THE CONDITION OF PLYWOOD INDUSTRIAL WORKERS:
A CASE STUDY IN SUMBEREJO, CENTRAL JAVA

Nurdien H. Kistanto
Faculty of Letters, Diponegoro University, Semarang - Indonesia

ABSTRACT

Java is often seen as epitomising a subsistence farming economy, but since the establishment of sugar factories in the first half of the nineteenth century Javanese villages have been familiar with the notion of factory work and factory workers.

As a result of the establishment of many large-scale factories in the 1970s, the industrial workforce in Java has grown rapidly. These factories form part of the large-scale modern manufacturing and processing sector of the economy which is expected to absorb more manpower as the Indonesian economy is transformed with the enlargement of its industrial base. As a consequence of increasing population in rural Java, structural changes will continue: agriculture will continue to decline, while manufacturing, trade and services will have to play an increasingly important role in absorbing new entrants into the workforce. Limitations on employment in agriculture force people to join the manufacturing workforce: labour will be "pushed" into manufacturing, trade and services, rather than "pulled" out of agriculture (to use White's description). In Sumberejo, the industrialized village under study, the implications of such a view can be seen in the context of absorption of new entrants into the plywood manufacturing workforce.

Based on a field research, it goes to the analysis of conditions of industrial workers in the rural village where the plywood factory has been established since the late 1970s. One indication is clear that an ongoing process of diversification of rural-farm occupational opportunities has been taking place: it is also obvious that there is a considerable decrease in rural farm occupational opportunities. Moreover, increasing pressure on land, both fragmentation through inheritance and alteration for industry, has forced a growing number of villages, particularly the younger and more educated but landless, to seek employment off the farm, which is in Sumberejo in the form of plywood manufacturing workforce.

The field survey and observation reveal that a considerable number of plywood factory workers, or their household members, in Sumberejo seek additional income for their households. Those who seek other incomes are not only they who earn a smaller income from the factory; some non-staff members of the factory with comparatively larger industrial income, and/or their wives and other household members, have additional incomes from non-industrial activities, such as farming and trading. Without additional incomes from other activities, many of them can hardly improve their modest lives.

Keywords: transformation, labour, industry, agriculture
I. Introduction

Since the establishment of the first sugar factories in the first half of the nineteenth century - the large Sugar Mill in Cepiring, a north Central Java town was established in 1835, for example - north Central Javanese villagers have been familiar with the notion of factory work (kerja [di] pabrik) and factory workers (buruh, or pekerja pabrik).

The industrial workforce has grown rapidly over the last two decades as a result of the establishment of many factories in Indonesia, particularly in Java. Limitations on employment in agriculture will increasingly force people to join the manufacturing workforce (Oey 1986: 266, 272). To use White's description, labour will be "pushed" into manufacturing, trade, and services, rather than "pulled" out of agriculture (White 1979: 96-98). In Sumberejo, the implications of these views of White and Oey can be seen in the context of the absorption of new entrants into the plywood manufacturing workforce.

In her detailed research of a number of factories in a rural Central Javanese district (kabupaten), Diane Wolf (1984, 1986, 1992) found that females made up two-thirds of the workforce, and that many firms prefer hiring single females. She noted that female workers predominate in textile, spinning, garments, and labor-intensive food manufacturing industries, while male workers are dominant in industries dependent on hard, physical labour; for example, the making of buses, furniture, and glass production in conveyor-belt factory system. Wolf noted that this sexual division of labour is typical of manufacturing workforce in developing countries, as is the age and marital status distribution of the female workforce: most are under age of twenty five and single.

Even though the plywood factory of my observation employs more men than women, the distribution of these workers is not random, and a strict gender division of labour applies at specific points in the plywood manufacturing process. However, concerning the level of wages the workers earn, I share the opinions of my predecessors (for instance, Mather 1983; Wolf 1984, 1986, 1992) who seem generally agree that the wages of factory workers in Java are among the lowest in the world. As also noted by Wolf (1984, 1986) factory wages are even lower than wages for agricultural labour. Nevertheless, conditions of the manufacturing workforce have been changing over the years (See Manning, 1993).

Based on the field research, the following is the analysis of conditions of industrial workers in a coastal rural village in north Central Java, Sumberejo, where a plywood factory has been established since the late 1970s. Increasing pressure on land, both fragmentation through inheritance and alteration for industry, has forced a growing number of villagers, particularly the younger and more educated but landless, to seek employment off the farm, which is in the villages under study in the form of plywood manufacturing workforce.
II. The Plywood Manufacturing Industry

Established by three Indonesian-Chinese brothers in the late 1970s in Banyubiru hamlet, Sumbererejo village, north Central Java, the Plywood Manufacturing Industry (PMI) is a national-export-oriented company which mainly processes logs into plywood. It is located in a 100 ha complex near the Java sea. Its physical establishment started with one plywood processing unit in 1978; it initiated trial production in July 1979 and began full production in August 1979. In the same year PMI established a saw mill and in 1981 another plywood processing unit and two block board processing units. In 1982 PMI added one plywood processing unit and another saw mill. In order to produce its own glue for the plywood, in 1983 PMI established a glue processing plant, while adding two other plywood processing units. Further plywood processing units, saw mills, a paper overlay and polyester processing unit, and moulding processing units were added between 1985 and 1989. In 1990, or only eleven years after its first establishment, PMI established another big plywood manufacturing industry in Sorong, Irian Jaya. In 1991 the factory in Banyubiru, in cooperation with Japan's Sumitomo corporation, built a particle board processing factory, located on 16 ha of land alongside its plywood processing industrial complex—thus making a total of 116 ha industrial location in Banyubiru. By mid-1992 this particle board factory had begun production.

The closeness of its location to the sea provides strategic access to marine transportation for either importing raw materials from Indonesia to outer islands or to export the products to other countries. For these purposes, PMI has its own off-shore loading facilities.

PMI products which mainly comprise of plywood, block board, and sawn timber have been exported to the USA, Japan, Hong Kong, European countries, South Korea, China, Taiwan, and the Middle East. With the increasing demands for plywood from international markets, especially from Japan, PMI is prepared to expand its production capacity. However, global pressures on natural environment, particularly on tropical rain forest, and on the fate of the Indonesian cheap labour must be taken into account.

III. The Plywood Manufacturing Work Force

The operation of PMI involves thousands of workers, technical and administrative staff. When it started its operations in the late 1970s, the number of workers and employees was no more than one thousand. Even by 1980 number was only 1,207, of which 75 were recruited from Sumbererejo. But in 1990 the labour force had reached almost 12,000, of which 725 were recruited from Sumbererejo. This labour has been recruited mostly from the neighbouring villages, towns and the city, and some from other regions within Java island, and few from outer islands. In addition, PMI has annually employed as many as 23 expatriate technicians, advisors, and managers, notably from Taiwan, Japan, the Philippines, Malaysia and South Korea, and only occasionally from the
United States - and probably from other countries. As many as 18.5% [in 1982] and as low as 4.2% [in 1986] of the total number of workers and staff were recruited from Sumberejo.

In March 1991, the total labour force was 13,015, of which 8,842 (68%) were males and 4,173 (32%) females - thus the number of males was even more than twice of females. This might be due to the fact that more jobs in the plywood manufacturing industry require physical strength. Female workers usually occupied lighter jobs such as applying putty, and selecting or sorting out plywood. With the operation of the new factory, which processes sawdust into particle board which started in mid-1992, more workers were recruited from Sumberejo and the neighbouring villages.

As most rural household in Java are still engaged in agriculture, it is not surprising that most of the industrial workers who are now entering the industrial workforce, especially in the rural-based industrial site like Sumberejo, have come from households with agricultural background. Daily observations as well as survey data demonstrate that most of the plywood manufacturing workers studied have agricultural backgrounds. As a matter of fact, it was not easy to find plywood manufacturing workers in Sumberejo with other household histories.

On the one hand, this clearly indicates an ongoing of diversification of rural-farm occupational opportunities, on the other, it demonstrates a decrease in rural farm occupational opportunities. Moreover, increasing pressure on land, both fragmentation through inheritance and alteration for industry, has forced a growing number of villagers, particularly the younger and more educated ones, to seek employment off the farm. Yet, particularly for those landless rural villagers, perhaps the most important benefit of industrial employment is the fact that the income is more stable and reliable than the income from agricultural activities - even though it is not necessarily higher.

IV. Staff Members

My survey of 280 household lists 51 male heads who worked in the plywood factory. Only five (10%) of the 51 household heads in Banyubiru hamlet who worked in the plywood factory were staff members who were holding positions as 'export expedition foreman', 'barge foreman', 'administrative clerk', and 'rotary machine supervisor'. This group carried out less demanding physical jobs and conveyed instructions to non-staff workers. Their age ranged from 29 to 55 years, with an average of 40 years, putting them among the earlier generation of factory workers, and their monthly salaries in 1991 - 1992 ranged from Rp. 90,000 to Rp. 300,000 with an average of Rp. 156,000 per month. Four of the five household had other incomes from sawah or tambak sharecropping and from small stalls operated by the staff members' wives.

In two cases, the incomes obtained from these activities were higher than the monthly salaries: one sharecropped 2 ha of tambak and obtained about Rp. 1 million per season of six months; the other had two sons and one son-in-law who also worked in the same plywood factory and his wife ran a food stall,
making an additional income to at least Rp.210,000 per month.

Of the five, only Muslih, 35, a technical high school graduate, who did not seek an additional income. For one thing, he already earned a comparatively big income, Rp. 300,000 per month, as a rotary machine supervisor. For another, even though he shared the same rather large timber house with his parents, his sister's family with two small sons, and his adopted sister, he took financial responsibility only for this childless and unemployed wife, 25 years old and a senior high school graduate, whom he married in 1990 after another ten-year childless marriage. The other members of his extended household had their own incomes. His father, who originally came from the district town area in the early 1950s, and mother, a local woman, operated 2.5 ha of tambak; his sister ran a small stall in the front corner of the house yard; his sister's husband, who come from another village, was a street vendor of second hand goods near the factory side-gate; and his adopted younger sister was plywood factory worker. In early 1992, his sister's family, with the help of this father, even built a new house with timber walls and dirt floor in an empty part of the parental house yard.

Muslih first obtained a job in 1979 as a rotary machine crew with a salary of some Rp. 15,000 per month, when the factory was in its early development. He was then promoted to a rotary machine operator and rotary machine foreman, before his present position as a rotary machine supervisor.

As a supervisor he is responsible for a group of crew members. Once in a month or so, on Sundays, he held meet-

ings and/or arisan in his house. Matters such as crew members' financial loans from the factory cooperative, plan to make a trip and crew members' requests were discussed in an informal manner in this meeting. Entertainment, such as singing with a karaoke sound system, also occured at such meetings. It seemed to me, that the rotary crew members were happy having such an easy-going supervisor as Muslih, to whom they could talk informally about the problems they were facing.

V. The Non-staff Members

The majority of the household heads in Banyubiru who worked in the plywood factory were categorised as non-staff members and recognized as either harian tetap (daily permanent) or harian lepas (temporary). One important thing which differentiates the non-staff from the staff members is in terms of payment: staff members are paid monthly, most non-staff members are paid fortnightly. The appointment of harian tetap workers are permanent after they have passed their probationary position, or they are permanently needed by the factory; the harian lepas are not permanent and when-ever they are not needed they can be fired, without any provisions. In general, non-staff members carry out jobs which require more physical strength. Moreover, there are considerable differences between 'employees' (pegawai, karyawan), or staff members, and 'labourers' (buruh, pekerja), or non-staff members, in terms of their tasks, interests, loyalties, and value orientation, as emphasized by Jaspan (1962).
The harian tetap (permanent daily) and harian lepas (temporary daily) workers were collectively called buruh both by themselves and by others. These workers could be members of any of the divisions or sections; ranging from production crews to personnel office boys, from safety guard to log carriers, from forklift operators to tallymen, from floor cleaners to fire brigade crews, from log cutmen to technicians, from welders to bus drivers, from bricklayers to water carriers. According to these workers, as long as the type and capacity of jobs were similar, there was no gender-based wage distinction. However, heavy jobs such as carrying logs and operating forklifts in the material division, and skilled jobs such as the ones carried out by technicians, were usually done by male workers and were paid relatively higher than the lighter ones such as spreading glue or inspecting and selecting plywood in the production division, which are mostly carried out by female workers. Many workers in the Material Division and the Fleet Division, especially those in the Embarkment-Disembarkment section who carry out heavy jobs, are paid on a monthly basis with a considerable bonus which depend on the number of ships per month. As a consequence, wages of the non-staff workers are not necessarily lower than salaries of the staff members. Depending on the types and frequency of the jobs which they carry out and the divisions or sections in which they are assigned, sometimes the total income of the non-staff workers are higher than that of the staff members. Analysis of individual case samples of both household heads and household members working in the plywood factory will be presented in details below as well as their payment arrangement.

As Table 1 indicates, the age of the 46 household heads in Banyubiru who are in the category of non-staff members range from 25 to 55 years, with an average of 35.5 years. Twenty six or 56.5% of them have primary school education, 14 or 30.4% junior high school education, and 6 or 13% senior high school. Their wages range from Rp. 50,000 to Rp. 390,000 - with an average of Rp. 115,650 - to provide for one to nine, or an average of four members per household. This composition seems to be proportional; but a closer study of this group will reveal its complexity, particularly seen in the light of the increasing demand of these factory working households for additional incomes to support their needs. More than that, those who seek other employment are not only those with smaller industrial incomes. Persons who relatively earn a higher factory income also have other jobs.
One of them who has a junior technical high school certificate earns a bit higher, Rp. 92,000, than the two staff members: the foreman, who also a graduate from junior technical high school, and the clerk, who holds a junior high school certificate. Another non-staff member, who has an elementary education, is paid up to Rp. 10,000 higher than the foreman and the clerk when he does over-work, Rp. 100,000. Some twenty two of these non-staff workers are paid higher than these foreman and clerk, ranging from Rp. 100,000 to Rp. 300,000 - of these, five workers are paid similar to the two foreman, Rp. 150,000; two (one with junior high school education, the other with senior high school education) are paid somewhat higher than the foreman, Rp. 152,000; two (one with junior high school education, the other with elementary school education) are paid much higher than the foreman and similar to the supervisor, Rp. 390,000, than the highest paid supervisor. The two non-staff workers who are paid the same as the supervisor are one technician and the other fire brigade crew who is transfered to the new plywood factory in Sorong, Irian Jaya, while the one paid higher than the highest paid supervisor is in the logging supply division with an important responsibility.

The analysis of the non-staff members' condition reveals that those who sought an additional income for their household are not only those who earn smaller income from the factory. Some non-staff members, who has comparatively larger industrial income and/or their wives and other household members, had additional incomes from non-industrial activities.

The closeness of the plywood factory to the workers' residence and the availability of spare time make these workers and/or their household members-notably their wives - possible to seek other incomes.

Table 1.  
The Condition of Non-Staff Members

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<th>Lowest</th>
<th>Highest</th>
<th>Average</th>
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<tbody>
<tr>
<td>Age</td>
<td>25 years</td>
<td>55 years</td>
<td>35.5 years</td>
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<tr>
<td>Education</td>
<td>elementary sch.</td>
<td>senior high sch.</td>
<td></td>
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<tr>
<td>Wage</td>
<td>Rp.50,000</td>
<td>Rp.390,000</td>
<td>Rp.115,650</td>
</tr>
<tr>
<td>Addition income (earned by 25 household)</td>
<td>Rp.15,000</td>
<td>Rp.450,000</td>
<td>Rp.109,000</td>
</tr>
<tr>
<td>Household total income</td>
<td>Rp.75,000</td>
<td>Rp.650,000</td>
<td>Rp.170,000</td>
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<tr>
<td>No. of household members</td>
<td>1</td>
<td>9</td>
<td>4</td>
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</table>
In total, eight non-staff household heads have additional incomes from other activities, such as wedding ceremony clerk, tambak activities including tambak ipukan cultivation and tambak share cropping, casual shrimp and fish catch for sale, motor-cycle taxi (ojek) operation, and trucks operation. Four have additional incomes from room leasing for migrant factory workers.

The fire brigade crew who works in Sorong and lives in the factory dormitory with meals, according to his wife, earns Rp. 300,000 and sends home Rp. 200,000 per month. At the same time, his wife, with three dependent children, holds a popular food stall very close to the factory side-gate in Banyubiru with an income of Rp. 450,000 - and this is the highest additional income among the non-staff households. The fire brigade crew is the probably paid more than his wife has informed, since he is a senior crew who is also expected to train new crews in Sorong. According to one returnee from Sorong, those who are sent to the new plywood factory in Sorong are paid double or much higher than when they work in the old plywood factory in Banyubiru in the same position, and many of these workers are also assigned to train the new local workers there.

Apart from the fire brigade crew who was sent to Sorong, two of these workers gain larger additional incomes from agricultural and transportation activities. In fact, their additional incomes are much higher than their factory incomes: one gets from sharecropping 5 ha of tambak, with a total income to Rp. 2 million per season of 6 months after the return split, or about Rp. 330,000 per month which includes the return of the daily shrimp sale, and is the highest additional income achieved among the non-staff members, the other had a couple of trucks for building materials transportation service, while his wife, taking care of a 7 years old school daughter, holds a meat-ball soup (bakso) and drink stall in the front yard of their house and his younger brother operates one of the trucks. The two trucks which this household possesses are the result of the sale of 2 ha of inherited tambak in late 1980s. The husband feel that trucks are more appropriate to him since he himself is a truck driver in the factory. From the operation of the trucks this household gains an additional income of Rp. 250,000 per month and from the meat-ball and drink stall Rp. 75,000 per month. The younger brother who operates one of the trucks is paid Rp. 150,000 per month, while he lives in this household.

This fact assures that additional incomes were sought not only by those who gain smaller factory incomes.

Sixteen of the non-staff household heads' wives work, most notably in trading activities which comprise cigarette and gas stall holding, itinerary cooked and uncooked food trading, home raising and selling poultry produce; and grocery, food, meatball, and chicken noodle stalls and street vendors holding. Four of these non-staff household heads have their wives seeking additional incomes from activities such as casual tailoring, taking casual farm and laundry jobs and only one wife working in the same plywood factory.
Seven of all the household heads working in the plywood have children working in either industrial or non-industrial sectors. Of these, five have children and one son-in-law working in the same plywood factory; two have children working in service sector such as housemaid in Saudi Arabia and tailor in Jakarta (both females) and bricklayer in Banyubiru. One daughter who works in Saudi Arabia is able to send a considerable amount of money home - in June 1991, for instance, Rp. 560,000; and one daughter who works in Malaysia also sends money home, Rp. 50,000 per month. Three other working children, especially those who work in the plywood factory and live with their parents say that they contribute a portion of their wages to their parents, usually Rp. 30,000 per month through their mothers. In one case, two sons who work in the factory - one temporary, the other new worker - are not yet able to contribute money to the household since their wages are considered too small for contribution; only the factory working son-in-law in this household contributes Rp. 10,000 per month to his mother-in-law.

All in all, 29 or almost 57%, of these staff and non-staff members and/or their household members who live in Banyubiru, seek additional incomes from other available activities. This happens not only to staff members with smaller factory incomes, but also to those with relatively higher incomes. Thus, the establishment of the plywood factory in Banyubiru has made the industrial-agricultural economy in the household level integrated. Without additional incomes from other activities, many of them could not improve their modest lives.

VI. Younger Workers

Sample survey of household members who work in the plywood factory covered 17 male and 26 female - 43 in total - plywood factory workers. This group represents the younger generation of the plywood factory workforce with ages ranging from 17 to 35 years old; seven of them in their teenage years (17 to 19 years old), 34 in their 20s, and only two in their 30s - this makes an average age of 23 (Tabel 2).

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<th>Age</th>
<th>Lowest</th>
<th>Highest</th>
<th>Average</th>
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<tr>
<td>Education (%)</td>
<td>primary school</td>
<td>senior hi.school</td>
<td>-</td>
</tr>
<tr>
<td>Wage/salary</td>
<td>40,000</td>
<td>200,000</td>
<td>69,730</td>
</tr>
<tr>
<td>Family occupational background</td>
<td>Non-farm : 7 (16.3%)</td>
<td>Farm : 36 (83.7%)</td>
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Of these, 15 or 35% have primary school education, 14 or 32.5% junior high school, and another 14 or 32.5% senior high school. Only seven of these household members are from household with non-farm occupational background, such as two civil servants, one military officer, two pony-cart owner-drivers, one vehicle repair and grocery shop holder, and one cake maker and seller. Nevertheless, their parents whose occupation was of non-farm such as pony-cart owner-drivers have come from landholding peasant households of Banyubiru origins. Those who come from the civil servant and military officer family backgrounds are from regional towns - so is the only Chinese - Indonesian found among the workers I studied, with a vehicle repair and retailer shop holder family background. In fact, the military officer parent still holds and cultivates a piece of sawah and the widow mother who now makes and sells cake formerly had a sawah which had been sold for an unclear reason. Thus, almost all of these young workers with non-farm family background (with only one exception of the Chinese - Indonesian who has service and trade family occupational background) are still close to the peasantry occupational bound if drawn back only to their grandparents or to one's parent's dual occupation as a military officer and a sawah peasant at the same time. Thus, only one, the Chinese - Indonesian, of these seven young workers is not from the Javanese descent and is from a real non-farm family occupational background.

Of the remaining 36, 23 came from landholding tambak and/or sawah peasant household - of these, nine have senior high school education, nine junior high school, and five primary school education. The remaining 13 are from landless agricultural labouring household - of these, one has senior high school education, three junior high school, and nine primary school education.

The area of origins of the 43 samples surveyed are various: 25 were born in Sumbererejo (24 in Banyubiru and one in Bumiashih), one is from another village, five are from other districts, ten from other regions or regencies, one is from the regional town, and one from another province, East Java. Of these, those who come from the civil servant and military officer households are not of Sumberejo origins, so is the one from the entrepreneur household. At the same time, both workers who come from pony-cart owner-driver households and one from snack-producer-for-sale household are of Sumbererejo origins. And, as I have emphasized earlier, these workers still have grand-parents who formerly owned tambak or sawah lands and were active farmers. These grand-parents inheriting their lands in small portions to their children, and in turn the children have sold these small lands and thus are farmers no more. Now their grand-children become landless factory workers.
VII. Conclusion:

Occupational Transformation from Farm to Factory

The conceptualization seems widely accepted that industrialization mainly involves the attempts of mankind to decrease their agricultural activities - with their social and cultural values - in the primary sector, and to increase their modern industrial and service activities in the secondary and tertiary sectors (Moore, 1951; Spengler, 1961; Hoselitz and Moore, 1963; Vaid, 1968; Rama-swamy and Ramaswamy, 1981; Galbraith, 1982; Djiojohadikusumo, 1985; Kayam, 1989). As industrialization progresses, occupational transformation increasingly prevails. For Indonesia, which has been undergoing an industrial transformation since the 1970s, the result is: "the number of peasants or sawah and [other agricultural] land cultivators in Indonesia is decreasing", as remarked by an Indonesian rural sociologist Sayogyo. According to Sayogyo, "... many of the sawah and [other agricultural] land cultivators have shifted [out of the primary sector] to the secondary and tertiary sectors" (Suara Merdeka, 27 April 1992: 16). The Indonesian national census has supported such a statement: between 1971 and 1990, the total percentage of peasants had decreased from 64% to 49%; on the contrary, the percentage of the secondary sector workforce increased from 8% to 15%, and the tertiary sector workforce increased from 23% to 36%.

Relevant to both Sayogyo’s statement and the national census is my findings in the field. From the earlier analysis, it is quite clear that it is new work entrants - rather than the 'established' farmers - who have gone into factories: many children of the peasant households work in the factory. The aversion of the peasants' children to engage in agriculture is a striking phenomenon in the area where several factories have been established, such as in the area which I have observed. On the contrary, industrial works have been an appealing alternative, especially for those who have school certificates, or with no more land to cultivate, or with land but very small for the household to be relied on, or any combination of these.

The transformation which has been going on is an occupational transformation from farm to factory: the transformation of the farmers' children into industrial workforce.

References


