# GRANT APPLICATION FORM

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| 1. Project title | **Strengthening Vietnamese SPS Capacities for Trade**<br>*- Improving safety and quality of fresh vegetables through the value-chain approach -* |
| 2. Theme 1, 2 and/or 3 | The proposed project covers STDF Themes 1 and 2.<br><br>**Theme 1:** *(SPS capacity evaluation and planning tools, including the need for and implications of international standards and their application)*<br>Market surveys will be conducted to collect information on the market demand on vegetables, quality criteria, the SPS requirements and required volumes in different months of the year. Hereafter the SPS capacity evaluation, including the capacity building needs assessment will be conducted to evaluate the current conditions of the producer groups and the rest of the value chain to meet these requirements. Through these two activities, the gaps between the current condition in Vietnam and the desired condition meeting the international market requirements will be identified. These outputs will be used to develop an effective intervention strategy and training materials for improving quality and safety of fresh vegetables applying the value-chain approach.<br><br>**Theme 2** (: *Capacity building for public/private organisations, notably with respect to market access*)<br>Intensive capacity building will be conducted for both public/private sectors including regulatory agencies, the producer partners and market partners to strengthen national SPS capacities. The proposed project will target improvements in the areas of safety and quality assurance, production practices, and value-chain management of fresh vegetable production. Increased market access to both the domestic and international market for fresh produce will be targeted as one of the outcomes of the project. |
| 3. Starting date | Within 2 months from the project approval date |
| 4. Completion date | The end of the 24$^{th}$ month from the starting date |

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| 5. Requesting organization(s) | **Ministry of Agriculture & Rural Development (MARD)**<br>Dr Bui Ba Bong, Vice Minister<br>*Address:* 2 Ngoc Ha Hanoi<br>*Tel:* (84) 4 845 9671<br>*Fax:* (84) 4 733 0752/ 4 845 4319<br>*E-mail:* omon999@yahoo.com<br><br>Letter of support from MARD is available (attached). |
| 6. Implementing organization(s) | **Local implementation and project ownership:**<br>**Fruit and Vegetable Research Institute (FAVRI)***<br>Dr. Trinh Khac Quang, Director General<br>*Address:* Trau Quy Gia Lam, Hanoi<br>*Tel:* (84) 4 876 5572<br>*Fax:* (84) 4 827 6148<br>*E-mail:* tkquang@gmail.com<br><br>**Other relevant organizations:**<br>**FAO (Food and Agriculture Organization of the United Nations)**<br>Dr. Masami Takeuchi, Food Safety Officer (AGNS)<br>Dr. Pilar Santacoloma, Agricultural Economist (AGFS)<br>*Address:* Viale delle Terme di Caracalla, 00153 Rome Italy<br>*Tel:* (39) 06 570 53076/ 55837<br>*Fax:* (39) 06 570 54593<br>*E-mail*: Masami.Takeuchi@fao.org; Pilar.Santacoloma@fao.org<br><br>**FAO Vietnam Country Office**<br>Mr. Andrew Speedy, FAO Representative in Vietnam<br>Mr. Vu Ngoc Tien, Assistant FAO Representative (Programme)<br>*Address:* 3 Nguyen Gia Thieu Str. Hanoi P.O. Box 63, Hanoi<br>*Tel:* (84) 4 942 4208/ 3239/ 4694<br>*Fax:* (84) 4 942 3257<br>*E-mail:* Tien.Vungoc@fao.org<br><br>* FAVRI is a national research institute under MARD, Vietnam. The letter of support from FAVRI is available (attached). |

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| 7. Project background and rationale | Please see **Page 10 - 23** for the details on the following themes.<br><br>➢ Growth of the vegetable sector<br>➢ Significant source of income for rural population<br>➢ Growing domestic market<br>➢ Vietnam's comparative advantage<br>➢ Stagnant export figure<br>➢ Challenge of the sector: 1. Safety assurance<br>➢ Challenge of the sector: 2. Quality control<br>➢ Challenge of the sector: 3. Business management<br>➢ Past, present and planned projects<br>➢ Aim of the proposed project<br>➢ Project locations<br>➢ Target commodities<br>➢ Consensus of the national stakeholders |
| 8. Project management | The project will be supervised by STDF/WTO and centrally coordinated by FAO's technical units at the FAO headquarters in Rome which has will be responsible for the overall implementation of the project. Respecting the Paris Declaration, the strategies to improve the capacity of the local implementing institution is the major aim, thus the project is owned by MARD and FAVRI (Fruit and Vegetable Research Institute). Together with FAO Vietnam country office, FAVRI will directly implement the project. Local project management can be subcontracted to a competent private company/ consultant in Vietnam. Local implementation of the project will be carried out by Vietnamese organizations and technical experts based in the areas close to the project locations. Please see **Page 24 – 25** for the organizational diagram. |

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| 9. Project objectives | **Overall objective:**<br>To strengthen the Vietnamese SPS capacities for trade by improving safety and quality of fresh vegetables using the value-chain approach.<br><br>**Specific objectives:**<br>***1. Development of knowledge-base***<br>➢ To collect and document necessary information on both domestic and international market demand and SPS requirements of the target vegetable commodities.<br>➢ To identify Vietnamese vegetable commodities with strong export potential, based on information of importing countries, imported volumes, time of the year and identification of potential buyers.<br>➢ To assess the current practices in agricultural production, safety and quality control systems and business management of the value chain.<br>***2. Capacity building***<br>➢ To develop SPS focused training materials for the target vegetable commodities, which will be available for the horticulture industry within and outside Vietnam.<br>➢ To train producers and extension staffs of the producer groups utilizing the Farmer Field School approach.<br>➢ To strengthen the capacity of producer organizations in the areas of production, safety and quality control systems and business management.<br>➢ To enhance the communication and flow of information between various technical public institutions, through bringing experts from those organizations and forming a technical team for intervention. The linkage between private and public sectors will be also strengthened.<br>***3. Market linkage***<br>➢ To facilitate the linkages between the producer organizations and the domestic and international markets. |

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| 10. Project outputs | **Overall output:**<br>Increased competitiveness of Vietnamese vegetable export.<br><br>**Specific outputs:**<br>***1. Development of knowledge-base***<br>➢ Survey report on market demand and SPS requirements of key vegetable commodities of domestic and international markets.<br>➢ Identification of Vietnamese vegetable commodities with strong export potential, based on information of importing countries, imported volume, time of the year and identification of potential buyers.<br>➢ Identification of gaps between the current practices in Vietnam and the SPS and requirements and quality requirements of the market.<br>***2. Capacity building***<br>➢ Producer groups improving in production, safety and quality control systems and business management.<br>➢ Set of training tools and expertise available to be adopted by other producers and stakeholders in the sector.<br>➢ Better flow of information and communication between various technical institutions in the public sector.<br>***3. Market linkages***<br>➢ Producer groups gaining better domestic and international market access, resulting in improved revenue. |
| 11. Project activities | **<u>Component 1: Assessment</u>**<br>**1.1. Market Survey**<br>Market surveys of surrounding Asian countries and domestic market through review of existing data and interviews with the managers of major domestic and international supermarket chains and large importers. SPS requirements will be mapped, and Vietnamese vegetable commodities with strong export potential will be identified.<br>**1.2. Selection of project partners**<br>Selection of producer partners (cooperatives, communes and companies with outgrower schemes) and market partners (traders, processing companies, exporters, importers, domestic and international supermarkets).<br>**1.3. Assessment of the current practices**<br>Assessment of the current practices of the value chains in the areas of production, safety and quality control systems and business management. Identifying gaps between the current practices in Vietnam and the SPS |

requirements and other quality requirements of the market.

**Component 2: Capacity building**

**2.1. Development of intervention plans**

Development of visual training materials for the farmers (leaflets, posters etc.). Setting intervention strategy to establish safety and quality control systems within producer groups. The pre-project evaluation (baseline situation) will be based on the findings from the component 1, and the overall effectiveness of the project will be evaluated according to a number of measurable performance indicators, for instance: 1) type and number of visual training tools (leaflets, posters) developed for farmers and for how many of the commodities in question; 2) for how many of the concerned commodities were production/cultivation protocols defined; 3) number of producers and extension staff trained in Farmer Field Schools in improved cultivation and post-harvest practices to meet SPS requirements; 4) how many managers of producer groups were trained in improved financial management, business planning, marketing and sales; and 5) level of increase in exports in FFV and associated revenue for producer groups.

**2.2. GAP training**

Training of the producers and extension staffs, using Farmer Field School approach to improve the cultivation and post-harvest practices on safety and quality in order to meet SPS requirements.

**2.3. Establishment of safety and control system**

Establishment of safety and quality control system within the producers' organization and in the value chain. Improvement of production monitoring system, harvesting and post-harvest handling procedure, recordkeeping, traceability and management structure.

**2.4. Business management training**

Training to the managers of the producer groups to improve the financial management, contracts, accounting system, business planning, marketing and sales.

**2.5. Mid-term evaluation and fine-tuning**

Evaluation of the above intervention plans and training tools. Fine-tuning of training content, training materials and intervention strategy.

**2.6. Up-scaling**

Further implementation and up-scaling of production and marketing.

**2.7. Stakeholder Workshops**

(1) One start-up workshop: to set up the implementation team for each of the

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| | component and project location, allocate clear responsibilities to each staff and organization, establish a detailed work plan and a budget for each item and activity. (2) Several progress workshops: to be held every six months for all the teams to update each other with all the activities, evaluate the progress and define the way forward. (3) One final workshop to present and share the results of the project with all the stakeholders in the sector.<br><br>**Component 3: Marketing**<br>**3.1. Domestic marketing**<br>Developing marketing strategies for the selected producer groups and assisting them in implementing marketing campaigns at Vietnamese supermarket chains to promote the safe & quality vegetables including the creation of brands.<br>**3.2. International marketing**<br>Exhibition of *"Vegetables from Vietnam – Safe & Quality & Fresh"* at the Asia Fruit Congress in Hong Kong in September 2010, and linking with more international buyers.<br><br>**Component 4: Project management**<br>**4.1. Reports/documents preparation**<br>Progress reports and relevant documents will be prepared for each stakeholder workshop (item 2.6) to manage the overall project activities. The reports/documents will be drafted and submitted by the local implementing body to FAO for finalization and the final versions will be submitted to STDF/WTO.<br>**4.2. Project website**<br>Project website will be developed and constantly updated to report the progress and on-going activities, which can be monitored from anywhere in the world.<br><br>**Independent STDF ex-post evaluation**<br>The independent STDF ex-post evaluation will be conducted.<br><br>Please see **Page 26 - 37** for the details of sub-activities and outputs. |
| 12. Timetable | Please see **Page 38 -39.** |

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| 13. Private/ public sector co-operation | The project will provide a platform to establish stronger linkages and cooperation between the private and public sector. For each component, experts from relevant fields will be identified, and a technical team will be formed. Technical experts from various public institutions and the private sector will develop intervention plans together, implement training programs and work towards the same objectives as a team. This process will facilitate communication and encourage the sharing of knowledge and information, which is currently very much fragmented in Vietnam. There is serious lack of communication, information flow and coordination among various public institutions and between private and public sectors. Fragmentation of knowledge, expertise, information and initiatives is resulting in much duplication of efforts, and making it difficult for existing expertise to be applied in the activities of the private sector. In this project, FAO's institutional strength will be used to link public institutions and to facilitate their communication and collaboration. The project will provide a platform to bring together the existing knowledge and expertise, facilitate the information sharing and communication, and to strengthen the linkage between technical experts from various public institutions and the private sector stakeholders in the value chains. |
| 14. Budget | Please see **Page 40 – 49** including the terms of reference of the key project staff. |
| 15. Non STDF contributions | Among the above-proposed budget, FAVRI will cover the following costs.<br><br>➢ National supervision and coordination of the implementation of the programme (US$250/month): $250 X 24 = $6,000<br>➢ Cost of 340 working days of the staff (US$120/day): $120 X 340 = $40,800<br>➢ Office space for the project management, workshops, training activities etc. (US$250/month): $250 X 24 = $6,000<br>➢ Vehicles and drivers for the project activities (US$250/ month): $250 X 24 = $6,000<br><br>**FAVRI Total: US$ 58,800**<br><br>FAO will make staff-time available as non-STDF contributions<br>➢ Two technical officers (Food safety officer and Agricultural economist) staff time (10 days/year x 2 @ $720) = 28,800<br>➢ FAO Representative in Vietnam's staff time (4 days/year x 2 @ $1,150) = 9,200 |

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| | ➢ FAOR Vietnam officer (10 days/year x 2 @ $400 = $8,000) and administrative staff's (10 days/year x 2 @ $145 = 2,900) staff time = 10,900<br><br>**FAO Total: US $ 48,900**<br>**Non STDF contributions total = US$107,700** |

# Project background and rationale

## Growth of vegetable sector

The Vietnamese vegetable sector is rapidly growing in terms of both production area and yield (See Table 1). The cultivated area has increased by 38% in 5 years since 2000. The volume of vegetable production has been increasing at a rate of 9.3% per year on average, while the whole agriculture sector is growing at 4.5% (Thi, 2006).[1]

**Table 1. Production of vegetables in Vietnam, 2001-2005**

| Crop | Year | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|
| **Tomato** | Area (ha) | 11,492 | 18,868 | 21,628 | 20,648 | 23,566 |
| | Production (ton) | 179.755 | 132,178 | 354,846 | 357,210 | 466,124 |
| **Cucumber** | Area (ha) | 10,208 | 11,819 | 18,409 | 19,874 | 26,648 |
| | Production (ton) | 19.946 | 199,936 | 296,710 | 335,473 | 485,244 |
| **Legumes** | Area (ha) | 5,742 | 5,502.2 | 1,769 | 7,681 | 18,861 |
| | Production (ton) | 36.064 | 39,541 | 9,471 | 52,760 | 158,435 |
| **Brassica crops*** | Area (ha) | 21,486 | 22,118 | 24,457 | 26,184 | 31,508 |
| | Production (ton) | 383.740 | 476,200 | 486,000 | 592,805 | 607,470 |
| **Onion, Garlic** | Area (ha) | 14,241 | 13,547 | 15,368 | 14,678 | 36,679 |
| | Production (ton) | 211.621 | 210,926 | 250,652 | 232,500 | 433,234 |
| **Watermelon** | Area (ha) | 12,180 | 14,670 | 16,530 | 18,140 | 20,408 |
| | Production (ton) | 194.880 | 242,050 | 281,000 | 322,890 | 330,966 |

**Brassica* crops include cabbage, Chinese cabbage, green mustard, and cauliflower.

*Source:* Department of Crop Production (DCP) of the Ministry of Agriculture and Rural Development (MARD), 2008

## Significant source of income for rural population

Vegetable production has become more and more an important source of income for the Vietnamese population in rural areas, since it brings a significantly higher profit margin for producers than other commodities, such as rice, tea and maize. The profit margin of vegetable production could be double to quadruple of that of rice or maize cultivation

[1] Thi, Tran Khac, 2006, *"Areas for Research and Development Opportunities – ARDO"*, Ministry of Agriculture and Rural Development and AusAID, Hanoi.

and 1.5 times more than of that of tea cultivation. The vegetable sector can also employ a significant number of labor forces at the farm level, collection, trading, processing and retailing.

## Growing domestic market

The domestic market for Vietnamese vegetables is growing rapidly. The average vegetable consumption per capita in Vietnam has reached 111.2 kg per year, which is double of other ASEAN countries: 57kg (Thi, 2006). Modern retail trade is still yet to be fully developed, occupying less than 10% of the total retail market. However, its growth rate in recent years has been remarkable. There were only 3 supermarkets in Vietnam in 1993, but the number has been increasing significantly each year. (See Table 2.) Between 2006 and 2007, modern retail market has grown by 45% with 72 new stores opened.

**Table 2. Number of supermarkets in Vietnam**

| Year | 1993 | 2000 | 2001 | 2002 | 2004 | 2005 |
|---|---|---|---|---|---|---|
| **Hanoi** | 3 | 25 | 32 | 32 | 45 | 55 |
| **Ho Chi Minh** | 0 | 24 | 38 | 46 | 56 | 71 |

*Source:* Department of Trade, 2006

Vietnam's retail market has been closed until 2008 for foreign direct investment, and the main dominating supermarket chains have been state-run, but Vietnam will fully liberalize its retail market in 2009 and become open to 100% foreign owned investment, which will surely attract various international supermarket chains into the country. It is estimated that the modern supermarket retail will occupy 25% of the market by 2010 (MALICA report, 2006)[2]. This will create increasing market avenues for safe and quality vegetables in Vietnam.

## Vietnam's comparative advantage

Due to the diversified climatic conditions of the country, Vietnam is able to grow vegetables all year round, which is a great comparative advantage for export. The tropical regions of Vietnam, such as Red River Delta area, can produce vegetables during the winter season from December to March, when the northern countries in Asia, such as South Korea, Japan, and northern part of China cannot produce vegetables. Vietnam also has highland regions both in the north and in the south, which have a

[2] Markets and Agriculture Linkages for Cities in Asia (MALICA) project, *"Supermarkets and the poor in Vietnam"*, Asian Development Bank (ADB), 2006.

cooler temperate climate throughout the year and have three or more production cycles of vegetables. Some of the highland provinces have good road access and are close enough to the port or big cities. Those highland provinces have comparative advantage for export of off-season vegetables during the summer season, when the other Asian tropical countries, such as Malaysia, Singapore, Hong Kong, Cambodia, Lao PDR and Thailand, cannot produce a big volume of vegetables.

## Stagnant export figure

Vietnam has become a member of the World Trade Organization (WTO) in November 2006, and the government has set a national goal of vegetable export turnover of US$690 million per year by the year 2010, as has been stated in the "Programme on Development of Vegetables, Fruits, Flowers and Ornamental Trees." However, the export figure remains stagnant, as can be seen in Table 3, and the figure is still far from the goal.

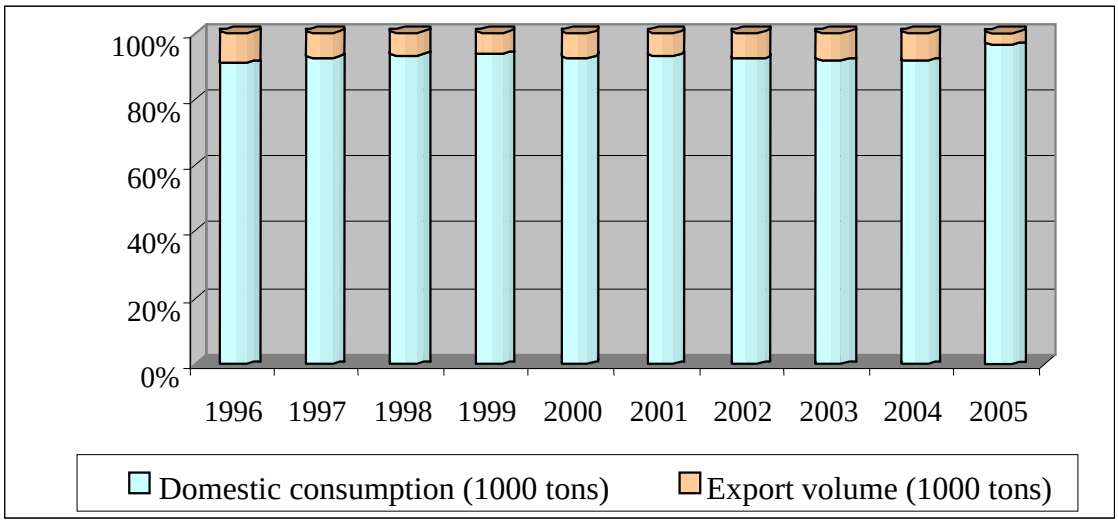
**Table 3. Export of vegetables, fruit and flowers of Vietnam, 2001-2004**

| Year | Total export (USD) | Vegetable export (USD) |
|---|---|---|
| 2000 | 213,126,000 | 128,420,000 |
| 2001 | 329,972,000 | 201,283,000 |
| 2002 | 218,521,000 | 142,038,000 |
| 2003 | 182,554,000 | 105,881,000 |
| 2004 | 186,778,000 | 115,320,000 |

*Source:* Crop Production Department, MARD, 2008

The volume of export in 2000 was 326 thousand tons, accounting for 7.5% of total production. In 2005, it has dropped to 223 thousand tons, accounting for 3.6% of total production. (See Figure 4.)

**Figure 4. Proportion of domestic consumption to export volume of Vietnam**




*Source:* Rural Development Center (RUDEC) of I Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD), 2007

Despite the increase in total vegetable production volume of the country, Vietnam vegetable production is yet to fully take off to enter the international market.

## Challenge of the sector: 1. Safety assurance

One of the critical challenges the sector faces is the lack of capacity of the Vietnamese vegetable value chain to assure the safety and quality of the products throughout the chain. During a period of five years from 2000 to 2005, more than 23,000 Vietnamese were poisoned by foods, of which 11,653 people were poisoned by vegetable and fish, with 283 subsequently dying. (Ministry of Health, 2006). Abuse of pesticide during production is severe, and producers are often not aware about Pre-Harvest Interval (PHI) and could harvest products right after spraying. In the South of Vietnam, the average number of insecticide spray per ha is 7.6 times and the amount of inorganic fertilizer used per ha is 534 kg, which are alarmingly high. (ARC/ AVRDC, 2002)[3] A study in Lam Dong Province has shown that the amount of fertilizer normally applied by farmers is two to five times higher than the recommended amount. (See Table 5 for potato, and Table 6 for tomato.)

[3] Ali, Mubarik (ed.) "*The Vegetable Sector in Indochina Countries: Farm and household perspectives on poverty alleviation*", Asian Regional Center (ARC), Thailand and Asian Vegetable Research and Development Center (AVRDC), Taiwan, Technical Bulletin No.27, 2002.

**Table 5. Actual and recommended application of fertilizers for Potato**

| Application | Amount applied (kg)/ 1,000 m2 | N -ratio | N (kg) | P2O5 -ratio | P2O5 (kg) | K2O –ratio | K2O (kg) |
|---|---|---|---|---|---|---|---|
| Manure | 1,000 | 0.02 | 20.0 | 0.02 | 15.0 | 0.02 | 22.0 |
| Phosphate | 150 | | | 0.17 | 24.8 | | |
| Compost | 20 | 0.02 | 0.4 | 0.01 | 0.2 | 0.02 | 0.3 |
| NPK 20:20:15 | 70 | 0.20 | 14.0 | 0.20 | 14.0 | 0.15 | 10.5 |
| Urea | 20 | 0.46 | 9.2 | | | | |
| DAP | 30 | 0.18 | 5.4 | 0.20 | 6.0 | - | |
| $K_2O$ | 20 | | | | | 0.30 | 6.0 |
| Total/ 1,000 m2 (kg) | 1,310 | | 49.0 | | 60.0 | | 38.8 |
| **Total applied/ ha (kg)** | | | **490** | | **600** | | **388** |
| **Recommended/ ha (kg)** | | | **250** | | **110** | | **230** |

*Source:* Fresh Studio Innovations Asia, 2008

**Table 6. Actual and recommended application of fertilizers for Tomato**

| Application | Amount applied (kg)/ 1,000 m2 | N -ratio | N (kg) | P2O5 -ratio | P2O5 (kg) | K2O -ratio | K2O (kg) |
|---|---|---|---|---|---|---|---|
| Manure | 1,200 | 0.02 | 24.0 | 0.02 | 18.0 | 0.02 | 26.4 |
| Phosphate | 200 | | | 0.17 | 33.0 | | |
| NPK 16:16:8 | 70 | 0.16 | 11.2 | 0.16 | 11.2 | 0.08 | 5.6 |
| NPK 7:7:14 | 70 | 0.07 | 4.9 | 0.07 | 4.9 | 0.14 | 9.8 |
| K2O | 40 | | | | | 0.30 | 12.0 |
| Total/ 1,000 m2 (kg) | 1,580 | | 40.1 | | 67.1 | | 53.8 |
| **Total applied/ ha (kg)** | | | **401** | | **671** | | **538** |
| **Recommended/ ha (kg)** | | | **100** | | **120** | | **100** |

*Source:* Fresh Studio Innovations Asia, 2008

The cost of production per ha is US$1,355 in South of Vietnam with the yield of 25.2 tons (idem). The current agricultural practices are not always optimising the yield, but rather overusing the inputs and unnecessarily increasing the cost of production.

There is little awareness on the development of pest resistance against chemicals among the producers. A study conducted by RUDEC/ IPSARD (Rural Development Center of The Institute of Policy and Strategy for Agriculture and Rural

Development) shows that a producer in Lam Dong Province needed to spray four times more frequently in 2007 than he did in 2004 due to development of pest resistance, and that the cost of pesticides account for up to 23% of total production cost in Lam Dong province and 30% in Son La province. Heavy metals are leached into soil and water through fertilizer application and industry waste from the neighboring cities. Excessive use of fertilizer is resulting in nitrate from inorganic fertilizer and micro-organism from organic fertilizer leaching into soil and water. Studies by the Department of Science and Technology of the Ministry of Agriculture and Rural Development in 2008, have found micro-organisms, pesticide residues and other critical contaminants such as nitrates and heavy metals, well above the level of Codex Maximum Residue Limits (MRL), contained in sampled Vietnamese vegetables. (See Table 7.)

**Table 7. Survey on vegetables and level of contamination.**

| Vegetables | Year | No. of samples | Percentage of samples (%) | | |
|---|---|---|---|---|---|
| | | | Not-contaminated | Contaminated | Contaminated above MRLs |
| **Green mustard** | 2000 | 279 | 41.2 | 54.4 | 4.3 |
| | 2001 | 264 | 54.1 | 41.7 | 4.2 |
| | 2003 | 102 | 61.8 | 25.5 | 12.7 |
| | 2004 | 72 | 29.2 | 63.9 | 6.9 |
| | 2005 | 108 | 76.9 | 13.0 | 10.2 |
| **Cabbages** | 2002 | 60 | 46.7 | 46.7 | 6.6 |
| **Beans** | 2001 | 132 | 29.6 | 51.5 | 18.9 |
| | 2003 | 102 | 42.1 | 30.4 | 27.5 |
| | 2004 | 72 | 51.4 | 37.5 | 11.1 |
| **Cucumber** | 2003 | 60 | 55.0 | 35.0 | 10.0 |
| | 2004 | 75 | 69.3 | 26.7 | 4.0 |
| **Tomatoes** | 2004 | 105 | 58.1 | 39.0 | 2.9 |
| **Kangkong/ Water convolvolus** | 2001 | 264 | 62.5 | 31.4 | 6.1 |
| | 2003 | 153 | 62.7 | 28.8 | 8.5 |
| | 2004 | 72 | 65.3 | 31.9 | 2.8 |
| | 2005 | 108 | 81.5 | 11.1 | 7.4 |

*Source:* Department of Science and Technology (DOST), MARD, 2008

On top of contamination during the production, inadequate post-harvest handling further increases the biological, chemical and physical risks of the vegetables. Such situation raises concerns both among the domestic consumers and the international market about

the safety of Vietnamese vegetables.

## Challenge of the sector: 2. Quality control

The challenge that the sector faces is not only the issue of safety but also that of quality. Vietnamese vegetables still lack competitiveness in meeting quality requirements of the international market. Poor practices at post-harvest handling, transport, sorting, grading, packing and storing result in poor quality or fluctuating qualities. Producer organizations, such as cooperatives or an outgrower scheme of a company, often do not have a well-established quality management system, which can implement the protocols of pre- and post-harvest practices and control and monitor the implementation. Weak linkages between producers, collectors, traders, transporters and wholesalers in the value chain result in lack of coordination to maintain the quality. The current value chain needs to improve upon assuring a standardized quality through the establishment of quality control system in pre and post-harvest practices at all levels of stakeholders involved.

## Challenge of the sector: 3. Business management

In order for a producer organization to enhance its competitiveness and expand its production, it needs to be able to operate as a professional business entity. A producer organization could be a cooperative which is managed by producers or an outgrower scheme of a company. Cooperatives and companies are often facing difficulties in maintaining healthy contractual relationship with its members or outgrowers, and contracts are often being broken due to opportunistic behavior of both parties. A study on vegetable value chains in Lam Dong province has shown that most companies are not able to maintain contractual relationship with the farmers. As a result, companies do not have enough supply and only able to export 45-50% of what is demanded by their oversea counterparts, while farmers in the area are struggling to find market for their products (RUDEC/ IPSARD, 2007). A cooperative or company may not have a good price-setting scheme with clear quality standard. It may not have a well-functioning accounting system and administrative structure. It may not have a clear business plan or marketing strategy. Producer organizations often have difficulty in marketing their products professionally and expanding market avenues.

Producers within the organization may also not be optimizing the production. Overuse of inputs and unnecessarily high cost of production is commonly observed among farmers in Vietnam. Dysfunctional business management both at the producer level and the organizational level erodes the profit of the organization as well as the relationship between the organization and its members. They need to be strengthened in

their capacity to operate the business more professionally.

## Past, present and planned projects

There have been numerous projects in the area of food safety and SPS related technical assistance in Vietnam, as has been elaborated in the "SPS Balance Sheet for Vietnam – Strengthening links between supply and demand of SPS-related technical assistance in a sub-group of ASEAN countries" (van der Meer et Ignacio, 2008) and as has been identified in the Aid for Trade Workshop by STDF in September 2007. It is essential that a proposed planned project targets the outstanding area of needs and ensures that the project would not duplicate the effort of other projects but rather complement them.

Effort has been put into research and development on SPS issues in vegetable production Vietnam. Such effort include Diagnosis and Control of Plant Diseases in Northern Vietnam (1998-2001) by Australian Centre for International Agricultural Research (ACIAR), Developing Disease Management Capacity in Vietnam by ACIAR (2001-2004), Technology Cooperation on the Improvement of Efficiency in the Handling of Perishable Crops in ASEAN Countries (2001-2004) by Association of South East Asian Nations (ASEAN) and Year-Round Supply of Vegetables in North Vietnam (YRS Project) by Applied Plant Research (APR) of the Netherlands (2007-2009).

Training on senior officials have been conducted, in programs such as the Sanitary and Phytosanitary Capacity Building Program (SPSCBP) by Australian Agency of International Development (AusAID) and the Phytosanitary Capacity Building Program (PCBP) by New Zealand's International Aid and Development Agency (NZAID).

Cultivation protocols have been developed for some vegetables and training has been conducted. Examples of such projects include, "Safe Vegetable Program" by Department of Science and Technology (DOSTE) of Hanoi (1994-2003), and continued by Hanoi Plant Protection Department; GTZ-MPI Small and Medium Enterprise Development Program in An Giang province (2007-2008) which has trained vegetable farmers and linked them to domestic market; GTZ-PPP project with Metro Cash & Carry (2005-2008) and the FAO's Farmer Field School training programs in 11 provinces.

Investment in hard infrastructure has taken place and will continue to take place, such as upgrading of 11 national laboratories by Food and Agriculture Products Quality Development Control Project (FAPQDCP) funded by CIDA during the period from 2005 to 2010, and construction of road, electricity, water treatment facility, irrigation system, greenhouses, packinghouses and storage facilities in 17 provinces by Quality and Safety Improvement in Agricultural Products Project PPTA 4627-VIE

funded by Asian Development Bank (ADB) starting in 2009.

A group of technical experts has been trained in the FAO National Training Workshop on "Improving the Quality and Safety of Fresh Fruits and Vegetables: A Practical Approach" held in Hanoi in 2008. These trained experts from the ministries, research institutes, universities and private sector have become the pool of human resource with technical expertise on safety and quality of fresh fruits and vegetables in Vietnam. The organizations/institues/government agencies attended the workshop are listed below:

1) FAVRI
2) International Cooperation Department, MARD
3) Science Technology and Environmental Department, MARD
4) Cultivation Department, MARD
5) Plant Protection department
6) VN National Vegetable, Fruit and Agricultural Product Corporation (VETEXCO)
7) National Agricultural Extension Center
8) VACVINA
9) NAFIQAVED
10) Vietnam Academy Agricultural Science
11) Plant Protection Institute
12) Southern Fruit Research Institute (SOFRI)
13) Institute of Agricultural Science for Southern Vietnam
14) Northern Mountainous agriculture and Forestry Science Institute
15) Department of Science and International Cooperation
16) Department of Post-harvest Technology
17) Department of Vegetable and Spice Crops
18) Department of Fruit and Vegetable Quality Control
19) Department of Fruit Crops
20) VN Institute of Agricultural Engineering and Post-harvest Technology
21) The National Institute of Nutrition, MOH
22) Agricultural and rural development department, Hanoi
23) Agricultural and rural development department, Bacninh province
24) Agricultural and rural development deparmtnt, Hungyen province
25) Agricultural and rural development department, Vinh Phuc province
26) Agricultural and rural development department, Lam Dong province
27) Vietnam Food Administration, MOH
28) Hanoi Agricultural University
29) Agricultural forestry University of Ho Chi Minh city
30) Dalat Organik Company Limited, Lamdong province

31) Rural Development Center

## Aim of the proposed project

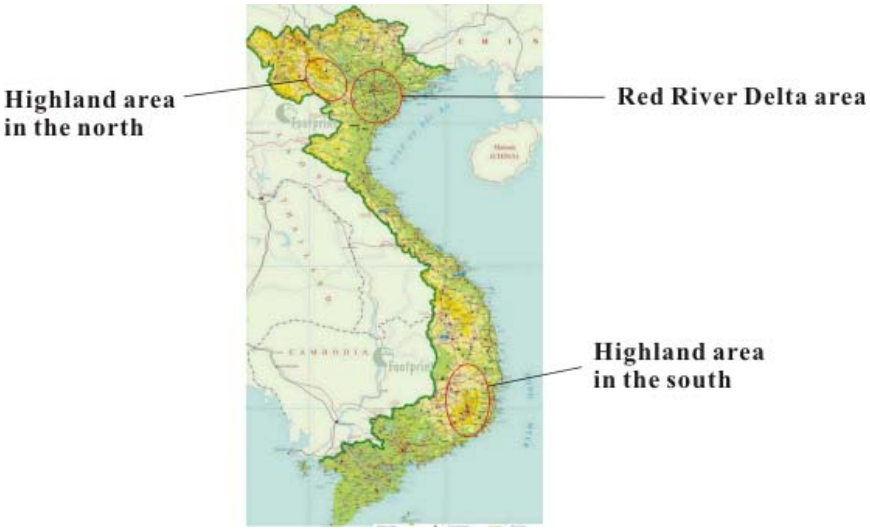
Despite all investments by the Vietnamese government and donors in the vegetable sector, Vietnamese urban consumers are still not able get safe vegetables and Vietnam is not successful so far in vegetable exports, and the figure is even declining. The main reason for this failure is that investments have been focused on the public sector and farmers alone. No comprehensive value chain approach has been used in which especially capacities were built of companies with out grower schemes or producer organizations. So when projects finished no self-financing structures were left behind which would assure continued extension, quality assurance and marketing. In order to address the outstanding challenges of the sector, the proposed project should not focus on research and development, infrastructure or purely technical training.

Building upon the past and on-going initiatives, the proposed project intends to enhance the international market access of Vietnamese vegetables through the comprehensive value chain approach, building the capacity at all levels of the value chain, addressing not only technical aspect of production but also quality assurance, extension system, post-harvest practices, marketing strategy, branding and business management, and building up strong linkages between the stakeholders in the value chain. It aims to have tangible results of producer organizations improving safety and quality of the products, having better business management capacity, and increasing volumes and value of vegetables sold to both domestic and international markets.

The goal of the project is to establish a successful and efficient value chain of safe and quality vegetables that can be marketed both domestically and internationally, as a model to be adopted by other producers and stakeholders in the sector. Successful cases of the producer organizations gaining better domestic and international market access, would show an excellent example to the other producers and stakeholders in the sector about how to improve the entire value chain.

## Project locations

The project will be implemented in the following three locations that have significant potential for export and poverty alleviation through value chain improvements.



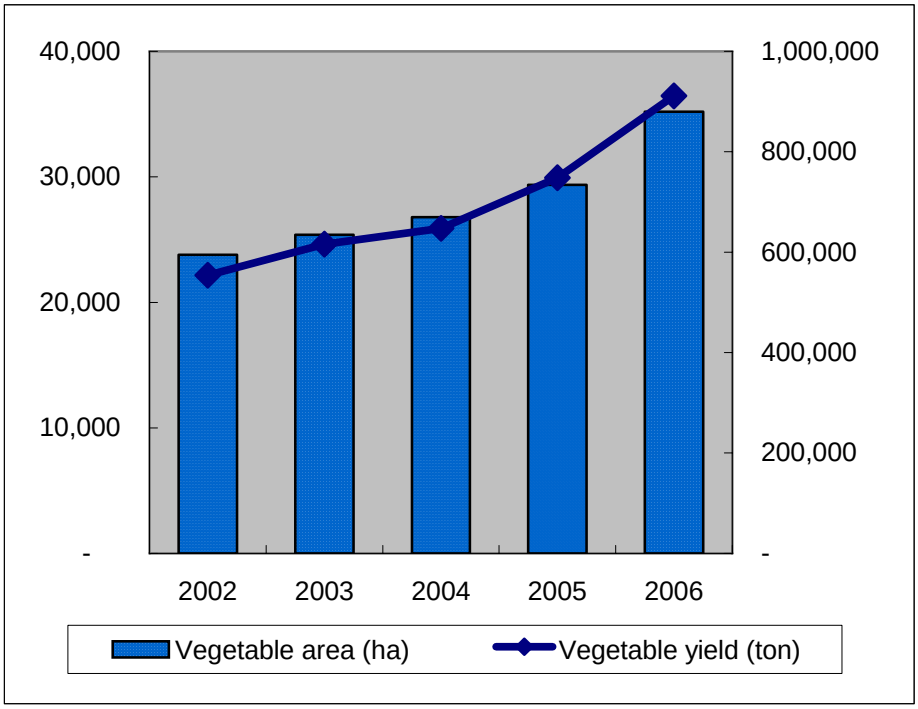

## 1. Red River Delta area

The Red River Delta consists of many smaller provinces, which are Vinh Phuc, Bac Ninh, Ha Tay, Hung Yen, Hai Duong, Ha Nam, Thai Binh and Nam Dinh. The Red River Delta is the biggest vegetable production area of the country, making up for 30% of the country's production. The Red River Delta's comparative advantage is its production of vegetables during winter season, when northern Asian countries, such as South Korea, Japan and the north of China cannot produce vegetables. The area is close to a large international port (Haiphong), which also gives an advantage for export. Since there is a big population of vegetable producers in the provinces in Red River Delta, a successful case of a value chain improvement could have a significant multiplying effect to other producers in the area.

## 2. Lam Dong province (Highland area in the South)

Lam Dong province is the key vegetable production area in the South of Vietnam, due to its significant comparative advantage of cooler temperate climate caused by high altitude. It is located between 1000 and 1,600m above the sea level, and is able to produce vegetables all year round. Vegetables from the highland area get significantly higher prices from April to October when the rest of the country and the surrounding tropical countries, such as Malaysia, Singapore, Hong Kong, Cambodia, Lao PDR and Thailand, cannot produce much vegetables. Vegetable production is a major source of income for the rural households in Lam Dong province, and its production is growing. In 2006, the area of vegetable production in Lam Dong province was 35,179 ha with the yield of 911,124 tons (RUDEC/ IPSARD 2007). The figures have increased by 1.48 times and 1.64 times respectively from the year 2002 (See Figure 8).

**Figure 8. Vegetable production in Lam Dong**




*Source:* Lam Dong statistics Office 2006

Producers in the province have long years of experience in vegetable cultivation, there is wealth of knowledge available in the area. Due to its dedication to vegetable production and its high productivity, Lam Dong Province has the biggest potential to become a major vegetable exporter, supplying urban Asia with high quality vegetables.

### 3. Son La province (Highland area in the North)

Son La province is the highland province surrounded by mountains in the North of Vietnam located at 1000m above the sea level, and possesses the same comparative advantage of cool climate as that of Lam Dong province, with the average temperature of $18.5^0$C. While Lam Dong province is on its way of development through vegetable production, the potential of vegetable production in Son La province is yet to be explored.

Son La province is one of the poorest provinces in the North of Vietnam, with 60% of its population being ethnic minorities. Its average income of a household per month is as low as VND 210.000, equivalent of US$12.6 (MALICA report, 2006)[4]. The households are mostly engaged in maize production with a very small profit margin. In order to gain a survival level of income, people are slashing down the forest to expand the production of maize into the mountain areas. More and more mountain hills are

[4] Markets and Agriculture Linkages for Cities in Asia (MALICA) and Making Markets Work Better for the Poor (M4P) project, Research report, 2006

covered with maize field each year, and it is causing serious problem in soil erosion and environmental degradation of the area.

However, the province has an ideal climate for year-round production of vegetables, which can bring at most four times higher income than that of maize production per ha. Vegetable production could allow the local population to gain a significant level of income so that they would not need to continue slashing down the forest to expand maize production. The province has non-contaminated soil and water due to its location away from the industrial areas, and able to easily produce safe vegetables that can be marketed. It has an advantage of the proximity to Hanoi, as compared to other highland provinces. This area could become an important substitute for all imports of vegetables from China during the hot and humid season, when the rapidly developing multi-million cities of Hanoi and Haiphong are in need of fresh and good quality vegetables. Vegetable production in Son La province has an enormous potential to contribute to the alleviation of poverty of the population.

At the Moc Chau plateau of Son La province, there has been a research project by the Applied Plant Research (APR) of the Netherlands to identify vegetable varieties that can be produced in the area and to develop cultivation protocols. The project will be completed by the year 2009, and cultivation protocols of the selected varieties will be available for wider-scale implementation. Then the next step will be to establish a value chain with quality management system and to link the products to the market.

## Target commodities

The following is the list of vegetables that can be produced in Red River Delta and the two highland areas, with known demand in both domestic and international market.

- Tomato
- Cabbage
- Cucumber
- Carrot
- Potato
- Eggplant
- Lettuce
- Beans
- Chinese cabbage
- Cauliflower
- Green mustard
- Sweet pepper
- Chili pepper
- Garlic
- Onion
- Spinach
- Water spinach (Kang Kong)
- Leafy vegetables
- Herbs
- Chayote
- Leek
- Squash
- Kohlrabi
- Broccoli
- Zucchini
- White radish

Out of these commodities, several commodities will be identified as key commodities for the project through a quick survey of domestic and international markets. A set of commodities could be different in each project location, according to the local condition.

Selection of the commodities and their production period will be done based on the following criteria.

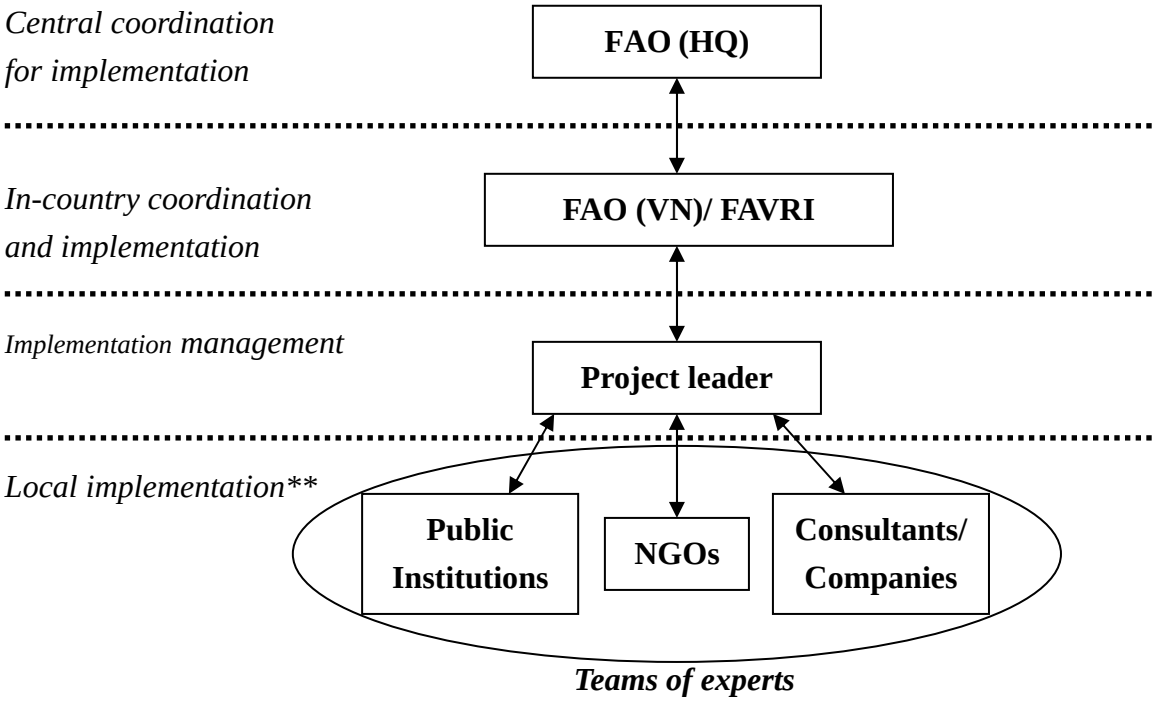
- Domestic market demand (quantity, period of the year)
- International market demand (quantity, period of the year)
- Suitability of the soil condition of the area
- Suitability of the climate of the area
- Level of technical knowledge required for production
- Level of existing knowledge of the producers on the production

## Consensus of the national stakeholders

FAO and FAVRI have organized a national stakeholder workshop on the 15th of August, 2008 to present the present project proposal and to collect their feedback and comments. Representatives from various institutions and international organizations have participated in the workshop, and the consensus on the project approach and content was reached. The following key national stakeholders were consulted in the project formulation process.

- Department of Plant Protection
- Department of Crop Production
- Department of Science, Technology and Environment
- Hanoi University of Agriculture
- Vietnamese Academy of Agricultural Science (VAAS)
- Leaders of cooperatives in Lam Dong province and Son La province
- Members of cooperatives in Lam Dong province and Son La province
- Nhat Nam Ltd. (Fivimart)
- METRO Cash & Carry Vietnam Ltd.
- Saigon Co-op.
- United Nations Industrial Development Organization (UNIDO)
- GTZ- Small and Medium Enterprise Development Programme
- GTZ – Private Public Partnership (PPP) project
- Food and Agriculture Products Quality Development Control Project by CIDA
- Quality and Safety Improvement in Agricultural Products Project by ADB
- Year-Round Supply project by Applied Plant Research of the Netherlands

## Implementation structure




*Note:*

**FAO (HQ):** Food and Agriculture Organizations of the United Nations, Italy

**FAO (VN):** Food and Agriculture Organizations of the United Nations, Vietnam

**FAVRI:** Fruits and Vegetable Research Institute, Vietnam

# Project activities

## Component 1. Assessment

### *1.1. Market survey*

| | | | |
|---|---|---|---|
| **Activity** | Market surveys of surrounding Asian countries and domestic market through review of existing data and meetings with chief buyers of major domestic and international supermarket chains and importer companies. SPS requirements will be mapped, and Vietnamese vegetable commodities with strong export potential will be identified. | | |
| **Sub-activities** | **1.1.1. Review of existing statistics**<br>Review of existing statistics and database to collect information on both domestic and international markets.<br><br>*Note:* For domestic market, available literature includes reports published by Markets and Agriculture Linkages for Cities in Asia (MALICA) supported by Asian Development Bank (ADB). For international market, international database on trade information of all WTO member countries, the Personal Computer Trade Analysis System (PC-TAS) at: http://www.intracen.org/mas/pctas.htm. will be used to collect statistical data on | **1.1.2. Domestic market survey**<br>Meetings with chief buyers of the following domestic supermarkets/ distributors.<br>• Metro<br>• Big C<br>• Fivimart<br>• Hapro<br>• Saigon Co-op<br>• Wellcome (Dairy farm group)<br>• Lotte<br>• Intimex<br>• Unimart<br>• Phu-Thai group (distributor & retailer group)<br>• New retailers entering from 2009 when the retail market is liberalized. | **1.1.3. International market survey**<br>Meetings with chief buyers of the major supermarket chains and import companies based in the following cities.<br>• Hong Kong<br>• Seoul, South Korea<br>• Singapore<br>• Kuala Lumpur, Malaysia<br>• Tokyo, Japan<br>• Bangkok, Thailand<br><br>*Note:* Fresh Studio already has contacts with supermarkets in the above cities. |

| | | | |
|---|---|---|---|
| | export and import of target countries. | *Note:* Metro, Fivimart and Saigon Co-op have already been contacted at the project proposal development stage, and all of them have shown a very strong interest and enthusiasm in becoming project partners. | |
| **Outputs** | ✓ Report on the statistics research | ✓ Linkage with potential buyers established.<br>✓ Several key vegetable commodities for domestic market identified.<br>✓ Safety requirement of the domestic supermarket chains identified. | ✓ Linkage with potential buyers established.<br>✓ Several key vegetable commodities for international market identified with required volumes and period of the year.<br>✓ SPS requirements and safety certification requirement of each country for the key commodities are mapped. |

## *1.2. Selection of project partners*

| | | |
|---|---|---|
| **Activity** | Selection of producer partners (cooperatives, communes, companies with outgrower scheme) and market partners (traders, processing companies, exporters, importers, domestic and international supermarkets). | |
| **Sub-activities** | **1.2.1. Producer partner selection**<br>➢ Define selection criteria.<br>➢ Identify candidates for site visits and interviews.<br>➢ Select several cooperatives and/or companies from the three locations (Red River Delta, Lam Dong and Son La) according to the criteria though site visits and interviews with the management and the members/ outgrowers.<br>➢ Sign Scope of Work to establish commitment between the partners and the project. | **1.2.2. Market partner selection**<br>➢ Define selection criteria.<br>➢ Select market partners (traders, processing companies, exporters, domestic and international supermarkets) out of those who have been identified during the market surveys.<br>➢ Sign Scope of Work to establish commitment between the partners and the project. |
| **Outputs** | ✓ Selection criteria defined.<br>✓ Several cooperatives/ companies selected.<br>✓ Scope of Work signed with the selected partners. | ✓ Selection criteria defined.<br>✓ Several market partners identified.<br>✓ Scope of Work signed with the selected partners. |

## *1.3. Assessment of the current practices*

| | | |
|---|---|---|
| **Activity** | Assessment of the current practices of the value chains in the areas of production, safety and quality control systems and business management. Identifying gaps between the current practices in Vietnam and the SPS and requirements and quality requirements of the market. | |
| **Sub-activities** | **1.3.1. Producer partner assessment**<br>Assess the current practices of the producer groups in the following areas.<br>• Agricultural practices<br>• Organizational structure<br>• Production planning<br>• Contractual arrangement with the producers<br>• Extension system<br>• Harvesting and post-harvest handling procedure<br>• Traceability<br>• Safety and quality control system<br>• Financial management and accounting system<br>• Marketing and sales | **1.3.2. Market partner assessment**<br>Assess the current practices of the market partners in the following areas.<br>• Transporting<br>• Storing<br>• Packaging<br>• Post-harvest treatment<br>• Produce handling<br>• Traceability<br>• Safety and quality control system |
| **Outputs** | ✓ Assessment report completed.<br>✓ Key areas of intervention defined. | ✓ Assessment report completed.<br>✓ Key areas of intervention defined. |

## Component 2. Capacity building

### *2.1. Development of intervention plans*

| | | | |
|---|---|---|---|
| **Activity** | Development of visual training materials for the farmers (leaflets, posters etc.). Setting intervention strategy to establish of safety and quality control systems within producer groups. Development of business plans and better management system. | | |
| **Sub-activities** | **2.1.1. GAP training**<br>➢ Formation of a technical team by identifying and selecting experts from public institutions and the private sector of the relevant field.<br>➢ Review of existing information and protocols. Some existing training materials have been compiled by WTO at: http:www.wto.org/english/tratop_e/sps_e/wkshop_march08_e/wkshop_march08_e.htm<br>➢ Defining production protocol of the selected commodities, which meets the SPS requirement of target countries and achieves quality, productivity and cost-efficiency at the same time.<br>➢ Development of training materials on the defined cultivation protocol. The training materials should be simple, visual and farmer-friendly.<br>➢ Printing of the materials. | **2.1.2. Safety and quality control system**<br>➢ Formation of a technical team by identifying and selecting experts from institutions of the relevant field.<br>➢ Review of existing information and protocols.<br>➢ Analysis of the producer partner and market partner assessment.<br>➢ Development of intervention plans to establish safety and quality control system in each producer organization. Areas of intervention include production monitoring system, harvesting and post-harvest handling procedure, recordkeeping, traceabiliy and management structure. | **2.1.3. Business management**<br>➢ Formation of a technical team by identifying and selecting experts from institutions of the relevant field.<br>➢ Analysis of the producer partner assessment.<br>➢ Development of intervention plans to establish safety and quality control system in each producer organization. Areas of intervention include financial management, contracts, accounting system, business planning, marketing and sales.<br>➢ Development of a business plan of each organization. |

| | | | |
|---|---|---|---|
| **Outputs** | ✓ Technical team formed.<br>✓ Cultivation protocol defined for the selected commodities.<br>✓ Training materials (visual leaflets or posters) for each commodity developed and printed. | ✓ Technical team formed.<br>✓ Intervention plans developed for each project partner to establish safety and quality control system. | ✓ Technical team formed.<br>✓ Business plan and intervention strategies defined for each producer group. |

## *2.2. GAP training*

| | |
|---|---|
| **Activity** | Training of the producers and extension staffs, using Farmer Field School approach to improve the cultivation practices on safety and quality and to meet SPS requirements. |
| **Sub-activities** | **2.2.1.** On-site training every week to train the producers on the cultivation protocol, using the visual training materials.<br>**2.2.2.** Establishing an effective extension and system together with extension staffs of the group. |
| **Outputs** | ✓ Extension staffs and farmers trained<br>✓ Cultivation protocols implemented.<br>✓ Extension system established. |

## *2.3. Establishment of safety and quality control system*

| | |
|---|---|
| **Activity** | Establishment of safety and quality control system within the organization and in the value chain. Improvement of production monitoring system, harvesting and post-harvest handling procedure, recordkeeping, traceability and management structure. |
| **Sub-activities** | **2.3.1.** Designating of responsibilities to the staff of the producer groups, and establishing a management structure.<br>**2.3.2.** Training on harvesting and post-harvest handling procedures.<br>**2.3.3.** Establishing a system for production monitoring, recordkeeping, quality check, safety monitoring and traceability. |
| **Outputs** | ✓ Management structure defined and responsibilities allocated.<br>✓ Relevant stakeholders trained on harvesting and post-harvest handling procedures.<br>✓ Safety and quality control system established. |

## *2.4. Business management training*

| | |
|---|---|
| **Activity** | Training of the management level of the producer groups to improve the financial management, contracts, accounting system, business planning, marketing and sales. |
| **Sub-activities** | **2.4.1.** Improving financial management skills of the producer groups.<br>**2.4.2.** Establishing sound contractual agreement with its members/ outgrowers with clear price-setting mechanism or agreed fixed price.<br>**2.4.3.** Development of a business plan and marketing strategy. |
| **Outputs** | ✓ Financial management of the producer groups improved.<br>✓ Contractual relationship with the members/ outgrowers improved.<br>✓ Business plan and marketing strategy developed. |

## *2.5. Mid-term evaluation and fine-tuning*

| **Activity** | Evaluation of the above intervention plans and training tools. Fine-tuning of training content, training materials and intervention strategy. | | |
|---|---|---|---|
| **Sub-activities** | **2.5.1. GAP training**<br>➢ Evaluation of the first production cycle.<br>➢ Fine-tuning of the protocols, implementation plan and training materials. | **2.5.2. Safety and quality control system**<br>➢ Evaluation of the first round of implementation.<br>➢ Fine-tuning of the system. | **2.5.3. Business management**<br>➢ Evaluation of the first round of implementation.<br>➢ Fine-tuning of the strategies. |
| **Outputs** | ✓ Protocols and training materials refined. | ✓ Safety and quality control system refined. | ✓ Implementation strategies refined. |

## *2.6. Up-scaling*

| **Activity** | Further implementation and up-scaling of production and marketing. | | |
|---|---|---|---|
| **Sub-activities** | **2.6.1. GAP training**<br>Further implementation and up-scaling. | **2.6.2. Safety and quality control system**<br>Further implementation. | **2.6.3. Business management**<br>Further implementation and marketing of products. |
| **Outputs** | ✓ Protocols better implemented.<br>✓ Production areas increased.<br>✓ Production volume increased.<br>✓ Number of members/ outgrowers increased. | ✓ Better performance of the established system.<br>✓ Further improvement in the level of safety and quality of the produce. | ✓ Further improvement in business practices.<br>✓ Enhanced market linkages.<br>✓ Increased sales of vegetables.<br>✓ Increased revenue of producers. |

## *2.7. Workshops*

| | | | |
|---|---|---|---|
| **Activity** | Start-up workshop to set up the implementation team for each of the components and project locations, allocate clear responsibilities to each staff and organization, establish a detailed work plan and a budget for each item and activity. Progress workshops to be held every six months for all the teams to update each other about all the activities, evaluate the progress and define the way forward. Final workshop to present and share the results of the project with all the stakeholders in the sector. | | |
| **Sub-activities** | **2.7.1. Start-up workshop**<br>➢ Preparation for the thee-day kick-off workshop in Dalat, Lam Dong province.<br>➢ Launching the workshop. | **2.7.2. Progress workshops**<br>➢ Preparation for one-day progress workshop every six month, rotating project locations (Red River Delta, Son La province and Lam Dong province) each time.<br>➢ Launching the workshops. | **2.7.3. Final workshop**<br>➢ Preparation for the one-day final workshop in Hanoi.<br>➢ Invitation of all the stakeholders and the media.<br>➢ Launching the workshop. |
| **Outputs** | ✓ Meeting of the technical teams.<br>✓ Responsibilities clearly allocated and roles defined for each staff and organization.<br>✓ Detailed work plan developed.<br>✓ Detailed budget developed.<br>✓ Workshop report written. | ✓ Technical teams updated on activities in the other areas.<br>✓ Strategies refined and better coordinated.<br>✓ Workshop report written. | ✓ Sharing of the results of the project with the stakeholders in the sector.<br>✓ Workshop report written. |

## Component 3. Marketing

| | | |
|---|---|---|
| **Activity** | Domestic marketing campaigns to promote the safe & quality vegetables in supermarket chains. Exhibition of *"Vegetables from Vietnam – Safe & Quality & Fresh"* at Asia Fruit Congress in Hong Kong in September 2010, and linking with more international buyers. | |
| **Sub-activities** | **3.1. Domestic marketing**<br>➢ Design branding and marketing strategy of the vegetables.<br>➢ Printing of packaging materials and other promotion materials.<br>➢ Preparation for the campaign.<br>➢ Launch the campaign in supermarket chains. | **3.2. International marketing**<br>➢ Registration for the Asia Fruit Congress.<br>➢ Selection of the commodities to be presented and representatives to be sent.<br>➢ Preparation of the booth before the Congress.<br>➢ Exhibition of the vegetables and meetings with international buyers at the Congress. |
| **Outputs** | ✓ Brand of the safe & quality vegetables created.<br>✓ Increased sales of safe & quality vegetables.<br>✓ Recognition of the safety and quality of the products by the domestic market.<br>✓ Enhanced market linkages. | ✓ International recognition of Vietnamese vegetables to be safe and of high quality.<br>✓ Enhanced market linkages with international buyers.<br>✓ More market information collected. |

## Component 4. Project management

### *4.1. Reports/Documents preparation*

| | | | |
|---|---|---|---|
| **Activity** | Progress reports and relevant documents will be prepared for each stakeholder workshop (item 2.6) to manage the overall project activities. The reports/documents will be drafted and submitted by the local implementing body to FAO for finalization and the final versions will be submitted to STDF/WTO. | | |
| **Outputs** | ✓ Memorandom to clarify and define responsibilities, roles for each staff and organization involved in the project | ✓ Progress reports.<br>✓ Interim financial reports. | ✓ Final project report.<br>✓ Final financial report. |

### *4.2. Project website*

| | |
|---|---|
| **Activity** | Project website will be developed and constantly updated to report the progress of on-going activities, which can be monitored from anywhere in the world. The project website aims to showcase project's implemented value chain approach and at the same time link up producer groups with interested buyers |
| **Sub-activities** | ➢ Development of project website.<br>➢ Constant update of the project activities, survey reports, assessment reports, training materials, workshop reports and pictures. |
| **Outputs** | ✓ Project website created and constantly updated. |

## *Independent STDF ex-post evaluation*

| | |
|---|---|
| **Activity** | Independent STDF ex-post evaluation. |
| **Sub-activities** | ➢ STDF/WTO to contract an independent consultant.<br>➢ Evaluation conducted. |
| **Outputs** | ✓ Final evaluation report. |

## Timetable

*Project starting date:* Within 2 months from the project approval date.

*Project completion date:* End of 24th month from the starting date.

| | *Year/ month* / *Activities* | Year 1 | | | | | | | | | | | | Year 2 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| *1. Assessment* | **1.1. Market survey** | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.1.1. Review of existing statistics | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.1.2. Domestic market survey | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.1.3. International market survey | | | | | | | | | | | | | | | | | | | | | | | | |
| | **1.2. Selection of partners** | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.2.1. Producer partners | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.2.2. Market partners | | | | | | | | | | | | | | | | | | | | | | | | |
| | **1.3. Assessment of the current practices** | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.3.1. Producer partners | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.3.2. Market partners | | | | | | | | | | | | | | | | | | | | | | | | |
| *2. Capacity building* | **2.1. Intervention plan development** | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4.1. GAP training | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4.2. Safety and quality control system | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4.3. Business management | | | | | | | | | | | | | | | | | | | | | | | | |
| | **2.2. GAP training** | | | | | | | | | | | | | | | | | | | | | | | | |
| | **2.3. Safety and quality control system** | | | | | | | | | | | | | | | | | | | | | | | | |
| | **2.4. Business management training** | | | | | | | | | | | | | | | | | | | | | | | | |
| | **2.5. Mid-term evaluation and fine-tuning** | | | | | | | | | | | | | | | | | | | | | | | | |
| | **2.6. Up-scaling** | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **2.7. Workshops** | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2.7.1. Kick-off workshop | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2.7.2. Progress workshops | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2.7.3. Final workshop | | | | | | | | | | | | | | | | | | | | | | | | |
| ***3.Marketing*** | **3.1. Domestic marketing** | | | | | | | | | | | | | | | | | | | | | | | | |
| | **3.2. International marketing** | | | | | | | | | | | | | | | | | | | | | | | | |
| ***4. Project management*** | **4.1. Reports/documents preparation** | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4.1.1. For kick-off workshop | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4.1.2. For progress workshops | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4.1.3. For final workshop | | | | | | | | | | | | | | | | | | | | | | | | |
| | **4.2. Project website** | | | | | | | | | | | | | | | | | | | | | | | | |
| | **Independent STDF ex-post evaluation** | | | | | | | | | | | | | | | | | | | | | | | | |

## Budget

**(Unit: US dollar)**

| Component no. | Activity | Activities | Materials | Travels | Total |
|---|---|---|---|---|---|
| **1** | **Assessment** | | | | |
| **01.1.1** | Review of existing statistics & reporting | 4,150 | 500 | | 4,650 |
| **01.1.2** | Domestic market survey & reporting | 4,450 | | 2,000 | 6,450 |
| **01.1.3** | International market survey & reporting | 10,000 | | 7,000 | 17,000 |
| **01.2.1** | Producer partner selection (3 locations) | 4,655 | | 2,000 | 6,655 |
| **01.2.2** | Market partner selection | 4,150 | | 2,000 | 6,150 |
| **01.3.1** | Producer partner assessment | 8,170 | | 2,000 | 10,170 |
| **01.3.2** | Market partner assessment | 9,650 | | 2,000 | 11,650 |
| | ***Sub-total*** | **45,225** | **500** | **17,000** | **62,725** |
| **2** | **Capacity building** | | | | |
| **02.1.1** | GAP training preparation | 28,170 | 12,000 | 9,000 | 49,170 |
| **02.1.2** | Safety and quality control system preparation | 10,880 | 3,000 | 2,000 | 15,880 |
| **02.1.3** | Business management preparation | 10,565 | | 2,000 | 12,565 |
| **02.2.1** | GAP training implementation | 23,665 | 16,000 | 9,000 | 48,665 |
| **02.2.2** | Establishing effective extension system | 10,360 | | 2,000 | 12,360 |
| **02.3.1** | Establishing safety and quality control system | 10,440 | | 2,000 | 12,440 |
| **02.3.2** | Training on harvesting and post-harvest protocols | 5,020 | | 2,000 | 7,020 |
| **02.3.3** | Establish extension system for farm monitoring and record keeping | 5,805 | | 2,000 | 7,805 |
| **02.4.1** | Business management training | 5,930 | | 2,000 | 7,930 |

| Component no. | Activity | Activities | Materials | Travels | Total |
|---|---|---|---|---|---|
| **02.4.2** | Establishing contracting system | 5,105 | | | 5,105 |
| **02.4.3** | Business plan and marketing strategy | 4,850 | | 2,000 | 6,850 |
| **02.5.1** | GAP evaluation and fine-tuning | 4,425 | | 9,000 | 13,425 |
| **02.5.2** | Safety and quality control system evaluation and fine-tuning | 4,980 | | 9,000 | 13,980 |
| **02.5.3** | Business management evaluation and fine-tuning | 3,090 | | | 3,090 |
| **02.6.1** | GAP up-scaling | 4,695 | 250 | 2,000 | 6,945 |
| **02.6.2** | Safety and quality control system up-scaling | 3,640 | 250 | 2,000 | 5,890 |
| **02.6.3** | Business management up-scaling | 5,370 | 250 | 2,000 | 7,620 |
| **02.7.1** | Kick off workshop | 5,280 | | 30,000 | 35,280 |
| **02.7.2** | Progress workshops | 7,100 | 1,500 | 3,000 | 11,600 |
| **02.7.3** | Final project workshop | 5,280 | 1,500 | 20,000 | 26,780 |
| | ***Sub-total*** | **164,650** | **34,750** | **111,000** | **310,400** |
| **3** | **Marketing** | | | | |
| **03.1** | Domestic marketing | 20,325 | 13,000 | 2,000 | 35,325 |
| **03.2** | International marketing | 20,450 | 13,000 | 3,000 | 36,450 |
| | ***Sub-total*** | **40,775** | **26,000** | **5,000** | **71,775** |
| **4** | **Project management** | | | | |
| **04.1** | Progress reports and financial reports | 2,235 | | | 2,235 |
| | Final project report and financial report | 2,235 | | | 2,235 |
| | Daily project management | 20,210 | | | 20,210 |
| **04.2** | Project website | 6,500 | 500 | | 7,000 |

| Component no. | Activity | Activities | Materials | Travels | Total |
|---|---|---|---|---|---|
| | ***Sub-total*** | **31,180** | **500** | **0** | **31,680** |
| | ***Components grand total*** | **281,830** | **61,750** | **133,000** | **476,580** |
| **Evaluation** | Independent STDF ex-post evaluation | **5,000** | **5,000** | | **10,000** |
| **Others** | **Components other than 1-4** | | | | |
| | FAO Project Servicing Cost (PSC) - 12% of the overall budget | | 57,190 | | 57,190 |
| | FAO Vietnam country-level administrative cost (Document preparation, pre-existing publication printing, FAO Representative's travel etc) | 4,000 | | 6,000 | 10,000 |
| | FAO Staff-time (non-STDF contribution)<br>➢ Two technical officers (Food safety officer and Agricultural economist) staff time (10 days/year x 2 @ $720) = 28,800<br>➢ FAO Representative in Vietnam's staff time (4 days/year x 2 @ $1,150) = 9,200<br>➢ FAOR Vietnam officer (10 days/year x 2 @ $400 = $8,000) and administrative staff's (10 days/year x 2 @ $145 = 2,900) staff time = 10,900 | 48,900 | | | 48,900 |

| Component no. | Activity | Activities | Materials | Travels | Total |
|---|---|---|---|---|---|
| | FAVRI Staff-time (non-STDF contribution) | 58,800 | | | 58,800 |
| | ***Subtotal*** | **168,890** | **0** | **6,000** | **174,890** |
| | **Total cost** | **450,720** | **61,750** | **139,000** | **651,470** |
| | **Non-STDF contribution** | **107,700** | | | **-107,700** |
| | **Total proposed budget (STDF)** | **343,020** | **61,750** | **139,000** | **543,770** |

# Terms of references of key project staff

*Note:* To achieve the goals of the project in three different locations in Vietnam within the limited period of two years, it is crucial that all key project staff are already based in Vietnam, have work experience in the Vietnamese vegetable sector in all stages of the value chain and have an extensive network in the vegetable sector at farm level, at wholesaler and retail level.

| **Project leader** |
|---|

***1. Task & responsibilities***

- Assure that the agreed project objectives will be achieved within the given timeframe and budget
- Assist the identification of project partners - national consultants, producers organization and market partners
- Within a two year period create a team of different disciplinary specialists from both the private and public sector
- Prepare, organize and facilitate one kick-off meeting, three progress workshops and one final project workshop
- Prepare and submit a project progress report every 6 months, which shows the progress for each agreed project deliverable
- Submit financial reports every 6 months
- Prepare and submit the final project report and financial report at the end of the project
- Assure that the project website is operational and all project results are disseminated on the project website

***2. Required qualifications***

- ✓ Over five year experience in project management in Vietnam in the horticulture sector
- ✓ Proven track record of managing a multi-disciplinary project with a value chain approach in the fresh produce sector of Vietnam, which realized all project goals within the agreed budget and timeframe
- ✓ Good organizational and planning skills
- ✓ At least one year of work experience in each of the 3 project locations
- ✓ Proven work experience which covers all stages of the value chain: cultivation, post-harvest, business development, marketing and branding
- ✓ Experience in cooperating well with Vietnamese commune, district, provincial and national level authorities
- ✓ Excellent English reporting skills
- ✓ Excellent budget management skills

- ✓ Strong communication skills

### *3. Duration of assignment*

During a period of 2 years spend on average one day per week on project management. In addition considerable time should be invested in preparing and leading the project workshops.

**Marketing and branding specialist**

***1. Task & responsibilities***

- Leading the international and domestic market surveys
- Responsible for making the report on the demand of Asian market (for vegetables)
- Managing all relations with importers in various Asian countries and managers of international and domestic supermarket chains
- Participate in the multi-disciplinary team which will make an assessment of the selected producer groups
- Developing the marketing strategy and training the selected producer groups in implementing this strategy
- Coordinating the implementation of the national and international marketing campaigns

***2. Required qualifications***

- ✓ Over ten years experience in development of marketing strategies for fresh produce and Fast Moving Consumer Goods
- ✓ Over ten years experience in market research and creating high quality reports
- ✓ In-depth understanding of Vietnamese consumer behavior with regards to fresh produce
- ✓ Extensive network with Vietnamese domestic retail chains, Vietnamese based international retail chains, retail chains within Asia and importers in developed Asian countries
- ✓ Experience in working with Vietnamese producer organizations, local traders or companies

***3. Duration of assignment***

During a period of 2 years spend an estimated 115 days on market research in both Vietnam and developed Asian countries, development and implementation of marketing strategies

**Extension and training specialist**

***1. Task & responsibilities***

- Participate in the multi-disciplinary team which will make an assessment of the selected producer groups
- Coordinate the development of the vegetable cultivation and GAP protocols
- Lead the workshops with farmers and vegetable cultivation specialists to develop the cultivation protocols
- Develop and implement the training program
- Develop and implement the extension program
- Train the producer groups and extension agents in following the cultivations protocols
- Train the producer groups and extension agents in setting up a safety and quality control system for the vegetable field cultivation
- Work closely together with the post harvest quality assurance specialist to stream line the whole safety and control system
- Set up, monitor and report on the farmer participatory field trials which will be undertaken to compare the performance of farmer's usual field practices with the project developed cultivation protocol
- Draw conclusions of the farmer participatory field trails and use this to improve the cultivation protocols during participatory workshops with farmers and crop cultivation specialists

***2. Required qualifications***

- ✓ University degree in agriculture with practical and sound scientific insight in vegetable cultivation
- ✓ Have experience in vegetable cultivation in the project sites in Vietnam
- ✓ Relevant work experience with a large vegetable exporter in Asia, preferable in setting up and managing an out grower scheme
- ✓ Having experience with SPS requirements of international markets for fresh produce
- ✓ Having hands on experience in assuring that vegetable products meet product specifications, MRL requirements and other SPS requirements
- ✓ Experience in developing vegetable cultivation protocols
- ✓ Experience with the farmer field schools approach
- ✓ Experience in setting up and managing GlobalGAP option 2 schemes or other internationally recognized certification schemes
- ✓ Experience in cooperating with local research institutes and Vietnamese authorities
- ✓ Experience in cooperating with fresh produce buyers in both Vietnam and international markets

***3. Duration of assignment***

During a period of 2 years spend about 110 days on the above-mentioned tasks.

**Safety and quality control system specialist**

***1. Task & responsibilities***

- Coordinate the development of the post harvest protocols and create the standard operating procedures
- Participate in the multi-disciplinary team which will make an assessment of the selected producer groups
- Develop the training program for the producer groups together with the extension and training specialist
- Implement the training program together with the extension and training specialist
- Train the producer groups on the procedures established

***2. Required qualifications***

- ✓ University degree in agriculture or food engineering with both practical and scientific insight in vegetable post harvest handling
- ✓ Master degree from an internationally leading agriculture university in post harvest science
- ✓ Having private sector experience in post harvest handling of vegetables in the project sites in Vietnam
- ✓ Experience in developing vegetable post harvest protocols
- ✓ Experience in cooperating with local research institutes and Vietnamese authorities
- ✓ Experience in cooperating with fresh produce buyers in both Vietnam and international markets
- ✓ Experience in working with Vietnamese producer organizations, local traders or companies
- ✓ Experience with setting up HACCP systems in fresh produce packing houses

***3. Duration of assignment***

During a period of 2 years spend about 90 days on the above-mentioned tasks.

**Business management specialist**

***1. Task & responsibilities***

- Coordinate the producer group assessment visits
- Coordinate the creation of the business plans with the producer groups
- Participate in the multi-disciplinary team which will make an assessment of the selected producer groups
- Train the producer groups in business management, financial management, accounting system, business planning, marketing and contracts
- Work closely with the marketing, pre- and post harvest specialists to integrate all activities in one comprehensive approach which will make the producer group successful in achieving the planned goals
- Backstop the producer groups in implementing the business plan

***2. Required qualifications***

- ✓ University degree in economics or agricultural economics
- ✓ Knowledge and experience in business management, financial management marketing and contracts for the fresh produce sector in general and in a Vietnamese context in specific
- ✓ Experience in training companies, producer groups and/or traditional traders in making a business plan
- ✓ Extensive understanding of the fresh produce sector in Vietnam and all stages of the fresh produce value chain. Especially good knowledge of international and domestic markets are important

***3. Duration of assignment***

During a period of 2 years spend about 75 days on the above-mentioned tasks.

**Logframe matrix for STDF projects**

| | **Project description** | **Measurable indicators** | **Sources of verification** | **Assumptions and risks** |
|---|---|---|---|---|
| **Overall objective (goal)** | To strengthen the Vietnamese SPS capacities for trade by improving safety and quality of fresh vegetables using the value-chain approach. | Number of candidate commodities qualifying in meeting international standards for key target markets | Volume of sales according to commodity and destination market | Favorable domestic policy climate for FFV producers and free and stable trading regime involving target export and domestic markets (absence of protectionist barriers) |
| **Specific objective (purpose)** | ***1. Development of knowledge-base***<br>➢ To collect and document necessary information on both domestic and international market demand and SPS requirements of the target vegetable commodities. | Level of demand according to commodity, both in-country and by export destination including period of year | Market survey results and direct interaction with potential wholesalers and supermarket chains, both in-country and international | Availability of reliable information sources both from statistic reports and interviewed chief buyers of supermarket chains |
| | ➢ To assess the current practices in | Existence or lack of production/cultivation protocols | Assessment reports | Existence of the adequate Food Safety |

| | | | | |
|---|---|---|---|---|
| | agricultural production, safety and quality control systems and business management of the value chain. | Existence or lack of safety and quality assurance systems and good business management practices along the value chain | | infrastructure |
| | ***2. Capacity building*** | | | |
| | ➢ To develop SPS focused training materials for the target vegetable commodities, which will be available for the horticulture industry | Type and number of training visual training tools developed for vegetable producers (leaflets, posters) and for how many of the required commodities | Training materials defining production protocols of the selected commodities | Government promotion of the FFV sector and incentives for producers in sync with captive demand from domestic and international consumers |
| | ➢ To train producers and extension staffs of the producer groups utilizing the Farmer Field School approach. | Number of producers and extension staff trained in Farmer Field Schools in relation to staffing requirements of the food safety set-up | Number of vegetable producers and extension staff using defined cultivation protocols and good agriculture practices | Adequate appreciation of the value of the Farmer Field School approach and of the importance of SPS standards |
| | ➢ To strengthen the capacity of producer | Level of food quality control, financial management, | Producers organizations using | Caliber and efficiency of producer |

| | | | | |
|---|---|---|---|---|
| | organizations in the areas of production, safety and quality control systems and business management. | business planning, marketing and sales exhibited by producer organizations | intervention plans to establish safety and quality control systems and improved business management practices | organization managers |
| | ➢ To enhance the communication and flow of information between various technical public institutions, through bringing experts from those organizations and forming a technical team for intervention. The linkage between private and public sectors will be also strengthened.<br>➢ | Level of exchange of ideas and experiences between multiple organizations and disciplines to tackle specific food safety issues, including between public and private sector | Number and functionality of multi-disciplinary teams | Understanding of the shortcomings of a 'single discipline' approach and of the complementary role of the private sector |
| | ***3. Market linkages***<br>To promote the safe and quality vegetables in supermarket chains | Level of recognition of the safety and quality vegetables in the domestic and | Increased sales of safe and quality vegetables in the domestic and | Absence of political and/or protectionist barriers to trade |

| | | | | |
|---|---|---|---|---|
| | and facilitate the linkages between the producer organizations and the domestic and international markets. | international markets<br><br>Number of market linkages between producer rganizations and chief buyers of supermarket chains | international markets<br>Level of understanding among producer groups of quality standards of export markets | |
| **Expected results (outputs)** | **Overall output:** Increased competitiveness of Vietnamese vegetable export. | Type and quantity of FFV exported before and after project and the segment of the target export market captured | Both current and historic trade statistics of Vietnam and importing countries | Absence of export controls in Vietnam and import barriers in target markets.<br>Presence of requisite trading and food safety control infrastructure in Vietnam. |