



# Culture-based agricultural development model in dragen village, Jaten subdistrict, Karanganyar regency

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## ABSTRACT

**Background:** Agriculture plays an important role in a country's economic development. However, the agricultural sector often faces challenges in sustainable development. This research aims to identify the potential and factors causing agricultural problems and analyse structural transformation in Dagen Village, Karanganyar Regency. **Methods:** The research method used a descriptive approach with data collection through interviews and literature studies. **Results:** The results showed that Dagen Village has great agricultural potential, but the lack of community interest in the agricultural sector and farmers' lack of knowledge about modern agricultural techniques are the main obstacles in utilising this potential. In addition, structural transformation is also occurring in Dagen Village, where there is a shift from the traditional agricultural sector to the modern economic sector. **Findings:** The importance of paying attention to cultural aspects in agricultural development and structural transformation is also highlighted in this study, as culture plays a role in shaping people's mindset and behaviour towards agriculture and economic development. **Conclusion:** Thus, this research provides insight into the importance of integration between aspects of culture, agriculture, and economic development in the context of rural development.

**KEYWORDS:** agriculture; community interest; culture; economic development.

## 1. Introduction

Agriculture is the main sector that produces food and industrial materials that can be processed into clothing, food, and shelter that can be consumed and traded, therefore agricultural development is part of economic development. The agribusiness sector in rural areas is the potential of the village which until now is still perceived as a sector of the people's economy with bright prospects for further development, both to strengthen the people's economy in rural areas, as well as a mainstay in foreign exchange earnings. The potential of the village lies not only in its natural aspects, but also in the local wisdom and traditions or way of life inherent in the community which is influenced by the natural conditions of the village area itself (Soleh, 2017). Increasing the income of farming communities in rural areas not only involves the development of production systems and agribusiness, but also considers local wisdom and cultural values that have proven to be

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strong social capital in supporting economic development. This will increase community productivity and ultimately increase community income (Harahap et al., 2020).

Agricultural development is a process aimed at always increasing the quantity and quality of agriculture in the form of additional agricultural production for consumers. The goal of agricultural development is to increase agricultural production and increase farmers' income. However, in reality, many problems in the agricultural sector hinder agricultural development itself. Agricultural problems in Indonesia are caused by agricultural policies that focus more on increasing agricultural production and pay less attention to the quality of life of farmers. The low quality of life of farmers also affects the quality of human resources who are less skilled, the lack of socialisation and training from the government in pest management in plants and when plants do not grow well, it reduces the productivity of farmers (Prayitno et al., 2020).

The development of the agricultural model itself is carried out as a guide or guideline in agricultural development efforts, by understanding the agricultural development model can develop and implement economic development as a whole. The development of the agricultural model does not only refer to technical and economic aspects alone, but must also consider cultural factors. Economic development is always characterised by structural transformation as a change in the structure of the economy from traditional sectors that have low productivity to economic sectors with high productivity. The expected structural transformation in agricultural development requires a deep understanding of local culture and traditional wisdom, because this also affects the way people adapt to economic change (Romli et al., 2016). Structural transformation in effective agricultural development requires good integration between economic, social and cultural factors (Vaulina and Elida, 2014). The formation of strategies carried out by applying appropriate agricultural development models based on agricultural problems allows the optimisation of agricultural and economic development. The agricultural sector supports the industrial sector or vice versa, the industrial sector supports the agricultural sector, the important thing is that there are linkages or dependencies on each other (Rachman, 2017). The linkages between the agricultural sector and local culture create opportunities to strengthen social capital and build rural economic sustainability. Sustainable development models that integrate local wisdom and natural resource conservation, agricultural development can be a driving force for economic progress and environmental sustainability (Fadlina et al., 2013).

Agricultural activities are located in rural areas, so agricultural and rural development can run simultaneously. In addition, agriculture rooted in the countryside provides an opportunity to explore and strengthen local cultural heritage and traditions. The added value of agriculture must be enjoyed by farmers so that their lives become better and the production process continues. Farmers are increasingly empowered because their activities are no longer subsistence but become more advanced. Based on this, this research was conducted to not only identify the potential and factors causing agricultural problems, but also to understand the role of culture in structural transformation in Dagen village.

## **2. Methods**

### *2.2 Study Area*

The method of determining the location carried out in this study is using the purposive method. The location of the practicum was carried out in Dagen Village, Jaten District, Karanganyar Regency. The consideration for choosing this location is because there is a very structured village management so that it is in accordance with the learning that students will learn in the village development model material.

### *2.3 Data collection and analysis*

Data collection was conducted through interview techniques using a prepared list of questions and literature study techniques by retrieving data through existing reference sources. Primary data was generated through interviews with village officials directly using a list of questions (questionnaires) that had been prepared. In this study, primary data was obtained directly from village officials in Dagen Village, Jaten Subdistrict, Karanganyar Regency. Secondary data was obtained from institutions or agencies related to research such as village offices, BPP, BPS, books or journals and so on. In this study, secondary data were obtained from data in the Dagen Village Office, books, and journals related to the research. The data analysis method used is the descriptive method. On certain issues, students can write and describe more deeply and comprehensively, therefore students are advised to explore and collect deeper and more detailed data through indepth interviews.

### 3. Results and Discussion

#### *3.1 Potential, problems, and the role of culture in Dagen village, Jaten subdistrict, Karanganyar regency*

The potential of a village is not only limited to natural and physical resources, but also involves cultural heritage and local wisdom that become social capital for community progress. Village resources include natural resources or human resources in the form of physical and non-physical potential. Physical potential includes villagers, land, water, climate, and livestock, while non-physical potential includes a culture of gotong royong, institutions, organisations, and village apparatus. All potential must be utilised and allocated for the sustainability and development of the village. Each village has different potentials because there are differences in topography, geography, and rainfall. The process of implementing the utilisation of potential is inseparable from the obstacles that occur which cause obstruction to the process of village potential.

Dagen Village, Jaten Subdistrict, Karanganyar Regency has an area of 283,505 ha, of which the majority is rice fields, 140,475 ha are rice fields with technical irrigation, 17,392 are bengkok land, and 2,940 are village cash rice fields. The potential agricultural land owned by Dagen Village can be utilised for agricultural activities that will produce food for the community and will help the daily economic process. The abundant potential of agricultural land can be a driving force for the economy and environmental sustainability, however, challenges hinder the optimisation of this potential.

One of the problems faced by Dagen Village is the lack of effective allocation of potential. Dagen Village has a problem behind its potential, namely the lack of effective allocation of the potential of their area. The vast rice fields require a lot of labour to cultivate, but the people of Dagen Village prefer to work outside the agricultural sector, especially since there are production factories in the Dagen Village area. The lack of interest in agriculture has become the village's problem area, as the community believes that jobs outside the agricultural sector are more promising in terms of the economy. Despite having a large area of agricultural land, the community tends to switch to the non-agricultural sector, especially with the presence of production factories in the area. This shows the community's low interest in agriculture, which is largely due to the perception that jobs outside the agricultural sector are more economically promising. The role of culture in this case is important, as local culture and traditions can influence people's mindset and behaviour towards occupational choices and land use.

Another cause is that land that has been planted does not always provide optimal results. This will cause many rice fields in Dagen Village to be left unplanted or even sold because the land that is sold is not sold because of the problems that occur and replace the land with houses and industrial buildings. Farmers' lack of knowledge about modern farming practices and the control of pests, weeds and plant diseases is also an obstacle in maximising agricultural yields. An understanding of local wisdom and traditional culture can help farmers overcome these challenges by utilising hereditary knowledge to

sustainably manage crops and natural resources. The role of culture not only influences practical approaches to agriculture, but also has the potential to be a source of innovation and solutions to complex problems. The integration of local knowledge, modern technology and sustainable agricultural practices can help Dagen Village optimise its agricultural potential while maintaining its rich and unique cultural heritage. Therefore, successful agricultural development efforts must take into account the role of culture as an integral part of rural economic and social development strategies.

### *3.2 Structural transformation and the role of culture in Dagen village, Jaten subdistrict, Karanganyar regency*

Structural transformation is a process that occurs in the transition period from a traditional economic system to a modern economic system. This process will result in an increase in income which will lead to an increase in the accumulation of physical capital and the quality of human resources, besides that there will be a shift in the composition of trade demand for the use of labour and production. Structural transformation is not determined by an increase in income alone but by an improvement in income distribution. An increase in the income of the low-income group will increase the demand for goods and services produced in the labour-intensive sector in the country so that it will encourage economic growth. The goal of structural transformation is to increase the role of the people's economy, which is reflected by the increasing role of the productive economy that will ensure income distribution.

Structural transformation in Dagen Village reflects a change from a traditional to a modern economic system. This process involves not only increasing income and accumulating physical capital, but also taking into account the role of culture in shaping the economic and social patterns of the community. By considering local wisdom and cultural values, structural transformation can become more inclusive and sustainable.

The management structure of Dagen Village is led by the village head who has a leadership period of 5 years, and can be held for 2 times. Dagen Village has five hamlets and each hamlet is led by a hamlet head. The management structure of Dagen Village, which consists of the village head and hamlet heads, reflects well-organised governance in the face of economic change. The management will also be adjusted to the needs of the population, and is expected to be able to optimally solve village problems. There has been a shift in the economic sector from agriculture to modern, industry or services forming GRDP and labour. The shift of the economic sector from agriculture to the modern sector also affects the social and cultural dynamics of the community. The change in value-added that occurred was also due to the increase in population in the village. This is also closely related to the level of consumption of village products, especially food where the population level will illustrate market size and economies of scale. Per capita income also affects the added value of the population. Changes in value-added and population increase in villages are also closely related to consumption patterns and local market needs, which are also influenced by local culture and traditions.

The importance of taking into account the role of culture in structural transformation can be seen in the way the Dagen community has adapted to economic change. The integration of traditional farming practices with modern technologies and new innovations can help maintain cultural heritage while increasing people's economic productivity and income. These changes also raise questions about income distribution and social justice. Successful structural transformation is one that increases the economic role of the people and ensures equitable income distribution, in line with cultural values that prioritise togetherness and justice. Thus, structural transformation in Dagen Village is not only about economic change, but also about how the community can maintain and enrich their cultural heritage while moving forward in facing the challenges and opportunities of modern and sustainable economic development.

## 4. Conclusions

After conducting research in the form of interviews, data was obtained that half of the land area of Dagen Village is rice fields. The large amount of paddy fields means that Dagen Village has the potential to fulfil the food needs of its own community and can even create jobs in the agricultural sector. The potential of Desa Dagen cannot be utilised optimally because the community lacks interest in working in the agricultural sector and chooses to work outside the agricultural sector. The importance of considering cultural factors in the development of agriculture in Dagen Village becomes very apparent. Local culture, traditional values, and local wisdom can be a source of inspiration and solutions to overcome the challenges of increasing community participation in the agricultural sector. Increased awareness of cultural values and environmental sustainability can be an impetus for the community to re-appreciate and engage in sustainable agricultural practices.

Successful development is always directly proportional to structural transformation. Structural changes in Dagen Village make changes in the economic system from the agricultural sector to a modern one that takes into account the integration between economic, social and cultural aspects. The desired structural transformation should include people's economic empowerment based on local wisdom, so that agriculture remains the backbone of the village economy while maintaining and strengthening the existing cultural heritage.

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The authors declare no conflict of interest.

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