

The Economic Impacts of Haze in Riau

At the end of September 2015, Bank Indonesia's Representative Office in Riau announced the preliminary findings of their initial study of the economic impacts of haze to Riau's economy. Their research concludes that the increase in prices resulting from the disruption of distribution of basic needs by land, river and sea had not been significant.¹ However, the Focus Group Discussion and Multi Stakeholder Forum conducted by Women Research Institute (WRI) in three different places in Pekanbaru City a year after the haze crisis revealed that the majority of the participants felt that prices increased significantly during the crisis. At the same time, sales dropped and the agricultural sector was badly impacted.

"I work as a mini-van driver and I couldn't work because there were no schoolchildren going to school and no people going work, there were no passengers at all," stated Edi. Another participant, Tika, states, "We as traders experienced a difficult time because both the demand and supply dropped, causing a surge in prices. The price of chilli, for example, increased from IDR 15,000-20,000 to IDR 80,000. In the end, we resorted to eat instant noodles."

On the other hand, the price of other agricultural commodities plummeted significantly. Netty, a female informant who works as a papaya seller, illustrated that the normal price of papaya is IDR

7,000 per kilogram; however, this price dropped to IDR 1,000 per kilogram during the haze. Papaya farmers in Riau also recorded that their harvest decreased to 10 kilograms from 50 kilograms in normal conditions. To make it worse, even that amount was difficult to sell because there were not many people out in the streets.

Small and micro-scale businesses which are the main livelihood of the middle and lower class were also badly impacted. As an example, the sales of food hawkers plummeted by 30% while food sales at traditional markets dropped by 40-50%. Women Research Institute recorded the following information:

- Agus, a fritter seller, stated that his sales dropped from IDR 500,000 to IDR 100,000 a day.²
- A cake seller, Enni, recalled that her sales in the traditional market dropped significantly while her spending for cake ingredients increased to IDR 800,000 from IDR 500,000. Oftentimes, Enni had to borrow money to survive.³
- Merchants of building materials recalled that their sales dropped from IDR 1,500,000 to IDR 500,000 a day. There were also two shops that had to be closed due to no buyers.⁴
- Generally, retail turnovers dropped by 28.67%.

When the Acting Governor of Riau finally issued a Decree on the State of Emergency around 14-

27 September 2015, the economy in Riau was already very badly impacted. The loss experienced by economic sectors in Riau is observable from the findings of the initial assessment of the haze's economic impacts. This assessment involved the Indonesian Employers Association (APINDO) of Riau, the Chamber of Commerce (Kadin) of Riau, and Riau Hotel and Restaurant Association (PHRI). In line with these findings, the findings of Women Research Institute revealed that those who work in small and micro businesses, including women, were severely impacted. Edyanus Herman Halim, an economic observer and an academic at the University of Riau, confirmed that the economic impact was huge, cross-sectoral, and was experienced by all.

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These are some preliminary findings assembled by Bank Indonesia's Representative Office in Riau that illustrate how the haze impacted key economic sectors:

Trade Sector

- The distribution of staple foods transported by sea was delayed for 1-2 days.
- The distribution time of rubber through Belawan and Teluk Bayur increased from 48 hours to 70 hours during the haze.
- There was a long line during the packaging and loading of containers in the port. Consequently, the ships' retention time could reach up to three days.

Transportation Sector

- 1,600 flights or 60% of Riau's total flights were cancelled during the worst period of the haze.
- The income of the transportation sector dropped by 60% of its total turnover.

Culinary and Tourism Sectors

- The turnover for hotels and restaurants dropped by 30-50%.
- The occupancy rate of 4- and 5-star hotels decreased by 20% and the turnover of 3-star hotels or lower decreased by 40%.
- Hotels and hotel suppliers' experienced a delay in the distribution of raw materials until more than 10 days.
- Travel agents experienced direct losses from flight cancellations.
- Riau's local food association experienced a 70-80% drop in its turnover due the decrease in the number of visitors.

Agricultural and Plantation Sectors

- In general, agricultural production in Riau dropped by 40%.
- The haze decreased the agricultural production as well the quality and sales of agricultural products.⁵
- The production of palm fruit dropped from 20 tonnes to 5 tonnes per harvest.
- Palm oil farmers who previously had a relatively easy access to business loans reported that they found difficulties in accessing such loans during the haze.⁶
- The productivity of palm plantation workers declined by 40%.
- According to the Indonesian Palm Oil Association (GAPKI) of Riau, in the medium term, the haze and El Nino would decrease the production of palm oil plantations by 15%.

National Loss

- Riau experienced a total loss of approximately IDR 20 billion.⁷
- Riau was one of the several provinces in Indonesia that experienced a slowdown in economic growth during the third quarter of 2015.⁸

In graphs, Bank Indonesia Representative Office of Riau illustrates the economic impacts as follows:

Impact of Haze on Companies' Performance



Average Decrease of Sale



Average Decrease of Sales by Sector



The Average Increase of Operational Cost :



Apart from businessmen and bankers, the economic impact of haze was also experienced by many others, both entrepreneurs and non-entrepreneurs. For the latter, the haze increased their expenditure as they had to spend extra budgets for a number of things, such as electricity. Since they were forced to turn on their air conditioners or air purifiers for 24 hours a day, their electricity bill increased by 30%. The increase in expenditure was also due to the fact that people had to allocate more money to buy masks, oxygen cans, and medicines.

For women running small businesses such as soto (Indonesian soup) sellers, the low economic performance significantly impacted their livelihood. Those who belong to this group, such as soto

sellers, cake sellers, and jamu (traditional herbal drink) sellers, are in fact more vulnerable to economic impacts as they rely on their daily income to survive.

Syafrida, for example, is a pedlar selling soto at a landfill in Rumbai, Pekanbaru. When the haze attacked Pekanbaru, the activity in the landfill was disrupted. She experienced a decrease in sales up to 60% each day. At the same time, she had to allocate an extra household budget for clean water, which she was otherwise able to collect herself from the field prior to the haze. Also, she needed to pay higher electrical bills as her family had to

use fans 24 hours a day. Consequently, her only option was to live on loans; from one loan to another.

This case illustrates how small entrepreneurs like Syafrida with insignificant capitals cannot afford to have savings; or in other cases, the little sav-

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ings they have are too low to be relied upon when hit by a crisis such as this one. This should be a concern to all related parties in order to provide a better mechanism for economic protection, especially for economically vulnerable groups, in times of disasters.

End Note :

- ^{1.} *The Presentation Material of the Preliminary Study of the Economic Impacts of Haze on Riau's Economy by the Bank of Indonesia's Representative Office of Riau in which data was gathered during an FGD with Riau's businessmen on 28 September 2015.*
- ^{2.} *Findings in Women's Research Institute's focus group discussion with the local women of Sukajadi, Pekanbaru, on 26 May 2016.*
- ^{3.} *Ibid.*
- ^{4.} *Ibid.*
- ^{5.} *Findings of Women's Research Institute's focus group discussion with the local women of Rumbai on 28 May 2016.*
- ^{6.} *Ibid.*
- ^{7.} *Artharini, Isyana. (2015). "Dampak Ekonomi Kabut Asap 'Lebih dari 20 Trilyun". Accessed at http://www.bbc.com/indonesia/berita_indonesia/2015/09/150917_indonesia_kerugian_kabutasap on 28 September 2016, at 17.09 WIB.*
- ^{8.} *Riset: Ada 100.300 Kematian Akibat Kebakaran Hutan 2015". Accessed at <https://nasional.tempo.co/read/news/2016/09/20/206805612/riset-ada-100-300-kematian-akibat-kebakaran-hutan-2015> on 28 September 2016, at 17.22 WIB.*