
The Impact of Natural Disasters on Smallholders

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ABSTRACT

Specifically, the purpose of this paper is to discuss the impact of natural disasters on food security in smallholders. Data sources and information are gathered from research findings, journals, and relevant articles, and then descriptively analyzed in order to ensure that they are consistent with the purpose of this article

Keywords: Keywords should avoid general and plural terms and some concepts.

INTRODUCTION

Natural disasters are special events that have a direct impact on food security, availability and access to food and food utilization [1], [2]. Food and Agriculture Organization (FAO), in 2002 stated that food security is a condition of food availability that meets the needs of everyone both in number and quality at all times to live a healthy, active and productive life [3]–[8]. Two factors that affect the current food system are internal and external factors that change rapidly into food insecurity [9]–[11].

Basically food insecurity and hunger caused by food shortage problems, among others, due to: (1) low food availability, (2) disruption of distribution due to damage to facilities and infrastructure and distribution security, (3) the occurrence of natural disasters causing an isolated area (4) food

production failure, and (5) disruption of social conditions [12]–[14].

The food insecurity of an area is identified from the number of poor people. [15]–[17], informed that the poor population of Indragiri Hilir Regency in 2016 and 2107 amounted to 315.98 people and 368.13 people. The percentage of poor people of Indragiri Hilir Regency in 2019 and 2020 amounted to 7.05 and 6.24%. According to [18]–[21] In 2020 the district with the highest and lowest percentage of poor population was Tembilahan District and Teluk Belengkong, which amounted to 12.04% and 1.36%. The percentage of poor people in 2018 was highest (5.97%) occurred in Kempas District, and the lowest was in Blengkong Bay District, which was 1.36% [22]–[24]

MATERIALS AND METHODS

Data sources and information are gathered from research findings, journals, and relevant articles, and then descriptively analyzed in order to ensure

RESULTS AND DISCUSSION

2.1. Food Availability

Rice is a staple food for most of the people of Indragiri Hilir Regency. The rice harvest area in 2015 amounted to 29,769 ha with a product of 111,315 thousand tons of GKG [17], [25]–[27]. In addition to the main staple foods of rice, corn, sweet potatoes and sweet potatoes, other foodstuffs are still consumed by some communities, such as sago. Rice Production in Indragiri Hilir Regency in 2015 for rice fields and rice fields amounted to 111,318 and 949.19 tons, among them [22], [23], [28]–[30].

Net Rice Production in Indragiri Hilir Regency reached 57,896.49 tons, with the conversion value of rice production for splattered and animal feed amounting to 5.4% and 0.44%, so the net on rice (Rnet) is 56,350.65 tons. The ratio between normative food consumption and availability is at once a measure that shows the proportion of availability used for consumption [31]–[33]. The ratio of normative consumption to food availability in Indragiri Hilir regency in 2018 showed a value of 0.043.

Indragiri Hilir Regency has sixteen sprouts that have been classified as very food resistant or food resistant, according to the USDA classification system. As a result, cereal food has not been able to meet the standard normative consumption needs in these three sub-districts [34].

that they are consistent with the purpose of this article.

2.2. Food Utilization

Food utilization is comprised of five components, the first of which is access to clean water and the second of which is access to health facilities more than 5 kilometers away [33], [35]–[38]. In everyday life, clean water is a very important necessity for most households [39]–[41]. In the most extreme case, 2.41 percent of households do not have access to clean and decent water (tap water, rainwater, sheltered wells / drill wells / springs) with a distance between the final shelter of feces of more than 10 meters, the highest percentage in the world (excluding bottled water [42]–[44].

Access to clean water plays a very important role in achieving food security. A viable source of drinking water is essential for maintaining public health [45]–[47], especially children. Unclean water will increase the risk of pain and the ability to absorb food and will ultimately affect a person's nutrition.

In Indragiri Hilir Regency in 2018 there were 629,841 thousand people. 1 (one) doctor is burdened with about eight thousand residents. This ratio calculation is to use the multiplication constant 100,000, with the formula. The amount of power is divided by the population.

Table 1. Indragiri Hilir District's rice production and net rice production by subdistrict in 2020

No	District	Production of GKG	Production (Net rice)
1	Keritang	2593,84	16077,06
2	Kemuning	109,19	600,99
3	Reteh	14163,71	8923.14
4	Sungai Batang	9887,17	6228.92
5	Enok	447,89	282.17
6	Tanah Merah	0	0
7	Kuala Indragiri	177,7	111.95
8	Concong	17,45	10.99
9	Tembilahan	6156,08	3878.33
10	Tembilahan Hulu	8418,97	5303.95
11	Tempuling	7437,64	4685.71
12	Batang Tuaka	8 818,94	5555.93
13	Kempas	22627,54	1425.40
14	Gaung Anak Serka	1174,11	739.69
15	Gaung	8055,96	5075.25
16	Mandah	0	0
17	Kateman	0	0
18	Pelangiran	0	0
19	Teluk Belengkong	0	0
20	Pulau Burung	0	0
	Sum	94899.19	59896.49

*GKG = Milled Dry Grain **Rnet = Net Production of Rice (Ton)

Source: Hartono, 2020

CONCLUSION

Indragiri Hilir Regency has food security levels ranging from somewhat food insecure to sufficiently food resistant. Some districts, such as Tembilahan and Bird Island, are in extremely

difficult food-resistant conditions. Pelangiran is a district in the Philippines that suffers from severe food insecurity

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