



Evaluation of Vegetable Farming Systems for Competitiveness in Upland Areas of Indonesia



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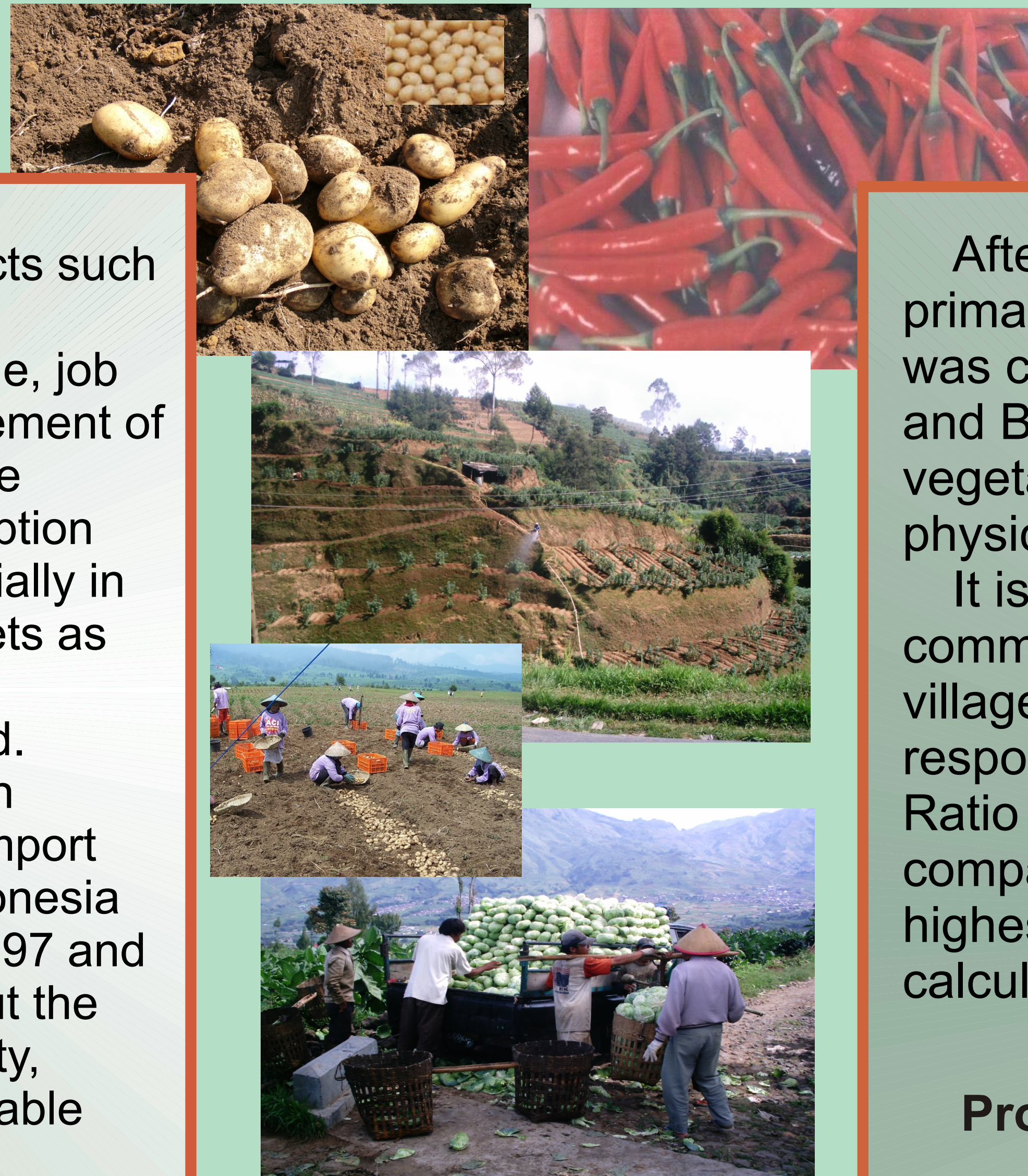
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Introduction

Vegetable productions in Indonesia are concentrated in upland areas. Main products such as cabbage, potato, carrot, and chilli, have important roles as source of farmer's income, job opportunity, poverty alleviation and improvement of food security. The big potential of vegetable production is based on the current consumption rate, increasing domestic population especially in urban areas and exporting to abroad markets as well. These phenomena attract these commodities to be developed and extended.

However, the fact of vegetable markets in Indonesia generally were that export and import volume high fluctuate, especially since Indonesia was attacked by multidimension crisis in 1997 and 1998. This study was focused on to find out the appropriate vegetables regarding profitability, sustainability and competitiveness of vegetable farming systems.

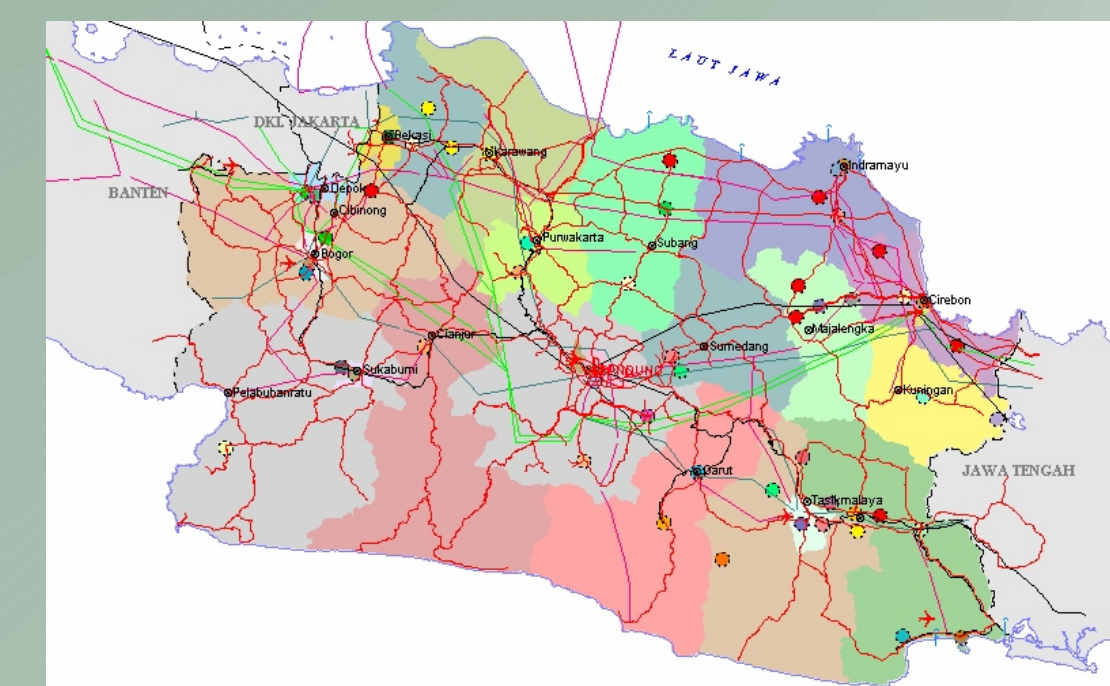


Method

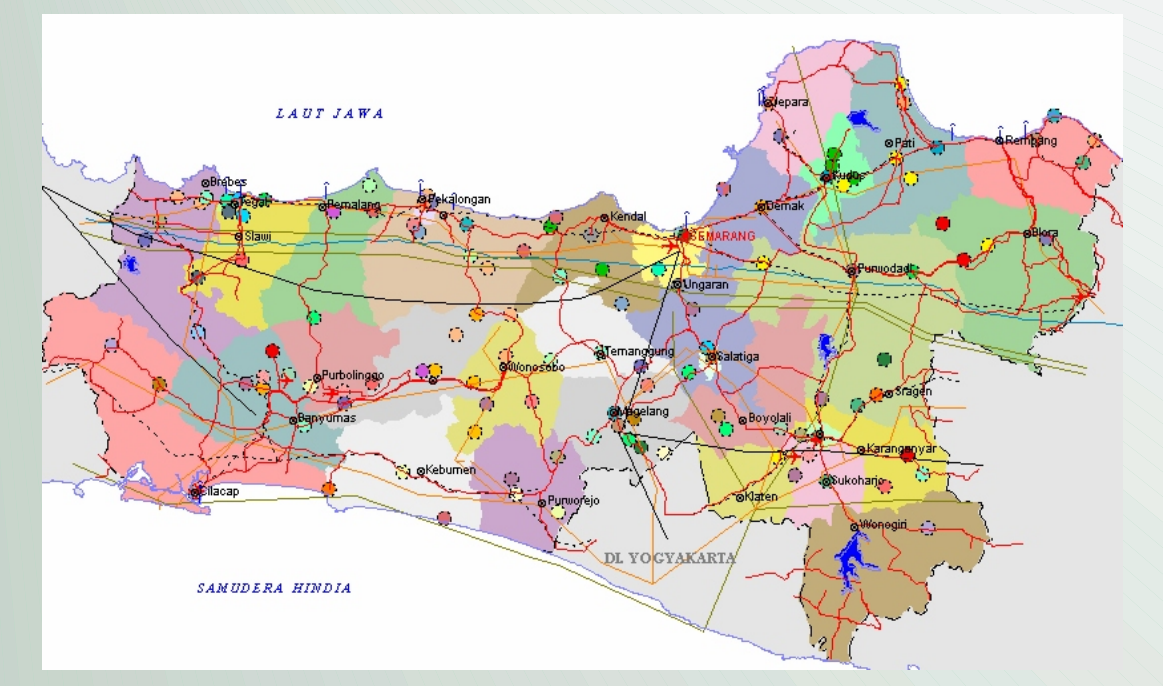
After seeking the literature, it was necessary to collect primary data in the investigated regions. This data collection was carried out in three upland areas in Pangalengan, Keajar and Berastagi by analyzing two villages in each with main vegetable producer in order to characterize the typical physical condition of agroecology.

It is then applied a respondent classification based on commodity on these two villages in each region. In each village 25 respondents were interviewed. The number of all respondents in all regions is 150 farmers. The Private Cost Ratio for competitive advantage, Domestic Resource Cost for comparative advantage, and Analytical Hierarchy Process for highest priority product were used in this study, especially for calculation of economical value.

Production Center of Vegetables



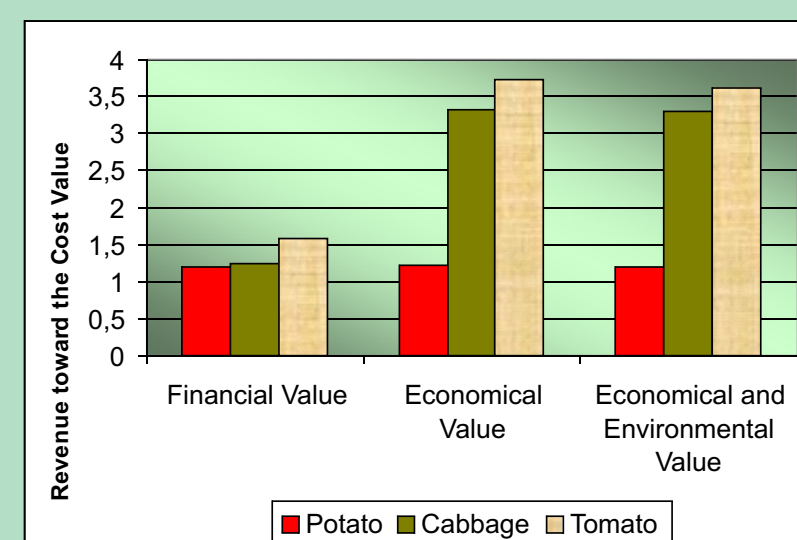
West Java



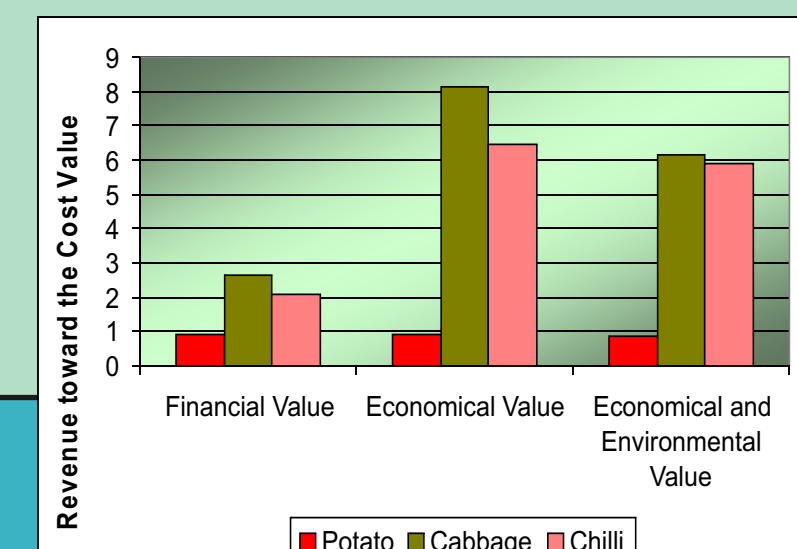
Central Java

Result and Discussion

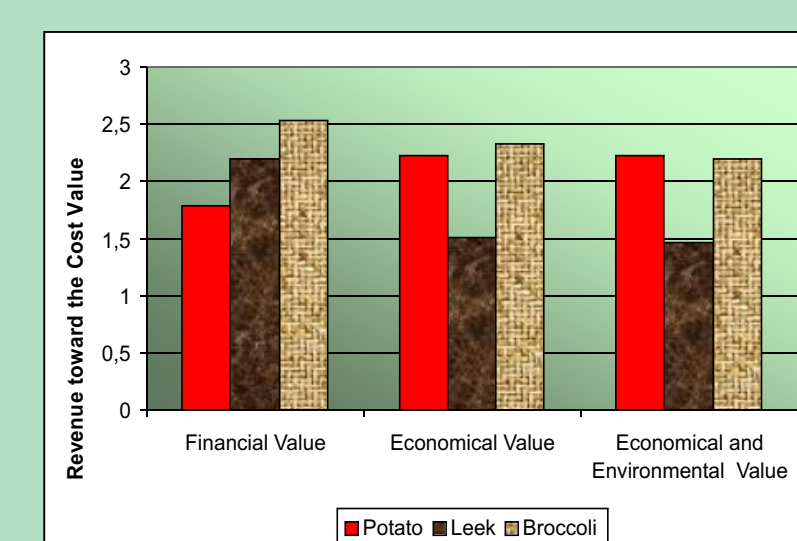
Profitability Analysis of Vegetable Farming System



Pangalengan



Keajar

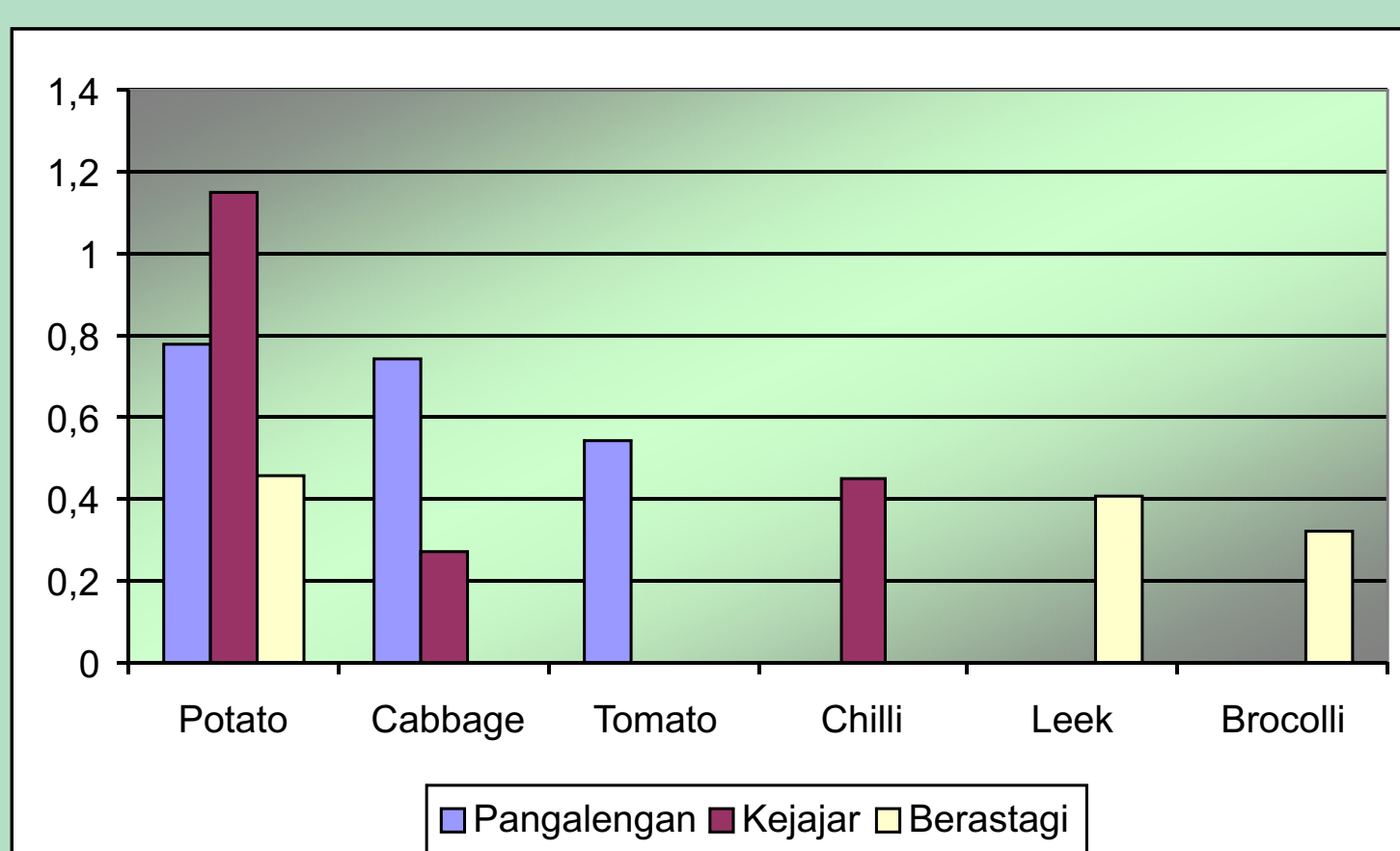


Berastagi

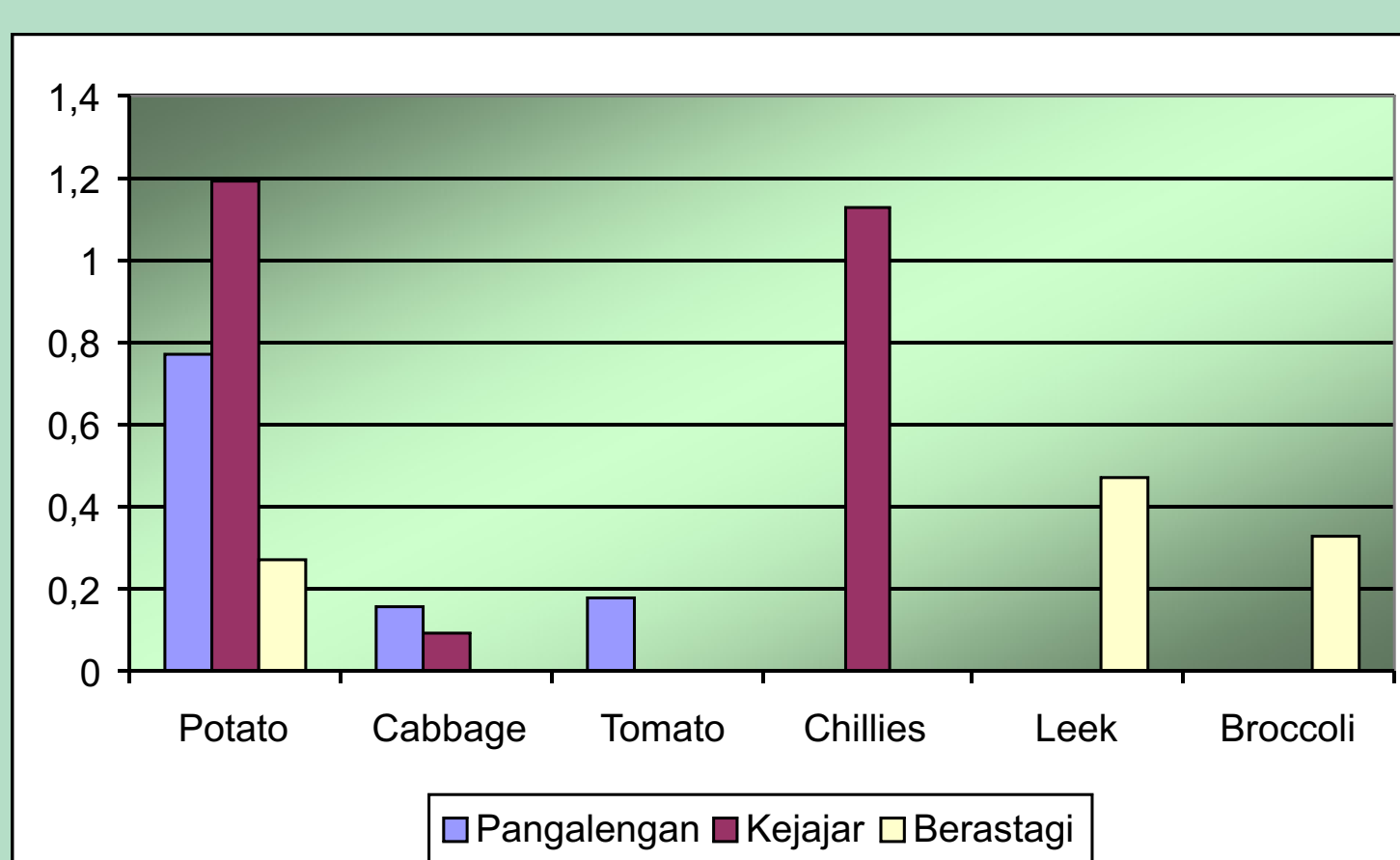
Revenue toward the Cost Value for 3 Different Locations and Commodities

This research shows that VFS in upland areas of Indonesia is profitable, especially for potato in Pangalengan and in Berastagi, cabbage, tomato, broccoli, chilli, leek and carrot, but not for potato in Keajar. Most of vegetable products have also comparative and competitive advantages, except potato in Keajar. Social and economic analysis of all vegetable farming systems can be sustainable.

In sustainability perspective, there is a big problem of erosion especially in Keajar. It can be solved by the government intervention. Based on profitability aspect and sustainability perspective, the highest priority product to be cultivated in upland area is potato especially if it is combined by other commodities.



Private Cost Ratio Value of Vegetable Commodities



Domestic Resource Cost Value of Vegetable Commodities

Conclusion

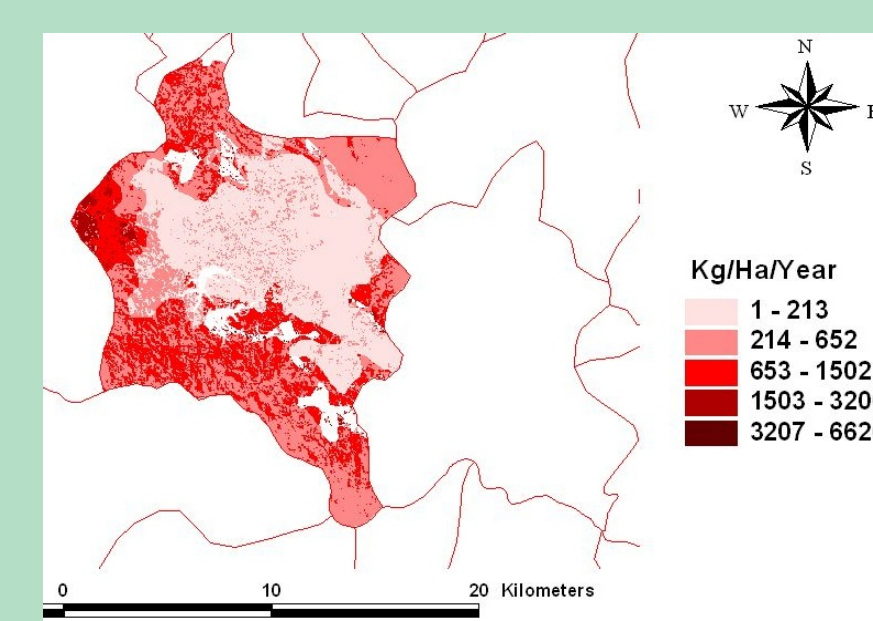
Vegetable farming system in the three investigated regions are different. It can be seen from :

1. The variety of vegetable crops which are planted.
2. The different value of profitability, competitive and comparative advantages for potato.
3. And the different value of erosion, whereas Keajar has the highest erosion level.

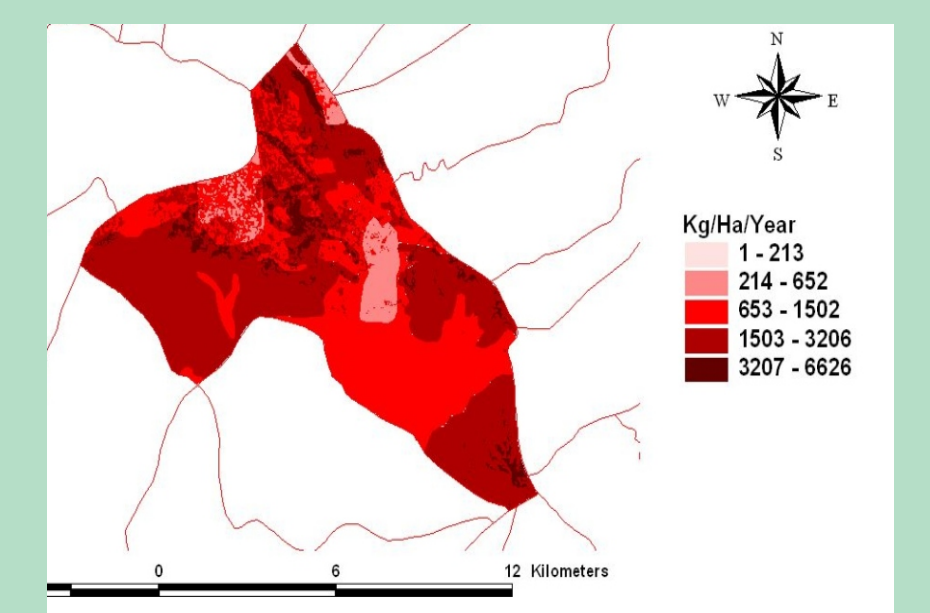
Therefore it can be concluded that Potato represented most valuable commodity, because it was planted in three regions and their competitiveness based on economical, social, environmental profitability, competitive and comparative advantages. The results were not so good for growing of potatoes in Keajar. It can be caused from the high level of erosion.

Some tools are necessary to be developed by the government which makes the decision in order to solve the problem and to support the development of vegetables farming system in upland areas, e.g. technical assistance, improving the quality and safety standards of products, developing competitive agribusiness areas, especially for potato and cabbage as export and import substitution products based on the agro ecosystem advantage or infra structural in each region.

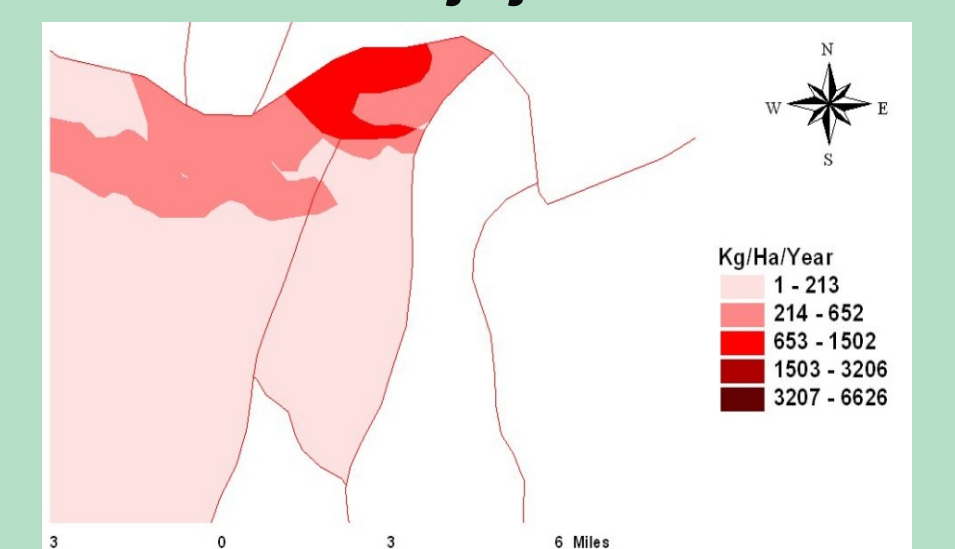
Erosion Value



Pangalengan



Keajar



Berastagi

Acknowledgment

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