

Sustainable Development of Highland Agriculture in the Philippines: A Study of Vegetable and Production Systems in Benguet and Laguna Provinces

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The study was conducted to analyze the actual conditions and performance of vegetable production and marketing in the highlands so as to formulate a sustainable marketing approach to the development of a typical highland area in the Philippines. The study was conducted in Natubleng Village in Buguias, Benguet, a well established production area, and Bukal Village in Nagcarlan which is an emerging highland vegetable producing area in Laguna. A total of 100 farmers (50 farmers in each village) and 52 traders were interviewed for this study.



The results of the study showed that established farms like those in Benguet had earned a higher income than those farmers in Laguna with Benguet farmers earning more than P200,000 as compared to the P10,000 earned by Laguna farmers. Net income stood at P261,050 in Benguet and P35,696 in Laguna. The huge differences in profit in the two study areas reflected different farm sizes, production costs, productivity and price levels. Laguna farmers operated at a loss and vegetable reproduction was made possible only because of remuneration from family labor. Clearly the lack of capital contributed to the problem of producing highland vegetables in both study areas.

The accompanying risk in vegetable production in both sites is high. The variability in profit due to technology was high in Laguna province. The disparity in technology in both areas needs leveling off. Both areas also show that aside from price and technology there are other dominant risk factors such as inclement weather and attack of pests and diseases.

Soil erosion and too much application of agricultural chemicals were found to be the major environmental problems in both study areas. While soil conservation in the form of terracing work for Benguet, in Laguna the slopes have

been cultivated as it is. Agricultural chemicals were particularly used in large quantities in Laguna province and integrated control methods like those in Benguet province are necessary.

The vegetable marketing system in the Philippines was examined and the results showed that there were multiple distribution channels and multistage distributors resulting to large increases in distribution costs. While there are wholesale trading centers for bulking vegetables in Benguet where farmers could bring their produce, the vegetables were sold to financier-wholesalers where they had credit marketing arrangements, to commission agents or other wholesalers in the market. On the other hand, the wholesale market does not exist in Laguna province as it is a new production area and is small scale. Thus most of the marketing margins and profits of the traders reflected their edge in setting the price and increasing their profit.

The result of the analysis of the actual marketing behavior of producers in both study areas showed that the traders were the price givers and this had given rise to their big margins. The big margins were caused by a number of factors. First, the farmers particularly in Laguna lacked price information. Unlike in Benguet where there are trading posts and radio information, Laguna farmers had no other sources of information except their buyers so they were totally reliant on the buyers for price information. The relatively low production capacity in Laguna restricted the competitive activities of traders and the inflow of information and technology. Second, the sold amount is small. Since buyers always seek large volumes, selling a few baskets of vegetables would weaken the farmers' bargaining power. Third, the vegetables were not brought and sold far from the village. The lack of competition in the village due to the presence of few traders only and few good information on price leave the farmers at the mercy of these traders. In both markets, there existed an oligopsonistic market.

The poor road system and absence of storage facilities had resulted to big losses not only at the farm level but also at other levels as well. Without trucks to transport their produce to other markets, farmers were constrained to accept the low prices offered by the traders operating in the Laguna village.

Sixth, the result of the analysis on price fluctuations in the production area of Benguet and consuming buying areas showed that the farm price did not fluctuate severely but its difference from the retail prices as a whole had widened. On a daily basis however, wholesale buying



prices in the wholesale market in Benguet can have wide variation. In spite of the widening margin, Benguet markets are fully integrated with Manila markets. The presence of communication facilities made price transmission easy for the traders conducting business in Benguet and Manila markets.

Based on the results of the above analysis, the challenge for the continuous development of the small scale new production area in Laguna province can be perceived to be addressed by introducing environmental preservation technology and a guaranteed just price. This study points out the importance of group action for small scale producers. The approach is basically the empowerment of highland vegetable farmers to gain access to markets and introduce production and marketing innovations. Access to markets implies the ability of the farmer group to satisfy market demand in terms of correct product, required volume, and the reliability of supply. This necessitates integrating the entire chain from production inputs to primary production to the postharvest and marketing of the crops with the necessary funding support and leadership.

