Executive summary

This report presents the key results of a value chain analysis of Vinh Chau purple shallot. The study was commissioned by the Soc Trang SME project management unit, and forms part of the “Small and Medium sized Enterprise (SME) Development Project in Soc Trang province”. The main objective of the consultancy assignment is to develop a project proposal for the five-year period 2016-2021, containing specific interventions to improve shallot production and sales, resulting in better incomes for the shallot farmers of Vinh Chau.

Such a proposal should be based on a deep understanding of the shallot sector. Because the true experts are the farmers, workers, traders, transporters, processors, and retailers working with shallot every day, they were asked to share their experiences and insights. This report would not have been possible without their active participation and willingness to share information. We combined the information from interviews with publicly available reports and data to provide an overview of the current Vinh Chau shallot production and marketing situation. This report aims to identify market gaps, trends, and the role of the actors in the chain.

To collect all required information, a combination of desk research and field work was used. The methodology is described in detail in Chapter 2. Desk research focused on reviewing information on global shallot production areas, production practices, and processed shallot products and statistics on yield, production costs, prices, and international trade. The field work focused on verifying existing information, filling knowledge gaps, updating, and adding new information. For the field work, Rapid Diagnostic Appraisal (RDA) was used. At its core were individual and group interviews, centred around sixteen core themes. Respondents were triggered to share information by applying a set of interactive tools during the interviews, including cropping calendars, timelines, flow diagrams, and problem- and solution trees.

Interviews were conducted by a multi-disciplinary team of fifteen Fresh Studio consultants, with expertise on the different aspects of the value chain, from production to marketing. This team was supported by local government officers working for the local Plant Protection Department (PPD) or Department of Agriculture and Rural Development (DARD). Interviews were held with farmers, government officials, traders, collectors, wholesalers, exporters, input suppliers, retailers, transporters, processors, and consumers. In total, 242 different actors were interviewed in Soc Trang city, Vinh Chau township, and Ho Chi Minh City.

Background information on shallot and onion species, production, and trading is presented in Chapter 3. It shows that Vinh Chau is the most important producer of purple shallot in Vietnam, but experiences strong and increasing competition from other regions and countries. Indian purple onion in particular is posing a threat, since it is cheap and available year-round. The chapter also provides an overview of the socio-economic situation of Soc Trang province and Vinh Chau township. Income levels are below the national average and poverty levels are particularly high among ethnic minority groups such as the Khmer. The region is low-lying and has a long coastline, making it particularly sensitive to rising sea levels, falling ground water levels, and increasing salinization.

Chapter 4 focuses on shallot farming, including cultivation, harvest, and post-harvest practices. It shows that Vinh Chau is relatively productive in shallot farming, obtaining almost double the yields of the largest shallot producer in Asia: Indonesia. It also explains why, Vinh
Vinh Chau purple shallot cultivation is intensive in its use of labour, water, and agrochemicals. One cong requires almost 70 days of labour per harvest, which is substantial given that one season is only 75-90 days long. Irrigation is intensive both in labour and water. Shallot is irrigated at least once per day, on average receiving 4.5 litre/m² each time, which amounts to 220,000 litres per cong per season or 110 litres per kilogram of shallot. Agrochemical use – fertilizer and crop protection products - has increased sharply over the past decade and is expected to increase further in the future. Decreasing soil organic matter is leading to more (chemical) fertilizer use, and increased pesticide resistance is leading farmers to use higher concentrations of crop protection products.

A separate section is dedicated to farm profitability. This clearly shows why shallot farming is such a popular occupation: it is highly profitable. In only a few months, farmers are able to make a profit of 5.6 to 29 million VND, which is equal to a return of 7% to 36%. However, it is not without risk. Because of the high input use, shallot farming is capital intensive. Farmers need to invest 15 to 24 million VND in cash before they are able to make a return. Farmers have few options to obtain credit. Some input suppliers provide long-term customers with inputs on credit, at a cost. In most cases, however, farmers rely on informal lenders and pay high interest rates.

In addition to cash, farmers also have to invest in seed. This is a hidden cost, since most farmers produce their own seed. Nevertheless, these hidden costs are substantial: seed makes up over 30% of total production costs, making it the second-largest cost after labour. One of the reasons for these high seed cost is low-quality storage. Shrinkage losses can reach 60% during the storage period, in addition to possible detrimental effects on seed quality.

Individuals and organizations who support the shallot sector but do not actively take part in the supply chain by producing or trading shallots are discussed in Chapter 5. This group includes input suppliers, transporters, and the government. Input suppliers are growing in importance and number. In response to increasing pest pressure and pesticide resistance, farmers are increasing their spending on crop protection products. By one estimate, spending on crop protection products increased from 10% of production cost in 1995 to 40% now. Consequently, the number of input suppliers is growing steadily. Farmers rely almost completely on crop management advice given by input suppliers, who expressed a strong need and interest in training courses.

Three types of transporters were identified. First, transporters offering a fee-based service. At the time of interviews, the fee was 400 VND per kg for transport from Vinh Chau to HCMC. Second, traders located in Vinh Chau with their own trucks. All traders have their own trucks, but the size varies between traders. Generally, larger traders own larger trucks. Third, traders located in HCMC who use their own trucks to collect the shallot, either directly from the field or from local collectors and traders.

The provincial government, through the People’s Committee, supports the Vinh Chau shallot sector by making resources available. Budgets get allocated via the Department of Planning and Investment (DOPI). Projects focusing on improvement of the production and post-harvest techniques of shallots are coordinated by the Department of Agriculture and Rural Development (DARD) and the Department of Science and Technology (DOST) and those on trading and promotion through the Department of Industry and Trade (DOIT). An additional channel of support is coordinated by the Small and Medium Enterprise Project office, who are responsible for the projects funded by the Canadian International Development Agency.
On their journey from the field in Vinh Chau to the consumer in Ho Chi Minh city, shallots are bought, processed, and sold by traders, retailers, and processors. Chapter 6 describes this chain of actors in detail, explaining their function and relationship. Traders in Vinh Chau are responsible for collecting shallots from a large number of farmers, sorting them into different quality grades, and selling them in bulk over large distances. Shallots are bought directly from farmers or indirectly via collectors. No contracts are used. In periods of high demand, traders may pay a deposit several weeks before the harvest to claim the crop, but no production coordination takes place. Although traders prefer to sell quickly, some traders do have storage facilities. Only one trader and the cooperative own specialized storage facilities, all other traders use the traditional hanging method and store at ambient temperature.

Most shallots enter Ho Chi Minh city through the wholesale markets of Binh Dien, Thu Duc, and Hoc Mon. Shallots may be purchased based on prior arrangement with a trader in Vinh Chau or spot buying from trucks delivering shallots to the wholesale market without prior arrangement. Traders not based on wholesale markets often own their own farm, retail outlets, or trade into higher value markets. Their volumes are relatively small. No specialized shallot or onion traders were encountered. For most traders, onion is a small share of their total sales, not exceeding 10% and usually much less. Purchasing is based primarily on price which is why most traders only trade Vinh Chau shallot during the main season.

Retail of Vinh Chau shallot for fresh consumption takes place primarily through wet markets. Our estimates suggest wet markets are responsible for 90% of the volume, with most of the remainder being retailed by supermarkets. Yet, the share of supermarkets is growing fast. Although supermarkets may be able to offer higher prices, their quality requirements are also more stringent. Most importantly, supermarkets require traders to be able to deliver a product year-round. Data from one supermarket show that from January to May, Vinh Chau shallots have a sales share of 73%, but for the year as a whole the share is only 23%. If Vinh Chau could be made available year-round - either through off-season production or improved storage – sales could increase by 300%.

The three largest processed products are fried, dried, and frozen shallot. Of these, fried shallot is by far the largest. Unfortunately, processors indicate the variety grown in Vinh Chau is inappropriate for frying, since it contains a lot of moisture and hence becomes too dark and is not crispy. For dried and frozen, Vinh Chau shallot offers more potential. Processors require a steady flow of products year-round to keep their factory running.

Consumer purchasing habits and preferences are the focus of Chapter 7. Shallots are used almost every day by most Vietnamese consumers. The most popular variety is the purple shallot that is grown in Vinh Chau, which is prized for its flavour and distinctive smell. At the same time, most consumers have never heard of Vinh Chau or Soc Trang. Moreover, those consumers who have heard of it have negative associations with the name. Food safety and blindness were frequently mentioned in the consumer focus groups. Another important result was that it is difficult for consumers to distinguish the Indian purple onion from the Vinh Chau purple shallot. Since Indian purple onion is so much cheaper, it seems highly likely that Vinh Chau shallot will lose market share, especially in the wet market, where consumers are most price-sensitive.

Many issues uncovered during the Value Chain Analysis were already known by the Soc Trang provincial government, which supported a range of interventions to support the sector. An overview is provided in Chapter 8. Interventions focused on improving production, better storage solutions, developing alternative market channels for farmers by setting up a...
cooperative, investing into the development of a geographical indication for Vinh Chau shallots to be used in marketing, getting the farmers GlobalGAP certified for more sustainable shallot production and keeping access to the Indonesian export market. Although a formal evaluation of these interventions falls outside of the scope of this report, the effect of some of the interventions was observed during the fieldwork, while the effect of others was remarkably absent. Most notably, the interventions were not integrated in a comprehensive development plan, which should be considered a missed opportunity.

Conclusions and the recommendations following from them are presented in Chapter 9. A distinction was made between market development and production improvement. The current market situation appears bleak. Exports, which used to account for 40% of the traded volume only five years ago, have all but disappeared. Non-tariff barriers from Indonesia, which used to be the biggest export destination, explain a large share of this decrease. This collapse makes the domestic market all the more important. However, even in the domestic market the Vinh Chau shallot is under threat. Especially competition from Indian purple onion is felt, which is sold at wholesale prices for which farmers cannot even produce shallot. More importantly, consumers have difficulty distinguishing it from the Vinh Chau shallot.

At the same time, Vietnamese consumers have a clear preference for the real Vinh Chau shallot, prizing it for its distinctive flavour and smell.

- A marketing and communication strategy should be developed that allows consumers to easily recognize their preferred shallot and explain consumers the story behind the Vinh Chau shallot. Such a communication strategy should not only target consumers but also traditional retailers, supermarkets, and restaurants.

- At the same time, an attempt should be made to obtain access to the Indonesian market. The Soc Trang PPC should strongly urge the Vietnamese Ministry of Trade to negotiate with the Indonesian government, to give Vietnamese farmers a fair market access chance.

Production improvement will be challenging. Vinh Chau shallot farmers are experienced and obtain relatively high yields. Yet, there is plenty of scope for improvement. Use of water, fertilizer, and crop protection products should be reduced to ensure the long-term survival of the sector. This will require an integrated approach, combining soil fertility management with improved irrigation and integrated pest management. The seed system in particular requires attention. An unusually large share of production cost is taken up by seed, yet the quality of the used seed is dubitable at best. Not only the production of seed requires attention, but also its storage. Seed needs to be stored for several months. Under current storage conditions, losses may reach 60%, not only adding to cost but also reducing quality.

- Given the large experience of farmers and their relative high yields, it will be difficult to convince farmers to change their cropping practices. Hence a combination of an experienced shallot production expert and a participatory approach should be used: seeing is believing.

- Improving storage quality is essential, both to reduce seed cost and improve quality as well as to extend the period during which Vinh Chau shallot is available for consumption. Existing solutions should be explored where possible, to speed up trial development.
# Contents

1. General introduction 13  
2. Methodology 16  
3. Background information 23  
4. Shallot production in Vinh Chau 42  
5. Other stakeholders 74  
6. Shallot trading 85  
7. Consumers 103  
8. Previous and ongoing interventions 111  
9. Conclusions and recommendations 117  
10. References 131
List of Tables

Table 1. Fresh Studio team in Vinh Chau township 19
Table 2. Focus topics 20
Table 3. Respondents in Soc Trang Province and Ho Chi Minh City 21
Table 4. Shallot producing areas and seasons in Vietnam 27
Table 5. Agriculture and Aquaculture land use in Soc Trang 32
Table 6. Shallot production seasons in Vinh Chau township 42
Table 7. Farmer characteristics 43
Table 8. Number of farmers per cultivated land category 44
Table 9. Changes in input use over time 46
Table 10. Comparison of shallot fertilization practices 47
Table 11. Frequency of irrigation of the shallot in main season 48
Table 12. Salinity levels in collected water samples. 49
Table 13. Shallot irrigation practices in the main season. 51
Table 14. Pesticide use on shallots in main season 53
Table 15. Average shallot yields per season 57
Table 16. Variation in yield data within a certain season 58
Table 17. Share of main cost items in shallot production costs 59
Table 18. Gross margin main season for Lac Hoa 60
Table 19. Gross margin main season Ward 2 61
Table 20. Gross margin main season Vinh Hai 62
Table 21. Gross margin analysis for shallot seed in Vinh Hai 63
Table 22. Average prices 64
Table 23. Gross margin of shallot in Vinh Hai, Lac Hoa, and Ward 2 64
Table 24. Gross margin analysis for chili pepper in Vinh Hai 65
Table 25. Estimated total revenue from shallot farming in 2016 per farm 67
Table 26. Different farm income scenarios from shallot farming in 2016 (x 1,000,000) 68
Table 27. Common sold pesticides in shallot cultivation according to input suppliers 77
Table 28. Trader cost for 500 tons of shallot 88
Table 29. Shallot prices at the wet market 94
Table 30. Types of shallot sold in supermarkets 96
Table 31. Consumer focus group results 106
Table 32. Intercept interview respondents 107
Table 33. GlobalGAP timeline 111
List of Figures

Figure 1. The Rapid Diagnostic Appraisal Process 17
Figure 2. Focus group discussion with farmers using different RDA tools 18
Figure 3. Allium phylogeny 23
Figure 4. Common onion types 24
Figure 5. World onion and shallot production 25
Figure 6. Shallot production, Vietnam 25
Figure 7. Hai Duong shallot 26
Figure 8. Ly Son and Phan Rang shallots 26
Figure 9. Vietnamese shallot exports 27
Figure 10. Destination countries of Vietnamese onion and shallot exports 28
Figure 11. Onion and shallot imports Indonesia 29
Figure 12. Value of Vietnamese onion and shallot imports 30
Figure 13. Volume (tons) of Vietnamese onions and shallot imports 30
Figure 14. Prices (US$ per ton) of Vietnamese onion and shallot imports 31
Figure 15. Volume, value, and price of imported Indian onions 31
Figure 16. Map of Vinh Chau, Soc Trang province 33
Figure 17. Vinh Chau consumption shallot production area and volume 35
Figure 18. Vinh Chau seed shallot production area and volume 35
Figure 19. The shallot supply chain 40
Figure 20. Number of farmers per cultivated area of land 44
Figure 21. Shallot cropping calendar for main season in Lac Hoa 45
Figure 22. Placement of wells 50
Figure 23. Normal fuel powered (left) and air-lift system powered pump (right) 50
Figure 24. Number of wells and extraction volume by province 52
Figure 25. Vinh Chau Shallot storage practices 54
Figure 26. Storage practice at the Vinh Chau cooperative 55
Figure 27. Farmer income share derived from different crops 66
Figure 28. Farmer income share derived from different activities 67
Figure 29. Problem tree analysis for the “unstable price” issue 69
Figure 30. Problem, effect and solution tree developed by a FFG in Vinh Hai 70
Figure 31. Problem tree made by a shallot trader 71
Figure 32. Problem tree of shallot storage and some ideas for solutions 71
Figure 33. Agrochemical supply chain 75
Figure 34. Role of DOST 81
Figure 35. Two traders - profitability comparison 89
Figure 36. Shallot supply chain Ho Chi Minh city 90
Figure 37. Supply chain onion and shallot 93
Figure 38. Vinh chau and other shallot sales in a supermarket chain 97
Figure 39. Shallot displays in HCMC supermarkets 99
Figure 40. Dried sliced shallots sold in Mega Market 101
Figure 41. Monthly purchasing frequency of shallots 108
Figure 42. Selection criteria Vinh Chau shallot 109
Figure 43. Satisfaction with Vinh Chau shallot 109
Figure 44. Vinh Chau shallot chain 117
For further information, comments or questions about this report kindly contact Fresh Studio:

contact@freshstudio.vn