Key Influences shaping Asia Pacific ESIA practice

Emma Waterhouse[1] and Tara Halliday[2]

Abstract

Global demand for minerals, oil and gas has created rapid growth in investment in the Asia Pacific. For many developing economies, resource development is critical to growth. In 2018, APEC Ministers reaffirmed this importance, stating 'that inclusive and sustainable development in mining remains a significant part of development and prosperity of the region, and will continue to be so going forward'. Across the Asia-Pacific, substantial changes in environmental regulation and environmental and social impact assessment (ESIA) practice have occurred in response to the emergence of active, large-scale extractive industries. In many cases, this industry, a changing political landscape, and/or the entry of international companies and financing, have been the catalyst for new and/or enhanced regulation. The speed of this change, and the effectiveness of new regulatory frameworks, differs widely across the region. This paper considers trends in the evolution of legislation and regulatory capacity in the Asia Pacific, using two country case studies to illustrate the differences (and similarities) in ESIA practice in the extractive resources sector. The case studies provide insights into what has and is working and where further focus is needed to support sustainable development outcomes across the region.

Introduction

Extractive resource industries (principally mining and oil and gas production) are a major source of investment and rents for many emerging economies. Such projects can also be a leading cause of environmental damage and social change. The evolution of national regulation to manage such impacts can often be linked large scale and rapid expansion of extractives industries in Asia Pacific countries.

This paper considers the general trends in environmental legislation and regulatory capacity in the region to identify differences (and similarities) in the evolution (and role) of environmental and social impact assessment (ESIA) practices in the extractive resources sector. Two country case studies are presented – Papua New Guinea and Myanmar – to cast a lens on what has worked well and what hasn't as these developing countries respond to the often boom and bust nature of extractives.

Country development and extractive industry influence in Papua New Guinea

Often referred to as 'an island of gold, floating in a sea of oil, surrounded by gas', the extractive industries have had and will continue to be a key influence on Papua New Guinea's economic prosperity. The country has significant mineral and energy resources and ranks in the top 20 of world gold and copper producers and within the top 100 and top 50 countries for proven reserves of crude oil and natural gas respectively (ETII, 2019).

The history of extractive industry development reflects both the history of Papua New Guinea as well as global commodity cycles. Mining of metalliferous minerals has been a dominant force in the country's export revenue for two centuries (Corbett, G. 2005), albeit with some significant peaks and troughs. The 1990s saw production from several significant mines (Ok Tedi, Porgera, Lihir) and throughout the 2000s international investment has continued with increasing gas production (PNGEITI, 2018 (Figure 1).

In 2014, the extractive industries accounted for US$7,349 million of exports which equated to 84% of Papua New Guinea's overall export revenue (World Bank, 2019). In terms of contribution to real gross domestic product (GDP) growth, the extractives industry contributed 61% of the growth in 2014 (influenced production of gas commencing from the Papua New Guinea Liquified Natural Gas Project (PNG LNG Project)), 50% of the growth in 2017, and is expected to contribute to 21% of growth in 2021 (World Bank, 2019).

[1] Emma.waterhouse@coffey.com, Coffey Services (NZ) Ltd, Auckland, New Zealand

[2] Tara.halliday@coffey.com, Coffey Services Australia Pty Ltd, Melbourne, Australia

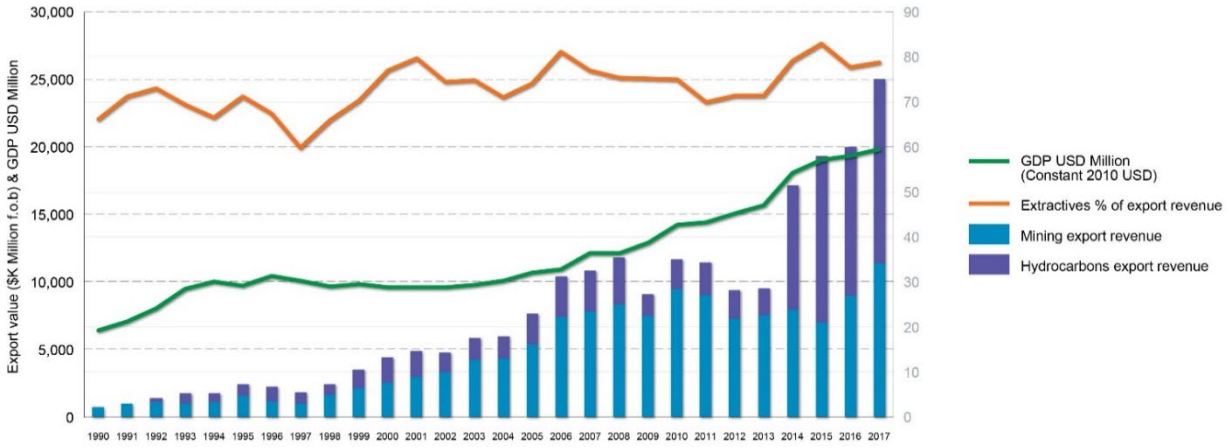

Figure 1: Extractive industry contributions to Papua New Guinea gross domestic product and exports revenue (Source: Bank of Papua New Guinea, QEB Statistics, 2019).

Today, nine mines are operating in Papua New Guinea, four are under development and nine are in advanced exploration (Figure 2). Oil and gas operations comprise the PNG LNG Project, the related Hides gas project and some producing oil fields.

Figure 2: Map of current mining and oil and gas operations and proposed projects in Papua New Guinea (Source: Coffey and PNG Chamber of Mines and Petroleum, 2015).

Country development and extractive industry influence in Myanmar

Myanmar has abundant oil and gas resources and mineral deposits. In 2017, the country was ranked sixteenth in the world for gas exports and thirtieth for proven gas reserves (USEIA, 2019). Myanmar began exporting crude oil in 1855 (Thornton, 2015). Over the last 30 years, oil production has declined and been overtaken by natural gas. The focus of gas exploration has been largely offshore, with extensive gas fields opened up in the 1990s, and international oil companies entering the market following the government's bidding round of oil and gas blocks in 2013. Four major offshore areas (Yetagun, Yandana, Shwe and Zawitka) are currently producing (Figure 3). Natural gas accounted for 23% of total exports in 2018 and is now the country's largest export commodity (CEIC, 2019; WTEx, 2019).

Myanmar's mineral deposits include copper, nickel, tin, tungsten, lead, zinc, silver and gold and precious stones, such as rubies and jade (Figure 3). Minerals have been produced since the fifteenth century (MONREC 2019). Mining activity and investment has been through periods of private and state control, and fluctuating levels of foreign involvement. Overall, the development of Myanmar's minerals has lagged well behind that of other resource-rich countries.

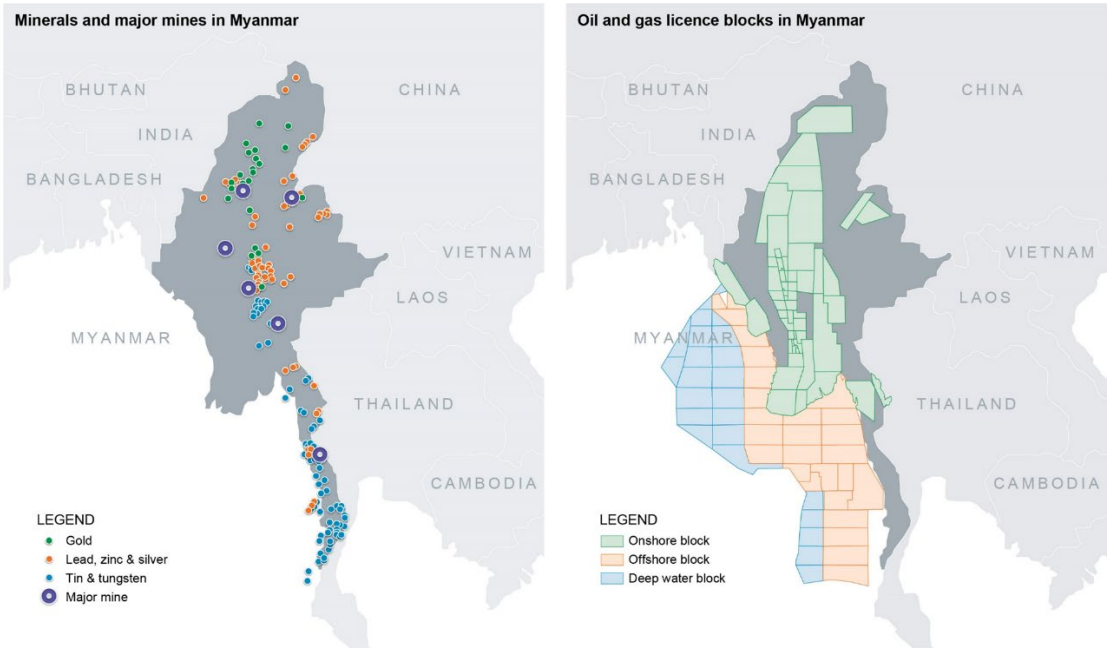

Figure 3: Minerals and mines, and oil and gas licence blocks in Myanmar

Since 2011, the Government has passed laws to encourage foreign investment in Myanmar and foreign companies can apply for licenses. Minerals production has increased significantly since 2013 with corresponding increase in its contribution to GDP. In 2018, copper was Myanmar's fifth largest export accounting 5.3% of exports, with gems and precious metals, the eight largest with 2.9% exports. Mining is now the third largest recipient of foreign direct investment in Myanmar, although total export value remains significantly behind natural gas at $1.3 billion (CEIC 2019; WTEx 2019).

Together, the extractives industry accounts for up to 55% of Myanmar's exports (EuroCham 2018).

Environmental regulation

Environmental regulation and strong ESIA practice are one of the key factors in ensuring extractives development occurs in a way that minimises environmental impact and optimises socio-economic opportunities. The practice of ESIA first emerged in the late 1960s. Requirements for EIA were adopted in the US in 1969, and in the Asia Pacific, first in Australia and New Zealand (1974). Several southeast Asian nations followed through the 1970s including Thailand, Philippines, and Indonesia. More recent adoptees include Laos in 2000 and Myanmar in 2016. Most Pacific Island nations had introduced EIA legislation by the mid-2000s.

Many developing countries in the Asia Pacific inherited regulatory systems from the colonial period and their progression towards EIA requirements is a function of when and how they reached independence. Today, varying regulatory requirements are in play around the region. Adherence to the IFC performance standards for impact assessment is increasingly a focus for international companies operating in emerging economies, and for modelling new EIA legislation and guidelines. The emergence of EIA in two countries - PNG in the western Pacific, and Myanmar in southeast Asia - reflect two very different regulatory journeys.

Environmental and social impact assessment journey in Papua New Guinea

Papua New Guinea requirements for assessment of projects came with the introduction of the *Environmental Planning Act 1978.* This act required an EIA in the form of an environmental plan. In 2000, the *Environment Act 2000* was enacted followed by its associated regulations in 2004. The act is the principal legislation for regulating the social and environmental effects of projects and was strongly modelled on Australian legislation. A three-step environmental impact process is prescribed involving submission of a notification of preparatory work on Level 2 and Level 3 activities. An environmental inception report (EIR) is then prepared, followed by an environmental impact statement (EIS).

The EIS approval process allows the Director of Environment to refer an EIS to a number of bodies, such as an independent environmental consultant for peer review, a public enquiry committee, or a provincial environment committee (where one exists). A public review period provides for the proponent to make public presentations. The Director of Environment's decision to accept or reject the EIS is referred to the Environment Council together with an assessment report and any public submissions. Ministerial approval in principle of the project is provided prior to granting of an environment permit for the activity.

Environmental and social impact assessment journey in Myanmar

Myanmar's ESIA journey started very recently compared to most other countries in the Asia Pacific. Following independence in 1948, and after a brief period of democracy in the 1950s, the country came under military rule for the next 50 years. Successive governments gave little attention to environmental matters and it wasn't until 2012 that the *Environmental Conservation Law No 9/2012* was passed (Simpson, 2015). The law gives the Ministry of Natural Resources and Environmental Conservation (MONREC) the authority to implement a system for EIA. The 2016 Environmental Impact Assessment Procedure provided specific procedures for EIA. Prior to 2016, few EIAs were conducted and largely on an ad hoc basis for projects operated by foreign companies (Thiri Aung 2017).

The EIA Procedure 2016 defines the process for undertaking assessment of projects in Myanmar. The responsibility for implementation is delegated from MONREC to the Environmental Conservation Department (ECD). The procedure allows for projects to be screened to determine if impact assessment is required, and if so, at what level. Projects may require a full EIA, a less comprehensive initial environmental evaluation (IEE) or an environmental management plan (EMP). Disclosure and consultation is required through all phases of the IEE and EIA process and ECD has responsibility for reviewing IEE and EIA reports. All EIA reports are also reviewed by an interdepartmental review committee. Approval of EIAs and IEEs is given by MONREC in the form of an environmental compliance certificate, which includes conditions.

What is working and what can be improved?

The development of ESIA practice in Papua New Guinea and Myanmar has occurred at different rates, although both have been influenced by the often rapid development of mining and oil and gas projects. An analysis is presented of where the process in both countries is working and what can be improved. For this review, only the process of ESIA and assessment is considered (and not the licencing, approval conditions and regulation of projects).

Table 1: Papua New Guinea and Myanmar ESIA practice – what is working and what can be improved?

Papua New Guinea
What is working?
Independent review process. The ability of the regulatory authority to commission independent reviews of ESIAs, financed by the proponent helps provide transparency and credibility to the process.
Communication of findings via ESIA roadshows. The *Environment Act 2000* requires that the findings of ESIA are communicated to all levels of government and host communities. This is an involved process that gets high rates of participation and reach in affected communities.
I**ntegration of social and environmental issues – community impact lens**. Social impact assessment has been a core focus – particularly land and resource use impacts to subsistence lifestyles.
Improved capacity building of scientists and regulators. Recently CEPA have added a second tier of independent review to ESIAs which is comprised of national scientists and subject matter experts – this is a great initiative to improve internal capacity in this field.
ESIA executive summary. An executive summary must be published with the ESIA, presented in both English and Tok Pisin. This document is non-technical and is a very useful communication tool.
What can be improved?
Guidelines and standards. Guidelines and standards do not cover all environmental and social aspects required for extractives projects –ESIA practitioners/ proponents need to select alternate standards.
Timeframes can be challenging. Timeframes for assessing ESIA and acceptance of the EIR can sometimes be challenging and not align well with proponent development timetables nor government-agreed schedules.
EIR scoping very high level. The environmental inception report that outlines the project and what the key aspects of ESIA will be is high level and can miss key aspects that matter to the regulators/ communities.

Myanmar
What is working?
Best practice EIA procedure. The EIA procedure is considered to represent best practice offering a sound legal and administrative framework for EIA.
Integration of social impact assessment, disclosure and public consultation into the EIA process. The EIA procedure requires that social and health impacts are included in the IEE or EIA report alongside environmental impacts. Consultation with relevant project stakeholders is also a key requirement.
What can be improved?
Institutional and financial capacity. The challenge is effective implementation with a lack of formalised and state-led environmental governance in Myanmar, and limited institutional and financial capacity. Institutions have started at, what described, as 'year zero' (Simpson, 2015) and are under-resourced.
Fragmented capacity building assistance. At least five major programs aimed at building capacity in ECD and to assist in implementing the EIA procedure by international and country agencies have been implemented, with opportunities lost for maximising the assistance outcomes.
Clarity around processes for existing activities. The EIA procedure requires existing projects and those already under construction in 2014 to undertake EIA or IEE or prepare an EMP. Few existing extractives projects have met this requirement to date, and little guidance is forthcoming from ECD.
Availability (and sharing) of baseline data. Sourcing of reliable and accessible environmental and social baseline data to support impact assessment is a challenge in Myanmar. Access to the project area for field surveys may also be problematic, either for logistical and/or security reasons.
Intra-government coordination and cooperation. The EIA Review Committee comprises representatives from government ministries and agencies who provide comments on individual EIA reports to ECD. The challenge is to focus this input on the key issues of projects and potential for significant impacts.
Review process. The capacity of ECD to review EIA reports continues to be limited. The department has appeared to be under constant pressure to improve performance but struggles to meet timeframes in the EIA Procedure. Inexperience with the subject matter, and EIA process diverts attention away from the key issues.

Final words

The regulatory framework is a key influence on the ESIA process and is influenced in turn by many factors, including the political climate and external pressure such as new or increased foreign investment in extractives.

In Myanmar, the ESIA framework is very recent, introduced following major political reform and a marked increase in foreign investment in extractives. Government agencies started from 'ground zero' and suddenly found themselves responsible for implementing new laws with little knowledge and experience in ESIA, and minimal capacity and resources. International assistance and training, and sector specific guidelines have generally helped to provide more clarity about the EIA process (MCRB, 2016) although significant challenges still remain. In contrast, PNG has been evolving its ESIA framework (and the capacity of its institutions) over the last 40 years in response to a steady stream of mineral resource projects and with the benefit of a strong initial regulatory framework. A particular strength of the PNG system is the proponent-funded, regulator directed, independent review processes for ESIAs, which provides independent review of EIS.

The strongest ESIA processes have high levels of transparency and stakeholder engagement, and regulatory systems and institutions with the means and capacity to critically evaluate and assess ESIAs. In reviewing the evolution of ESIA in the Asia Pacific through the lens of extractive resource development, we have noted that a well-developed and rigorous legal and regulatory system is essential in supporting good ESIA processes. Where there are gaps, the IFC performance standards and World Bank EHS guidelines are an important reference point. Regulatory capacity is equally important to set requirements and adequately assess ESIAs and in many emerging economies this is limited. Systems that enable regulatory-directed, proponent-paid independent review of ESIAs would seem a good way to mitigate this issue, freeing up staff to 'regulate' and ensure compliance.

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