

# **PROJECT-INDUCED MIGRATION AND IMPACT ASSESSMENT**

**ABSTRACT ID# 357**

**Presenting Author:** Amelia Bruce

**Preferred Session:** ESIA's in the extractive industry

**Summary Statement:** There is a need for resource projects to better understand their contributions to regional-level population influx and deflux over the development lifespan, to more accurately predict their impacts.

## **Abstract**

The downturn in extractive industries has placed new pressures on communities in resource regions, as they struggle to cope with major population growth followed by rapid population decline.

Resource projects often fail to understand the degree to which they contribute to regional population and demographic change, and how this influences their social, environmental and economic impacts. This is often because traditional impact assessment processes are project-focused, specific to one phase of development, and assume that regional planning and development is the role of the government. As such these processes are ill-equipped to identify and respond to the project's role in regional population change.

Projects need to better understand project-induced in-migration and examine their contribution to population influx and deflux over the development lifespan to improve impact assessment. This can help address project-level impacts and guide operational responses to emerging regional-level challenges.

## **1. Introduction**

Project-induced migration (a.k.a. population influx or deflux) is a common phenomenon associated with the development or operation of resource and infrastructure projects. It is characterized as the movement of people (either sudden or gradual) into an area in anticipation of, or in response to, economic opportunities associated with a project,<sup>1</sup> and by the exit of these same people when the project closes or completes construction.

Typically project-induced migration is experienced as a growth in the local population during the initial development stages of a project due to an influx of project workers. The presence of the project and its workforce then draws additional people into the area seeking project-related economic opportunities, and it is the impact of these migrants (typically opportunistic job seekers, service providers, entrepreneurs and business owners, and employee dependents/families)<sup>2</sup>, which can be difficult to predict and respond to.

It is increasingly common for resource projects to consider issues related to population influx associated with initial project development. However, as the case studies in this paper demonstrate, there is often less focus on the cumulative effect of multiple projects on project-induced migration and the regional population, or on the impact that events such as project closure or downturns (which lead to reduced employment and expenditure on local suppliers) can have on the population.

As the recent global economic downturn continues to affect many parts of the mineral resource industry, the author has seen new pressures placed on communities in resource-rich regions as they experience an unexpected transition from a period of major population growth to a period of rapid population decline (caused by the exit of many project workers and their families, and the closure of local businesses and services that catered to the project and its workforce).

---

<sup>1</sup> International Finance Corporation (2009) Projects and People: A Handbook for Addressing Project-Induced In-Migration, International Finance Corporation.

<sup>2</sup> International Finance Corporation (2009) Projects and People: A Handbook for Addressing Project-Induced In-Migration, International Finance Corporation.

This paper explores two case studies from the author's own working experience that showcase instances where communities in resource regions have experienced project-induced migration (whether this be population influx or deflux), and argues that there is a need for resource projects to evaluate their contributions to local, regional and cumulative population change over time.

## **2. Case Study #1: Central and East Kalimantan, Indonesia**

The recent drop in global commodity prices and declining demand for coal has had a significant impact on the regional economies in the provinces of Central and East Kalimantan in Indonesia, which are heavily dependent on forestry, mining (coal and minerals), oil and natural gas<sup>3</sup>. According to interviews and engagement during the author's visit in early 2016, many communities in these provinces earn their living through subsistence fishing, farming and hunting, unless otherwise engaged by one of the above noted industries.

The impact of the declining demand for these commodities is visibly evident. Many areas have seen up to five or six major forestry and mining operations close or go into care and maintenance. This has resulted in mass redundancies of the local workforce, regardless of industry. As a direct consequence, many local communities no longer have access to any significant source of employment or income. Unemployment has become a serious concern, with some individuals struggling to meet basic needs for food and water.

This concern has been further exacerbated by historical and ongoing migration into the area. Migrants have moved to Kalimantan seeking trading opportunities since the 1970s (a legacy of the Indonesian transmigration program<sup>4</sup>). In the 1990s and 2000s, project-induced in-migration increased significantly with the development of multiple large-scale coal and gold mines<sup>5</sup>.

In 2012 and 2013<sup>6</sup>, when the thermal coal price was at its peak, a significant influx of skilled job-seekers arrived from other parts of Indonesia seeking opportunistic employment with these mines. This occurred despite the introduction of controls by some, but not all, projects to respond to project-induced in-migration. As witnessed during the author's recent visit, this has contributed towards the creation of new 'migrant' settlements directly outside mining gates, and the continued segregation of 'migrant' and 'local' villages.

Anecdotal evidence from the author's recent visit suggested that resentment from the local community towards in-migrants is growing, largely fueled by a gap in education and skill levels, with locals stating that they are finding it increasingly difficult to compete with skilled migrants for the remaining jobs and business opportunities with mining projects. It was reported to the author that over the last two years locals have increasingly demanded that the mines should prioritise the recruitment of locals over migrants, and that they feel that their demands have not been met or responded to. In the context of rising concerns about unemployment and meeting short-term needs, community dissatisfaction, resentment and protest action towards the mines in the area has escalated and a number of projects have experienced work stoppages.

In the author's view, a unified strategy across the multiple mines (and other actors) to jointly address cumulative project-induced migration would have contributed significantly towards managing and responding to regional population change. In this instance, processes were not put in place to account for the cumulative contributions towards population influx from the multiple neighbouring projects in the area. Neither were processes put in place to plan for the changing employment and resource needs of projects throughout the mining lifecycle, or to respond to unexpected downsizing or closure events.

---

<sup>3</sup> Indonesia Investments (2016), Trade Indonesia: Exports Resource-Rich East Kalimantan Plunge, Viewed online at: <http://www.indonesia-investments.com/news/todays-headlines/trade-indonesia-exports-resource-rich-east-kalimantan-plunge/item6531>.

<sup>4</sup> The World Bank Group (2012), Transmigration in Indonesia, Viewed online at: <http://lnweb90.worldbank.org/oed/oeddoclib.nsf/InterLandingPagesByUNID/4B8B0E01445D8351852567F5005D87B8>

<sup>5</sup> Indonesia Investments (2016), Coal, Viewed online at: <http://www.indonesia-investments.com/business/commodities/coal/item236>.

<sup>6</sup> Indonesia Investments (2016), Coal, Viewed online at: <http://www.indonesia-investments.com/business/commodities/coal/item236>.

### **3. Case Study #2: Hunter Valley, Australia**

The Hunter Valley region is one of the most populated and largest regional economies in Australia, relying heavily on coal mining, manufacturing and power production, and agriculture.<sup>7</sup> This region<sup>8</sup> experienced an extended period of rapid population growth and some of its lowest rates of unemployment during the height of local mining boom in 2013<sup>9</sup>. Although the exact figures are unknown, with a very young, male-dominated population<sup>10</sup>, this growth was largely attributed to an influx of project workers, their families and opportunistic business owners.

The region's population growth rate has since stabilized.<sup>11</sup> During the author's recent visit, anecdotal evidence suggested that this has been associated with the drop in the price of coal in 2014, and resultant job cuts and exit of many mining workers. Local communities reported that they witnessed a very sudden decline in the overall population throughout the Hunter Valley region when the mining companies undertook major staff cuts in 2014 and 2015. They reported seeing the exit of mining workers and their families, of business owners, service operators and healthcare providers who were directly or indirectly dependent on mining, and pre-existing residents seeking employment stability elsewhere.

The impacts of this regional population deflux have been reported to the author as inclusive of increased stress and anxiety around long-term employment prospects; a loss of income; and reduced viability and closure of local businesses, schools and health care facilities that are no longer supported by the mining-related population. There has also been a sudden drop in housing rental and sale prices<sup>12</sup> which, while improving local housing affordability, has been detrimental to those that bought houses during the mining boom when prices were high. During the author's recent visit, it was found that there is a perception amongst the local community that this period of population deflux has been further followed by a small increase in the number of vulnerable, lower-income families in local towns, attracted by more affordable housing.

Consequently, pressure has been building on mining companies in the region to address these issues and to provide certainty on long-term employment and business opportunities. While these issues remain unaddressed these companies face growing dissatisfaction and the risk of loss of their social licence to operate.

In the author's view, in this instance individual mining projects did not plan for the cumulative effects of mining demobilization or closure on the regional population during the early stages of the mining lifecycle. This has limited the ability of individual projects and local government to effectively respond to regional-level risks and challenges, as the current state of unexpected population deflux has amplified the effects of mining's impacts. At the same time, however, local demands have increased for individual mining projects to play a more active role in the planning for the sustainable future of their communities.

### **4. What has this meant for resource companies in terms of social impact and risk to business?**

Project-induced migration can benefit the project and its host community in a number of ways, for example, by increasing business and trading opportunities and opening up markets, improving the availability of skilled workers and access to goods and services, and offering employment to locals. However it is clear from these case studies that there can also be a wide range of adverse impacts from project-induced migration. It is also clear that where historical and cumulative project-induced migration is not adequately understood or planned for early on, negative project impacts can be amplified beyond what traditional, project-focused impact assessment processes may predict. For resource companies, a lack of, or poor, planning for how project-induced migration can fluctuate throughout the mining lifecycle (and for cumulative population change influenced by the presence of

---

<sup>7</sup> Hunter Research Foundation (2014) 2014 Hunter Region at a Glance, Hunter Research Foundation.

<sup>8</sup> Visited by the Author in August 2015.

<sup>9</sup> Australian Bureau of Statistics (ABS) (2015) Regional Population Growth, Australia, ABS.

<sup>10</sup> ABS (2013) Hunter Valley 2013 Resident Population by Age and Gender, ABS.

<sup>11</sup> Australian Bureau of Statistics (ABS) (2015) Regional Population Growth, Australia, ABS.

<sup>12</sup> Housing New South Wales (2015) Median Weekly Rents Reports Rural Local Government Areas (2011-2015), Housing New South Wales.

other projects) can also translate into other business risks. As the author has seen in the regions discussed above, these business risks can include, among others:

- growing dissatisfaction with the project and risk of disruption, work stoppages or community or legal action;
- increased chances of social unrest or conflict;
- growing financial costs or security risks linked to operating within a deteriorating social or political context; and/or
- increased expenditures to address changing community expectations, needs and demands (such as to provide sustainable infrastructure and services, or to prioritize the employment of locals and local businesses).

##### **5. Emphasis is needed on project-induced migration and regional-level population changes at all stages of the project lifecycle in impact assessment**

It is the author's experience that the challenges that can be faced in understanding the extent of project-induced migration through impact assessment can relate to:

- Rapidly evolving and unpredictable patterns of population growth, urban and economic development and social and environmental change;
- Delayed reactions when responding to project-induced population influx or deflux;
- Inconsistent, unreliable or unavailable data from both the project and government authorities around population and growth;
- A hesitancy to share data with neighbouring projects, or to collaborate to undertake shared responsibility for regional-level population change;
- A narrow focus on the individual project, without consideration of the complexity of changing regional economic and socio-demographic characteristics or the activities of other projects, government and key players in the region; and/or
- A narrow focus on short-term timeframes and/or lack of flexibility in mitigation planning to account for changes over the project lifecycle.

The author argues that in response to these challenges, resource projects should ensure that they:

- Undertake to share information and responsibility, and coordinate management and monitoring actions with neighbours, government and other stakeholders in the region;
- Take a lifecycle view to predict the short-term and long-term effects of potential project-induced migration, from the current timing to the end of the project lifecycle and associated deflux at the end of key construction phases and project closure;
- Identify and widen the focus of impact assessment to include regional-level population change, challenges and sustainable development priorities, as well as the cumulative impacts on regional population from all projects operating in the vicinity;
- Understand historical, current and emerging population and migratory patterns, and identify hotspots for potential influx;
- Understand the project's responsibility in contributing to and responding to regional population changes;
- Integrate project-induced migration considerations and impact assessment processes into overall community relations management, to inform operational responses to issues such as workforce management; land access and resettlement; urban and economic development; biodiversity protection and conservation; health and education; project and community security; local procurement and businesses development; and governance and capacity building;
- Integrate the project's operational responses and management actions with local and regional sustainable development priorities and plans; and
- Implement monitoring programs and criteria to identify key population trends and changes over time.

## 6. Conclusion

These case studies demonstrate that better understanding of and planning for project-induced migration fluctuations throughout the project lifecycle and consideration of the role of the project and its neighbours in influencing regional population change will help to facilitate a better understanding of the true scale and nature of an individual project's overall impacts.

This could be done more effectively through embedding an assessment of project-induced migration<sup>13</sup> into existing project impact assessment processes<sup>14</sup> that take a lifecycle view (through to project closure and expected/unexpected downsizing) and which adopt a more regional focus through considering the role and contributions of other players in the region. Regular impact assessment, and consideration of population influx and deflux, could also be embedded into ongoing community relations management and project decision making through a periodic assessment that both evaluates the effectiveness of existing controls, and looks forward to anticipate how potential changes in the operation and its workforce policies may result in different impacts.

Under this approach, a project would consider its contributions, as well as the contributions of other regional actors, to local and regional-level population influx and deflux over the project's lifespan, particularly during closure or periods of workforce downsizing. This can help to not only more effectively address project-level risks and impacts, but by understanding the individual and cumulative role of project's in wider regional-level change, this can also help to guide operational responses to emerging local and regional-level challenges.

---

<sup>13</sup> As outlined in the International Finance Corporation Projects and People: A Handbook for Addressing Project-Induced In-Migration and other international guidance.

<sup>14</sup> Whether this is a stand-alone social impact assessment (SIA) or a combined environmental, social and health impact assessment (ESHIA).