

# Cooperation Between Four Parties in Developing Sugar Cane Production in Hậu Giang Province

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## Abstract

This paper describes production of sugar cane as raw material in Hậu Giang Province in recent years, analyzes advantages and difficulties in production and consumption of this product, and suggests a model of cooperation between four parties in developing a sugar cane producing zone in Hậu Giang. The research can serve as a scientific basis for policies for agricultural authorities and sugar companies in Hậu Giang to develop such a zone in the coming years.

## 1. Problem

With a large sugar cane area in comparison with other provinces in the Mekong Delta, the sugar cane is considered as a strategic product by Hậu Giang government that helps establish an advantage for the Hậu Giang sugar industry in the Mekong Delta. In recent years, sugar cane planters have applied new strains and technical advances thereby rising the average yield from 60 or 70 tonnes per hectare to somewhere between 100 and 150 tonnes per hectare. According to experts, however, the quality of sugar grown in Hậu Giang is not high because of natural conditions and old farming practices. This factor makes profit for planters low

and they at times suffer losses when the price falls. In recent years, unstable supply of sugar cane as a raw material has affected badly the sugar industry in the province. This research aims at providing sugar companies and agricultural authorities with a basis for their policies to develop a stable supply of sugar cane and ensure reasonable profit for the planters in the coming years.

## 2. Methodology

### a. Selecting target zones:

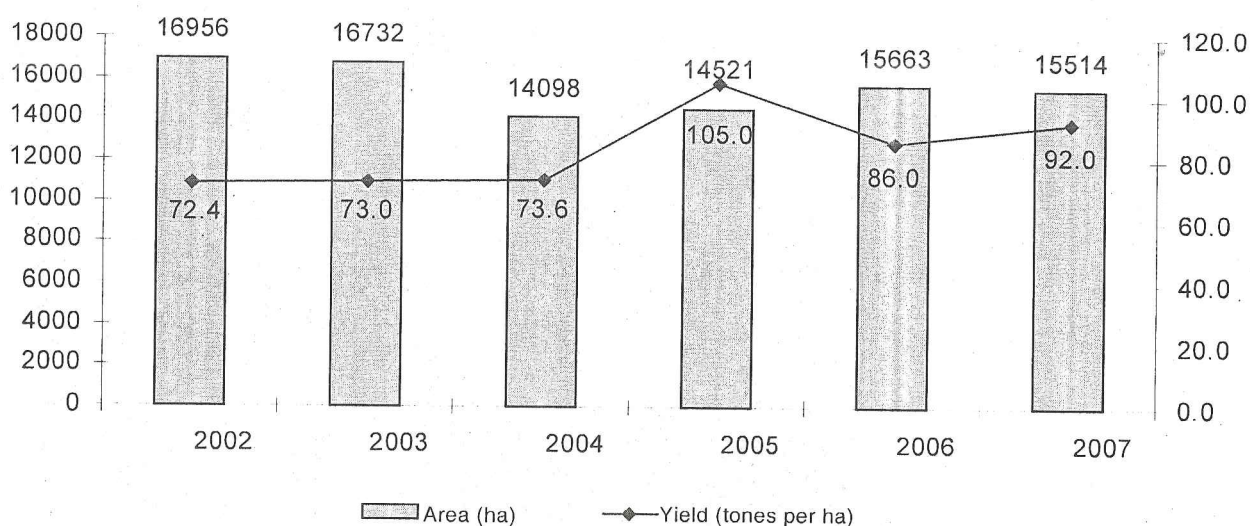
Phụng Hiệp and Long Mỹ Districts, along with Vị Thanh and Ngã Bảy towns are selected as target areas because they account for some 90% of sugar cane area in Hậu Giang Province, and house traditional sugar cane planters who can be seen as representative for this class of peasants.

### b. Data collecting process:

- First-hand data: By random and stratified sampling method, researchers carry out a survey of 120 sugar cane producing households and 10 traders of sugar cane.

- Secondary data: Researchers gather 2007 reports and statistics from agricultural authorities of various levels, Hậu Giang Agricultural Extension Center, the 2007 Statistical Yearbook published by

Figure 1: Sugar cane area and yield in 2002- 07



Hậu Giang authority, and sugar companies in Hậu Giang. Opinions and estimates by experts and managers in related fields are gathered by semi-structured interviews.

*c. Data processing method:*

Researchers use the confidence interval estimates to determine reliability of data about sugar cane production and consumption in Hậu Giang. Team discussions and experts' opinions are used for estimating advantages and difficulties in production and consumption of sugar cane, which serves as a basis for suggestions on cooperation of the four parties in developing the sugar cane producing zone in Hậu Giang.

### 3. Results and discussions

a. Sugar cane area and yield in Hậu Giang from 2002 to 2007: The production of sugar cane in Hậu Giang experienced wide fluctuations in the years 2002 -2007, the sugar cane, however, is still considered as one of staple products that bring about sources of income for peasants. From 2002 to 2004, the average yield increased slightly and it rose considerably in 2005, reaching 105 tonnes a hectare. It fell drastically by 19 tonnes per hectare in 2006 and rose 6 tonnes in 2006. Sudden increases in the yield in 2005 came from the fact that the climatic conditions were favorable and many new strains were put in use. On the other hand, the fall in the yield in 2006 was caused by unfavorable climatic conditions (rains, storms, and floods, etc.).

The sugar cane area in Hậu Giang in those years only changed slightly but fluctuations in the average yield led to sea changes in the supply of sugar cane as raw materials for sugar factories in Hậu Giang and neighboring provinces.

*b. Distribution of sugar cane as raw materials in Hậu Giang:*

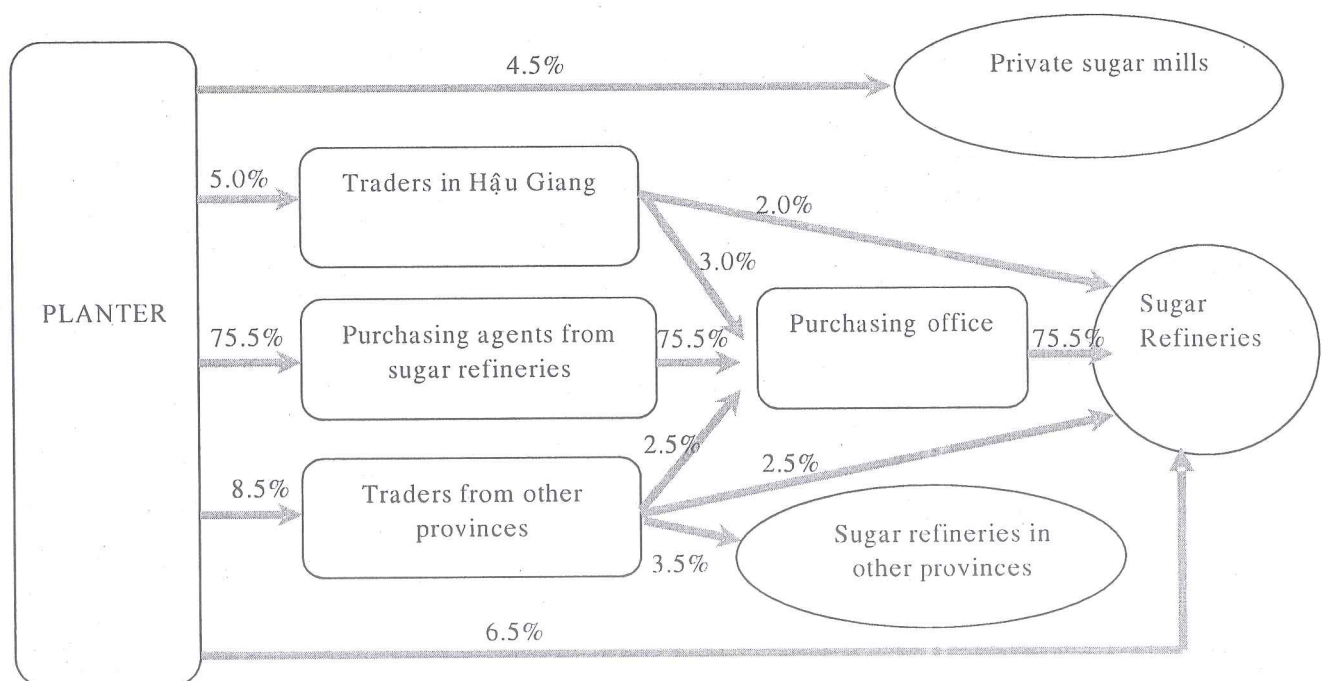
Collected data show that planters sell most of their produce to purchasing agents from local sugar refineries and the rest to agents from other provinces; private traders; local small sugar mills. Some of them sell produce directly to sugar refineries in Hậu Giang. Traders from other provinces, after purchasing sugar cane, usually resell it to purchasing agents of sugar refineries in Hậu Giang or the ones in neighboring provinces in the Mekong Delta. As for small private traders, they usually sell what they have bought to purchasing agents of sugar refineries in Hậu Giang.

*c. Advantages of production and consumption of sugar cane in Hậu Giang:*

In recent years, the production of sugar cane in Hhậu Giang has been supported by related authorities and parties.

(1) Government: Decision 80. TTg on encouragement to consumption of farm products through contracts to buy was made by the PM on June 24, 2002 with a view to reducing risks for peasants. This reflects full attention paid by the State to living standard of rural residents.

Figure 2: Distribution channels of sugar cane in Hậu Giang





The provincial government has also made planning for specialized zones and invested in scientific researches aiming at improving the yield and output of agricultural production in order to enhance competitiveness of farm products from Hậu Giang.

Rural infrastructure, especially road network, has been upgraded in order to facilitate transport and distribution of farm products.

(2) Sugar refineries: Sugar refineries in Hậu Giang exchange contracts to sell with sugar cane planters every year. These contracts usually cover some 70% of sugar cane area of the province. In addition, at the beginning of the sugar cane crop, Casuco (Cần Thơ Sugar Company) usually provides technical assistance and new strains of high yield and quality for planters. At times when the company can't purchase the whole output just after harvest time, it usually issues cards of priority to planters whose sugar cane fields are in blossom with a view to ensuring freedom from losses for planters.

(3) Scientists: Research centers produced every year new strains of higher yield and quality that are more suitable to local climatic conditions and requires less labor, such as ROC 16, ROC 22, QĐ 11, VNĐ 86- 368, VN 4137 and ROC 75. These strains are very popular in Hậu Giang.

(4) Planters: Many of them have tried their best to absorb new knowledge and techniques of sugar cane farming. Technical advances have been applied broadly. Many of them engage in contracts to sell every year, thereby helping implement the Decision 80 TTg of the PM.

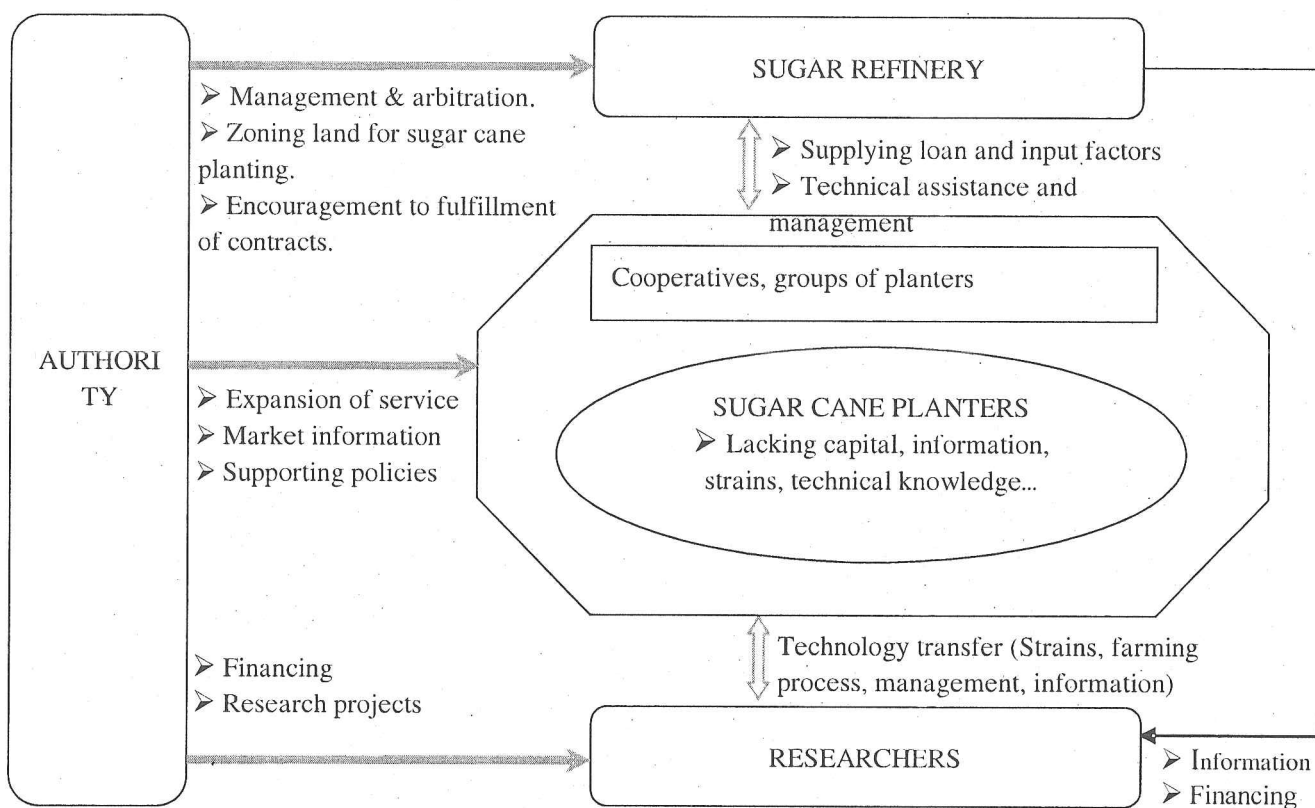
*d. Difficulties in production and consumption of sugar cane in Hậu Giang:*

- Dikes surrounding sugar cane planting zones are not complete with the result that sugar cane in many fields needs harvest before floods or planters should sell their produce at low prices right after the harvest for fear of damage cause by the flood.

- The yield and quality of sugar cane are still low. Old high-yield strains get degraded gradually and lead to poorer performance. Importing and transferring new strains, or creating strains appropriate to local natural conditions are slow. Intensive farming and mechanization are not widespread because planters are slow to apply technical advances. Harvest and transport of produce are not mechanized, which makes the production cost higher.

- Expenses on input factors are high. Sugar refineries and local authorities fail to provide timely support and adopt bold policies to develop the sugar cane production in Hậu Giang.

**Figure 3: Cooperation of the four parties in developing the sugar cane producing zones**





- Due to mass migration of labor from rural to urban areas, the sugar cane production lack labor, especially during harvest time, and labor cost becomes higher. This difficulty is more serious in the coming years.

- Sale of sugar cane is not favorable for planters. Most planters have to sell their produce to traders at their fields instead of bringing it to sugar refineries. Cooperation between sugar refineries and planters is not intensified by contracts to sell with the result that planters get no bonus for good implementation of the contract while traders can gain such bonuses from the sugar refineries. Presence of traders and purchasing office also makes the intermediary cost higher, which cuts profit for planters and increase expenses on input factors of the refineries.

- Cooperation between agents of sugar refineries in the purchasing office in the Mekong Delta is not good enough. In spite of instructions from local authorities and associations of sugar producers, unfair competition still takes place and there are no prospects of long-term cooperation between refineries. There is no rule that allocates or divides sugar cane producing zones between sugar refineries with the result that no refineries want to make investment in the zones.

- Contraband sugar floods the domestic market at low prices, especially through the western border to the Mekong Delta, which may affect unfavorably the price and output of sugar produced in Hậu Giang if no strong measures are taken by provincial authorities.

#### **4. Developing the sugar cane producing zones based on cooperation between the four parties**

##### *a. Parties in the model:*

- Authority: In this model, the authority acts as an coordinator and provides support, introduces suitable policies and settle disputes arising from implementation of policies, and at the same time, encourage other parties to take part in the model in the most effective way.

In Hậu Giang Province, the role of authority is shown in the following tasks: zoning areas for sugar cane growing, upgrading rural infrastructure, supplying services needed by sugar refineries and sugar cane planters, providing forecast of weather and crop diseases, financing research and technology transferring projects, and asking scientists to solve problems arising from the sugar cane production. In addition, the authority can help settle disputes arising from performance of contracts and

introduce policies to encourage performance of contracts in an optimal manner.

- Scientists: The role of scientists in agricultural production is to help peasants produce goods at reasonable cost and reduce losses during and after harvest with a view to increasing their income. When peasants have to share their meager profit with suppliers of materials and services and other middlepersons in distribution network, experience and knowledge of scientists is very important to improvements in efficiency of production of farm products. Of course, the scientists need support from authorities to perform well their role.

In such a condition, scientists should research and develop new strains that bring about high yield and high-quality products and resist effectively diseases and pests, thereby ensuring good performance for peasants. Transferring process of growing high-quality sugar cane, train them in ways of managing their farms, cooperatives or supportive groups are some measures to achieve the said aim, and at the same time, develop a bridge between sugar cane planters and market.

- Sugar refineries: Sugar refineries in this model include companies that make sugar from sugar cane in Hậu Giang. They play the most important role in consumption of sugar cane in the provinces through contract to sell signed with planters. With scientists, sugar refineries had better supply necessary information and finance research projects that aim at improving sugar yield and output.

In this model, the sugar refineries have close relations with planters their annual contracts. They can provide planters with capital, input factors, and training courses in farming techniques and managerial skills in order to help planters gain better performance and efficiency.

- Cooperatives and supportive groups of planters: They can develop and invest in facilities and machines, improve managerial skills for officials of cooperatives, provide training courses in marketing, beef up confidence of sugar cane planters, and act as a bridge between planters and sugar refineries.

- Sugar cane planters: They are principal members of the model. They are sellers, buyers and recipients of both benefits and losses brought about by operations of the model. They should update market information, take part in supportive groups and cooperatives, try to meet standards introduced by experts, perform well signed contracts and enhance their knowledge of sugar cane growing business.



*b. Strengths and weaknesses of the model:*

- Strengths:

+ The model can make the best use of existing advantages of sugar refineries in supplying farming materials and services to planters at reasonable costs for mutual benefit. In addition, by performing contracts to sell, quantity, quality and price of farming materials will be stable in the whole season, which facilitates calculations of production cost and selling price for the crop.

+ Both planters and refineries feel sure about capital and raw materials for the whole season along with technical assistance from scientists, which makes the production and processing of sugar more effective.

- Weaknesses: The main weakness is uncertainty of performance of contracts to sell because many factors can prevent the two parties from performing properly their contracts. It's difficult to ensure benefit for both parties. Moreover, there should be sanctions allowed by law otherwise both planters and refineries can breach the contract for their own benefits.

*c. Risks in the model and measures to deal with them:*

- Risk in production of sugar by planters: Sugar cane, like other crops, is affected by many factors, such as weather, diseases, pests, strains, and farming techniques, etc. Bad harvests are always possible, which makes the model end in failure.

- Risk in sale of sugar by refineries: This risk is very likely when the refinery taking part in the model can make products that satisfy the market

demand or compete effectively against other rivals, especially when Vietnam is integrating into the world economy and the domestic market should be open to foreign goods.

- The third risk is breaches of contract, or the contract can't be performed because of various reasons.

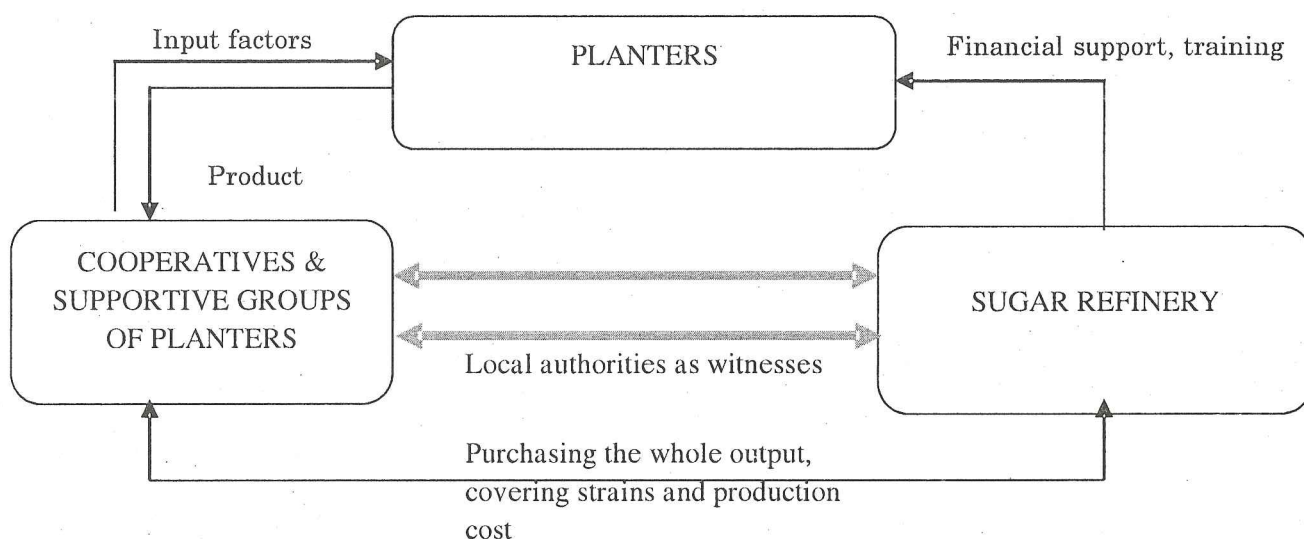
To limit possibility of this risk, the sugar refinery can apply the model "multilateral and intermediary cooperation" as shown in the following figure.

This model is very common in Thailand and other Southeast Asian countries. Sugar refineries enter into contract to sell with cooperatives or supportive groups of planters. Local authorities provide advisory services and act as witnesses of the contract. The contract requires the refineries to supply young plants, technical assistance and capital, and agree to buy the produce if it has required quality. Cooperatives receive input factors and agree to deliver timely the product with agreed upon quality. The price is agreed upon by both parties. And they can discuss and reach settlement of any changes or adjustments to the contract. If a breach of contract takes place, the violator should pay compensations for losses according to law on contracts. We can deal with risks in the model in the following cases:

+ Contract illegally invalidated: In this case, the authority must play well its role as a coordinator and intermediary between the two parties. Set of measures taken should aim at both preventing and handling violation properly.

(1) Disseminating knowledge of legal issues among parties engaging in the model, and helping

**Figure 4: Model of multilateral and intermediary cooperation in ensuring performance of contract**





them realize benefits from the contract and losses caused by violations.

(2) Enhancing awareness of planters to help them understand and prepare the contract, or forming an advisory service that helps planters prepare the contract in order to avoid risky clauses when implementing them.

(3) Linking dissemination of knowledge with effective sanctions to help the public realize the need to work according to law as a civilized behavior.

(4) Local authorities must act as intermediaries who can offer basic, fair and timely solutions based on law to ensure validity of the contract. Moreover, banking institutions must be protected by allowing them to take lawful measures to retrieve their capital if need be.

(5) Local authorities must work out measures within their power to help refineries and planters to deal with unexpected incidents.

+ Bad harvest: Causes of bad harvest must be identified in order to work out timely and suitable solutions:

(1) If the bad harvest comes from subjective causes, such as the use of bad strains or young plants, and wrong farming techniques, the planters must suffer losses and pay compensations. Local authorities can help reduce damage by cutting taxes and financial obligations, asking for prolonged terms of repayment of debt, or requiring renewal of the contract for the next crop with a view to helping planters and refineries to repair damage.

(2) If the bad harvest is caused by forces majeure, the two parties can discuss adjustments to the contract in order to deal with consequences. The settlement also includes the same measures taken by local authorities as in the above case. Of course, all parties in the model (authority, banks, refineries and planters) must share the losses.

+ Failure to market sugar by refineries: In this case, the refinery will suffer all losses but it may affect the next crop of planters, and possibility of retrieving debt by banks and ensuring budget income by local authorities.

Preventive measures, therefore, can't be carried out separately and temporarily, and the case requires efforts from all parties in a longer period, such as enhancing business performance of the refinery in terms of management, marketing campaigns and negotiating skills, etc.; and collecting information about market demand, market prices, taste of consumers, product quality, etc.

## 5. Conclusion

Generally, the production of sugar in Hậu Giang is still a principal source of income for peasants. The sugar cane is still a staple product of the province and affects directly the personal income of peasants. The production and consumption of sugar cane, however, is still unruly. Only a small proportion of planters enter into contract with refineries with the result that many planters meet with difficulties in selling their produce. We see that the main cause of wide fluctuations in the supply of sugar cane as a raw material is the poor relation between related parties. The model of cooperation between the four parties in developing a reliable supply of sugar cane in Hậu Giang could be seen as an effective solution to the problem in Hậu Giang, and other provinces in the Mekong Delta as well, in the coming years. ■

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