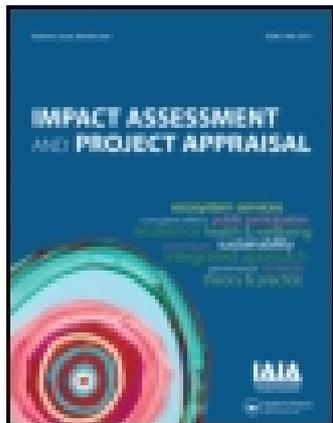


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Publisher: Taylor & Francis

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## Impact Assessment and Project Appraisal

Publication details, including instructions for authors and subscription information:  
<http://www.tandfonline.com/loi/tiap20>

### Enhancing the benefits of local content: integrating social and economic impact assessment into procurement strategies

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Published online: 20 Feb 2012.

To cite this article: Ana Maria Esteves & Mary-Anne Barclay (2011) Enhancing the benefits of local content: integrating social and economic impact assessment into procurement strategies, *Impact Assessment and Project Appraisal*, 29:3, 205-215, DOI: [10.3152/146155111X12959673796128](https://doi.org/10.3152/146155111X12959673796128)

To link to this article: <http://dx.doi.org/10.3152/146155111X12959673796128>

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# Enhancing the benefits of local content: integrating social and economic impact assessment into procurement strategies

Ana Maria Esteves and Mary-Anne Barclay

One of the most encouraging recent developments in supply chain management has been the concerted effort to incorporate local small-to-medium enterprises (SMEs) into the supply chains of multi-national corporations. However, local SME procurement can lead to adverse social impacts. This paper demonstrates how the integration of social and economic impact assessment (SEIA) into sourcing strategy can be an effective tool to enhance the benefits associated with projects to local communities. Drawing on research into the mining, oil and gas sectors, the contribution of this paper is the application of impact assessment methodologies to local procurement. The paper recommends the development of a local procurement strategy and offers a step-by-step process for applying a Local Procurement Social Risks and Opportunities Assessment to local procurement planning.

Keywords: supply chain management, local content, development, mining, oil and gas, social impact assessment, economic impact assessment, procurement, enhancement

**T**HERE IS GROWING INTEREST globally in enhancing the opportunities for locally based businesses to participate in the supply chains of major resource projects. Several companies, especially in the mining, oil and gas sectors, have adopted policies and standards aimed explicitly

at increasing ‘local procurement’ or ‘community content’,<sup>1</sup> recognising that local economic participation has benefits for companies and communities alike. From a corporate perspective, local economic participation is seen as one means of maintaining a social licence to operate, by giving communities a stake in the project, as well as of ensuring reliability of supply by having a supplier located nearby. From a community perspective, the participation of local businesses in the resource project is a means by which the benefits of resource development can flow into their communities. The benefits of supply chain participation have become particularly apparent in Indigenous communities where there are now a number of agreements between companies and Indigenous groups that are aimed at enabling greater Indigenous economic participation and which include commitments to support the development of Indigenous-owned enterprises.

This paper draws on the research undertaken by the authors in developing a good practice local procurement guide for the Australian mining, oil and

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For acknowledgements see page 214.

This is part of a special issue on enhancing positive impacts: lessons from SEA, EIA, SIA and HIA

gas sectors (Esteves *et al.*, 2010, 2012). The project included a comprehensive research methodology. First, an extensive review of procurement practices around the world was undertaken. Next, 49 interviews were conducted in 2009 with key stakeholders operating in the mining, oil and gas sectors throughout Australia. The purpose of these interviews was to identify the key challenges in incorporating local small-to-medium enterprises (SMEs) into the supply chains of major mining, oil and gas companies and to identify successful strategies for their incorporation. Finally, the researchers looked at 23 companies in the mining, oil and gas sectors to consider how their supply chain practices can contribute to the social and economic development of local communities. This research strategy resulted in the development of a number of 'mini case studies', drawn from both Australian and international contexts, that identified the corporate practices involved in successful local SME participation.

This paper focuses in particular on the mining, oil and gas sectors. Because of the huge global demand for oil, gas and metals to fuel economic development, and the desire of developing nations to exploit their natural resources to lift themselves out of poverty, the resources sector is enormously powerful. The sector's impacts, both positive and negative, affect us all. Therefore, the lessons that can be learned from its good practices and efforts to mitigate its negative impacts are important to everyone, in particular, those marginalised communities who would benefit most from more corporate practices that contribute to employment and business development opportunities. These lessons are also relevant to other sectors that have the potential to draw on community assets, such as manufacturing, forestry and agribusiness supply chains.

General stories about the success of local procurement strategies have led many in the impact assessment community to embrace local procurement initiatives as a means of enabling local economic development. A cursory review of the social impact statements submitted as part of the approvals process for new resource developments reveals that there is a common assumption among assessors that local sourcing is a 'positive' to be maximised and an effective instrument for gaining community and government support for resource development. Economic impact assessment reports submitted to permitting authorities also reveal a range of persuasive arguments in favour of the multiplier effects of project spend.

However, the extent to which the local community will actually benefit from local procurement initiatives is dependent on the capacity of the community to supply goods and services to the project, on the extent to which there is a local multiplier effect and, even more importantly, on the ability of communities to adapt to the inevitable changes that accompany large-scale resource development (Esteves *et al.*, 2010). The central argument of this paper is that planning for local procurement can be enhanced by

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**The central argument of this paper is that planning for local procurement can be enhanced by the adoption of an integrated social and economic impact assessment (SEIA) approach, where SEIA is the process of managing the social and economic issues associated with local procurement**

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the adoption of an integrated social and economic impact assessment (SEIA) approach, where SEIA is the process of managing the social and economic issues associated with local procurement.

Therefore the intent of this paper is to provide guidance to supply chain managers and impact assessment practitioners, with a view to maximising the long-term socio-economic development benefits for communities and regions, while considering commercial interests. The paper begins by outlining the current trends in corporate procurement from local SMEs. Then the paper reviews current frameworks and methods applied to develop procurement strategy, including an analysis of weaknesses in relation to planning for local procurement. Next, consideration is given to the potential contribution of SEIA to local procurement strategies. Herein is the main contribution of this paper. A step-by-step process is recommended to enhance the positive impacts of local procurement and mitigate the negative consequences by adapting contract strategy planning and applying a Local Procurement Social Risks and Opportunities Assessment. The paper concludes with some observations on applying the SEIA process to local procurement management planning, to provide lasting socio-economic benefits to local communities and reduce social risk to businesses.

### **Current trends in local procurement**

There is a growing awareness among practitioners that procurement from local SMEs can bring significant social and economic benefits to communities. In addition to creating business for suppliers, local procurement can stimulate economic activity and attract further investment, both through suppliers engaging other suppliers for inputs and through the multiplier effects of employees of local businesses spending some of their wages in their communities. Other benefits include improving the quality of life for employees and business owners and operators, dissemination of new technologies and innovation to other market participants, and attraction of investment in social infrastructure (SEAF, 2007).

Another important development in the area of local procurement has been the emergence of partnerships between governments, support institutions and development agencies to establish supplier linkage programs. SME linkage programs have been especially successful in enabling SMEs to access financing and skills development programs, particularly those that provide technical mentoring and support for the development of business management skills (Deloitte, 2004; Jenkins *et al.*, 2007; Nelson, 2007; Ruffing, 2006; UNCTAD, 2001). Linkage programs also focus heavily on institutional strengthening activities to encourage an enabling environment for SME development. One particular area of success has been in assisting women to establish their own small businesses by providing them with access to legal, business and financial systems, thereby reducing the gender gap that prevents many women from participating in economic life (ODI, 2005; Wise and Shtylla, 2007).

There has, however, been very little written in either the academic or the practitioner literature on the other social and economic consequences (positive or negative) that may flow from an increase in local procurement. These consequences potentially include:

- Demographic change associated with in-migration;
- The concentration of economic activity around the project area;
- Changes in the level of economic diversification;
- Changes in patterns of land use; and
- Institutional change.

Before promoting the benefits of local procurement, it is important to consider these changes if an accurate picture of social and economic impacts of a new project development is to be obtained.

Typically, the social considerations associated with the design and implementation of procurement arrangements have not received the same attention as technical considerations, such as those associated with constructing a pipeline, a transport route, an accommodation camp or water supply. However, there is now clear evidence that the resources sector, at least, is learning that social issues are important and is starting to change its practices in response. Previous research (Esteves *et al.*, 2010; Esteves and Vanclay, 2009) indicated that corporate attitudes towards local procurement are continually evolving. For example, for companies with leading practices, the corporate drivers for local procurement have shifted over time. In many instances, the initial motivation was a need to comply with formalised commitments, to a host government, an investment partner, or an Indigenous community. Compliance was deemed necessary in order to secure access to resources. Over time, however, these companies had become increasingly motivated by the desire to establish and maintain enduring partnerships with local suppliers for mutual benefit.

Resource companies are now engaging in a range of local procurement interventions that are designed to increase local business access to contract opportunities. These strategies include assigning higher preference weightings to local businesses in competitive bidding processes; sole sourcing arrangements with local suppliers; price matching, that is allowing local suppliers to match the price of other suppliers; breaking large contracts into smaller ones (unbundling) to create opportunities for smaller local suppliers; requiring non-local suppliers to sub-contract locally or to enter joint ventures with local suppliers; providing technical and management training and mentoring; and linking local businesses to other service providers and agencies that promote technological innovation and provide access to finance.

While the success of these strategies indicates that SMEs can be an effective vehicle for economic growth and poverty reduction, local SME procurement strategies can also lead to adverse social impacts. Setting inappropriate key performance indicators (KPIs) and targets for local spend can encourage perverse behaviour. One example of this is 'fronting', where companies are established with the prescribed local ownership or address, but the decision-making and benefits are held by other individuals, who are not targeted beneficiaries of the local procurement policy.

Another common scenario in mining communities is that because of the high wages paid by the large resources companies, local people are often drawn away from other businesses in town. As a result of these losses, local communities can find their already limited services sector shrinking even further. The loss to communities is compounded because they may also suffer a major loss in human capital, as experienced retailers, administrators, nurses and teachers leave their professions to work in the resources sector.

A third example of unanticipated negative impacts of local procurement strategies is community dissatisfaction that can result from seeing only menial works being given to local people. Community perceptions that particular groups have been favoured in the allocation of business opportunities can negatively affect social cohesion, as can disputes within groups over the distribution of profits and employment opportunities.

Even for those SMEs that are part of the resource sector supply chain there can be negative impacts, especially if the resource company is their sole, or major, client. These companies can be left vulnerable to the business cycles of the larger company and there may be little in the way of opportunities for diversification. Given the range of factors that can limit the effectiveness of local procurement strategies, this paper advocates the adoption of a SEIA approach to local procurement planning as a means of identifying, mitigating and managing these potential negative impacts and enhancing the positive impacts.

### Theoretical frameworks for local procurement strategies

Local procurement during the development of procurement strategies involves (Warner, 2011): (1) understanding the business case and the level of priority the business should give to local procurement when compared to price, time, quality and schedule; (2) identifying the future demand for goods and services, and the capacity of local suppliers to meet this demand (while also considering the demand of other companies competing in the same supplier markets); and (3) selecting appropriate procurement strategies, including the packaging of work, selection process, extent of client control and contract terms. These activities are guided by management theories, which are briefly reviewed in this section.

#### Supply chain management

Supply chain management (SCM) has emerged over the last three decades as an increasingly important area to both business practitioners and academics. The concept is defined by the Council of Supply Chain Management Professionals (CSCMP, 2011: 1) as follows:

Supply Chain Management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies.

A dominant model applied in SCM practice is the Kraljic Purchasing Portfolio Management Model,

which seeks to minimise the company’s supply risk and make the most of its buying power (Kraljic, 1983). The model includes the construction of a portfolio matrix that classifies products according to two dimensions: profit impact and supply risk (‘low’ versus ‘high’). The result is a classification of procurement demand in four categories: bottleneck, non-critical, leverage and strategic items (see Figure 1).

Each of the four categories calls for a specific strategy towards suppliers. Non-critical items (low profit impact, low risk) require efficient processing, standardisation, order volume and inventory optimisation. Leverage items (high profit impact, low risk) allow the buying company to exploit its full purchasing power, such as through competitive tendering. Bottleneck items (low profit impact, high risk) cause significant problems and risks, which should be handled by insurances, controls, security of inventories and backup plans. Strategic items (high profit impact, high risk) require development of long-term supply relationships, careful analysis and management of risks, and contingency planning.

Kraljic (1983) also recommends a further market analysis of the strategic items. The firm’s buying strengths are plotted against the strengths of the supply market, to identify three basic power positions and associated supplier strategies: balance, exploit and diversify. According to Kraljic (1983), supply managers should develop long-term relationships with their suppliers based on mutual trust and openness under the strategic quadrant, and conversely, in the non-critical quadrant, they should take a short-term transactional exchange focus and spread purchase volume among multiple suppliers. Macbeth (2002) refers to the two quadrants respectively as the ‘important few’ and the ‘trivial many’ (see Figure 1).

While the simple two-dimensional nature of the model has been criticised, on the whole, practitioners find the portfolio approach useful in positioning commodities in the different segments and in developing differentiated purchasing strategies

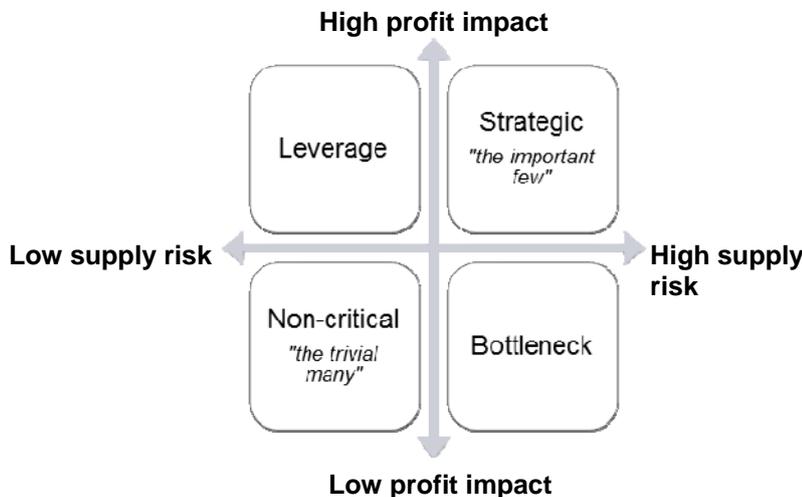


Figure 1. Purchasing Portfolio Management Model (adapted from Kraljic, 1983; Macbeth, 2002)

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(Gelderman and Van Weel 2003). For example, the model was adapted to forecast and segment future demand in order to develop local suppliers for the Chad–Cameroon Oil Development and Pipeline Project (IFC and Esso Exploration & Production Chad, Inc, 2008). Positioning business opportunities on the matrix led to identifying three clusters of business opportunities, and classifying these using a three tier system (see Box 1).

A further illustration is found in Peru, where a detailed market analysis of strategic commodities was undertaken to support mining cluster development in Cajamarca. Here, Vargas (2010) drew on Michael Porter's frameworks (1980, 1985) and identified the determinants of industrial competitiveness with regard to factors of production; factors of demand; support and related industries; and the strategies, structures and rivalry among mining firms to identify the relative power of market participants.

However, recent trends in risk management and stakeholder research raise questions around the appropriateness of the Kraljic model in identifying how supply chain performance can be aligned with social and environmental considerations and be responsive to stakeholder and societal expectations of performance (Frankel *et al.*, 2008). For instance, Macbeth's (2002) classification of low complexity/low contribution to profit suppliers as the 'trivial many' may be brought into question in areas where there are weak markets and project-affected local communities have high expectations of participation and the ability to prevent continuity of operations. These trends call for a change in how firms think about their supply chain performance.

This paper proposes that for every local procurement strategy there needs to be an assessment of the impacts on markets and affected communities. For example, small suppliers can be disadvantaged by long-term partnering strategies (relational exchange). Applying resource dependency theory and transaction cost economics, Barringer (1997) developed a conceptual framework on relational exchange in the small supplier/large buyer context. The framework focuses on advantages and disadvantages for small suppliers. Advantages of relational exchange include reduced transaction costs, more certain access to critical resources, reliable customer base, and quality and cost. However, small suppliers can be negatively impacted through loss of auto-

my and flexibility, dependence on the buyer, weaker negotiating position, and having to share confidential cost and other information. These disadvantages have led Larson *et al.* (2005) to hypothesise that relational exchange may be more suitable for large suppliers than smaller ones.

### Supply chain risk management

Supply chain risk management (SCRM) is a field within SCM that is also commonly used within the mining, oil and gas sectors and is applicable to all large-scale extractive and manufacturing industries with significant infrastructure costs and lengthy supply chains. SCRM is typically a formal process that involves identifying potential losses, understanding the likelihood of potential losses, and assigning significance to these losses (Giunipero and Eltantawy, 2004). The results lead to management responses that include avoidance, transfer, mitigation, monitoring or even acceptance of risk (Khemani, 2007). For example, the results can also be used to guide decisions on supplier development programs (Trkman and McCormack, 2009).

A key argument of this paper is that SCRM processes give little attention to the prediction of social impacts (negative and positive). SCRM would be enhanced by considering the impacts of the procurement intervention on the entrepreneurs, their employees, households, communities and regions. This crucial information would identify those exogenous material considerations that impact the business through value creation or protection.

### Using SEIA and social risk and opportunities assessment to enhance local procurement strategies

The field of impact assessment offers a number of methods to assess systematically each alternative available to project developers intent on making opportunities accessible to local businesses, building local business capacity to meet contract requirements, and improving their competitiveness. Integrating SEIA into contracting strategy involves the following steps:

1. Categorise future demand opportunities using the four Kraljic (1983) categories (see Figure 1), each of which calls for a specific strategy towards suppliers.
2. Determine and assign relative weightings to criteria for assessing (1) opportunities according to local suppliers' ability and interest to take them up, and (2) potential for community benefit.
3. Within each of the four Kraljic categories, rate each opportunity according to criteria, and rank and prioritise opportunities. This will require a basic understanding of local suppliers and of their capability.

**Box 1. Three clusters of business opportunities (IFC and Esso Exploration & Production Chad, Inc, 2008)**

Level I — basic services and labour requirements.

Level II — intermediate services and contractor requirements.

Level III — highly critical, complex, specialised services and construction activities.

4. Determine what will be the potential ‘community content’ component of each priority opportunity, based on a more rigorous supply side analysis. Design a plan to realise the targeted community content by selecting appropriate procurement methods and supplier development strategies. This, in essence, is the local procurement strategy.
5. Identify the potential social and economic impacts associated with the local procurement strategy. The objective is to understand the likely responses of affected businesses, their communities and the regional economies to which they belong.
6. Assess the potential impacts using a social risk and opportunities assessment.

*Demand side analysis and identifying potential opportunities for local procurement*

Steps 2 and 3 (the ‘demand side’ analysis) can be assisted by applying multicriteria methodologies to rank and prioritise opportunities. As an example, in early 2011, the authors assisted an oil and gas company operating in Australia in seeking to identify potential opportunities for Indigenous businesses to participate in a facilities management contract. The contract comprised approximately 70 activities, or ‘scopes of work’. A set of criteria and relative weightings were reached through consensus among procurement decision-makers and Indigenous liaison personnel. The criteria were expanded to take into account aspects such as the existing capability and capacity of Indigenous suppliers to deliver the scopes of work, the extent of potential employment benefits, a very rough estimation of the extent of ‘cultural fit’, as well as the sustainability of the opportunity. The seven criteria proposed to be used for prioritising opportunities were:

- Cultural fit with Indigenous community, and perceived levels of community interest;
- Potential for direct job creation;

- Supply risk;
- Capital outlay;
- Consistency of demand/sustainability;
- Existing local business capability gap; and
- Technical and managerial complexity.

Each scope of work was then rated, for each criteria, by systematic application of a scoring scale unique to each criteria. Table 1 shows the scoring scale and weighting for each criteria.

The simple ‘rate and weight’ exercise, followed by ranking the weighted averages for each scope of work, generated a number of opportunities for Indigenous sourcing for further investigation. For example, the following scopes of work were given a higher weighted average:

- Artwork;
- Biodiesel;
- Canteen serving, clean-up and cooking;
- Food scraps removal/recycling;
- Indoor plant supply and maintenance;
- Lawn maintenance;
- Maintenance of personnel uniforms;
- Plant supply;
- Recycled soaps; and
- Watering, weeding, pruning.

In this example, the decision-makers proceeded to agree on a process to engage the Indigenous community to explore their interest in taking up the opportunities, to inform of the contract requirements and procurement process, and to determine the nature and scale of supplier development that would be required to ensure Indigenous businesses are able to deliver to company standards and have access to the required capital. In essence, the output of these steps would be a local Indigenous procurement strategy for the facilities management contract. The company’s intent was to learn from the process and replicate across other contract areas.

**Table 1. Criteria used to score, rank and prioritise opportunities for Indigenous-owned businesses in a facilities management contract of an Australian oil and gas company**

Criteria	Scoring scale	Weighting
Cultural fit with Indigenous community	3 = activity undertaken outdoors, 2 = indoors, in a workshop environment with a group of Indigenous workers, 1 = indoors	20%
Potential for direct job creation	1 = one full time equivalent employee, 2 = more than one, 3 = at least five employees	20%
Supply risk	0 = ‘show-stopper’, 1 = high supply risk, 2 = moderate, 3 = low	20%
Capital outlay	1 = heavy machinery required, 2 = vehicle, 3 = no/minor capital requirements	10%
Consistency of demand/sustainability	3 = daily, 2 = at least monthly, 1 = less frequent	10%
Existing local business capability gap	1 = weak capability, 2 = moderate, 3 = strong	10%
Technical and managerial complexity	1 = specialised training required, 2 = basic training plus health, safety and environment training, 3 = routine task, basic training	10%
<b>Total</b>		<b>100%</b>

The following two examples demonstrate the kinds of alternative procurement strategies that are considered during impact assessment:

- *Sole sourcing versus competitive bidding:* A sole sourcing strategy in an environment where social capital within the community is low and distrust is high may be more harmful than a competitive bidding process (all else being equal). Further, giving a preference weighting to a local contractor who will need to import expertise may create less local employment benefits in the short term than bringing in a large, non-local contractor and requiring them to sub-contract locally.
- *Investing in supplier development programs with or without collaboration:* Evaluation of procurement strategies from a social impact perspective would assist in determining whether collaborating with other industry players to invest in supplier development would lead to greater benefit than would be obtained with a supplier development program aimed at meeting the demand of only a single operator. One example here is the case of the partnership between Anglo Ferrous Brazil (Minas Gerais, Brazil), local government, a local trade association and other major industries operating in the area. These partners worked together to design a supplier development program for building the capacity of local SMEs. The program addresses management training, business development and growth, improvements to unprofitable businesses, and creation of new enterprises.

#### *Supply side analysis and identifying the potential impacts*

In addition to a segmentation of prospective demand using Kraljic (1983), a local supply side analysis should be conducted to assess the level of community interest and capacity in accessing business opportunities, and to identify potential constraints. A comprehensive mapping of local SMEs is helpful in identifying their capabilities and in determining which businesses could benefit most from the opportunity to participate in local supply chains.

The Chad–Cameroon Pipeline example described earlier (IFC and Esso Exploration & Production Chad, Inc, 2008) classified suppliers using a star system. Supplier development strategies are developed according to their level of competency (see Box 1 for descriptions of these three types of levels). One star suppliers are established SMEs capable of performing basic (Level I) services, have proper administration and paperwork, but lack basic management tools and practices. Two star suppliers are aspiring world-class suppliers, with the attributes to perform Level II services. These suppliers are fairly well managed, use modern supply practices and specialise in specific sectors. They also have the capacity for growth. Three star companies are world-class suppliers, with the attributes to perform Level III services. Tenders are

advertised specifying the rating required for bid applicants. Contracts are awarded on the basis of the capacity of the SME to perform the contract. This rating system has the extra advantage of adding transparency to the procurement process.

In addition to a supplier mapping and issues identification, an industry analysis is also required, which includes identification of the factors influencing an effective, well-functioning economic environment and, at the micro level, those factors critical to the success of local SMEs.

The issues scoping should be aimed at empowering stakeholders such as chambers of commerce, local government authorities and business associations. This is best achieved by involving them in early stages of local procurement strategy development, and in the evaluation and monitoring of social and economic impacts associated with local procurement. The scoping phase is also the right time to alert developers and stakeholders to the significant barriers faced by SMEs that can be disincentives to participation, and which tend to place SMEs in a weaker bargaining position.

The major disincentives to SME participation in the supply chains of large companies include communication breakdowns and the often rigid contracting requirements of the major resource companies. Local business owners are often unaware of tendering opportunities, or information is provided too late to allow for clustering, joint ventures or investing in the necessary equipment. The complex procedures and costs associated with prequalification and the tendency of major contractors to sub-contract to suppliers already known to them present further barriers to participation. However, these barriers can be overcome with persistence, genuine engagement between interested business owners and the company, and the right local knowledge. By involving stakeholders in the scoping process, solutions to some of these common problems can be found.

The scoping phase reveals that successful local procurement depends on investments across a number of areas. In establishing a baseline of local SME capacity, it is important that companies incorporate local knowledge, engage a broad range of stakeholders, and seek opportunities for collaboration with governments, local organisations and development agencies with the required expertise and responsibility.

#### *Assessment of risks and opportunities*

Having scoped the issues and opportunities, the next phase of the impact assessment involves narrowing the potential impacts for further analysis, and assessing the significance of risks and opportunities likely to result from each local procurement strategy under consideration.

The selection and analysis of impact variables requires drawing on a range of disciplines, the use of quantitative and qualitative methodologies, and a

combination of expert and participatory processes. Figure 2 proposes a comprehensive framework for social risk and opportunities assessment of procurement strategies. The criteria reflect local procurement impact variables compiled from Esteves *et al* (2010, 2012), SEAF (2007), World Business Council for Sustainable Development (WBSCD) (2009), and WBSCD and IFC (2008). It is clear when scrutinising the variables that each requires its own techniques for measurement, and each technique brings its own problems. For this reason, it is important to

select methods to support the derivation of proxies, rather than pursuing an indisputable, objective measure. Also, if a predicted impact is significant in the assessment, then it is essential to find a way to measure it, even if this requires developing new methods or data collection procedures. Measurability is never exact and a mixed methods approach in SEIA (as in most social and economic research) is useful to compensate for each method's weaknesses.

Three predictive methods often used in impact assessment are impact pathway analysis, scenario anal-

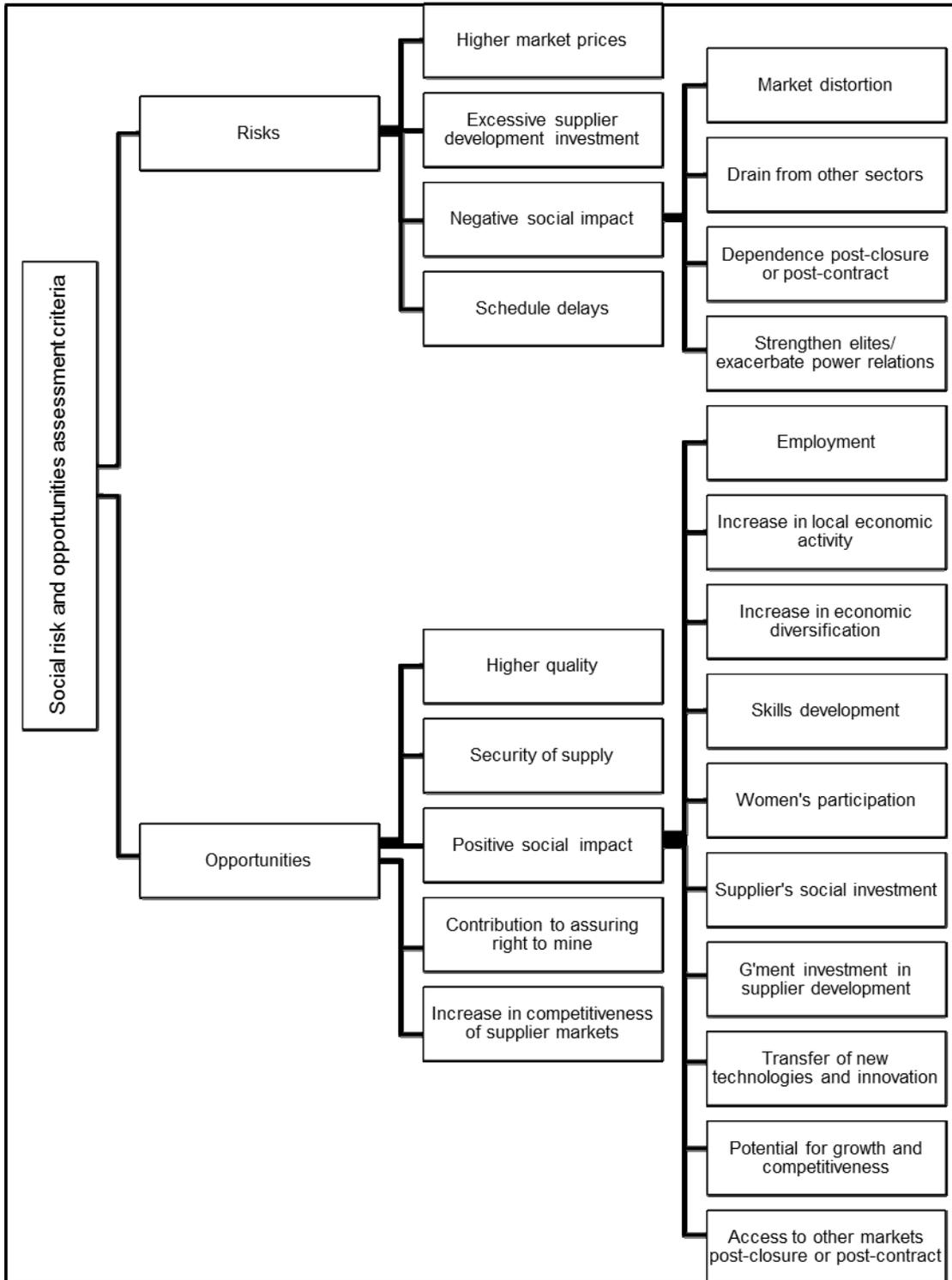


Figure 2. Social risk and opportunities assessment criteria (compiled from Esteves *et al*, 2010, 2012; SEAF, 2007; WBSCD, 2009; WBSCD and IFC, 2008)

ysis and modelling. One weakness to date has been the economic modelling conducted within SEIA, which has been largely irrelevant in informing local procurement strategies and identifying measures to enhance the employment and supplier development impacts of major projects. There is, however, an increasing awareness of the need to strengthen this area. In a recent development, Warner (2011) has applied economic impact optimisation (EIO) modelling to assess the commercial and public policy implications of different regulations and strategies for local content and supplier development. The model uses dialogue processes to quantify the impacts of different local content scenarios on dimensions such as costs, schedule, net present value and internal rate of return, payback period, national revenues and taxes, jobs created (direct, indirect and induced), and investments in local supplier competitiveness.

The model is applied when comparing different contracting strategies. Once a thorough knowledge of the negative impacts has been achieved, a rating is assigned, based on an assessment of likelihood (ranging from rare to almost certain) and consequence (insignificant to catastrophic). Common risk ratings that are assigned are as follows:

- *Low*: it will not have an influence on the decision.
- *Moderate*: it should have an influence on the decision unless mitigated.
- *Extreme or high*: it should influence the decision regardless of any possible mitigation.

The risk ratings are used to guide the adaptation of contracting strategies determined by the Kraljic (1983) approach to mitigate significant risks. Strategies to enhance identified opportunities can be assessed using approaches such as cost-benefit analysis. Considering the residual risks and feasible enhancements, the supply chain manager then goes about selecting strategies to make opportunities accessible to local businesses, building their capacity to meet contract requirements, and improving their competitiveness.

#### *Monitoring of contracting strategies*

It is important to note that, as it is impossible to predict all direct and indirect impacts, having a monitoring and adaptive management process in place is necessary to deal with any unintended consequences of the chosen procurement strategy plus check that proposed improvements are indeed working. The monitoring process should not be limited to selected social impact indicators and trends; the business value to the company from investing in local procurement and supplier development also requires attention. Investing in supplier development programs should not be approached as a philanthropic act, but rather as a form of business investment.

Taking the perspective that local procurement

provides mutual gains to project developers and their communities, measures of business value also need to be incorporated in monitoring. Indicators should be linked to the business drivers for procuring from the local communities, which will vary across project stage and country context. Examples of business activity/output indicators include value of goods and services procured locally by the company; number of local suppliers; number of local employees hired by local suppliers; local procurement as a percentage of total corporate procurement; and company procurement spend as a proportion of overall procurement of goods and services in the area. Examples of business outcome indicators include faster timeframes for project approvals due to community and government support; reduced costs associated with delays in delivery; reduced costs of closure or decommissioning; and increased quality of supply to the company and reduced risk of protest action.<sup>2</sup>

### **Conclusions and recommendations**

This paper has examined the increasingly common assertion in the mining, oil and gas industry that there are mutual benefits to be gained if affected communities believe that they will gain in the long term from living near a major resource development, and if local businesses believe they have equitable access to all opportunities within the company's supply chain. With local procurement practice on the rise, the commonly stated intent is to contribute to diverse, thriving local economies that are not dependent on a single operation. This intent is not only demonstrated by industry; local procurement also has the support of governments and development institutions who promote private sector-led development and poverty reduction by strengthening the SME sector.

These trends have meant that local procurement interventions require company staff to assume a greater responsibility for engagement with government, suppliers and civil society to create a supportive and sustainable business environment. The core argument of this paper is that this shift in the role of industry requires companies and governments to build their own capacity in terms of understanding the social and economic change processes in local communities, and how procurement and supplier development interventions affect these. While the focus of the paper has been on one sector (mining, oil and gas), the concepts can also be applied to public procurement, development assistance and other private industry sectors. The main contributions of the paper can also be generalised to these other sectors: (1) in proposing that SEIA has the potential to provide supply chain managers with the required knowledge and legitimacy within affected communities, and (2) in providing guidance on how contract strategy should be adapted in practice.

## When integrated into contract strategy, SEIA can be an effective tool to promote collaboration and to enable communities to be active agents in their social and economic futures

When integrated into contract strategy, SEIA can be an effective tool to promote collaboration and to enable communities to be active agents in their social and economic futures. Local procurement can play a vital role in community's self-determination and well-being. However, scholarship is lagging behind practice, and local procurement practice faces the risk of becoming another 'siloe'd' managerial activity undertaken solely by staff in supply chain management roles and experts from economic disciplines. Potential research questions include: How can governments and industry design local content policies in a way that market-development outweighs market-distortion? How can women in developing countries benefit from supply chain participation? How can social and economic impact assessment methodologies be enhanced to guide local procurement planning? How can supply chain value be created through local SME participation? The interface between procurement practice and the community environment requires interdisciplinary understanding, and the emerging area of local procurement practice, both within the extractive industries and in other industry sectors, will benefit from further scholarship.

### Acknowledgements

The authors are grateful to David Brereton, the editors of this special issue and the anonymous reviewers for enhancements to this paper.

### Notes

1. Local content is the proportion of inputs to a product or service (e.g. materials, parts, services) that have been made in that country rather than imported. A foreign company might be required to use a certain amount of local content to gain the right to produce or manufacture in a particular place.
2. An outcome is defined as changes in the behaviour of the organisations and individuals impacted by a program or policy intervention. Outcomes tend to be related to a program's end goals. Outputs, or program activities, can lead to program outcomes, although they do not necessarily cause the outcomes.

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