

# THE LOCAL CONTENTS OF INDONESIA'S NICKEL MINING COMPANIES

## MUATAN LOKAL PADA PERUSAHAAN PERTAMBANGAN NIKEL DI INDONESIA

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### ABSTRACT

*Analysis on the local content of Indonesia mineral mining company is intended to provide input in compiling draft regulation of the Minister of Energy and Mineral Resources regarding the use of domestic goods and services in mineral and coal mining activities, as a follow up the implementation of Government Regulation Number 23/2010 Article 88. A direct sampling survey was conducted to several nickel mining companies. The results showed that the local content for groups of goods and services at PT Vale Indonesia were 51.04% and 46.06% respectively, while at PT Antam Tbk. was 100% (groups of goods) and 99.6% (services). Based on national labour aspect, the local contents of five companies were relatively high, namely 98.63%, however, those came from province and regency areas were only 67.97% and 39.20% respectively. PT Vale Indonesia empowered 84.41% local manpowers from Sorowako area with the measured local content of nickel matte around 43.59%. The measure local content indicated that there was a big opportunity to increase the local content. Some factors that inhibited the effort to increase the use of domestic products included not smoothly the information flow, opportunities and transparency of product testing, the requirements of the Indonesia National Standard, the price preference in the tender process, tax issues, permit dangerous products as well as human resources issues.*

*Keywords: regulation draft of MEMR, local content, goods, services, labor, product*

### ABSTRAK

*Analisis muatan lokal perusahaan pertambangan mineral di Indonesia dimaksudkan untuk memberikan masukan dalam penyusunan Rancangan Peraturan Menteri Energi dan Sumber Daya Mineral tentang penggunaan barang dan jasa dalam negeri kegiatan pertambangan mineral dan batubara, sebagai tindak lanjut Peraturan Pemerintah 23/2010 pasal 88. Dalam analisis ini dilakukan survei pemercontohan secara langsung ke beberapa perusahaan pertambangan nikel di Indonesia. Hasil analisis menunjukkan bahwa muatan lokal pada PT Vale Indonesia untuk kelompok barang adalah 51,04% dan jasa 46,06%, sedangkan pada PT Antam Tbk. masing-masing 100,0% (kelompok barang) dan 99,6% (jasa). Dari aspek tenaga kerja secara nasional, muatan lokal untuk ke-5 perusahaan sudah cukup tinggi yaitu rata-rata 98,63%, namun yang berasal dari daerah provinsi hanya 67,97% dan kabupaten/kota 39,20%. PT Vale Indonesia mempekerjakan tenaga kerja setempat dari Kabupaten Sorowako cukup tinggi yaitu sebesar 84,41%. Adapun hasil pengukuran muatan lokal produk nikel matte PT Vale Indonesia sebesar 43,59%. Hasil pengukuran mengindikasikan adanya peluang yang cukup besar dalam upaya peningkatan muatan lokal pada perusahaan nikel. Beberapa faktor yang menjadi penghambat dalam upaya peningkatan penggunaan produksi dalam negeri antara lain ketidaklancaran arus informasi, kesempatan dan transparansi pengujian produk, persyaratan Standar Nasional Indonesia (SNI), preferensi harga dalam proses pelelangan, masalah perpajakan, ijin produk berbahaya dan masalah sumberdaya manusia.*

*Kata kunci: rancangan Peraturan Menteri ESDM, muatan lokal, barang, jasa, tenaga kerja, produk*

## INTRODUCTION

Mining activities, mainly nickel mine, retains specific characters compared to other manufacture industries. The fact that the nickel industry depends on resource availability causes its development as resources base characters. Several conditions that belong to high technology and capital intensive need to be conducted for developing such an industry. Referring to its specific characters, mining entrepreneurs enable to be a growth center that has a double role. Privately, mining companies are demanded to internally provide proper profit to the companies in private return type and give external benefit in solving development problem such as increasing domestic income and production as well as creating and developing domestic endeavors (Suherman et al., 2006). One of the efforts to increase the benefit of company external affairs is expanding the local content of the company i.e., by integrating the fulfilment of company requirement with the potential and availability of domestic goods and services as well as labor.

Such an effort had nationally been accommodated in several policies such as Act no. 4/ 2009 regarding Mineral and Coal Mining, Government Regulation no. 23/2010 considering the activity implementation of mineral and coal mine endeavors as well as article of contract of work. However, such an effort still retained several problems and constraints from either mining companies, domestic goods and service providers and government. Analysis on the local content is one of the efforts to identify several opportunities when integrating the fulfilment of company requirement with the potential and availability of domestic goods, services and labor including its problems and constraints as well as recommendations for problem solvings.

Some mining entrepreneurs that has been modeled to be surveyed included PT Antam Tbk. for Nickel Unit of North Mollucas and Southeast Celebes, PT Vale Indonesia at East Luwu, PT Weda Bay Nickel (PT WBN) at Central Halmahera and PT Cahaya Modern Metal Industri (PT CMMI) at North Konawe. Those were supposed to represent the holder of mining permit for state-owned enterprises, contract of work and mining permit (IUP/ IUPK). The results served as an input in compiling draft regulation of the Minister of Energy and Mineral Resources (MEMR) regarding the use of domestic goods and services in mineral and coal mining activities.

## METHODOLOGY

The employed method was direct survey to several Indonesian nickel companies as well as literature study of the related cases. The methodology also included data processing and analyzing as well as report compiling. The local content was measured by grouping the goods, service and labor or known as BJTK and classifying the product unit as follows:

- a. The local content of BJTK referred to the percentage of cost for domestic BJTK over the total cost for BJTK as stated by the formula:

$$\text{Local content of BJTK} = \frac{\text{Cost of domestic BJTK}}{\text{Total cost of BJTK}} \times 100\%$$

- b. Measurement of the local content for the product was based on draft regulation of the Minister of Industry regarding Procedure for Calculation of Domestic Component. The local content for product (LP) referred to the percentage of cost production for domestic component over the total cost for production cost as stated in the formula (Sucofindo, 2014):

$$\text{LP} = \frac{\text{Cost for Domestic Component Production}}{\text{Total Production Cost}} \times 100\%$$

## RESULTS AND DISCUSSION

Evaluating the local content of the mining entrepreneurship was conducted to identify the extent to which the companies provided priority to domestic product in each activity. For this purpose, measuring the local content was performed to nickel mining during 2014. Five companies were determined as a sampling model. The local content measurement was applied to group of goods, service and labor and group of product unit. The intensity of the local content was adjusted to the availability and completeness of the data resulted from survey activities.

### The Local Content of Goods, Services and Labors

#### PT Vale Indonesia

The expenses of goods and services for operational activities of PT Vale Indonesia were carried out through master list facilities that were discussed every year at the Directorate General of Mineral and Coal. The list included plan and realization re-

lated to domestic and import expenses. Development of goods expenses was relatively fluctuating during five years. There was a decrease in import expenses as many as -0.54% per year and an increase for domestic expenses around 1.23% a year. Actually, such decrease and increase were planned around 6,64 and 7,69% respectively (Figure 1).

Based on goods category, goods purchase profile at the local level (East Luwu Regency) showed that office equipments and building materials are two most prominents objects but at regional level, the most prominent ones belonged to diesel fuel, gasoline, auxiliay raw materials and silica. Coal, heavy equipment spareparts, iron steel materials, electrical and mechanical instruments and lubricants were the leading materials to be purchased (Figure 2). Meanwhile; HSFO, heavy equipment, spareparts, sulphur, tire, refractory brick and electro-paste belonged to the most important purchasing goods from abroad.

From the group of service point of view, the use of service at local level included mine contractor, general contractor, safety and transportation services while regional level retained services that comprised health, transportation, catering, telecommunication and insurance. Service of contruction, heavy equipment maintenance, engineering, insurance, logitics and transportation belonged to the national level (Figure 3) but the use of service from abroad was technical consultant and logistics (Figure 4).

In 2013, PT Vale Indonesia retained 3,182 labors. Most of them came from Sorowako (84%), Special Capital Region of Jakarta (7%) and other area (6%). Of 3,182 labors, 1 % went to foreign workers (PT Vale Indonesia, 2014).

**PT Antam Tbk.**

PT Antam Tbk. is the one and the only state owned company that operated two main business units (SBU) in nickel mine, namely North Molucas Nickel Unit and Southeast Celebes Nickel Unit. The former only mines nickel ores without processing and refining such the ores while the later does not only mine the ores but also process and refine them. In 2013, the local content for procurement of goods and services of both SBUs achieved 100%. However, the supply from Special Capital Region of Jakarta still dominated, namely 72.80% for North Mollucas Nickel Unit and 86.64% for Southeast Celebes. The supply form their regencies was around 7.60% and 4.97% (Figure 5 and 6).

The local content of domestic service procurement for North Mollucas Nickel Unit included 100% from national sector, 7.17% from North Mollucas Province and 6.41% from East Halmahera Regency (Figure 7) while Southeast Celebes Nickel Unit retained 99.63% from national sector, 56.37% from Southeast Celebes Province and 54.60% from Kolaka Regency (Figure 8). In 2013, the labor at North Mollucas Nickel Unit was 356 people. All retained Indonesian citizenship that

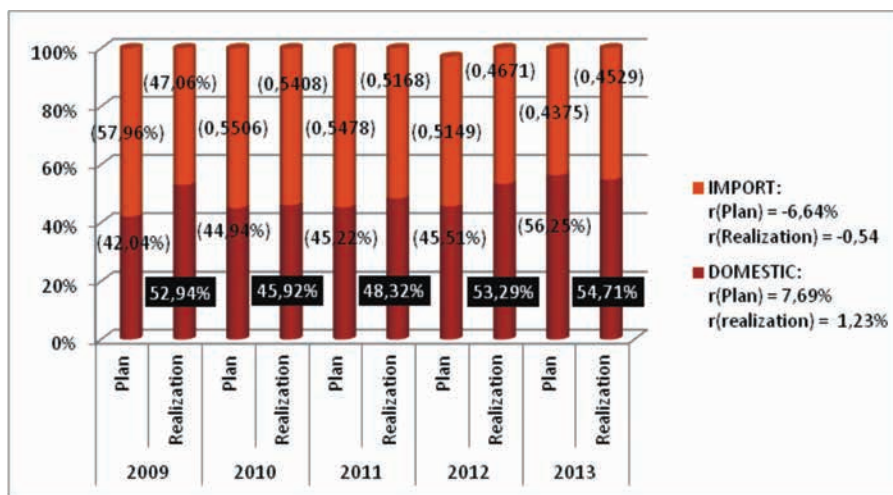


Figure 1. Goods purchase and service usage of PT Vale Indonesia for 2009 – 2013 in million USD (modified from PT Vale Indonesia, 2014)

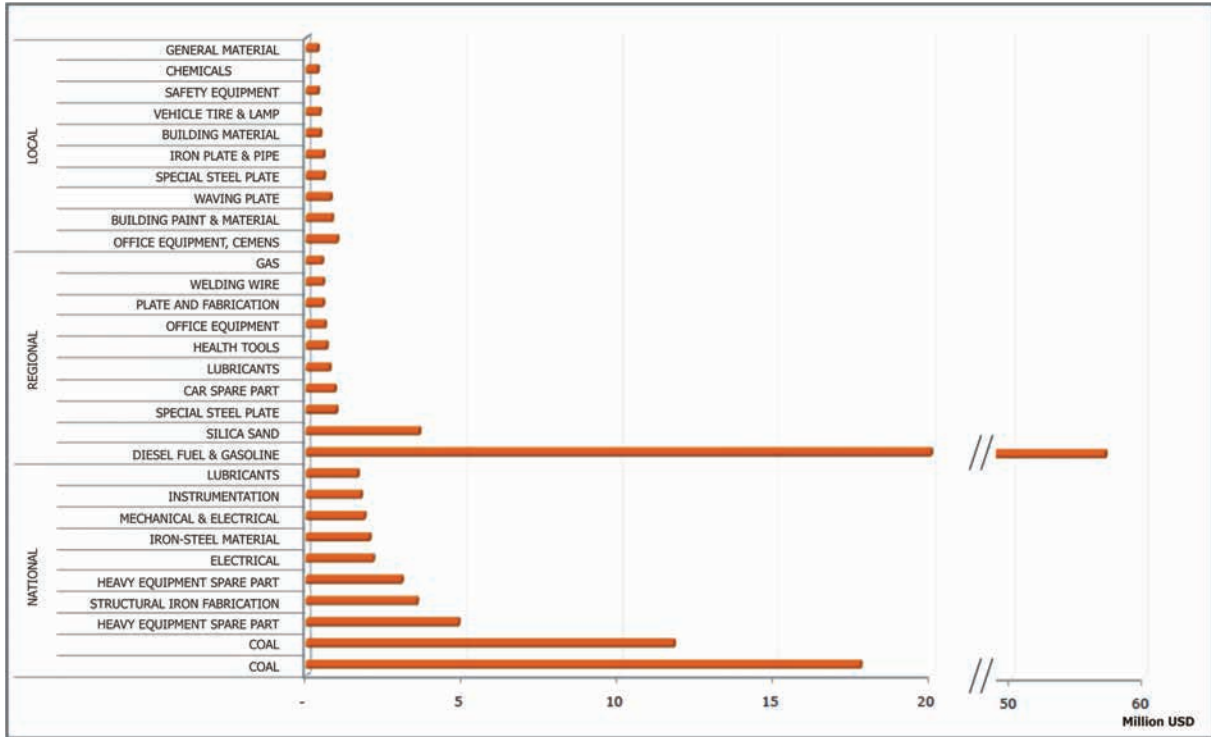


Figure 2. Realization of goods purchase for PT Vale Indonesia from 10 biggest companies (modified from PT Vale Indonesia, 2014)

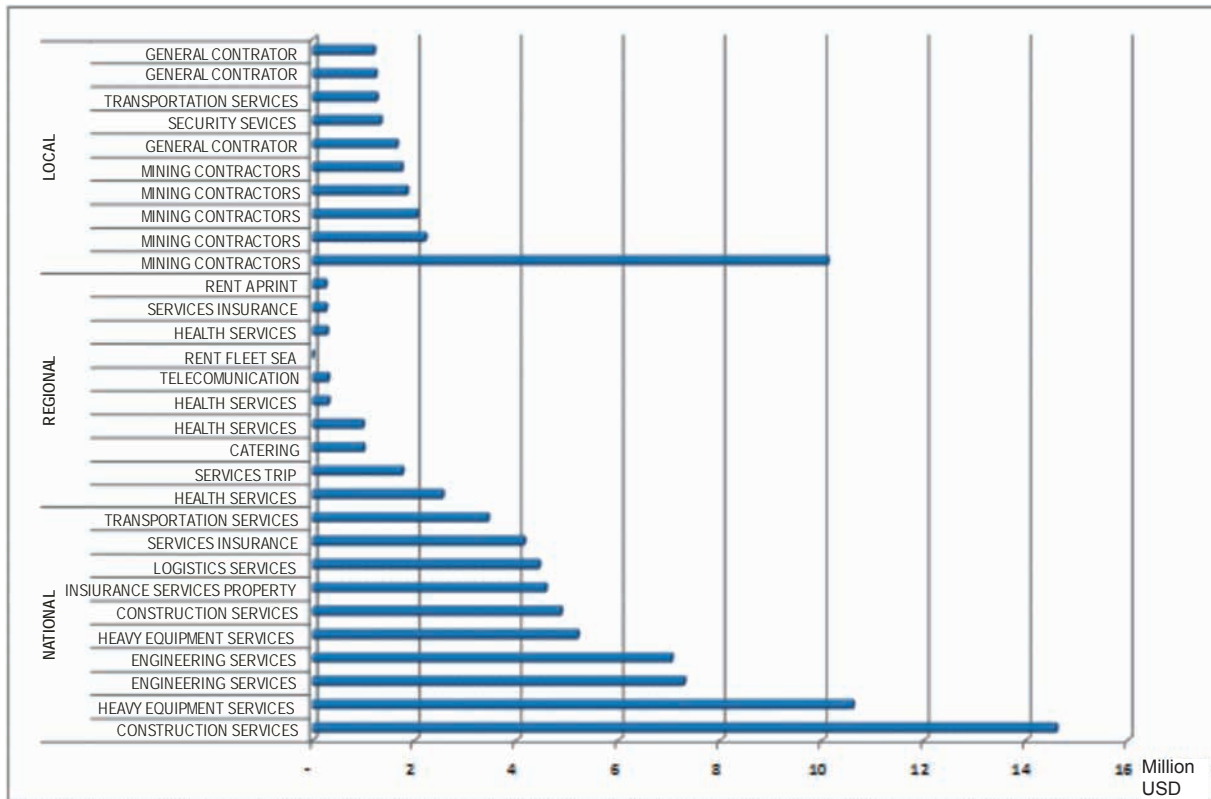


Figure 3. Realization of user service for PT Vale Indonesia that came from 10 biggest contractors (modified from PT Vale Indonesia, 2014)

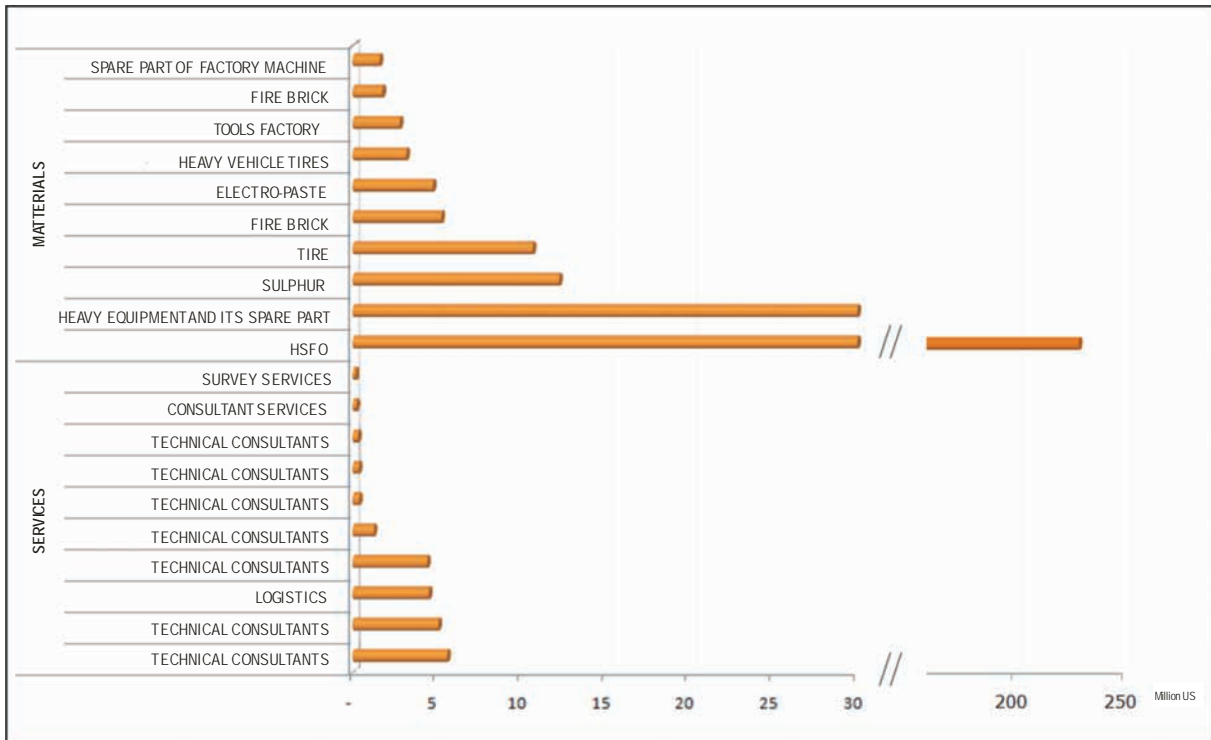


Figure 4. Realization of goods and service procurements for PT Vale Indonesia that came from 10 biggest abroad companies (modified from PT Vale Indonesia, 2014)

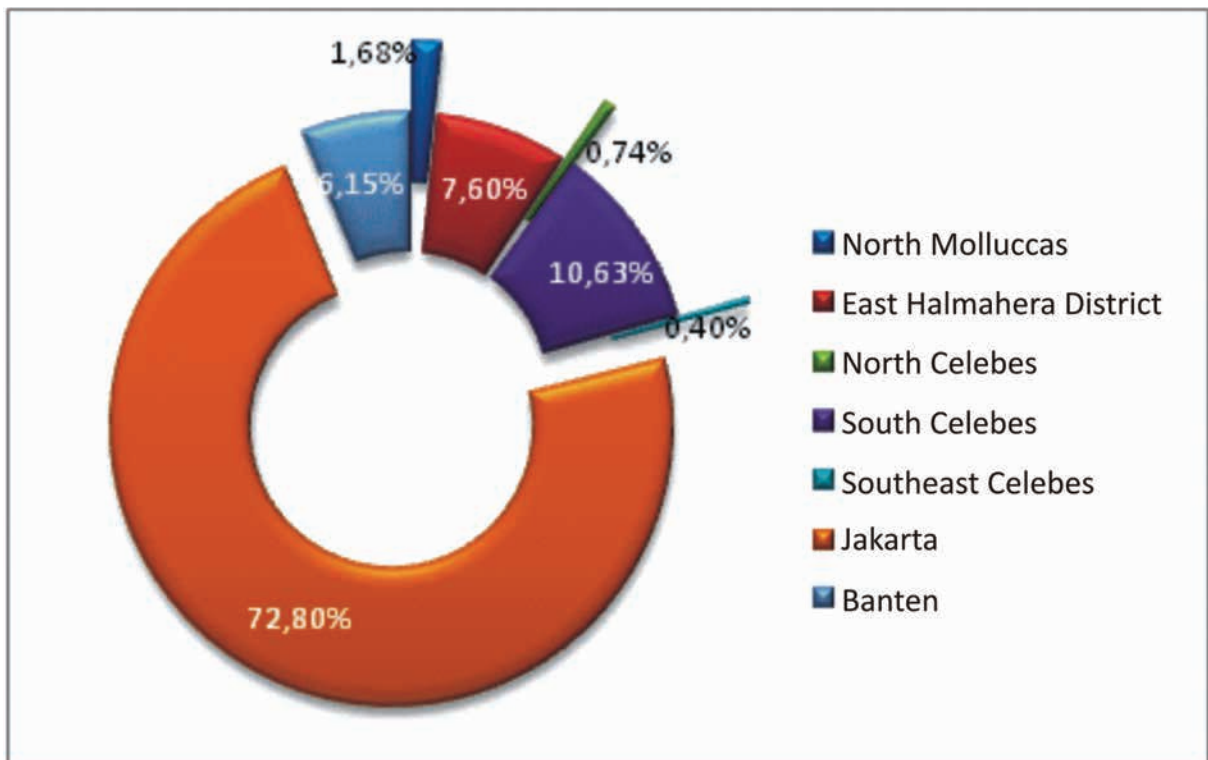


Figure 5. The local content of goods procurement at North Mollucas Nickel Unit in 2013 (modified from North Mollucas Nickel Unit, 2014)

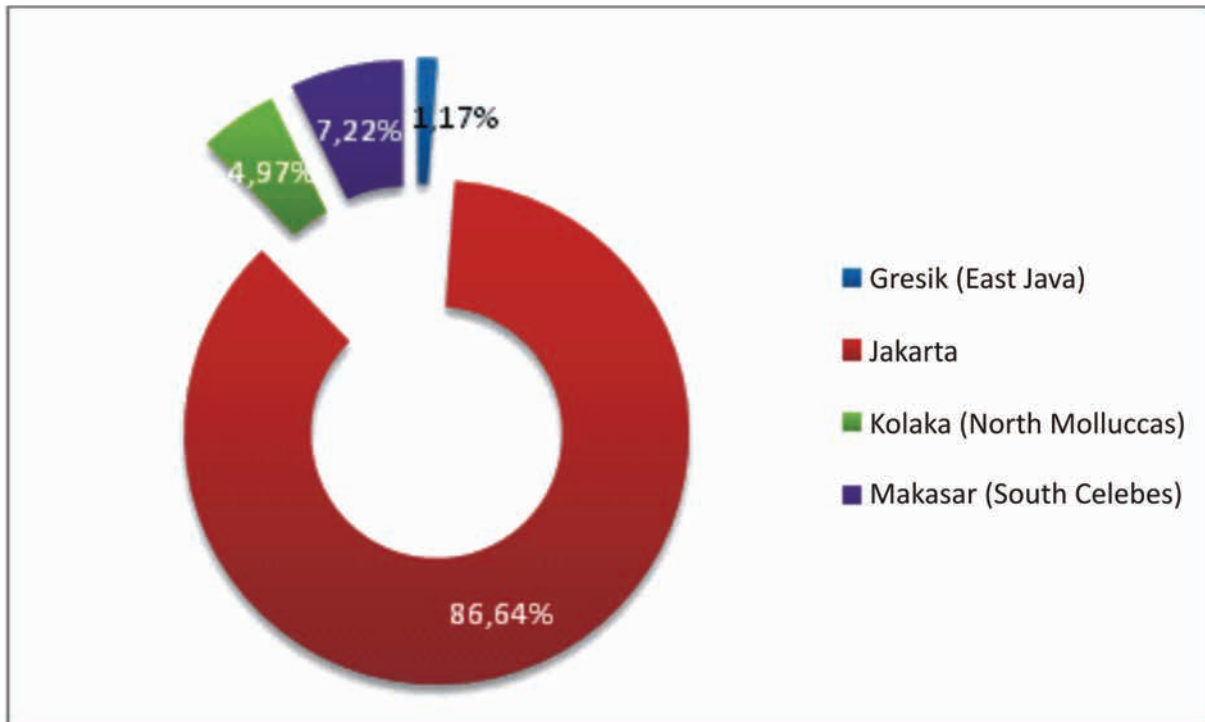


Figure 6. The local content of goods procurement at Southeast Celebes Nickel Unit in 2013 (modified from Southeast Celebes Nickel Unit, 2014)

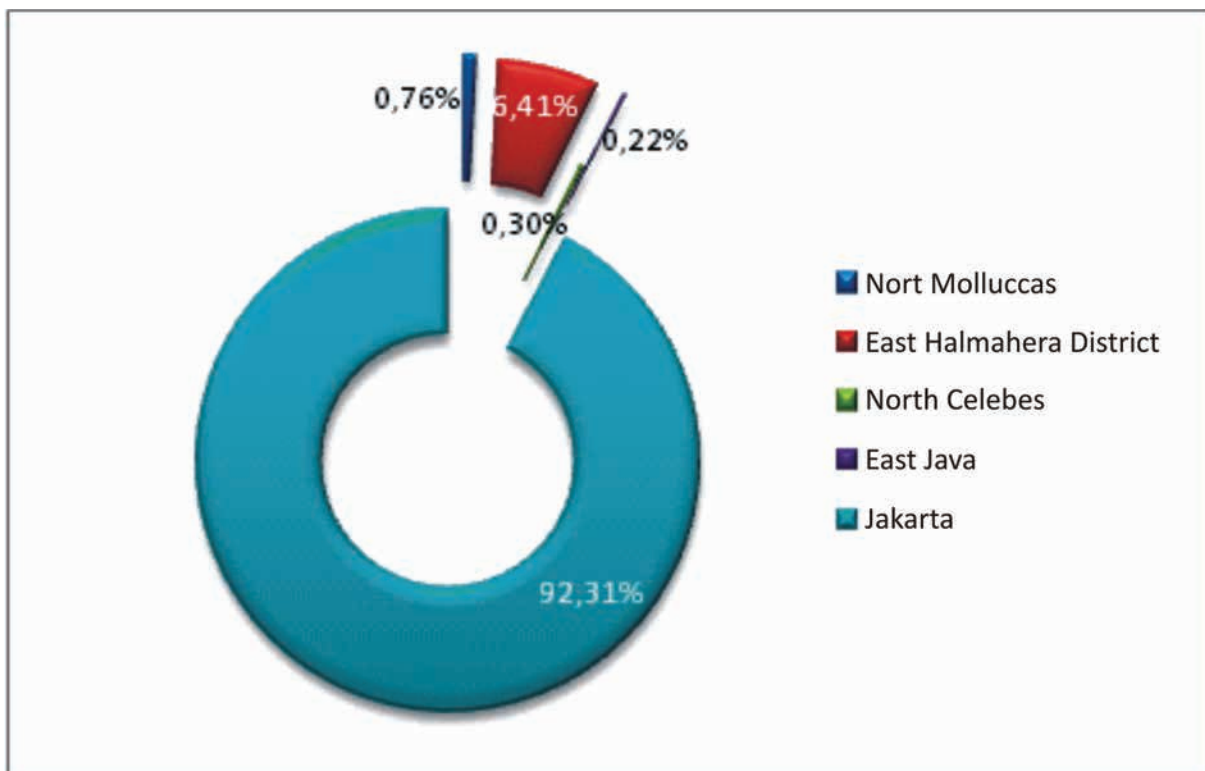


Figure 7. The local content of service procurement at North Mollucas Nickel Unit in 2013 (modified from North Mollucas Nickel Unit, 2014)

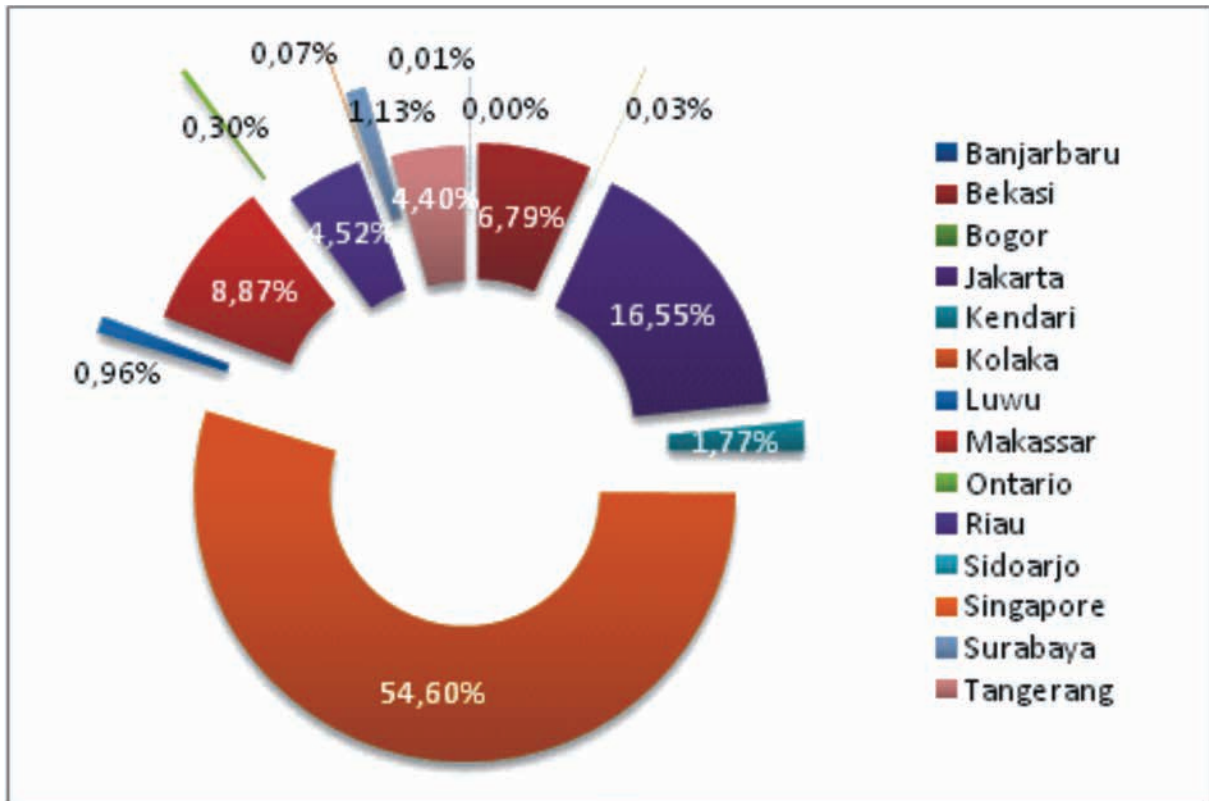


Figure 8. The local content of service procurement at Southeast Celebes Nickel Unit in 2013 (modified from North Mollucas Nickel Unit, 2014)

came from 23 provinces. As the company located at North Mollucas, the employees from North Moluccas Province dominated the company (47.19% or 168 people; Figure 9). Of 168 employees, 89 people (53.94%) came from East Halmahera Regency. Referring to wages distribution, North Mollucas obtained 39.25% and 48.88% of was contributed by East Halmahera Regency.

In 2013, the labors at Southeast Celebes Nickel Unit comprised 1,188 people. They mostly came from Southeast Celebes and South Celebes, i.e., 531 people (47.15%) and 351 people ( 32,26%) respectively. The wages for Southeast Celebes workers was 41.50% while South Celebes retained 32.55% (Figure 10).

**PT. Cahaya Modern Metal Industri (PT CMMI)**

PT CMMI belonged to the first domestic investment that established nickel smelter from the ores into nicken pig iron (NPI). Such a smelter construction referred to Regulation No. 4/ 2009 and its location in Konawe were appropriate as the area had prospective nickel resources (Suseno

and Mulyani, 2012). The investment of PT CMMI was relatively small (Rp. 200 billion) and it applied the blast furnace technology for processing the nickel ores. Cost production was relatively cheaper if using such a technology compared to employing electric furnace (Rochani and Saleh, 2013).

At the early stage, the operating furnace was only 2 served by 289 people that consisted of 250 local labors, 2 local experts and 37 foreign experts. At first quarterly of year two, the operating furnace increased to 4 furnaces that were operated by 428 people. Of the 428 people, 400 people belonged to local workers, 12 local experts and 16 foreign experts from China. The ratio of regular employees to contract ones was 1:3 at which more than 90% of them worked for production unit and the rest as office administration. The labors at production unit was grouped into those who worked at sinter and firmace areas. Each production activity employed three shifts. Two furnaces operated at 9 times a day for 2 hours yielded 400 kg NPI with 6-14% Ni. All products were exported to China.

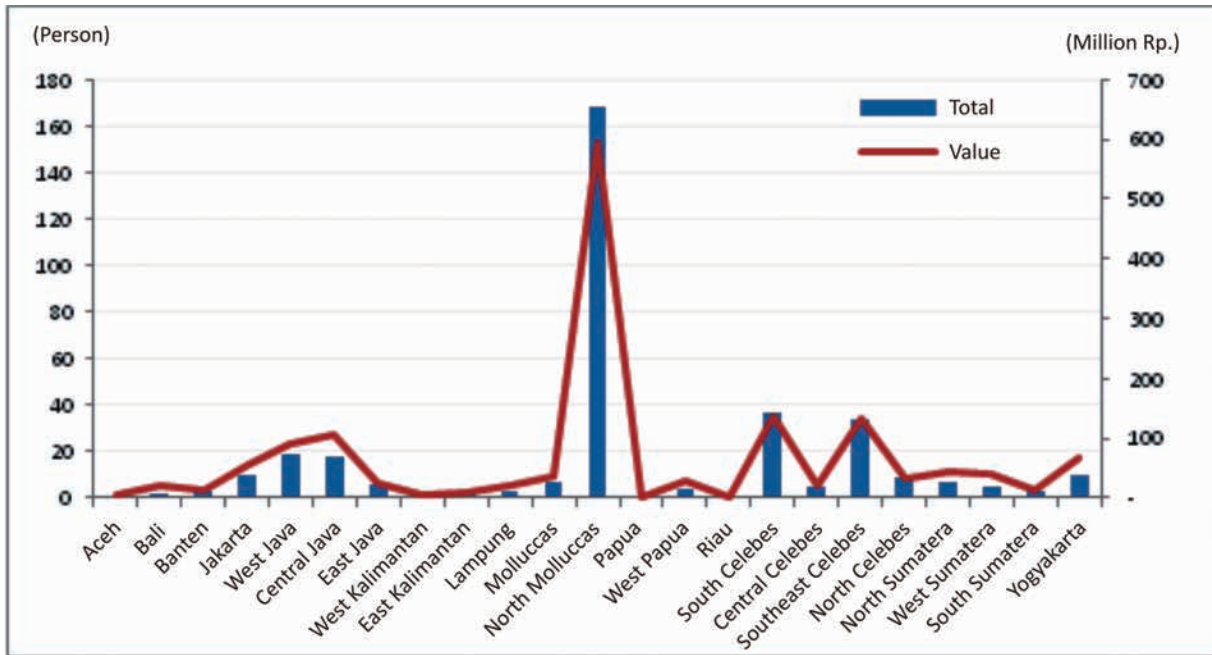


Figure 9. Number of worker and labor theory of value at North Mollucas Nickel Unit PT Antam Tbk. based on their origin in 2013 (modified from North Mollucas Nickel Unit, 2014)

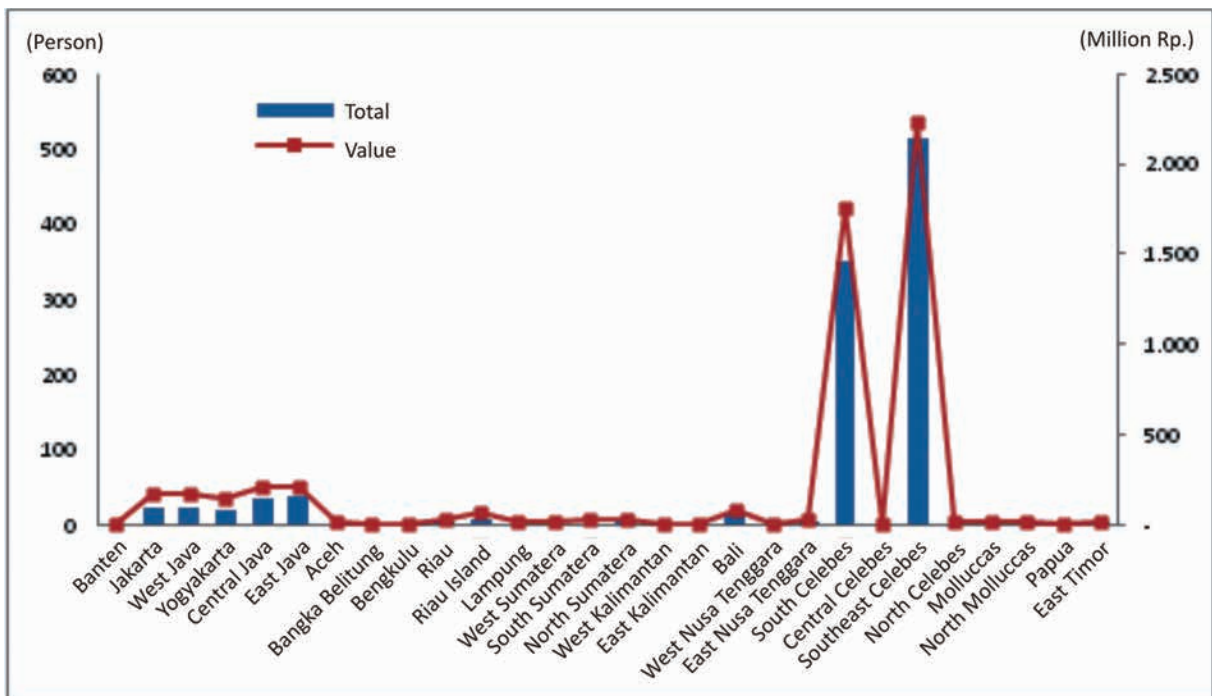


Figure 10. Number of worker and labor theory of value at Southeast Celebes Nickel Unit PT Antam Tbk. based on their origin in 2013 (modified from Southeast Celebes Nickel Unit, 2014)



Around 11,603 tons of nickel ore was supplied by IUP (operation mining unit) Sulemandara Konawe during Semester I of 2014 at which its site was near the processing plant. Other raw materials such as limestone (3.889 tons) and charcoal (55 tons)) were come from Konawe and 4.589 tons anthracite from Bengkulu while cokes (4,418 tons) and fluorite (284 tons) were imported from China. The NPI products during semester I were 1,004 tons and its slag included 16,769 tons (PT Cahaya Modern Metal Industri, 2014). As intermediate goods, the NPI products needed to be further processed into the country and in terms of evaluating how many NPI smelters should be built in Indonesia; the process should be integrated with its downstream industry to diminish the unoperated IUP.

### PT Weda Bay Nickel (PT WBN)

Through 2013, PT WBN still prepared main construction for plant that included licencing, land acquisition, land preparation for construction, increasing engineering camp, technical activity and research. Othr activities consisted of exploration, empowering community and environmental management. During 2013, PT WBN involved around 11 service companies in construction activities as shown in Table 1.

Compared to 2012, labors at PT WBN declined in 2013 due to the suspension of some projects and less field activities. The worker was around 1,000 people, including those belonged to sub-contractor workers. Of 1,000 workers, around 97% were Indonesian labors for all seniority level

from either PT WBN or sub-contractors offices. All businesses of PT WBN were conducted at Jakarta, Ternate, Manado and Halmahera. Of all Indonesian workers, 59% came from local area (Figure 11).

### The Local Content of Product

#### PT Vale Indonesia

The local content of product is the percentage of local content at a certain product unit. PT Vale Indonesia retained a complete data to calulat its product local content. Figure 12 showed the local content of nickel matte product for PT Vale Indonesia. Such calculation was based on all cost components that included production cost for main and helper materials; cost for labors, energy consumption, equipment usage; depreciation, direct and indirect local components. The local content of nickel matte product for PT Vale Indonesia in 2013 was around 43.59%. It meant that every tons of produced nickel matte used domestic production factor as the input, namely 43.59%. Such a unit oroginated from the contribution of direct labor, helper material and other costs.

#### PT Antam Tbk.

Measurement of the local content for nickel ores at North Mollucas Nickel Unit of PT Antam Tbk. was calculated from main production cost. The main cost of such a company included load of materials, employees, servives and others; depreciation, amortization, taxes and retributions, as

Table 1. List of Service company for PT Weda Bay Nickel in 2013 (modified from PT Weda Bay Nickel, 2014)

No.	Sub-contractor	Service type	Number of Labor	
			Plan	Realization
1	PT Taka Hydrocore Indonesia	Drilling	125	263
2	PT Sinar Peridotindo Utama	Drilling	60	114
3	PT Intertek Utama Service	Mineral preparation and analyses	31	51
4	PT Sodexo Indonesia	Catering	55	78
5	PT Intan Angkasa Air Service	Transportation (helicopter)	3	4
6	PT Asih Eka Abadi	Health	3	3
7	PT Secom Bhayangkara	Safety	66	56
8	CV Berkat Anugrah Abadi	Heavy equipment	5	6
10	PT Airfast Indonesia	Transportation (Flight)	4	5
11	Technip Far East (TFE)	Engineering	55	30

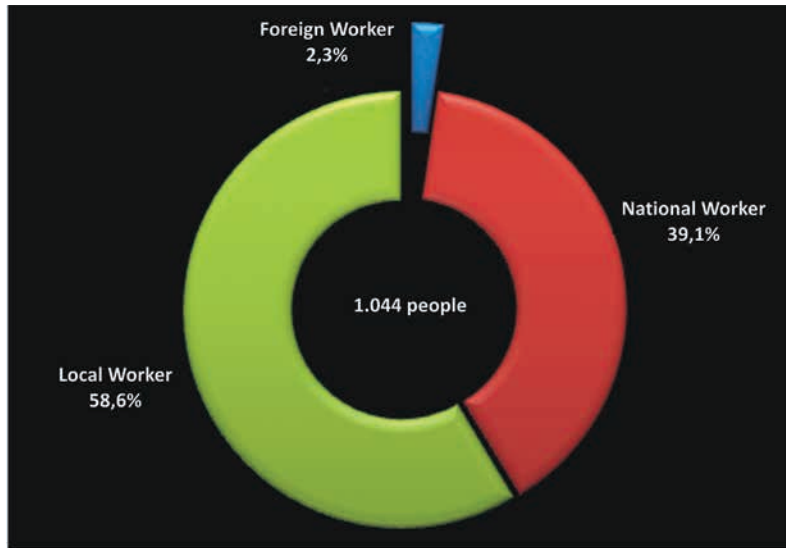


Figure 11. Distribution of labors at PT WBN, based on its origin area in 2013 (Modified from PT WBN, 2014)

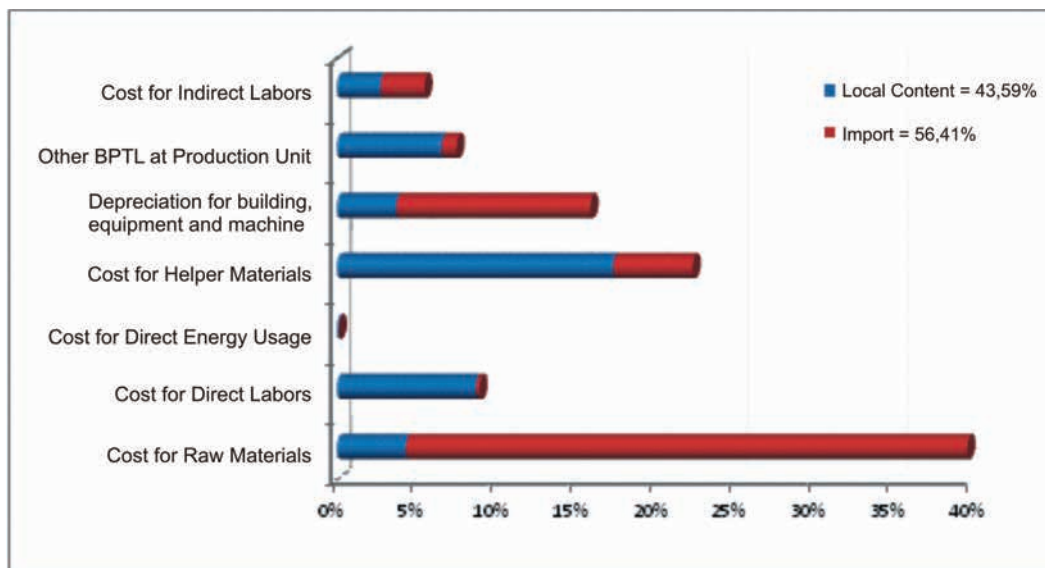


Figure 12. The local content of nickel matte product for in 2013 (modified PT Vale Indonesia, 2014)

well as exploitation contribution costs. However, the components of local and import expenses at North Mollucas Nickel Unit were unknown. As a result, the evaluation of local content for nickel ores could not be calculated. By considering the input of all production factor came from country, the local content for nickel ores comprised contribution of service expense (58.84%), taxes and retribution expenses (22.14%) and contributio of production (7.26%). Figure 13 showed the local content of North Mollucas Nickel Unit.

The local content for ferronickel at Southeast Celebes Nickel Unit was calculated based on main production costs without commercial costs. The costs involved dirict and indirect costs; the former consisted of costs for helper materials, regular employees, services, asset depreciation, and electricity. Indirect costs encompassed costs for maintenance, overhead and shipping. By considering the production factors as the input came from country, the local content for ferronickel at Southeast Celebes Nickel Unit consisted

of contribution from expenses of electricity, raw and helper materials, and overhead as shown in Figure 14.

**Potential Ability of Domestic Supply**

1) Local Level

a. East Luwu Regency, South Celebes

The existence of PT Vale Indonesia at East Luwu Regency had motivated some local goods and service companies to be served as suppliers for such a company. In 2013, PT Vale Indonesia had exploited several local companies. All selected suppliers had been listed in the Directory of Service Company for Mineral and Coal that was periodically published by the Directorate General of Mineral and Coal. Those were 42 companies with 62 employment contracts of works such as service for loading and unloading, mine rehabilitation, general maintenance, workshutdown work force for repetitive shutdown, light vehicle rental services, mining safety and cleaning service (Directorate of Engineering and Environmental for Mineral and Coal, 2014).

b. East Halmahera Regency, North Mollucas

The existence of mining activities in a local area triggered the economic and social development of the area through the development of goods and service businesses as the input

of mining business as hown by East Halmahera Regency at which the such businesses for supporting mining activities had deveveloped. As example; in 2013, there were six goods suppliers, 5 of them were domiciled at East Halmahera and the rest was at Ternate. They supplied vehicles, spare parts, lubrication, electric equipments and uniforms. Of 15 service companies, 11 of them belonged to East Halmahera Regency and the rest went to Ternate. The services included contruction, transportation, outsourcing of labor, environmental management and others.

c. Kolaka Regency, Southeast Celebes

Based on the data from Licencing Office of Kolaka Regency, the businesses of goods and service at such a regency extremely varied. The overall included 595 businesses that comprisses 261 goods businesses and 334 service businesses. Compared to Kendari (the province capital), the businesses that were related to goods and service for Southeast Celebes Nickel Unit and other Mining Business Licenses at Kolaka were more complete. The businesses included vechicle and its spare part, stationery, computer, electricity, crop, contruction and mining services, transportation, consultant service, environmental waste management and others. The biggest business came from food and beverages (81) and garment (30) sectors. In service

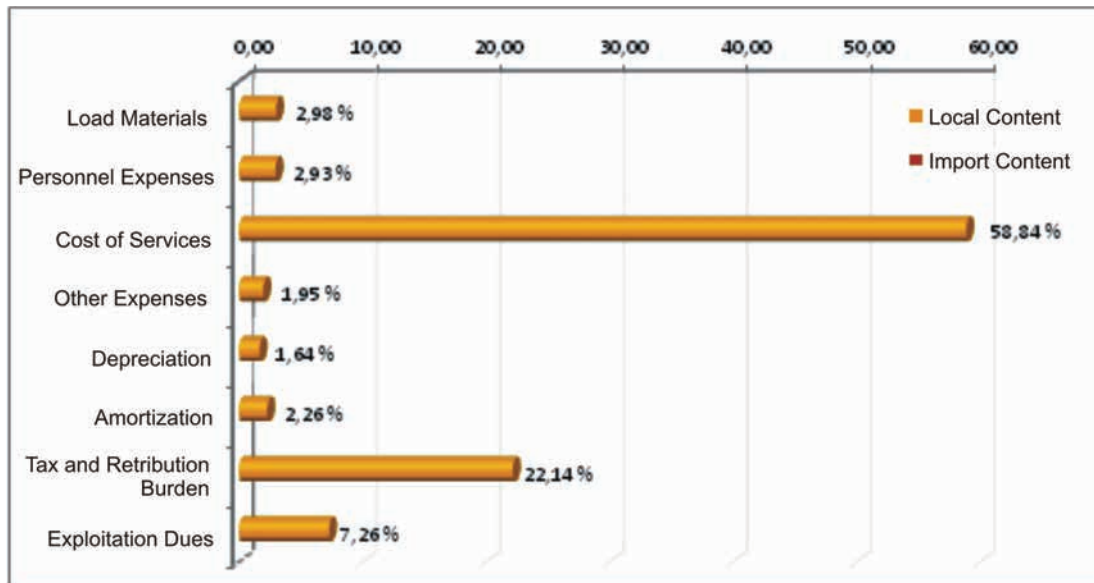


Figure 13. The local content for North Mollucas Nickel Unit of PT Antam Tbk. in 2013 (Modified from North Mollucas Nickel Unit of PT Antam Tbk, 2014)

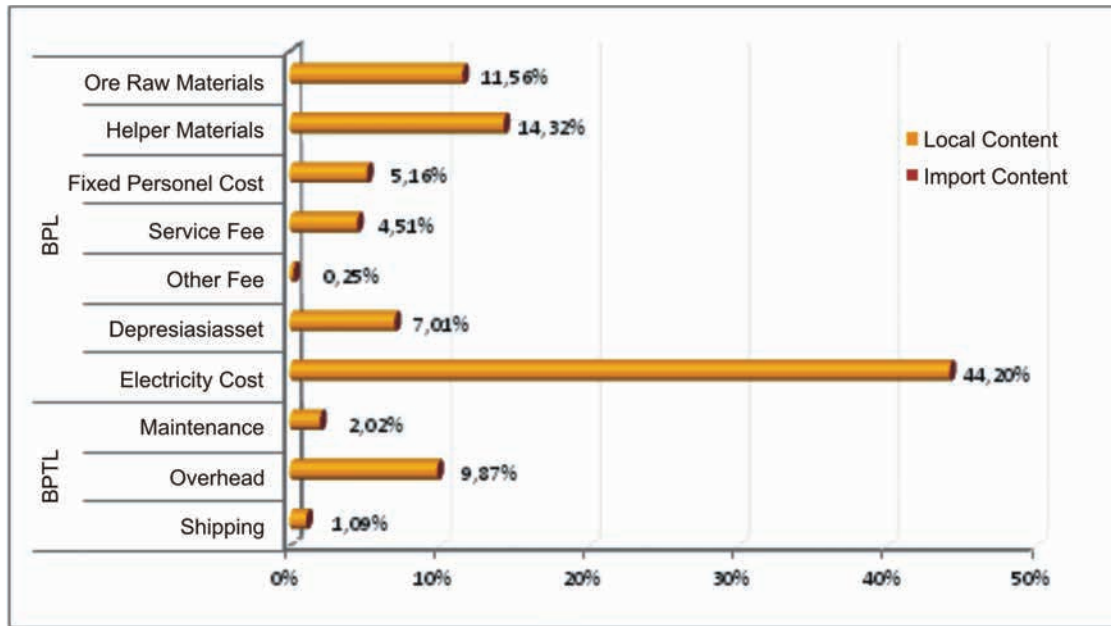


Figure 14. The local content for ferronickel of Southeast Celebes Nickel Unit in 2013 (modified from Southeast Celebes Nickel Unit, 2014)

sector, around 190 businesses belonged to construction sectors, 22 went to garments, 10 to loading-unloadings and 6 to workshops. However, the enactment of Regulation No. 4/2009 regarding the added value of the ores by domestically processing and refining them would have an impact to the potential of local area. A lot of businesses in mining services would be discontinued as reviewed by Permana (2010) and Yuniarto (2014).

## 2) National Level

The data regarding domestic supply had officially been issued by the Ministry of Industry of Republic Indonesia in a book with title *Inventarisasi Produsen Dalam Negeri* or *Inventory of Domestic Producers* while the Directorate of Mineral Business Development had specially published *Promosi Kepentingan Nasional Dalam Rangka Peningkatan Kandungan Lokal Alat Tambang dan Peningkatan Penggunaan Produk Dalam Negeri* or *Promotion for National Interest in order to Increase the Local Content of Mine Equipments and the Use of Domestic Products* (Direktorat Pembinaan Perusahaan Mineral – Direktorat Jenderal Mineral dan Batubara, 2013). Directorate of Engineering and Environment for Mineral and Coal had also released *Direktori Perusahaan Jasa Pertambangan Mineral dan Batubara* or *Directory of Service Company for Mineral and Coal*

(Direktorat Teknik dan Lingkungan Mineral dan Batubara – Direktorat Jenderal Mineral dan Batubara, 2014). The first book contained information regarding domestic producer management in supporting Indonesian mine and the second book served information regarding management of bussines services in mineral and coal mine. The books helped producers to promote their services.

## Opportunity for Increasing the Local Content

Survey on five nickel mine companies showed that the opportunity to increase the local content of such companies was still available. Based on the evaluation of 5-year master list data from PT Vale Indonesia, the average achievement of the local content was 51.04%. During such years, the expense of import goods tended to decrease, around -0.54% a year. It was far from the target, i.e., -6.64% a year. Referring to such a fact, the local companies could actually catch the opportunity as shown by Makassar. The city could take the opportunity around 23.23% from the total domestic expenses. It meant that in such situation, the carrying capacity of Makassar could nationally compete in goods supplying for mine activity. Table 2 showed PT Vale target and opportunity for goods procurement in 2014.

Table 2. Target and opportunity of import substitution for goods procurement for PT Vale Indonesia in 2014 (modified PT Vale Indonesia, 2014)

No.	Types of materials	Domestic suppliers
Target of import substitutu		
1	Iron (Plate/Angle, Channel, Round Bar)	PT Sutindo Surabaya, PT Multicapital Sarana Utama, etc.
2	Uniform	PT Panca Prima
3	Table of heat resistant barcode	PT Joisa Persada
4	Safety devices (Lanyard, Safety, Body Harness)	CV Elm Putri, CV Welani Jaya
5	Lifting equipment ( spare parts of lifting machine, Wire Rope)	PT Konecarnes Indonesia, PT Kezindo Sejahtera Abadi, etc.
6	Submarine Hose	PT Superflex
Chance of import substitution		
7	HSFO	-
8	Sulphur	-
9	Electro Paste	-
10	Fire brick	-
11	Heavy vehicle tires	-
12	Heavy equipment and its spare parts	-
13	Tool factory and its spare parts	-
14	Others	-

The local content of goods expenses of PT Antam Tbk, for either North Mollucas Nickel Unit or Southeast Celebes Nickel Unit, had reached 100% but the suppliers were still dominated by Jakarta producers, namely around 93.21% for North Mollucas Nickel Unit and 86.6% for Southeast Celebes Nickel Unit. Referring to this situation, the local suppliers still had a big opportunity to increase their capability in supplying the goods for both mining business units.

PT CMMI fulfilled its demand from local supplier. Its smelter location within mining area (Konawe) was an advantage (Nurhasan et al., 2013). The helper materials such as limestone, lime and charcoal were supplied by local companies. However, domestic companies were challenged to replace imported cokes and fluorite from China by local materials.

The average local content of service procurement for PT Vale during 5 years was 46.06%. The rest (53.94%) came from import sector such as those for technical consultant, logistic and survey service. Based on Directory of Mineral and Coal Mining Services Business, domestic contractors should take advantage on several sectors that related to maintenance contract service for unit

volvo, commissary and catering facilities operation, mine construction, architecture, procurement and maintenance for equipments.

The local content of service procurement at PT Antam Tbk, for either North Mollucas Nickel Unit or Southeast Celebes Nickel Unit, achieved 100% and 99.60% respectively. The local content for North Mollucas Nickel Unit was supplied by Jakarta (72.80%) and North Mollucas (9.28%). Of 9.28% North Mollucas local content, 7.60% came from East Halmahera. Economic development at East Halmahera occurred due to service expenses of North Mollucas Nickel Unit, however such a development did not match the local content of Southeast Celebes Nickel Unit yet that had 54.60%.

Referring to labor aspect, the local content for five companies nationally retained 98.63% or ranging between 96.26 to 100.00% labors performing 1.37% foreign workers or varying from 0,00% to 3,74%. The average labor local content at province level was 67,97% or reaching from 47,15% to 96,26% and at regency level such a local content for North Mollucas Nickel Unit, Southeast Celebes Nickel Unit and PT Vale was

39.20% or ranging between 8.18% to 84.41%. In recruiting the workers, both of the North Moluccas and Southeast Celebes Nickel Units as a part of state owned companies kept their commitment to maintain the board of directors and commissioners from Indonesian citizens based on their professionalism. Similar condition also occurred at PT Vale Indonesia, PT WBN and PT CMMI. The three companies had committed to apply regulation in recruiting the employees, namely prioritizing the local citizens and diminishing the foreign workers. PT Vale performed high rank in applying the local citizen notably from Sorowako as its employees, namely 84.41% of the total workers. Despite its foreign workers of PT CMMI were still high, effort to lessen such workers from 12.80% at Quarter I -III (Year I) to 3.74% at quarter I (Year II) was appropriate to be appreciated.

The local content of nickel matte at PT Vale was 43.59%, however, 56.41% of the product local content per output unit implied that imports for goods, service, and employees still continued. Referring to the decrease of import expenses around -0.54% meant that the content values tended to increase. Such situation was an opportunity for domestic companies to involve in that business. As a result, the supply capability of local area such as Makassar could compensate that of Jakarta.

### Constraints, Problems and Follow-up Efforts

Based on such an analysis, opportunity to increase the mining local content actually is still significant. Information derived from the field showed that mining entrepreneurs wished to use domestic suppliers in several conditions on the other hand, domestic producers were also capable to deliver the need of goods and surveys although they subjected to supplier desire. Theoretically, such a condition had satisfied minimum requirement for transaction occurrences, however, the facts revealed that a lot transactions had never been realized. The identified constraints and problems dealing with the problems were:

a. Information dealing with the needs of mine companies and domestic supplier capabilities was not run smoothly. As a result, suppliers and consumers filed some complaints dealing with this problem. Information from consumers to suppliers related to detail requirement or technical specification of required goods and services while the suppliers had a mandatory

to inform capabilities of domestic companies in providing certain goods and services by referring to technical specification that corresponded with the needs of mine companies. To recognize consumer needs, it could be conducted by directly visiting to the mining companies and suppliers tried to adjust its products and services with the need of IUP (operation mining unit) companies. When lobbying the consumer nominees, the producers of goods and services needed to possess marketing capability and selling skill to penetrate mine company barriers. Information regarding the needs of mine companies and domestic supplier capabilities could be accessed in Inventarisasi Produsen Dalam Negeri or Inventory of Domestic Producers. A book published by the Directorate of Mineral Business Development with title Promosi Kepentingan Nasional Dalam Rangka Peningkatan Kandungan Lokal Alat Tambang dan Peningkatan Penggunaan Produk Dalam Negeri or Promotion for National Interest in order to Increase the Local Content of Mine Equipments and the Use of Domestic Products was adequately informative but it need to be enhanced its status to be required reference. Similar condition was also applied to a book of Apresiasi Produk Dalam Negeri (APDN) or Appreciation of Domestic Product as a demanded reference within a process of goods and services procurement in oil and gas sector;

b. Opportunity, competency and transparency of product testing.

Problems faced by domestic producers were complicity to get chances for testing the offered products from mining companies. The next problem was misunderstanding dealing with differences in testing results. The producers commonly claimed that their products had satisfied the quality standard as requested by the consumers. Conversely, the consumers argued that product quality offered by producers did not meet the proposed requirements. In addition, consumers did not provide information dealing with the results of product testings. The consumers rejected the products without presenting any reasons of product quality. Referring to such problems, some domestic producers expected to be tested their products in a similar way with previous, already-accepted products. Yet the Directorate General of Mineral and Coal

as government representative reminded that transparency attitude should be kept by the companies when giving the reason of their refusal. Efforts to overcome such a problem was establishing expert forum in which their members comprised the representative of consumers, producers, governments and certified testing institutions. All conducted tests could be used as a reference for evaluating the products;

c. Requirements of Indonesian National Standard.

Indonesian National Standard (abbreviated SNI) is the only standards that apply nationally in Indonesia. SNI formulated by the Technical Committee and confirmed by the BSN (National Standardization Agency of Indonesia). SNI stands for Indonesia National Standard or typically called standard quality for certain product that obtained by way of (third-party) product certification system to determine the conformity of a product with specified requirements through initial testing of samples of product, assessment and surveillance of the involved quality system, and surveillance by testing of product samples taken from the factory or the open market, or combination of both. The affixing of SNI marking on the product is an indication that it meets the standard requirements (SNI) in place to allow it to be sold anywhere in the Republic of Indonesia (<https://www.tuv-nord.com/id/en/product-certification/sni-577.htm>). SNI certificate is a requirement in the world trade though the products had been fulfilled its specification and price. If the certificate was not available, the mining companies would not willing to buy the products as the internal policy of the company required the SNI certificate regarding the items purchased. On the other hand, domestic producers often faced difficulties to gain SNI certificate. Using SNI, target of product quality for producers was clear and this resulted in fair competition while for consumer, the SNI help recognizing the quality of offered product. As a result, a good evaluation on quality and price could be conducted well. The use of the SNI for government side was protecting the domestic products from external products that were cheap but unguaranteed their quality and safety. Competitively, the SNI increased domestic product excellence in international market. The domestic producers suggested regarding the ease and simplification of the

process to get the SNI as well as the socialization in gaining SNI to the domestic producers;

d. Price preference in auction process

The unclear and transparency of calculation procedure for domestic component still perplexing for the producers, notably related to:

- small amount of domestic component from goods and services employed in production process affected the percentage of domestic component for its products though they already sought the alternative to increase the component of domestic goods and services. The fact that there was no alternatives forced them to use small domestic component. This meant that the occurred mistake at the upstream part was borne by those whose were at downstream. As a result domestic producer faced financial loss when the auction occurred. Referring to such cases, domestic producers required clarities and transparencies when verifying the domestic component;
- domestic producers recommended that the expenditure services were organized locally. Opinion stated that the expenditure was considered as a local content was really true. PT Sucofindo - a partner of Ministry of Industry stated that the term of domestic component in this context belonged to the local made and local purchase. As a control, the Ministry of Industry issued a certificate dealt with domestic component only for local made producers, not for traders. Such certified producers were available within Products Appreciation Book published by the Ministry of Industry;
- the representative of such a ministry also issued a regulation regarding the domestic component. If such a component was more than 40% , all exported products should be banned;

e. Taxes

Time consuming in restitution of tax administration. The consumers suggested that the proposed items that were listed in a master list should be re-selected by taking notice on their limited time notably for those that could already be produced domestically;

f. Licence for hazardous materials

Mining entrepreneurs faced difficulties to

get licence for using domestic products that contained hazardous materials, mainly those related to environmental aspects;

- g. Employees and human resources SDM) Due to the lack of human resources at Directorate General of Mineral and Coal, evaluation and monitoring process of implementation policy for domestic goods and services to all mining companies did not be optimized. It was only conducted at 6 month through 1 year. This condition is less than anticipated. It was recommended to recruit new employees that could help finishing the tasks. Employee competency at national level was capable to fill strategic position at mining companies, however, at regency level skill requirements were still a problem that could not be solved. It was suggested to organize integrated man power planning that involved three parties, namely mining companies, local government and local residents. This resulted - in the long term - the HRD development could be directed to fill the position at such mining companies.

Main and other factors that hampered the process as well as their alternative way out needed to be accommodated in draft regulation of the Minister of Energy and Mineral Resources regarding the use of goods and services in country. However, the sentence within the draft should be clear and unequivocal and did not insert rubber articles that retained multi-interpretation.

## CONCLUSIONS AND SUGGESTIONS

### Conclusions

During the last five years, the local content of PT Vale Indonesia for expenditure group was around 51.04%. Import expenditure declined to -0.54% a year and was still needed through -6.64% a year. The local content of goods expenditure for PT Antam Tbk. at either North Mollucas Nickel Unit and Southeast Celebes Nickel Unit domestically reached 100% though its supplier was still dominated by Jakarta producer. Of the 100%, 72.80% belonged to North Mollucas Nickel Unit and the rest went to Southeast Celebes Nickel Unit. At PT CMMI, the fulfillment of the needs for nickel raw material and helper materials (limestone, lime and charcoal had been supplied by local companies while the cokes and fluorite were imported from

China.

The average local content for service expenses at PT Vale Indonesia for 5 years reached 46.06% while PT Antam Tbk. for both unit achieved 100 and 99.6%. At regency level, Kolaka Regency acquired relatively high local content, namely 54.6%.

Referring to labor aspect, the average national local content for 5 companies was 98.63% with 1.3% of foreign workers. At provincial level, the average local content was 67.97% and 39.20% for regency level. PT Vale Indonesia hired 84.41% local residents from Sorowako. Such a figure was relatively high. The local content of nickel matte product for PT Vale Indonesia (43.59%) indicated that raw material, service, labor, energy, equipment, tool depreciation were supplied in the country.

The chance for increasing the local content for nickel mining companies was quite high. PT Vale Indonesia master list showed that the import capacity was still around 48.96% and needed to be lessened while PT CMMI still imported helper materials (cokes and fluorite) from China. Compared to Jakarta that had reached 72.80% in supplying goods, the goods supplier for North Mollucas Nickel Unit could be increased from 9.28% at level of North Mollucas Province and 7.60% at level of East Halmahera Regency. Similar issue for service aspect at North Mollucas Nickel Unit; The increase of service local content was still prospective as the achievement for such matter was only 7.17% at province level; 6.41% of them came from level regency.

Of 1.37% foreign workers needed to be lessened. Such a figure came from PT CMMI, PT WBN and PT Vale Indonesia. Cost production for producing nickel matte at PT Vale Indonesia was still supplied by import. The fees included raw material, service, labor, equipment and other costs,

### Suggestions

Several aspects needs to be accommodated within the regulation of the Minister of Energy and Mineral Resources. Those are:

- road map of domestic component for either short, intermediate or long terms;
- standard of procedure (SOP) for implementing the evaluation and monitoring the use of domestic goods and services. This will initially



- ascertaining the achievements, problems and anticipation procedures to use the domestic products for mineral and coal and mine;
- needs to selecting the criteria for proposed goods as stated within the master list and limiting the time notably for goods that have been produced in country;
  - using the books of Promosi Kepentingan Nasional Dalam Rangka Peningkatan Kandungan Lokal Alat Tambang dan Peningkatan Penggunaan Produk Dalam Negeri or Promotion for National Interest in order to Increase the Local Content of Mine Equipments and the Use of Domestic Products Promotion for National Interest and Direktori Perusahaan Jasa Pertambangan Mineral dan Batubara or Directory of Service Company for Mineral and Coal Mining is a compulsory references. Another required reference to be read by the entrepreneurs who are involved in goods and services procurements is Apresiasi Produk Dalam Negeri (APDN) or Appreciation of Domestic Product;
  - mining companies, domestic producers and governments need to be periodically converged to discuss the efforts and problems in increasing the use of domestic products;
  - settings formality and mechanism of product testings in goods and services procurements include establishing expert forum in which its members comprise the representatives of consumers, producers, governments and certified testing institution. All members conduct a testing on the products using a method. The test results can be served as a reference for evaluating similar products;
  - setting a formality and mechanism for testing the product in goods and service procurements at mineral and coal mining company. Such a setting also includes a formation of expert forum in which its member contains the representatives of consumers, producers, governments as well as testing institutions. The members simultaneously test a product quality using a particular method. The results serve as a reference for evaluating similar products.
    - a. setting a formality and mechanism for component of domestic calculation that relates to price preference in auction process of goods and services.
    - b. setting synergic development and empowering pattern for procurement of goods and service business at local and central level.

- c. providing facility and founding to domestic producers in terms of accelerating Indonesian National Standard achievement for their products.

To increase the capacity of Directorate General of Mineral and Coal, it is suggested that: such an institution proposes HRD formation that appropriates with the working load.

- a. provides facility and motivation regarding integrated man power planning program. Such a program should involve mine entrepreneurs, local government and local community until all local HRD can be directed to fill - for example, position within the company.
- b. the institution codifies development and empowerment pattern of mine goods and services synergically at local and central level. It starts from compiling database of goods and services, setting the SOP of goods and services business management for mine companies at either local or central level. Such mine companies include national private companies, foreign investment and domestic investment.

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## REFERENCES

- Anonym, 2009. Undang-Undang Republik Indonesia Nomor 4 Tahun 2009 tentang Pertambangan Mineral dan Batubara, Kementerian Energi dan Sumber Daya Mineral, Jakarta, 87 halaman.
- Anonym, 2010. Peraturan Presiden Nomor 23 Tahun 2010 Tentang Pelaksanaan Kegiatan Usaha Pertambangan Mineral dan Batubara, Kementerian Energi dan Sumber Daya Mineral, Jakarta, 76 halaman.
- Anonym, 2011. Peraturan Menteri Perindustrian Nomor 16 Tahun 2011 tentang Ketentuan dan Tata Cara Penghitungan Tingkat Kandungan Dalam Negeri, Kementerian Perindustrian, Jakarta, 141 halaman.
- Anonym, 2014. *Daftar perusahaan barang dan jasa di Kabupaten Kolaka Tahun 2011-2013*, Kantor Perizinan Kabupaten Kolaka, Kolaka, 106 halaman.

- Direktorat Pembinaan Pengusahaan Mineral - Direktorat Jenderal Mineral dan Batubara, 2013. Buku Promosi Kepentingan Nasional Dalam Rangka Peningkatan Kandungan Lokal Alat Tambang dan Peningkatan Penggunaan Produk Dalam Negeri, 110 halaman.
- Direktorat Teknik dan Lingkungan Mineral dan Batubara - Direktorat Jenderal Mineral dan Batubara, 2014. *Direktori Perusahaan Jasa Pertambangan Mineral dan Batubara*, 435 halaman.
- Direktorat Teknik dan Lingkungan Mineral dan Batubara - Direktorat Jenderal Mineral dan Batubara, 2014. *Matriks Rencana Kerja Tahunan Teknik Dan Lingkungan Tahun 2014*, PT Vale Indonesia, 27 halaman.
- Nursahan, I.; Isnaniawardhani, V.; Sulaksana, N., 2013. penentuan kawasan pertambangan berbasis sektor komoditas unggulan sumberdaya nikel Kabupaten Konawe dan Konawe Utara Provinsi Sulawesi Tenggara, *Buletin Sumber Daya Geologi*, Vol. 8 No. 2, Agustus 2013, halaman 41 – 53.
- Permana, D., 2010. Dampak penerapan undang-undang nomor 4 tahun 2009 tentang pertambangan mineral dan batubara terhadap pengembangan usaha pertambangan mineral dan batubara, *Jurnal Teknologi Minertal dan Batubara*, Volume 6, Nomor 4, Oktober 2010, hal. 165-173.
- PT Cahaya Modern Metal Industri, 2014. *Laporan kegiatan bulanan, triwulan, dan tahunan kegiatan operasi produksi khusus untuk pengolahan dan pemurnian*. 3 halaman.
- PT Vale Indonesia, 2014. *Data realisasi pembelian barang dan penggunaan jasa, tenaga kerja dan biaya produksi tahun 2013*, 20 halaman.
- PT Weda Bay Nickel, 2014. *Data rencana kerja dan anggaran biaya 2014*, 128 halaman.
- Rochani. S.; Saleh, N., 2013, Teknologi Pengolahan dan Pemurnian Nikel, *Mineral & Batubara*, Volume 11, No. 1, Maret 2013, halaman 23 – 43.
- Sucofindo, 2014. Peningkatan penggunaan produksi dalam negeri dalam pengadaan barang/jasa pemerintah, *Bahan presentasi Persiapan Pelaksanaan FGD Kajian Muatan Lokal Perusahaan Pertambangan Mineral Di Indonesia*, Puslitbang Teknologi Mineral dan Batubara, Bandung, 12 Agustus 2014, 84 halaman.
- Suherman, I.; Yuniyanto, B.; Saefudin, R.; Permana, D., 2006, Kajian muatan lokal (*local content*) pada perusahaan tambang batubara di indonesia, *Jurnal Teknologi Mineral dan Batubara*, No 38, Tahun 14, September 2006, hal. 19 - 27.
- Suseno, T.; Mulyani, E., 2012, Konsep pengembangan wilayah sulawesi tenggara berbasis komoditas unggulan sektor pertambangan, *Jurnal Teknologi Minertal dan Batubara*, Volume 8, Nomor 3, September 2012, hal. 119-131.
- UBP Nikel Maluku Utara-PT Antam (Persero), 2014. Daftar pengadaan barang dan jasa, *Data Tenaga Kerja dan Laporan Keuangan UBP Nikel Maluku Utara Tahun 2013*, 101 halaman.
- UBP Nikel Sulawesi Tenggara-PT Antam (Persero), 2014. Data pengadaan barang dan jasa, *Data Tenaga Kerja dan Data Biaya Penambangan dan Pengolahan Nikel UBP Nikel Sulawesi Tenggara Tahun 2013*, 130 halaman.
- Yuniyanto, B., 2014. Analisis dampak penerapan kebijakan nilai tambah mineral indonesia terhadap ekspor dan tenaga kerja, *Jurnal Teknologi Minertal dan Batubara*, Volume 10, Nomor 3, September 2014, hal. 127-141.