

# **The Farmers Empowerment's Failure Impact In Implementing The Public Sugarcane Intensification (Tri) Program In Jember, East Java, Indonesia**

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## **Abstract:**

*This Study Aims To Answer These Questions: Why Farmers Refused To Carry Out The Production Process On Their Own Land, What The Rejections Were, And What The Impact Of The Farmers' Refusal Was. It Was Found That The Farmers Refused To Work For The Production Process On Their Own Land. They Handed Over The Production Affairs To The Head Of The Group. The Causes Are Constraints Of Sugarcane Cultivation Techniques, Which Include Preparation Of Land Clearing, Land Clearing, Seeding, Planting, And Maintenance. Secondly, Not All Landowners Were Real Farmers, They Could Be Civil Servants Who Do Not Have Time To Work On The Fields, Cottage Owners, Private Employees Or Wealthy Farmers. The Impact Of The Farmers' Refusal Was The Recruiting Large Numbers Of Workers. It Results In A Kind Of Labor Mobilization In The Countryside To Replace The Role Of Farmers In Working On The Rice Fields Belonging To Farmers Who Do Not Want To Do It Themselves.*

**Key Word:** *Farmers; Public Sugarcane Intensification; Mobilization; Labor*

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## **I. Introduction**

Tebu Rakyat Intensifikasi (TRI) or in English, The Public Sugarcane Intensification, was a sugarcane intensification program implemented based on Presidential Instruction Number 9 of 1975. This program is intended to maintain the stability of national sugar production by intensifying sugarcane cultivation to support Indonesia's sugar industry. The supply of sugarcane is an important factor in the operation of sugar factories; thus, sugarcane cultivation was needed and should be developed. The objectives of this program were: (1) to increase farmers' income; (2) to supply the country's sugar needs; (3) to enable farmers to own their land where they previously had to rent land to grow sugarcane (Lumbatoruan, 1992: 402-403).

Based on the presidential instruction, the intensification program should be implemented with the Bimas system under the following conditions (1) the intensification of sugarcane land had been commonly cultivated by farmers themselves and land transfer from sugarcane lease land, (2) sugar factories acted as the leader of operational work by conducting counseling / technical guidance on sugarcane cultivation, providing high-quality seeds, providing the production facilities, and assisting the process of providing loan assistance to sugarcane farmers, (3) the government provided credits for the sugarcane intensification business for farmers in need, (4) the farmers' rights from their sugarcane products processed at the sugar factory would be given in the form of money in specified value thus it stimulated sugarcane business, (5) Cooperatives (BUUD/KUD) are included and guided in order to coordinate the people's sugarcane farmers in their efforts to improve sugar production and their income (Evizal, 2018: 9).

Based on the previous description, the implementation of TRI involved farmers and government officials. The hope of increasing farmers' income and sugar production would be achieved through intensification. The program also promised that the land of sugarcane plantations controlled by sugar factories (PG) would be returned to farmers. Therefore, sugarcane productivity was expected to increase because farmers became the owners of their own land. The participation of farmers by giving up their land to be planted with sugarcane and receiving good and open services from all institutions involved in the TRI program can benefit the harvest outcome.

Farmers were tasked as executors in the TRI program, including tillage, seed planting, maintenance, fertilization, pest management, harvesting, and other operations. Meanwhile, cooperatives and sugar factories were responsible for farmers' education, extension, therapy, and dynamization. Looking at this concept, it was possible to get an insight into the sugarcane cultivation process, consisting of land preparation, seed preparation, seedling planting, maintenance, and so on. All required the deployment of labor outside the sugarcane farmer.

As the landowners could not handle the sugarcane fields, the labor force consisted not only of male labor but also female labor.

Based on the explanation above, with the TRI program, the sugar factory as the lead product could guide and direct TRI farmers systematically. As a result, in some areas, farmers earned more than they did under the profit-sharing system. Nevertheless, there was still a perception that the TRI program was detrimental to farmers. It was not recognized that the TRI program opened employment opportunities for people who did not have land. They could work, starting from land preparation to becoming factory workers for the post-harvest handling process of sugarcane. Researchers also recognized this.

Most of the research conducted so far tends to put the TRI program in a bad position in national sugar management, becoming a source of dissatisfaction and farmer protests. For example, Hotman Siahaan's Farmers' Covert Defiance in the People's Sugarcane Intensification Program as an Effort to Maintain Subsistence dissertation criticizes how farmers rejected the implementation of the TRI program in East Java (Siahaan, 1996: 158). Hotman Siahaan clearly explained the results of his research on the implementation of TRI regarding the procedures for implementing the program, the contribution of TRI to the national sugar supply, and the models of farmers' resistance to the implementation of TRI. Yet his research still needs to mention the contribution of TRI to the rural workers' community. In fact, with the implementation of TRI program, there was a mobilization of labor, both men and women from the rural community. Another research was written by Jati Isnanto, entitled *Implementation of the Intensification TRI Program in Klaten Regency 1975-1997*. (2012) In line with its title, this research focuses on implementing the Intensification TRI Program. The results of his research show that the scope of his study examines the effect of the TRI Program on farmers' well-being. In the implementation of the TRI Program, there was a significant drop in sugar productivity, resulting in losses for farmers. Another study that focuses on the TRI Program is Soentoro et al's work, which is part of Husaein Sawit's book. Soentoro et al's *Farming and Sugarcane Intensification in Java* (Soentoro, 1999) examines the development of the sugar industry from national Independence until the establishment of the TRI Program. This study compares farmers' income when farming sugarcane with alternative crops.

From the results of these studies, it can be said that studies on sugarcane farming mostly focused on the implementation of various farming programs and their impact on the economy of sugarcane farmers. In fact, the results of these studies also created an image in the minds of anyone who has not studied what happened with the implementation of the TRI Program and will only see the negative side of the implementation. No research has looked at the positive side of the implementation of the TRI Program. Because no matter how bad a program is, there must be a contribution to other communities, including those outside the farmers. Therefore, this study will focus on the contribution of the implementation of the TRI Program to communities outside farmers, especially the laborers.

## **II. Material And Methods**

This study uses two groups of data sources: primary data and secondary data. Secondary data was collected from various places, including published works, research results, and government reports related to the problems studied. Secondary data was analyzed using documentary analysis techniques. The document analysis technique is a method to reveal information from documents, official reports, and books on various socio-cultural aspects and cultural activities of the object used as the focus of research (Nawawi, 1985: 68).

The technique used for primary data collection is the document investigation related to TRI, Sugar Factories (PG), data regarding resident location, and economic data of sugarcane plantation laborers. This was done by searching for documents on labor wages based on the type of work, participant observation, and interviews. The observation was conducted by visiting the research location. The researcher used the visits to build and develop contacts with the community under study to establish a sense of familiarity (rapport). Familiarity with informants and the community is an important prerequisite for obtaining honest and open information from respondents.

Interviews were conducted to obtain information, insights, knowledge, and activities related to sugarcane farming. The interview method is the best technique to obtain information that the researcher could not observe directly, either because it has happened in the past or for other reasons. (Amber and Amber, 1984:51). Interviews were conducted informally using pre-prepared question guidelines with open-ended questions, allowing informants to provide information freely (Spradley, 1979: 78).

Interviews were conducted with several informants at the research site. Key informants were selected from a group of sugarcane farmers, businesspeople, sugar-based factories, laborers, local officials, and related business observers to obtain comprehensive and representative information. Interviews were also conducted with informants from the public and policymakers on sugarcane. All information obtained in the field was noted on the same day as the interview to avoid the possibility of forgetting or overlapping information from one informant to another. The interviews conversations would be recorded if the informants did not raise objections. The population focussed on in this study was the community whose activities are related to sugarcane in Jember

Regency. In processing the sample, a random sampling technique was used based on the consideration that this technique is more egalitarian because all sample members have the same opportunity to provide information (Labovitz and Hagedorn, 1982, 70-72).

This research was conducted in Jember Regency. Jember was chosen as the research area because the researchers live in Jember, making it easier to collect data. Another reason was that the cultivation and business of sugarcane in Jember were already embedded in the lives of most Jember farmers.

The data was collected and verified to obtain data that is authentic (original) and credible (trustworthy). Data that had been known to be authentic and credible were interpreted by analyzing and then synthesizing, and finally writing by paying attention to aspects of chronology (historiography) (Kuntowidjojo, 1985: 98-105).

### **III. Result**

#### **Farmers' Reasons for Refusing to Work on Their Own Land**

In the implementation of the TRI Program, farmers were obliged to grow sugarcane on their land; they had to use seeds that the sugar factory had provided. Another characteristic of the TRI system was the establishment of TRI farmer groups. Technically, the cultivation of sugarcane on the farmers' own land, which was on average narrow, was considered inefficient to do individually. Therefore, the narrow fields were put together in one larger block to facilitate cultivation. This block was managed by the Village Unit Cooperative (Koperasi Unit Desa or KUD), but not all farmers wanted to work on sugarcane cultivation. There were two reasons why farmers did not want to work in their own sugarcane cultivation fields. The first reason is that planting sugarcane was not as easy as planting rice or other crops because planting sugarcane required certain techniques. Not all farmers were able to master it, except in areas where farmers used to plant sugarcane. Secondly, the landowners whose rice fields were allocated for *glebagan* were not all farmers working on their own land. They might be civil servants, soldiers, owners of Islamic boarding schools, rich people, and so on (interview with Suyanto, October 9<sup>th</sup>, 2021).

Based on this situation, farmers preferred to leave the cultivation of their land to the group leader, or not participate in *glebagan* but instead sold their land directly to the sugar factory (interview with Suyanto, October 9<sup>th</sup>, 2021). Hence, there was a demand for laborers to work on the land. According to Suwarno (interview with Suwarno, 9-10-2021), planting laborers were recruited from the surrounding area. When he was the foreman in Semboro sub-district, laborers came not only from villages in Semboro sub-district but also from Umbulsari sub-district and Tanggul sub-districts. There were times when it was difficult to find laborers, thus the foreman had to be creative in recruiting the laborers he needed, for example, by giving contract money (down payment) to prospective laborers. The prospective laborers were asked to sign the contract. Invitations to work were made by approaching several people who were already known and used to working as laborers in sugarcane plantations. The invitation was simple, for example by saying "Hey! I'm giving you a job". If the foreman had a good reputation, it would be easy to get the workers to work with him. For example, he would pay wages to the workers, he would behave well toward the workers. Hence it could be said that the foreman's skill in communication was crucial in obtaining laborers (interview with Suwarno, October 9<sup>th</sup>, 2021).

Once they managed to recruit some laborers, the recruited laborers then would look for friends to work with. They prioritized inviting their friends who are already in their community. What was rarely realized is that in the village, there were already groups of laborers in the sugar cane plantation, for example, *Cemplong* workers, *Gulut* workers, and harvester workers. These groups were generally like sugar factories anywhere. These labor groups still exist today and are managed by the group leader unofficially, even becoming like corporations.

These groups of workers were indeed agricultural laborers, relying on work in the sugarcane plantations and in other agricultural sectors. In the sugarcane plantations, male laborers worked as land cleaners before tilling the soil. They also prepared the sugarcane seeds, which takes several months. When the work in the sugar cane plantations was done, they went back to work as farm laborers in other crops, such as rice, oranges, and secondary crops. Sometimes, they even worked as construction workers or whatever they could to provide for their families.

The improvement of education in Indonesia affected the availability of laborers in the villages. The new order government, which implemented educational programs and the fulfillment of educational facilities in villages by establishing primary schools throughout Indonesia, made education more evenly distributed to everyone. The 9-year compulsory education program launched by the New Order government led to widespread access to education in the country. The increasing awareness of the villagers towards the importance of education for their children had also led to an increase in the younger generation who were able to pursue education. Many children even graduated from junior high school and senior high school, which would inevitably affect their choice of job. This greatly affected the availability of laborers in the villages, making it difficult to find people willing to work in the agricultural sector and the plantation sector. To overcome the shortage of labor, the Dinas Perkebunan (Department of Plantation) staff in charge of assisting farmers, took the

initiative to bring in labor from outside Jember. Suyanto, one of the Plantation Office (Dinas Perkebunan) employees for the area around Kencong Sub-district in 1986, brought in workers from Banyuwangi. They were placed in the factory's mess. These workers were brought in from Banyuwangi because it was difficult to find laborers from local villages, and this coincided with the natural disaster, the Tsunami in 1986. Those affected by the disaster needed work to support their family's economic life (Interview with Suyanto, October 9<sup>th</sup>, 2021).

In addition, the sugarcane planting sector also required female laborers. They were usually employed in the process of planting sugarcane, fertilizing, watering, weeding, and peeling. They were often the wives of the men laborers. They were willing to work in sugarcane plantations to support their husbands in providing for their family's economic needs. Female laborers were necessary for the production process because they were seen as very skilled in their work, such as planting sugar cane, watering, and weeding the plants, which also required accuracy and diligence. On the other hand, female workers demanded jobs that did not require a specific educational background (Interview with Suwarno, October 9<sup>th</sup>, 2021).

From the previous description, it can be presumed that there was a mobilization in the labor sector during the implementation of the TRI program. This was in accordance with economic development goals during the New Order era. One of these goals was to create jobs that required a large amount of labor, especially among the lower strata of society who did not receive sufficient education and relied solely on physical strength.

### **Implementation of Sugarcane Cultivation in the TRI Program**

Sugarcane planting procedures were not as simple as planting rice or secondary crops because technically all procedures should be carried out correctly. A crop staff member explains the technical procedures:

#### 1. Garden clearing preparation.

There were several things to do in this preparation: (a) *Babat damen* (cutting the rice stalks), if the land you wanted to use still has a *damen* (rice stalks), but usually the *damen* had been blocked by the farmers. (b) *Pasang acir* to watch out the slope, because with the slope, it can be determined the *sikon* (bend in the direction of the flow of the *malang* sewer) or the 90-degree horizontal direction of the ditch. It was aimed at the direction or meter of the sewer can be aligned. In this land, the clearing was done to make several gutters, including: (a) *Keliling* Gutters, which were sewers that surround other gutters, were 50 cm wide, and 80 cm deep. (b) *Mujur* Gutters 50 cm wide and 70 cm deep. (c) *Malang* Gutters 50 cm wide and 60 cm deep. (d) *Pecahan* Gutter, this was an incidental gutter, which was cut because a poor gutter could not be made. After the construction of the gutter was complete, the *Malang* gutter is given *acir* to determine which was included in the plot, and which was included in the *glebagan*. The *malang* gutters would be given a *mujur* gutter, the distance of which was not fixed (depending on the land). For heavy soils, every 60 *malang* gutters were given a *mujur* gutter, while for non-heavy soils, every 100 poor gutters were given a *mujur* gutter.

#### 2. Planting

After opening the land, the work that should be done by farmers is planting. There were several things that must be done before the seedlings were planted, these were: (a) *Jugrug*, which was to loosen the soil above the gutter with the aim of accelerating root growth in the seedlings after planting, (b) leveling the soil that is torn down, (c) Planting seedlings with the sugarcane in a flat or slightly tilted position. The seeds needed for a 10 m long sewer were 26 seeds, and each seed has 2 eyes. Usually, 24,310 seeds were required per hectare.

#### 3. Fertilization.

Fertilization is done 2-3 times

- a. Fertilization I was carried out when the sugarcane was one month old, using TSP and ZA fertilizers, the composition was 2 quintals of TSP fertilizer and 3 quintals of ZA fertilizer/ha
- b. Fertilization II was done when the sugarcane was 40-70 days old, using KCL and ZA fertilizers, the composition was 2 quintals of KCL and 4 quintals of ZA fertilizer/ha.

#### 4. Water feeding

In terms of water application, there were 2 types:

- a. *Ebor*, was giving water to the soil of the *gadangan* at the time of planting preparation.
- b. *Sirat*. There were two types of *sirat*: (1) *Sirat patri*, which was giving water when the sugarcane was 3 days old after planting, thus the newly planted seedlings were more attached or attached to the soil, and to reduce soil acidity. (2) *Sirat* fertilizer, which was the application of water when the sugarcane had been fertilized. In this *sirat*, it was also done twice as in fertilization, namely *sirat* fertilizer I and *sirat* fertilizer II. The purpose of this fertilizer flush was so that the newly applied fertilizer was quickly absorbed and digested by the roots of sugarcane.

5. Pulverization

Pulverization was the lowering of the soil. This embankment was carried out 3 times: (1) Pembumbunan I or called *sisir*, which was the lowering of the soil when the sugar cane was 30-40 days old. The purpose of seasoning was to feed the plants and to cover any mule seedlings (eyes on the seedlings) that were still visible so that they did not dry out from the sun. Pembumbunan II or called *gobeng*, was the lowering of the soil when sugarcane was about 60 days old. The purpose of this pulverization was not only to provide food but also to "reduce tillers" (seedlings in the eyes of seedlings). (3) Pembumbunan III or called *lipur*, which was the lowering of the soil when the sugarcane was 90 days old. The purpose of this fertilization was not only to provide food but also to kill tillers.

6. *Gulut akhir* or called *ipuk* was making or giving *gulutan* on sugar cane base, when the sugarcane was 5 months old or when the sugarcane had come out between 2-3 internodes. In making the last *gulut*, there must be water to provide food on plan. The purpose of making this final *gulut* was to prevent the sugar cane from collapsing, reduce pests and accelerate vegetative growth.

7. Weeding.

Weeding here was removing the grass that grows around the plants. There are two kinds of weeding, namely *bubut*, and *besik*. *Bubut* was the removal of grass on the surface of the ground by hand (pulling grass), while *besik* was the removal of grass on the sides of the sewers and *tangkil* (a type of hoe but smaller). *Bubut* was carried out when the land was to be planted, sugarcane was to be fertilized I, sugarcane was to be fertilized II, or looking at the situation, when there was turned grass.

8. Maintaining duct.

This refers to repairing waterways due to landslides, or other issues. The purpose of maintaining this channel was so that the water flow could be smooth and not stagnant. The ducts that needed to be repaired were in the three types of the ditch or *got*: *got keliling*, *got mujur*, *got malang*, and *got pecahan*.

The others, incorporating (1) *Klentek*, were removing the dried sugarcane leaves (*daduk*). *Klentek* was done 2-3 times. *Klentek* I had done when the sugar cane was about 7 months old (about 1 month if there are already dry sugar cane leaves). The dried leaves that have been threshed were not arbitrarily. In *klentek* I, the *daduk* (dried sugarcane leaves) were placed in each of the three plots (the distance between *gulut* I and others). It means that the first, second, and third plots should not be occupied by *daduk*, and only the fourth plot was placed. The purpose of this placement was to reduce humidity because *klentek* I was usually carried out in April (it still rains a lot). If the *daduk* was placed in each plot, the soil will become damp and the base of the sugar cane will rot. *Klentek* II was done about a month after *klentek* I. In the second clipping, the *daduk* could be placed in each plot because the dry season was approaching, and the soil was already dry.

Tying sugarcane means tying the fallen sugarcane. Only sugarcane that collapses in the same direction was tied, because sugarcane that collapses not in the same direction, was difficult to tie. After several processes of sugarcane cultivation techniques had been passed, then all that remains was to wait. The involvement of farmers in such technical plant processing was an activity that must be carried out as stated in the Governor's Decree stating that TRI participating farmers must know the daily progress of the implementation of the maintenance of their sugar cane plantations (East Java Governor's Decree No 26 A/1987).

### **Post-harvest handling**

When the sugarcane plant had completed one year, the flowers started to come out and it means that the sugarcane plant was ripe for cutting. There were various types of sugar cane with different flowering times. If the sugar cane had flowered the sugar, water in the sugar cane stem gets thicker and sweeter, meaning that the sugar content has peaked. The sugar cane plant was no longer elongated and its growth was only to thicken the water in the stem. (Sastrodihardjo, 1963: 29) The sugarcane was ready for harvesting after 15-18 months old. Before determining the beginning of the cut, KUD along with the sugar factory conducted a preliminary analysis of sugarcane, by taking sugarcane samples every two months to be analyzed in the sugar factory laboratory. This analysis was to determine the extent to which sugarcane met sugar factory's criteria for cutting. Sugarcane was ready to be harvested after 15-18 months old. Before determining the start of harvesting, KUD and sugar factory conducted an initial analysis of sugarcane, by taking sugarcane samples every two months to be analyzed in the laboratory. This analysis was to determine the extent to which the sugarcane met sugar factory's criteria for cutting. This process aimed to see the possibility of increasing the sample sugarcane yield, find out the highest sugarcane yield, find the oldest sugarcane, and find out the durability. (KDT) sugarcane sample (Siahaan, 1996:151).

Usually in logging, loggers used tools such as hoes, crowbars, ganco. With simple tools, loggers could only get 10-15 quintals a day. Before being cut down, the tops of the sugarcane plants were first cut for fodder.

To get as much yield as possible, the harvesting was done up to the stems in the ground. In this way, the soil was processed and can become loose.

If the sugarcane was of low quality and small, there was a possibility of increasing the yield or if the sugarcane was old enough, the sugarcane would be cut first. This scheduling had to be done because the cane needed to be milled immediately, while the capacity of the sugar factory was very limited. In cases where the yield and quality of the cane were similar, someone had to give in to being cut early or late. This determination often led to misunderstandings between farmers and KUD. Parties involved in felling activities were:

1. Appointed felling laborer by Farmer group leader;
2. Logging workers managed by a sugar factory;
3. Logging workers managed by KUD;

Felling labor was generally borongan labor, and the wages received were based on the number of quintals of sugar cane cut and transported. As for how to find workers, the KUD appointed several foremen to look for them. Once obtained, they were given a number, each number consisting of 4 workers. After that, they were gathered at the KUD for a briefing as well as contracting. Contracted workers were required to submit a photocopy of their ID card, with the aim that if they experienced a disaster, the cooperative could take care of their treatment. Rewards given there are two kinds. First, each number got sugar and rice, each 2 kilograms for the acquisition of sugarcane's 41 quintals and above. Then the acquisition of 30-40 quintals of sugar cane got sugar and rice for every 1.5 kilograms. Second, for their contract money, each number gets IDR 30.000;

Some of the labor for harvesting came from outside the village, but there were also those from the local village. The wage per quintal of sugarcane was around IDR 135, and possibly there were additional costs. After felling was the process of transporting sugarcane to the sugar factory weighing. Usually, sugarcane transporters used lorries or trucks. The use of transportation equipment was determined based on the proximity of the plantation to the road. Gardens that were close usually used lorries, while gardens that were far from the road used trucks.

### **Impact of Farmers' Refusal to Work on Their Own Land**

Basically, the purpose of the government's development process was to provide benefits to the population in order to improve the economy and the welfare of the population. The welfare of the population was the main goal of development as stated in the Guidelines for State Policy (GBHN) (Law of the Republic of Indonesia Number 17 of 2007). This goal could not be achieved if the government could not solve the population problem and the uneven distribution of the population. Various efforts to solve the population problem, including reducing the high population growth rate, were carried out by the government through various family planning programs. Similarly, efforts had been made to equalize the distribution of the population with the implementation of regional autonomy, expected to reduce population movements. For example, the District of Kencong, where most of the area was lowland, causing most of the population to work as farmers. Wilayah District of Kencong encompasses 8 villages, 24 hamlets, 119 community associations (RW) and 525 neighborhood associations (RT). The population of the District of Kencong based on the results of population registration at the end of 1961 amounted to 86,813 people (Central Statistical Bureau of Jember, 1961) with 43,879 females and 42,934 males.

From the description in the previous chapter, the existence of TRI affects the socio-economic conditions of Semboro Sugar Factory workers. For people who only relied on their family's economic life from working odd jobs / perhaps farm laborers, working in a sugar factory either as a laborer in cultivation, harvesting laborers or milling laborers was a long-awaited moment. For laborers in the sugar cane plantation, they could work for 6 consecutive months in the cultivation process, which included land clearing, land processing, sugar cane planting, fertilization, and sugar cane maintenance. Meanwhile, laborers in the slash could work for one to three months. Furthermore, laborers in the factory could work during the milling season. There were even times when cultivation workers during the cutting season could also take piecework as loggers. Thus, it can be said that the sugarcane plantation industry could absorb quite a lot of labor from the countryside.

How much money from the plantation industry flowed to the village? There is no ready data to use as material for the report, but by examining the table on the area of sugarcane in the working area of PG Semboro, it can be calculated.

**Table no 1 :** Area of Own Sugarcane and People's Sugarcane of PG Semboro 1975-1985 (per hectare)

Year	Self-sugarcanes + People's Sugarcane
1975	2.708,4
1976	3.683,9
1977	4.092,2
1978	4.774,0
1979	5.680,0

1980	7.132,9
1981	8.186,9
1982	10.189,3
1983	12.072,7
1984	11.092,4
1985	12.367,5

Source: a part of planting PG Semboro

From the table above, the planting area of PG Semboro had increased due to the TRI program. This was inseparable from the interests of the district government which also benefits from this program. PG Semboro is the only sugar factory in Jember Regency. The government's intervention in terms of sugarcane cropland was also carried out in various regions in Jember. Jember Regency, the potential for agricultural land is quite extensive, both paddy land and moorland, there were 59,806 hectares of paddy land and 44,937 hectares of moorland or dry land (Statistical Office of Jember District Level II). While the need for sugar cane area for PG Semboro every season was around 11,000 to 12,000 hectares only.

The biggest profit earned by sugar factories was the sale of sugar. The value of the product was determined by the government through a Decree of the Minister of Finance. The price of sugar changes frequently with the issuance of the Minister of Finance's decree. In fact, not only was the price of sugar determined by the government, but marketing was also controlled by the government through agencies appointed by the government, for example in 1969, sugar marketing was handed over to the heads of 52 sugar syndicates. However, due to lack of capital, the syndicates were unable to ensure smooth distribution, hence in 1970 the syndicate system was refined with a reionization system through a Decree of the Minister of Trade. No.49/Kp/V/1970.

**Table no 2 :** Estimated labor required for land clearing of Sugarcane plantations for 10 years from 1975-1985

Year	Self-sugarcanes + People's Sugarcane	Peoples	Got/person/10	Balek land/person/20
1975	2.708,4	54.168	27.084	54.168
1976	3.683,9	73.678	36.839	73.678
1977	4.092,2	81.844	40.922	81.844
1978	4.774,0	95.480	47.740	95.480
1979	5.680,0	113.600	56.800	113.600
1980	7.132,9	142.658	71.329	142.658
1981	8.186,9	163.720	81.560	163.720
1982	10.189,3	203.786	101.893	203.786
1983	12.072,7	241.454	120.727	241.454
1984	11.092,4	221.848	110.924	221.848
1985	12.367,5	247.350	123.675	247.350

Source: PG Semboro Crop Section, processed by linking the needs for *juringan* making, sewer making, and *balek* soil, retrieved from Retno Winarni, "People's Sugarcane Intensification (TRI) in Jember 1975-1998", p.147.

The table above shows that between 1975-1985, there was an increase in the amount of land used for TRI cultivation. This increase would greatly affect the need for labor for land clearing (preparation of land for planting). The amount of labor required for making *juringan*, making manholes and *balek* soil was calculated for the needs of one planting season. By looking at the data in the table, it can be said that during the implementation of the TRI Program there was a massive mobilization of labor.

**Table no 3 :** Estimation of Labor Requirements for Planting, Fertilization and Plant Care

Year	Self-sugarcanes + People's Sugarcane	Planting	Fertilization	Plant Maintenance
1975	2.708,4	27.084	27.084	27.084
1976	3.683,9	36.839	36.839	36.839
1977	4.092,2	40.922	40.922	40.922
1978	4.774,0	47.740	47.740	47.740
1979	5.680,0	56.800	56.800	56.800
1980	7.132,9	71.329	71.329	71.329
1981	8.186,9	81.560	81.560	81.560
1982	10.189,3	101.893	101.893	101.893
1983	12.072,7	120.727	120.727	120.727
1984	11.092,4	110.924	110.924	110.924
1985	12.367,5	123.675	123.675	123.675

Source: Processed from Crop Section data linked with the results of interviews related to the need for labor required by calculating the need per hectare and then multiplied by the amount of land used for planting. Retrieved from cumulative data TRI from 1975-1985.

The table above is data on the personnel needed to carry out planting, fertilizing, and plant maintenance in one planting season. According to the data in the previous description, each foreman was responsible for a maximum of 20 hectares. The labor required per hectare is 10 people. In general, each foreman only employs between 10-12 people. Therefore, to work on 20 hectares of land, one person would be assigned 2 hectares during the planting, fertilizing, and plant maintenance period. How long could a female laborer take to complete 2 hectares of land?

Besides the examples of work described above, there were still several jobs related to sugarcane. For example, ebor, sirat, weeding, klentek, were used to pay daily. This work could be done by both male and female laborers, while the last stage that really requires male labor was cutting sugar cane. They were paid on a piece-rate basis to cut sugar cane. Sugeng, a logger, said his father and grandfather were also loggers during the TRI era. What was the reason why they like working as sugar cane cutters? The reason was that the wage was quite high. They worked from 6 am to 4 pm. Sometimes they even worked from 6 am to 6 pm. In this job, some were contracted, and some were daily freelancers. At the beginning of their work, they were contracted with money. One field was usually worked on by 4-5 groups. One foreman usually oversees 5-6 groups. One group has 6-7 people. The groups were formed to facilitate coordination.

According to Muhadi, the fee depends on how many trucks they got a day. If there was a trade-off (moving) from one truck to another, because the location did not allow trucks to enter, they would get additional wages. According to Muhadi, he was once a foreman, at which time he employed 25 workers. His father, he said, had been a logger during the TRI era, and even became a logger in Jatiroto District, and the farthest area was the Blater area (Interview with Muhadi September 2021). During transportation, if there were any problems with the truck, for example, breaking down in the middle of the road, this was the responsibility of the contractor. In this case, the truck can be provided by the factory, or by the group. Because cutting sugar cane was a seasonal job, when this moment had passed, the workers returned to their original jobs as farm laborers, laborers in orange plantations, etc. (Interview with Sugeng, September 2021).

In addition to the labor required for cultivation, labor was also needed to handle post-harvest. This work was done in the factory. They were both permanent and non-permanent employees, who usually only worked at certain times. These employees including Executive employees were employees who carried out tasks that had been given by the leadership to run the operations and management of the factory. Executive employees were divided into two groups, namely employees in the milling period (DMG) and employees outside the milling period (LMG). DMG was the period when the factory was grinding. The status of working employees was in various groups. These groups included: (1) Campaign employees were employees working from the beginning of sugarcane transportation through sugarcane weighing, working in the mill, working directly related to sugarcane milling, and working in the factory until sugar storage. Campaign employees only worked during the milling period (DMG). (2) PKWT employee stands for Fixed Time Work Agreement. PKWT employees worked according to an agreed contract. PKWT employees were the largest in number because they consist of employees within the milling period (DMG) and employees outside the milling period (LMG). (3) Borongan employees were employees who worked during the milling season and carried out tasks outside the factory emplacement while Outsourcing employees were freelance employees who worked only at certain times. Semboro Sugar Factory employed outsourced employees through cooperation with outside companies that provide labor.

#### **IV. Conclusion**

Based on the previous description, it can be concluded that the implementation of the public sugarcane intensification or *Program Tebu Rakyat Intensifikasi* (TRI) in Jember, East Java, Indonesia influenced by the economic resilience of rural workers. Most farmers whose land was used for TRI planting did not want to work on sugarcane cultivation, for various reasons: not mastering sugarcane cultivation techniques, not being real farmers, rich farmers, clerics, or sometimes private employees. Therefore, they fully submitted cultivation work to the head of the farmer group. For sugarcane cultivation, it was necessary to mobilize labor, and this labor was rural laborers who are used to working in sugarcane fields.

The laborers of this sugarcane plantation apparently occupied an important position in the process of sugarcane cultivation. They were actually an important element in the running of the cultivation process in sugar cane plantations because they already understood the ways of sugar cane cultivation. They were workers who had been trained because they had been laborers in sugar cane plantations for many years. This was because the sugarcane plantation business had been going on for decades. It had become a job opportunity for workers in the countryside. There was a kind of unofficial group, which had its own specializations. As a result, among

sugarcane plantation workers there were terms indicating expertise in their respective fields, for example, a group of *cemplong* workers, a group of *tukang gulut*, and harvester workers where this type of work does require its own skills.

In addition, there was a lot of work that must be done in the process of sugarcane cultivation, starting from land clearing, land opening, nursery, planting seedlings, maintenance, fertilization, and post-harvest handling. From the amount of work, they could work from the first month at least until the fourteenth month, because in the fourteenth month, the sugarcane had begun to be cut down. Meanwhile, the cultivation section moved to another block, because when the sugar cane in one block was cut down, another block had begun the cultivation process, hence it can be said that the sugar cane plantation workers worked continuously throughout the year. This certainly supported the economy of the families of sugarcane plantation workers during the implementation of the TRI program.

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