



## **The Socio-Economic Impacts of the Smallholder Cotton Intensification Program on Farmers in Grobogan Regency during the New Order Government**

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**Abstract:** This article examines the impact of the Smallholder Cotton Intensification Program on the socio-economic lives of farmers in the Grobogan Regency during the New Order era. The background for implementing the Smallholder Cotton Intensification Program in Grobogan Regency was because the area was rainfed land and moor or dry rice fields, so it was very promising for the development of cotton in the area. The method used in compiling this article is the historical method which consists of four stages, namely heuristics, criticism, interpretation and historiography. Through this research, the fact was obtained that the implementation of the Smallholder Cotton Intensification Program in Grobogan Regency could be said to be successful because it was supported by several factors such as the type of land suitable for planting cotton, the planting area that was still available, the response of farmers who were willing to accept the presence of the program because they had felt the good results so that it was considered a commodity that could increase their income, as well as good coordination between the Grobogan Regency Plantation Service and the Plantations Limited Company of Indonesia (PT. Perkebunan, PTP) XVIII as the management in succeeding the implementation of the program. Thus, it can be concluded that the successful implementation of the Smallholder Cotton Intensification Program had influenced the socio-economic life of farmers in Grobogan Regency, such as the establishment of farmer groups, wider employment opportunities, and increasing amount of farmer incomes as well.

**Keywords:** Grobogan regency; socio-economic life of farmers; New Order; smallholder cotton intensification

**Abstrak:** Artikel ini bertujuan mengkaji dampak Program Intensifikasi Kapas Rakyat terhadap kehidupan sosial-ekonomi petani di Kabupaten Grobogan pada masa Pemerintahan Orde Baru. Latar belakang diadakannya Program Intensifikasi Kapas Rakyat di Kabupaten Grobogan adalah karena wilayahnya berupa lahan tadah hujan dan *tegalan* atau sawah kering, sehingga sangat potensial dan menguntungkan bagi pengembangan kapas di daerah tersebut. Metode yang digunakan dalam menyusun artikel ini adalah metode sejarah yang terdiri dari empat tahap yaitu heuristik, kritik, interpretasi, dan historiografi. Melalui penelitian ini, dapat diperoleh fakta bahwa pelaksanaan Program Intensifikasi Kapas Rakyat di Kabupaten Grobogan berhasil karena didukung oleh beberapa faktor seperti jenis lahan yang cocok ditanami kapas, areal tanam yang masih tersedia, respons petani yang bersedia menerima kehadiran program tersebut karena telah merasakan hasilnya sehingga dianggap sebagai komoditi yang dapat meningkatkan pendapatan mereka, serta koordinasi yang terjalin baik antara Dinas Perkebunan Kabupaten Grobogan dengan PT. Perkebunan (PTP) XVIII selaku pihak pengelola dalam menyukseskan program tersebut. Dengan demikian, dapat disimpulkan bahwa suksesnya Program Intensifikasi Kapas Rakyat memengaruhi kehidupan sosial-ekonomi petani di Kabupaten Grobogan seperti terbentuknya kelompok tani, lapangan pekerjaan menjadi lebih luas, serta pendapatan petani juga mengalami peningkatan.

**Kata Kunci:** intensifikasi kapas rakyat; kabupaten Grobogan; sosial-ekonomi petani



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## Introduction

Agriculture is a sector that has the potential to be a source of prosperity for society and the country's main foreign exchange earner. Therefore, increasing productivity must be carried out by taking into account market developments such as in terms of quantity, quality, type and sustainability of supply. Plantation is one of the agricultural economic sectors which is an important factor in influencing the socio-economic development of Indonesian society (Departemen Pertanian, 1984). As a country which is located on the equator, many farmers focus on producing raw cotton to support the local textile industry (van der Eng, 2014). Cotton plantations are not something new in Indonesia. The existence of regular and coherent cotton plantations and industries can be traced back to the colonial period, with cotton plantations, especially the crop, being of very high value ("Aan Den Redacteur Der Javasche Courant. Passaroeang, Den 29sten Februari 1828," 1828).

The cotton industry itself is closely related to the textile industry, as can be seen in the Padang area which is famous as a city whose textile industry used the first loom in 1922 (Gervase Clarence-Smith, n.d.). Cotton were significant in textile industry. It is a crucial crop and an essential raw material not only in local industry, but also worldwide (Khan et al., 2020). Indonesia, as a developing country, could benefits from cotton's industry which in turn could contribute to its national economy. However, Indonesia is still a marginal producer of raw cotton on the world market to date (van der Eng, 2006).

After being independent from the Netherlands, the development of the Indonesian cotton industry under Soekarno's regime in Old Order was characterized by poor governance and limited progress. There are two deciding factors in regards of this: first, the poor level governance during Soekarno's regime partly can be seen as a heritage of poor Dutch colonial policies; second, the extreme poverty in rural areas also contributed in the shortcoming of cotton industry governance (Timmer, 2019). This poor governance soon changed in New Order. Under the leadership of President Soeharto, the New Order government issued the Pelita II policy which focused more on developing the plantation sector by carrying out efforts to expand, rejuvenate, rehabilitate and intensify plantations (Cahyono, 1983). The plantation crop referred to in this article is the cotton plant, which is a cultivated plant whose fiber is taken for clothing, while the seeds are used as industrial material, so the cotton plants have high economic value (Damayanti & Hudiyanto, 2022).

The increasing population and per capita income of Indonesia during the New Order era had consequences for increasing clothing needs. However, these ongoing developments could not be balanced by developments in fulfilling the supply of cotton fiber raw materials. The low domestic ability to provide textile raw materials had resulted in the domestic textile industry's dependence on imported cotton fiber becoming very high. Domestic production of cotton fiber was only able to meet 8 to 10 percent of national needs, this meant that approximately 90 percent of the need for cotton fiber for the textile industry in Indonesia still had to be fulfilled from imports (Sulistyo & Mawarni, 1991).

The New Order government responded to these conditions by making the development of cotton cultivation as one of its programs through Minister of Agriculture Decree No. 605/Kpts/Um/10/1979 dated 5 October 1978 which stipulated cotton development policies through the Smallholder Cotton Intensification program (Intensifikasi Kapas Rakyat, IKR).

This program was an intensification in the agricultural sector which had three main objectives, namely increasing farmers' incomes, expanding employment opportunities, and reducing dependence on imported cotton fiber (Dinas Pertanian, 1981).

Grobogan Regency was one of the regions in the Central Java that implemented the Smallholder Cotton Intensification program. This area was chosen because the land in the area was generally rain fed and moor or dry rice fields which were very profitable and had potential for the development of cotton plants in accordance with the Decree of the Minister of Agriculture that every year it was projected on rainfed rice fields and moor. The implementation of the Smallholder Cotton Intensification program in Grobogan Regency was very encouraging in terms of its area and productivity. This could not be separated from the advantages of the planting pattern for growing cotton, namely Rainy Season Crops (Tanaman Musim Penghujan, TMP) and Dry Season Crops (Tanaman Musim Kemarau, TMK). Therefore, the efforts to develop cotton plants in Grobogan Regency could still continue throughout the year with relatively sufficient food needs because the cotton plants were intercropped. Intercropping is a way of farming by planting two or more types of plants simultaneously by forming straight rows so that plants can be planted alternately on one plot of land. Generally, cotton plants are intercropped with secondary crops such as corn, soybeans, green beans, and red beans. The impact of implementing the Smallholder Cotton Intensification program was felt by farmers to increase cotton productivity, improve their welfare, open up employment opportunities, help reducing dependence on imported cotton fiber (Bulandari, 2000).

Many studies related to cotton plants in Indonesia have been carried out in different period and focusing on different topics. Sulistyono and Agnes Mawarni in their book entitled "*Kapas Kajian Sosial Ekonomi*" discuss the obstacles that cause the slow development of cotton, such as the low productivity of smallholder cotton plantations, difficulties in finding planting areas, fluctuating domestic fiber prices as a result of high dependence on imported cotton, the ineffectiveness of the credit system in the Smallholder Cotton Intensification program, poor coordination between agencies, as well as technical agronomic and socio-cultural aspects of the economy. Sri Indah Damayanti dan R. Reza Hudiyanto in the article entitled "*Industri Perkebunan Kapas Asembagus, Situbondo tahun 1945-1997*" examine the dynamics of the relationship between cotton development institutions, namely cotton mills, Asembagus cotton experimental plantations and smallholder cotton plantations in 1945-1997 and their impact on people's lives in Asembagus District, Situbondo Regency. In the article entitled "*Why Didn't Colonial Indonesia Have a Competitive Cotton Textile Industry? Modern Asian Studies*", Pierre van Der Eng discusses the ups and downs of trade and the cotton production plant industry which was caused by three main factors, namely labor intensification, almost no domestic production of raw cotton, and trade competition on an international scale. In comparison, this article offers a unique, decade-long case study of the Smallholder Cotton Intensification Program in Grobogan Regency during the New Order era, providing detailed economic data, socio-economic impact analysis, and insights into local policy implementation and institutional roles.

Based on the background of the study above, the author formulates a research problem: How did the growing demand for cotton in the textile industry impact Indonesia's domestic production, and what strategic initiative was implemented in Grobogan Regency to address the country's reliance on cotton imports? The exports of Indonesia during New Order, both in the form of textiles and clothing, were increasing. These conditions would certainly provide a stimulant for the development of cotton business, but in reality, the wide open local or domestic cotton market had not been able to be utilized optimally by domestic cotton production. Domestic cotton production only played a very small portion in this regard. Therefore, this

article attempts to examine various things that are closely related to the problem through several research questions including how the concept and basis for implementing the IKR program initiated by the New Order government? How is the process of implementing the IKR program in Central Java, especially in Grobogan Regency? What is the impact of the IKR program on the socio-economic life of the Grobogan community and why can this program run successfully in Grobogan Regency?

## Research Methods

The research method used to compile this article is the historical method. The historical method is a way of reconstructing past events through a process of critical examination and analysis of past records and relics (Gottschalk, 1983). The essence of the historical method is collecting sources and testing the authenticity and credibility of historical sources as well as compiling detailed conclusions into interconnected stories. In general, historical research has four steps that must be carried out, namely heuristics (collecting sources), criticism (testing sources), interpretation (interpreting sources), and historiography (Kuntowijoyo, 1995).

Heuristics is a process for finding and collecting historical sources, both primary and secondary (Garraghan, 1957). Primary sources used by the author are archives and documents such as *Laporan Tahunan UPP IKR Demak/Grobogan Tahun 1979/1980 Sampai 1989/1990*, *Memori Serah Terima Jabatan Kepala UPP IKR Grobogan Tahun 1993*. Those primary sourced were gathered from the Central Java Province Agriculture and Plantation Service, Grobogan Regency Plantation Service, Grobogan Regency Government, UPP IKR Demak/Grobogan, and Grobogan Regency Central Statistics Agency. Meanwhile, the secondary sources used by the author are scientific articles, scientific research, and scientific books by scholars and experts related to research. The secondary sources that the author used were obtained from the Library of Central Java Province, History Library of Diponegoro University, Library of the Faculty of Humanities of Diponegoro University, and Technical Executive Unit Libraries and UNDIP Press.

The next stage in this study is the source criticism to filter the information obtained during the heuristic or data collection process in order to obtain authentic and credible data. The next step, the author interprets historical facts so that they can show a logical and chronological relationship regarding past events. The final stage is historiography, namely the activity of reconstructing past events in the form of a systematic, logical and scientific historical story using good English so that it is easy for readers to understand and can produce historical studies that are descriptive analytical in nature by prioritizing high scientific and applicable aspects (Herlina, 2020).

This article uses the socio-economic approach because it seeks to examine the impact of the Smallholder Cotton Intensification policy towards the socio-economic life of the community, especially farmers in Grobogan Regency. By using this approach, the article can answer various problems that arise, so that the main problems in implementing the Smallholder Cotton Intensification program and its impact in improving the socio-economic life of farmers in Grobogan Regency can be acknowledged (Kartodirdjo, 1982).

## Research Result

### The Smallholder Cotton Intensification Program

The New Order government attempted to create a development climate that was able to encourage the will and ability of farmers. This was aimed at increasing agricultural production, living standards and the welfare of farmers. For this reason, in 1978, the government issued a Decree from the Minister of Agriculture which established a policy for developing cotton in

Indonesia through the Smallholder Cotton Intensification (Intensifikasi Kapas Rakyat, IKR) program. The Smallholder Cotton Intensification had three main objectives, namely increasing farmers' incomes, expanding employment opportunities, and reducing dependence on imported cotton fiber. This program was issued in response to various cotton development institutions and systems in Indonesia which had undergone several changes in the organizational structure of cotton management since 1959 starting from the Department of Agriculture, New PPN, Fiber PPN, the Plantations Limited Company of Indonesia (PT. Perkebunan, PTP), and the Indonesian Cotton Public Company (Perum Kapas) which had not produced results as expected because these organizations had a tendency to try new systems that they felt were suitable for managing cotton plants (Sulistyo & Mawarni, 1991).

The Smallholder Cotton Intensification program was initially implemented in six provinces designated by the government, such as Central Java, East Java, South Sulawesi, Southeast Sulawesi, West Nusa Tenggara and East Nusa Tenggara. In supporting the smooth operation of the Smallholder Cotton Intensification program in the six provinces, the government had appointed three state-owned Plantations Limited Company of Indonesia and two private plantation companies to act as managers or supervising companies. The three agencies are the PTP XVII which had a headquarter in Semarang City, Central Java Province then the PTP XXIII and PTP XXVI whose headquarter were in Surabaya City, East Java Province. Meanwhile, the two private plantation companies appointed to implement the Smallholder Cotton Intensification program were Kapas Indah Indonesia Limited Company which had its head office in Southeast Sulawesi and the Sukun Cigarette Factory of Kudus which had its head office in Central Java (PTP XVIII, 1985). The management or supervising companies each acted as the person in charge for field operations and work leader for implementing the intensification program in the related area (Sulistyo & Mawarni, 1991).

The Smallholder Cotton Intensification program had provisions that regulated the rights and obligations between farmers and the assisting company that managed the program. The assisting company had several obligations, including implementing pilot integrated pest control projects, providing guidance to farmers, and purchasing and processing seed cotton from the produce of farmers under its guidance. This implied that farmers had an obligation to sell all the seed cotton they produced to their supervisory company. The price of seed cotton was determined in accordance with the Implementation Guidelines of the Directorate General of Plantations, while the marketing of cotton fiber was jointly regulated by the Directorate General of Trade (Kartohadikoesoemo, 1987).

In supporting the implementation of the goals of the Smallholder Cotton Intensification program (Program Intensifikasi Kapas Rakyat), the New Order Government also provided light credit facilities for each farmer participating in the program so that they could make the best use of it as working capital in their cotton cultivation. Each farmer participating in the program got two types of credit, namely production facilities credit and living costs credit. Credit for production facilities was obtained by the participating farmers in the form of goods, namely fertilizer and pest control medicines. Meanwhile, farmers received credit for living expenses in the form of money. The activity of providing and distributing production facilities was carried out by the Agriculture Private Company of Indonesia, while the provision of living costs was credited by the Indonesian Export-Import Bank (Bank Ekspor Impor Indonesia, BEII) (Bulandari, 2000).

BEII provided credit to farmers who participated in the Smallholder Cotton Intensification program no later than one month after all credit application requirements were met through the supervising company. The credit interest rate was one percent per month. Meanwhile, the credit period was six months calculated from the time the credit was disbursed

by BEII to the supervising company. Therefore, if within the six months period it turned out that the participating farmers who borrowed had not been able to pay off their credit, they will receive a fine in the form of interest of one percent per month on the remaining or arrears on their credit (Kartohadikoesoemo, 1987).

Providing and giving light credit facilities to the farmers participating in the Smallholder Intensification program was very important because the aim was so that farmers could utilize dry land that was suitable for planting cotton, so that they could increase and develop farmers' incomes. Meanwhile, in addition to farmers as program implementers, the components in the programs, PTP and the Kapas Indah Indonesia Private Company and the Sukun Cigarette Factory of Kudus as supervisors, providers of production facilities, and BEII as the funding provider, there were still other components involved in the program. These components are the Plantation Department which had the task of implementing and supporting the program and the local regional government, although it was not directly involved, its role was very important, namely the task of facilitating the implementation of the Smallholder Intensification program (Sulistyo & Mawarni, 1991).

### **Implementation of the Smallholder Intensification Program in Grobogan Regency**

The implementation of the Smallholder Intensification program in Central Java Province could be said to be more successful if compared to the five other provinces which also implemented the same program. This was because the Central Java Province was supported by ecological or agronomic factors as well as socio-economic conditions which were on average higher when compared with other provinces (*Memori Serah Terima Jabatan Kepala UPP IKR Grobogan Tahun 1993*, n.d.). Therefore, because Central Java had the potential to support the development of cotton cultivation in Indonesia, the New Order Government through the Department of Plantation and the Governor of the Level I Region of Central Java tried to increase cotton production by intensifying it, namely increasing productivity using technology. The technological engineering developed was that cotton farming was intercropped with secondary crops such as green beans, peanuts, corn and soybeans (Departemen Pertanian, 1985).

Grobogan Regency is one of the regions in Central Java that had implemented the Smallholder Cotton Intensification program under the management of PTP XVIII since 1979. This was implemented based on the Decree of the Minister of Agriculture No. 736/Kpts/Um/11/1979 and Governor's Decree No. 884/SK/SB/DP/1979. The program in Grobogan Regency was carried out to increase production and productivity of land, help reduce dependence on imported cotton fiber, increase farmers' incomes, and create employment opportunities. The government was greatly optimistic because the Grobogan Regency area was generally a rain-fed area and moor, so that the development of cultivation for cotton plants was very profitable and potential. Apart from that, the implementation of the program in Grobogan Regency had the advantage of planting cotton in its planting pattern, namely Rainy Season Crops (Tanaman Musim Penghujan, TMP) and Dry Season Crops (Tanaman Musim Kemarau, TMK), so that cotton cultivation in the area could continue throughout the year with sufficient food needs and the existence of cotton plants was seen as an effort to diversify crops in the area (Laporan Tahunan UPP IKR Demak/Grobogan Tahun 1979/1980 Sampai 1989/1990, n.d.).

Initially, the credit facilities obtained by the farmers in Grobogan Regency were often misused for other crops, because at that time farmers still prioritized secondary crops over cotton. However, after cotton plants gave better results than secondary crops, such action did not happen again. Even in the subsequent years, the majority of farmers added their own credit

packages with the aim of getting better results, usually additional fertilizer was still required (Bulandari, 2000).

**Table 1.** Implementation of the Smallholder Cotton Intensification Credit in Grobogan Regency during the 1979/1980-1989/1990 Planting Season

Planting Season of the Year	THE LOANING					Farmers
	Target	Realization	Credit Returns	Arrears	Return Percentage	
1979/1980	4.654.000	1.870.794	1.475.294,50	400.499,96	78	920
1980/1981	11.333.000	10.799.733	9.355.843,98	1.425.929,21	86	1505
1981/1982	36.059.925	19.259.518,42	15.096.408,24	4.163.110,18	78	3785
1982/1983	57.849.655	35.172.289,67	24.875.666,15	10.296.623,52	71	7605
1983/1984	89.315.923	32.649.371,85	19.963.582,67	12.685.789,18	61	6453
1984/1985	119.390.386,1	37.575.904,54	26.874.994,02	10.700.911,06	73	5046
1985/1986	115.404.517,8	47.549.716,75	41.759.822,39	5.789.894,36	77	4849
1986/1987	100.825.788,7	56.770.369,87	55.770.369,87	1.812.095,81	93	5198
1987/1988	267.157.501,7	189.713.553,5	189.713.553,5	Remedy	100	12618
1988/1989	301.027.200	208.359.769,20	208.359.769,20	Remedy	100	14222
1989/1990	357.962.200	201.759.940	201.759.940	Remedy	100	16566

Source: Annual Report of UPP IKR Demak/Grobogan 1979/1980 to 1989/1990.

Based on the data contained in Table 1, regarding the implementation of credit for the Smallholder Cotton Intensification program in Grobogan Regency during the 1979/1980 to 1989/1990 planting season, it can be analyzed that credit realization had a tendency to increase every year in the 1979/1980 to 1989/1990 planting season. This of course had an influence on the increase in the number of credit farmers. Meanwhile, credit arrears increased in the 1979/1980 to 1984/1985 planting season due to farmers' production failures caused by the long dry season, pests or diseases attacking cotton plants, and inaccurate timing of credit disbursement given to farmers. Inaccuracy in the timing of credit disbursement for farmers through the mass credit system was a common occurrence and was not an open secret. This resulted in misuse of credit received by farmers which resulted in delays in credit repayment by farmers (Tim P3PK UGM, 1989).

The UPP IKR Demak/Grobogan and PTP XVIII implemented several strategies to address credit issues in the Smallholder Cotton Intensification program in Grobogan Regency. These strategies included farmer selection, area verification, and credit restrictions, which were designed to minimize arrears, improve timely credit repayment, reduce financial risks, encourage responsible farming practices, increase the program's overall success rate, promote efficient resource utilization, and potentially improve crop yields and economic outcomes for farmers. In the planting season before 1984/1985, credit was returned from 75 percent of sales proceeds, while 25 percent went directly to the farmer's income. This system caused arrears to appear in the 1979/1980 to 1984/1985 planting season because farmers still received money from sales of produce, even though they could not pay off the credit because the harvest had already finished (Bulandari, 2000).

In the 1985/1986 planting season, farmers experienced a change in the credit repayment system, after selling their harvest to the manager or supervisor, they had to immediately return the credit they had obtained. This was considered very important because farmers who returned from sales and had successfully paid off their credit would get satisfaction and bring home the remaining money after paying off the credit. The PTP XVIII provided a credit policy that benefited the farmers who participated in the Smallholder Cotton Intensification program to increase cotton production in Grobogan Regency starting from the 1987/1988 planting season by providing credit to farmers without interest. Another policy was that the stamp duty which

was initially charged to farmers amounting to Rp 1000 was reduced to Rp 200 for the cost of printing credit cards (PTP XVIII, 1991). Therefore, from the 1987/1988 planting season to the 1989/1990 planting season, the realized credit could be returned in full or paid off by farmers. This meant that the implementation of the credit program in Grobogan Regency was running smoothly and farmers had no credit arrears during the three planting seasons. The smooth implementation of the Smallholder Cotton Intensification program in Grobogan Regency could not be separated from the role of managers who provided intensive counseling, made policies that facilitated or benefited farmers, held regular meetings with informal and formal figures, and established good coordination with related institutions (Bulandari, 2000).

**Table 2.** Planting Area, Production and Productivity of the Smallholder Cotton Intensification Program in Grobogan Regency during the 1979/1980-1989/1990 Planting Season

No.	Planting Season	Planting Area		Production (Kg)	Productivity (Kg/Ha)	Farmers
		Target	Realization			
1.	1979/1980	100	67,72	50.107	740	920
2.	1980/1981	200	358,26	314.122	891,75	1.505
3.	1981/1982	800	615,92	470.657	950,69	3.785
4.	1982/1983	2000	1500	597.187	398	7.605
5.	1983/1984	2500	1227	420.268	342	6.453
6.	1984/1985	3530	1055	471.253	446	5.046
7.	1985/1986	2133	1255	1.353.000	1.078	4.849
8.	1986/1987	1620	1272	1.816.000	1.428	5.198
9.	1987/1988	1390	3052	4.264.000	1.397	12.618
10.	1988/1989	3500	4034	7.713.000	1.912	14.222
11.	1989/1990	4139	4621	8.792.000	1.902	16.566

Source: Annual Report of UPP IKR Demak/Grobogan 1979/1980 to 1989/1990.

Based on Table 2, it can be analyzed that the area of cotton cultivation in Grobogan Regency had a tendency to increase every year from 1979/1980 to 1989/1990. This increase occurred at the same time as the productivity of cotton produced by farmers increased. However, in this time period, apart from experiencing an increase, there was also a phase of decline in planted area and productivity. The decline in area and productivity in the 1982/1983 to 1983/1984 planting season occurred due to caterpillar pests attacking cotton plants and the long dry season, which had an impact on reducing the productivity of cotton plants cultivated by farmers. Nevertheless, this problem had not dampened farmers' interest in continuing to participate in the Smallholder Cotton Intensification program in Grobogan Regency. This was proven in the 1988/1989 planting season, when the area and cotton production reached the largest figures with an area of 4,034 Ha and cotton production of 7,713,000 Kg. This implied that every one hectare of farmers could produce an average cotton production of 1,912 Kg/Ha. The success in achieving the largest area and cotton production could not be separated from the increase in farmers who were participants in the Smallholder Cotton Intensification and the increasing skills of farmers due to managers or mentors who intensively carried out counseling (Wahyuni, 1990).

### **The Impact of the Smallholder Cotton Intensification Program on the Socio-Economic Life of Farmers in Grobogan Regency**

The New Order government tried to develop agriculture by opening the plantation sector which had an influence on the socio-economic life of the community. This is one of the efforts in the field of rural development that could not be separated from national development which emphasized the ability of village residents to influence the environment in which they lived. The Smallholder Cotton Intensification Program which had been implemented in Grobogan



Regency since 1979 had relevance to the economy of rural communities. This program obviously had an impact on the socio-economic lives of farmers in Grobogan Regency, such as creating the Smallholder Cotton Intensification (Intensifikasi Kapas Rakyat, IKR) farmer groups, expanding employment opportunities, and increasing farmers' incomes (Mubyarto, 1983).

The implementation of the Smallholder Cotton Intensification program had an impact in the social sector with the creation of the farmer group of the Smallholder Cotton Intensification in Grobogan Regency. Farmer groups were groups of farmers who were informally bound on the basis of similar interests in the same environmental conditions (social, economic, resource) and there was closeness between farmers to advance their agricultural business (Riani et al., 2021). Farmers participating in the Smallholder Cotton Intensification program in Grobogan Regency were incorporated into the farmer groups to make handling and coaching easier. Other advantages were that if there were farming problems that arose they could be resolved immediately in the field. This uniformity also facilitated the sharing of resources and knowledge among farmers, leading to more efficient and effective agricultural practices. The ease of implementing new technologies across the farming community resulted in faster adoption rates and improved overall productivity. (Bulandari, 2000).

Members of the farmer group of the Smallholder Cotton Intensification program were farmers who managed cotton cultivation businesses who were registered as group members consisting of young and adult farmers, both men and women. The number of members of the farmer group was adjusted to the agreement of the farmers in forming the group with the aim of ensuring that the management of cotton crops in Grobogan Regency could operate smoothly. The chairman of the Smallholder Cotton Intensification farmer group usually came from group members who were selected because they had knowledge, skills, and a high sense of responsibility for the interests of their group. The farmer group was also under the guidance of a farmer contact who had the role of guiding the participating farmers in their group to manage cotton crops. The positions of farmer contact and group leader were generally held by the same person (Sulistyo & Mawarni, 1991).

The success of developing cotton cultivation in Grobogan Regency could not be separated from the role of the farmer group within the Smallholder Cotton Intensification program. This achievement was also supported by the Plantations Limited Company of Indonesia (PT. Perkebunan, PTP) XVIII, which provided operational funds to farmer groups of Rp 600/hectare for administrative development purposes such as buying notebooks and other necessities.. PTP XVIII also provided cow prizes or also known as achievement prizes to the farmer groups that were able to achieve an average production of at least 1,500 Kg/Ha with a minimum area of 10 hectares and credit distributed to farmers could be returned 100 percent. This achievement prize was given with the aim of motivating farmers to always increase the production of their cotton crops (Bulandari, 2000).

Apart from having the aim of reducing dependence on imported cotton, the implementation of the Smallholder Cotton Intensification program in Grobogan Regency also had an impact on the high employment capacity. Farmers who participated on the program needed more workers to help cultivate their land because cultivating cotton plants required more intensive care if compared to other types of crops. Labor was divided into family labor and labor outside the family. Workers outside the family were needed if the number of family workers was still lacking or insufficient (Sulistyo & Mawarni, 1991). Labor absorption further increased after the development of intercropping patterns between cotton and local secondary crops such as corn and soybeans. The intercropping pattern developed in the early period of

IKR implementation not only resulted in increased productivity of the crops produced, but also led to a high demand for labor to work the agricultural land (Bulandari, 2000).

In Grobogan Regency, cotton cultivation had several stages in the production process, such as tilling the land, planting, replanting, thinning, drying, weeding or hilling, fertilizing, pest control, and harvesting (Kartohadikoesoemo, 1997). However, the expansion of employment opportunities occurred during the weeding or hilling process. This process was carried out with the aim of ensuring that the absorption of nutrients and minerals around the plant root area was well maintained, so that the workforce required for this process was men and women, adjusted to their level of power capacity (Untung, 1981).

**Table 3.** Labor Requirements for the Maintenance Process of Cotton, Soybean, and Corn Plants in Grobogan Regency in 1985/1986.

No.	Maintenance Process	Labor Requirement in Man-Days (Hari Orang Kerja, HOK)		
		Cotton	Soybean	Corn
1	Land Cultivation	6	30	2
2	Planting	8	10	8
3	Replanting	2	-	-
4	Thinning	3	-	1
5	Weeding/Hilling	30	15	10
6	Fertilization	15	8	10
7	Pest Control	20	15	2
8	Harvesting	10	12	20
9	Post-harvest Treatment	6	22	24
10	Others	4	8	8
	Total	104 HOK	128 HOK	85 HOK

Source: Annual Report of UPP IKR Demak/Grobogan Plantation Office of Grobogan Regency 1985/1986.

Based on Table 3, it can be seen that in managing one hectare of cotton land, 104 HOK of labor are needed. Meanwhile, soybean land requires 128 HOK of labor and corn land requires 85 HOK of labor. If then the intercropping planting pattern is applied in the midst of such labor requirements, for example, cotton plants are intercropped with soybean plants, then the labor required is as much as the labor required from the two fields, which is around 232 HOK. Likewise, if cotton plants are intercropped with corn plants, it requires around 189 HOK. The expansion of employment opportunities as a result of implementing the Smallholder Cotton Intensification program in Grobogan Regency also occurred in the service sector to support agricultural development activities such as providing production facilities, providing credit and agricultural extension (Mubyarto, 1983).

Improving people's welfare is one of Indonesia's development goals, therefore the New Order Government was trying to stabilize the development of prices and the social environment of agricultural communities so that increasing farmers' incomes could be realized by increasing agricultural production. The Smallholder Cotton Intensification Program was an effort to increase farmers' incomes and welfare through efforts to increase agricultural productivity. This program expanded the cotton planting area in Grobogan Regency, so that optimal production could be achieved and had an impact on increasing farmers' incomes at the same time (Sulistyo & Mawarni, 1991).

The cotton planting pattern developed in Grobogan Regency was an intercropping pattern because it was most easily accepted by farmers, so it could develop quickly. Farmers who used this planting pattern did not need to abandon their secondary crops or food altogether to replace them with cotton plants, so farmers still had food reserves. This planting pattern provided

benefits to farmers because it could increase their income by around 30 to 50 percent when compared with monoculture planting patterns where farmers needed to choose secondary crops or food crops that were intercropped with cotton plants (Sunardi, 1991).

**Table 4.** Real Income of Farming Business at the District Farmer Level with Various Planting Patterns in the 1985/1986 Planting Season.

No.	Planting Pattern	Income (Rp)	Waiting Period	Monthly Income (Rp)	Rank
1	Intercropping				
	- Cotton, Soybean	385.641	6	64.273	I
	- Cotton, Corn	335.750	6	55.958	II
2	Monoculture				
	- Cotton	206.776	6	34.461	V
	- Soybean	178.875	3,5	51.107	III
	- Corn	128.984	3,5	36.852	IV

Source: UPP IKR Demak/Grobogan Planting Season 1985/1986, Grobogan Plantation Service Planting Season 1985/1986.

Based on table 4, it can be seen that among the plants that use the intercropping pattern, cotton and soybean plants are the combination of plants that contribute to providing the highest income for farmers, reaching Rp. 64,273/month. Meanwhile, among the plants that use the monoculture planting pattern, it can be seen that soybean plants contribute the highest income, reaching Rp. 51,107/month. This figure is then followed by corn and cotton plants. The income from the cotton monoculture planting pattern is very low because this planting pattern is not suitable for implementation in Grobogan Regency because the average land ownership of farmers is narrow. The data contained in Table 4 also emphasizes that the use of the intercropping pattern is much more effective and profitable for farmers when compared to the monoculture planting pattern.

The presence of the Plantations Limited Company of Indonesia (PT. Perkebunan, PTP) XVIII as the management or assistance of farmers who became the participants of the Smallholder Intensification Program in Grobogan Regency brought positive impacts towards their lives, such as the development on their agricultural business. This could be proven by the use of money from the sale of cotton, with most of the income being used to buy their primary needs such as rice, cooking oil, sugar, eggs, vegetables, and so on. Some of their other income was used to buy livestock, repay debts or credit extended to them, and develop their business. Another positive impact which occurred to the farmers was increasing alternatives or choices for farmers on dry land, so that farmers had the opportunity to increase their income by implementing intercropping patterns, as well as an injection of money into the village economy as a result of the sale of cotton. This was a driving force for village economic progress, such as road improvements and other developments both in the agricultural sector and outside the agricultural sector in Grobogan Regency (Bulandari, 2000).

## Conclusion

The existence of cotton plantations in Indonesia can be traced back to the colonial period, when the colonial government began to develop cotton plantations because they had high selling value. After independence, the New Order Government then developed the Smallholder Cotton Intensification Program in six provinces, with the most successful implementation in Central Java if compared to the other five provinces. The successful implementation of the program in Central Java can be seen from its successful development in Grobogan Regency, which had proven to have many significant socio-economic impacts on farmers. The success of this program was supported by several factors such as land suitability, positive responses from

farmers, and good coordination between the government and management. The main impacts resulting from the program included the establishment of farmer groups which increased the efficiency and dissemination of agricultural technology, the expansion of employment opportunities which supported the village economy, and an increase in farmers' incomes, which in its development also had an impact on their welfare. Apart from that, the implementation of intercropping planting pattern also allowed farmers to develop various plant varieties other than cotton. Despite facing challenges such as misuse of credit and pests, adaptive policies and intensive guidance from the Plantations Limited Company of Indonesia XVIII had contributed to overcoming these problems.

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