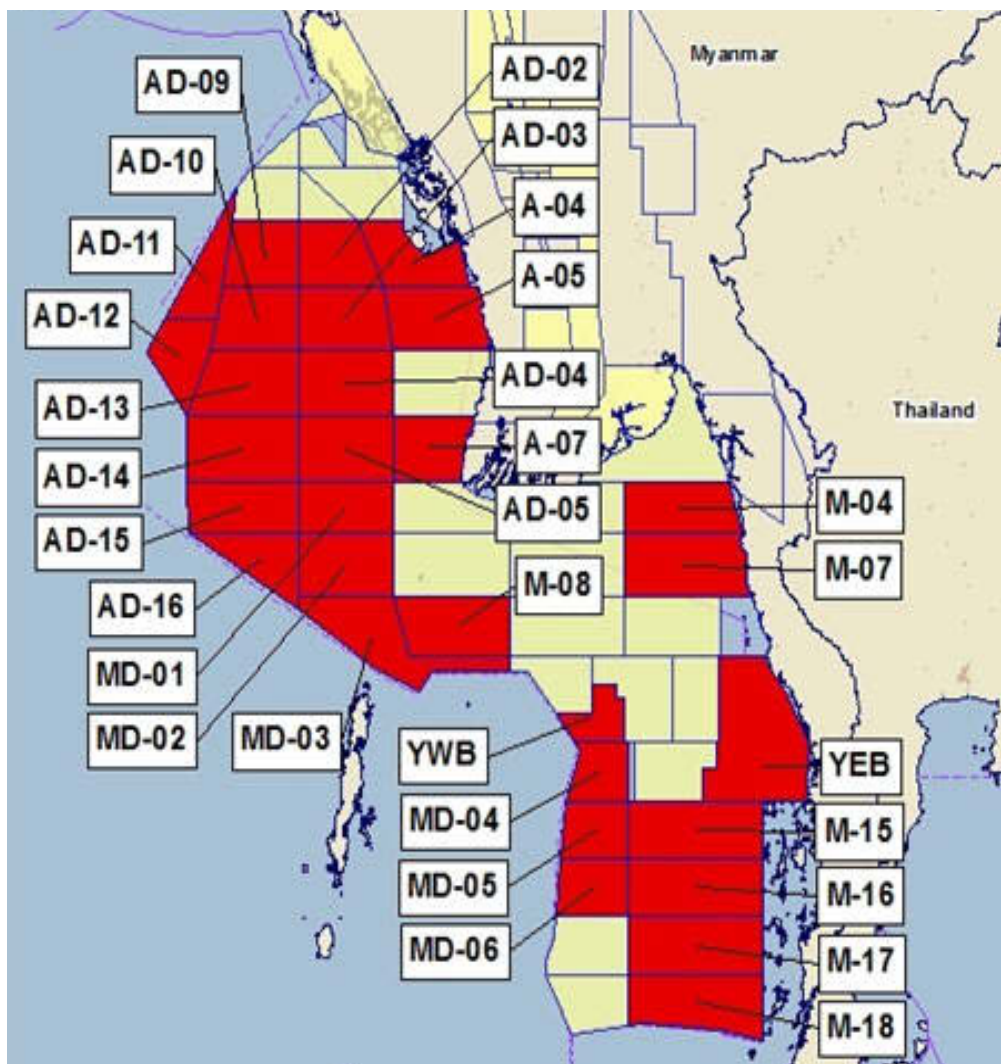
[493] Deloitte, as above.

The Myanmar Centre for Responsible Business (MCRB) was set up in 2013 by the Institute for Human Rights and Business (IHRB) and the Danish Institute for Human Rights (DIHR) with funding from several donor governments. Based in Yangon, it aims to provide a trusted and impartial platform for the creation of knowledge, capacity, and dialogue amongst businesses, civil society organisations (CSO) and governments to encourage responsible business conduct throughout Myanmar. Responsible business means business conduct that works for the long-term interests of Myanmar and its people, based on responsible social and environmental performance within the context of international standards.